

Ericsson
LM

646

**telephone
parts**



TELEPHONE PARTS

Catalogue 646

TELEFONAKTIEBOLAGET LM ERICSSON

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This catalogue replaces the loose-leaf catalogue »Telephone parts» issued earlier.

The material is arranged generally in alphabetical order, in accordance with the new three-letter designation system.

Those articles that lack letter designations are placed last in the material group to which they most nearly belong.

A departure from this rule has been made in respect of installation parts for manual exchanges and for tools, these being placed at the end of the catalogue, where some screw tables and indexes of material and types will also be found.

Full right is reserved to make minor departures from the illustrations, as also in respect of dimensions and weights. All dimensions are given in millimetres.

Complete details of the material included in the catalogue together with quotations will be furnished at any time by the nearest L M Ericsson representative.

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DRY CELLS

These cells are intended for microphone batteries in L.B. instruments and galvanic instruments, for signalling batteries in intercommunication and signalling plants etc.

A dry cell consists of three main components, *viz*: positive and negative electrode and electrolyte.

The positive electrode consists of a carbon rod surrounded by a depolarizer, the object of which is to neutralise the hydrogen gas released while the cell is in use. This depolarizer consists of an oxide such as manganese oxide (manganese oxide cell) or of an active carbon (air oxygen cell) blended with graphite to improve the conducting capacity. Both the depolarizers burn the hydrogen gas to H_2O , but there is a distinct difference in the working process between a manganese oxide cell and an air oxygen cell. The manganese oxide which exists in finely powdered form is reduced on the surface of the separate grains and is thereby consumed. As moreover only the outer layers of the depolarizer mass participates in the process, the capacity of a manganese oxide cell is dependent on the MnO_2 content of material employed.

The air oxygen cell on the other hand, which contains active carbon, works with the oxygen of the air as depolarizer. This air oxygen flows round the different carbon grains and is absorbed by the active carbon, which has the property of compressing both oxygen and hydrogen in its pores, these being united catalytically to water. As air oxygen is available in unlimited quantity, provided the cell is well ventilated, the capacity of an air oxygen cell is only limited by the number of other constructive parts.

The negative electrode consists of a metal, zinc being the only one that can be employed. The zinc is used only in the form of sheet of sufficient thickness. When using electric current the zinc disintegrates, zinc chloride being formed.





BKA 1001



BKA 1002



BKA 1004



BKA 1101



BKA 1501

The electrolyte consists of a concentrated solution of salammoniac with addition of zinc chloride and wheat-en flour. The salammoniac is used up as the cell is employed. Hydrogen gas and H_3N are then formed at the positive pole. At the negative pole CL-ions are precipitated which cause the zinc to disintegrate at same time delivering its electric charge.

An air oxygen cell has a somewhat lower initial tension (1.45—1.48 V) and a rather higher internal resistance than a manganese oxide cell (1.45—1.65 V) of the same size.

On account of the higher internal resistance of the air oxygen cell the voltage drop on overload is greater than in an equivalent manganese oxide cell. This property is a protection for the cell in the event of overload or shortcircuiting. As, however, the capacity is 50—100 % higher than for a manganese oxide cell of corresponding size the air oxygen cell is the more economical.

Air oxygen cells being chiefly made up of active carbon, free from injurious foreign matter, their storage capacity is appreciably greater than manganese oxide cells. Moreover, an air oxygen cell is considerably lighter than a manganese oxide cell of the same size, which means cheaper freight etc.

BKA 1001—BKA 1501 Dry cells

These cells are built up with salammoniac as electrolyte and natural brownstone as depolarizer. The terminals consist of two screw clamps, except for the anode battery *BKA 1501* which is provided with contact holes.

The capacity given is for a continuous load of 10 ohms per cell down to 0.8 V per cell, except for *BKA 1501* for which the load has been 6000 ohms for four hours a day down to 36 V.

BKA 1101 is intended for portable telephone instruments and test instruments. *BKA 1501* is intended as anode battery for instruments with built-in amplifier.

Dimensions: see table.

	E. M. F.	capa- city	overall dimensions with terminals			weight
			height	width	depth	
	V	Ah	mm	mm	mm	kg
BKA 1001	1.5	20	125	55	55	0.56
BKA 1002	1.5	35	175	65 \emptyset	—	0.95
BKA 1003	1.5	40	190	90	46	1.40
BKA 1004	1.5	60	165	80	80	1.80
BKA 1101	3	6	85	67	35	0.23
BKA 1501	60	2	80	165	105	1.70

BKA 2001—BKA 2101 Dry cells, air depolarized

These cells resemble *BKA 1001—BKA 1101* in appearance and have the same range of employment.

The cells may also be used in tropical climates, replacing the former water filling cells. *BKA 2101* is specially designed for portable telephone instruments *DPA 10—13*.

The cell is provided with ventilation holes for air circulation, which are furnished with plugs. The plugs must be taken out when the cell is put into operation. The terminals consist of two screw clamps.

The capacity given is for a load of 10 ohms per cell down to 0.8 V per cell.

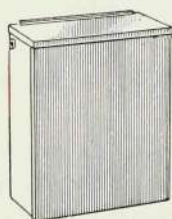
Dimensions: see table.

	E. M. F.	capa- city	overall dimensions with terminals			weight
			height	width	depth	
	V	Ah	mm	mm	mm	kg
BKA 2001	1.48	35	125	55	55	0.43
BKA 2002	1.48	50	170	65 \emptyset	—	0.60
BKA 2003	1.48	60	165	90	45	0.90
BKA 2004	1.48	120	175	76	76	1.35
BKA 2005	1.48	150	190	80	80	1.55
BKA 2006	1.48	250	205	105	105	2.80
BKA 2101	2.95	8	85	67	35	0.26

BATTERY BOXES

The battery boxes are employed as protection for telephone batteries and also to facilitate reliable connection of the circuits to the batteries.

BKY 1001—BKY 1004 Battery boxes for dry cells



BKY 1001

These boxes are made of grey enamelled sheet-iron, divided into two compartments and with insulated bottom inside. They are provided with three 4 mm holes for fixing to the wall.

BKY 1001 is designed for two cells *BKA 1002* or *BKA 2002*.

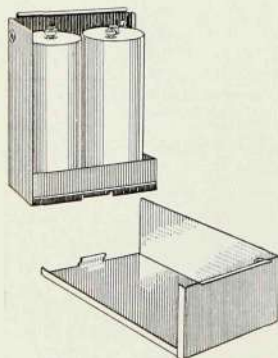
BKY 1002 is designed for three cells *BKA 1002* or *BKA 2002*.

BKY 1003 is designed for three cells *BKA 1004* or *BKA 2004* or four cells *BKA 1002* or *BKA 2002*.

BKY 1004, which is fitted internally with a terminal block having five screw clamps and a connecting strip, is designed for two cells *BKA 1002* or *BKA 2002* and one cell *BKA 1501* for telephone instruments *DAH 9011*, *DAH 9012*, *DBH 9011* and *DBH 9111*.

Fixing screws must be ordered separately.

Dimensions: see table.



BKY 1001, dismantled

	replacing	height	width	depth	weight
		mm	mm	mm	kg
BKY 1001	RK 2300	203	147	73	0.71
BKY 1002	RK 2310	203	215	74	1.27
BKY 1003	RK 2311	203	262	99	1.64
BKY 1004	RK 2312	203	262	99	1.76

BRACKETS, SUBSCRIBER LIST HOLDERS, SIGNAL SOFTENERS

BRACKETS

The brackets are employed for mounting table telephones on walls.

DYY 1001, DYY 1011, DYY 1012 Brackets for table telephone instruments
(replacing *DL 502, RK 5005, RK 5010*)

These brackets are made of black enamelled sheet-iron. For attachment to the wall *DYY 1001* has four 5 mm holes and *DYY 1011*—*DYY 1012* three 6 mm holes.



DYY 1001



DYY 1011



DYY 1012

DYY 1001 is designed for instruments with sheet-iron cases.

DYY 1011 is designed for instruments with small bakelite cases.

DYY 1012 is designed for instruments with large bakelite cases.

The brackets *DYY 1011* and *DYY 1012* are so constructed that they take up very little space when packed.

Fixing screws must be ordered separately.

Dimensions: see table.

	height	width	depth	weight
	mm	mm	mm	kg
DYY 1001	175	223	155	0.65
DYY 1011	85	150	161	0.29
DYY 1012	101	188	188	0.43



SUBSCRIBER LIST HOLDERS

Subscriber list holders are for use with table telephone instruments which have large bakelite cases.



DYY 1101

DYY 1101 Subscriber list holder
(replacing *RK 5100*)

This holder is of black enamelled sheet-iron and is provided with a cellophane front to protect the list. It holds a list of 50 subscribers in ordinary typing; by using a photographic reduction, space can be found for over 200 subscribers.

The holder fits firmly on the instrument without need of fixing screws or the like.

Dimensions:

height 126 mm, width 127 mm, weight 0.14 kg.



DYY 1101, mounted

SIGNAL SOFTENERS

DYY 1301 Signal softener

This signal softener can be used with table instruments of bakelite that have A. C. bells, *e.g.*, telephone instruments *DAH 11, DBH 10, DBH 11, DBH 13*.

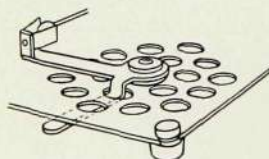
It is possible with this signal softener to regulate the sound volume from outside the instrument.

The signal softener is of black enamelled iron. It is fitted in the middle sound hole of the bottom plate, see sketch alongside. A screw and a washer are provided for fitting.

Weight 0.012 kg.



DYY 1301



DYY 1301, mounted

TIME METERS ETC.

TIME METERS

Time meters are employed at trunk switchboards to signal the end of a period and to check the duration of calls.

KAL 1001, KAL 1002, KAL 1101 Time meters (replacing *RO 10209, RO 10210* and *RO 11120*)



KAL 1001



KAL 1002



KAL 1101

These time meters have balance movement and are therefore not affected by the position in which they are set up.

(Time meters with pendulum *RO 10109* and *RO 10110* have now been discarded and these too are replaced by *KAL 1001* and *KAL 1002* respectively.)

KAL 1001 has a bell at the back which gives a short signal towards the close of each three minute period.

KAL 1002 is provided with two terminals for connection of a signal lamp or the like. The signal contact is actuated 25 seconds before the close of each three minute period and remains actuated for 25 seconds. The meter case is nickel-plated and has three fixing lugs with 2.4 mm holes.

When the lever at the bottom of the meter is moved to the left the meter finger is returned to zero and the meter is wound up and starts; when the lever is moved to the right the meter stops.

For fixing, three wood-screws *Trskr No. 2-3/8" KS M05* are required, which must be ordered separately.

Dimensions :

Diameter of base-plate 57 mm; weight 0.14 kg.

KAL 1101 is provided with two terminals for connection of a signal lamp or the like. The signal contact is actuated 30 seconds before the close of each three

minute period and remains actuated for 30 seconds. The case, which is nickel-plated, is mounted on a red fibre plate having three 3 mm holes for fixing.

When the lever under the meter is moved to the right the meter starts; when it is moved to the left the meter stops, and by moving it still further to the left the meter is wound up.

For fixing, three wood-screws *Trskr No. 3-5/8" KS M05* are required, which must be ordered separately.

Dimensions:

Diameter of base-plate 60 mm; weight 0.17 kg.

PERIOD COUNTERS

The period counter, which is driven by electrical impulses from a master clock, is used for recording the duration of calls in trunk circuits.

209476/1 Period counter

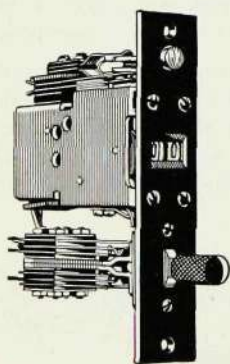
This period counter has a lever switch, a counter mechanism and a signal lamp, all mounted on a black enamelled plate. The switch has three positions: off position, on position (for counter magnet) and resting position (for figure drums). The counter mechanism has two figure drums: one for sixths of a minute (10 s) and one for minutes. Not more than twelve minutes can be recorded. On the counter mechanism there is a contact that is actuated ten seconds before the close of each three minute period and remains actuated until the close of the period. The signal lamp is connected over this contact.

Lamp and lens for same must be ordered separately. The operation of the period counter requires 10 s impulses from a master clock, which may be used in common for a large number of counters.

Fixing requires two screws *G5 G7 M07*, which must be ordered separately; distance between fixing holes 108 mm.

Dimensions:

depth 110 mm, width 25 mm, length of plate 120 mm; weight 0.39 kg.



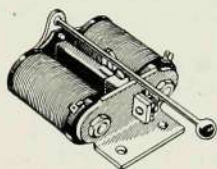
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BELLS, BUZZERS

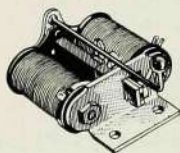
BELL MECHANISMS

The bell mechanisms are designed for polarized bells of telephone instruments and for extra bells.

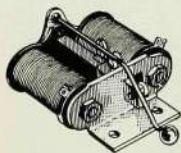
KLA 1001—KLA 1076 Bell mechanisms for polarized bells



KLA 1001—KLA 1016



KLA 1024—KLA 1026



KLA 1034—KLA 1036

These mechanisms have permanent magnets of cobalt steel. The magnet coils are of bakelite with anti-magnetic iron core. There is a soldering tab cast in the flange of each coil for connecting.

The mechanisms vary for different uses. Those having guide spring are used when telephone instruments are to be connected in parallel. The spring prevents the clapper in the instrument not in use coming into operation with impulsing from the dial of the instrument connected in parallel.

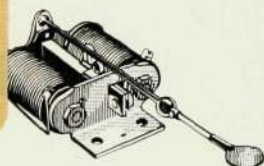
Those having tremblers are used when a number of bells are mounted alongside each other. The trembler consists of a circular aluminium disc attached to the clapper by a sensitive steel spring. The disc keeps on swinging for a while after the ringing has stopped, thus enabling one to see easily which bell rang.

The mechanisms *KLA 1051—KLA 1057* have no clapper bar but have special armature. These are used in water-tight A.C. bells.

All mechanisms except *KLA 1063—KLA 1076* are without gong support.

Two screws are required for fixing and these must be ordered separately. Distance between the fixing holes 23 mm.

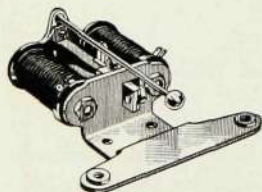




KLA 1044—KLA 1047



KLA 1051—KLA 1057



KLA 1063—KLA 1076

	resistance	coil			weight
		number	designation	resistance	
	ohm			ohm	kg
KLA 1001	2	2	RCE 10101	1	0.21
KLA 1002	20	2	RCE 10102	10	
KLA 1003	300	2	RCE 10103	150	
KLA 1004	1000	2	RCE 10104	500	
KLA 1006	2000	2	RCE 10106	1000	
KLA 1007	5000	2	RCE 10107	2500	
KLA 1013*	300	2	RCE 10103	150	
KLA 1014*	1000	2	RCE 10104	500	
KLA 1016*	2000	2	RCE 10106	1000	
KLA 1024	1000	2	RCE 10104	500	0.18
KLA 1026	2000	2	RCE 10106	1000	
KLA 1034	1000	2	RCE 10104	500	0.18
KLA 1036	2000	2	RCE 10106	1000	
KLA 1044	1000	2	RCE 10104	500	0.21
KLA 1046	2000	2	RCE 10106	1000	
KLA 1047	5000	2	RCE 10107	2500	
KLA 1051	2	2	RCE 10101	1	0.18
KLA 1052	20	2	RCE 10102	10	
KLA 1053	300	2	RCE 10103	150	
KLA 1054	1000	2	RCE 10104	500	
KLA 1056	2000	2	RCE 10106	1000	
KLA 1057	5000	2	RCE 10107	2500	
KLA 1063	300	2	RCE 10103	150	
KLA 1064	1000	2	RCE 10104	500	
KLA 1066	2000	2	RCE 10106	1000	
KLA 1067	5000	2	RCE 10107	2500	
KLA 1073*	300	2	RCE 10103	150	
KLA 1074*	1000	2	RCE 10104	500	
KLA 1076*	2000	2	RCE 10106	1000	

* These mechanisms have guide springs

DATA FOR BELL MECHANISMS KLA 1001— KLA 1076

	A. C.						D. C. resistance
	16 ² / ₃ c/s		25 c/s		50 c/s		
	operating voltage	impedance	operating voltage	impedance	operating voltage	impedance	
	V	ohm	V	ohm	V	ohm	ohm
KLA 1001, 1051	2-5	8	2.5-7	10	5-15	17	2
KLA 1002, 1052	5-20	65	7-30	90	15-50	160	20
KLA 1003, 1013, 1053, 1063, 1073	20-30	800	30-35	1000	50-80	1800	300
KLA 1004, 1014, 1024, 1034, 1044, 1054, 1064, 1074	30-50	2500	35-60	3000	80-115	5500	1000
KLA 1006, 1016, 1026, 1036, 1046, 1056, 1066, 1076	50-65	5000	60-80	6500	115-130	11000	2000
KLA 1007, 1047, 1057, 1067	65-130	11000	80-130	13500	—	—	5000

POLARIZED BELLS

Polarized bells are used only for A.C.

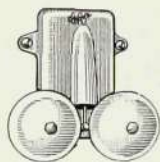
KLA 1201—KLA 1207, KLA 1301—KLA 1307,
KLA 1401—KLA 1407 Polarized bells
(replacing RA 150—RA 174)

These bells are suitable for various alarm and signalling purposes. *KLA 1201—KLA 1207* are furnished with small gongs. *KLA 1301—KLA 1307* have large gongs and *KLA 1401—KLA 1407* are fitted with sheep gongs. These bells differ only in respect of loudness and the strength of the signals.

On all bells the frame and bell mechanism are alike. On a bell fitted with gongs of one size these may easily be exchanged for gongs of another size, the gong supports with nuts and washers also requiring to be changed. Below the case, which is easy to remove, the terminal



clips are located on a base of insulating material. The case and frame are enamelled grey.



KLA 1201—KLA 1207

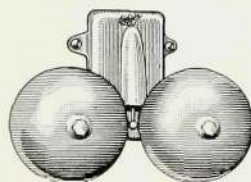
KLA 1201—KLA 1207, diameter of the gongs 64 mm.

Parts:

mechanism *KLA 1001—KLA 1007*, respectively,
gong with low pitch 138543/2 and
gong with high pitch 138543/4,
nuts for gongs 137386,
gong supports 146425,
nuts for supports G3 P J03.

Dimensions:

height 142 mm, width 138 mm, depth 74 mm, distance between the fixing holes 92 mm, weight 0.65 kg.



KLA 1301—KLA 1307

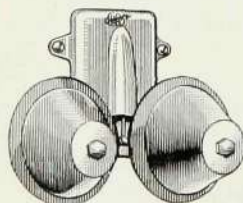
KLA 1301—KLA 1307, diameter of the gongs 108 mm.

Parts:

mechanism *KLA 1001—KLA 1007* respectively,
gongs 146424/1,
screws for gongs 190002,
gong supports 146426,
washers for supports 146429/1,
nuts for supports G0 P J03,
nut washers 146429/1.

Dimensions:

height 164 mm, width 226 mm, depth 86 mm, distance between the fixing holes 92 mm, weight 1.03 kg.



KLA 1401—KLA 1407

KLA 1401—KLA 1407 width of the sheep gongs 108 × 92 mm.

Parts:

mechanism *KLA 1001—KLA 1007* respectively,
sheep gongs 131388/2,
screws for gongs 189902,

gong supports 146427,
washers for supports 146430/1,
nuts for supports G0 P J03,
nut washers 146429/1.

Dimensions:

height 164 mm, width 226 mm, depth 151 mm,
distance between fixing holes 92 mm, weight 1.65 kg.

	A. C.						D. C. resistance
	16 ² / ₃ c/s		25 c/s		50 c/s		
	operating voltage	impe- dance	operating voltage	impe- dance	operating voltage	impe- dance	
	V	ohm	V	ohm	V	ohm	
KLA 1201, 1301, 1401	2—5	8	2,5—7	10	5—15	17	2
KLA 1202, 1302, 1402	5—20	65	7—30	90	15—50	160	20
KLA 1203, 1303, 1403	20—30	800	30—35	1000	50—80	1800	300
KLA 1204, 1304, 1404	30—50	2500	35—60	3000	80—115	5500	1000
KLA 1206, 1306, 1406	50—65	5000	60—80	6500	115—130	11000	2000
KLA 1207, 1307, 1407	65—130	11000	80—130	13500	—	—	5000

**KLA 1244—KLA 1247 Polarized bells with
tremblers**

(KLA 1246 replaces RA 194)

These bells are suitable for use when a number of bells are mounted alongside each other.

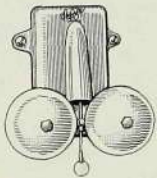
The bells are fitted with a trembler consisting of a steel spring attached to the clapper. At the lower end of this spring is as small disc which continues to oscillate a little while after the ringing has ceased, thus enabling one easily to see which of the bells has rung.

The case and frame are enamelled grey.

KLA 1244—KLA 1247, diameter of the gongs 64 mm.

Parts:

mechanism *KLA 1044—KLA 1047* respectively,
gong with low pitch 138543/2,
gong with high pitch 138543/4,
nuts for gongs 137386,



KLA 1244—KLA 1247



gong supports 146425,
nuts for supports G3 P J03.

Dimensions :

height 161 mm, width 138 mm, depth 74 mm, distance between the fixing holes 92 mm, weight 0.65 kg.

	A. C.						D. C. resistance
	16 ² / ₃ c/s		25 c/s		50 c/s		
	operating voltage	impe- dance	operating voltage	impe- dance	operating voltage	impe- dance	
	V	ohm	V	ohm	V	ohm	ohm
KLA 1244	30—50	2500	35—60	3000	80—115	5500	1000
KLA 1246	50—65	5000	60—80	6500	115—130	11000	2000
KLA 1247	65—130	11000	80—130	13500	—	—	5000

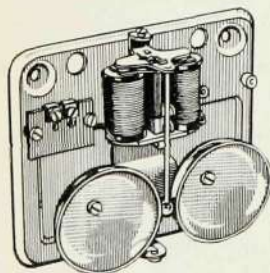
KLA 2103—KLA 2144 Polarized bells in cases
(KLA 2104—KLA 2106 replace RA 130; KLA 2124 re-
places DC 1021)



KLA 2103—KLA 2144

These bells are especially suitable as supplementary bells for telephone instruments.

Bell mechanism with gongs and the terminal block for connection are fitted on rear plate with cover. The cover and the rear plate are grey enamelled. On all rear plates there is space for two terminal blocks and two condensers type RKA 70.



KLA 2103—KLA 2106,
without cover

KLA 2103—KLA 2106, diameter of the gongs 64 mm.

Parts :

mechanism KLA 1063—KLA 1066 respectively,
gong with low pitch 138543/1,
gong with high pitch 138543/3,
screws for gongs G3 C3 M05,
terminal block consist of two blocks 138342 with two
terminal clamps 131997,
screws for terminal clamps 190561,
fixing screws for terminal block G5 D7 M05.

KLA 2113—KLA 2116, diameter of the gongs 64 mm.

Parts:

mechanism with guide spring, *KLA 1073—KLA 1076*, other parts see *KLA 2103—KLA 2106*

KLA 2124, diameter of gongs 64 mm.

Parts:

mechanism *KLA 1064*,
gong with low pitch *138543/1*,
gong with high pitch *138543/3*,
screws for gongs *G3 C3 M05*,
terminal block consists of two blocks *138342* with four terminal clamps *131997*,
screws for terminal clamps *190561*,
fixing screws for terminal block *G5 D7M05*,
condenser *RKA 7010*, 1 μ F,
condenser holder *133804*,
screw for condenser holder *G5 C3 M05*.

KLA 2134, diameter of gongs 64 mm.

Parts:

mechanism with guide spring *KLA 1074*, other parts see *KLA 2124*.

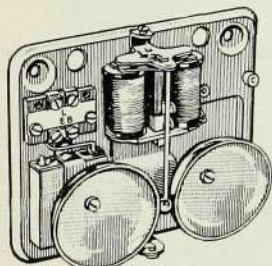
KLA 2144, diameter of gongs 64 mm.

Parts:

resistance coil *RCR 13145* (545 ohm), other parts see *KLA 2124*.

Dimensions:

height 135 mm, width 155 mm, depth 49 mm, distance between fixing holes 120.5 mm, weight *KLA 2103—KLA 2116*: 0.9 kg and *KLA 2124, KLA 2134, KLA 2144*: 1 kg.



KLA 2124—KLA 2144,
without cover

	A. C.						D. C. resistance
	16 ² / ₃ c/s		25 c/s		50 c/s		
	operating voltage	impedance	operating voltage	impedance	operating voltage	impedance	
	V	ohm	V	ohm	V	ohm	ohm
KLA 2103, 2113 KLA 2104, 2114, 2124*, 2134*, 2144*	20—30	800	30—35	1000	50—80	1800	300
KLA 2106, 2116	30—50	2500	35—60	3000	80—115	5500	1000
	50—65	5000	60—80	6500	115—130	11000	2000

* impedance incl. condenser

KLA 6201—KLA 6407 Polarized bells, watertight

These bells are watertight and are suitable for use in places where they are exposed to damp. They are employed in the same manner as *KLA 1201—KLA 1407*.

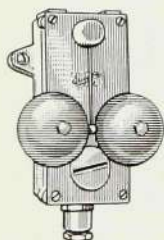
All bells have the same cast-iron case and bell mechanism. If a bell is fitted with gongs of one size, these may easily be replaced by gongs of another size, in which case gong supports with nuts and washers must also be replaced. The bell mechanism, which is of normal type, is mounted on a front plate which is screwed to the case with packing between. Below the gongs is a cable bushing for leading in the line.

The front plate and the case are enamelled grey.

KLA 6201—KLA 6207, diameter of the gongs 64 mm

Parts:

mechanism *KLA 1051—KLA 1057* respectively,
gong with low pitch 138543/2 and
gong with high pitch 138543/4,
nuts for gongs 137386,
gong supports 146425,
nuts for supports G3 P J03.



KLA 6201—KLA 6207

Dimensions:

height 204 mm, width 138 mm, depth 87 mm, distance between fixing holes 92 mm, weight 1.9 kg.

KLA 6301—KLA 6307, diameter of the gongs 108 mm,

Parts:

mechanism *KLA 1051—KLA 1057* respectively,
gongs 146424/1,
screws for gongs 190002,
gong supports 146426,
washers for gong supports 146429/1,
nuts for supports *G0 P J03*,
nut washers 146429/1.

Dimensions:

height 204 mm, width 226 mm, depth 100 mm,
distance between fixing holes 92 mm, weight 2.28 kg.

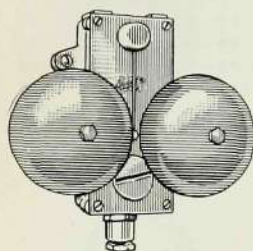
KLA 6401—KLA 6407 width of the sheep gongs
108 × 92 mm

Parts:

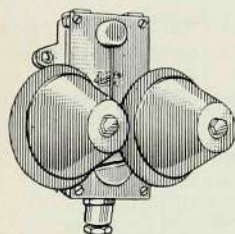
mechanism *KLA 1051—KLA 1057* respectively,
sheep gongs 131388/2,
screws for gongs 189902,
gong supports 146427,
washers for gong supports 146430/1,
nuts for supports *G0 P J03*,
nut washers 146429/1.

Dimensions:

height 204 mm, width 194 mm, depth 165 mm,
distance between fixing holes 92 mm, weight 2.9 kg.



KLA 6301—KLA 6307



KLA 6401—KLA 6407



	A. C.						D. C. resistance
	16 $\frac{2}{3}$ c/s		25 c/s		50 c/s		
	operating voltage	impe- dance	operating voltage	impe- dance	operating voltage	impe- dance	
	V	ohm	V	ohm	V	ohm	
KLA 6201, 6301, 6401	2-5	8	2.5-7	10	5-15	17	2
KLA 6202, 6302, 6402	5-20	65	7-30	90	15-50	160	20
KLA 6203, 6303, 6403	20-30	800	30-35	1000	50-80	1800	300
KLA 6204, 6304, 6404	30-50	2500	35-60	3000	80-115	5500	1000
KLA 6206, 6306, 6406	50-65	5000	60-80	6500	115-130	11000	2000
KLA 6207, 6307, 6407	65-130	11000	80-130	13500	—	—	5000

CREAK BUZZERS

The buzzers are used for A. C. only.

KLB 5001 Creak buzzer for A. C.



KLB 5001

This buzzer is used as signalling device in telephone instruments *DBK 10* and *DBK 11*. It gives a discreet but clear signal and is therefore suitable for use where loud disturbing ringing is not desired.

The buzzer is fitted in a case of nickel-plated brass and has two soldering tags for connection. The resistance is 2000 ohm. There are two 3.6 mm holes for attachment.

For fixing in telephone instruments two screws *G5 C3 M05* are required, and these must be ordered separately; distance between fixing holes 45 mm.

Dimensions:

length 52 mm, width 22.5 mm, height 26.6 mm, weight 0.07 kg.

BELLS WITH AUTOMATIC INTERRUPTER

for D. C.; some of the bells also operate on A. C.

KLD 1001—KLD 1105 Bells for universal current

(replacing RA 610/3—24, RA 510/3—24)



KLD 1001—KLD 1005



KLD 1101—KLD 1105

These bells are used in intercommunication plants and for bell circuits in houses and offices where no great strength of signals is required.

The bells have a gong 126919 of nickel-plated brass, diameter 64 mm. The base-plate is of bakelite. The bell may be adjusted from outside without removing the gong.

Dimensions:

height 81 mm, width 68 mm, depth 35 mm, weight 0.17 kg.

without suspension eye, internal connection	with suspension eye, external connection	D. C.			A. C.			
		operating voltage	resistance	current consumption	25 c/s		50 c/s	
					operating voltage	current consumption	operating voltage	current consumption
		V	ohm	mA	V	mA	V	mA
KLD 1001	KLD 1101	1.5—3	10	60—100	3—5	60—120	5—8	70—120
KLD 1002	KLD 1102	2.5—4.5	40	35—50	6.5—10	50—100	8—15	55—90
KLD 1003	KLD 1103	4—6	100	20—35	10—20	30—70	15—25	35—65
KLD 1004	KLD 1104	8—12	300	15—25	20—36	20—50	25—42	25—50
KLD 1005*	KLD 1105*	18—24	1000	10—15	—	—	—	—

*KLD 1005 and KLD 1105 are furnished with a 5000 ohm spark quenching shunt

KLD 1501—KLD 1506 Bells for universal current

(replacing RA 500/3—RA 500/300)



KLD 1501—KLD 1506

These bells are used for the same purposes as those above but give louder signals.

The bells have a gong 232369 of nickel-plated iron, diameter 77 mm. The base-plate is of black enamelled sheet-iron and provided with suspension eye.

Dimensions:

height 100 mm, width 84 mm, depth 40 mm, weight 0.29 kg.

	D. C.			A. C.			
	operating voltage	resistance	current consumption	25 c/s		50 c/s	
				operating voltage	current consumption	operating voltage	current consumption
	V	ohm	mA	V	mA	V	mA
KLD 1501	1.5—3	3	140—600	3—5	200—600	8—12	200—600
KLD 1502	3—4.5	10	80—100	5—15	100—300	12—20	100—300
KLD 1503	4.5—6	40	40—50	15—20	100—150	20—25	100—150
KLD 1504	6—8	100	25—30	20—30	50—60	25—42	50—60
KLD 1505	12—20	300	15—25	30—42	30—70	—	—
KLD 1506	22—26	500	10—20	—	—	—	—

KLD 2001—KLD 2003 Bells for D. C.

(replacing *RA 800/6—24*)



KLD 2001—KLD 2003

These bells are especially designed for fire alarm installations.

The bells operate at about 400 strokes/min and emit a characteristic sound easily distinguishable from that of ordinary bells.

The gong *132931* is of black enamelled cast-iron, diameter 150 mm; the base-plate is also of black enamelled cast-iron.

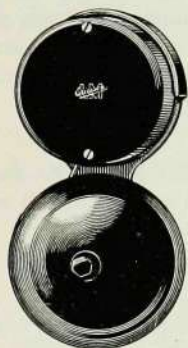
Dimensions:

diameter 165 mm, depth 82 mm, weight 2.3 kg.

	D. C.			
	operating voltage	resistance	current consumption	spark quenching shunt
	V	ohm	mA	ohm
KLD 2001	5—7	6.8	220—280	40
KLD 2002	10—14	27	150—200	100
KLD 2003	22—26	100	80—120	500

KLD 2502—KLD 2504 Bells for D. C.

(replacing RA 910/6—24)



KLD 2502—KLD 2504

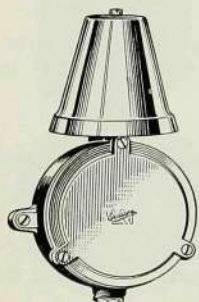
These bells are employed both indoors and outdoors in cases where louder signals are required, e.g. for announcing the time in schools and factories, for supervisory and alarm signals in power stations and engine rooms, for alarm signals in fire-alarm and burglar-alarm installations etc.

The bells are rain-proof and emit a powerful noise, being therefore particularly suitable for outdoor mounting. The frame, protective hood and gong 132931 are in black enamelled cast-iron. Diameter of gongs 150 mm. A rubber packing is introduced between frame and hood.

Dimensions:

height 297, width 150 mm, depth 90 mm, weight 3.1 kg.

	D. C.			
	operating voltage	resistance	current consumption	spark quenching shunt
	V	ohm	mA	ohm
KLD 2502	5—7	35	70—90	2000
KLD 2503	10—14	125	40—50	3000
KLD 2504	22—26	500	25—35	3000



KLD 3001—KLD 3004

KLD 3001—KLD 3004 Bells — diaphragm, for D. C.

(replacing RA 1200/3—24)

These bells (diaphragm bells) are used where conditions are especially exacting, e.g., on ships, where account must be taken of the corrosive action of sea-water, in the tropics, in mines and other places where risk of explosion exists, in chemical works etc.

The bells are completely gastight and watertight. The movement to the external part of the clapper is transmitted by means of a diaphragm; there is rubber packing between the case and the cover of the bell and, finally, the cable bushing ensures completely tight leading in of the cable. The bell is particularly resistant to corrosive action, even under the severest climatic and atmospheric conditions.

The frame is of black-enamelled brass. The sheep-gong 131388/2 is of bronze, with a width of 108 mm.

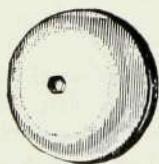
Dimensions:

height 270 mm, width 155 mm depth 125 mm, weight 2.5 kg.

	D. C.			
	operating voltage	resistance	current consumption	spark quenching shunt
	V	ohm	mA	ohm
KLD 3001	2—3	6.5	200—250	600
KLD 3002	4—6	22.8	55—70	1600
KLD 3003	8—12	97	50—60	3000
KLD 3004	18—24	454	25—30	5000

KLD 4701—KLD 4710 Bells for universal current

These bells have the same range of employment as *KLD 1001—KLD 1105* and *KLD 1501—KLD 1506*, but give louder signals.



KLD 4701—KLD 4710

The bells have an grey enamelled gong 239687/1 of galvanised iron, diameter 115 mm. The base-plate is dark-brown bakelite with two holes for fixing. The clapper is insulated from the clapper bar, so that even when the bell is ringing the gong is insulated from the parts under tension.

Bells *KLD 4706—KLD 4710* are fitted with limiting coils.

Bells *KLD 4708* and *KLD 4709* have in addition radio disturbance protection.

Dimensions :

diameter 119 mm, depth 55 mm, weight 0.45 kg.

	D. C.			A. C. 25 c/s		A. C. 50 c/s	
	operating voltage	D. C. resistance	current consumption	operating voltage	current consumption	operating voltage	current consumption
	V	ohm	mA	V	mA	V	mA
KLD 4701	1.5—3	7	89—140	3—5.5	100—180	5—6.5	140—210
KLD 4702	2.5—4.5	27	44—66	4.5—10	45—85	10—14	75—100
KLD 4703	4—6	50	42—56	8—11	50—65	11—15	60—80
KLD 4704	8—12	190	16—22	13—16	25—35	19—21	28—35
KLD 4705	18—24	475*	20—23	21—31	27—37	31—46	30—42
KLD 4706	30—40	475*	16—21	35—45	24—31	45—60	26—33
KLD 4707	40—60	475*	16—22	45—60	23—30	60—75	27—32
KLD 4708	110	475*	22	110	22	110	22
KLD 4709	220	475*	22	220	22	220	22
KLD 4710	60—80	475*	20—25	65—80	25—30	80—100	25—30

* Taking account of 5000 ohm spark quenching shunt

RA 3001/12—RA 3200/220 Slow-striking bells

These bells, which are slow-striking, are employed for the same purposes as *KLD 2502—KLD 2504*, but for cases where extra loud signals are required or where the bells are to be connected to the mains.

The bells are rain-proof and may be mounted outdoors. The frame and gong are of enamelled cast-iron, the gong diameter is 237 mm. The rate of strike is about 140/min.

When connecting these bells to telephone instruments the relay *KFA 1301* is employed, if it is desired to take the current for the bell's operation from the mains.



RA 3001/12—RA 3200/220



When connecting *RA 3001/12*, care should be taken that the line resistance does not exceed 4 ohms, equivalent to a double line with 1.5 mm² wires and 200 m long. The corresponding figures for *RA 3001/24* are 25 ohms and 1200 m.

Dimensions :

height 457 mm, width 237 mm, depth 125 mm, weight 10.9 kg.

	nature of current	operating voltage	D. C. resistance	current consumption
		V	ohm	mA
<i>RA 3001/12</i>	universal	12	7	200
<i>RA 3001/24</i>	universal	24	29	100
<i>RA 3001/110</i>	D. C.	110	1200	100
<i>RA 3001/220</i>	D. C.	220	3400	55
<i>RA 3100/110</i>	A. C.	110	1200	65
<i>RA 3200/220</i>	A. C.	220	3200	60

BUZZERS WITH AUTOMATIC INTERRUPTER

The buzzers are employed when signals distinct from ordinary bells are required.

KLG 1101—KLG 1156 Buzzers for D. C.

The pitch of these buzzers may be varied by means of two screws which regulate the contact pressure and the distance between the magnet poles and armature. The contacts are of platinum.



KLG 1101, KLG 1106

KLG 1101, KLG 1106 are without base-plate or case.

KLG 1151, KLG 1156 have round base-plate of insulating material with two connecting clamps and grey enamelled brass case.



KLG 1151, KLG 1156

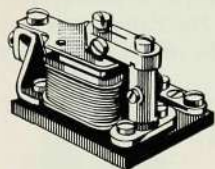
Dimensions :

for *KLG 1151, KLG 1156* diameter 43 mm, depth 35 mm, weight 0.05 kg.

without base-plate and case	replacing	with base-plate and case	replacing	D. C.		
				operating voltage	resistance	current consumption
				V	ohm	mA
KLG 1101	RC 5010/3	KLG 1151	RC 5011/3	2	2	85
KLG 1106	RC 5010/24	KLG 1156	RC 5011/24	24	300	25

KLG 1201—KLG 1257 Buzzers for D. C.

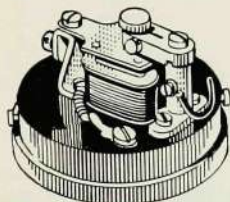
These buzzers resemble *KLG 1101—KLG 1156* but are larger and give louder signals.



KLG 1251

KLG 1201—KLG 1207 are without base-plate or case.

KLG 1251 has rectangular base-plate of insulating material.



KLG 1252, without cover

KLG 1252—KLG 1257 have round base-plate and grey enamelled brass case.

Dimensions:

for *KLG 1252—KLG 1257* diameter 58 mm, depth 45 mm, weight 0.12 kg.

without base-plate and case	replacing	with base-plate and case	replacing	D. C.		
				operating voltage	resistance	current consumption
				V	ohm	mA
KLG 1201*	—	KLG 1251**	—	3	2	100
KLG 1202	RC 5020/3	KLG 1252	RC 5021/3	3	2	100
KLG 1203	—	KLG 1253	—	4.5	9	63
KLG 1207	RC 5020/24	KLG 1257	RC 5021/24	24	300	30

* KLG 1201, which is intended for buzzer KLG 1251, differs from KLG 1202 only in regard to the central regulating screw

** KLG 1251 is without case and is especially designed for telephone instruments DPA 12—DPA 13



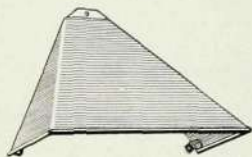
HOODS, GONGS ETC. FOR BELLS

HOODS FOR BELLS

KLV 1001, KLV 1002 Hoods

These hoods are used as protection for polarized bells mounted outdoors.

The hoods are of grey enamelled sheet-iron and are mounted direct on the wall. For fixing three screws are required and these must be ordered separately.

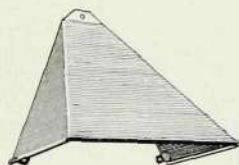


KLV 1001

KLV 1001 is intended for *KLA 1201–KLA 1307* or *KLA 6201–KLA 6307*.

Dimensions:

length 300 mm, height 221 mm, depth 129 mm, weight 0.6 kg.



KLV 1002

KLV 1002 is intended for *KLA 1401–KLA 1407* or *KLA 6401–KLA 6407*.

Dimensions:

length 260 mm, height 243 mm, depth 190 mm, weight 0.77 kg.

GONGS FOR BELLS

O-4951—239687/1 Gongs

These gongs are used for bells of telephone instruments and for supplementary bells.

Round gongs from 58 to 64 mm diameter in execution 1 (see table) may be had in two tones and are mounted in pairs of one gong with low tone and another with high tone. The fixing hole on the gong is placed eccentrically so that the position of the gong may be adjusted in relation to the gong clapper.



O-4951, O-4952, 128543/1-B
126919, 232369, 239687/1



146424/1



132931



131388/2



200182/1-2

Execution of gongs 1-8

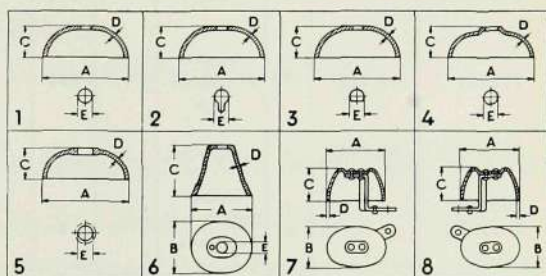
Other gongs are made with only one tone and with the fixing hole in the middle.

131388/2 is a sheep gong which emits a distinctive sound, appreciably different from the sounds of other bells.

200182/1-2 are oval gongs, specially designed for portable telephone instruments.

Dimensions :

see table and dimension sketches.



	replacing	ex- ecution	material and surface finish	pitch	A	B	C	D	E	weight
					mm	mm	mm	mm	mm	kg
0-4951	—	1	nickel-plated brass, unpolished	low	58	—	20.5	1.5	4.92	0.050
0-4952	—	1		high	58	—	20.5	1.75	4.92	0.052
138543/1	RB 70/1	1	nickel-plated brass, unpolished	low	64	—	22	1.5	4.3	0.062
138543/3	RB 70/2	1		high	64	—	22	1.75	4.3	0.065
138543/2	RB 70/3	1	nickel-plated brass	low	64	—	22	1.5	4.3	0.062
138543/4	RB 70/4	1		high	64	—	22	1.75	4.3	0.065



	replacing	ex- ecu- tion	material and surface finish	pitch	A	B	C	D	E	weight
					mm	mm	mm	mm	mm	kg
138543/7	—	1	oxidized	low	64	—	22	1.5	4.3	0.062
138543/8	—	1	brass	high	64	—	22	1.75	4.3	0.065
126919*	RB 71	2	nickel- plated brass	—	64	—	22	1.5	4.15	0.062
232369*	—	3	nickel- plated iron	—	77	—	25	1.25	6.25	0.080
146424/1	RB 622	4	nickel- plated brass	—	108	—	37	2	6.2	0.230
239687/1	—	1	iron	—	115	—	33	1.3	6	0.240
132931	RB 722	5	black- enamelled iron	—	150	—	53.5	4	10.5	0.900
131388/2	RB 1010	6	bronze	—	108	92	102.5	2	7	0.600
200182/1	—	7	nickel- plated brass,	—	44	29	26	1	—	0.030
200182/2	—	8	unpolished	—	44	29	26	1	—	0.030

* can also be obtained in light-polished wood

SUPPORTS FOR BELLS

146425—146427 Gong supports



These gong supports are employed for attaching the gongs on bells *KLA 1201—KLA 1407* and *KLA 6301—KLA 6407*.

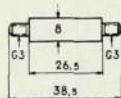
The gong supports are of galvanized iron.

146425 is used with gongs 137543/1—137543/8.

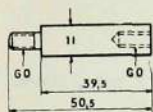
Fixing requires one nut 137386 and one nut G3 P J03, which must be ordered separately.

Dimensions:

see dimension sketch; weight 0.011 kg.



146425



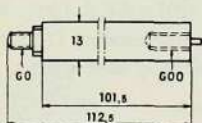
146426

146426 is used with gong 146424/1.

Fixing requires one screw 190002, one nut G0 P J03 and two washers 146429/1, which must be ordered separately.

Dimensions:

see dimension sketch: weight 0.28 kg.



146427

146427 is used with sheep gong 131388/2.

In the upper end it has a pin corresponding to a hole in the gong.

Fixing requires one screw 189902, one nut G0 P J03 one washer 146429/1 and one washer 146430/1, and these must be ordered separately.

Dimensions:

see dimension sketch; weight 0.1 kg.

SCREWS, NUTS AND WASHERS FOR BELLS

126921, 189902, 190002 Screws

126921 is used for fixing the gongs on extension switches DAV 1001, DAV 1002.

The screw is of nickel-plated brass.

Dimensions:

length 10 mm, span of jaw 9 mm, screw length 5.5 mm, thread G3, weight 0.003 kg.



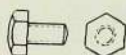
126921

189902 is used for fixing the gongs on bells KLA 1401 – KLA 1407 and KLA 6401 – KLA 6407.

The screw is of dull nickel-plated brass.

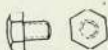
Dimensions:

length 19.5 mm, span of jaw 13 mm, screw length 13 mm, thread G00, weight 0.011 kg.



189902





190002

190002 is used for fixing the gongs on bells *KLA 1301* – *KLA 1307* and *KLA 6301* – *KLA 6307*.

The screw is of nickel-plated brass.

Dimensions:

length 14.5 mm, span of jaw 12 mm, screw length 9 mm, thread G0, weight 0.007 kg.

137386, 137386/2 Nuts



137386, 137386/2

These nuts are employed for fixing the gongs on A. C. bells.

137386 is used for bells *KLA 1201* – *KLA 1207*, *KLA 6201* – *KLA 6207* and telephone instruments *DAS 1001*, *DAS 1101* etc., which have nickel-plated gongs.

The nut is of nickel-plated brass.

137386/2 is used for instruments *DAN 1002*, *DBT 2001*, etc., which have oxidized gongs.

The nut is of oxidized brass.

Dimensions:

span of jaw 10.5 mm, height 7.5 mm, thread G3, weight 0.005 kg.

146429/1, 146430/1 Washers

These washers are employed as tightening washers for gong supports of bells *KLA 1301* – *KLA 1407* and *KLA 6301* – *KLA 6407*.

The washers are of galvanized iron.

146429/1 has round hole, 6.2 mm.

146430/1 has oblong hole, 6.2 × 10.2 mm.



146429/1



146430/1

Dimensions:

diameter 16 mm, thickness 1.5 mm, weight 0.002 kg.

JUNCTION BOXES, WALL TERMINALS, TAPPINGS, TERMINAL BLOCKS, TERMINAL CLAMPS, ETC.

JUNCTION BOXES

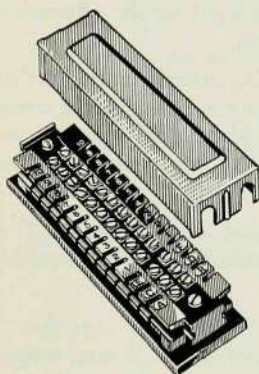
NEC 6001, NEC 6002 Junction boxes
(replacing *HM 160/10*, *HM 160/20*)

These boxes are mainly designed for use in intercommunication telephone systems with up to 20 extensions connected.

The boxes consist of a base-plate of grey enamelled sheet-iron which is attached to the wall by means of two screws. A terminal block of insulating material, protected by a cover of grey enamelled sheet-iron is fitted to this base. Along each side of the terminal block are open grooves to take the cables. The sides of these grooves have slots to guide the wires.

The terminal clamps are placed a little diagonal to each other in order to facilitate connection. The upper parts of the clamps have special screws and washers, the latter furnished with a guiding tongue, which prevents the washers from slipping round and locks the frame of the clamp to the terminal block. When the connecting screw is loosened the washer moves up with the screw thus facilitating the insertion of the wire under the washer. In addition the washers have bent-over edges to prevent the wires from slipping out sideways. The junction boxes will take four cables, two being laid on either side.

Fixing screws must be ordered separately.



NEC 6001



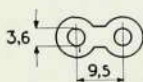
Dimensions :

width 52 mm, depth 39 mm, height and weight as per table.

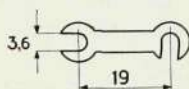
	two-wire lines	number of terminals	height	weight
			mm	kg
NEC 6001	10	20+6	178	0.49
NEC 6002	20	40+6	295	0.82



NEF 1002



125813



125812

WALL TERMINALS FOR TABLE TELEPHONE INSTRUMENTS

NEF 1002—NEF 1025 Wall terminals

These wall terminals are employed for the connection of table telephone instruments.

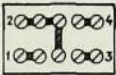
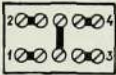
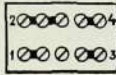
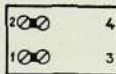
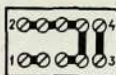
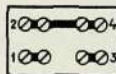
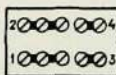
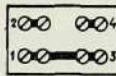
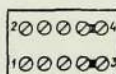
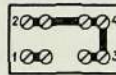
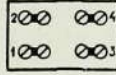
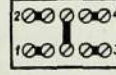
The terminals are of insulating material with cover of enamelled sheet-iron. Springing ensures that the cover sits firmly on the terminal block. The terminals are made with various numbers of connecting strips and screws, see table.

Fixing requires only one wood screw *Trsker No. 10—1³/₄" KS J03*, which is supplied with the terminal.

Dimensions :

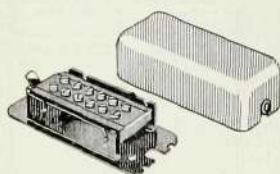
height 63.5 mm, width 45 mm, depth 25 mm, weight 0.07 kg.

	replacing	colour	placing of the connecting strips	number of connecting strips		number of connecting screws
				short	long	G5 D5 M05
				125813	125812	
NEF 1002	RK 8000/2	black		4	2	8
NEF 1003	RK 8000/3	black		4	—	8

	replacing	colour	placing of the connecting strips	number of connecting strips		number of connecting screws
				short	long	
				125813	125812	G5 D5 M05
NEF 1004	RK 8000/4	black		5	1	10
NEF 1005	RK 8000/5	black		4	1	10
NEF 1006	RK 8000/6	black		5	—	10
NEF 1007	RK 8000/7	black		2	—	4
NEF 1008	RK 8000/8	black		5	2	10
NEF 1009	RK 8000/9	black		4	1	8
NEF 1010	RK 8000/10	black		6	—	10
NEF 1011	—	black		4	1	8
NEF 1012	—	black		2	—	10
NEF 1022	—	white		4	2	8
NEF 1023	—	white		4	—	8
NEF 1025	—	white		4	1	10



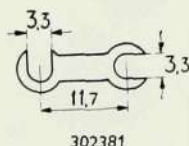
NEF 1101 Wall terminal



NEF 1101

This terminal is employed for the connection of table telephone instrument *DAH 9001*.

The case and frame of the terminal is of grey enamelled sheet-iron. The terminal block, which has twelve screw clamps, is of black insulating material. It is mounted moveably between two metal guides, so that it can be swung out for connecting the cable. There is a catch to hold the block in normal position. Ordinarily the terminal is supplied with unlabelled terminal block. If labelling is required, this must be stated when ordering.



302381

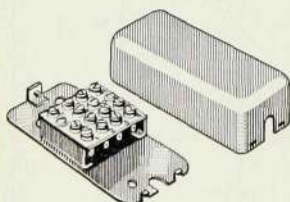
The connecting strip *302381*, to go between two screw clamps, may be ordered separately.

Fixing requires two wood screws *Trskr No. 8-1 1/2" KS J03*, which are included.

Dimensions:

length 134 mm, width 57 mm, depth 39 mm, weight 0.32 kg.

NEF 1201 Wall terminal



NEF 1201

This terminal is employed for connecting telephone instruments *DEK 9001* and *DEK 9002*.

The case and frame of the terminal is of grey enamelled sheet-iron. The terminal block, which is of insulating material, has fourteen connecting clamps numbered 1-14. The connecting clamps have screws for incoming cable and soldering tabs for the instrument cord.

Fixing requires two wood screws *Trskr No. 8-1 1/2" KS J03*, which are included.

Dimensions:

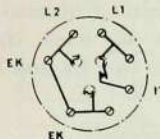
length 134 mm, width 57 mm, depth 39 mm, weight 0.23 kg.

NEG 1005—NEG 2004 Wall terminals

(NEG 1005 replacing NEG 1001, NEG 1007 replacing NEG 1003, NEG 2003 replacing NEG 2001, NEG 2004 replacing NEG 2002.)



NEG 1005, NEG 1007



NEG 1007, NEG 2004

These terminals are employed for connection of table telephone instruments.

NEG 1005, which is three-pole, is of black insulating material and designed for wall mounting.

NEG 1007 resembles NEG 1005 but has a break contact actuated by one of the plug points, see diagram. A suitable plug is RPT 1002.

Fixing requires two wood screws *Trsker No. 7-1" KS M05*, which are included.

Dimensions :

diameter 60 mm, depth 36 mm, weight 0.08 kg.



NEG 1301

NEG 1301, which is six-pole, is of black insulating material and designed for wall mounting. The contact sockets are arranged unsymmetrically, thus making the plugs not interchangeable. A suitable plug is RPT 1301.

Fixing requires two wood screws *Trsker No. 7-1" KS M05* which are included.

Dimensions :

length 68 mm, width 57 mm, depth 35 mm, weight 0.1 kg.



NEG 2003, NEG 2004

NEG 2003, which is three-pole, is of black insulating material and designed for mounting in 70 mm inset box NPH 4002.

NEG 2004 resembles NEG 2003 but has a break contact actuated by one of the plug points, see diagram. A suitable plug is RPT 1002.

The wall terminal has claw attachment to fit the inset box.

Dimensions :

diameter 90 mm, depth 44 mm, weight 0.15 kg.



TAPPINGS

PR 501, PR 520 Tappings

These tappings are employed for the connection of head-gear receivers *RLD 3403* etc.



PR 501

PR 501 is intended for wall mounting and has a jack. The tapping has base-plate of insulating material and case of black lacquered brass, as also screw clamps for connecting. For fixing there are two 4.5 mm holes in the base-plate.

Fixing screws must be ordered separately.

Dimensions:

diameter 56 mm, height 31 mm, weight 0.1 kg.



PR 520

PR 520 is designed for flush mounting and has a jack. It has front plate of black insulating material and soldering tabs for connecting. The tapping has claw attachment to fit 60 mm inset box.

The inset box must be ordered separately.

Dimensions:

diameter 72 mm, weight 0.05 kg.

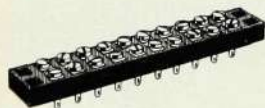
TERMINAL BLOCKS

NEM 1001—NEM 1082 Terminal blocks

These terminal blocks are employed in telephone instruments, manual switchboards etc.

The blocks are of insulating material with terminal clamps of white boiled brass. The terminal clamps have screws above and soldering strips below. For fixing the holes which hold no terminal clamps are used.

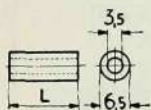
A suitable label frame is *207827*, which is placed in one of the empty holes of the block. The label frame may also be placed in the same hole as a fixing screw. For fixing there can only be used screws with not more



NEM 1001

than 6.5 mm head and not more than 3.75 mm screw diameter.

For fixing there are required in some cases the addition of distance tubes under each screw. The length of the distance tubes, i. e., the distance from the block to the base, may vary. The most common distance tubes are:



200212/8-12

- 200212/8; * L = 15 mm,
 200212/11 L = 21 mm,
 200212/12 L = 18.5 mm.

* used in switchboards type ABH 15 and ADE 10

Fixing screws and distance tubes are to be ordered separately.

Dimensions :

length see table; width 21.5 mm, thickness 10 mm for the block, weight with 20 clamps 0.08 kg.

	number	terminal clamps placing	length
			mm
NEM 1001	20		131.5
NEM 1002	10		131.5
NEM 1003	22		131.5
NEM 1004	13		131.5
NEM 1005	10		131.5
NEM 1006	22		131.5
NEM 1007	16		131.5
NEM 1008	21		131.5
NEM 1009	22		131.5



	num- ber	terminal clamps placing	length mm
NEM 1023	16		109.5
NEM 1024	18		109.5
NEM 1025	12		109.5
NEM 1031	16		98.5
NEM 1032	14		98.5
NEM 1033	9		98.5
NEM 1034	9		98.5
NEM 1035	16		98.5
NEM 1036	16		98.5
NEM 1042	12		87.5
NEM 1043	8		87.5
NEM 1044	6		87.5
NEM 1045	14		87.5
NEM 1051	10		76.5
NEM 1052	6		76.5
NEM 1061	10		65.5
NEM 1062	4		65.5
NEM 1063	8		65.5
NEM 1071	6		54.5
NEM 1081	6		43.5
NEM 1082	4		43.5

NEM 1101, NEM 1102 Terminal blocks



NEM 1101

These terminal blocks are employed in telephone instruments, bells etc.

The blocks are of black insulating material and have two terminal clamps of white boiled brass. The terminal clamps are designed for soldering and screw connection. There is a 2.6 mm hole for fixing. The blocks have a projection underneath which prevents twisting.



NEM 1102

NEM 1101 has both soldering tags on one side.

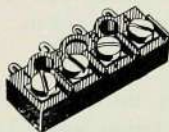
NEM 1102 has one soldering tag at each end.

Fixing requires one screw, which must be ordered separately.

Dimensions:

length of block 28.5 mm, width 11 mm, height 8.5 mm; 0.008 kg.

NEM 1111 Terminal block



NEM 1111

This terminal block is employed in telephone instruments etc.

The block is of black insulating material and has four terminal clamps of white boiled brass. The terminal clamps are made for soldering and screw connection. The screw clamps are labelled 1, 2, 3, 4. In addition there is in the middle of the block a recess for a paper label. For fixing there are two countersunk 2.9 mm holes.

Fixing requires two screws, which must be ordered separately.

Dimensions:

the length of the block is 40 mm, width 16 mm, height 9 mm; weight 0.016 kg.



NEN 5201, NEN 5202 Terminal blocks with screw connections



NEN 5201



NEN 5202

These terminal blocks are chiefly used in conjunction with fuse blocks *NFS 1201* fitted in rows, for the connection of the feed lines.

The terminal blocks are in black insulating material with two or four socket terminals.

The section of the terminal blocks is shaped for fitting in the same fixing devices as are used for fuse blocks, see also under *NFS 1201*. Individual blocks may be fitted in mounting frames *NBH 7001* on any flat bases.

	number of terminals	length	width	height	weight
NEN 5201	4*	mm	mm	mm	kg
NEN 5202	2**	39.7	15.9	15.5	0.025
		39.7	15.9	22.3	0.050

* To each terminal one line not exceeding 1.5 mm² in area can be connected

** To each terminal one line not exceeding 16 mm² in area and two lines not exceeding 1.5 mm² in area can be connected

NEN 5301 Terminal block with screw terminals



NEN 5301

This terminal block is of black insulating material and is furnished with eleven screw terminals cast in.

Dimensions:

length 103 mm, width 14 mm, thickness with terminals 11 mm, distance between fixing holes 95 mm, weight 0.04 kg.

NEN 6001—NEN 6052 Terminal blocks with screw terminals

These terminal blocks are in ceramic material, with double screw terminals.

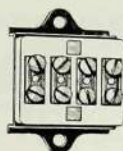


NEN 6001



NEN 6011

NEN 6051 and *NEN 6052* are provided with fixing stirrups of grey enamelled sheet iron.

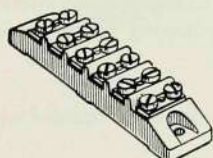


NEN 6052

	replacing	pairs	length	width	height	weight
			mm	mm	mm	kg
NEN 6001	—	1	38	24.5	17	0.04
NEN 6002	—	2	38	46.5	17	0.07
NEN 6011	—	1	34	23.5	16	0.03
NEN 6051	ND 520/1	1	67	24.5	28	0.05
NEN 6052	ND 520/2	2	67	46.5	28	0.10

NEN 6102—NEN 6104 Terminal blocks with screw terminals

These terminal blocks consist of ceramic blocks carrying a row of strong double screw terminals.



NEN 6103

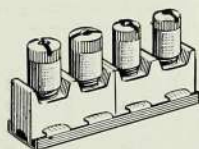
	pairs	length	width	height	weight
		mm	mm	mm	kg
NEN 6102	2	80	24	18	0.075
NEN 6103	3	108	24	18	0.120
NEN 6104	4	137	24	18	0.140

NEN 6201—NEN 6261 Row blocks

Row blocks are terminal blocks which are chiefly used assembled into block rows of various lengths. Unlike most of the other terminal blocks described in the catalogue these row blocks may be used not only in low tension but also in high tension plants for a maximum of 380 V indicated tension.

All row blocks are built on exactly the same ceramic base, which is intended for two terminal clips.

In *NEN 6201* and *NEN 6202* the ceramic base is provided with jacket sheath terminals, for line areas not exceeding 4×2.5 mm² or 3×4 mm² or 2×6 mm²,



NEN 6201 and NEN 6202 on holder 253677/4



NEN 6202



NEN 6251

which may be screwed in tight with a screw-driver (or by hand).

In *NEN 6251* the ceramic bases are provided with nut wedge terminals for not more than $3 \times 2.5 \text{ mm}^2$ or $2 \times 4 \text{ mm}^2$ line area, which may be screwed tight with a spanner (or by hand).

In *NEN 6261* the ceramic blocks are provided with screw terminals for conductors not more than 1.5 mm.

To fix and join up in rows, special galvanized iron holders as per table below are used. The holders have different numbers of 3.4 mm fixing holes at intervals of 14 mm, suitable for dome-headed fixing screws, e. g., wood screw *Trsker No. 5*.

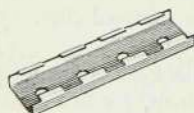
Both holders and fixing screws are to be ordered separately.



NEN 6261

	length	width	height		weight
			max.	min.	
	mm	mm	mm	mm	kg
NEN 6201	28	13.5	35.5	28	0.019
NEN 6202	28	13.5	35.5	28	0.023
NEN 6251	28	13.5	27.0	24	0.018
NEN 6261	28	13.5	21.0	17	0.012

Table of holders for row blocks *NEN 6201*—*NEN 6261*.



253677/4

holder	length	width	for max. number of row blocks	with number of fixing holes
	mm	mm		
253677/2	28	14.5	1	2
253677/4	56	14.5	2	4
253677/6	84	14.5	3	6
253677/8	112	14.5	4	8
253677/10	140	14.5	5	10

NEP 1001—NEP 1018 Terminal blocks with soldering tags



NEP 1001



NEP 1002



NEP 1003



NEP 1004



NEP 1005



NEP 1006



NEP 1007



NEP 1018

These terminal blocks are employed for the connection of manual switchboards and other purposes.

The terminal blocks are of black insulating material with soldering tag of white boiled brass, with one or two soldering holes at each end. *NEP 1001*, which is employed in manual switchboards *ABK14—ABK 19*, has a hole to fit number peg *134521*, which must be ordered separately, stating the numbering desired.

NEP 1001 has two fixing holes located on the same side as the soldering tags.

NEP 1002 has two fixing holes on both sides.

NEP 1003—NEP 1018 have three fixing holes, the distances apart of which are given in the table (by the two measurements).

Fixing screws must be ordered separately.

Dimensions: see table.

	tag			terminal block					weight
	number	length	number of soldering holes	distance between fixing holes	fixing holes	length	width	height	
NEP 1001	20	26	1+1	82	3.4	100	11	10	0.019
NEP 1002	20	50	2+2	83	3.6	92	11	10	0.025
NEP 1003	20	26	1+1	62.5+15.5	3.7	88	11	10	0.019
NEP 1004	10	26	1+1	62.5+15.5	3.7	88	11	10	0.015
NEP 1005	20	40	1+1	62.5+15.5	3.7	88	11	10	0.022
NEP 1006	20	50	2+2	62.5+15.5	3.7	88	11	10	0.025
NEP 1007	10	50	2+2	62.5+15.5	3.7	88	11	10	0.018
NEP 1018	10	26	1+1	62.5+15.5	3.7	88	11	6	0.015

NER 1001 Filling blocks



NER 1001

This block is used for filling up empty spaces in a row of fuse blocks *NFS 1201*. It is of black insulating material.

Dimensions:

length 39.7 mm, width 15.9 mm, height 10 mm, weight 0.009 kg.

LABEL FRAMES FOR TERMINAL BLOCKS

207827 Label frame



207827

This label frame is employed on terminal blocks *NEM 1001* etc.

The frame is of white boiled sheet-brass with label card *215087* white cartoon. When ordering, the numbering desired should be stated.

The label frame is held firm by its spring.

Dimensions:

length 8 mm, width 7.2 mm, height 4 mm, weight per 100: 0.025 kg.

TERMINAL CLAMPS

These terminal clamps are employed for the connection of lines for various purposes.

The clamps are of white boiled brass and have two terminal screws and a hole for fixing.

Fixing requires one screw, which must be ordered separately.

0-728/1—237591 Terminal clamps

execution	designation	replac- ing	connecting clamps	length	width	thick- ness	fixing hole		weight
							dia- meter	thread	
				mm	mm	mm	mm		kg
rounded clamp with countersunk fixing hole									
	0-1307	PL 34	G8 D4 M05	16.5	5.5	2	2.25	—	0.002
	0-4133	PL 35	G7 D5 M05	19.5	6	2	3	—	0.003
	136165	—	G5 D5 M05	18.75	7	2	2.8	—	0.004
	0-1016	PL 36	G4 D5 M05	21.5	8	3	3.2	—	0.006
	30167	—	G2 D7.5 M05	26	10	3	4	—	0.010
rounded clamp with threaded fixing hole									
	135713/1	—	G6 D5 M05	19.5	6	2	—	G6	0.003
	136165/1	—	G5 D5 M05	18.75	7	2	—	G5	0.004
rounded clamp with threaded fixing hole and slots for connecting wires									
	237591	—	SKCS-3×5 M05	16.5	6	2.5	—	M3	0.003
rectangular clamp with threaded fixing hole									
	0-728/1	—	G8 D4 M05	13.5	5	1.75	—	G8	0.002
	126192	—	G4 D5 M05	19	8	3	—	G5	0.006
	146863	—	G4 D5 M05	19	7	3	—	G5	0.005
rectangular clamp with threaded fixing hole and slots for connecting wires									
	215751/1	—	G7 D5 M05	15	6	2	—	G7	0.003
	143474	—	G4 D5 M05	19	8	3	—	G4	0.006



VOLTAGE PROTECTOR COMPONENTS, CURRENT CUT-OUT COMPONENTS, PROTECTORS, TUBULAR FUSES, FUSE WIRES ETC.

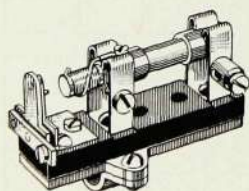
PROTECTORS

NFS 1001, NFS 1011 Protectors for tubular fuses, with alarm device

These protectors are used at telephone exchanges to protect a group of connecting devices.

The apparatus consists of a block of insulating material with two knife-holders for one tubular fuse *NGH 7005*—*NGH 7015* and has an alarm spring assembly which, on operation of the fuse, is actuated by a contact device projecting from the fuse closing an alarm circuit. There are screw clamps for the operating circuit and the alarm circuit.

The protectors are supplied without the tubular fuses, and these must be ordered separately.

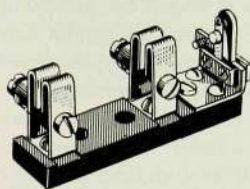


NFS 1001, with tubular fuse
NGH 7005

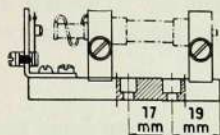
NFS 1001 is especially designed for racks in the automatic system *OS*. It is mounted on the minus line consisting of a 12 mm copper tube and common to the panel rack. For this purpose the protector is mounted on a contact plate by a fixing clip. The contact plate is connected with the knife-holder that supports the contact device, whereby the alarm circuit on operation is fed from one pole of the common current source.

Dimensions :

length 83 mm, width 40 mm, height 53 mm, weight 0.13 kg.



NFS 1011



NFS 1011

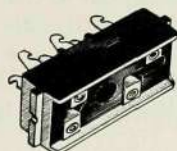
NFS 1011 is employed in both manual and automatic telephone plants. It has two 3 mm fixing holes, suitable for e.g. wood screws *Trsker* No. $4-\frac{3}{4}$ " KS M05 and can be mounted on a flat base.

In this protector the alarm circuit is insulated from the operating circuit.

Fixing screws must be ordered separately.

Dimensions :

length 83 mm, width 30 mm, height 35 mm, weight 0.06 kg.



NFS 1201

NFS 1201 Fuse block with insulated alarm

This block is a circuit cut-out used on various instrument panels, on alarm panels for automatic telephone exchanges, as protection for a relay assemblies and other apparatus on various manual P.B.X. in filament and anode circuits to electron valves for long distance telephony etc. It is designed for fuses NGM 1001—NGM 1006.

The fuse block is of black insulating material. It is provided with six solder connections, two of which serve at the same time as holders for the fuse contact knives and are connected to the operating current circuit, two are contact strips for the alarm current circuit and the two middle ones constitute an otherwise insulated double connection to ensure a convenient lead in to the corresponding rack, fig. 5. When the fuse inserted in the block blows and the operating current circuit E_1 is broken there is released on the fuse at the same time a turnable alarm angle piece, fig. 2, which under the action of a spring presses itself between the block's alarm contacts thus making the alarm circuit E_2 . The alarm circuit is entirely insulated from the operating current circuit.

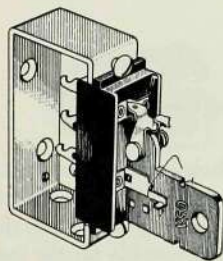


Fig. 2. NFS 1201 with fuse NGM 1002 fitted on NBH 7001



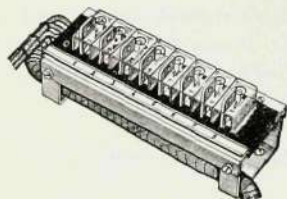


Fig. 3. Fuse, terminal and filling blocks on mounting frame NBH 7110

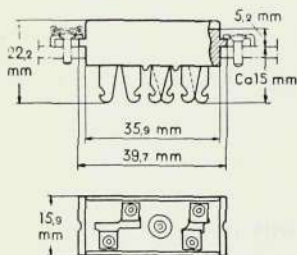


Fig. 4. Mounting of NFS 1201 on rack plate

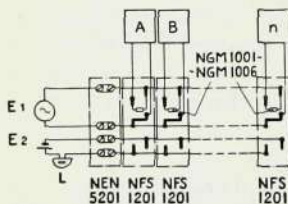


Fig. 5. Example of connecting diagram for a group NFS 1201. AB-n = instruments that are to be protected

The section of the fuse block is shaped for mounting in the same fixing devices as are used for similar fuse blocks of older design 147123. The fuse block can therefore be mounted in rows in rectangular recesses on the rack plates by means of fixing pieces 402544 and screws FS—2.6 × 6.5 M05, it being suitable also to use label strips 402545 and label slips 402546 with label protector 402547, fig. 4. Or they may be mounted on any flat base in the mounting frames NBH 7001, fig. 2, in case of single examples, and NBH 7110, fig. 3, when it is a question of groups of 10 or, by special request, even other numbers of fuse blocks.

To protect the parts under tension from being tampered with, each fuse may be provided with a cover 232683 of transparent insulating material.

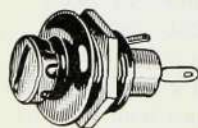
The outer feed lines for operating and for alarm current circuits in a row of fuse blocks can be conveniently connected to terminal blocks NEN 5201 and NEN 5202. Any unoccupied places in such a row may be filled up by filling blocks NER 1001. All these blocks have the same section as the fuse blocks. See also fig. 3.

The fuse block NFS 1201 is supplied without the fuses NGM 1001—NGM 1006, without covers and without fixing devices. These parts should therefore be ordered separately, as also any terminal and filling blocks.

Weight: 0.009 kg.

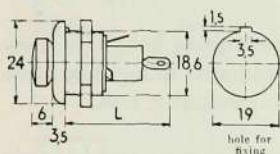
NFS 1301—NFS 1303 Fuse devices

These fuse devices are of insulating material and made for single hole fixing. They are provided with fuse head 239621 and have two soldering tags for connection of the lines. The fuse devices are suitable for the most usual tube fuses with dimensions 5 × 20, 5 × 25, 5 × 30 mm.



NFS 1301—NFS 1303

By means of a special spring device in the fuse head the tubular fuse is given a spring fixing. The fuse head does not come loose with vibration.



NFS 1301—NFS 1303

	L	weight per 100	suitable for tubular fuses with dimensions
	mm	kg	mm
NFS 1301*	32	1.60	5×20
NFS 1302	37	1.65	5×25
NFS 1303	42	1.70	5×30

*Suitable for tubular fuses NGH 25 and others

239621 Fuse head

This fuse head fits fuse devices *NFS 1301—NFS 1303*.



239621

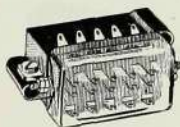
The fuse head, which is of insulating material, has a slot for screwdriver and cast flutings which provide a better grip if the head is to be taken out by hand.

The fuse head is provided with spring device for holding tubular fuses.

Dimensions:

length 19 mm, diameter 14 mm, weight per 100: 0.5 kg.

NFS 2001—NFS 2012 Protectors for fuse wires, with alarm device

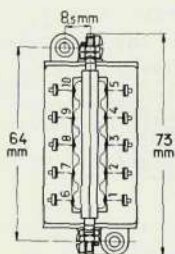


NFS 2001

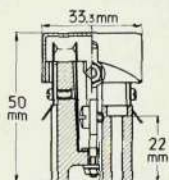
These protectors are employed in automatic and manual telephone exchanges etc. as half-individual fuses, placed between a common current source and different organ, fed by the current source.

The protectors consist of a base of insulating material with one common and ten individual spring holders for ten fuse wires *NGK 1001—NGK 1005*. When a fuse wire is blown, a circuit from the common current feed is closed over an alarm bar. The alarm bar may

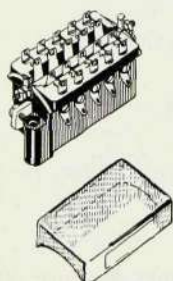




NFS 2001—NFS 2012



NFS 2001—NFS 2012, section



NFS 2001

be in one piece or divided up by insulating stops, thus obtaining one or more alarm groups. The fuse wires are protected by a hood of transparent insulating material. For fixing there are two 4 mm holes, suitable for e.g., wood screws *Trsker* No. 6— $1\frac{1}{4}$ " KS M05.

For connecting, the individual spring holes have screw and soldering contacts, the common spring hole screw contacts and the alarm bar connecting nuts.

For joining up a number of protectors, terminal strip *NES 1001* is used for the common spring holes and *NES 1002* for the alarm bars. Cable lug *300307* is used for connecting the minus wire to the common spring hole.

Fuse wires, terminal strip, cable lug and fixing screws must be ordered separately.

Dimensions:

length 73 mm, width 33.5 mm, height 50 mm, weight 0.11 kg.

	alarm bar	
	execution	number of fuses
NFS 2001	undivided	10
NFS 2011	divided	6+4
NFS 2012	divided	8+2

CONNECTING STRIPS ETC. FOR PROTECTORS

NES 1001, NES 1002 Connecting strips

These connecting strips are used for joining up a number of protectors *NFS 2001—NFS 2012*.

They are of white boiled brass.



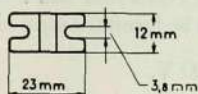
NES 1001



NES 1002



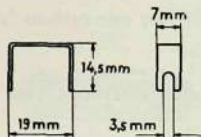
NES 1001 is designed for joining up the spring holes connected to the common current feed.



Dimensions: see dimensions sketch,
weight per 100: 0.21 kg.

NES 1001

NES 1002 is designed for joining up the alarm bars.



Dimensions: see dimensions sketch,
weight per 100: 0.13 kg.

NES 1002



300307

300307 Cable lug

This cable lug is used for connecting the minus wires to protectors *NFS 2001*—*NFS 2012*. The lug is of white boiled brass.

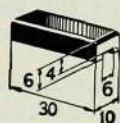
Dimensions:

length 15 mm, width 12 mm, weight per 100: 0.25 kg.

VOLTAGE PROTECTOR COMPONENTS

NGA 1001—NGA 1201 Carbon for voltage protectors

(*NGA 1001*, *NGA 1002*, *NGA 1201* replace *NB 2200/5*, *NB 2300/5* *NB 2500/5* respectively.)



NGA 1001

NGA 1001 consists of a simple carbon with flat discharge surface.

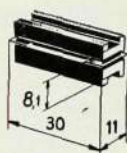
Weight per 100: 0.20 kg.



NGA 1002

NGA 1002 resembles *NGA 1001* but is provided with fuse metal.

Weight per 100: 0.28 kg.



NGA 1101

NGA 1101 is a complete voltage protector and is chiefly used in protector strips, certain protector roses etc. It consists of two carbons NGA 1001 and a mica strip NGA 5001. The parts can be furnished separately.

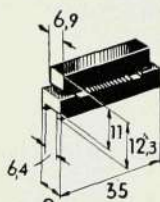
Breakdown voltage is about 700 V.

Weight per 100: 0.41 kg.

NGA 1102 resembles NGA 1101 but one carbon NGA 1001 is replaced by NGA 1002.

A heavy discharge fuses the metal, whereupon the line is earthed.

Weight per 100: 0.49 kg.



NGA 1201

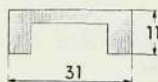
NGA 1201 is a complete voltage protector and is used chiefly in fuse boxes, subscriber and cable fuses etc. It consists of two carbons fluted and cemented together.

Breakdown voltage is about 700 V.

This device may without alteration of the corresponding holder be replaced by rare-gas tube NGC 3101 at an extra price.

Weight per 100: 0.44 kg.

NGA 5001 Mica for voltage protectors (replacing NB 2900/1, SA 1000)

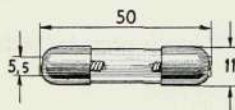


NGA 5001

This mica is employed as insulating layer between the carbons in voltage protectors NGA 1101 and NGA 1102.

Weight per 100: 0.006 kg.

NGC 3001 Rare-gas tube with end contacts (replacing NB 3110/50)



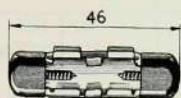
NGC 3001

This rare-gas tube is used as voltage protector in various fuse roses, fuse strips etc. Ignition voltage is 400

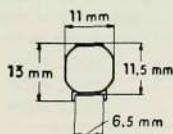
—525 V, maximum value for 50 c/s sinusoidal A. C. current.

Weight per 100: 0.75 kg.

NGC 3101 Rare-gas tube with side contacts (replacing NB 3150/11.5)



NGC 3101



NGC 3101, endview

This rare-gas tube, like *NGC 3001*, is used as voltage protector device in fuse boxes, subscriber and cable protectors and other fuse roses.

Ignition voltage is 400—525 V maximum value for 50 c/s sinusoidal A. C. current.

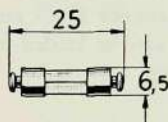
Unlike *NGC 3001*, connection to the holders is not by means of end contacts which in this case are provided with insulating caps but through side contacts.

The rare-gas tube may, without alteration in the corresponding holder, replace carbon protector *NGA 1201*.

Weight pr 100: 0.55 kg.

CURRENT CUT-OUT COMPONENTS

NGH 1001—NGH 1003 Tubular fuses with straight fuse wire and end cap for spring operation



NGH 1001—NGH 1003

These tubular fuses are current cut-outs which consist of a glass tube and two mobile end caps between which a fuse wire is soldered. The tubular fuse is mounted in such a way that the fuse wire between the end caps is held stretched in a spring holder. When the wire fuses the operating current circuit is broken and at the same time the holder spring is released which closes an alarm circuit.

The indicated current of the tubular fuses is equal to the limit current, which is the maximum D. C. current intensity with which the tubular fuses can be loaded for an indefinite time without breaking.

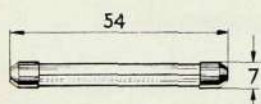
These tubular fuses replace older tubular fuses as per table, as and when the corresponding stocks of the older ones are used up. However, the new tubes have not exactly the same electrical properties as the older ones. Thus the indicated current for the latter is not always equal to the limit current. For identification the new tubes are marked with an »A» after the indicated current figure.

	replacing	indicated current with 125 g pull on the fuse wires	mean resistance	weight per 100
		A	ohm	kg
NGH 1001	NB 4010/0.9, NB 4010/1	1	0.498	0.20
NGH 1002	NB 4010/3	3	0.124	0.20
NGH 1003	NB 4010/5	5	0.082	0.20

NGH 2001—NGH 2005,

NGH 2502—NGH 2509

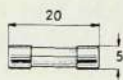
Tubular fuses with straight fuse wires



NGH 2001—NGH 2005

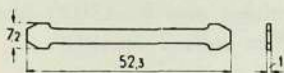
These tubular fuses are current protectors which consist of a glass tube and two end caps fixed on the tube, between which a fuse wire is soldered.

The tubular fuse's indicated current is equal to the limit current, which is the maximum D. C. current intensity with which the fuses can be loaded for an indefinite period without breaking.



NGH 2502—NGH 2509

Tubular fuses *NGH 2001—NGH 2005* replace older tubular fuses as per table, as and when the corresponding older stocks are used up. The new tubular fuses have not, however, exactly the same electrical properties as the old ones. Thus the indicated current for the latter is not always exactly equal to the limit current. For identification the new fuses are marked »A» after the indicated current.

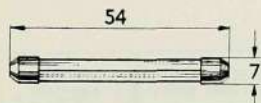


0-12412

If it is desired to shortcircuit the tubular fuses holders for tubular fuses *NGH 2001—NGH 2005*, there is used a shortcircuiting strip 0—12412 (older designation: *NB 4900/1*) which is to be ordered separately.

	replacing	indicated current	mean resistance	weight per 100
		A	ohm	kg
<i>NGH 2001</i>	<i>NB 4020/0.5</i>	0.5	6.25	0.39
<i>NGH 2002</i>	<i>NB 4020/1</i>	1	2.54	0.39
<i>NGH 2003</i>	<i>NB 4020/3</i>	3	0.106	0.39
<i>NGH 2004</i>	<i>NB 4020/5</i>	5	0.044	0.39
<i>NGH 2005</i>	<i>NB 4020/8</i>	8	0.022	0.39
<i>NGH 2502</i>	—	0.5	3.85	0.09
<i>NGH 2503</i>	—	1	0.92	0.09
<i>NGH 2504</i>	—	2	0.10	0.09
<i>NGH 2505</i>	—	3	0.04	0.09
<i>NGH 2506</i>	—	4	0.04	0.09
<i>NGH 2507</i>	—	6	0.02	0.09
<i>NGH 2509</i>	—	10	0.012	0.09

NGH 2101 Tubular fuse with straight fuse wire and end caps having holes



NGH 2101

This tubular fuse is a current cut-out that resembles *NGH 2001—NGH 2005*, except that each end cap is provided with three holes. Through these the gases generated on fusing of the wire can escape and explosion of the glass tube on intense rush of current is avoided.

This tubular fuse also is marked with the limit current, 4 A, which is the same as for the corresponding older constructions *NB 4023/5*, which will be gradually replaced by *NGH 2101*. The older tubular fuse, however, has been marked 5 ampere. For identification the new tubular fuse is marked »A» after the indicated current figure.

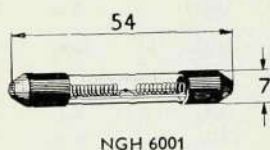
If it is desired to shortcircuit the tubular fuse holders,



there is used a shortcircuiting strip 0—12412 (older designation NB 4900/1), to be ordered separately.

	replacing	indicated current	mean resistance	weight per 100
NGH 2101	NB 4023/5	A 4	ohm 0.294	kg 0.44

NGH 6001, NGH 6002 Tubular fuses of Bose type



These current cut-out consist of a glass tube with two end caps fixed on the tube and, soldered to the caps, a fuse wire which in turn consists of two spirals of resistance wire soldered in the middle with easy fusing metal.

The indicated current of the tubular fuses is equal to the limit current which is the maximum D. C. current intensity with which the tubular fuses can be loaded for an indefinite period without breaking.

If it is desired to shortcircuit the tubular fuse holders there is used a shortcircuiting strip 0—12412 (older designation NB 4900/1), to be ordered separately.

	replacing	indicated current	mean resistance	end caps surface finish	weight per 100
NGH 6001	NB 4030/0.15	A 0.15	ohm 10.4	tincolour	kg 0.41
NGH 6002	NB 4030/0.15	0.15	10.4	black	0.41

TUBULAR FUSES WITH ALARM DEVICE



NGH 7005—NGH 7015

NGH 7005—NGH 7015 Tubular fuses with alarm device

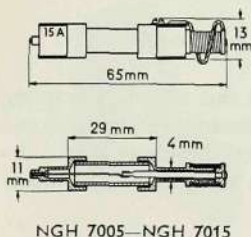
These tubular fuses are used in the protectors NFS 1001—NFS 1011.

The tubular fuses consist of a porcelain tube enclosing a straight fuse wire of silver and of two end caps shaped to form knife contacts. One of the caps is furnished with a release spring and an alarm device.

The tubular fuses are marked with the respective maximum working currents, which is the maximum D. C. tension the fuse can be loaded with for an indefinite time without breaking.

Dimensions :

see dimensions sketch, weight per 100: 1.75 kg.



	max. working current	diameter of the fuse wire
	A	mm
NGH 7005	5	0.18
NGH 7010	10	0.28
NGH 7015	15	0.38

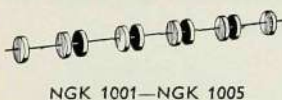
FUSE WIRES ETC.

NGK 1001—NGK 1005 Fuse wires

These fuse wires are used in protective devices *NFS 2001—NFS 2012*. The fuse wires are provided with two washers for fixing in the protector's spring holder. The washers are marked in different colours for different limit current intensities. By limit current is meant the maximum D. C. current intensity with which the fuse wires can be loaded for an indefinite period without breaking. The fuse wires are delivered in five-piece lengths for clipping off after fixing in the spring holders.

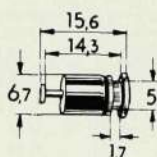
Dimensions :

length for five fuses 49 mm, length for one fuse 9.75 mm, washer diameter 2.5 mm, weight per 1000: 0.07 kg.



	colour	indicated current	mean resistance
		A	ohm
NGK 1001	blue	1	0.27
NGK 1002	green	2	0.15
NGK 1003	yellow	3	0.10
NGK 1005	red	5	0.08

NGL 1001—NGL 1006 Fuse coils



NGL 1001—NGL 1006

Fuse coils are current cut-outs that are fitted in spring holders so that they are subjected to a certain pull and which break the current when this has reached a determined figure and has been acting for a determined time, see table.

The fitting is frequently done in such a way that one of the holder springs after being actuated by fusing closes an alarm circuit.



0-6982



300044

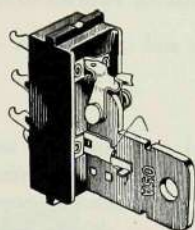
If it is desired to shortcircuit the fuse coils, there is used a shortcircuiting piece («dummy coil») 0-6982 or a shortcircuiting strip 300044 (older designation NB 5900/1), to be ordered separately.

	replacing	colour	resistance	fuses				weight per 100
				for	in	in 10 S for	not for	
				A	S	A	A	
NGL 1001	NB 5020/8	blue	45-51	0.20	8	—	0.05	0.148
NGL 1002	NB 5010/30	black	20-27	0.25	30	0.35	0.10	0.145
NGL 1003	NB 5030/30	grey	14.5-15.5	0.25	30	0.50	0.125	0.145
NGL 1004	NB 5045/30	tincolour	5-6	0.50	30	0.75	0.34	0.153
NGL 1005	NB 5050/40	green	4.5-5.0	0.50	40	0.95	0.30	0.151
NGL 1006	NB 5060/12	red	0.12-0.15	5.00	12	6.00	1.4	0.163

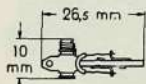
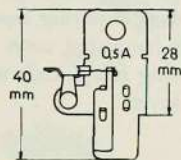
NGM 1001—NGM 1006 Fuses with insulated alarm



NGM 1001—NGM 1006



NGM 1002, mounted on NFS 1201



NGM 1001—NGM 1006

The fuses have been designed on the initiative of the Swedish Telegraph Administration and are current cut-outs that are used in fuse blocks *NFS 1201* for various telephone and tele-signal equipments. See under *NFS 1201*, page 51.

The fuse consists of a plate of insulating material provided with two contact knives for the operating current circuit, a fuse wire soldered between them and a turnable alarm angle-piece which stretches the fuse wire by means of a spiral spring. When the wire fuses and the operating current circuit is broken the alarm angle piece forces itself between the two contact strips on the fuse block, thus closing an alarm circuit. This is entirely insulated from the operating current circuit.

At the same time the changed position of the angle piece forms a visual indication that the fuse has operated.

The fuse can easily be repaired by soldering in a fresh fuse wire. The fuses' indicated current is equal to the limit current, which is the maximum D. C. current intensity with which the fuses can be loaded for an indefinite time without breaking.

To protect the tension carrying parts of the fuse from being touched there can be supplied on special order a cover *232683* in material of glass-like transparency.

Fuses for small current intensities, especially for 0.25 A, should be handled with care, as otherwise the thin fuse wires may easily be broken.

	indication colour	indicated current	mean resistance	weight per 100
		A	ohm	kg
NGM 1001	red	0.25	3.7	0.3
NGM 1002	green	0.5	1.66	0.3
NGM 1003	blue	1	0.88	0.3
NGM 1005	black	3	0.07	0.3
NGM 1006	brown	5	0.05	0.3

RELAYS

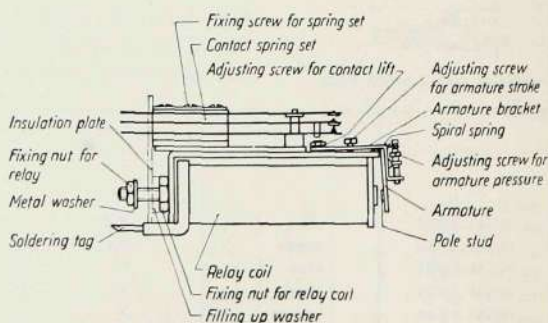
For telephone technical purposes L M Ericsson chiefly make four types of D. C. relays, these being designated *RAB*, *RAC*, *RAD*, *RAE*.

RAB and *RAC* are ordinary types.

RAD is a type employed for manual switchboards.

RAE is a type employed as line and cut-off relay etc. in a telephone plant.

These relays are only intended to be used for weak current and may be supplied with or without iron-sheathed coils and with or without copper choke, the latter to give longer or shorter release and energised times. The cores of the coil frame are made of two different kinds of iron: normally A-iron is used, but for relays where more rapid release time or high impedance is required, e.g., in feed relays, K-iron is used. For relays requiring especially short release time, coils with laminated cores are used as an exception. For slow-acting relays, coils with cores of A-iron are always employed.



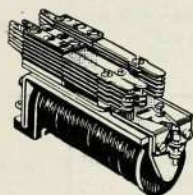
Example of the construction of a relay *RAB*

The relay contacts may be loaded with a maximum intensity of 0.3 A and 50 V. However, for A. C. or when only small inductive loads occur, these figures may be somewhat exceeded.

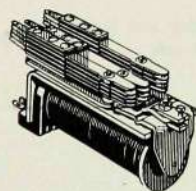
The type designations in the tables indicate the number of windings in the coil, the number of contact spring sets and whether single or twin contacts: thus *RAB 26* is a relay with two windings and one contact spring set with twin contacts.

By adding further figures for winding data etc. the different relays get complete designations, e.g., *RAD 1101*.

Relays *RAB 11*—*RAC 48*



RAB 13



RAC 23

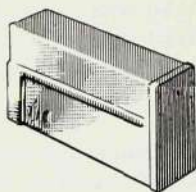
Relay *RAB*, which is the most usual, has pin armature, *i.e.*, the armature rests on two pins, firmly attached to the edge of the relay yoke.

Relay *RAC*, which has the same dimensions as *RAB*, is fitted with cradle armature, *i.e.*, the armature is provided with a bent piece which rests on the upper side of the relay yoke. By this arrangement the relay gets a longer release time than in the corresponding relay *RAB*.

The relays *RAB* and *RAC* can be fitted with only one coil. The coil can have up to four different windings. The windings are connected to a terminal block of insulating material cast into the coil frame. The terminal block has up to six soldering tags, numbered 1–6. When a coil has three windings the first winding is connected to soldering tags 1 and 2, the second winding to tags 3 and 4 and the third winding to tags 5 and 6. In cases where a coil frame has four windings, two of the windings are taken together, so that some of the soldering tags are common to two windings.

The relays may be fitted with one, two or three contact spring sets *RBA 1001*—*RBA 1846*.





147719, case



SCE 12302

Normally these relays are supplied without case. On special request they are furnished with case 147719, requiring also a filling up washer SCE 12302 and an insulating plate resting against it, which also serves as dust protector. The insulation plate's execution is dependent on the number of spring sets, see table below.

dimensions*	designation	for number of spring sets	weight per 100
	147807	for relay without spring set	kg 0.210
	147806	for relay with one spring set	0.195
	147805	for relay with two spring sets	0.176
	147718	for relay with three spring sets	0.135

* Other dimensions:

length 45 mm, width 33 mm, thickness 1.25 mm, diameter of hole 4.9 mm.

The cases are delivered in aluminium colour but may be had on request in black enamel or blued.



0-128



SCE 12301

For fixing, the relay has a screw-bolt with thread G2. Nut 0-128 and metal washer SCE 12301 are included.

Dimensions:

for RAB-RAC with case, length 115 mm, width 33 mm, height 51.5 mm, weight, with case and three six-spring contact spring sets and unsheathed coil, about 0.38 kg; the case weighs about 0.06 kg.

relay type		number of windings	number of spring sets
spring sets with single contacts	spring sets with twin contacts		
RAB 11 RAB 12 RAB 13	RAB 16 RAB 17 RAB 18	1	1 2 3
RAB 21 RAB 22 RAB 23	RAB 26 RAB 27 RAB 28	2	1 2 3
RAB 31 RAB 32 RAB 33	RAB 36 RAB 37 RAB 38	3	1 2 3
RAB 41 RAB 42 RAB 43	RAB 46 RAB 47 RAB 48	4	1 2 3
RAC 11 RAC 12 RAC 13	RAC 16 RAC 17 RAC 18	1	1 2 3
RAC 21 RAC 22 RAC 23	RAC 26 RAC 27 RAC 28	2	1 2 3
RAC 31 RAC 32 RAC 33	RAC 36 RAC 37 RAC 38	3	1 2 3
RAC 41 RAC 42 RAC 43	RAC 46 RAC 47 RAC 48	4	1 2 3




Order data for relays RAB and RAC

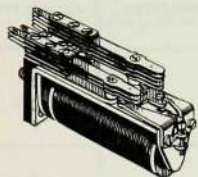
For enquiries and orders account must be taken of winding data, number of contact spring sets, height of pole stud, strength of operating current etc., so that particulars are required of:

1. employment (diagram);
2. operating voltage (for coil);
3. strength of current (on operating);
4. number and construction of contact spring sets and what current and voltage they are intended for;
5. height of pole stud on armature (normally it is 0.20 mm);
6. coil to be sheathed or unsheathed;
7. with or without case;

Below is given a more detailed specification of some relays type *RAB 17*.

relay type RAB 17, without case, with two spring sets RBA 1508 with twin contacts					
	coil without iron sheath		operating current		diagram
	designation	resistance	mín.	max.	
		ohm	mA	mA	
RAB 17242	RCA 20135	25	60	400	
RAB 17243	RCA 20107	50	45	280	
RAB 17244	RCA 20124	100	30	200	
RAB 17245	RCA 20108	500	15	90	
RAB 1744	RCA 20116	1000	10	60	
RAB 17141	RCA 20111	2000	7	45	
RAB 1798	RCA 20142	5000	4	18	
RAB 17246	RCA 20137	10000	3	9	

Relays RAD 11—RAD 49



RAD 12



RAD 14

These relays may be fitted with pin armature or cradle armature. If the relay has pin armature not more than two contact spring sets *RBA 1001—RBA 1846* may be fitted, and if it has cradle armature only one spring set.

The relays can only be fitted with one coil, which may be wound with up to four windings. They have no terminal blocks but the coil windings are connected to a tag group *RBD*, which is screwed on to the relay yoke.

The tag group may have up to six soldering tags, 1—6. When a coil has three windings the first winding is connected to soldering tags 1 and 2, the second winding to tags 3 and 4 and the third winding to tags 5 and 6, reckoning downwards. If there are four windings in the coil then some of the soldering tags will be common to two windings.

These relays are narrower than relays *RAB—RAC*, so that they may be mounted at 25 mm centre distance one from the other. They are made without cases, as they are for mounting on a protected place inside the switchboards.

For fixing, the relay has a screw-bolt with thread G2. Nut *O-128* to fit and metal washer *SCE 12301* are included.

The same order data as for *RAB—RAC* are to be given, with the exception of the case.

Dimensions:

length 107 mm, width 24 mm, max. height 48 mm, weight, with two six-spring contact spring sets and unsheathed coil, about 0.23 kg.



relay type		number of windings	number of spring sets
spring sets with single contacts	spring sets with twin contacts		
RAD 11 RAD 12 RAD 14*	RAD 16 RAD 17 RAD 19*	1	1 2 1
RAD 21 RAD 22 RAD 24*	RAD 26 RAD 27 RAD 29*	2	1 2 1
RAD 31 RAD 32 RAD 34*	RAD 36 RAD 37 RAD 39*	3	1 2 1
RAD 41 RAD 42 RAD 44*	RAD 46 RAD 47 RAD 49*	4	1 2 1

* These relays have cradle armatures

Below is given a more detailed specification of relays RAD as used in manual switchboards of ordinary construction. The figures in the circles on the diagrams indicate the colours for the fixed ends of the coils: 1 (blue), 2 (yellow), 3 (red) and 4 (white).

	coil				spring set	tag set	the relay seen from armature side
	designation	winding	resistance	execution			
RAD 1101	RCA 54101	1	1 ohm	un-sheathed	A — B RBA 1001 C —	RBD 1002 — —	
RAD 1102	RCA 60101	1	300 ohm	sheathed	A — B RBA 1001 C —	RBD 1002 — —	

	c o i l				spring set	tag set	the relay seen from armature side
	designation	wind- ing	re- sist- ance	execu- tion			
RAD 1103	RCA 54102	1	19	un- shea- thed	A — B RBA 1001 C —	RBD 1002 — —	A B C
RAD 1117	RCA 60105	1	80	shea- thed	A — B RBA 1002 C —	RBD 1002 — —	A B C
RAD 1201	RCA 10108	1	250	un- shea- thed	A RBA 1008 B — C RBA 1205	— RBD 1002 —	A B C
RAD 1202	RCA 10109	1	500	un- shea- thed	A RBA 1220 B — C RBA 1220	— RBD 1002 —	A B C
RAD 1402	RCA 54103	1	200	un- shea- thed slow acting	A — B RBA 1005 C —	— — RBD 1002	A B C
RAD 2101	RCA 62204	1 2	400 400	shea- thed	A — B RBA 1002 C —	RBD 1004 — —	A B C

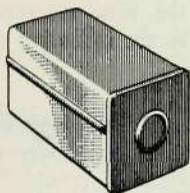
	c o i l				spring set	tag set	the relay seen from armature side
	designation	winding	re-sistance	execu-tion			
RAD 2102	RCA 10229	1 2	ohm 220 250	un-shea- thed	A — B RBA 1104 C —	RBD 1004 — RBD 1002	
RAD 2103	RCA 58201	1 2	500 500	un-shea- thed	A — B RBA 1001 C —	RBD 1004 — —	
RAD 2104	RCA 62202	1 2	150 150	shea- thed	A — B RBA 1002 C —	RBD 1004 — —	
RAD 2105	RCA 62204	1 2	400 400	shea- thed	A — B RBA 1001 C —	RBD 1004 — —	
RAD 2201	RCA 60201	1 2	1000 350	shea- thed	A RBA 1006 B — C RBA 1006	— RBD 1004 —	
RAD 2202	RCA 10230	1 2	400 400 bifi-lar	un-shea- thed	A RBA 2110* B — C RBA 1102	— RBD 1004 —	

* Special contact spring set for two-step function

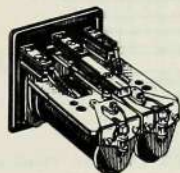
Relays RAE 13—RAE 18



RAE 13, without case



1-1601, case



RAE 18, without case

These relays have two pin armatures and two coils and they are mounted with not more than three spring sets the middle one being special and operated by both armatures. For connecting the coil windings solder tag groups are employed.

RAE 13 has contact spring sets with single contacts.

RAE 18 has contact spring sets with twin contacts.

The relays are normally supplied with case and with back plate of insulating material. The case is delivered in aluminium colour but may be had black enamelled or blued.

For fixing, the relay has two screw-bolts with thread *G2*; the centre distance between the bolts is 24 mm. Nuts *O-128* to fit and metal washers *SCE 12301* are included.

Dimensions:

length 115 mm, width 59 mm, height 55.5 mm, weight about 0.48 kg.

Further particulars supplied on request.



SPRING SETS

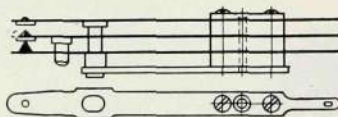
CONTACT SPRING SETS FOR RELAYS

RBA 1001—RBA 1846 Spring sets

These spring sets, are used in conjunction with relays *RAB*, *RAC*, *RAD* or *RAE*.

The spring sets, while having the same function as regards contacts, are supplied in the following two variants:

RBA 10, *RBA 11*, *RBA 12*, *RBA 13* have single contacts whose make and break takes place over one contact:



RBA 15, *RBA 16*, *RBA 17*. *RBA 18* have twin contacts whose make and break takes place over two contacts working simultaneously on the same spring.

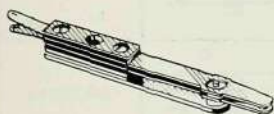


For fixing the spring set on the relay yoke there is required a screw with thread G7, the length of which is decided by the height of the spring set, see table. This screw must be ordered separately.

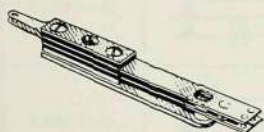
Dimensions:

length 86 mm, width 7.8 mm, height see table.

spring set			fixing screw		weight per 100
number of springs	height	weight	designation	length	
	mm	kg		mm	kg
2	9.3	0.014	0-10012	12.0	0.048
3	11.2	0.016	0-10020	14.0	0.056
4	13.1	0.018	0-10013	15.5	0.062
5	15.0	0.020	0-16233	17.5	0.069
6	16.9	0.022	190728	20.0	0.080



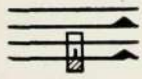
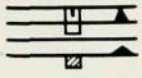
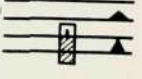
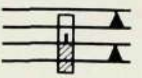
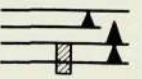
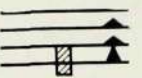


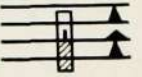
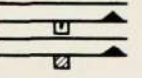
RBA 1001—RBA 1338



RBA 1501—RBA 1846

	execution	spring set	fixing screw
RBA 1001 RBA 1501	1 2		0-10012
RBA 1002 RBA 1502	1 2		0-10012
RBA 1005 RBA 1505	1 2		0-10020
RBA 1006 RBA 1506	1 2		0-10020
RBA 1007 RBA 1507	1 2		0-10020
RBA 1008 RBA 1508	1 2		0-10020
RBA 1009 RBA 1509	1 2		0-10020



	execu- tion	spring set	fixing screw
RBA 1101 RBA 1601	1 2		0-10013
RBA 1102 RBA 1602	1 2		0-10013
RBA 1103 RBA 1603	1 2		0-10013
RBA 1104 RBA 1604	1 2		0-10013
RBA 1105 RBA 1605	1 2		0-10013
RBA 1106 RBA 1606	1 2		0-10013
RBA 1107 RBA 1607	1 2		0-10013
RBA 1108 RBA 1608	1 2		0-10013
RBA 1109 RBA 1609	1 2		0-10013
RBA 1110 RBA 1610	1 2		0-10013

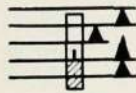
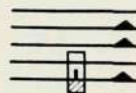
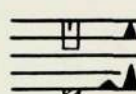

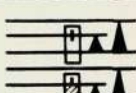
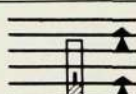
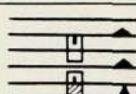
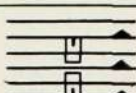
	execution	spring set	fixing screw
RBA 1111 RBA 1611	1 2		0-10013
RBA 1112 RBA 1612	1 2		0-10013
RBA 1113 RBA 1613	1 2		0-10013
RBA 1201 RBA 1701	1 2		0-16233
RBA 1202 RBA 1702	1 2		0-16233
RBA 1203 RBA 1703	1 2		0-16233
RBA 1204 RBA 1704	1 2		0-16233
RBA 1205 RBA 1705	1 2		0-16233



	execu- tion	spring set	fixing screw
RBA 1206 RBA 1706	1 2		0-16233
RBA 1207 RBA 1707	1 2		0-16233
RBA 1208 RBA 1708	1 2		0-16233
RBA 1209 RBA 1709	1 2		0-16233
RBA 1211 RBA 1711	1 2		0-16233
RBA 1212 RBA 1712	1 2		0-16233
RBA 1213 RBA 1713	1 2		0-16233
RBA 1214 RBA 1714	1 2		0-16233
RBA 1215 RBA 1715	1 2		0-16233

	execu- tion	spring set	fixing screw
RBA 1216 RBA 1716	1 2		0-16233
RBA 1217 RBA 1717	1 2		0-16233
RBA 1218 RBA 1718	1 2		0-16233
RBA 1219 RBA 1719	1 2		0-16233
RBA 1220 RBA 1720	1 2		0-16233
RBA 1221 RBA 1721	1 2		0-16233
RBA 1222 RBA 1722	1 2		0-16233
RBA 1223 RBA 1723	1 2		0-16233
RBA 1224 RBA 1724	1 2		0-16233



	execu- tion	spring set	fixing screw
RBA 1225 RBA 1725	1 2		0-16233
RBA 1226 RBA 1726	1 2		0-16233
RBA 1727	2		0-16233
RBA 1728	2		0-16233
RBA 1301 RBA 1801	1 2		190728
RBA 1302 RBA 1802	1 2		190728
RBA 1303 RBA 1803	1 2		190728
RBA 1304 RBA 1804	1 2		190728


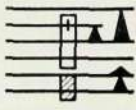
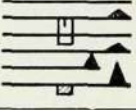

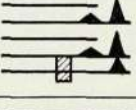

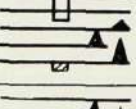
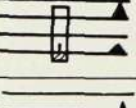

	execu- tion	spring set	fixing screw
RBA 1305 RBA 1805	1 2		190728
RBA 1306 RBA 1806	1 2		190728
RBA 1307 RBA 1807	1 2		190728
RBA 1308 RBA 1808	1 2		190728
RBA 1309 RBA 1809	1 2		190728
RBA 1310 RBA 1810	1 2		190728
RBA 1311 RBA 1811	1 2		190728
RBA 1312 RBA 1812	1 2		190728
RBA 1313 RBA 1813	1 2		190728



	execution	spring set	fixing screw
RBA 1314 RBA 1814	1 2		190728
RBA 1315 RBA 1815	1 2		190728
RBA 1316 RBA 1816	1 2		190728
RBA 1317 RBA 1817	1 2		190728
RBA 1318 RBA 1818	1 2		190728
RBA 1319 RBA 1819	1 2		190728
RBA 1320 RBA 1820	1 2		190728
RBA 1321 RBA 1821	1 2		190728
RBA 1322 RBA 1822	1 2		190728

	execu- tion	spring set	fixing screw
RBA 1323 RBA 1823	1 2		190728
RBA 1324 RBA 1824	1 2		190728
RBA 1325 RBA 1825	1 2		190728
RBA 1326 RBA 1826	1 2		190728
RBA 1327 RBA 1827	1 2		190728
RBA 1328 RBA 1828	1 2		190728
RBA 1329 RBA 1829	1 2		190728
RBA 1330 RBA 1830	1 2		190728
RBA 1331 RBA 1831	1 2		190728



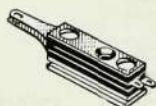
	execution	spring set	fixing screw
RBA 1332 RBA 1832	1 2		190728
RBA 1333 RBA 1833	1 2		190728
RBA 1334 RBA 1834	1 2		190728
RBA 1335 RBA 1835	1 2		190728
BBA 1336 RBA 1836	1 2		190728
RBA 1337 RBA 1837	1 2		190728
RBA 1338 RBA 1838	1 2		190728
RBA 1839	2		190728
RBA 1840	2		190728

	execu- tion	spring set	fixing screw
RBA 1841	2		190728
RBA 1842	2		190728
RBA 1843	2		190728
RBA 1844	2		190728
RBA 1845	2		190728
RBA 1846	2		190728



SOLDERING TAG SETS FOR RELAYS ETC.

RBD 1002—RBD 1006 Soldering tag sets



RBD 1002

These soldering tag sets are employed in conjunction with relays *RAD-RAE*, impedance coils *REA 14* and resistance coils *RER 31*, for the connection of the coils.

The sets are made with from two to six tags, which have a soldering hole at each end.

Fixing requires a screw with thread G7, to be ordered separately. The screws length is decided by the height of the tag set.

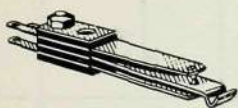
Dimensions:

length 42.5 mm, width 7.8 mm, height see table.

	soldering tags	height	weight	fixing screw	
				designation	weight per 100
					kg
RBD 1002	2	9.3	0.008	0-10012	0.048
RBD 1003	3	11.2	0.009	0-10020	0.056
RBD 1004	4	13.1	0.010	0-10013	0.062
RBD 1005	5	13.1	0.009	0-10013	0.062
RBD 1006	6	15.0	0.010	0-16233	0.069

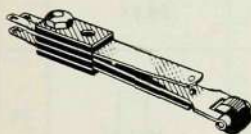
CONTACT SPRING SETS FOR SWITCHES

RBM 1005—RBM 3301 Spring sets



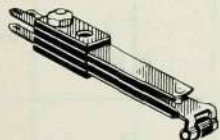
RBM 1005

RBM 1005—RBM 1416 are used in conjunction with lever keys *RMA*. The execution is the same irrespective of whether the spring set is to be used for keys of locking or restoring type.



RBM 2005

RBM 2005—RBM 2416 are used in conjunction with press-button keys *RMD*. The operating spring has a roll of insulating material.



RBM 3005

RBM 3005—RBM 3301 are used in conjunction with press-button key *RMD 13*. These spring sets have short operating spring with roll of insulating material.

The springs have soldering holes for connection.

The spring sets are attached to the keys by a screw bolt and two nuts, except for keys *RMD 20* and *RMD 21*, for which screws with head are required, see page 203.










The length of the screws is decided by the height of the spring sets.

Screws and nuts are to be ordered separately.

Dimensions:

RBM 10—RBM 14, length 67 mm; *RBM 20—RBM 24*, length 73 mm; *RBM 30—RBM 33*, length 65 mm; weight with three springs 0.01 kg.



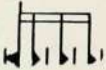

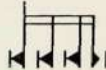
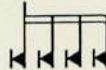
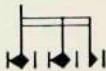



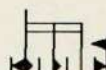
for lever keys RMA	for press-button keys RMD	number of springs	function	
RBM 1005	RBM 2005	3		V
RBM 1015	RBM 2015	4		L
RBM 1016	RBM 2016	4		Y
RBM 1101	RBM 2101	5		VS
RBM 1102	RBM 2102	5		BV
RBM 1103	RBM 2103	5		BK
RBM 1104	RBM 2104	5		VIS*
RBM 1201	RBM 2201	6		2V
RBM 1202	RBM 2202	6		VK

* switching before connecting

for lever keys RMA	for press-button keys RMD	number of springs	function	
RBM 1203	RBM 2203	6		LS
RBM 1204	RBM 2204	6		VX
RBM 1205	RBM 2205	6		VfV*
RBM 1301	RBM 2301	7		V 2S
RBM 1302	RBM 2302	7		2B V
RBM 1303	RBM 2303	7		VD
RBM 1304	RBM 2304	7		LK
RBM 1305	RBM 2305	7		** BSfV
RBM 1306	RBM 2306	7		BVS





* switching before switching
 ** break and connecting before switching



for lever keys RMA	for press- button keys RMD	number of springs	function	
RBM 1401	RBM 2401	8		B3S
RBM 1402	RBM 2402	8		2B 2S
RBM 1403	RBM 2403	8		3B 5
RBM 1404	RBM 2404	8		4B
RBM 1405	RBM 2405	8		2V 5
RBM 1406	RBM 2406	8		B 2V
RBM 1407	RBM 2407	8		BDS
RBM 1408	RBM 2408	8		2B D
RBM 1409	RBM 2409	8		VSK

for lever keys RMA	for press-button keys RMD	number of springs	function	
RBM 1410	RBM 2410	8		BVK
RBM 1411	RBM 2411	8		B 2K
RBM 1412	RBM 2412	8		CL
RBM 1413	RBM 2413	8		V SX
RBM 1414	RBM 2414	8		CY
RBM 1415	RBM 2415	8		CD
RBM 1416	RBM 2416	8		2C

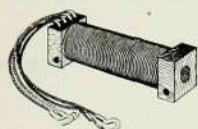


for press-button keys RMD 13	number of springs	function	
RBM 3005	3		V
RBM 3101	5		VS
RBM 3201	6		2V
RBM 3301	7		V 2S

TRANSFORMERS, IMPEDANCE COILS, RESISTANCE COILS

TRANSFORMERS

RCL 10201, RCL 10301 Transformers



RCL 10201, RCL 10301

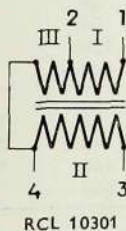
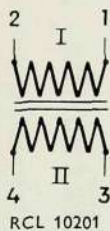
These transformers are employed in telephone instruments *DEK 1001* and *DEK 3001* etc.

The coil frame of the transformer is of dark stained birchwood with a core of soft iron wire. After winding the coil is wrapped in cellophane impregnated cotton tape and then impregnated with wax. The connecting leads are provided with cable lugs.

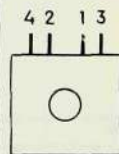
Fixing requires two screws *G7 C21 M05*, to be ordered separately.

Dimensions:

length 66 mm, width 19 mm, height 19 mm, distance between fixing holes 58 mm, weight about 0.07 kg.



	c o i l			t a p p i n g s
	wind- ing	resis- tance	number of turns	
RCL 10201	I	1.7	400	1 and 2 3 and 4
	II	12	1100	
RCL 10301	I	2.1	400	1 and 2 3 and 4
	II	4.1	570	
	III	160	230	



REK 10101—REK 10133 Transformers



REK 10101

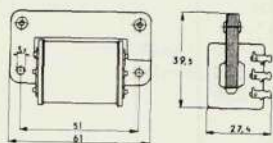
These transformers are used in telephone instruments and manual switchboards.

The transformer's coil frame is of insulating material and provided with soldering tags for connecting. It has a shut-in lamellated frame core of transformer sheet. The coil after winding is wrapped in cellophane impregnated cotton tape. The transformers are impregnated with wax, thus enabling them to be used in tropical climates. There are two 3.7 mm holes for fixing.

Fixing requires two screws, to be ordered separately.

Dimensions:

see dimension sketch; weight about 0.14 kg.



REK 10101—REK 10133

	c o i l			
	wind- ing	soldered on tag	resistance	number of turns
			ohm	
REK 10101	1	1-2	1.2	300
	2	3-4	30	900
	3	4-5	600	900
REK 10102	1	1-2	32	1200
	2	5-3	22	865
	3	2-5	12	420
	4	4-5	108	*
	5	1-6	600	*
REK 10103	1	1-2	29	1110
	2	5-3	28	925
	3	2-5	20	590
	4	4-5	180	*
	5	1-6	600	*
REK 10104	1	1-2	32	1200
	2	3-4	40	1200
	3	2-4	600	1200
	4	5-6	600	*

* Bifilar resistance winding

	c o i l			
	wind- ing	soldered on tag	resistance	number of turns
			ohm	
REK 10105	1	1-2	1.2	300
	2	3-4	45	1300
	3	4-5	1600	1300
REK 10106	1	1-2	1.5	300
	2	3-4	58	1700
	3	4-5	440	410
	4	5-6	600	*
REK 10107	1	1-2	1.2	300
	2	3-4	22	620
	3	5-6	24	620
	4	4-5	1600	1365
REK 10108	1	1-2	32	1200
	2	3-4	22	720
	3	5-6	25	720
	4	4-5	600	1490
REK 10115	1	1-2	1.2	300
	2	3-4	50	900
	3	5-6	100	1650
REK 10133	1	1-2	1.2	300
	2	3-4	30	900
	3	4-5	600	900
	4	3-6	600	*

* Bifilar resistance winding



IMPEDANCE COILS

REA 14101—REA 14206 Impedance coils

These impedance coils are used in telephone switchboards etc.

The impedance coils have one or two windings and are sheathed and have the same kind of coil frame and fixing bolt with thread G2 as are used for relays. They have a soldering tag set for connecting the windings.

Fixing requires a nut O-128, a metal washer SCE 12301, these being included.

Dimensions:

length 99 mm, width 24 mm, height about 44 mm, weight about 0.18 kg.

REA 14101—REA 14107 have one winding. They have one soldering tag set RBD 1002 with two tags.

	c o i l	
	designation	resistance
		ohm
REA 14101	RCE 32101	500
REA 14102	RCE 32102	40
REA 14103	RCE 32103	1000
REA 14104	RCE 32104	280
REA 14105	RCE 32105	300
REA 14106	RCE 32106	600
REA 14107	RCE 32107	800



REA 14201

REA 14201—REA 14206 have two windings.

They have one soldering tag set RBD 1004 with four tags.

The first winding is soldered to the two upper tags and the other winding to the two lower tags.

	c o i l		
	designation	winding	resistance
REA 14201	RCE 33202	1	500
		2	500
REA 14202	RCE 33201	1	300
		2	300
REA 14203	RCE 33203	1	150
		2	150
REA 14204	RCE 33204	1	250
		2	250
REA 14205	RCE 33205	1	400
		2	400
REA 14206	RCE 33206	1	100
		2	100

RESISTANCE COILS

RCR 13101—RCR 14241 Resistance coils



RCR 13101, RCR 13113



RCR 14203, RCR 14241



225764

These resistance coils are used in switchboards etc. The resistance coils may also be mounted on relays.

The coil frame is of brass with flanges of insulating material. For connection of windings they have two or four soldering tags. The coils are bifilar wound and the resistance tolerance is $\pm 5\%$.

RCR 13 has one and *RCR 14* two windings, see table. They may be wound for other resistances besides those given in the table.

For mounting in switchboards there is required a wood screw *Trskr No. 5-1" KS M05*, to be ordered separately.

For mounting on relays there is required a screw *G5 C18 M05*, and a nipple *225764*, to fit the relay fixing bolt. Screw and nipple are to be ordered separately.



Dimensions:

diameter 20 mm, height 14.5 mm, weight about 0.007 kg.

with one winding	resistance	with two windings	windings*	resistance
	ohm			ohm
RCR 13101	300	RCR 14203	1	600
			2	200
RCR 13102	500	RCR 14205	1	1000
			2	1000
RCR 13103	100	RCR 14206	1	250
			2	250
RCR 13104	35	RCR 14207	1	150
			2	150
RCR 13105	200	RCR 14208	1	100
			2	400
RCR 13106	50	RCR 14209	1	1000
			2	300
RCR 13107	3000	RCR 14210	1	500
			2	200
RCR 13108	1000	RCR 14211	1	1000
			2	500
RCR 13109	10000	RCR 14212	1	500
			2	100
RCR 13110	600	RCR 14221	1	1500
			2	1500
RCR 13111	400	RCR 14222	1	600
			2	600
RCR 13112	1500	RCR 14224	1	2000
			2	2000
RCR 13113	800	RCR 14225	1	4000
			2	4000
RCR 13117	2000	RCR 14227	1	100
			2	100
RCR 13118	5000	RCR 14229	1	400
			2	400
RCR 13121	6000	RCR 14231	1	200
			2	200
RCR 13134	4000	RCR 14234	1	3000
			2	3000
RCR 13146	20	RCR 14237	1	25
			2	25
RCR 13153	10	RCR 14241	1	5000
			2	5000

* The first winding is soldered to tags 1 and 2 and the second winding to tags 3 and 4

RCR 16101 Resistance coil



RCR 16101

This resistance coil is used in manual switchboards *ADE 11* and *ADF 13*.

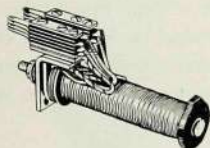
The coil frame is of black insulating material and has a soldering tag at each end for connection. The coil's resistance is 400 ohm and it is bifilar wound. The resistance tolerance is $\pm 5\%$. The coil after winding is wrapped in cello-impregnated brown cotton tape. For fixing it has a screw hole at one end.

Fixing requires a screw *Ebon. 4a A10 M05*, to be ordered separately.

Dimensions:

length 59 mm, diameter 12 mm, weight 0.007 kg.

REA 15401 Resistance coil



REA 15401

This resistance coil is used as test resistance in manual switchboard *ABK 60*.

It has four bifilar windings. The coil frame, which is of the same kind as is used in relays, has fixing bolts with thread *G2*. For connection of the windings there are two soldering tag groups *RBD 1004*, each with four soldering tags.

Viewed from the soldering side the different windings are taken out as per sketch alongside.

For fixing there is supplied a nut *0-128* together with a metal washer *SCE 12301*.

Dimensions:

length 99 mm, width 24 mm, height about 44 mm, weight 0.12 kg.



REA 15401



	c o i l		
	designation	winding	resistance
			ohm
REA 15401	RCA 10401	1	2000
		2	2000
		3	15000
		4	15000

RER 3101 Resistance coil



RER 3101

This coil is used in manual switchboards *ADE* and *ADF*. The resistance coil consists of a thin brass tube on which the resistance wire is wound. It has large cooling surface and thus stands heavier loading than ordinary resistance coils. The resistance is 25 ohm with $\pm 5\%$ tolerance.

The coil frame with winding has the designation *RCR 17101*. For connection there are two tag sets *RBD 1005*, each of which has four empty soldering tags. For fixing there is a screwbolt thread *G2*.

Fixing requires one nut *0-128*, one metal washer *SCE 12301*, which are included.

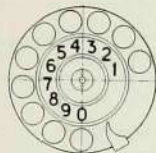
Dimensions :

length 75 mm, width 24 mm, height 45 mm, weight 0.09 kg.

DIALS



Fitting of the finger holes on
RG 112



Fitting of the finger holes on
RGA 1001-RGA 2003



RGA 1001, 1101



RGA 1002, 1003, 1004,
1007, 1008, 1012



RGA 1005

The dials given here are of quite different design from the old dials *RG 112* etc. Outwardly they differ from the old dial in that the first hole lies at a greater distance from the finger stop, owing to each hole being placed on one 13th of the dial circumference instead of on one 12th, as was the case with the old dials, see figure. They have the same outside dimensions as the old dials and can replace them, on condition that the cord is exchanged at the same time. The cord for the new dial is longer and has besides different identification colours for the connecting wires. The internal parts of the new dial cannot replace corresponding parts in the old dials.

The dials are numbered 1, 2, 3, 4, 5, 6, 7, 8, 9 and 0. They are supplied with or without the cords *TRG 1301-TRG 5303* and with or without protective case in black lacquered brass *RGB 1001-RGB 1101*.

Only spare parts such as impulsing spring, operating spring etc. will henceforth be kept for the old dial.

When ordering spare parts for dials, particulars must be given of the dial for which the parts are to be used.

RGA 1001-RGA 1102 Dials (RGA 1001 replaces RG 112)

These dials have an impulse ratio make/break of 40/60 or 33/67, see table. They have five contact springs. A three-conductor cord is used for connection.

The dials are of nickel-plated brass. They have white figures on a black lacquered brass figure-plate, except *RGA 1006*, which has white enamelled figure-plate





RGA 1006



RGA 1009



Connecting of the cord,
RGA 1002—1012, 1102



RGA 1202, 1203, 1205,
1302—1304

and black figures. *RGA 1001* and *RGA 1101* are without protective case and cord.

Fixing requires nuts or screws, to be ordered separately, see *RGB 1001—RGB 1101*.

Dimensions:

diameter 76 mm, weight with protective case about 0.25 kg.

	protective case	cord		figure-plate
		designation	length	
mm				
impulse ratio 40/60				
RGA 1001	—	—	—	143426
RGA 1002	RGB 1001	TRG 1301	280	143426
RGA 1003	RGB 1001	TRG 1302	350	143426
RGA 1004	RGB 1003	TRG 1305	150	143426
RGA 1005	RGB 1004	TRG 1301	280	143426
RGA 1006	RGB 1001	TRG 1301	280	143426/1
RGA 1007	RGB 1002	TRG 1301	280	143426
RGA 1008	RGB 1003	TRG 1306	240	143426
RGA 1009	RGB 1007	TRG 3302	310	143426
RGA 1010	RGB 1008	TRG 1309	125	143426
RGA 1012	RGB 1003	TRG 1301	280	143426
impulse ratio 33/67				
RGA 1101	—	—	—	143426
RGA 1102	RGB 1003	TRG 1306	240	143426

RGA 1201—RGA 1305 Dials

These dials have an impulse ratio make/break of 40/60 or 33/67, see table. They have seven contact springs. A four-conductor cord is used for connection.

The dials are of nickel-plated brass. They have figure-plate of black lacquered brass with white figures, except *RGA 1204* and *RGA 1305*, which have white enamelled figure-plate with black figures.



RGA 1204, 1305

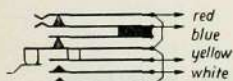
RGA 1201 and RGA 1301 are without protective case and cord.

Fixing requires nuts or screws, to be ordered separately, see RGB 1001—RGB 1101.

Dimensions:

diameter 76 mm, weight with protective case about 0.25 kg.

	protective case	cord		figure-plate
		designation	length	
		mm		
impulse ratio 40/60				
RGA 1201	—	—	—	143426
RGA 1202	RGB 1001	TRG 1401	280	143426
RGA 1203	RGB 1003	TRG 1407	200	143426
RGA 1204	RGB 1001	TRG 1401	280	143426/1
RGA 1205	RGB 1001	TRG 1407	200	143426
RGA 1206	RGB 1001	TRG 1401	280	143426
impulse ratio 33/67				
RGA 1301	—	—	—	143426
RGA 1302	RGB 1001	TRG 1402	350	143426
RGA 1303	RGB 1001	TRG 1401	280	143426
RGA 1304	RGB 1003	TRG 1407	200	143426
RGA 1305	RGB 1001	TRG 1401	280	143426/1



Connecting of the cord,
RGA 1202—1205, 1302—1305

RGA 1601—RGA 1603 Dials with positive impulses

These dials have an impulse ratio make/break of 50/50 and positive impulses. They have five contact springs. A four-conductor cord is used for connection. They are used in manual switchboards for the connection of semi-automatic L. B. switchboard *OH 1010*.



RGA 1602

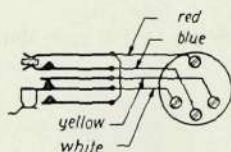
The dials are of nickel-plated brass. They have figure-plates of black-lacquered brass with white figures.



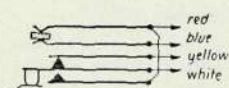
RGA 1601 is without protective case and cord.

RGA 1602 has protective case with plug to fit jack 300695.

RGA 1603 has a protective case designed for mounting on an angle-iron.



Connecting of the cord,
RGA 1602



Connecting of the cord,
RGA 1603

Fixing screws are to be ordered separately, see RGB 1001—RGB 1101.

Dimensions :

diameter 76 mm, weight without case 0.19 kg.

	protective case	c o r d		figure-plate
		designation	length	
RGA 1601	—	—	—	143426
RGA 1602	RGB 1005	TRG 1404	150	143426
RGA 1603	RGB 1003	TRG 1401	280	143426

RGA 2001—RGA 2103 Dials, watertight

These dials have an impulse ratio make/break of 40/60 or 33/67, see table. They have five contact springs. A three-conductor cord is used for connection.



RGA 2002, 2003
2102, 2103

RGA 2002 and RGA 2102 is used in conjunction with telephone instruments DBT 1101, DBT 1141 and DBT 1171; RGA 2003 and RGA 2103 is used in conjunction with DBT 2101.

The dials are of chrome-plated brass. They have figure-plates of black-enamelled brass with white figures. On the inner side of the dial mechanism there is a groove in which a rubber ring 208914 is pressed. The protective case's edge is pressed on this rubber ring so that reliable tightness between dial mechanism and the case is obtained.

RGA 2001 and RGA 2101 is without protective case and cord.

RGA 2002 and RGA 2102 has a rubber packing 208915 which tightens the lead-in hole for the cord. To ensure that the tightness of the cord lead-in is effective the dial must be mounted on a flat surface that completely covers the bottom of the case.

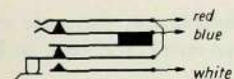
RGA 2003 and RGA 2103 has a lead-in tube with rubber packing 0-4666 for the cord.

Fixing of RGA 2002 and RGA 2102 requires two nuts 209017 and of RGA 2003 and RGA 2103 two nuts 213360, to be ordered separately.

Dimensions:

diameter 76 mm, weight with case about 0.25 kg.

	protective case	c o r d		figure-plate
		designation	length	
		mm		
		impulse ratio 40/60		
RGA 2001	—	—	—	143426
RGA 2002	RGB 1001	TRG 5301	280	143426
RGA 2003	RGB 1101	TRG 5303	150	143426
		impulse ratio 33/67		
RGA 2101	—	—	—	143426
RGA 2102	RGB 1001	TRG 5301	280	143426
RGA 2103	RGB 1101	TRG 5303	150	143426



Connecting of the cord,
RGA 2002, 2003, 2102, 2103

PROTECTIVE CASES, FIGURE-PLATES, PACKINGS, HOLDERS ETC. FOR DIALS

PROTECTIVE CASES FOR DIALS

The cases are employed both for protection of the dial mechanism and for the mounting of the dials.

The cases are of black-lacquered brass and have two screws for fixing the dial mechanism.

RGB 1001 Protective case (replacing *RG 3050*)



RGB 1001

This protective case is used in most of the bakelite telephone instruments that have dials.

For fixing, the case has at the bottom two screw pins, thread *G5*.

For fixing in the telephone instrument, there are required a support *302277* and two nuts *G5 T M05*, to be ordered separately.

Dimensions :

diameter 73 mm, depth 14.5 mm, weight 0.05 kg.

RGB 1002 Protective case



RGB 1002

This protective case is used in telephone instruments *DBH 4003-DBH 4103*.

At the bottom of the case there is a recess for the telephone instrument's magneto wheel. For fixing, the case has at the bottom two screw pins thread *G5*.

For fixing in the telephone instrument, there are required a holder 302277 and two nuts *G5 T M05*, to be ordered separately.

Dimensions:

diameter 73 mm, depth 14.5 mm, weight 0.05 kg.

RGB 1003 Protective case

(replacing *RG 3000*)



RGB 1003

This case is used in conjunction with the angle-irons 133123 and 302573 for mounting dials on manual switchboards.

For fixing, there are two holes in the case.

Fixing on the angle-irons requires two metal screws 190552/1, to be ordered separately.

Dimensions:

diameter 73, depth 14.5 mm, weight 0.05 kg.

RGB 1004 Protective case with flange

(replacing *RG 3100*)



RGB 1004

This case is used in telephone instrument *DER 3001*.

The case, which is furnished with a flange for flush mounting, has two holes for fixing.

Fixing on the telephone instrument requires two metal screws 190552/1, to be ordered separately.

Dimensions:

diameter exclusive of flange 73 mm, depth 14.5 mm, weight 0.07 kg.





RGB 1005

RGB 1005 Protective case with plug (replacing *RG 3200*)

This case is used when a dial is to be mounted on a switchboard.

The case is fitted with a four-pole plug. Jack *300695* is recommended.

A nut on the plug enables it to be attached firmly to the jack.

Dimensions :

diameter 73 mm, height excluding contact pins 68.5 mm, weight 0.11 kg.



RGB 1007

RGB 1007 Protective case with clip

This case is used in conjunction with portable telephone instruments *DPA 1152* etc.

At the side there is a tube bushing for the dial cord. The case has a strong spring clip designed to be clamped firmly on the edge of the telephone instrument.

Dimensions :

diameter 73 mm, depth exclusive of clip 14.5 mm, weight 0.07 kg.



RGB 1008

RGB 1008 Protective case

This case is used in conjunction with handsets *RLF 1401* and *RLF 1501*.

At the bottom there is a tube bushing for the dial cord and four 3.5 mm holes for fixing.

Fixing requires four screws *G7 C3 M05*, to be ordered separately.

Dimensions :

diameter 73 mm, depth 14.5 mm, weight 0.05 kg.

RGB 1101 Protective case, watertight



RGB 1101

This case is used in conjunction with watertight dial in telephone instruments *DBT 2101* etc.

For fixing, the case has at the bottom two screw pins, thread G5. In the bottom is also a tube bushing for the dial cord.

Fixing to the telephone instrument requires two nuts *213360*, to be ordered separately.

Dimensions:

diameter 73 mm, depth exclusive of tube 14.5 mm, inclusive of tube 38 mm, weight 0.06 kg.

FIGURE-PLATES FOR DIALS

143426, 143426/1 Figure-plates



143426



143426/1

These figure-plates are used in conjunction with dials *RGA 10–RGA 20*.

The plates are of lacquered brass and numbered 1, 2, 3, 4, 5, 6, 7, 8, 9 and 0.

143426 is black with white figures and is used on black and mahogany-coloured telephone instruments.

143426/1 is white with black figures and is used on white telephone instruments.

The figure-plate is affixed by the central nut of the dial and a pin holds it in position.

Dimensions:

diameter 43.7 mm, weight 0.006 kg.



PACKINGS FOR DIALS

0-4666 Packing



0-4666

This packing is employed for tightening the cord inlet in watertight dial *RGA 2003*.

The packing is of soft rubber.

Dimensions:

outer diameter 9 mm, inner diameter 5 mm, thickness 4 mm, weight per 100: 0.022 kg.

208914 Packing



208914

This packing is used for tightening between the dial mechanism and the protective case in watertight dials *RGA 2001 - RGA 2003*.

The packing is of soft rubber.

Dimensions:

outer diameter 73 mm, inner diameter 69.5 mm, thickness 1.5 mm, weight per 100: 0.09 kg.

208915 Packing



208915

This packing is used in conjunction with protective case *RGB 1001* for tightening watertight dial *RGA 2002* on telephone instruments *DBT 1101* etc.

The packing is of soft rubber.

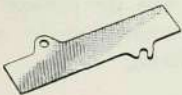
Dimensions:

diameter 72.5 mm, thickness 1.5 mm, weight per 100: 0.86 kg.

HOLDERS ETC. FOR DIALS

302277 Support

(replacing *RG 5150*)



302277

This support is used in conjunction with protective case *RGB 1001* for mounting dials on bakelite telephone instruments.

The support is of white boiled brass.

Fixing nuts, see protective case *RGB 1001*.

Dimensions:

length 78 mm, width 31 mm, thickness 1 mm, weight 0.012 kg.

133123, 302573 Angle-irons



133123

These angle-irons are used for the mounting of dials with protective cases *RGB 1003* on manual switchboards. The angle irons are of black-enamelled iron and have two fixing holes. For fixing of the dial there are two screw holes with thread *G5*.

For mounting on the switchboard two wood screws *Trsker No. 7-1/2" KS M05* are required, to be ordered separately.

Dimensions: see table.



302573

	replacing	height	width	deph	weight
133123		mm	mm	mm	kg
302573	<i>RG 5100</i>	67	60	51	0.08
	—	65.5	77	19	0.07



300695 Jack



300695

This jack is used when a dial fitted with protective case *RGB 1005* is to be mounted on a switchboard.

The base is of nickel-plated brass, black lacquered outside. The jack is four-pole and the contact caps have screws at the bottom for connecting the wires. The flange has four holes for fixing.

Mounting requires four wood screws *Trskr No. 4-5/8" FS M05*, to be ordered separately.

Dimensions:

flange diameter 58 mm, height 70 mm, weight 0.14 kg.

301530 Dial blank



301530 black

This blank is used to cover the dial hole on bakelite instruments.

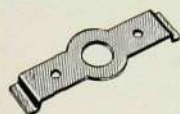
The blank is made of bakelite in three different colours; the colour desired should be stated when ordering.

Fixing requires a stirrup *127917* and two screws *G5 C6 M05*, to be ordered separately.

Dimensions:

diameter 79 mm, thickness 11 mm, weight 0.036 kg.

	r e p l a c i n g
301530 black 301530 mahogany 301530 white	RG 5000 black RG 5000 mahogany RG 5000 white



127917

127917 Stirrup (replacing RG 5010)

This stirrup is used in conjunction with dial blank 301530 for bakelite telephone instruments.

The stirrup is of white boiled brass.

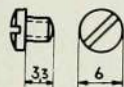
Fixing screws, see dial blank 301530.

Dimensions :

length 79.5 mm, width 26 mm, height 6.4 mm, weight 0.018 kg.

SCREWS AND NUTS FOR DIALS

190552, 190552/1 Screws



190552

These screws are used for fixing dials with protective case RGB 1003 or RGB 1004.

190552 is of galvanized iron.

190552/1 is of white boiled brass.

Dimensions :

see dimension sketch; thread G5, weight per 100: 0.1 kg.

G5 T M05, 209017, 213360 Nuts

These nuts are employed for fixing dials.

G5 T M05 is used for fixing dials with protective case RGB 1001 or RGB 1002 to support 302277.

The nut is of white boiled brass.

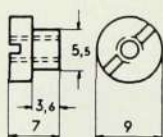


G5 T M05

Dimensions :

span of jaw 6 mm, height 2.3 mm, thread G5, weight per 100: 0.09 kg.





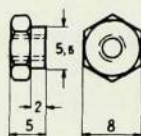
209017

209017, which has a round head, is used for fixing dials *RGA 2002* with protective case *RGB 1001* to telephone instruments *DBT 1101*, *DBT 1141* and *DBT 1171*.

The nut is of white boiled brass.

Dimensions:

see dimension sketch; thread *G5*, weight per 100: 0.2 kg.



213360

213360, which has hexagonal head, is used for fixing dials with protective case *RGB 1101* to telephone instruments *DBT 2101* etc.

The nut is of white boiled brass.

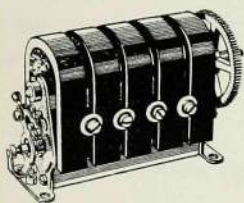
Dimensions:

see dimension sketch; thread *G5*, weight per 100: 0.15 kg.

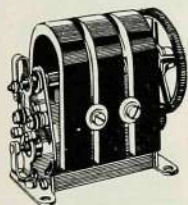
MAGNETO GENERATORS

The generators are employed in telephone instruments and manual switchboards.

RGH 1001—RGH 1402 Magneto generators



RGH 1001



RGH 1301

These generators are made with three or five magnets of tungsten steel and with different spring sets, see diagrams. The rotor resistance is 500 ohm. The generators are supplied without crank. Normally the oil cups are located as shown on measurement cups are located as shown on measurement sketch. In each bearing cap there are three additional holes, so that the oil cups may be moved when the generator is to be mounted in another position. These holes are made tight by screws.

RGH 1001—RGH 1302 have crank-shaft with threaded end, thread *G0*.

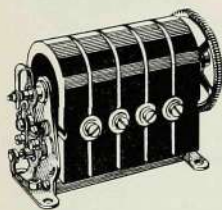
RGH 1401, RGH 1402 have crank-shaft with threaded hole at end, thread *G2*.

Suitable cranks, see *RGL*.

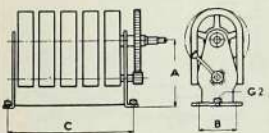
The generators *RGH 1401—RGH 1402* have close-sitting magnets. On these generators therefore the magnets have slots for the fixing screws and on generator *RGH 1402*, for use in telephone instruments *DAL 1101*, the two outer magnets are moreover chamfered at one pole.

For fixing there are two 5×7 mm oval holes in each foot for wood screws and in addition a lug with screw-hole, thread *G2*.

Fixing requires four wood screws *Trsker No. 8— $\frac{5}{8}$ " KS M05* or *Trsker No. 8—1" KS J03*, or alternatively two metal screws *G2 D25 J03* or *G2 A36 J03* with washers *136192/1*. Screws washers to be ordered separately.



RGH 1401

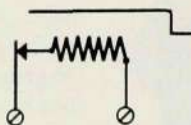


RGH 1001—RGH 1402

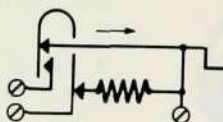
Dimensions:

height 110 mm, width 73 mm, measurement A for generator shaft 72.5 mm, measurement B for fixing hole 42 mm, measurement C for fixing hole, see table.

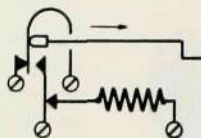
The generators are equipped with spring sets as per table and connected as per diagrams below.



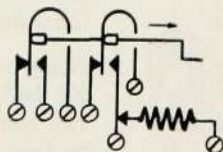
1. spring set with fixing connection



2. spring set with one make contact



3. spring set with one make-and-break

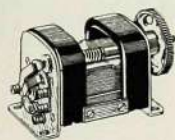


4. spring set with two make-and-breaks

	replacing	number of magnets	magnet	cog-wheel	toothed pinion	spring set	C	weight
							mm	kg
RGH 1001	RH 5070	5	213931/1	213575*	213936	1	138.5	2.60
RGH 1101	RH 5810	5	213931/1	213935	213936	3	138.5	2.60
RGH 1201	RH 5811	5	213931/1	213935	213936	4	138.5	2.60
RGH 1301	RH 3236	3	213931/1	213935	213936	2	94	1.60
RGH 1302	RH 5602	5	213931/1	213935	213936	2	138.5	2.77
RGH 1401	RH 5502	5	213931/2	213997	213998**	2	118	2.35
RGH 1402	RH 5506	5	213931/2 213931/3	213997	213998**	2	118	2.35

* Fixing of cog-wheel 213575 requires two screws G7 C10 J03

** Fixing of toothed pinion 213998 requires a washer 213999



RGH 5021



RGH 5131

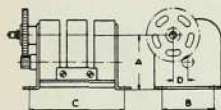
RGH 5021—RGH 5132 Magneto generators

These generators are made with two or three magnets of cobalt steel. They have smaller dimensions and a smaller number of magnets than the generators *RGH 1001—RGH 1402* of equivalent strength. The generators have one spring set with make-and-break contact, see diagram. They are supplied without crank.

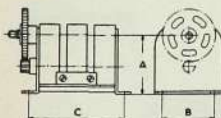
They have magnets 140861, cog-wheel 133617 and pinion 141098. Fixing of pinion 141098 requires two screws G6 F7 J03.

RGH 5021—RGH 5032 have the crank-shaft located to the left, viewed from the cog-wheel end.

RGH 5121—RGH 5132 have the crank-shaft in the centre.



RGH 50



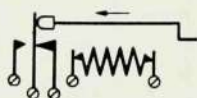
RGH 51

The generators have crank-shaft with screwed extension, thread G0. For suitable cranks, see *RGL*. For fixing there are two 4×6 mm holes in each foot.

Fixing requires four screws, to be ordered separately.

Dimensions:

length 101 mm, for *RGH 50* the height is 66 mm and the width 63 mm, for *RGH 51* the height is 69 mm and the width 57.5 mm, measurements A and D for generator shaft see table, measurement B for fixing holes 41.5 mm, measurement C for fixing holes 77 mm.



RGH 5021—RGH 5132

	replacing	number of cogwheels	resistance	dimensions for mounting		weight
				A	D	
			ohm	mm	mm	kg
RGH 5021	RH 2900	2	350	44.4	12.25	0.95
RGH 5031	RH 3900	3	350	44.4	12.25	1.06
RGH 5032	—	3	20	44.4	12.25	1.06
RGH 5121	—	2	350	47.5	—	0.95
RGH 5131	—	3	350	47.5	—	1.06
RGH 5132	—	3	20	47.5	—	1.06

CRANKS, COG-WHEELS, MAGNETS ETC. FOR MAGNETO GENERATORS

CRANKS FOR GENERATORS

RGL 1001—RGL 1012 Cranks

These cranks are used in conjunction with generator
RGH 1001—RGH 5132.


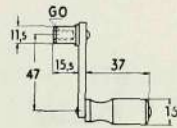

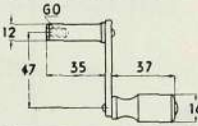

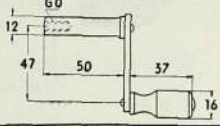
RGL 1001—RGL 1005 and *RGL 1008* are of nickel-plated brass.







RGL 1006 and *RGL 1012* are of polished oxidized brass.

RGL 1007 and *RGL 1010* are of unpolished nickel-plated brass.

The cranks have handles of black insulating material, except *RGL 1010* which has handle of light metal.

Dimensions: see table.

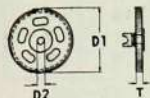
	re- placing	for generator	dimension sketch	weight
	RH 14	RGH 10—13		kg 0.05
	RH 28	RGH 10—13		0.07
	RH 30	RGH 10—13		0.08

	re- placing	for generator	dimension sketch	weight kg
	RGL 1004	RH 20	RGH 10—13	0.05
	RGL 1005*	RH 110	RGH 14	0.05
	RGL 1006	RH 200	RGH 50—51	0.04
	RGL 1007 RGL 1008	—	RGH 50—51 RGH 50—51	0.05
	RGL 1010	—	RGH 50—51	0.06
	RGL 1012	—	RGH 50—51	0.04

* For this crank there is required a shaft screw 190224, to be ordered separately

COG-WHEELS FOR MAGNETO GENERATORS

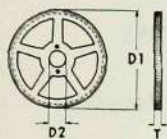
133617, 213575, 213935, 213997 Cog-wheels



133617

These cog-wheels are used in conjunction with generators *RGH 10–RGH 51*.

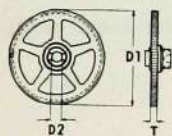
The cog-wheels are of white boiled brass.



213575

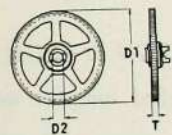
Fixing of cog-wheel *213575* requires two screws *G7 C10 J03*, to be ordered separately.

Dimensions: see table.



213935

	D1	D2	T	weight
	mm	mm	mm	kg
133617	42.9	6.02	5.5	0.033
213575	73	12	5	0.072
213935	73	8	5	0.088
213997	73	8	5	0.087



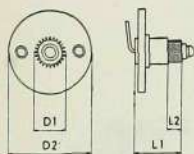
213997

141098, 213936, 213998 Toothed pinions

These pinions are used in conjunction with generators *RGH 10–RGH 51*.

141098 consists of pinion of iron and washer of nickel-plated brass. The pinion has a soldering tag for connection of the rotor winding.

213936 and *213998* are of white boiled brass.

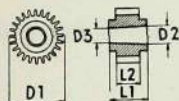


141098

Fixing of toothed pinion *141098* requires two screws *G6 F7 J03*.

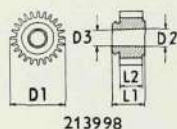
Fixing of pinion *213998* requires a washer *213999*.

Parts for fixing must be ordered separately.



213936

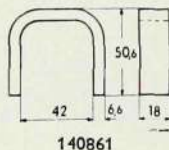
Dimensions: see table.



	D1	D2	D3	L1	L2	weight
	mm	mm	mm	mm	mm	kg
141098	9	34	—	18	6.5	0.020
213936	15.8	5.12	4.8	11	7	0.010
213998	15.8	5.12	4.8	9	7	0.009

MAGNETS FOR GENERATORS

140861, 213931/1—213931/3, Magnets



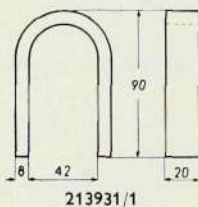
140861 is used on generators *RGH 50—RGH 51*.

The magnet is of black enamelled cobalt steel.

It is fixed by mounting plates.

Dimensions:

see sketch; weight 0.11 kg.



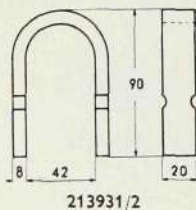
213931/1 is used on generators *RGH 10—RGH 13*.

The magnet is of black enamelled tungsten steel.

It is fixed to the generator by screws and washers.

Dimensions:

see sketch; weight 0.26 kg.



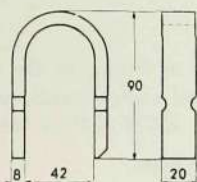
213931/2 is used on generators *RGH 14*.

The magnet is of black enamelled tungsten steel and has groove for fixing screw.

It is fixed to the generator by screws and washers.

Dimensions:

see sketch; weight 0.25 kg.



213931/3

213931/3 is used on generator *RGH 1402*.

The magnet is of black enamelled tungsten steel and has groove for fixing screw and is chamfered at one pole.

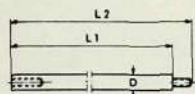
It is fixed to the generator by screws and washers.

Dimensions:

see sketch; weight 0.25 kg.

SHAFT EXTENSIONS ETC. FOR GENERATORS

140436/1, 140436/2 Shaft extensions



140436/1-2

These shaft extensions are used in manual switchboards where the generator is mounted at the back of the switchboard.

The shaft extensions are of nickel-plated steel. At one end they have a internal thread *G0* for the generator and at the other end a screwed extension for the generator crank.

A suitable guide-cap is *0-13280*.

Dimensions: see table.

	L1	L2	D	weight
	mm	mm	mm	kg
140436/1	350	360	9	0.17
140436/2	470	480	9	0.23

0-13280 Guide-cap

This guide cap is used in conjunction with shaft extensions *140436/1* and *140436/2*.

The cap is of nickel-plated brass.

Fixing requires two wood screws *Trsker No. 4-1/2"* *FS M21*, to be ordered separately.

Dimensions:

height 35 mm, width 18.5 mm, weight 0.023 kg.



0-13280



126195

126195 Protective washer

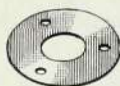
This protective washer is used as fitting to the hole for the generator crank manual switchboards, when generator of small model, e.g., *RGH 5021*, is used.

The washer is of nickel-plated brass.

Fixing requires three wood screws *Trskr No. 2- $\frac{3}{8}$ " FS M21*, to be ordered separately.

Dimensions :

diameter 29 mm, diameter of hole 12 mm, thickness 1 mm, weight 0.005 kg.



0-1851

0-1851 Protective washer

This protective washer is employed as fitting to the hole for the generator crank in manual switchboards, when generator of large model, e.g., *RGH 1001*, is used.

The washer is of nickel-plated brass.

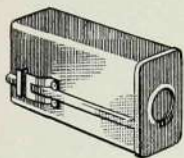
Fixing requires three wood screws *Trskr No. 4- $\frac{3}{8}$ " KS M21*, to be ordered separately.

Dimensions :

diameter 39 mm, diameter of hole 15 mm, thickness 1 mm, weight 0.01 kg.

TUNING FORK BUZZERS

Tuning fork buzzers RGN 21—RGN 23



RGN 21—RGN 23

The tuning fork buzzer, which is a buzzer generator with great reliability of operation and stability of frequency, is employed among other things in small automatic switchboards.

The buzzer consists of a tuning fork group with operating magnet mounted on an angle-iron. The tuning fork group has two shanks of steel insulated one from the other and from the angle-iron and enclosed by a pole piece fixed on the operating magnet. Each shank is furnished with a metal weight and a contact spring directed inwards. The two springs are fitted with contacts which touch when at rest. The contact thus formed is connected in series with a winding on the operating magnet.

When the operating magnet is energised the two shanks bend outwards, thus breaking the contact between the shanks. The operating winding being in series with the contact, then causes the tuning fork to vibrate. The buzzer tone is generated in a secondary winding on the operating magnet. By connection in parallel of the primary winding with a suitable condenser in series with a suitable resistance, good sinusoidal form is given to the secondary tension. By suitable dimensioning of the primary and secondary windings, the capacity taken out and the buzzer tension may be varied within a wide range for different operating voltages. The frequency is determined solely by the thickness of the shanks and the size of the weights attached to them.

The tuning fork buzzer is supplied with or without case. The case, which is normally aluminium enamelled, may be had either black enamelled or blued if so



ordered. The tuning fork buzzer, which is made for operating voltages up to 48 V, is divided according to frequency into three types:

RGN 21, for about 125 c/s;

RGN 22, for about 220 c/s;

RGN 23, for about 400 c/s.

The following particulars should be supplied with enquiries:

1. operating voltage (primary);
2. frequency;
3. buzzer voltage (secondary);
4. buzzer capacity required or nature of load;
5. to be made with or without case.

Dimensions:

length 115 mm, width 33 mm, height 51.5 mm,
weight about 0.33 kg.

POLE CHANGERS, POLE CHANGER FILTERS

POLE CHANGERS

RH 20002/24 Pole changer

This pole changer is employed in small telephone exchanges to convert D. C. to A. C. (ringing current).

Twenty bells of 1000 ohm resistance each may be connected to the pole changer, which is operated by a 24 V battery.

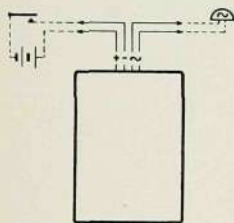
The instrument is fitted in a case of polished oak. Pole changers for other voltages may be supplied on request.

Dimensions:

height 300 mm, width 210 mm, depth 190 mm, weight 8.32 kg.



RH 20002/24



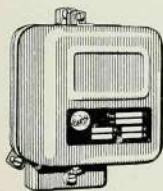
RH 20 002/24

POLE CHANGER FILTERS

RH 21100/24 Pole changer filter

This filter is intended for inserting between a pole changer RH 20002/24 and a 24 V battery.

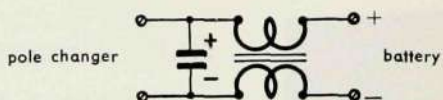
When pole changers are employed in a C. B. system, there occurs in the battery an intermittent voltage drop which causes noises in the telephones connected to the battery. The insertion of a filter RH 21100/24 between the battery and the pole changer will considerably attenuate these noises. The battery must be correctly connected at the poles, see diagram below.



RH 21100/24



The case, which is of enamelled sheet-iron, contains inductance coil, electrolytic condenser and terminal block of insulating material.



Dimensions:

height 158 mm, width 105 mm, depth 108 mm,
weight 1.35 kg.

CONDENSERS, CONDENSER HOLDERS

PAPER CONDENSERS

These condensers are employed in telephone exchanges, telephone instruments etc. They may also be used in tropical climates.

The condensers are enclosed in an aluminium coloured sheet-metal case and have soldering tags or cords for connection. One case can hold one or more condenser windings.

Some condensers have a screw bolt for fixing. On these condensers the capacity is given on the front. The letters **a**, **b**, **c** and **d** on the front correspond to **I**, **II**, **III** and **IV** on the condenser's soldering side.

Capacity tolerance :

The capacity does not deviate more than $\pm 10\%$ from the value marked.

Insulation :

The insulation between the covers after one minute's electrification at 100 V D.C. tension is not less than the value $RC = 200 \text{ megohm} \times \mu\text{F}$; the insulation between the covers and the case after one minute's electrification at 100 V D. C. tension is not less than 2000 megohm.

Test voltage :

The condensers will stand one minute of 500 V D.C. tension between the covers and 1000 V D.C. tension between the covers and the case without the electrical properties being altered.



RKA 1010—RKA 1446 Condensers

These condensers are used in manual and automatic exchanges etc.

The case which can hold up to four condenser cells has a screwbolt with thread G2 for fixing and soldering tags for connection.

Mounting requires a washer SCE 12301 and a nut 0-128, which are included.



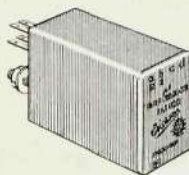
RKA 1010

RKA 1010—RKA 1040

Dimensions:

A 31 mm, B 44 mm, C 40.5 mm, D 55.5 mm, weight about 0.09 kg.

	replacing	capacity			
		a	b	c	d
RKA 1010	RI 148	μF 1/4	—	—	—
RKA 1020	—	1	1	—	—
RKA 1040	RI 291	1/4	1/4	1/4	1/4



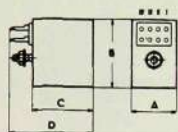
RKA 1120

RKA 1110—RKA 1142

Dimensions:

A 31 mm, B 44 mm, C 70.5 mm, D 85.5 mm, weight about 0.17 kg.

	replacing	capacity			
		a	b	c	d
RKA 1110	RI 596	μF 2	—	—	—
RKA 1111	RI 263	1	—	—	—
RKA 1112	RI 161	1/4	—	—	—
RKA 1120	RI 595	2	2	—	—
RKA 1121	RI 606	1	2	—	—
RKA 1122	—	1	1	—	—
RKA 1123	RI 114	1/4	1/4	—	—
RKA 1130	RI 288	1/4	1	1	—
RKA 1131	—	1/4	1/10	1/10	—
RKA 1140	RI 290	1	1	1/4	1/4



RKA 1010—RKA 1142

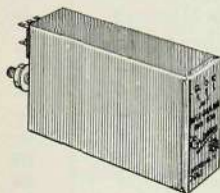
	replacing	capacity			
		a	b	c	d
RKA 1141	—	2	1/4	1/4	1/4
RKA 1142	—	1/2	1/2	1/2	1/2

RKA 1210—RKA 1230

These condensers may be insulated when fixing and this requires an insulating washer 211413, an insulating tube 0-15931 and an insulating washer SRB 12701 all to be ordered separately.

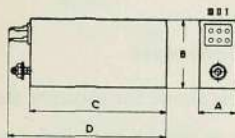
Dimensions:

A 24 mm, B 45.5 mm, C 90.5 mm, D 105.5 mm, weight about 0.18 kg.



RKA 1230

	replacing	capacity		
		a	b	c
RKA 1210	—	2	—	—
RKA 1220	RI 609	2	2	—
RKA 1221	RI 608	1	2	—
RKA 1222	RI 208	1/2	1/2	—
RKA 1230	RI 289	1	1	1



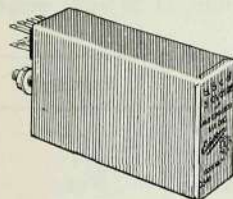
RKA 1210—RKA 1230

RKA 1310—RKA 1341

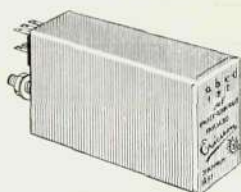
Dimensions:

A 28.3 mm, B 53.6 mm, C 97.5 mm, D 112.5 mm, weight about 0.23 kg.

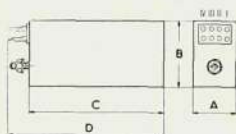
	replacing	capacity			
		a	b	c	d
RKA 1310	RI 591	2	—	—	—
RKA 1320	RI 593	2	2	—	—
RKA 1330	RI 603	1/4	2	2	—
RKA 1340	RI 610	1	1/2	1/2	1/4
RKA 1341	RI 589	2	2	1	1/10



RKA 1340



RKA 1430



RKA 1310—RKA 1446

RKA 1410—RKA 1446*

Dimensions:

A 31 mm, B 48.5 mm, C 97.5 mm, D 112.5 mm, weight about 0.22 kg.

	capacity			
	a	b	c	d
	μF	μF	μF	μF
RKA 1410	2	—	—	—
RKA 1420	2	2	—	—
RKA 1421	1	1	—	—
RKA 1422	1/4	1/4	—	—
RKA 1430	2	2	1	—
RKA 1440	2	2	1/4	1/4
RKA 1441	2	1	1	1/4
RKA 1442	1	1	1	1
RKA 1443	1	1	1/4	1/4
RKA 1444	1/4	1/4	1/4	1/4
RKA 1445	2	2	1	1/10
RKA 1446	2	1/4	1/4	1/4

* These condensers can be mounted in the same space as for relays RAB, RAC

RKA 7010—RKA 9920 Condensers

These condensers are used in telephone instruments etc.

RKA 7010—RKA 7220 have soldering tags for connection and RKA 9920 has cords. They are fixed with holders.

Holders recommended are 133593—218867/2 and 133804, 133488.



RKA 7011

RKA 7010, RKA 7012

Dimensions:

A 12 mm, B 43 mm, C 50 mm, D 59 mm, weight about 0.05 kg.

	replacing	capacity
		μF
RKA 7010	RI 260	1
RKA 7011	RI 205	1/2
RKA 7012	—	1/4



RKA 7120

RKA 7110—RKA 7121

Dimensions:

A 20 mm, B 43 mm, C 50 mm, D 59 mm, weight about 0.07 kg.

	replacing	capacity	
		C1	C2
RKA 7110	RI 654	μF 2	μF —
RKA 7120	RI 286	1	1
RKA 7121	RI 258	1	0.12



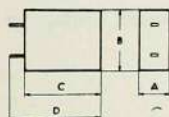
RKA 7220

RKA 7220—RKA 7222

Dimensions:

A 12 mm, B 65 mm, C 58 mm, D 67.5 mm, weight about 0.09 kg.

	replacing	capacity	
		C1	C2
RKA 7220	RI 248	μF 1	μF 1/4
RKA 7221	—	1/4	1/4
RKA 7222	—	1/2	1/2



RKA 7010—RKA 7222

RKA 9920

Dimensions:

length 70.3 mm, width 29.5 mm, depth 21 mm, length of cord 100 mm; weight about 0.08 kg.



RKA 9920

	replacing	capacity	
		I	II
RKA 9920	RI 292	μF 1	μF 1

ELECTROLYTIC CONDENSERS

These condensers, which are of the semi-dry type and designed for D. C., are used in automatic exchanges etc.

The condensers are enclosed in an aluminium coloured case and have two soldering tags and one screw-bolt with thread G2 for fixing. The condenser must be connected correctly at the poles, so the soldering tags are marked with the - and + signs, the latter in a red ground.

Mounting requires a washer SCE 12301 and a nut 0-128, which are included.

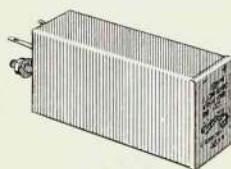
Capacity tolerance:

the capacity does not deviate more than $\begin{matrix} + 100 \% \\ - 5 \% \end{matrix}$ of the value marked.

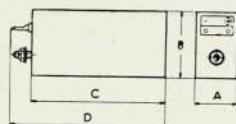
Dielectric losses:

the dielectric losses are in general higher than with paper condensers though in normal cases they are insignificant.

The leakage current measured at $+20^{\circ}\text{C}$ after one minute's connection to the indicated voltage is not more than $0.05\text{ mA}/\mu\text{F}$.



RKG 1002



RKG 1001—RKG 1006

RKG 1001—RKG 1006 Condensers

Dimensions:

A 31 mm, B 48.5 mm, C 97.5 mm, D 112.5 mm, weight about 0.24 kg.

	rated voltage	capacity	operating voltage
	V	μF	V
RKG 1001	35	200	24
RKG 1002	45	150	36
RKG 1003	55	100	48
RKG 1004	55	50	48
RKG 1005	35	25	24
RKG 1006	45	25	36

CONDENSER HOLDERS

133593, 138321, 218867/1, 218867/2 Holders

These holders are employed for fixing condensers *RKA 70* and *RKA 71*.

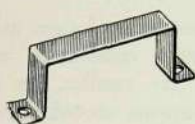
The holders are of black enamelled sheet-iron and have two fixing holes.

133593 and *138321* fit the width of the condenser.

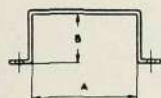
218867/1 and *218867/2* fit the condenser's length.

Fixing screws are to be ordered separately.

Dimensions: see table.



138321



133593—218867/2

	for condenser	A	B	dia-meter of hole	weight
		mm	mm	mm	kg
133593	RKA 70	43.2	11.8	3	0.008
138321	RKA 71	43.2	19.8	3	0.039
218867/1	RKA 70	50.5	11.5	3.4	0.011
218867/2	RKA 71	50.5	19.5	3.4	0.012

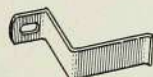
133804, 133488 Holders

These condenser holders are employed for fixing condensers *RKA 70*—*RKA 72*.

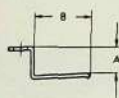
The holders are of grey enamelled sheet-iron and have an oval fixing hole 3.5×5.75 mm.

Fixing screw is to be ordered separately.

Dimensions: see table.



133488



133804, 133488

	for condenser	A	B	weight
		mm	mm	kg
133804	RKA 70, RKA 72	11.5	25	0.003
133488	RKA 71	19.5	25	0.004



Filling-up block

Filling-up blocks for condensers

In certain telephone instruments of older construction condensers with $112 \times 43 \times 25$ mm external dimensions are used.

Condensers with these dimensions are no longer made but have been replaced by new condensers, e.g., *RKA 7010*—*RKA 7110*, which are smaller. As the condensers in these older instruments served also as foundation for the instrument's induction coil it is necessary, when replacing by one of the newer condensers, that a filling-up block should be used.

With orders for condensers *RKA 7010*, *RKA 7011* and *RKA 7110* the filling block is delivered on request.

Dimensions:

length 112 mm, width 43 mm, thickness 25 mm, weight 0.05 kg.

TELEPHONE HANDSETS RECEIVERS, LARYNGOPHONES ETC.

TRANSMITTER INSETS

RLA 1001—RLA 1004 Transmitter insets



RLA 1001—RLA 1004

These transmitter insets are not used nowadays in conjunction with bakelite handsets *RLF 1001*, *RLF 1003* etc. They are only delivered as spare part for the oldest type of handsets which have insets.

The case and the protective cap are of white boiled brass. The microphone carbon and the carbon diaphragm are polished. The carbon filling consists of carbon granule.

Dimensions :

diameter 51.5 mm, thickness of case 12.5 mm, weight 0.044 kg.

	replacing	carbon	rated resistance
			ohm
RLA 1001	RC 4000/200	RLY 1325	200
RLA 1002	—	RLY 1315	100
RLA 1003	—	RLY 1310	60
RLA 1004	RC 4000/40	RLY 1306	40

RLA 1201 Transmitter inset for manager's telephone



RLA 1201

This transmitter inset is specially designed for manager's telephone plants.

The inset case and cap are of white boiled brass. The transmitter carbon and the carbon diaphragm are

polished. The carbon filling consists of carbon balls, and the rated resistance is 40 ohm.

Dimensions:

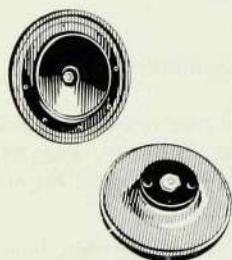
diameter 51.5 mm, thickness of case 12.5 mm, weight 0.44 kg.

RLA 1604—RLA 1712 Transmitter insets

These transmitter insets have plunger electrodes, by means of which current interruption in the inset is avoided. They can also be employed in tropical climates.

The inset frame and the protective cover are of white boiled brass. The inset frame has detachable carbon chamber of pressed material. The carbon filling consists of granules. The diaphragm is of metal.

For changing the carbon granules there is a special tool *LTD 1001* and a carbon granule filler *LTS 1001*, see page 335.



RLA 1604—RLA 1612

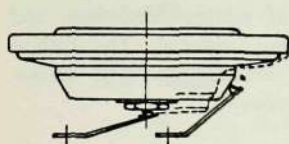
RLA 1604—RLA 1612 are intended for bakelite *RLF 1001*, *RLF 1001 T*, *RLF 1002* etc.

They replace the star insets type *RLA 10*, *RLA 14*, hitherto used.

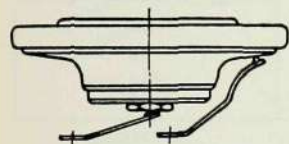
Dimensions:

diameter 51.7 mm, thickness of case 17.7 mm, weight 0.053 kg.

	carbon	intended for	replacing designation	old transmitter	
				carbon	indicated resistance
RLA 1604	RLY 1304	LB	RLA 1004 (RC 4000/40) RLA 1404	RLY 1306	40
RLA 1606	RLY 1306	—	RLA 1003 RLA 1403	RLY 1310	60
RLA 1610	RLY 1310	—	RLA 1002 RLA 1402	RLY 1315	100
RLA 1612	RLY 1320	CB	RLA 1001 (RC 4000/200) RLA 1401	RLY 1325	200



RLA 10, RLA 14 with old side springs. Outline of RLA 16 dotted in.



RLA 16 with side springs 253060 or 253061

The dimensions of the new inset *RLA 16* differ somewhat from those of the old one. Notwithstanding this the new inset may be used in bakelite handsets, but the side spring of the terminal block must then be changed. Suitable springs are :

253060, for handset without key ;

253061, for handset with key.

If the required spring is not available, the existing spring can be bent up so that a proper contact with the transmitter inset cap is obtained.

RLA 1704—RLA 1712 are of particularly light type. They are designed for headsets *RLF 2001, RLF 2002* etc.

They have inset frame and protective cap in aluminium and are provided with two threaded pins for the connection of the connection cord. Otherwise these insets are made the same as type *RLA 16*.

Dimensions :

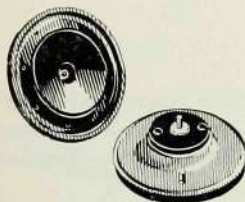
diameter 51.7 mm, thickness of case 17.7 mm, weight 0.023 kg.



253060



253061



RLA 1704—RLA 1712

	carbon	designed for
RLA 1704	RLY 1304	LB
RLA 1706	RLY 1306	—
RLA 1710	RLY 1310	—
RLA 1712	RLY 1320	CB

RLA 8001—RLA 8003 Transmitter insets for laryngophones



RLA 8001—RLA 8003

These transmitter insets are specially designed for laryngophones *RLB 8001* and laryngophones *RLH 1001* etc.



The transmitter case is of white boiled brass and the cap of black insulating material. The carbon electrodes are of special construction. The carbon filling consists of carbon granules.

Dimensions:

diameter 34 mm, thickness 18 mm, weight 0.02 kg.

	rated resistance
	ohm
RLA 8001	40
RLA 8002	200
RLA 8003	60

RLA 8101 Transmitter inset for laryngophones



RLA 8101

This transmitter inset is used in conjunction with laryngophones *RLB 8101* and *RLB 8102*.

The inset case is of aluminium. The carbon electrodes are of special construction. The carbon filling consists of carbon granules and the rated resistance is 40 ohm.

Dimensions:

diameter 21 mm, thickness 11.5 mm, weight 0.008 kg.

LARYNGOPHONES

Laryngophones are used in places where there is such loud noise that conversation with normal telephones cannot be carried on. They are intended to be combined with telephone receivers.

The laryngophones are equipped with one or two special insets, which are lightly pressed against the larynx. When speaking the larynx vibrations are transmitted direct to the microphone diaphragm, which is not affected by extraneous noise.

The speech is reproduced purely and clearly. The laryngophone insets are fitted in a bakelite case and are exchangeable. Some of the laryngophones are furnished with two-conductor fully vulcanized rubber cord.



RLB 8001

RLB 8001—RLB 8020 Laryngophones, single

RLB 8001 has adjustable elastic strap, inset *RLA 8001*, 40 ohm, but is without cord.

Weight 0.05 kg.



RLB 8010

RLB 8010 has adjustable elastic strap, inset *RLA 8001*, 40 ohm, cord *TRS 3202*, 2500 mm, with a cast-in plug, 6.3 mm, to fit tappings *PR 501*, *PR 520*.

Weight 0.15 kg.



RLB 8011

RLB 8011 has adjustable elastic strap, inset *RLA 8001*, 40 ohm, cord *TRS 3203*, 560 mm, with two connection eyes.

Weight 0.07 kg.



RLB 8020

RLB 8020 has spring throat clip, diameter about 105 mm, inset *RLA 8001*, 40 ohm, cord *TRS 3219*, 800 mm, with two connection eyes.

Weight 0.1 kg.



RLB 8101

RLB 8101, RLB 8102 Laryngophones, double

These laryngophones have adjustable leather strap on which are fitted two insets connected in series. The connecting cord between the insets has the designation 240435/1.

RLB 8101 has insets *RLA 8101*, 40 ohm, cord *TRS 3212*, 1530 mm, with a cast-in plug with banana contacts. Distance between contact points is 15 mm.

Weight 0.15 kg.



RLB 8102

RLB 8102 has insets *RLA 8101*, 40 ohm, cord *TRS 3218*, 1530 mm, with bright wire ends for connecting.

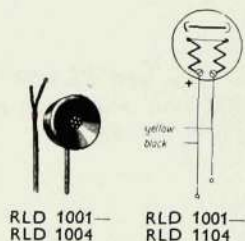
Weight 0.11 kg.



RECEIVERS

RLD 1001—RLD 1004 Receivers

(RLD 1001 replaces RD 305/01)



RLD 1001—
RLD 1004

RLD 1001—
RLD 1104

These receivers are used as extra receivers in conjunction with bakelit table instruments. They may be used in tropical climates if equipped with vulcanized cord. Those receivers which are normally equipped with rubber tube cords retain these also in tropical execution. The letter *T* after the designation, e.g., *RLD 1001 T*, indicate tropical execution, see table.

The receivers are of bakelite, in three different colours, see table. The cord is fitted with connection eyes.

A suitable cradle for fixing to the table instrument is *RLY 1005*.

Dimensions:

diameter 66 mm, depth 37 mm, weight about 0.2 kg.



RLD 1001, mounted

	colour	receiver inset		receiver cap*	c o r d		
		designation	resistance		designation	number of conductors	length
RLD 1001	black	RLD 5002	120	0—14965	TRS 1201	2	1250
RLD 1001 T					TRS 5201		
RLD 1002	mahogany	RLD 5002	120	0—14965	TRS 1201	2	1250
RLD 1002 T					TRS 5201		
RLD 1003	white	RLD 5002	120	0—14965	TRS 2203	2	1250
RLD 1003 T					TRS 2203		
RLD 1004	black	RLD 5002	120	0—14965	TRS 2204	2	380
RLD 1004 T					TRS 2204		

* Colour desired to be stated when ordering

RLD 1101—RLD 1104 Receivers with suspension eye

(RLD 1101 replaces RD 315/01)



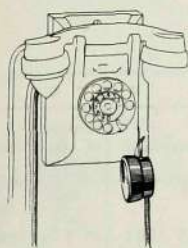
RLD 1101—RLD 1104

These receivers, which have suspension eye, are used as extra receivers in conjunction with bakelite wall instruments. They may be used in tropical climates if equipped with vulcanized cord. Those receivers which are normally equipped with rubber tube cords retain these also in tropical execution. The letter *T* after the designation, e.g., *RLD 1101 T*, indicates tropical execution, see table.

The receivers are of bakelite with suspension eye 138471 of nickel-plated brass. Some of the receivers have rubber pad, the object of which is to exclude disturbing noise. The cord is furnished with connection eyes. Suitable hook for hanging to wall instrument is *RLY 1004*.

Dimensions :

diameter 66 mm, depth 37 mm, depth with rubber pad 42 mm, weight about 0.21 kg.



RLD 1101, mounted

Diagram, see page 142.

	colour	receiver inset		receiver cap	c o r d		
		designation	resistance		designation	number of conductors	length
RLD 1101	black	RLD 5002	120	0—14965	TRS 1201	2	1250
RLD 1101 T					TRS 5201		
RLD 1102	black	RLD 5002	120	214157*	TRS 2202	2	1500
RLD 1102 T					TRS 2202		
RLD 1103	black	RLD 5002	120	214157*	TRS 3215	2	1250
RLD 1103 T					TRS 3215		
RLD 1104	black	RLD 5002	120	0—14965	TRS 1206	2	1500
RLD 1104 T					TRS 5206		

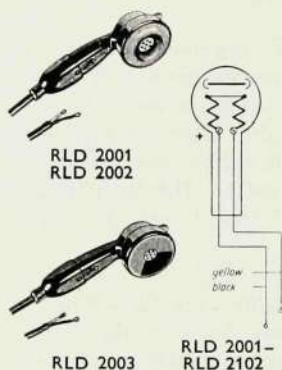
* With rubber pad



RLD 2001—RLD 2003 Receivers with handle and support end

These receivers, which have a special support piece, are used as extra receivers on ships telephone instruments, e.g., *DGT 2101*.

The receivers are of bakelite and some of the receiver caps have rubber pad to exclude disturbing noise. They have rubber cords with connection eyes. The cord lead-in is furnished with watertight screw cap.



Dimensions :

length 186 mm, width 66 mm, depth for *RLD 2001*, *RLD 2002*, 70 mm, depth for *RLD 2003*, 65 mm, weight about 0.43 kg.

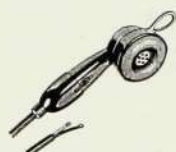
	colour	receiver inset		receiver cap	c o r d		
		designation	resistance		designation	number of conductors	length
				ohm			mm
RLD 2001	black	RLD 5001	40	214157 *	TRS 2201	2	1500
RLD 2002	black	RLD 5002	120	214157 *	TRS 2201	2	1500
RLD 2003	black	RLD 5002	120	0—14965	TRS 2201	2	1500

* With rubber pad

RLD 2101, RLD 2102 Receivers with handle and suspension eye

(replacing *RD 210* and *RD 220*)

These receivers differ from *RLD 2001—RLD 2002* only in that they have suspension eye instead of support end. They are employed in conjunction with telephone instruments, e.g., *DAS 1101*.



RLD 2101, RLD 2102

Dimensions :

length 213 mm, width 66 mm, depth 70 mm, weight 0.45 kg.

Diagram, see above.

	colour	receiver inset		receiver cap	c o r d		
		designation	resistance		designation	number of conductors	length
RLD 2101	black	RLD 5001	40 ohm	21 4157*	TRS 2201	2	1500 mm
RLD 2102	black	RLD 5002	120	21 4157*	TRS 2201	2	1500

* With rubber pad

RLD 3101, RLD 3102 Receivers, single, with head-strap

These receivers are used as extra receivers on field telephone instruments etc.



RLD 3101

The receivers have case of black bakelite with cast-in magnet coils, receiver cap 220890 with rubber pad 214456 and receiver diaphragm 180683. They are extra light and are affixed to the head by two adjustable straps of chrome leather, and are equipped with two-conductor vulcanized rubber cord.

RLD 3101 has 120 ohm resistance. It has cord *TRS 3205*, 1000 mm, with cast-in connecting pin to fit the jack case in plug *RPT 5141*, length of connection tip 17 mm and diameter 3.9 mm.

Weight 0.15 kg.

RLD 3102 has 120 ohm resistance. It has cord *TRS 3211*, 1025 mm, with connection eyes.

Weight 0.14 kg.



RLD 3102



RLD 3101, RLD 3102, RLD 3301

RLD 3301 Receiver, single, with head band



RLD 3301

This receiver is of light-weight type and intended for use as extra receiver. It can also be used in tropical climates. It has a spring head band of surface finished aluminium.

The receiver case is in black bakelite and the receiver coils, which are fixed, have a resistance of 120 (2×60) ohms.

The receiver diaphragm has designation 180683 and the receiver cap 220890.

Rubber pad 214456 fits the cap and serves to exclude disturbing noise.

The receiver cord is a two-conductor cord, with designation TRS 5201, length of cord 420 mm. The cord has black braiding of mercerized cotton yarn. For connection the cord is provided with connecting eyes.

Weight 0.14 kg.

Diagram, see page 145.

RLD 3401—RLD 3404 Receivers, double

These receivers are used as extra receivers, radio receivers etc.

They have receiver cases in black bakelite with magnet coils cast in, receiver cap 220890 and receiver diaphragm 180683. The receivers, which are light weight, are attached to the head by a spring band of surface finished steel. The receiver cases are adjustable so that they can be comfortably fitted to the ears. The two receiver cases are connected in series and connected to a two-conductor cord.

Rubber pad 214456 fits the cap and serves to exclude extraneous noise.

RLD 3401 has 2×120 ohm resistance
(replacing *RF 1340*)

It has vulcanized cord *TRS 3206*, 1350 mm, with cast-in plug having two contact pins. Length of contact pin 20 mm and diameter 4 mm, distance between pins 15 mm.

Weight 0.26 kg.

RLD 3402 has 2×120 ohm resistance.
(replacing *RF 1344*)

It has cord with black mercerized cotton braiding *TRS 6201*, 1350 mm, with two contact pins. Diameter of contact pins 1.5 mm.

Weight 0.2 kg.

RLD 3403 has 2×2000 ohm resistance.
(replacing *RF 1333*)

It has vulcanized cord *TRS 3207*, 1350 mm, with cast-in two-pole plug to fit *PR 501*, *PR 520*.

Weight 0.27 kg.

RLD 3404 has 2×2000 ohm resistance.
(replacing *RF 1341*)

It has cord with black mercerized cotton braiding, *TRS 6201*, 1350 mm, with two contact pins. Diameter of contact pins 1.5 mm.

Weight 0.2 kg.



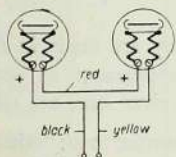
RLD 3401



RLD 3402, RLD 3404



RLD 3403



RLD 3401—RLD 3404



RECEIVER INSETS

RLD 5001—RLD 5005 Receiver insets



RLD 5001—RLD 5005

These receiver insets are used in handsets and extra receivers of bakelite.

The inset case is of white boiled brass with diaphragm 180683 of special alloy sheet-metal. The magnet 302222/1, which is of cobalt steel, is attached to the back of the case. The coil frames are of bakelite.

Fixing requires two screws G3 C10 M05, to be ordered separately.

Dimensions:

diameter 56 mm, depth 25 mm, weight 0.1 kg.

	replacing	coils	resistance
			ohm
RLD 5001	RD 4000/40	RCM 10102	40(2×20)
RLD 5002	RD 4000/120	RCM 10101	120(2×60)
RLD 5003	—	RCM 10104	2000(2×1000)
RLD 5004	—	RCM 10103	2400(2×1200)
RLD 5005	—	RCM 10105	60(2×30)

HANDSETS

RLD 1001—RLF 1034 Handsets



RLF 1001

These handsets are used in conjunction with telephone instruments etc. They may be used in tropical climates if they are equipped with vulcanized cord TRS 53—TRS 54. Those handsets that are normally equipped with rubber cords TRS 23—TRS 34 retain these also in tropical execution. The letter *T* after the designation, e.g., RLF 1001 *T*, indicates tropical execution, see table.

The handsets are of bakelite. They are made in three different colours and differ in appearance in respect of cords, transmitter cap and receiver cap, see tables.

There are two kinds of transmitter cap: with or without funnel. Some of the receiver caps have rubber



RLF 1007



RLF 1018

pad, the object of which is to exclude disturbing noise. The cords have connecting eyes.

Dimensions:

length 233 mm, width 66 mm, depth: with cap 80 mm, with funnel 100 mm; weight about 0.52 kg.

The handsets have transmitter cap, transmitter ring and receiver cap in accordance with table below; colour desired must be stated with order.

	transmitter cap	transmitter ring	receiver cap
RLF 1001, 1003, 1005	180717	180718	0-14965
RLF 1007, 1009, 1011	138021	180718	0-14965
RLF 1012, 1013	180717	180718	0-14965
RLF 1014, 1016, 1017	138021	180718	0-14965
RLF 1018	180717	180718	214157 *
RLF 1019, 1020, 1022, 1024	180717	180718	0-14965
RLF 1026, 1027	138021	180718	0-14965
RLF 1028	180717	180718	214157 *
RLF 1030, 1032	180717	180718	0-14965
RLF 1034	138021	180718	0-14965

* With rubber pad

For other parts, see following table. Diagram, see page 158.

	replacing	colour	dia-gram	transmitter set		receiver inset		c o r d		
				desig-nation	re-sist-ance	desig-nation	re-sist-ance	desig-nation	number of con-ductors	length
RLF 1001	RE 1041	black	1	RLA 1612	200	RLD 5002	120	TRS 1302	3	1250
RLF 1001 T								TRS 5302		
RLF 1003	—	maho-gany	1	RLA 1612	200	RLD 5002	120	TRS 1302	3	1250
RLF 1003 T								TRS 5302		
RLF 1005	—	white	1	RLA 1612	200	RLD 5002	120	TRS 2302	3	1250
RLF 1005 T								TRS 2302		
RLF 1007	RE 1037	black	1	RLA 1612	200	RLD 5002	120	TRS 1302	3	1250
RLF 1007 T								TRS 5302		
RLF 1009	—	maho-gany	1	RLA 1612	200	RLD 5002	120	TRS 1302	3	1250
RLF 1009 T								TRS 5302		



	replacing	colour	dia-gram	transmitter inset		receiver inset		c o r d		
				desig-nation	re-sist-ance	desig-nation	re-sist-ance	desig-nation	num-ber of con-ductors	length
RLF 1011 RLF 1011 T	—	white	1	RLA 1612	200	RLD 5002	120	TRS 2302 TRS 2302	3	1250
RLF 1012 RLF 1012 T	RE 1040	black	1	RLA 1604	40	RLD 5002	120	TRS 1302 TRS 5302	3	1250
RLF 1013 RLF 1013 T	RE 1017	black	1	RLA 1612	200	RLD 5002	120	TRS 2301 TRS 2301	3	1500
RLF 1014 RLF 1014 T	RE 1036	black	1	RLA 1604	40	RLD 5002	120	TRS 1302 TRS 5302	3	1250
RLF 1016 RLF 1016 T	RE 1006	black	1	RLA 1604	40	RLD 5001	40	TRS 4301 TRS 4301	3	1000
RLF 1017 RLF 1017 T	—	black	1	RLA 1612	200	RLD 5002	120	TRS 4301 TRS 4301	3	1000
RLF 1018 RLF 1018 T	RE 1048	black	1	RLA 1604	40	RLD 5001	40	TRS 2301 TRS 2301	3	1500
RLF 1019 RLF 1019 T	—	black	3	RLA 1612	200	RLD 5002	120	TRS 1404 TRS 5404	4	1250
RLF 1020 RLF 1020 T	RE 1044	black	3	RLA 1604	40	RLD 5002	120	TRS 1404 TRS 5404	4	1250
RLF 1022 RLF 1022 T	RE 1042	black	2	RLA 1604	40	RLD 5002	120	TRS 1401 TRS 5401	4	1250
RLF 1024 RLF 1024 T	RE 1060	black	2	RLA 1604	40	RLD 5004	2400	TRS 1401 TRS 5401	4	1250
RLF 1026 RLF 1026 T	—	black	2	RLA 1604	40	RLD 5002	120	TRS 2401 TRS 2401	4	450
RLF 1027 RLF 1027 T	—	black	1	RLA 1612	200	RLD 5002	120	TRS 2303 TRS 2303	3	450
RLF 1028 RLF 1028 T	—	black	1	RLA 1604	40	RLD 5002	120	TRS 2301 TRS 2301	3	1500
RLF 1030 RLF 1030 T	RE 1046	black	1	RLA 1604	40	RLD 5001	40	TRS 1302 TRS 5302	3	1250
RLF 1032 RLF 1032 T	—	black	3	RLA 1604	40	RLD 5002	120	TRS 1402 TRS 5402	4	1250
RLF 1034 RLF 1034 T	—	black	2	RLA 1604	40	RLD 5002	120	TRS 1401 TRS 5401	4	1250

RLF 1052—RLF 1053 Handsets with four-pole plug



RLF 1052, RLF 1053

These handsets resemble *RLF 1001* in appearance, but have a four pole plug *RPT 5042* instead of connection eyes. For general description, see *RLF 1001—RLF 1034*.

They have transmitter cap *180717*, transmitter ring *180718* and receiver cap *0-14965*.

For other parts, see following table. Diagram, see page 158.

	replacing	colour	dia-gram	transmitter inset		receiver inset		c o r d		
				desig-nation	re-sist-ance	desig-nation	re-sist-ance	desig-nation	num-ber of con-ductors	length
					ohm		ohm			mm
RLF 1052	RE 1034	black	4	RLA 1604	40	RLD 5002	120	TRS 1402	4	1250
RLF 1052 T								TRS 5402		
RLF 1053	RE 1035	black	4	RLA 1612	200	RLD 5002	120	TRS 1402	4	1250
RLF 1053 T								TRS 5402		

RLF 1071—RLF 1091 Handsets

These handsets resemble *RLF 1001* in appearance but they have a transmitter resistance suited to telephone instruments connected to other telephone systems than those of L M Ericsson.

For general description, see *RLF 1001—RLF 1034*.

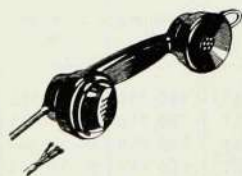
They have transmitter cap, transmitter ring and receiver cap according to table below; colour desired must be stated with order.

	transmitter cap	transmitter ring	receiver cap
RLF 1071, 1073, 1075	180 717	180 718	0-14 965
RLF 1076, 1078, 1080	180 717	180 718	0-14 965
RLF 1081, 1083, 1085	138 021	180 718	0-14 965
RLF 1086, 1088, 1090	138 021	180 718	0-14 965
RLF 1091	138 021	180 718	0-14 965



For other parts, see following table. Diagram, see page 158.

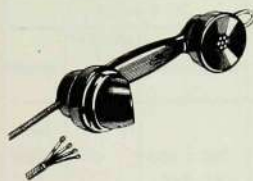
	replacing	colour	dia-gram	transmitter set		receiver inset		c o r d		
				desig-nation	re-sist-ance	desig-nation	re-sist-ance	desig-nation	num-ber of con-duc-tors	length
					ohm		ohm			mm
RLF 1071	RLF 10×04	black	1	RLA 1610	100	RLD 5002	120	TRS 1302	3	1250
RLF 1071 T	RLF 10×30							TRS 5302		
RLF 1073	RLF 10×43	maho-gany	1	RLA 1610	100	RLD 5002	120	TRS 1302	3	1250
RLF 1073 T	RLF 10×67							TRS 5302		
RLF 1075	RLF 10×44	white	1	RLA 1610	100	RLD 5002	120	TRS 2302	3	1250
RLF 1076	RLF 10×11	black	1	RLA 1606	60	RLD 5002	120	TRS 1302	3	1250
RLF 1076 T	RLF 10×21							TRS 5302		
RLF 1078	RLF 10×24	maho-gany	1	RLA 1606	60	RLD 5002	120	TRS 1302	3	1250
RLF 1078 T	RLF 10×24 T							TRS 5302		
RLF 1080	RLF 10×14	white	1	RLA 1606	60	RLD 5002	120	TRS 2302	3	1250
RLF 1081	RLF 10×12	black	1	RLA 1610	100	RLD 5002	120	TRS 1302	3	1250
RLF 1081 T	—							TRS 5302		
RLF 1083	RLF 10×70	maho-gany	1	RLA 1610	100	RLD 5002	120	TRS 1302	3	1250
RLF 1083 T	—							TRS 5302		
RLF 1085	—	white	1	RLA 1610	100	RLD 5002	120	TRS 2302	3	1250
RLF 1086	RLF 10×15	black	1	RLA 1606	60	RLD 5002	120	TRS 1302	3	1250
RLF 1086 T	RLF 10×45							TRS 5302		
RLF 1088	RLF 10×13	maho-gany	1	RLA 1606	60	RLD 5002	120	TRS 1302	3	1250
RLF 1088 T	RLF 10×35							TRS 5302		
RLF 1090	—	white	1	RLA 1606	60	RLD 5002	120	TRS 2302	3	1250
RLF 1091	—	black	1	RLA 1610	100	RLD 5001	40	TRS 1302	3	1250
RLF 1091 T	—							TRS 5302		



RLF 1101, RLF 1102

RLF 1101—RLF 1107 Handsets with suspension eyes

These handsets resemble *RLF 1001* in appearance but have suspension eyes. For general description, see *RLF 1001—RLF 1034*.



RLF 1104—RLF 1107

They have transmitter cap, transmitter ring and receiver cap according to table below.

	transmitter cap	transmitter ring	receiver cap
RLF 1101, 1102	138021	180718	0—14965
RLF 1104, 1106, 1107	180717	180718	0—14965

For other parts, see following table. Diagram, see page 158.

	replacing	colour	dia-gram	transmitter inset		receiver inset		c o r d		
				designa-tion	re-sis-tance	designa-tion	re-sis-tance	designa-tion	num-ber of con-duc-tors	length
RLF 1101	RE 4037	black	1	RLA 1612	ohm	RLD 5002	ohm	TRS 1302	3	1250
RLF 1101 T								TRS 5302		
RLF 1102	RE 4036	black	1	RLA 1604	40	RLD 5002	120	TRS 1302	3	1250
RLF 1102 T								TRS 5302		
RLF 1104	RE 4032	black	2	RLA 1604	40	RLD 5002	120	TRS 1401	4	1250
RLF 1104 T								TRS 5401		
RLF 1106	RE 4034	black	3	RLA 1604	40	RLD 5002	120	TRS 1402	4	1250
RLF 1106 T								TRS 5402		
RLF 1107	RE 4035	black	3	RLA 1612	200	RLD 5002	120	TRS 1402	4	1250
RLF 1107 T								TRS 5402		

RLF 1152 Handset with suspension eye and four-pole plug



RLF 1152

This handset resembles *RLF 1001* in appearance but has suspension eye and four-pole plug *RPT 5042*. For general description, see *RLF 1001—RLF 1034*.

It has transmitter cap 180717, transmitter ring 180718 and receiver cap 0-14965.

For other parts, see following table. Diagram, see page 158.



	colour	dia-gram	transmitter inset		receiver inset		c o r d		
			designa-tion	resist-ance	designa-tion	resist-ance	designa-tion	number of conduc-tors	length
				ohm		ohm			mm
RLF 1152	black	4	RLA 1604	40	RLD 5002	120	TRS 1402	4	1250
RLF 1152 T							TRS 5402		



RLF 1201

RLF 1201—RLF 1214 Handsets with key

These handsets resemble *RLF 1001* in appearance but have a key with make or break contacts, see diagrams. For general description, see *RLF 1001—RLF 1034*.



RLF 1206

They have transmitter cap, transmitter ring and receiver cap according to table below.

	transmitter cap	transmitter ring	receiver cap
RLF 1201, 1202, 1204	138021	180718	0—14965
RLF 1206	180717	180718	0—14965
RLF 1208, 1210	138021	180718	0—14965
RLF 1212	180717	180718	0—14965
RLF 1214	138021	180718	214157*

* With rubber pad



RLF 1214

For other parts, see following table. Diagram, see page 158.

	colour	dia-gram	transmitter inset		receiver inset		c o r d		
			designa-tion	resist-ance	designa-tion	resist-ance	designa-tion	number of conduc-tors	length
				ohm		ohm			mm
RLF 1201	black	10	RLA 1612	200	RLD 5002	120	TRS 1402	4	1250
RLF 1201 T							TRS 5402		
RLF 1202	black	7	RLA 1604	40	RLD 5002	120	TRS 3301	3	1025
RLF 1202 T							TRS 3301		

	colour	dia-gram	transmitter inset		receiver inset		c o r d		
			designation	resist-ance	designation	resist-ance	designation	number of conductors	length
RLF 1204	black	9	RLA 1604	40	RLD 5002	120	TRS 3402	4	1025
RLF 1204 T							TRS 3402		
RLF 1206	black	6	RLA 1604	40	RLD 5002	120	TRS 1302	3	1250
RLF 1206 T							TRS 5302		
RLF 1208	black	13	RLA 1604	40	RLD 5002	120	TRS 3402	4	1025
RLF 1208 T							TRS 3402		
RLF 1210	black	5	RLA 1604	40	RLD 5001	40	TRS 1202	2	1250
RLF 1210 T							TRS 5202		
RLF 1212	black	9	RLA 1604	40	RLD 5002	120	TRS 1402	4	1250
RLF 1212 T							TRS 5402		
RLF 1214	black	13	RLA 1604	40	RLD 5002	120	TRS 3402	4	1025
RLF 1214 T							TRS 3402		

RLF 1252, RLF 1254 Handsets with key and four-pole plug



RLF 1252

These handsets resemble *RLF 1001* in appearance but have a key with make contact and four-pole plug *RPT 5141*, see diagrams.

For general description, see *RLF 1001*—*RLF 1034*.

They have transmitter cap, transmitter ring and receiver cap according to table below.



RLF 1254

	transmitter cap	transmitter ring	receiver cap
RLF 1252	138021	180718	214157 *
RLF 1254	138021	180718	0-14965

* With rubber pad

For other parts, see following table. Diagram, see page 158.

	colour	dia-gram	transmitter inset		receiver inset		c o r d		
			designa-tion	resist-ance	designa-tion	resist-ance	designa-tion	num-ber of conduc-tors	length
				ohm		ohm			mm
RLF 1252 RLF 1252 T	black	11	RLA 1604	40	RLD 5002	120	TRS 3401 TRS 3401	4	1025
RLF 1254 RLF 1254 T	black	12	RLA 1604	40	RLD 5002	120	TRS 3401 TRS 3401	4	1025

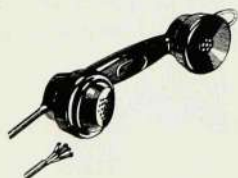
RLF 1302, RLF 1303 Handsets with suspension eye and key

These handsets resemble *RLF 1001* in appearance but have suspension eye and key with one make contact. For general description, see *RLF 1001 - RLF 1034*.

They have transmitter cap, transmitter ring and receiver cap according to table below.



RLF 1302



RLF 1303

	transmitter cap	transmitter ring	receiver cap
RLF 1302	180717	180718	0-14965
RLF 1303	138021	180718	0-14965

For other parts, see following table. Diagram, see page 158.

	replacing	colour	dia-gram	transmitter inset		receiver inset		c o r d		
				designa-tion	resist-ance	designa-tion	resist-ance	designa-tion	num-ber of conduc-tors	length
					ohm		ohm			mm
RLF 1302 RLF 1302 T	RLF 13×03 —	black	8	RLA 1604	40	RLD 5002	120	TRS 1401 TRS 5401	4	1250
RLF 1303 RLF 1303 T	RLF 13×06 —	black	9	RLA 1612	200	RLD 5002	120	TRS 1402 TRS 5402	4	1250

RLF 1401 Handset with key and dial for tests



RLF 1401

These handsets are used by fitters and exchange staff for test and line work.

The handset has a key with a make in the handle, and a dial *RGA 1010* on the back of the transmitter case. It is equipped with condenser and has rubber tube cord with crocodile clamps for connection. The handset can be supplied with leather case, receiving then the designation *DPC 1001*.

It has transmitter cap *138021*, transmitter ring *180718* and receiver cap *0-14965*.

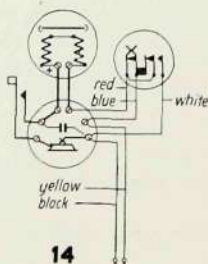
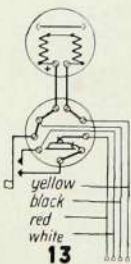
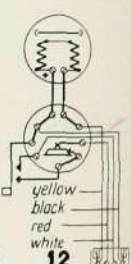
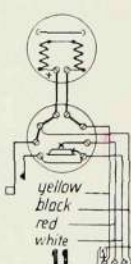
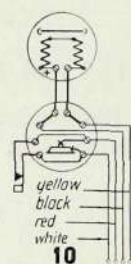
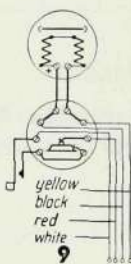
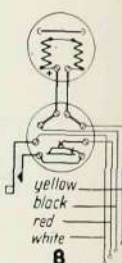
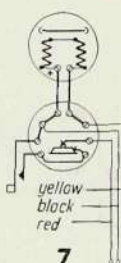
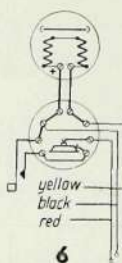
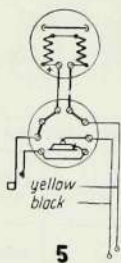
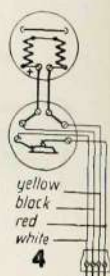
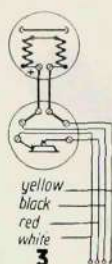
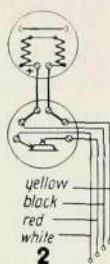
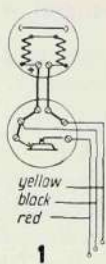
For other parts, see following table. Diagram, see page 158.

	colour	dia-gram	transmitter inset		receiver inset		c o r d		
			designa-tion	resist-ance	designa-tion	resist-ance	designa-tion	number of conduc-tors	length
				ohm		ohm			mm
RLF 1401	black	14	RLA 1606	60	RLD 5002	120	215082/2	2	1300
RLF 1401 T							215082/2		

RLF 1501 Handset

This handset resembles *RLF 1401* or *RLF 1401 T* respectively, but has a suspension eye.





RLF 1001—RLF 1501

HEAD SETS

RLF 2001—RLF 2016 Head sets

These sets, which are exceedingly light, are used by telephone operators when the work of the exchange does not allow of the use of ordinary handsets. They may also be used in tropical climates. They have spring head-clip of surface-treated aluminium with adjustable felt-clad bakelite earpiece. The receiver case with cap and the transmitter arm are of bakelite.

The transmitter arm has a ball joint and is mobile. In the receiver there is a contact device which breaks the transmitter feed current when the transmitter arm is swung out.

The transmitter inset is interchangeable. The receiver coils, which are fixed, have a resistance of 120 (2×60) ohm. The receiver diaphragm has designation 180683 and the receiver cap 220890.

RLF 2001, RLF 2002, RLF 2005—RLF 2012 and *RLF 2016* are equipped with plug. The receiver for the sets *RLF 2007, RLF 2008* and *RLF 2011—RLF 2014* are equipped with middle point tapping (differential connecting). Suitable jacks, see table, are to be ordered separately.

The connecting cord for the transmitter inset has designation *TRK 1201*.



RLF 2001, RLF 2002



RLF 2003, RLF 2004

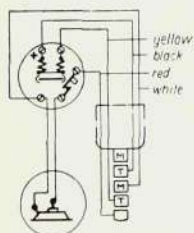


RLF 2005, RLF 2006

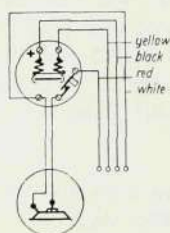


RLF 2010

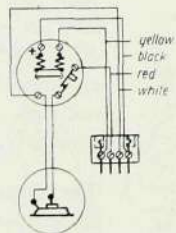
	transmitter inset		cord			plug	suitable jack	weight
	designation	resistance	designation	number of conductors	length			
RLF 2001	RLA 1712	200	TRS 7401	4	1600	RPS 2501	RNT 5351-2	0.27
RLF 2002	RLA 1704	40	TRS 7401	4	1600	RPS 2501	RNT 5351-2	0.27
RLF 2003	RLA 1712	200	TRS 7402	4	1600	—	—	0.21
RLF 2004	RLA 1704	40	TRS 7402	4	1600	—	—	0.21
RLF 2005	RLA 1712	200	TRS 7402	4	1600	RPT 5042	RNT 5041	0.27
RLF 2006	RLA 1704	40	TRS 7402	4	1600	RPT 5042	RNT 5041	0.27
RLF 2007	RLA 1712	200	TRS 7502	5	1600	RPT 5051	RNT 5051	0.27
RLF 2008	RLA 1704	40	TRS 7502	5	1600	RPT 5051	RNT 5051	0.27
RLF 2009	RLA 1712	200	TRS 7403	4	1600	RPT 5141	RNT 5141	0.28
RLF 2010	RLA 1704	40	TRS 7403	4	1600	RPT 5141	RNT 5141	0.28
RLF 2011	RLA 1712	200	TRS 7501	5	1600	RPS 2501	RNT 5351-2	0.28
RLF 2012	RLA 1704	40	TRS 7501	5	1600	RPS 2501	RNT 5351-2	0.28
RLF 2013	RLA 1712	200	TRS 7502	5	1600	—	—	0.22
RLF 2014	RLA 1704	40	TRS 7502	5	1600	—	—	0.22
RLF 2016	RLA 1704	40	TRS 7401	4	1600	RPS 2501	RNT 5351-2	0.27



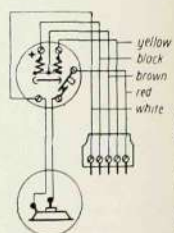
RLF 2001, RLF 2002



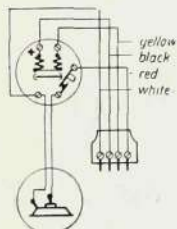
RLF 2003, RLF 2004



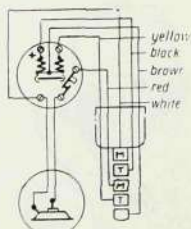
RLF 2005, RLF 2006



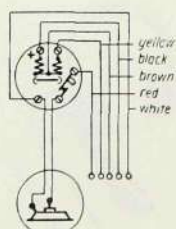
RLF 2007, RLF 2008



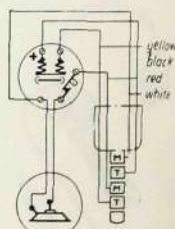
RLF 2009, RLF 201



RLF 2011, RLF 2012

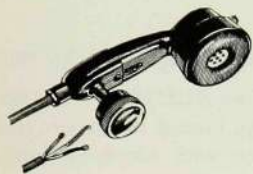


RLF 2013, RLF 2014



RLF 2016

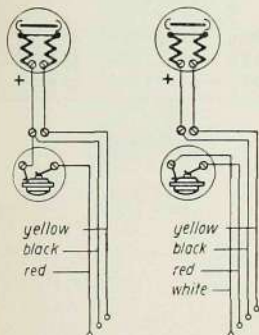
LARYNGOPHONES WITH HANDLE



RLH 1001—RLH 1003



RLH 1011



RLH 1001—
RLH 1001,
RLH 1111

RLH 1102

RLH 1001—RLH 1011 Laryngophones with support end

These laryngophones, which have a special support end, are used in conjunction with telephone instruments, e.g., DGT 2101. They are used in places where there is so much noise that conversation with ordinary handsets cannot be carried on.

The laryngophones have a special transmitter, which is lightly pressed against the larynx when talking, whereby the speech vibrations are transferred direct to the transmitter diaphragm without being disturbed by extraneous noise.

The laryngophones are of bakelite with transmitter fixing of black lacquered brass. Some of the receiver caps have rubber pad to exclude disturbing noise.

The laryngophones have rubber tube cords with contact eyes for connection. The cord inlet is furnished with watertight bushing.

Dimensions:

length 177 mm, width 66 mm, depth 79 mm, weight 0.52 kg.

	colour	transmitter inset		receiver inset		c o r d			receiver cap
		designation	re-sist-ance	designation	re-sist-ance	designation	number of conductors	length	
RLH 1001	black	RLA 8001	40	RLD 5001	40	TRS 2304	3	1500	214157 *
RLH 1002	black	RLA 8001	40	RLD 5002	120	TRS 2304	3	1500	214157 *
RLH 1003	black	RLA 8001	40	RLD 5005	60	TRS 2304	3	1500	214157 *
RLH 1011	black	RLA 8002	200	RLD 5002	120	TRS 2304	3	1500	0—14965

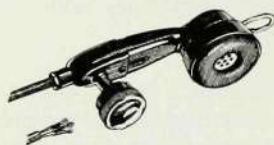
* With rubber pad



RLH 1101—RLH 1111 Laryngophones with suspension eye

(*RLH 1101, RLH 1102* replace *RE 9600* and *RE 9610*)

These laryngophones differ from *RLH 1001—RLH 1003* only in having suspension eye instead of support end. They are used in conjunction with telephone instruments, e.g., *DAS 1101*.



RLH 1101—RLH 1111

Diagram, see page 161.

	colour	transmitter inset		receiver inset		cord			receiver cap with pad
		designation	re-	designation	re-	designation	number of conductors	length	
			sist-		sist-				
			ohm		ohm			mm	
RLH 1101	black	RLA 8001	40	RLD 5001	40	TRS 2304	3	1500	214157
RLH 1102	black	RLA 8001	40	RLD 5002	120	TRS 2402	4	1500	214157
RLH 1111	black	RLA 8002	200	RLD 5002	120	TRS 3303	3	1250	214157

SUSPENSION HOOKS, CLIPS, HOLDERS ETC. FOR HANDSETS AND RECEIVERS

SUSPENSION HOOKS AND CLIPS FOR HANDSETS ETC.

RLY 1001, RLY 1002 Suspension hooks for handsets



RLY 1001

These suspension hooks are used in manual switchboards for hanging up the handset.

The hooks are of nickel-plated brass.

RLY 1001 is intended for left hand mounting.

RLY 1002 is intended for right hand mounting.



RLY 1002

Fixing requires three wood screws *Trskr No. 4-1/2"* *FS M21*, to be ordered separately.

Dimensions:

length 55 mm, fixing-plate diameter 30 mm; weight 0.06 kg.

RLY 1003 Suspension hook for handset



RLY 1003

This suspension hook is used in manual exchanges for hanging up handsets which have no suspension eye.

The hook is of nickel-plated brass.

Fixing requires three wood screws *Trskr No. 4-1/2"* *FS M21*, to be ordered separately.

Dimensions:

length 72 mm, fixing-plate diameter 30 mm; weight 0.05 kg.



RLY 1004 Suspension hook for receiver



RLY 1004

This suspension hook is used on wall telephones for hanging up an extra receiver *RLD 1101*.

The hook is of nickel-plated brass and is delivered with screws, nuts and washers.

The hook is affixed to the side of the telephone instrument, see page 143.

Dimensions:

length 25 mm, width 9 mm, weight 0.003 kg.

RLY 1005 Suspension cradle for receiver



RLY 1005

This cradle is used for table telephone instruments as holder for an extra receiver *RLD 1001*.

The cradle is of nickel-plated brass and is delivered with nuts and washers.

The cradle is affixed to the rear of the telephone instrument, see page 142.

Dimensions:

height 38 mm, width 76 mm, weight 0.03 kg.

RLY 1101 Suspension hook for handset



RLY 1101

This suspension hook is used on wall telephones and manual switchboards for suspension of the handset.

The hook is furnished with a spring set and is mobile mounted on the front plate, so that the spring set is acted on by the weight of the handset. The hook and the front plate are nickel-plated.

The spring set has a make-and-break contact and a break contact.

Fixing requires four wood screws *Trskr* No. 4— $\frac{1}{2}$ " *KS M05*, to be ordered separately.

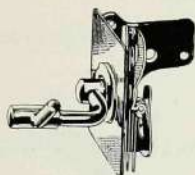


RLY 1101, RLY 1102

Dimensions :

height 100 mm, width 55 mm for front plate; weight 0.21 kg.

RLY 1102 Suspension hook for handset



RLY 1102

This suspension hook is used on wall telephone instrument *DAS 1001*—*DAS 2001* for hanging up the handset.

The hook is furnished with a spring set and is mobile mounted on the front plate, so that the spring set is acted on by the weight of the handset. The hook and front plate are nickel-plated.

The spring set has a make-and-break contact and a break contact.

Fixing requires two metal screws *137414*, to be ordered separately.

Dimensions :

height 70 mm, width 55 mm for front plate; weight 0.22 kg.

0-4876 Suspension hook for receiver



0-4876

This suspension hook is used on wall telephone instruments, e.g., *DAS 1101*, for hanging up receiver *RLD 2102*.

The hook is of nickel-plated brass.

Fixing requires two wood screws *Trskr* No. 4— $\frac{7}{16}$ " *KS M05*, to be ordered separately.

Dimensions :

height 33 mm, width of fixing plate 31 mm; weight 0.025 kg.

SUSPENSION ENDS AND EYES FOR RECEIVERS ETC.



208919

208919 Suspension end for receiver and laryngophone

This suspension end is used as holder for receivers, *e.g.*, *RLD 2001*, and laryngophones, *e.g.*, *RLH 1001*.

The end is of chrome-plated brass.

Fixing requires two screws *G5 F6.5 M05*, to be ordered separately.

Dimensions:

length 44 mm, width 13 mm, thickness 3 mm, weight 0.015 kg.



138471

with washer and nuts

138471 Suspension eye for receiver

This suspension eye is used for receivers, *e.g.*, *RLD 1101*.

The eye is of nickel-plated brass.

Fixing requires two nuts *G8 K M05* and one washer *138474*, to be ordered separately.

Dimensions:

length 33.5 mm, width 17 mm, thickness 3.5 mm, weight 0.008 kg.

180735, 180735/1 Suspension eyes for handsets

The suspension eye *180735* is used on handsets, *e.g.*, *RLF 1101*, and receivers with handle, *e.g.*, *RLD 2101*. The suspension eye *180735/1* is used on laryngophones and on extra receivers for ships telephone instruments.



180735

180735 is of nickel-plated brass.

180735/1 is of chrome-plated brass.

Fixing requires two screws *G5 F6.5 M05*, to be ordered separately.

Dimensions :

length 71 mm, width 21 mm, thickness 3 mm, weight 0.02 kg.

HOLDERS FOR HANDSETS

131681/1—131682/2 Holders for handsets



131681/1

These holders are designed for bakelite handsets *RLF 1001* etc. and are used in conjunction with table telephone instruments which have sheet-metal case.

The holders are of bakelite with a spring metal stud in the centre. The metal stud is furnished at the bottom with an insulating stop which actuates the telephone instrument's spring assembly. The length of this stop varies according to the type of instrument.



131682/2

As guides these holders have two slots underneath the bakelite base, which correspond to two projections in the sheet-metal lid. These projections are not to be found on the lids of instruments with sheet-iron cases of the older type, so in these cases only handset holder with sheet-metal lid *131681/2* or *131682/2* can be used.

The handset holders without sheet metal case *131681/1*, *131681/3* and *131682/1* are intended for replacements on telephone instruments which previously had similar holders; e.g., *DAL 1001* etc.

Fixing of *131681/1*, *131681/3* and *131682/1* requires a nut *NV 3545*, to be ordered separately.

Dimensions :

without sheet metal lid; length 104 mm, width 45 mm, height 95 mm, weight, see table.

	dimensions of the case	length of the stop	for instrument	weight
	mm	mm		kg
131681/1	—	10.5	CG 400, DE 500	0.15
131681/2	138×82	10.5	CG 400, DE 500	0.29
131681/3	—	6.5	DAL 1001 etc.	0.15
131682/1	—	5	AC 500 etc.	0.15
131682/2	159×89	5	AC 500 etc.	0.33

138076/1, 138076/2 Holders for handsets



138076/1

These holders suit bakelite handsets *RLF 1001* etc. They are used when table telephone instruments with sheet-metal case are to be provided with bakelite handset. The holders are of nickel-plated brass and differ only in the length of the insulating stop that has to actuate the switching assembly of the telephone instrument.

Mounting requires one nut *NV 3545*, to be ordered separately.

Dimensions:

length 100 mm, width 47 mm, height 110 mm, weight 0.145 kg.

	for instrument	length of the stop
		mm
138076/1	CG 400, DE 500	5
138076/2	AC 500 etc.	2

CAPS, DIAPHRAGMS, RUBBER PADS FOR HANDSETS ETC.

TRANSMITTER CAPS AND TRANSMITTER RINGS

138021 Transmitter cap



138021 black

This transmitter cap is used in conjunction with handsets of bakelite.

The cap is made of bakelite in three different colours; the colour desired must be stated with order.

The cap is fixed to the handset by a ring 180718, to be ordered separately.

Dimensions:

diameter 54.5 mm, depth 22.5 mm, weight 0.025 kg.

	replacing
138021 black	RC 4120 black
138021 mahogany	RC 4120 mahogany
138021 white	RC 4120 white

180717 Transmitter cap with funnel



180717 black

This transmitter cap with funnel is used in conjunction with handsets of bakelite.

The cap is made of bakelite in three different colours; the colour desired must be stated with order.

The cap is fixed to the handset by a ring 180718, to be ordered separately.

Dimensions:

diameter 54.5 mm, depth 42.5 mm, weight 0.04 kg.

	replacing
180717 black 180717 mahogany 180717 white	RC 4110 black RC 4110 mahogany RC 4110 white

180718 Transmitter ring



180718 black

This transmitter ring is used in conjunction with handsets of bakelite for fixing the transmitter cap.

The ring is made of bakelite in three different colours; the colour desired must be stated with order.

The ring has internal screw thread to fit a screw thread on the transmitter case.

Dimensions:

diameter 66 mm, thickness 28 mm, weight 0.03 kg.

	replacing
180718 black 180718 mahogany 180718 white	RC 4130 black RC 4130 mahogany RC 4130 white

RECEIVER DIAPHRAGMS, RECEIVER CAPS AND RUBBER PADS

180683 Receiver diaphragm

(replacing *RD 4100*)



180683

This receiver diaphragm is used in conjunction with receiver insets *RLD 50*.

The diaphragm is of special alloy sheet metal.

The diaphragm is held in place by the receiver cap.

Dimensions:

diameter 53.5 mm, thickness 0.28 mm, weight per 100: 0.5 kg.



0-14965 black

0-14965 Receiver cap

This receiver cap is used in conjunction with handsets and receivers of bakelite.

The cap is made of bakelite in three different colours: the colour desired must be stated with order.

The cap has a screw thread inside which fits a screw thread on the receiver case.

Dimensions:

diameter 66 mm, thickness 21.5 mm, weight 0.04 kg.

	replacing
0-14965 black	RD 4110 black
0-14965 mahogany	RD 4110 mahogany
0-14965 white	RD 4110 white



214157

214157 Receiver cap with rubber pad

This receiver cap with rubber pad is used in conjunction with handsets and receivers of bakelite, when it is necessary to exclude disturbing noises.

The cap is of black bakelite and the pad of soft rubber. The cap has a screw thread inside which fits a screw thread on the receiver case.

Dimensions:

diameter 66 mm, thickness 26.5 mm, weight 0.06 kg.



220890

220890 Receiver cap

This receiver cap is used in conjunction with receivers *RLD 31* and *RLD 34* and the head sets *RLF 2001* etc.

The cap is of black bakelite and has a screw thread inside which fits a screw thread on the receiver case. It may be fitted with a rubber pad which is stretched on. Suitable rubber pad is *214456*.

Dimensions:

diameter 61.5 mm, thickness 8.2 mm, weight 0.015 kg.

214456 Rubber pad for receiver cap



214456

This rubber pad is used in conjunction with receiver cap 220890.

The pad is elastic and is stretched over the cap.

Dimensions:

diameter 62 mm, thickness 15 mm, weight 0.11 kg.

SWITCHES, LEVER KEYS, PRESS-BUTTON KEYS

SWITCHES

RL 201, RL 202 Switch, two-way



RL 201

These switches, which are two pole, are used to connect a double line to one or the other of two telephone instruments.

The switches are mounted on a base-plate of black insulating material and protected by a case of black lacquered brass.

By loosening a screw on the switch arm the case can be removed, thus making the terminal screws accessible.

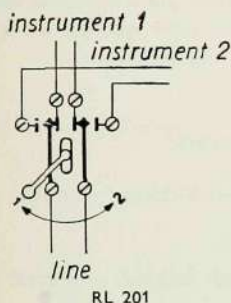
For fixing there are two holes in the base-plate. Fixing screws are to be ordered separately.

RL 201 has stop in both positions.

RL 202 has stop in position 1 and spring return from position 2 to position 1.

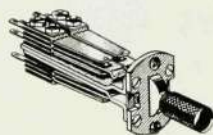
Dimensions:

diameter 54 mm, depth 48 mm, weight 0.12 kg.



RL 201

LEVER KEYS



RMA 1001—RMA 1225

The lever keys are used as connecting devices, e.g., in manual switchboards.

Those parts of the key visible after mounting are nickelplated. The buttons are normally made in black insulating material but can be supplied in red colour on request. The keys are made with two or four spring sets having not less than three and not more than eight contact springs.

The key arm has two rolls of insulating material, which actuate the longest of the springs, the operating springs, which in turn actuate the other springs in the sets. A centring piece fixes the position of the key arm in normal position. The key arm, as well as the rolls and the centring piece, are easily exchangeable. The spring sets are independent units which are fixed to the frame by the upper pin screws and nuts. The operating springs are the same whether the key arm is made for locking or non locking.

There are the following six types:

RMA 10, with three positions: locking — normal — non locking;

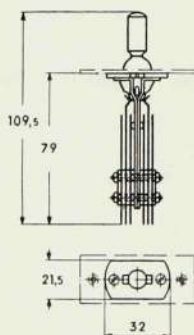
RMA 11, with three positions: locking — normal — locking;

RMA 12, with three positions: non locking — normal — non locking;

RMA 13, with two positions: normal — locking;

RMA 14, with two positions: normal — non locking;

RMA 15, with two positions: normal — locking.



RMA 1001—RMA 1507

In *RMA 10–RMA 14* the key arm stands in normal position at right angles to the mounting plate, while the key arm in *RMA 15* is at an angle both in normal and operating positions.

The contact combinations of a spring set are indicated by letters above the designation, e. g.,

$\frac{V}{RBM 1005}$, which indicates that the spring set *RBM 1005* has a make-and-break contact. Below will be found some examples of the meanings of these letter designations.

V = make-and-break;

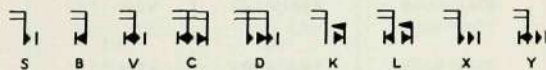
VS = make-and-break + make;

V 2S = make-and-break + two makes;

Vfs = make-and-break before make;

BV = break + make-and-break, and so on.

Contact combinations

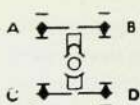


For mounting, switch shelves 213215/2 are usually used; see also under switch shelves, page 201. The switch shelves are to be ordered separately.

Two fixing screws *G6 G5 M21* are supplied with each switch.

Dimensions:

see dimension sketch; weight with four spring set of three springs each 0.1 kg.



RMA 1001—RMA 1053 Lever keys

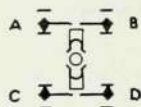
These keys have three positions: locking — normal — non locking.

	spring sets			
	locking		non locking	
	A	B	C	D
RMA 1001	V RBM 1005	V RBM 1005	V RBM 1005	V RBM 1005
RMA 1002	VS RBM 1101	V RBM 1005	VS RBM 1101	V RBM 1005
RMA 1003	VS RBM 1101	VS RBM 1101	V RBM 1005	V RBM 1005
RMA 1004	V RBM 1005	V RBM 1005	VS RBM 1101	VS RBM 1101
RMA 1005	VS RBM 1101	VS RBM 1101	VS RBM 1101	V RBM 1005
RMA 1006	V 2S RBM 1301	VS RBM 1101	V RBM 1005	V RBM 1005
RMA 1007	V 2S RBM 1301	VS RBM 1101	VS RBM 1101	V RBM 1005
RMA 1008	BV RBM 1102	BV RBM 1102	V RBM 1005	V RBM 1005
RMA 1009	VS RBM 1101	VS RBM 1101	BV RBM 1102	BV RBM 1102
RMA 1010	VS RBM 1101	V RBM 1005	2V RBM 1201	V 2S RBM 1301
RMA 1011	2V S RBM 1405	2V S RBM 1405	V RBM 1005	V RBM 1005
RMA 1012	B 2V RBM 1406	2V S RBM 1405	VS RBM 1101	V RBM 1005
RMA 1013	2V RBM 1201	2V RBM 1201	2V RBM 1201	2V RBM 1201
RMA 1014	VSK RBM 1409	VSK RBM 1409	VS RBM 1101	V RBM 1005
RMA 1015	VS RBM 1101	V RBM 1005	L RBM 1015	L RBM 1015
RMA 1016	VSX RBM 1413	VSX RBM 1413	VS RBM 1101	V RBM 1005

	spring sets			
	locking		non locking	
	A	B	C	D
	VS	V	V	V
RMA 1017	RBM 1101	RBM 1005	RBM 1005	RBM 1005
	V 2S	V 2S	V	V
RMA 1018	RBM 1301	RBM 1301	RBM 1005	RBM 1005
	2V	2V	V	V
RMA 1019	RBM 1201	RBM 1201	RBM 1005	RBM 1005
	V 2S	V 2S	VS	V
RMA 1020	RBM 1301	RBM 1301	RBM 1101	RBM 1005
	BV	BV	VS	V
RMA 1021	RBM 1102	RBM 1102	RBM 1101	RBM 1005
	2V	2V	VS	V
RMA 1022	RBM 1201	RBM 1201	RBM 1101	RBM 1005
	VS	VS	VS	VS
RMA 1023	RBM 1101	RBM 1101	RBM 1101	RBM 1101
	2V	V 2S	VS	V
RMA 1024	RBM 1201	RBM 1301	RBM 1101	RBM 1005
	2V S	2V S	VS	V
RMA 1025	RBM 1405	RBM 1405	RBM 1101	RBM 1005
	V 2S	VS	V 2S	VS
RMA 1026	RBM 1301	RBM 1101	RBM 1301	RBM 1101
	V 2S	V 2S	V 2S	V 2S
RMA 1027	RBM 1301	RBM 1301	RBM 1301	RBM 1301
	LS	LS	V	V
RMA 1028	RBM 1203	RBM 1203	RBM 1005	RBM 1005
	2V S	2V S	VS	VS
RMA 1029	RBM 1405	RBM 1405	RBM 1101	RBM 1101
	V	V	2V	2V
RMA 1030	RBM 1005	RBM 1005	RBM 1201	RBM 1201
	VSK	VSK	2V	2V
RMA 1031	RBM 1409	RBM 1409	RBM 1201	RBM 1201
	L	LS	V	VS
RMA 1032	RBM 1015	RBM 1203	RBM 1005	RBM 1101
	BSfV	BSfV	VfV	VfV
RMA 1033	RBM 1305	RBM 1305	RBM 1205	RBM 1205

	spring sets			
	locking		non locking	
	A	B	C	D
RMA 1034	V RBM 1005	V RBM 1005	VS RBM 1101	V RBM 1005
RMA 1035	VD RBM 1303	VD RBM 1303	V 2S RBM 1301	VS RBM 1101
RMA 1036	2VS RBM 1405	2VS RBM 1405	2V RBM 1201	2V RBM 1201
RMA 1037	2VS RBM 1405	B 3S RBM 1401	V RBM 1005	V RBM 1005
RMA 1038	B 2V RBM 1406	2VS RBM 1405	2V RBM 1201	2V RBM 1201
RMA 1039	L RBM 1015	L RBM 1015	V RBM 1005	V RBM 1005
RMA 1040	2V RBM 1201	2V RBM 1201	B 2V RBM 1406	2VS RBM 1405
RMA 1041	VSX RBM 1413	VSX RBM 1413	VSX RBM 1413	VSX RBM 1413
RMA 1042	VK RBM 1202	VK RBM 1202	VS RBM 1101	V RBM 1005
RMA 1043	V RBM 1005	V RBM 1005	VK RBM 1202	V VS RBM 1104
RMA 1044	VS RBM 1101	VS RBM 1101	VK RBM 1202	V 2S RBM 1301
RMA 1045	BVS RBM 1306	V 2S RBM 1301	VS RBM 1101	V RBM 1005
RMA 1046	BVS RBM 1306	V 2S RBM 1301	VS RBM 1101	VS RBM 1101
RMA 1047	VD RBM 1303	B 2V RBM 1406	V 2S RBM 1301	VS RBM 1101
RMA 1048	2V RBM 1201	B 2V RBM 1406	VS RBM 1101	V RBM 1005
RMA 1049	VSK RBM 1409	VSK RBM 1409	VS RBM 1101	VS RBM 1101
RMA 1050	BVK RBM 1410	2VS RBM 1405	VS RBM 1101	V RBM 1005

	spring sets			
	locking		non locking	
	A	B	C	D
RMA 1051	VK RBM 1202	VK RBM 1202	VS RBM 1101	VS RBM 1101
RMA 1052	V RBM 1005	V RBM 1005	VfV RBM 1205	V RBM 1005
RMA 1053	V RBM 1005	V RBM 1005	VfV RBM 1205	VfV RBM 1205



RMA 1101—RMA 1155 Lever keys

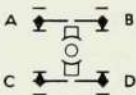
These keys have three positions: locking — normal — locking.

	spring sets			
	locking		locking	
	A	B	C	D
RMA 1101	V RBM 1005	V RBM 1005	V RBM 1005	V RBM 1005
RMA 1102	VS RBM 1101	V RBM 1005	V RBM 1005	V RBM 1005
RMA 1103	VS RBM 1101	V RBM 1005	VS RBM 1101	V RBM 1005
RMA 1104	VS RBM 1101	VS RBM 1101	V RBM 1005	V RBM 1005
RMA 1105	VS RBM 1101	VS RBM 1101	VS RBM 1101	V RBM 1005
RMA 1106	VS RBM 1101	VS RBM 1101	VS RBM 1101	VS RBM 1101
RMA 1107	V 2S RBM 1301	VS RBM 1101	V RBM 1005	V RBM 1005
RMA 1108	V 2S RBM 1301	VS RBM 1101	V 2S RBM 1301	VS RBM 1101
RMA 1109	V 2S RBM 1301	V 2S RBM 1301	VS RBM 1101	V RBM 1005
RMA 1110	V 2S RBM 1301	V 2S RBM 1301	V 2S RBM 1301	V 2S RBM 1301
RMA 1111	BV RBM 1102	BV RBM 1102	VS RBM 1101	V RBM 1005
RMA 1112	BV RBM 1102	BV RBM 1102	BV RBM 1102	BV RBM 1102
RMA 1113	2V RBM 1201	2BV RBM 1302	V RBM 1005	V RBM 1005
RMA 1114	2V RBM 1201	2V RBM 1201	V RBM 1005	V RBM 1005
RMA 1115	2V RBM 1201	2V RBM 1201	2V RBM 1201	2V RBM 1201
RMA 1116	LS RBM 1203	2V RBM 1201	VS RBM 1101	VS RBM 1101

	spring sets			
	locking		locking	
	A	B	C	D
RMA 1117	LS RBM 1203	LS RBM 1203	V RBM 1005	V RBM 1005
RMA 1118	VK RBM 1202	VK RBM 1202	VK RBM 1202	VK RBM 1202
RMA 1119	L RBM 1015	V RBM 1005	L RBM 1015	V RBM 1005
RMA 1120	V 2S RBM 1301	V 2S RBM 1301	V RBM 1005	V RBM 1005
RMA 1121	BV RBM 1102	BV RBM 1102	V RBM 1005	V RBM 1005
RMA 1122	2V S RBM 1405	2VS RBM 1405	V RBM 1005	V RBM 1005
RMA 1123	V 2S RBM 1301	VS RBM 1101	VS RBM 1101	V RBM 1005
RMA 1124	2V RBM 1201	2V RBM 1201	VS RBM 1101	V RBM 1005
RMA 1125	2V RBM 1201	V 2S RBM 1301	VS RBM 1101	V RBM 1005
RMA 1126	2V S RBM 1405	2VS RBM 1405	VS RBM 1101	V RBM 1005
RMA 1127	B 2V RBM 1406	2V S RBM 1405	VS RBM 1101	V RBM 1005
RMA 1128	VSK RBM 1409	VSK RBM 1409	VSK RBM 1409	VSK RBM 1409
RMA 1129	2V RBM 1201	2B V RBM 1302	BV RBM 1102	BV RBM 1102
RMA 1130	V RBM 1005	V RBM 1005	L RBM 1015	L RBM 1015
RMA 1131	L RBM 1015	L RBM 1015	LS RBM 1203	L RBM 1015
RMA 1132	L RBM 1015	L RBM 1015	L RBM 1015	L RBM 1015
RMA 1133	V 2S RBM 1301	VS RBM 1101	BV RBM 1102	BV RBM 1102

	spring sets			
	locking		locking	
	A	B	C	D
RMA 1134	2VS RBM 1405	2VS RBM 1405	2VS RBM 1405	2VS RBM 1405
RMA 1135	CD RBM 1415	CD RBM 1415	CD RBM 1415	CD RBM 1415
RMA 1136	2V RBM 1201	2V RBM 1201	L RBM 1015	L RBM 1015
RMA 1137	B 2V RBM 1406	2VS RBM 1405	2V RBM 1201	2V RBM 1201
RMA 1138	B 2V RBM 1406	4B RBM 1404	B 2V RBM 1406	2VS RBM 1405
RMA 1139	B 2V RBM 1406	2VS RBM 1405	2VS RBM 1405	2VS RBM 1405
RMA 1140	V SX RBM 1413	V 2S RBM 1301	2V RBM 1201	2V RBM 1201
RMA 1141	2V RBM 1201	V 2S RBM 1301	2V RBM 1201	V 2S RBM 1301
RMA 1142	B 3S RBM 1401	B 3S RBM 1401	B 3S RBM 1401	V SX RBM 1413
RMA 1143	V SK RBM 1409	V SK RBM 1409	BV RBM 1102	BV RBM 1102
RMA 1144	2V RBM 1201	2V RBM 1201	LS RBM 1203	LS RBM 1203
RMA 1145	2V RBM 1201	2B V RBM 1302	V 2S RBM 1301	V 2S RBM 1301
RMA 1146	2B V RBM 1302	2B V RBM 1302	V 2S RBM 1301	V 2S RBM 1301
RMA 1147	2B 2S RBM 1402	B 3S RBM 1401	2B 2S RBM 1402	B 3S RBM 1401
RMA 1148	2VS RBM 1405	B 2V RBM 1406	BV RBM 1102	BV RBM 1102
RMA 1149	BVK RBM 1410	VK RBM 1202	V 2S RBM 1301	VS RBM 1101
RMA 1150	2VS RBM 1405	2VS RBM 1405	VS RBM 1101	VS RBM 1101

	spring sets			
	locking		locking	
	A	B	C	D
RMA 1151	B 2V RBM 1406	B 2V RBM 1406	B 2V RBM 1406	B 2V RBM 1406
RMA 1152	B 2V RBM 1406	2VS RBM 1405	B 2V RBM 1406	2VS RBM 1405
RMA 1153	L RBM 1015	V RBM 1005	Y RBM 1016	V RBM 1005
RMA 1154	2V RBM 1201	V 2S RBM 1301	VS RBM 1101	VS RBM 1101
RMA 1155	VSK RBM 1409	VK RBM 1202	2V RBM 1201	2V RBM 1201



RMA 1201—RMA 1225 Lever keys

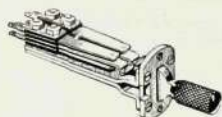
These keys have three positions: non locking — normal — non locking.

	spring sets			
	non locking		non locking	
	A	B	C	D
RMA 1201	V RBM 1005	V RBM 1005	V RBM 1005	V RBM 1005
RMA 1202	VS RBM 1101	V RBM 1005	V RBM 1005	V RBM 1005
RMA 1203	VS RBM 1101	V RBM 1005	VS RBM 1101	V RBM 1005
RMA 1204	2V RBM 1201	2V RBM 1201	V RBM 1005	V RBM 1005
RMA 1205	2V RBM 1201	2V RBM 1201	2V RBM 1201	2V RBM 1201
RMA 1206	BK RBM 1103	BK RBM 1103	BV RBM 1102	BV RBM 1102
RMA 1207	VX RBM 1204	VS RBM 1101	VS RBM 1101	V RBM 1005
RMA 1208	VIS RBM 1104	VK RBM 1202	L RBM 1015	VS RBM 1101
RMA 1209	VS RBM 1101	VS RBM 1101	V RBM 1005	V RBM 1005
RMA 1210	V 2S RBM 1301	VS RBM 1101	V RBM 1005	V RBM 1005
RMA 1211	V 2S RBM 1301	V 2S RBM 1301	V RBM 1005	V RBM 1005
RMA 1212	BV RBM 1102	BV RBM 1102	V RBM 1005	V RBM 1005
RMA 1213	2V S RBM 1405	2V S RBM 1405	V RBM 1005	V RBM 1005
RMA 1214	VS RBM 1101	VS RBM 1101	VS RBM 1101	V RBM 1005
RMA 1215	V 2S RBM 1301	VS RBM 1101	VS RBM 1101	V RBM 1005
RMA 1216	V 2S RBM 1301	V 2S RBM 1301	VS RBM 1101	V RBM 1005

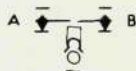
	spring sets			
	non locking		non locking	
	A	B	C	D
RMA 1217	BV RBM 1102	BV RBM 1102	VS RBM 1101	V RBM 1005
RMA 1218	2V RBM 1201	2V RBM 1201	VS RBM 1101	V RBM 1005
RMA 1219	VS RBM 1101	VS RBM 1101	VS RBM 1101	VS RBM 1101
RMA 1220	V 2S RBM 1301	VS RBM 1101	V 2S RBM 1301	VS RBM 1101
RMA 1221	V 2S RBM 1301	V 2S RBM 1301	V 2S RBM 1301	V 2S RBM 1301
RMA 1222	BV RBM 1102	BV RBM 1102	BV RBM 1102	BV RBM 1102
RMA 1223	V RBM 1005	L RBM 1015	V RBM 1005	V RBM 1005
RMA 1224	2B V RBM 1302	2B V RBM 1302	2B V RBM 1302	2B V RBM 1302
RMA 1225	2B 2S RBM 1402	B 3S RBM 1401	2B 2S RBM 1402	B 3S RBM 1401

RMA 1301—RMA 1316 Lever keys

These keys have two positions: normal — locking.



RMA 1301—RMA 1316



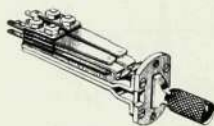
RMA 13

	spring sets	
	A	B
RMA 1301	V RBM 1005	V RBM 1005
RMA 1302	VS RBM 1101	VS RBM 1101
RMA 1303	V 2S RBM 1301	V 2S RBM 1301
RMA 1304	2V RBM 1201	2V RBM 1201
RMA 1305	VSK RBM 1409	VSK RBM 1409
RMA 1306	L RBM 1015	L RBM 1015
RMA 1307	2B V RBM 1302	2B V RBM 1302
RMA 1308	VS RBM 1101	V RBM 1005
RMA 1309	V 2S RBM 1301	VS RBM 1101
RMA 1310	BV RBM 1102	BV RBM 1102
RMA 1311	2V S RBM 1405	2V S RBM 1405
RMA 1312	B 2V RBM 1406	2V S RBM 1405
RMA 1313	VK RBM 1202	VK RBM 1202
RMA 1314	BK RBM 1103	BK RBM 1103
RMA 1315	2V S RBM 1405	B 3S RBM 1401

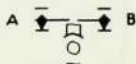
	spring sets	
	A	A
	RMA 1316	B 2V RBM 1406

RMA 1401—RMA 1410 Lever keys

These keys have two positions: normal — non locking.



RMA 1401—RMA 1410

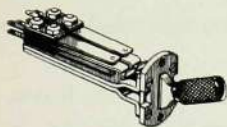


RMA 14

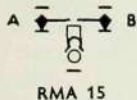
	spring sets	
	A	B
	V	V
RMA 1401	RBM 1005	RBM 1005
	VS	VS
RMA 1402	RBM 1101	RBM 1101
	2V	2V
RMA 1403	RBM 1201	RBM 1201
	VS	V
RMA 1404	RBM 1101	RBM 1005
	V 2S	VS
RMA 1405	RBM 1301	RBM 1101
	V 2S	V 2S
RMA 1406	RBM 1301	RBM 1301
	BV	BV
RMA 1407	RBM 1102	RBM 1102
	2B V	2B V
RMA 1408	RBM 1302	RBM 1302
	2V S	2V S
RMA 1409	RBM 1405	RBM 1405
	B 2V	2V S
RMA 1410	RBM 1406	RBM 1405

RMA 1501—RMA 1507 Lever keys

These keys have two positions and the key arm is at an angle: normal — locking.

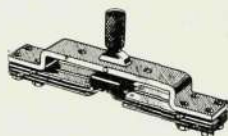


RMA 1501—RMA 1507

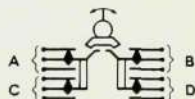


	spring sets	
	A	B
RMA 1501	2V RBM 1201	2V RBM 1201
RMA 1502	V RBM 1005	V RBM 1005
RMA 1503	VS RBM 1101	L RBM 1015
RMA 1504	L RBM 1015	L RBM 1015
RMA 1505	VK RBM 1202	VK RBM 1202
RMA 1506	2B 2S RBM 1402	2B 2S RBM 1402
RMA 1507	CY RBM 1414	BV RBM 1102

RT 16604 Lever key



RT 16604



RT 16604

This key is used in conjunction with telephone instrument *DAL 1101*.

The key is of white boiled brass with button of black insulating material. It has three positions: locking – normal – locking, with two make-and-break contacts in each operating position.

Mounting requires a front plate *0-1493* of nickel-plated brass, engraved *1-2*, and two screws *G4 E5.5 M21* to fix the key to the plate. In addition there are required two screws *G4 D4.5 M05* to fix the front plate to the telephone instrument.

Front plate and screws are to be ordered separately.

Dimensions:

length 120 mm, width 25 mm, height exclusive of key arm 35 mm, weight 0.12 kg.



RT 16608



RT 16608

RT 16608 Lever key

This key is used in conjunction with telephone instrument *DGS 1001*.

The key is of white boiled brass with button of black insulating material. It has two positions: locking – locking, with one make-and-break contact in each operating position.

Mounting requires a front plate *0-6217* of chrome-plated brass, engraved *A-B*, and two screws *G4 G6 M21* to fix the key to the plate. In addition there are required four wood screws *Trskr No. 3-3/8" FS M21* to fix the front plate to the telephone instrument.

Front plate and screws are to be ordered separately.

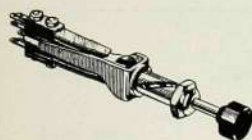
Dimensions:

length 120 mm, width 25 mm, height exclusive of key arm 25 mm, weight 0.1 kg.

PRESS-BUTTON KEYS

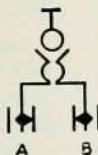
RMD 1001—RMD 1216 Press-button keys

These press-button keys are used as connecting devices in e.g., manual switchboards.



RMD 1001—RMD 1023

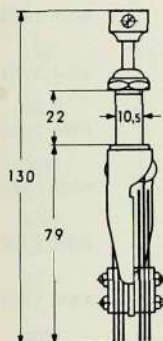
The fixing nuts of the keys are of nickel-plated brass. The button is normally supplied in black insulating material but on request may be had in red. If it is desired to have the button engraved, this must be stated with order. The keys are made either with straight or with oblique guide groove in the case. With oblique groove the button rotates 45° when pressed in, which gives clear indication that it has been pressed, especially if it is engraved. The spring sets are independent units, fixed in place by means of traversing pin screw-bolts, see page 203, and nuts, enabling them to be rapidly exchanged without trouble.



RMD 10

There are the following two types:

RMD 10, with oblique guide groove, with locking;
RMD 12, with straight guide groove, with non locking.



RMD 1001—RMD 1216

The combinations in a spring set are indicated by letters in the same way as for lever keys *RMA 10—RMA 15*.

The keys are mounted in a hole, allowing free insertion of the case, and are screwed tight by means of the fixing nut.

Dimensions:

see dimension sketch; weight with three spring set of three springs each 0.077 kg.

RMD 1001—RMD 1023

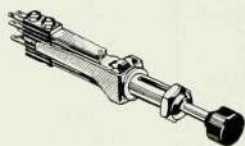
These keys have oblique guide groove: locking.

	spring sets	
	A	B
RMD 1001	V RBM 2005	V RBM 2005
RMD 1002	VS RBM 2101	V RBM 2005
RMD 1003	V 2S RBM 2301	VS RBM 2101
RMD 1004	BV RBM 2102	BV RBM 2102
RMD 1005	2V RBM 2201	2V RBM 2201
RMD 1006	B 2V RBM 2406	2V S RBM 2405
RMD 1007	VK RBM 2202	VK RBM 2202
RMD 1008	VSK RBM 2409	VSK RBM 2409
RMD 1009	L RBM 2015	L RBM 2015
RMD 1010	CL RBM 2412	LS RBM 2203
RMD 1011	CY RBM 2414	2V S RBM 2405
RMD 1012	VS RBM 2101	VS RBM 2101
RMD 1013	V 2S RBM 2301	V 2S RBM 2301
RMD 1014	2B V RBM 2302	2B V RBM 2302
RMD 1015	2V S RBM 2405	2V S RBM 2405
RMD 1016	2V RBM 2201	V 2S RBM 2301
RMD 1017	B 2V RBM 2406	V SX RBM 2413

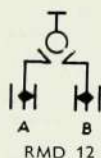
	<i>s p r i n g s e t s</i>	
	A	B
RMD 1018	B 2K RBM 2411	B 2K RBM 2411
RMD 1019	VSX RBM 2413	3B S RBM 2403
RMD 1020	LS RBM 2203	LS RBM 2203
RMD 1021	VSK RBM 2409	VK RBM 2202
RMD 1022	V 2S RBM 2301	BSfV RBM 2305
RMD 1023	CD RBM 2415	CD RBM 2415

RMD 1201—RMD 1216

These keys have straight guide groove: non locking.



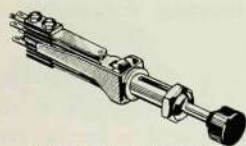
RMD 1201—RMD 1216



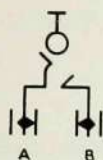
	spring sets	
	A	B
RMD 1201	V RBM 2005	V RBM 2005
RMD 1202	VS RBM 2101	V RBM 2005
RMD 1203	VS RBM 2101	VS RBM 2101
RMD 1204	BV RBM 2102	BV RBM 2102
RMD 1205	2V RBM 2201	2V RBM 2201
RMD 1206	VIV RBM 2205	VIV RBM 2205
RMD 1207	V 2S RBM 2301	VS RBM 2101
RMD 1208	V 2S RBM 2301	V 2S RBM 2301
RMD 1209	2B V RBM 2302	2B V RBM 2302
RMD 1210	2V S RBM 2405	2V S RBM 2405
RMD 1211	B 2V RBM 2406	2V S RBM 2405
RMD 1212	2V RBM 2201	V 2S RBM 2301
RMD 1213	VK RBM 2202	VK RBM 2202
RMD 1214	L RBM 2015	L RBM 2015
RMD 1215	VSK RBM 2409	VK RBM 2202
RMD 1216	2V RBM 2201	2B V RBM 2302

RMD 1301—RMD 1304 Press-button keys

These keys are used as connecting devices in *e.g.*, manual switchboards.



RMD 1301—RMD 1304



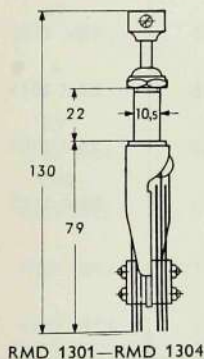
RMD 13

The keys have two steps and straight guide groove. When the button is pressed first one spring set is actuated and then on further pressure another set which is shorter. In the first position the keys have locking and in the second self restoring to first position. The short spring set is used specially in these keys which otherwise resemble the keys *RMD 10—RMD 12*.

Dimensions:

see dimension sketch; weight with two spring sets of three springs each 0.077 kg.

These keys have two steps: locking — non locking.



RMD 1301—RMD 1304

	spring sets	
	A	B
RMD 1301	V 25 RBM 2301	V 25 RBM 3301
RMD 1302	VK RBM 2202	V RBM 3005
RMD 1303	V RBM 2005	V RBM 3005
RMD 1304	VS RBM 2101	V RBM 3005

RMD 1501—RMD 1507 Press-button keys

These keys are used as connecting devices, e.g., in manual switchboards.

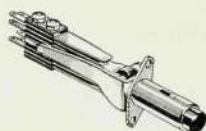
The upper part of the keys is nickel-plated. They are non locking and have buttons of black insulating material. If the button is required to be engraved this must be stated when ordering. The same spring sets as for *RMD 10—RMD 12* are used. The keys have two fixing lugs with 3.5 mm holes.

Fixing requires two wood screws *Trskr No 4-1/2" KS M05*, to be ordered separately.

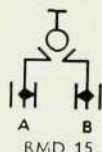
Dimensions:

see dimension sketch; distance between fixing holes 27 mm, weight with two spring sets of three springs each 0.072 kg.

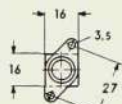
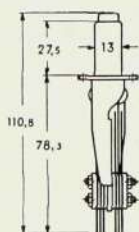
These keys have one step: non locking.



RMD 1501—RMD 1507



RMD 15

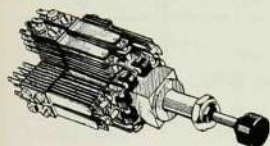


RMD 1501—RMD 1507

	spring sets	
	A	B
RMD 1501	V RBM 2005	V RBM 2005
RMD 1502	VS RBM 2101	V RBM 2005
RMD 1503	VS RBM 2101	VS RBM 2101
RMD 1504	V 2S RBM 2301	VS RBM 2101
RMD 1505	L RBM 2015	L RBM 2015
RMD 1506	VK RBM 2202	VK RBM 2202
RMD 1507	BSfV RBM 2305	BSfV RBM 2305

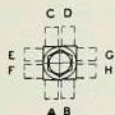
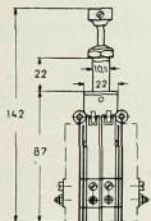
RMD 2001—RMD 2112 Press-button keys

These press-button keys are used as connecting devices, e.g., in manual switchboards.



RMD 2108

The fixing nuts of the keys are of nickel-plated brass. The button is normally of black insulating material, but on request may be had in red. If the button is required engraved, this should be stated with order. The key has no guide groove in the case and is not made with rotatory button. The same spring sets as for *RMD 10—RMD 12* are employed. For fixing these, screws with heads are used instead of pin screws. The screws are to be ordered separately, see screw table page 203.



RMD 2001—RMD 2112

RMD 20 is fitted with four spring sets with not more than eight springs in each.

RMD 21 has space for eight spring sets.

Dimensions: see dimension sketch; weight with eight spring sets of eight springs each 0.33 kg.

RMD 2001—RMD 2009

These keys have four spring sets: locking.

	spring sets			
	A	B	C	D
RMD 2001	VS RBM 2101	VS RBM 2101	VS RBM 2101	VS RBM 2101
RMD 2002	VS RBM 2101	BV RBM 2102	VS RBM 2101	BV RBM 2102
RMD 2003	2V RBM 2201	2V RBM 2201	2V RBM 2201	2V RBM 2201
RMD 2004	V 2S RBM 2301	VS RBM 2101	V 2S RBM 2301	VS RBM 2101

	spring sets			
	A	B	C	D
RMD 2005	VK RBM 2202	VK RBM 2202	VK RBM 2202	VK RBM 2202
RMD 2006	V 2S RBM 2301	V 2S RBM 2301	V 2S RBM 2301	V 2S RBM 2301
RMD 2007	2B V RBM 2302	2B V RBM 2302	2B V RBM 2302	2B V RBM 2302
RMD 2008	2V S RBM 2405	B 2V RBM 2406	2V S RBM 2405	B 2V RBM 2406
RMD 2009	4B RBM 2404	4B RBM 2404	4B RBM 2404	4B RBM 2404

RMD 2101 – RMD 2112

These keys have eight spring sets, locking.

		spring sets							
		A	B	C	D	E	F	G	H
RMD 2101	RBM 2201	2V	2V	2V	2V	V	V	V	V
RMD 2102	RBM 2301	V 2S	V 2S	V 2S	V 2S	V	V	V	V
RMD 2103	RBM 2404	4B	4B	4B	4B	V	V	V	V
RMD 2104	RBM 2301	V 2S	V 2S	V 2S	V 2S	VS	VS	VS	VS
RMD 2105	RBM 2201	2V	2V	2V	2V	2V	2V	2V	2V
RMD 2106	RBM 2404	4B	4B	4B	4B	2V	2V	2V	2V
RMD 2107	RBM 2301	V 2S	V 2S	V 2S	V 2S	V 2S	V 2S	V 2S	V 2S
RMD 2108	RBM 2405	2V S	B 2V	2V S	B 2V	2V S	B 2V	2V S	B 2V
RMD 2109	RBM 2404	4B	4B	4B	4B	4B	4B	4B	4B
RMD 2110	RBM 2416	2C	2C	2C	2C	2C	2C	2C	2C
RMD 2111	RBM 2416	2C	2B V	2C	2B V	2C	2B V	2C	2B V
RMD 2112	RBM 2202	VK	LK	VK	LK	VK	LK	VK	LK

BUTTONS, SHELVES, SCREWS ETC. FOR SWITCHES

BUTTONS ETC.

125452/1, 125452/2 Buttons for lever keys



125452/1

These buttons are used in conjunction with lever keys
RMA 10—RMA 15.

125452/1 is of black insulating material.

125452/2 is of red insulating material.

If the buttons are required engraved, this must be stated with order.

For fixing there is a hole with screw thread G2.

Dimensions:

diameter 10 mm, length 21 mm, weight 0.002 kg.

128840/1, 128840/2 Buttons for press-button keys



128840/1

These buttons are used in conjunction with press-button keys *RMD 10—RMD 21.*

128840/1 is of black insulating material.

128840/2 is of red insulating material.

If the buttons are required engraved, this must be stated with order.

Fixing requires a screw *G8 G10 M21*, to be ordered separately.

Dimensions:

diameter 16 mm, height 12 mm, fixing hole 4.6 mm, weight 0.002 kg.



206454

206454 Centring piece

This centring piece is used in lever keys *RMA* to centre the key arm of the switch on return to normal position.

The centring piece, which has two fixing holes, is fixed by two screws on to the key.

Dimensions:

length 19 mm, width 9.5 mm, weight per 100: 0.5 kg.



206455

206455 Roll

This roll is used in lever keys *RMA*.

The roll is of black insulating material.

The roll has a projection that fits into the groove in the key centring piece and a hole at the bottom for the roll-pin in the key arm.

Dimensions:

diameter 10 mm, thickness 4 mm, weight per 100: 0.25 kg.

SWITCH SHELVES

213214/1—213215/2 Switch shelves

These switch shelves are used in manual switchboards for fitting lever keys *RMA 10—RMA 15*.

The switch shelves, of 2 mm sheet brass, are made with two kinds of surface finish matt nickel plating or matt black oxidizing, see table.

They have two countersunk 3.2 mm holes for fixing the key and two countersunk 3.6 mm holes for fixing in the switchboard.

213214 is designed for keys with not more than seven contact springs in the spring sets.

213215 is designed for keys with not more than eight contact springs in the spring sets.

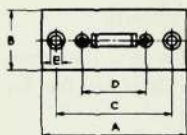


213214/2

Fixing of the key requires two screws, which are included with the key.

Fixing of the switch shelf requires two screws; for nickelplated shelf G5 G7 M21, and for oxidized shelf G5 G7 M07, which are to be ordered separately.

Dimensions: see table.



213214/1—213215/2

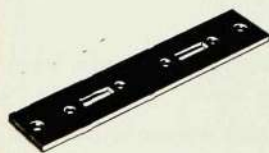
	surface finish	A	B	C	D	weight
		mm	mm	mm	mm	kg
213214/1	matt nickel plating	60	24.9	48	26	0.022
213214/2	matt black oxidizing	60	24.9	48	26	0.022
213215/1	matt nickel plating	70	24.9	58	26	0.027
213215/2	matt black oxidizing	70	24.9	58	26	0.027

215434/1, 215434/2 Switch shelves

These switch shelves are used in manual switchboards for mounting two lever keys *RMA 10*—*RMA 15*. The switch shelves are made of brass with two kinds of surface finish: matt nickel-plating or matt oxidizing, and they have four countersunk 3.2 mm holes for fixing the keys and two countersunk 3.6 mm holes for fixing in the switchboard.

215434/1 is matt nickel-plated.

215434/2 is matt oxidized.



215434/2

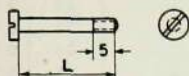
Fixing requires two screws: for nickel-plated shelves G5 G7 M21, and for oxidized shelves G5 G7 M07, to be ordered separately.

Dimensions :

length 120 mm, width 24.9 mm, thickness 3 mm, weight 0.07 kg, distance between fixing holes 108 mm.

SCREWS FOR SWITCHES

190626/3—190626/8 Screws for press-button keys



190626

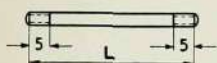
These screws are used for fixing spring sets on press-button keys *RMD 20*, *RMD 21*.

The screws are of surface finished manganese bronze in lengths to fit the different heights of spring sets. The screw has thread *G6*.

Dimensions : see table.

	for number of springs	length L	weight per 100
		mm	kg
190626/3	3	12	0.104
190626/4	4	14	0.112
190626/5	5	16	0.120
190626/6	6	18	0.128
190626/7	7	20	0.136
190626/8	8	22	0.144

209545/2—209545/16 Pin screw for lever keys and press-button keys



209545

These screws are used for fixing spring sets on lever keys *RMA 10—RMA 15* and press-button keys *RMD 10—RMD 15*.

The screws are of surface finished manganese bronze and have at each end a screw thread *G6*.

The pin screws are made in various lengths to fit the different spring sets, see table.

For *RMA 10—RMA 12* and *RMD 10—RMD 15*, which have spring sets on either side, a common pin screw is used. For these keys the length of the pin screw is determined by the total number of springs in the spring sets lying opposite each other.

Suitable nut is G6 S M05, to be ordered separately.

Dimensions: see table.

	for number of springs*	for number of springs*	length L	weight per 100
			mm	kg
209545/2	3	—	18	0.104
209545/3	4	—	20	0.111
209545/4	5	—	22	0.118
209545/5	6	—	24	0.125
209545/6	7	6	26	0.132
209545/7	8	7	28	0.139
209545/8	—	8	30	0.146
209545/9	—	9	32	0.153
209545/10	—	10	34	0.160
209545/11	—	11	36	0.167
209545/12	—	12	38	0.174
209545/13	—	13	40	0.181
209545/14	—	14	42	0.188
209545/15	—	15	44	0.195
209545/16	—	16	46	0.202

* Used for keys RMA 13—RMA 15 which have spring sets on one side only

** Used for keys RMA 12 and RMD 10—RMD 15 which have spring sets on both sides

PRESS-BUTTON STRIPS

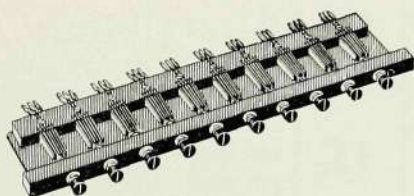
The press-button strips are used as connecting devices, e.g., in manual switchboards.

The strips have the front piece and the buttons of black insulating material. The cases have an oblique groove, which causes the buttons to rotate 45° when pressed in. This arrangement makes it easier to see if the buttons are pressed in or not.

The buttons on the press-button strip are usually engraved with vertical stroke filled up with white colour, but on request they may be engraved with figures.

The press-button strips are inserted in grooves in the frame of the switchboard and are held in place by the fixing plates.

RMN 8021/8, RMN 8022/9 Press-button strips with ten press-buttons




























RMN 8021/8

RMN 8022/9 are specially designed for portable telephone switchboard ABH 5001.

Dimensions:

length of front piece 281.5 mm, height 11.9 mm, depth 13.5 mm; weight about 0.35 kg.

	spring set	button	
		execution	function
RMN 8021/8			locking
RMN 8022/9			locking

DROP INDICATORS, DRUM INDICATORS, STAR INDICATORS, COMBINED DROP INDICATORS AND JACKS ETC.		13		
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TEST JACK STRIPS ETC. JACK STRIPS ETC ENGRAVING TABLES FOR JACK STRIPS LAMP STRIPS	page 236 page 252 page 256	16		
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DROP INDICATORS, DRUM INDICATORS, STAR INDICATORS, COMBINED DROP INDICATOR AND JACKS ETC.

DROP INDICATORS

RNA 1101—RNA 1104 Drop indicators,
without sheath
(replacing drop indicators with round coil RNA 10)



RNA 1101—RNA 1104

These drop indicators are used as signalling device in manual switchboards etc.

The indicators have oval, unsheathed coil. The front plate is of black lacquered brass with indicator shutter of nickel-plated brass.

They have an alarm contact which is made when the shutter falls and is broken when it is restored. There are four soldering tags for connection.

Each indicator requires a label plate 133514/3, to be ordered separately with desired numbering.

The front plate has four countersunk 2.2 mm fixing holes unthreaded, for screws with thread G9. The distance between fixing holes is 27×19.5 mm.

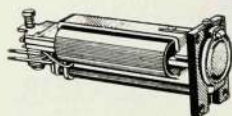
Fitting strips, see page 315.

Dimensions:

length 98 mm, height of front plate 32 mm, width 24 mm; weight 0.1 kg.

	replacing	coil		operating with
		designation	resistance	
RNA 1101	RNA 1001 (RO 50/150)	RCE 28101	150	15
RNA 1102	RNA 1002 (RO 50/2000)	RCE 28102	2000	5.1
RNA 1103	—	RCE 28103	500	9.3
RNA 1104	—	RCE 28104	1000	6.6

RNA 1202—RNA 1252 Drop indicators, with sheathed, oval coil



RNA 1202—RNA 1205

These drop indicators are used as signalling device in manual switchboards etc.

The indicators have oval, sheathed coil. The front plate is of black lacquered brass with indicator shutter of nickel-plated brass.



RNA 1251, RNA 1252

Some of the indicators have an alarm contact which is made when the shutter falls and is broken when it is restored. For connecting there are two or four soldering tags.

RNA 1202—RNA 1205 have alarm contact.

RNA 1251, RNA 1252 are without alarm contact.

For each indicator a label plate is required, 133514/3, to be ordered separately, stating numbering desired. The front plate has four countersunk 2.2 mm fixing holes, unthreaded for screw with thread G9. The distances between the fixing holes are 27×19.5 mm.

Fitting strips, see page 315.

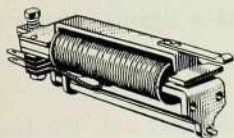
Dimensions :

length 98 mm, height of front plate 32 mm, width 24 mm; weight about 0.11 kg.

	c o i l		operating with
	designation	resistance	
		ohm	mA
RNA 1202	RCE 58101	150	15
RNA 1203	RCE 58102	2000	5.1
RNA 1204	RCE 58103	500	9.3
RNA 1205	RCE 58104	1000	6.6
RNA 1251	RCE 58104	1000	6.6
RNA 1252	RCE 58103	500	9.3

RNA 1301—RNA 1352 Drop indicators without sheath

(RNA 1351 replaces RNA 1201)



RNA 1301, RNA 1302

These drop indicators are used as signal devices in manual switchboards etc.

They have oval unsheathed coil and are without front plate with shutter, so that they can only be used in line units or special indicator strips with shutters.

The drop indicators are provided with an alarm contact which is made when the indicator shutter drops and is broken when the shutter is restored.

RNA 1301, RNA 1302, which have two soldering tags for connection of the coil, are used in line units for exchange line accessories, type ABG 19, and in indicator strips type RNA 50 for manual switchboards types ABH and ABK.

RNA 1351, RNA 1352 are without soldering tags and the coil is connected direct by means of its fixed ends. These drop indicators are used in line units for plug switchboards type ABG 13 and ABG 14.

Drop indicator strips for RNA 1301, RNA 1302, see page 213.

Dimensions:

length 98 mm, width 20 mm, height 28 mm, weight 0.084 kg.

	c o i l		operating with
	designation	resistance	
RNA 1301	RCE 58105	600	9 mA
RNA 1302	RCE 58102	2000	5.1
RNA 1351	RCE 58105	600	9
RNA 1352	RCE 58102	2000	5.1

RNA 2001—RNA 2003 Drop indicators, with sheathed, round coil



RNA 2001—RNA 2003

These drop indicators are used as signalling device in manual switchboards etc.

The indicators have round, sheathed coil. The front plate is of black lacquered brass with indicator shutter of nickel-plated brass.

They have an alarm contact that is made when the shutter falls and is broken when it is restored. For connecting there are four soldering tags.

Each indicator requires a label plate 133514/2 or 133514/3, to be ordered separately, stating the numbering desired in the case of 133514/3.

The front plate has four countersunk 2.2 mm fixing holes not threaded, for screws with thread G9. The distances between the fixing holes are 27×19.5 mm.

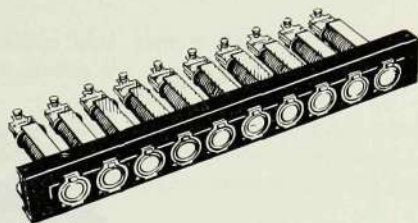
Fixing strips, see page 315.

Dimensions:

length 102 mm, height of front plate 32 mm, width 24 mm; weight about 0.17 kg.

	replacing	coil		operating with
		designation	resistance	
RNA 2001	RO 210/1000	RCE 23101	1000	5.1
RNA 2002	RO 210/2000	RCE 23102	2000	3.9
RNA 2003	RO 210/100	RCE 23103	100	16

RNA 5001, RNA 5002 Drop indicator strips



RNA 5001, RNA 5002

These drop indicator strips are used in manual PBX and switchboards that have panel width of 282 mm.

The drop indicator strips have frame (filling) in dull black enamelled sheet brass, which can be fitted with not more than 10 drop indicators type *RNA 1301* or *RNA 1302*, together with 10 loose shutters *235170*.



Shutter 235170

On the front of the frame there is a holder track for label strip with label protector.

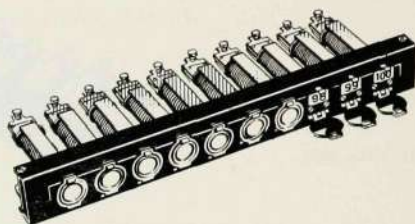
When a drop indicator strip is not fully fitted with drop indicators, filling plates instead of shutters are put in the empty spaces. The drop indicator strip has a height of 35.9 mm, equivalent to the height for three jack strips.

The drop indicator strips are inserted in grooves in the switchboard frame and are held in place by the fixing plates.

When ordering drop indicator strip the required number of indicators and the placing should be given together with the labelling desired, e.g., drop indicator



strip RNA 5001 with 10 drop indicators in places 1—10 labelled 91—100 would be ordered as: drop indicator strip RNA 5001/1—10, labelled 91—100.



RNA 5001/1—10

Dimensions:

length 281.5 mm, height 35.9 mm, weight with 10 drop indicators 1.170 kg.

	c o i l		operating with
	designation	resistance	
RNA 5001/—	RNA 1301	600 ohm	mA
RNA 5002/—	RNA 1302	2000	9
			5.1

DRUM INDICATORS

RNC 1401—RNC 1415 Drum-wheel visual indicators



RNC 1401—RNC 1415

These drum-wheel visual indicators are used as signal devices in manual switchboards etc.

The indicators have round, unshathed coil. The front plate, which is of black lacquered brass has a window for the revolving drum flasher.

They have an alarm contact which is made when the armature is actuated. For connecting there are soldering tags, see table.

RNC 1401–RNC 1405 have an operating winding and a holding winding.

RNC 1411–RNC 1415 have an operating winding.

A suitable label plate is 80144, to be ordered separately, stating the desired numbering.

The front plate has four countersunk 2.2 mm fixing holes without thread for screws with thread G9. The distances between fixing holes are 20×18 mm.

Fixing strips, see page 315.

Dimensions:

length 97 mm, height of front plate 25 mm, width 22.8 mm; weight about 0.08 kg.

	replacing	coil				number of soldering tags	diagram	operating with		
		designation	resistance		inner winding			outer winding	inner winding	outer winding
			inner winding	outer winding						
RNC 1401	RO 885/50+500	RCE 26201	ohm 50	ohm 500	4		mA 59	mA 14		
RNC 1402	RO 865/400+1000	RCE 26202	400	1000	6		19	11.5		
RNC 1403	—	RCE 26202	400	1000	6		19	11.5		

replacing	coil				number of soldering tags	diagram	operating with		
	designation	resistance		inner winding			outer winding	inner winding	outer winding
		ohm	ohm						
RNC 1404	RO 865/50+500	RCE 26201	50	500	6		mA	mA	
RNC 1405	RO 865/50+1000	RCE 26203	50	1000	6		59	14	
RNC 1411	RO 860/500	RCE 25101	500	—	4		10.8	—	
RNC 1412	RO 860/1	RCE 25102	1	—	4		220	—	
RNC 1413	RO 860/1000	RCE 25108	1000	—	4		7.5	—	
RNC 1414	RO 860/3000	RCE 25104	3000	—	4		8.5	—	
RNC 1415	RO 860/2000	RCE 25109	2000	—	4		6	—	

RNC 1501, RNC 1511 Drum-wheel visual indicators



RNC 1501, RNC_1511

These drum-wheel visual indicators are used as signal devices in manual switchboards etc.

The indicators have round, unsheathed coil. The front plate, which is of black lacquered brass, has a window for the revolving drum flasher.

The indicator has an alarm contact which is made when the armature is actuated. For connecting there are soldering tags, see table.

RNC 1501 has an operating winding and a bifilar resistance winding.

RNC 1511 has an operating winding and a holding winding.

A suitable label plate is 80871, to be ordered separately, stating the desired numbering.

The front plate has four countersunk 2.2 mm fixing holes without thread, for screws with thread G9. The distances between the fixing holes are 19×20.5 mm.

Fitting strips, see page 315.

Dimensions:

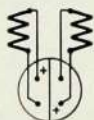
length 96 mm, height of front plate 23 mm, width 24.5 mm; weight about 0.08 kg.

	replacing	coil			number of soldering tags	diagram	operating with	
		designation	resistance				inner winding	outer winding
			inner winding	outer winding				
RNC 1501	—	RCE 25201	500 ohm	400 ohm bifilar	6		12 mA	— mA

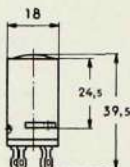
	replacing	coil			number of soldering tags	diagram	operating with	
		designation	resistance				inner winding	outer winding
			inner winding	outer winding				
RNC 1511	RO 875/50+500	RCE 26201	ohm 50	ohm 500	4		mA 59	mA 14



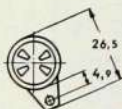
RND 1101, RND 1102



RND 1101, RND 1102



RND 1101, RND 1102



STAR INDICATORS

RND 1101, RND 1102 Star visual indicators

These star visual indicators are used as signal devices in telephone instruments and manual switchboards etc. They are enclosed in a case of nickel-plated brass fitted with window. They have a fixing lug with 2.8 mm hole and soldering tags for connecting.

RND 1101 has a resistance of 120 (2×60) ohm.

RND 1102 has a resistance of 500 (2×250) ohm.

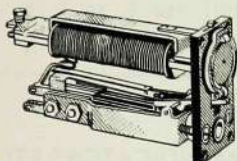
Fixing requires a screw, to be ordered separately.

Dimensions:

see dimension sketch; weight 0.024 kg.

COMBINED DROP INDICATORS AND JACKS

RNE 1101—RNE 1103 Combined drop indicators and jacks



RNE 1101—RNE 1103

These indicators and jacks are used as signal devices in manual switchboards etc.

They have oval, unsheathed coil. The front plate with jack opening is of black lacquered brass. They have an alarm contact that is made when the indicator shutter drops and is broken when the plug is inserted in the jack, whereupon the indicator shutter is also automatically restored.

The jack is designed for 5.76 mm plugs *RPR 25* and *RPR 35*.

Each indicator requires a label plate *133515/2* for the indicator shutter and a label plate *133514/1* intended to be placed behind the shutter. These label plates are to be ordered separately, stating the numbering desired for label plate *133515/2*.

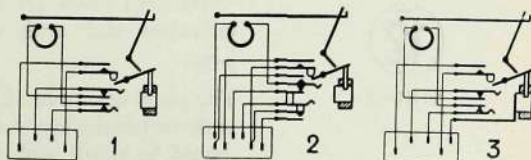
The front plate has four countersunk 2.2 mm fixing holes, unthreaded, for screw with thread *G9*. The distance between the fixing holes is 41.5×20.4 mm.

Fixing strips, see page 315.

Dimensions:

length 95 mm, height of front plate 46 mm, width 24.9 mm; weight about 0.14 kg.

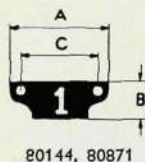
RNE 1101, RNE 1102, RNE 1103



	replacing	coil		operating with	diagram
		designation	resistance		
RNE 1101	RNE 1001	RCE 29101	150 ohm	15 mA	1
RNE 1102	RNE 1002	RCE 29101	150	15	2
RNE 1103	—	RCE 29101	150	15	3

LABEL PLATES FOR DRUM INDICATORS ETC.

80144, 80871 Label plates



These label plates are used in conjunction with drum wheel visual indicators.

The plates are of black lacquered brass with raised nickelplated figures; numbering desired should be stated with order.

The label plates are fixed on the front plate of the indicator below the upper two fixing screws.

Dimensions: see table.

	for indicator	A	B	C	height of figures	weight per 100
		mm	mm	mm	mm	kg
80144	RNC 14	22.8	8.5	18	6	0.080
80871	RNC 15	24.5	8	20.5	6	0.085

133514/1—133514/4 Label plates



133514/3

These label plates are used in conjunction with drop indicators and with combined drop indicator and jacks.

The plates are made of red or white card and with or without numbering, see table; the numbering desired should be stated with order.

The label plates are fitted inside the indicator shutter and are fixed by a spring ring 125511 supplied with them.

Dimensions:

diameter 20.5 mm, height of figures 12.5 mm, weight per 100: 0.015 kg.

	card	figures
133514/1	white	—
133514/2	red	—
133514/3	white	black
133514/4	red	black

133515/2 Label plate

2•3

133515/2

This label plate is used in conjunction with combined drop indicator and jacks.

The plate is of black lacquered brass with raised nickel-plated figures; the numbering desired should be stated with order.

The label plate is fixed to the outside of the indicator shutter by a screw G⁹ C2.5 M07, supplied with the indicator.

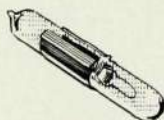
Dimensions:

diameter 15 mm, height of figures 6.5 mm, weight per 100: 0.06 kg.

LAMPS, LAMP LENSES, NUMBER LENSES, LENS PROTECTORS

LAMPS

RNG 1001—RNG 1104 Lamps

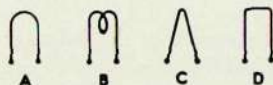


RNG 1001

These lamps are chiefly intended for manual switchboards, but they may be used for other parts where a visual signal is required.

The lamps fit lamp jack *RNP 8001* and lamp strips *RNS 1701—RNS 1704* etc.

The figures for current consumption given in the table apply for indicated voltage and with a tolerance of $\pm 10\%$ for *RNG 1001—RNG 1007* and $\begin{matrix} +15\% \\ -10\% \end{matrix}$ for *RNG 1101—RNG 1104*.



shapes of filament

Dimensions:

length 44 mm, diameter 6 mm, weight per 100: 0.15 kg.

	replacing	rated voltage	current consumption	filament	operating voltage	used for
RNG 1001	—	V 12	mA 75	carbon A	V —	switchboard ADK 50; in series with 200 ohm resistance
RNG 1002	RO 100000/12	12	240	A	—	—
RNG 1003	RO 100000/24	24	130	B	20	20 V systems
RNG 1004	RO 100000/30	30	130	B	24	24 V systems
RNG 1005	—	45	110	B	36	36 V systems
RNG 1006	RO 100000/60	60	70	B	48	48 V systems
RNG 1007	—	24	55	B	—	—

	replacing	rated voltage	current consumption	filament	operating voltage	used for
RNG 1101	RO 100500/12	V 12	mA 50	metal C	V —	—
RNG 1102	RO 100500/24	24	35	D	—	switchboards ADD 10, ADE 11 and ADF 13
RNG 1103	RO 100500/30	30	40	D	—	—
RNG 1104	RO 100500/6	6	75	D	—	—

RNG 2010—RNG 2012, RNG 2110—RNG 2114 Panel and row lamps



RNG 2012

These lamps are used as observation signals on alarm at telephone exchanges.

The lamps are made with tube-shaped dull glass body in various colours, see table, and with cap for bayonet socket *B 15*.

RNG 2010—RNG 2012 have built-in shunt, ensuring that the alarm circuit functions even if the lamp filament is broken. They are used as panel lamps but may also be used as row lamps.

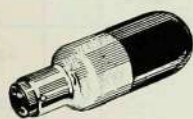
The indicated voltage is 24–28 V and the operating voltage 24 V. The current consumption at 24 V is about 120 mA, of which 80 mA by the shunt.

Dimensions:

length 60 mm, diameter of cap 15 mm, of glass body 19 mm; weight 0.009 kg.

RNG 2110—RNG 2114 are without shunt. They are used as row lamps.

The indicated voltage is 30 V and the operating voltage 24 V. The power consumption is 10 W, with a tolerance of $\pm 10\%$.



RNG 2112

Dimensions :

length 80 mm, diameter of cap 15 mm, diameter of glass body 25 mm; weight 0.013 kg.

with shunt	without shunt	colour
RNG 2010	RNG 2110	all white
RNG 2011	RNG 2111	all red
RNG 2012	RNG 2112	half red
	RNG 2113	half blue
	RNG 2114	all blue

The lamps can be supplied on request for 12, 36 or 48 V operating voltage

LAMP LENSES

RNH 1001—RNH 1206 Lamp lenses



RNH 1001

These lamp lenses are used in conjunction with lamp strips and lamp jacks. The lenses are of glass in various colours and some are designated, see table. The cap is slit, its springiness holding it firm in the jack.

RNH 1001—RNH 1004 have cap of bright brass.

RNH 1101—RNH 1206 have cap of nickel-plated brass.



RNH 1101

Dimensions :

diameter of cap 8 mm, greatest diameter see table.



RNH 1201

	replacing	lens		dia- meter	weight per 100
		co- lour	figure		
RNH 1001	RO 101200	opal	—	mm	kg
RNH 1002	RO 101210	red	—	9	0.08
RNH 1003	RO 101220	green	—		
RNH 1004	—	opal	+ (black)		

	replacing	l e n s		dia- meter	weight per 100
		co- lour	figure		
RNH 1101	RO 101300	opal	—	mm	kg
RNH 1102	RO 101310	red	—	15	0.5
RNH 1103	RO 101320	green	—		
RNH 1201	RO 101400	opal	—		
RNH 1202	RO 101410	red	—		
RNH 1203	RO 101420	green	—		
RNH 1204	—	opal	+ (black)	20	1.4
RNH 1205	—	opal	S (green)		
RNH 1206	—	opal	M (black)		

NUMBER LENSES

RNH 2001—RNH 1202 Number lenses

(RNH 2001 replaces RO 101500)



RNH 2001

These number lenses are used in conjunction with lamp strips and lamp jacks.

The cap is of white boiled brass. The number is printed on transparent paper. This paper is protected above by a clear glass lens and below by a mica disc. The label, the lens and the mica disc are held firm in the cap by a threaded ring. The numbering required should be stated with order.

If the label has only one figure, the height of the figures may be 2.5, 3.5, 4.5 or 5.5 mm; with two figures they may be 2.5, 3.5 or 4.5 mm high; with three figures 2.5 or 3.5 mm high.

Labelling comprising four or five figures is placed in two lines, when only figures 2.5 mm can be used.

The cap is slit and its springiness makes it sit firm in the jack.

Dimensions:

length 12 mm, diameter 9.25 mm, diameter of cap 8 mm; weight per 100: 0.13 kg.

	l a b e l	
	height	colour of paper
	mm	
RNH 2001	2.5	white
RNH 2002	2.5	red
RNH 2003	4.5	white
RNH 2004	4.5	red
RNH 2005	—	white
RNH 2006	3.5	white
RNH 2007	3.5	red
RNH 2008	5.5	white
RNH 2009	3.5	green
RNH 2010	3.5	blue
RNH 2011	—	yellow
RNH 2012	—	orange

LENS PROTECTORS

RNH 3001 Lens protector (replaces RO 101600)



RNH 3001

This lens protector is used in conjunction with lamp jack *RNP 8001* as protection for lamp lenses *RNH 1001*—*RNH 1003*.

The lens protector is of nickel-plated brass.

When this lens protector is used the hole for the lamp jack case is drilled so large that the lens protector can freely enter the hole. The cap is slit and its springiness makes it sit firmly on the jack.

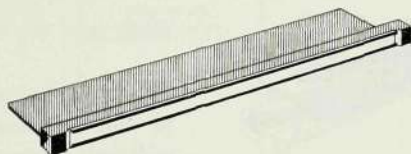
Dimensions:

length 13 mm, diameter 11 mm, length of cap 8.75 mm and diameter 10 mm; weight per 100: 0.2 kg.

LABEL STRIPS

RNM 5201—RNM 5701 Label strips

RNM 5701



These label strips are used in manual P.B.X. and the like for the labelling adjoining connecting jacks etc.

They have front piece of black insulating material.

The label strips are inserted in grooves in the switch-board frame and are held firm by the fixing plates.

Label slips of paper and transparent protective slips must be ordered separately, see table.

Dimensions: see table.

	front piece			label slip	label protector	weight
	length	height	depth			
	mm	mm	mm			
RNM 5201	207.5*	9.5	10	233712/12	233711/15	0.10
RNM 5311	244.5**	11	10	233712/13	233711/16	0.13
RNM 5701	281.5***	11.9	13.5	233712/14	233711/14	0.22

* For 208 mm width of panel

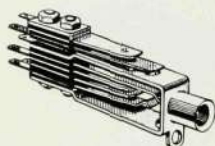
** For 245 mm width of panel

*** For 282 mm width of panel

JACKS, LAMP-JACKS

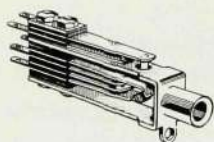
JACKS

These jacks are used in manual switchboards etc.



RNP 1001—RNP 1011

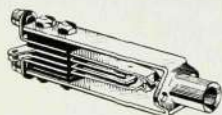
The jacks are of white boiled brass and fit 11 or 13 mm thickness of panel. They are designed for soldering connection but in some cases they have screw connection for the line springs, see tables.



RNP 1101—RNP 1105

RNP 1001—RNP 1011 are designed for plugs RPR 25 and RPR 35.

RNP 1101—RNP 1105 are designed for plugs RPR 24 and RPR 34.

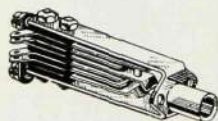


RNP 1201—RNP 1204

RNP 1201—RNP 1207 are designed for plugs RPR 27.

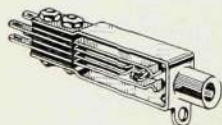
RNP 1301 is designed for plug RPS 1201.

The jacks RNP 1001—RNP 1105 and RNP 1301 have only one fixing lug, but they sit firm all the same, provided the neck of the jack fits closely into the hole of the mounting panel.



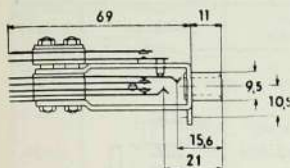
RNP 1205—RNP 1207

The jacks RNP 1201—RNP 1207 have two fixing lugs and there are two executions of the frame. RNP 1201—RNP 1204, which have only four contact springs, have the jack case on the same centre line as the fixing holes, while RNP 1205—RNP 1207, which have more than four contact springs, have the jack case deviating two mm from the centre line. The distance between fixing holes is 15.5 mm in both cases.



RNP 1301

Fixing requires wood screws Trskr No. 4— $\frac{3}{8}$ " KS M05, to be ordered separately.



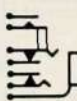
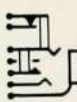
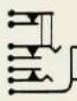
RNP 1001—RNP 1011

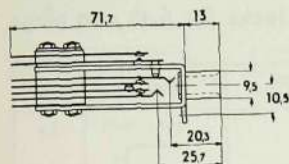
Dimensions:

see dimension sketches; diameter of fixing holes 3.4 mm.

RNP 1001—RNP 1011 Jacks for 5.76 mm plugs

	execution of the jacks	diagram	weight
			kg
RNP 1001	—		0.028
RNP 1002	parallel		0.029
RNP 1003	series		0.031
RNP 1004	series		0.032
RNP 1005	parallel, with one make contact		0.029
RNP 1006	parallel, with third conductor		0.029
RNP 1007	parallel, with third conductor and one make contact		0.029
RNP 1008	series, with third conductor		0.031

	execution of the jacks	diagram	weight
RNP 1009	series, with third conductor and one make contact		kg 0.039
RNP 1010	parallel, with third conductor and one make and one break contact		0.037
RNP 1011	series, with third conductor and one break contact		0.037

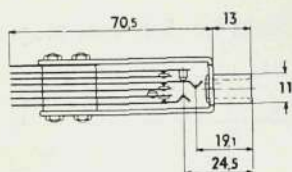


RNP 1101—RNP 1105

RNP 1101—RNP 1105 Jacks for 5.49 mm plugs

	execution of the jacks	diagram	weight
RNP 1101	series		kg 0.036
RNP 1102	series, with one break contact		0.042
RNP 1103	series, with one make contact		0.042
RNP 1104	series, with third conductor		0.036
RNP 1105	parallel, with one make and one break contact		0.042

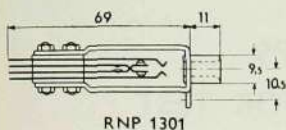




RNP 1201—RNP 1207

RNP 1201—RNP 1207 Jacks for 6.42 mm plugs

	execution of the jacks	diagram	weight
RNP 1201	—		kg 0.037
RNP 1202	series		0.039
RNP 1203	parallel		0.038
RNP 1204	series, with third conductor		0.037
RNP 1205	series, with one make contact		0.043
RNP 1206	series, with one break contact		0.043
RNP 1207	parallel, with two make contacts		0.042



RNP 1301 Jack for 4.5 mm plug RPS 1201

	execution of the jacks	diagram	weight
RNP 1301	parallel, with one make contact		kg 0.030

LAMP JACKS

RNP 8001 Lamp jack

(replacing RO 101100)



RNP 8001

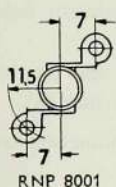
This lamp jack is used in manual switchboards etc.

The jack is of white boiled brass and has two contact springs with soldering tags and two fixing lugs. Suitable lamps are RNG 1001–RNG 1104 and lamp lenses RNH 1001–RNH 2010 as also lens shield RNH 3001.

Fixing requires two wood screws *Trsker* No. 3–1/2" KS M05, or possibly two metal threaded screws, to be ordered separately.

Dimensions :

length 73 mm, distance between fixing lugs and front rim of jack case 21.7 mm, external diameter jack case 9.5 mm, diameter fixing holes 2.8 mm, weight 0.011 kg.



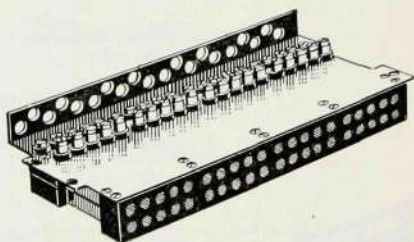
RNP 8001

TEST JACK STRIPS, LABEL FRAME FOR TEST JACK STRIPS

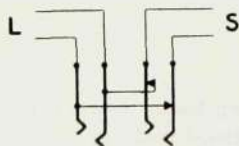
TEST JACK STRIPS

The test jack strips are used on the distribution frame in a telephone exchange to enable testing of the lines. A test instrument may be connected in by a test plug, so that the circuits may be tested individually both on the line side and on the exchange side.

RNR 1001, RNR 1002 Test jack strips



RNR 1001



RNR 1001, RNR 1002

These strips, which are fitted with twenty twin jacks, have a front piece of black insulating material and are furnished with twenty wire conductor holes.

RNR 1001 has screw terminal for the line side (L) and soldering tags on the exchange side (S).

RNR 1002 has soldering tags on both line and exchange sides.

A suitable test plug is *RPR 4201*, suitable break plugs *RPT 9901*–*RPT 9906* and suitable label frame *211686*, this last being placed below one of the fixing screws.

Fixing requires four screws *G5 E5.5 J36*, to be ordered separately.

Dimensions:

length 190 mm, width 90 mm, distance between fixing holes 180 mm, weight 0.55 kg.

LABEL FRAME FOR TEST JACK STRIPS

211686 Label frame for test jack strips

This label frame is used in conjunction with test jack strips *RNR 1001*, *RNR 1002*.

The frame is of nickel-plated brass and the label sheet is of white carton with black figures.

The numbering (labelling) should be stated with order.

The label frame is affixed below one of the front fixing screws of the test jack strip.

Dimensions:

length 17 mm, width 9.5 mm, height 23 mm, weight per 100: 0.25 kg.



211686



JACK STRIPS, NUMBER PEGS, ENGRAVING TABLES

JACK STRIPS FOR 208 mm WIDTH OF PANEL

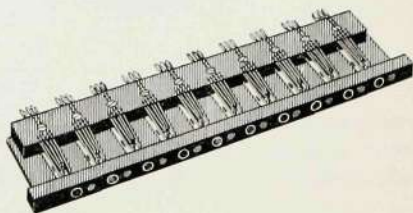
The jack strips are used in manual P. B. X. etc.

The strips have front of black insulating material for 10 or 20 jacks, see tables. The jack strips may be ordered with or without engraving on the front. When ordering jack strip without engraving the designation of the jack strip is given and the index letter O. When ordering engraved jack strip the designation of the jack strip is given together with an index figure, e.g. *RNR 3021/2*, i.e. jack strip *RNR 3021*, with engraving 2, see engraving table.

Label strip *RNM 5201* can be used in conjunction with unengraved jack strips.

The jack strips are inserted in grooves in the switch-board frame and are held in place by the fixing plates.

RNR 3021—RNR 3024 Jack strips for 5.76 mm plugs




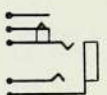


RNR 3021/H

These jack strips have ten jacks intended for plugs *RPR 25* and *RPR 35*.

Engraving, see table page 252.

Dimensions:

length of front 207.5 mm, height 9.5 mm, depth 10 mm, weight 0.25 kg approx.

	spring set		spring set
RNR 3021/		RNR 3022/	
RNR 3023/		RNR 3024/	



RNR 3071, RNR 3072 Jack strips for 5.76 mm plugs





RNR 3071/O

These jack strips have twenty jacks intended for plugs RPR 25 and RPR 35.

Engraving, see table page 254.

Dimensions:

length of front 207.5 mm, height 9.5 mm, depth 10 mm, weight 0.27 kg approx.

	spring set		spring set
RNR 3071/		RNR 3072/	

JACK STRIPS FOR 245 mm WIDTH OF PANEL

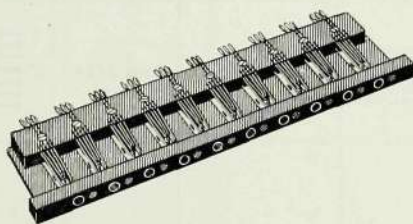
The jack strips are used in manual P.B.X. etc.

The strips have front in black insulating material for 10 or 20 jacks, see tables. The jack strips may be supplied with or without engraving on the front. When ordering jack strips without engraving the jack strip designation is stated together with the index letter O. When ordering engraved jack strips the jack strip designation is given together with an index figure, e.g. *RNR 4021/2* i.e., jack strip *RNR 4021* with engraving 2, see engraving table.

Label strip *RNM 5311* may be used with unengraved jack strips.

The jack strips are inserted in grooves in the switchboard frame and are held in place by the fixing plates.

RNR 4121—RNR 4129 Jack strips for 5.76 mm plugs




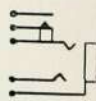



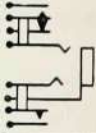



RNR 4121/H

These jack strips have ten jacks intended for plugs *RPR 25* and *RPR 35*.

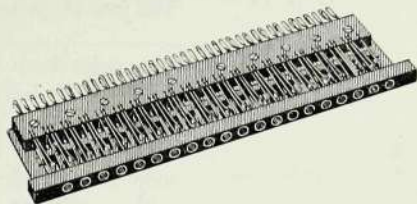
Engraving, see table page 252.

Dimensions:

length of front 244.5 mm, height 11 mm, depth 11.7 mm, weight 0.37 kg approx.

	spring set		spring set
RNR 4121/		RNR 4122/	
RNR 4123/		RNR 4124/	
RNR 4125/		RNR 4126/	
RNR 4127/		RNR 4128/	
RNR 4129/			

RNR 4171—RNR 4174 Jack strips for 5.76 mm plugs



RNR 4171/O

These jack strips have twenty jacks intended for plugs *RPR 25* and *RPR 35*.

Engraving, see table page 254.

Dimensions:

length of front 244.5 mm, height 11 mm, depth 11.7 mm, weight 0.4 kg approx.

	spring set		spring set
RNR 4171/		RNR 4172/	
RNR 4173/		RNR 4174/	



JACK STRIPS FOR 282 mm WIDTH OF PANEL

The jack strips are used in manual P.B.X. etc.

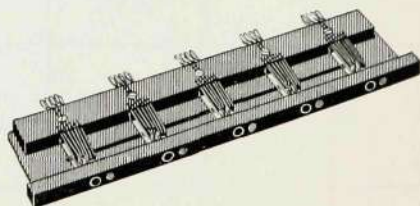
The strips have front in black insulating material for 5, 10 or 20 jacks, see tables. Jack strips with 5 or 10 jacks are made either with hole for number sleeve 134521 or with or without engraving direct on the strip front: jack strips with 20 jacks are made only with or without engraving.

When ordering jack strips without engraving there should be stated the jack strip designation together with index letter **O** or **H**, index **O** without hole for number sleeve, index **H** with hole for number sleeve 134521. When ordering engraved jack strips the jack strip designation together with an engraving index figure as per engraving table e.g., *RNR 8071/10*, i.e., jack strip *RNR 8071* with engraving execution 10.

Label strip *RNM 5701* may be used with jack strip without engraving.

The jack strips are inserted in grooves in the switch-board frame and are held in place by the fixing plates.

RNR 8002, RNR 8003 Jack strips for 5.76 mm plugs



RNR 8003/H

These jack strips have five jacks designed for plugs *RPR 25* and *RPR 35*. Engraving, see table page 252.

Dimensions:

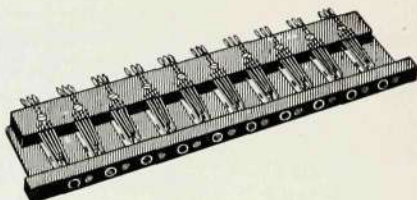
length of front piece 281.5 mm, height 11.9 mm,
depth 13.5 mm, weight 0.37 kg approx.

	spring set		spring set
—	—	RNR 8002/	
RNR 8003/*			

* RNR 8003/H replacing RO 84701



RNR 8021—RNR 8036 Jack strips for 5.76 mm plugs



RNR 8024/H

These jack strips have ten jacks designed for plugs RPR 25 and RPR 35.

Engraving, see table page 252.

Dimensions:

length of front piece 281.5 mm, height 11.9 mm, depth 13.5 mm, weight 0.4 kg approx.

	spring set		spring set
RNR 8021/		RNR 8022/	
RNR 8023/		RNR 8024/	
RNR 8025/		RNR 8026/	
RNR 8027/		RNR 8028/	

	spring set		spring set
RNR 8029/*		RNR 8030/*	
RNR 8031/		RNR 8032/	
RNR 8033/	replaced by RNR 8021	RNR 8034/	
RNR 8035/		RNR 8036/	

* With soldering tags in strip plate

RNR 8024/H replacing RO 84760

RNR 8025/H replacing RO 84756

RNR 8028/H replacing RO 84757

RNR 8029/H replacing RO 84758

RNR 8030/H replacing RO 84759

RNR 8071—RNR 8076 Jack strips for 5.76 mm plugs

RNR 8071/O







These jack strips have twenty jacks to fit plugs *RPR 25* and *RPR 35*.

These jack strips cannot be made with holes for number pegs.

Engraving, see table page 254.



Dimensions:

length of front piece 281.5 mm, height 11.9 mm, depth 13.5 mm, weight about 0.4 kg approx.

	spring set		spring set
RNR 8071/		RNR 8072/	
RNR 8073/*		RNR 8074/**	

* With soldering tags in strip plate

** With extra soldering tag on the rear piece

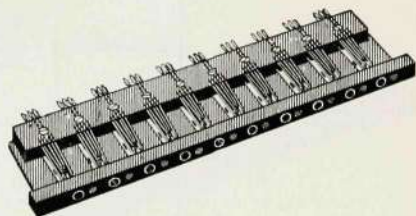
	spring set		spring set
RNR 8075/		RNR 8076/*	

* With extra soldering tag on each spring set

RNR 8073 replacing RO 84802



RNR 8121 — RNR 8130 Jack strips for 5.49 mm plugs



RNR 8127/H

These jack strips have ten jacks to fit plugs *RPR 24* and *RPR 34*.

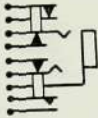

Engraving, see table page 252.

Dimensions:

length of front piece 281.5 mm, height 11.9 mm, depth 13.5 mm, weight 0.37 kg approx.

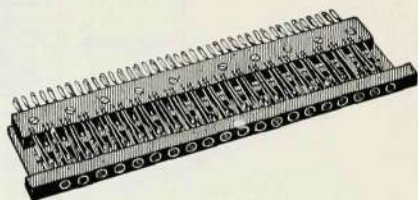
	spring set		spring set
RNR 8121/*		RNR 8122/*	
RNR 8123/		RNR 8124/	
RNR 8125/		RNR 8126/	
RNR 8127/		RNR 8128/	

* With soldering tags in strip plate

	spring set		spring set
RNR 8129/		RNR 8130/	



RNR 8171—RNR 8179 Jack strips for 5.49 mm plugs



RNR 8175/O

These jack strips have twenty jacks to fit plugs *RPR 24* and *RPR 34*.

Engraving, see table page 254.

Dimensions:

length of front piece 281.5 mm, height 11.9 mm, depth 13.5 mm, weight 0.4 kg approx.

	spring set		spring set
RNR 8171/*		RNR 8172/	
RNR 8173/*		RNR 8174/*	
RNR 8175/		RNR 8176/	
RNR 8177/		RNR 8178/*	

* With soldering tags in strip plate

	spring set		spring set
RNR 8179/			

RNR 8173 replacing RO 84803.

NUMBER PEGS

134521 Number peg for Jack strips



134521

This number peg is used for numbering jack strips, terminal strips etc., which have special holes for this purpose.

The peg, which is of oxidized brass, has label disc of black oxidized brass with raised nickel-plated figure. The numbering desired is to be stated with order.

The number peg is pressed into the hole in the strip and sits firm because of its spring.

Dimensions:

length 7.5 mm, diameter 8 mm, the case fits holes 5.5–5.8 mm; weight per 100: 0.055 kg.

ENGRAVING TABLES FOR JACK STRIPS

This engraving table is intended for jack strips with ten jacks:

RNR 3021—RNR 3024


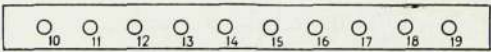
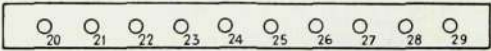
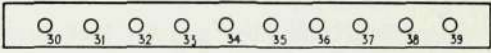
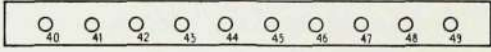
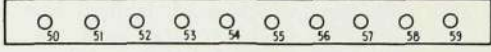
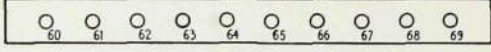
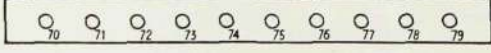
RNR 4121—RNR 4129

RNR 8002—RNR 8003

RNR 8021—RNR 8036

RNR 8121—RNR 8130

The figures are engraved 4.5 mm high and filled in with white colour.

index figure	engraving on the front	engraving
-/1		0—9
-/17		10—19
-/18		20—29
-/19		30—39
-/20		40—49
-/21		50—59
-/22		60—69
-/23		70—79

index figure	engraving on the front	engraving
-/24		80—89
-/25		90—99
-/2		1—10
-/3		11—20
-/4		21—30
-/26		31—40
-/27		41—50
-/28		51—60
-/29		61—70
-/30		71—80
-/31		81—90
-/32		91—00



This engraving table is intended for jack strips with twenty jacks:

RNR 3071—RNR 3072

RNR 4171—RNR 4174

RNR 8071—RNR 8076

RNR 8171—RNR 8179

The figures are engraved:

3.5 mm high for RNR 30,

4.5 mm high for RNR 41, RNR 80 and RNR 81.

The figures are filled with white colour.

index figure	engraving on the front	engraving
-/1		0-9 0-9
-/10		01-20
-/11		21-40
-/12		41-60
-/13		61-80
-/14		81-00

index figure	engraving on the front	engraving
-/15		00-19
-/16		20-39
-/17		40-59
-/18		60-79
-/19		80-99
-/37*		white line between each pair of jacks

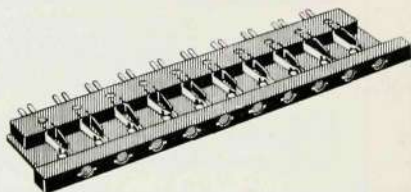
* Only for types RNR 40, RNR 80, RNR 81



LAMP STRIPS

The lamp strips are used in manual switchboards etc.

RNS 1212—RNS 1713 Lamp strips



RNS 1212, RNS 1312,
RNS 1702

These lamp strips have front piece of black insulating material. Suitable lamps are *RNG 1001—RNG 1104* and lenses *RNH 1001—RNH 2010*.

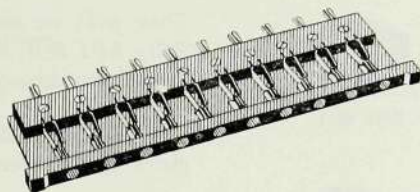
The strips are inserted in grooves in the switchboard frame and are held in place by the fixing plates.

Dimensions: see table.

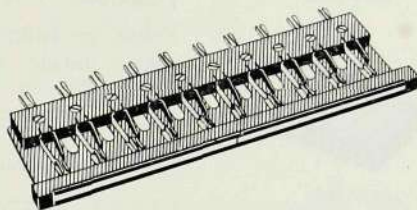
	number of jacks	front			weight approx.
		length	height	depth	
		mm	mm	mm	kg
RNS 1212	10	207.5	9.5	10	0.20
RNS 1311	5	244.5	11	11.7	0.25
RNS 1312	10	244.5	11	11.7	
RNS 1313	20	244.5	11	11.7	
RNS 1322	10	244.5	11	11.7	
RNS 1323	20	244.5	11	11.7	
RNS 1701	5	281.5	11.9	13.5	0.30
RNS 1702	10	281.5	11.9	13.5	
RNS 1704	20	281.5	11.9	13.5	
RNS 1712	10	281.5	11.9	13.5	
RNS 1713	20	281.5	11.9	13.5	

The lamp strips *RNS 1322*, *RNS 1323*, *RNS 1712* and *RNS 1713* are specially intended for 2 label holders, label protectors and label slips. The label holders are provided with a tube at each end, fitting corresponding holes in the lamp strip.

RNS 1712



RNS 1712 mounted with two label holders 236816, labels 233712/1 and label protectors 233711/1



236816

The label holders, label protectors and label strips are not included in the lamp strip designation and must be ordered separately as per table below, the required labelling to be stated.

label holders		label protectors		labels		length	used for	
number	designation	number	designation	number	designation			
2	211249	5	2	233711/9	2	233712/6	117	RNS 1322
2	302325	10	2	233711/31	2	233712/6	117	RNS 1323
2	236816	5	2	233711/1	2	233712/1	125	RNS 1712
2	233709	10	2	233711/2	2	233712/1	125	RNS 1713



INSTRUMENT JACKS, INSULATING PLATES FOR JACKS

RNT 5021—RNT 5051 Jacks for handsets



RNT 5021



RNT 5031



RNT 5041



RNT 5051

These jacks are used in conjunction with plugs *RPT 5021—RPT 5051*, chiefly for connection of handsets in manual switchboards etc.

The jacks are of black insulating material with nickel-plated contact springs and have screws for terminals.

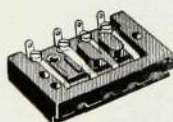
Fixing requires four wood screws *Trskr No. 5—1" FS M05*, to be ordered separately.

Dimensions:

length, see table, width 40 mm, thickness 17.5 mm, contact distance 11 mm, weight, see table.

	replacing	number of poles	fits for plug	length	weight
				mm	kg
RNT 5021	RF 8220	2	RPT 5021	39	0.033
RNT 5031	RF 8300	3	RPT 5031	47	0.044
RNT 5041	RF 8400	4	RPT 5041 RPT 5042 RPT 5043	58	0.053
RNT 5051	RF 8508	5	RPT 5051	71	0.068

RNT 5141 Jack, four-pole (replacing 215459)



RNT 5141

This jack is used in conjunction with plugs *RPT 5141, RPT 5142*.

The jack is of black insulating material with four

contact springs furnished with soldering holes for connecting. The jack is placed with the contact springs against the base. If the base is not insulated, then an insulating plate 215461 must be used. For fixing there are two countersunk holes 3.5 mm.

Fixing requires two screws, to be ordered separately.

Dimensions:

length 50.5 mm, width 32 mm, thickness 11 mm, weight 0.022 kg.

RNT 5351, RNT 5352 Jacks, five-pole, for head sets
(replacing *RF 8550, RF 8551*)



RNT 5351

These jacks are used in conjunction with plug *RPS 2501* for connecting head sets *RLF 20* in manual switchboards etc.

The jacks are of black insulating material with nickel-plated contact springs and have screws for terminals.

RNT 5351 has five contact springs.

RNT 5352 has five contact springs and an extra make contact.



RNT 5352

Fixing requires four wood screws *Trskr No. 4-1 $\frac{1}{2}$ " FS M05*, to be ordered separately.

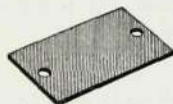
Dimensions:

length 52 mm, for *RNT 5351*, width 37 mm, height 30 mm, weight 0.065 kg; for *RNT 5352*, width 41 mm, height 34 mm; weight 0.07 kg.



INSULATING PLATES FOR JACKS

215461 Insulating plate



215461

This insulating plate is used in conjunction with jack *RNT 5141*.

The insulating plate is of black insulating material with two 3.5 mm holes corresponding to the fixing holes of the jack.

The plate is fixed by the fixing screws of the jack.

Dimensions :

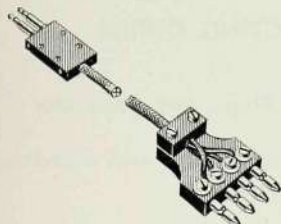
length 50.5 mm, width 30 mm, thickness 1 mm,
weight 0.002 kg.

TEST CORDS WITH PLUGS

RPM 2401—RPM 2407 Test cords with plugs

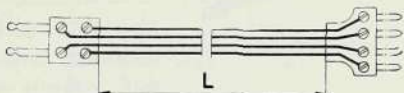
These test cords are intended for use in testing distribution frames.

RPM 2401 and *RPM 2402* have at one end a test plug *RPR 4201* fitting test jack strips *RNR 1001* and *RNR 1002*. At the other end they have an instrument plug *RPT 5044* fitting jack *RNT 5041*.



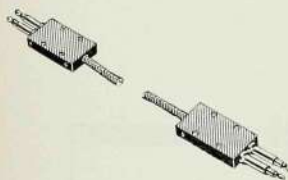
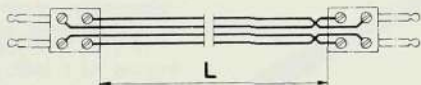
RPM 2401

RPM 2401



RPM 2403—RPM 2407 have plug *RPR 4201* at each end.

RPM 2403



RPM 2403

	c o r d		p l u g		weight
	designation	length	number	designation	
		mm			kg
RPM 2401	TRM 2401	3000	1	RPR 4201	0.153
			1	RPT 5044	
RPM 2402	TRM 2402	2000	1	RPR 4201	0.120
			1	RPT 5044	
RPM 2403	TRM 2403	1000	2	RPR 4201	0.125
RPM 2404	TRM 2404	2000	2	RPR 4201	0.150
RPM 2405	TRM 2405	3000	2	RPR 4201	0.175
RPM 2406	TRM 2406	4000	2	RPR 4201	0.200
RPM 2407	TRM 2407	5000	2	RPR 4201	0.225

PLUGS

PLUGS FOR CONNECTING CORDS

RPR 2401—RPR 2705 Plugs, two conductor

These plugs are used in conjunction with connecting cords in manual switchboard.

Some of the plugs have a flexible steel spiral to prevent wear on the connecting cord, see table.

RPR 2401—RPR 2402, RPR 2701—RPR 2705 have a brass shaft covered with black insulating material. The shaft is firmly screwed on to the plug tip. The plugs are connected to the first conductor of the cord by a spring contact tip. The other conductor of the cord is firmly pressed against the inside wall of the plug shaft. Connecting cords *TRM 1201, TRM 2201* etc. are used with these plugs.

RPR 2501—RPR 2502 have a shaft of black insulating material. On plug *RPR 2501* the shaft is fixed by means of a lock ring; on plug *RPR 2502* the shaft is fixed by a screw. They have screw terminal clamps for connection of the first conductor of the cord. The other conductor of the cord is screwed firmly into the plug shaft. Connecting cords *TRM 1101, TRM 1171, TRM 2101* etc. are used with these plugs.

Dimensions: see table.



RPR 2401



RPR 2402



RPR 2501



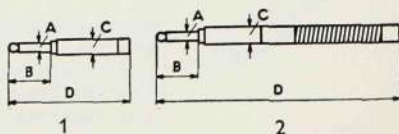
RPR 2502



RPR 2701



RPR 2705



	replacing	plug tip		plug shaft		D	weight
		A	B	C	ex- e- cution		
		mm	mm	mm			
RPR 2401	RO 42545	5.49	30	10.5	1	88.5	0.028
RPR 2402	RO 42566	5.49	30	10.5	2	143.5	0.035
RPR 2501	RO 42690	5.78	23.8	9.3	1	67	0.013
RPR 2502	—	5.78	23.8	9.3	2	135	0.025
RPR 2701	RO 42808	6.42	29	12	1	75	0.024
RPR 2705	RO 42850	6.42	29	12	1	83.5	0.028

Parts:

	plug	plug shaft	fixing screw for shaft	lock ring for shaft*	connecting screw
RPR 2401	148415	148420/1	—	—	—
RPR 2402	148415	148421/1	—	—	—
RPR 2501	127942	247778/1	—	247777	190805
RPR 2502	133403	133405/1	190705	—	190805
RPR 2701	148417	148418/1	—	—	—
RPR 2705	148417	148419/1	—	—	—

* Suitable tools for mounting and dismantling of the lock-ring, see page 332

RPR 3402—RPR 3510 Plugs, three conductor

These plugs are used in conjunction with connecting cords in manual switchboard.

Some of the plugs have a flexible steel spiral to prevent wear of the connecting cord, see table. The first and second conductors of the cord are connected to terminal screws. The third conductor of the cord is screwed firm into the plug shaft.



RPR 3402

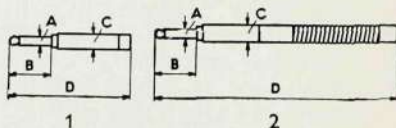


RPR 3501

RPR 3402 and RPR 3404 have shaft of brass covered with insulating material in black or red, see table. The shaft is screwed firm to the plug tip.

RPR 3501—RPR 3510 have shaft of black or reddish brown insulating material, for colour see table. On plugs RPR 3501, RPR 3503, RPR 3507 and RPR 3509 the shaft is held firm by a lock-ring. On plugs RPR 3502, RPR 3504, RPR 3508 and RPR 3510 the shaft is fixed by means of a screw.

Connecting cords TRM 1301, TRM 2301 etc. are used with these plugs.



Dimensions: see table.

	replacing	plug tip		plug shaft			D	weight
		A	B	C	colour	execution		
RPR 3402	RO 44207	mm	mm	mm			mm	kg
RPR 3404	—	5.49	28.7	10	black	2	135	0.031
RPR 3501	RO 44301	5.76	23.8	9.3	black	1	67	0.011
RPR 3502	—	5.76	23.8	9.3	black	2	135	0.023
RPR 3503	RO 44300	5.76	23.8	9.3	red-brown	1	67	0.011
RPR 3504	RO 44305	5.76	23.8	9.3	red-brown	2	135	0.023
RPR 3507	—	5.78	23.8	10.5	black	1	67	0.013
RPR 3508	—	5.76	23.8	10.5	black	2	135	0.029
RPR 3509	RO 44350	5.76	23.8	10.5	red-brown	1	67	0.013
RPR 3510	RO 44355	5.76	23.8	10.5	red-brown	2	135	0.029

Parts:

	plug tip	plug shaft	fixing screw for	lock ring for shaft*	connecting screw
RPR 3402	216173	216180	—	—	190805
RPR 3404	216173	216180/1	—	—	190805
RPR 3501	127948	247778/1	—	247777	190805
RPR 3502	133412	133405/1	190705	—	190805
RPR 3503	127948	247778/2	—	247777	190805
RPR 3504	133412	133405/2	190705	—	190805
RPR 3507	239870	247798/1	—	247777	190805
RPR 3508	133412	133414/1	190704	—	190805
RPR 3509	239870	247798/2	—	247777	190805
RPR 3510	133412	133414/2	190704	—	190805

* Suitable tools for mounting and dismantling of the lock-ring see page 332

RPR 4201 Test plugs, four conductor

(replacing *RF 4425*)



RPR 4201

This plug, which has two tips, is used in conjunction with test jack strips *RNR 1001* and *RNR 1002*.

The two plug tips have each two conductors, these being fitted in a shaft of black insulating material. Each plug tip has two terminal screws for connection of the cord.

Suitable connecting cords are *TRM 2401*—*TRM 2407*.

Dimensions:

length 72 mm, width 25 mm, thickness 7.5 mm; diameter of plug tips 4.9 mm and length 26.4 mm, distance between centres 8.5 mm; weight 0.02 kg.



RPR 6501

RPR 6501 Plug, six conductor

This plug, which has two tips, is used for the connecting cords for trunk position amplifiers.

The two plug tips have each three conductors and three terminal screws for connection of the cord. The plug shaft is of polished black insulating material with a cord grip of brass, one plug is movable in the shaft, in order that the plug may be used for twin jacks with division from 11.1 to 11.5 mm.

A suitable connecting cord with six conductors is *TRM 3601* or *TRM 3602*.

Dimensions:

length 85 mm, width 22.4 mm, thickness 10.5 mm; diameter of plug tips 5.76 mm, length 23.8 mm; weight 0.03 kg.

PLUGS FOR CORDLESS SWITCHBOARDS

RPS 1201 Plug, two conductor



RPS 1201

This plug is used as connecting plug for cordless switchboards *ABG 12*—*ABG 14*.

The plug shaft is of black insulating material and the plug itself of brass with steel tip.

Dimensions:

length 48 mm, diameter of shaft 10 mm; length of plug tip 25 mm, diameter 4.5 mm; weight 0.005 kg.

INSTRUMENT PLUGS

RPS 2501 Plug, five-pole (replacing *RF 3551*)



RPS 2501

This plug is used in conjunction with jacks *RNT 5351* and *RNT 5352* for connection of head set *RLF 20* in manual switchboards.

The plug, which is concentric, has shaft of nickel-plated brass. The plug tip has five sections insulated one from another, which correspond to the jack contact springs. It has screw terminals for connection of the cord.

Dimensions:

length 75 mm, diameter 24 mm, weight 0.06 kg.

RPT 1002, RPT 1301 Plugs for table telephone instruments

These plugs are used for connection of telephone instruments which have loose wall terminals.

The plugs are of black insulating material with contact tips of nickel-plated brass and they have screw terminals for connection of the cord.

RPT 1002 is three-pole.

A suitable wall terminal is *NEG 1005*, *NEG 1007* or *NEG 2003*, *NEG 2004*.

Dimensions:

diameter 40 mm, length excluding plug tip 32 mm; weight 0.04 kg.



RPT 1002



RPT 1301

RPT 1301 is six-pole and impossible of confusion.

Suitable wall terminal is *NEG 1301*.

Dimensions:

length 55 mm, width 50 mm, depth exclusive plug tips 19 mm, weight 0.08 kg.



RPT 5021—RPT 5052 Plugs for handsets



RPT 5021



RPT 5031

These plugs are used in conjunction with jacks *RNT 5021—RNT 5051*, chiefly for connection of handsets in manual switchboards.



RPT 5041

Plugs are of black insulating material and the contact tips of nickel-plated brass. They have screw terminals for connection of the cord.



RPT 5051

On some of the plugs the screw terminals are designated in white, see table.

Dimensions: see table.

Diameter of contact tips 5.5 mm, length 20 mm, contact distance 11 mm.

	replacing	number of poles	designation	length	width	cable hole	weight
				mm	mm	mm	kg
RPT 5021	RF 3220	2	—	64	23	6.6	0.020
RPT 5031	RF 3300	3	—	61	37	7	0.038
RPT 5041	RF 3452	4	1 2 3 4	67	45	9	0.050
RPT 5042	RF 3451	4	M R R M	67	45	9	0.050
RPT 5043	RF 3450	4	M T	67	45	9	0.050
RPT 5044	—	4	—	67	45	9	0.050
RPT 5051	RF 3508	5	—	67	57	9	0.058
RPT 5052	—	5	M T	67	57	9	0.058

RPT 5141, RPT 5142 Plugs, four-pole

(replacing 214093/1, 214093/3)

These plugs are used in conjunction with jack *RNT 5141*.



RPT 5141

The plugs are of black insulating material with four contact tips of nickel-plated brass, which are placed unsymmetrically so that wrong insertion is not pos-

sible. They have screw terminals for the connection of the cord.

RPT 5141 has on the same side as the cable inlet two jacks which are connected to the two outer contact tips. These enable extra receiver *RLD 3101* to be connected.

RPT 5142 is similar to *RPT 5141* but is without the two jacks .

Dimensions :

length 51 mm, width 40.5 mm, thickness 14 mm;
diameter of contact tips 3.9 mm, length 17 mm,
contact distances 9.5+9.5+12 mm; diameter cable
inlet 7 mm; weight 0.036 kg.

CUT-OFF PLUGS

RPT 9901—RPT 9906 Cut-off plugs



RPT 9901—RPT 9906

These cut-off plugs are used in conjunction with test jack strip *RNR 1001* and *RNR 1002*.

The plugs are of insulating material in various colours, see table.

Dimensions:

length 43 mm, width 14 mm, thickness 3 mm, weight per 100: 0.18 kg.

	colour
RPT 9901	black
RPT 9902	white
RPT 9903	brown
RPT 9904	red
RPT 9905	yellow
RPT 9906	green

237232 Cut-off plug



237232

This cut-off plug is used in conjunction with jack strips designed for 5.76 plugs.

The object of the cut-off is to disconnect a subscriber's line in the switchboard jacks, at the same time serving as marker for the cut off line. It is of white insulating material.

Dimensions:

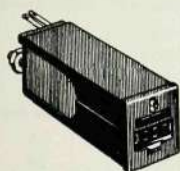
length 33 mm, plug diameter 5.76 mm, weight per 100: 0.15 kg.

SUBSCRIBER'S METERS, KEY FOR SUBSCRIBER'S METERS

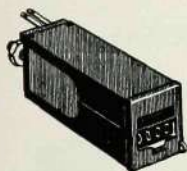
SUBSCRIBER'S METERS

The subscriber's meters are used at telephone exchanges for counting or recording calls. They register up to 9999 calls.

RSA 1002—RSA 1302 Subscriber's meters



RSA 1002



RSA 1102

These meters are usually supplied with aluminium-coloured case but may be had black-enamelled on request. The figures on the wheels are white on black ground. The cases, which are removable, have a window before the figure-wheels and a slot for a label plate for noting the subscriber's telephone number or the like.

For fixing they have a screw bolt with thread G2 and a nut 0—128, while for connection they have soldering tags.

They are available in the following four types:

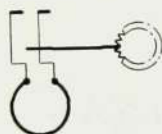
- RSA 10*, with zero setting;
- RSA 11*, with eye for sealing;
- RSA 12*, with zero setting and one contact terminal;
- RSA 13* with eye for sealing and one contact terminal.

The meters *RSA 10* and *RSA 12* may be used without change in tropical climates; *RSA 11* and *RSA 13* can be supplied in tropical execution, in which case the letter *T* is added to the designation, e.g., *RSA 1102 T*.

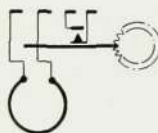
Dimensions:

length 110 mm, width 30 mm, height 32 mm, weight about 0.24 kg.





RSA 1002—RSA 1006
RSA 1101—RSA 1105



RSA 1201—RSA 1203
RSA 1301, RSA 1302

	coil to clutch magnet		operating with
	designation	resistance	
		ohm	mA
	with zero restoring		
RSA 1002	RCE 45104	100	74
RSA 1003	RCE 45106	500	25
RSA 1004	RCE 45107	1000	20
RSA 1006	RCE 45102	25	95
	with eyelet for sealing		
RSA 1101	RCE 45106	500	25
RSA 1102	RCE 45104	100	74
RSA 1103	RCE 45102	25	95
RSA 1105	RCE 45107	1000	20
	with zero restoring and with make contact		
RSA 1201	RCE 34103	500	25
RSA 1202	RCE 34104	1000	20
RSA 1203	RCE 34102	100	74
	with eyelet for sealing and with make contact		
RSA 1301	RCE 34103	500	25
RSA 1302	RCE 34104	1000	20

KEY FOR SUBSCRIBER'S METERS

LSB 9001 Key for subscriber's meters
(replacing 0—134)



LSB 9001

This key is used in conjunction with subscriber's meters with zero setting.

The key is of steel and has an eye for hanging up. By inserting the tip of the key in the hole in the lever visible on the meter and pressing downwards all the counter wheels are restored to zero.

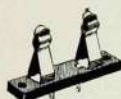
Dimensions:

length 38 mm, diameter 5 mm, weight 0.005 kg.

CORD CLIP BLOCKS, CORD WEIGHTS, CORD PULLEYS

CORD CLIP BLOCKS

RTA 1001 Cord clip block



RTA 1001

This cord clip block is used for connection of a two-conductor connecting cord in manual switchboards.

The block is of black insulating material.

Fixing requires two wood screws *Trskr No. 4-5/8" KS M05*, to be ordered separately.

Dimensions:

length 54 mm, width 12.4 mm, distance between clips 26 mm, weight 0.01 kg.

RTA 1002—RTA 1004 Cord clip blocks

These cord clip blocks are used for the connection of connecting cords in manual switchboards.

The blocks are of black insulating material.

RTA 1002 is designed for two two-conductor cords.

RTA 1003 is designed for two three-conductor cords.

RTA 1004 resembles *RTA 1003* but has an extra fixing hole between the first and second pairs of clips.

Fixing requires two wood screws *Trskr No. 4-5/8" KS M05*, to be ordered separately.

Dimensions:

length 80 mm, width 24.9 mm, distance between clips 26 mm, weight about 0.03 kg.



RTA 1002



RTA 1003



CORD WEIGHTS



RTA 1201

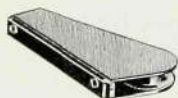
RTA 1201 Cord weight

This cord weight is used in manual switchboards.

The weight is of black-enamelled cast-iron and the pulley of white boiled brass.

Dimensions:

length 92 mm, width 55 mm, thickness 17.5 mm, weight 0.33 kg.



RTA 1203

RTA 1203 Cord weight

This cord weight is used in manual switchboards which have guide device for the weight.

The weight is of black-enamelled iron and the pulley of white boiled brass.

The cord weight runs on a steel wire that is attached between the plug panel and the underpart of the table.

Dimensions:

length 107 mm, width 49 mm, thickness 13.5 mm, weight 0.28 kg.



RTA 1221

RTA 1221 Cord weight

This cord weight is used in conjunction with cord pulley *RTA 1231* in manual switchboards where the multiple is so large that specially long connecting cords are required.

The weight is of black-enamelled cast-iron. The pulleys, of white boiled brass, are furnished with ball bearings.

Dimensions:

length 108 mm, width 104 mm, thickness 18 mm, weight 0.66 kg.

CORD PULLEYS

RTA 1231 Cord pulley



RTA 1231

This cord pulley is used in conjunction with cord weight *RTA 1221* in manual switchboards.

The housing is of black-enamellad iron and the pulley itself of white boiled brass.

Fixing requires two wood screws *Trsker No. 4-1/2"* *KS M05*, to be ordered separately.

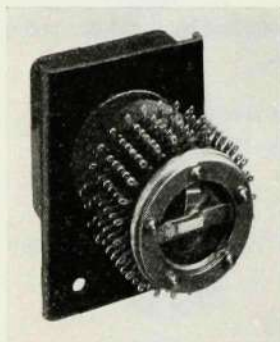
Dimensions :

height 45 mm, width 41 mm, thickness 13.5 mm, weight 0.06 kg.



SELECTORS

25-STEP SELECTORS RVE 10—RVE 39



Selector with rigid suspension,
mounted on a bar

The 25-step selector is a rotary, step-by-step driven selector, which chiefly finds employment in small automatic switchboards, such as *OL 35* and *OL 45*, but which also has many other spheres of employment. It consists of a cylindrical drum, the contact bank, fitted with traversing contact rings, contact segments or contact bars, arranged in eight, ten or twelve parallel rings, and a mobile part, the rotor.

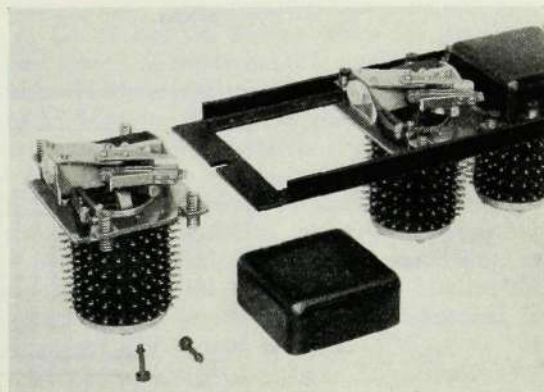
The rotor consists of a shaft fitted with four, five or six contact springs which are insulated from each other and from the shaft. Each of the springs rubs against two adjoining contact rows thus ensuring in their passage round the field the contact between the segments or bars in the two rows. The rotor shaft which is pivoted at both ends has at one end an escapement wheel with twenty-five teeth and is driven by a pawl.

This pawl in turn is fixed to the armature of an electromagnet which receives pulsating D.C. current. With each current impulse the armature is energised to actuate a spring which when the magnet is de-energised restores the armature to home position. During this movement the pawl moves the rotor one step to a fresh contact position.

The selectors are normally made for 24 V, but may be had on request for other voltages. The operating current is obtained from impulse machines or special operating relays. If only a few selectors are required it is recommended to furnish them with self-operating contacts, when no external operating device is necessary.

The 25-step selector may be furnished with home position group of different designs, e.g., one break contact and one make contact, two break contacts etc. Through a cam on the shaft this group is actuated once or twice per revolution. Use of home position groups reduces the number of contact banks required, so that a less expensive selector may be used or the free contact banks may be utilised for other purposes. As an example of the operation of the home position group it may be stated that if, for instance, the operating current is passed through a break contact in the home position group, the selector steps forward automatically until its home position is reached.

The 25-step selectors are made for rigid or elastic suspension. Both types may be mounted individually on bars or several together in frames, see figures. Elastic hung selectors are used to advantage if the speech circuits are to pass through the selector contacts.



Selector with elastic suspension, mounted on a frame

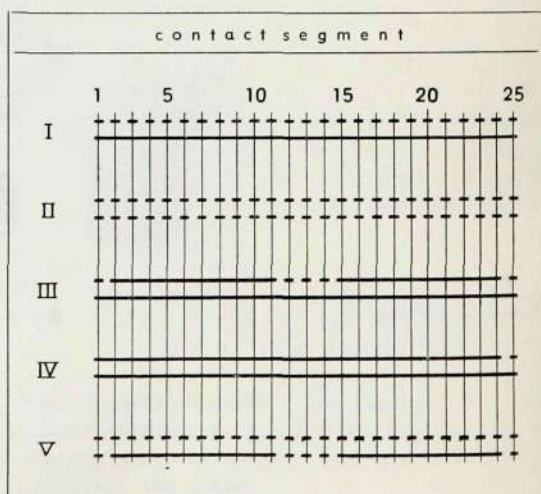
Suitable types of 25-step selectors can be offered for each individual case. By combination of different operating magnets, numbers of banks, construction of banks, self operating groups, home position groups

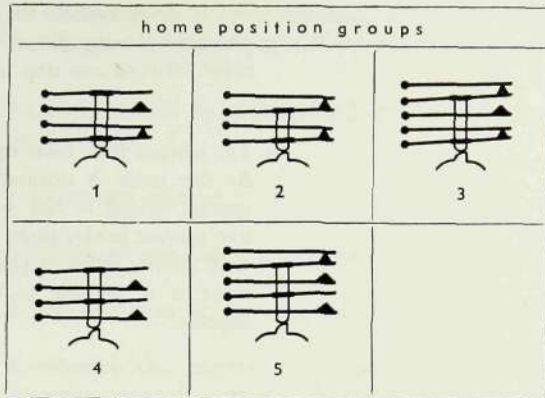


and methods of mounting a large number of different types may be obtained. It is therefore not possible to include any special types in this catalogue.

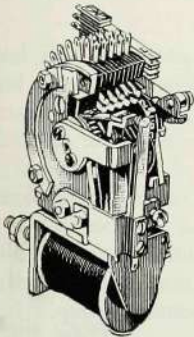
Enquiries should be accompanied by the following particulars:

- 1: operating voltage;
- 2: rigid or elastic suspension;
- 3: number of contact banks per selector and their construction according to following table;
- 4: self operating or operating relays;
- 5: whether the selector is to have home position group and if so state the home position group according to the second table and also whether the group is to be actuated once or twice per revolution;
- 6: the number of selectors per bar;
- 7: whether the bars are to be fitted with terminal blocks.





12-STEP SELECTORS RVG 10—RVG 11



RVG 10—RVG 11

The 12-step selector is a rotary, step-by-step driven selector, chiefly used in small automatic switchboards, e.g., *OL 12* and *OL 15*, but which has also many other spheres of employment. It consists of a contact field, which comprises five banks each with a whole contact segment and twelve contact bars, together with a mobile part, the rotor. The rotor consists of a shaft fitted with five contact springs all insulated from each other and from the shaft. Each one of the springs rubs both against its own segment and against its own row of contacts thus ensuring during its movement round the field the contact between the segment and the contact bars. The construction of the contact field cannot be varied.

The rotor shaft, pivoted at both ends, has at one end an escapement wheel with thirty-six teeth and is moved forward by a pawl. The pawl in turn is fixed to the armature of an electromagnet which receives pulsating D.C. current. For each impulse the armature is energised and actuates a spring which, when the mag-

net is de-energised, restores the armature to home position. During the movement the pawl moves the rotor forward one step to a fresh contact position.

The contact field takes up one third of the revolution. As the rotor is normally fitted with three contact springs, placed at 120° to each other, for each of the five contact banks, there is actually obtained a selector with twelve different positions. By means of a special rotor it is possible to use the selector as a 36-step selector.

The selector is normally made for 24 V, but may be supplied for other voltages on request. The operating current is obtained from impulse machines or special operating relays. If only a few selectors are required it is recommended to provide these with self operating contacts, whereupon no external operating arrangement is necessary.

The 12-step selector may be provided with home position group of various designs, *e.g.*, one break contact and one make contact, two break contacts etc. This group is actuated three times per revolution by a cam fixed on the shaft or, if the selector is employed as a 36-step selector, once per revolution. Home position groups are used, for example, if the selector is to step forward automatically to home position. The operating current must then go through a break contact in the home position group.

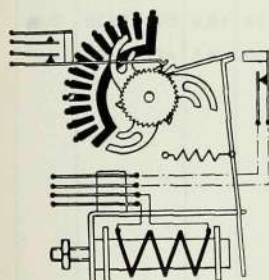
The selector is mounted on bars or the like, rigidly or elastically. It may, if desired, be furnished with a tight-fitting case of enamelled sheet-iron.

Suitable types of 12-step selectors are quoted for each individual case. By the combination of different operating magnets, self operating groups, home position groups and method of fitting, a large number

of different types may be obtained. It is not possible therefore to include any special types in this catalogue.

Enquiries should be accompanied by the following particulars:

- 1: operating voltage;
- 2: elastic or non-elastic suspension;
- 3: self operation or operating relays;
- 4: whether the selector is to have home position group, in such case give the home position group as per table below and whether the group is to be actuated once or three times per revolution;
- 5: whether the selector is to be provided with case.



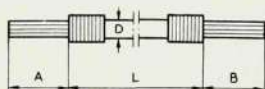
RVG 10—RVG 11

home position groups		
 5	 6	 7
 8	 9	 10
 11		

CABLES

CABLES FOR TELEPHONE INSTRUMENTS

TRE 1201—TRE 1504 Cables



TRE 1201—TRE 1504

These cables are used as terminal block cord for telephone instruments with line selector and also for private branch exchanges.

They are made of the MACK cable type.

The individual conductors are insulated by two coverings silk and one covering cotton and well impregnated. The conductors are laid in pairs and cabled, then have a common cover of cotton yarn, with outside a braiding of coarse black artificial silk. The cables have at each end a 15 mm long binding of black cotton yarn.

Dimensions: see table.

	number of conductors	L	A	B	D	used for	weight
		mm	mm	mm	mm		kg
TRE 1201	20	2000	200	300	7.2	ADD 1001	0.15
TRE 1301	30	2130	200	120	8.5	DEH 1010	0.20
TRE 1302	30	2000	200	500	8.5	ADD 1003	0.21
TRE 1501	50	2130	300	120	10.2	DEH 1020	0.35
TRE 1504	50	2000	350	800	10.2	ABG 1402	0.43

CORDS

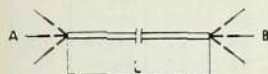
CORDS FOR DIALS

TRG 1301—TRG 1407 Cords

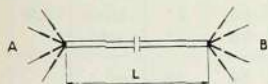
These cords are used in conjunction with dials *RGA 1002*, *RGA 1003* etc.

They are made of No. 6740 type of cord.

The individual conductors are insulated by two covers silk, impregnated and then braided with silk. The conductors are cabled, and outside everything have a braiding of black mercerized cotton yarn. The wire ends for connection are tinned.



TRG 1301—TRG 1311



TRG 1401—TRG 1407

TRG 1301—TRG 1311 have three conductors. The outside diameter is 2.6 mm.

TRG 1401—TRG 1407 has four conductors. The outside diameter is 2.8 mm.

For other dimensions: see table.

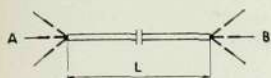
	replacing	length L	trim A	trim B*	identifying colour	weight per 100
		mm	mm	mm		kg
TRG 1301	TRG 1303	280	50 50 50	22 22 15	red blue white	0.20
TRG 1302	TRG 1304	350	50 50 50	22 22 15	red blue white	0.26
TRG 1305	TRG 1312	150	50 50 50	22 22 15	red blue white	0.15
TRG 1306	—	245	50 50 50	22 22 15	red blue white	0.18

* To be soldered to the dial

	replacing	length L	trim A	trim B*	identi- fying colour	weight per 100
		mm	mm	mm		kg
TRG 1309	TRG 1308	125	62 50 50	22 22 15	red blue white	0.12
TRG 1311	TRG 1310	200	50 50 50	22 22 15	red blue white	0.16
TRG 1401	TRG 1405	280	50 50 50 50	42 42 27 27	red blue yellow white	0.30
TRG 1402	TRG 1403	350	50 50 50 50	42 42 27 27	red blue yellow white	0.40
TRG 1404	—	150	50 50 50 50	42 42 27 27	red blue yellow white	0.20
TRG 1407	TRG 1406	200	50 50 50 50	42 42 27 27	red blue yellow white	0.25

* To be soldered to the dial

TRG 5301, TRG 5303 Cords



TRG 5301, TRG 5303

These cords are used in conjunction with watertight dials *RGA 2002*, *RGA 2003*.

They are made of No. 11262 type cord.

The individual conductors are insulated with one cover silk and one coating vulcanized rubber. The conductors are cabled and have an external braiding of black mercerized cotton yarn which is wax impregnated. The wire ends for connection are tinned.

TRG 5301, *TRG 5303* have three conductors. The outside diameter is 4.2 mm.

For other dimensions: see table below.

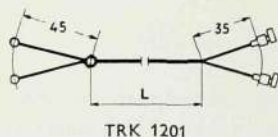
	replacing	length L	trim A	trim B*	identi- fying colour	weight per 100
		mm	mm	mm		kg
TRG 5301	TRG 5302	280	57 57 57	32 32 27	red blue white	0.60
TRG 5303	TRG 5304	150	57 57 57	32 32 27	red blue white	0.45

* To be soldered to the dial



CONNECTING CORDS FOR HEAD SETS

TRK 1201 Connecting cord



This connecting cord is used in head sets *RLF 2001*—*RLF 2006* for connection of the transmitter inset to the receiver case.

It is made of No. 5748 type cord.

The individual conductors are insulated with two coverings silk and impregnated, with outside a braiding of blue silk. Two such conductors are twisted. The cord has at one end connecting eyes and at the other contact bushing 243162 designed for pressing firm on the contact points of the transmitter inset and are also fitted with drag eyes.

Dimensions:

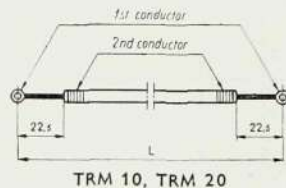
length L 61 mm, other measurements see sketch, weight 0.001 kg.

CONNECTING CORDS FOR MANUAL SWITCHBOARDS

These cords are used in conjunction with plugs *RPR 2401*—*RPR 3510* as connecting cords for manual switchboards.

They have two or three conductors and outside braiding of red or yellow colour. The outside diameter for the two-conductor cord is 5.6 mm and for the three-conductor cord 5.8 mm.

The execution is of two kinds: normal and tropical.



TRM 1001—TRM 1314 Cords, normal execution

They are made of No. 7726 type cord.

The individual conductor is insulated by two coverings silk, impregnated with black composition and then

braided with cotton yarn. The conductors are cabled with filling yarn and braided together with one layer cotton yarn and then an outer braiding of glazed yarn. Insulation resistance is not less than 100 megohm/m after 24 hours in 80 % relative humidity.

TRM 2001—TRM 2314 Cords, tropical execution

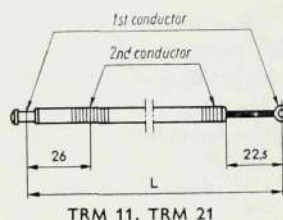
They are made of No. 7900 cord type.

The individual conductor is insulated by two layers guttapercha tape and one covering silk, after which it is braided with cotton yarn. The conductors are cabled with filling yarn and braided together with one layer cotton yarn and finally a braiding of glazed coloured yarn. The insulation resistance is not less than 100 megohm/m after 24 hours in 75 % relative humidity at a temperature of 50° C or 1000 megohm/m after one hour in water.

TRM 1001, TRM 1003, TRM 2001, TRM 2003, which have two conductors, are designed for plug *RPR 2501*.

At both ends of the first conductor there is a cable lug *SNG 10601* fitting the plug's terminal screw. The second conductor has at each end a binding of tinned copper wire fitted for screwing into the plug shaft.

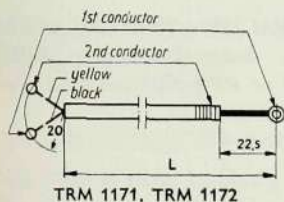
normal	replacing	tropical	colour	length L	weight
				mm	kg
TRM 1001	RS 62041	TRM 2001	red	480	0.009
TRM 1003	RS 62061	TRM 2003	red	580	0.012



TRM 1101 – TRM 1118, TRM 2101 – TRM 2118, which have two conductors, are designed for plug RPR 2501 or RPR 2502 and cord clip block RTA 1001 or RTA 1002.

At one end of the cord is a cable lug SNG 10601 for the first conductor and for the second conductor a binding of tinned copper wire fitted for screwing into the plug shaft. The other end of the cord has a contact 134307 of white boiled brass for the first conductor and for the second conductor a binding of tinned copper wire fitting the clips of the cord clip block.

	normal	replacing	tropical	colour	length	
					L	weight
					mm	kg
TRM 1101		RS 62301	TRM 2101	red	390	0.010
TRM 1102		RS 62302	TRM 2102	grey	390	0.010
TRM 1103		RS 62351	TRM 2103	red	490	0.013
TRM 1104		RS 62352	TRM 2104	grey	490	0.013
TRM 1105		RS 62401	TRM 2105	red	630	0.015
TRM 1106		RS 62402	TRM 2106	grey	630	0.015
TRM 1107		RS 62501	TRM 2107	red	1030	0.023
TRM 1108		RS 62502	TRM 2108	grey	1030	0.023
TRM 1109		RS 62601	TRM 2109	red	1650	0.035
TRM 1110		RS 62602	TRM 2110	grey	1650	0.035
TRM 1111		RS 62801	TRM 2111	red	2830	0.058
TRM 1112		RS 62802	TRM 2112	grey	2830	0.058
TRM 1113		RS 62701	TRM 2113	red	1780	0.038
TRM 1114		RS 62702	TRM 2114	grey	1780	0.038
TRM 1115		—	TRM 2115	red	1150	0.028
TRM 1116		—	TRM 2116	grey	1150	0.028
TRM 1117		—	TRM 2117	red	1450	0.031
TRM 1118		—	TRM 2118	grey	1450	0.031



TRM 1171, TRM 1172, which have two conductors, are intended for plug RPR 3501 along with terminal block type NEM 11.

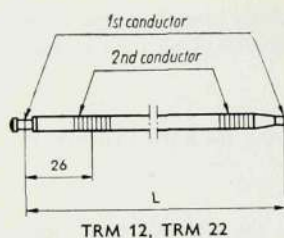
They are particularly intended for hotel switchboards type ADB.

The cords are trimmed at the plug end for connection to the first and third conductors in plug RPR 3501. For the first conductor the cord has a cable lug SNG 10601 and for the third conductor a winding of tinned copper wire fitting the screw thread of the plug shaft.

The other end of the cord is trimmed with contact eyes for connection to the terminal block.

normal	replacing	colour	length L	weight
			mm	kg
TRM 1171	—	red	630	0.015
TRM 1172	—	grey	630	0.015

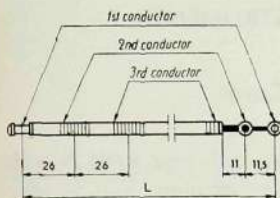




TRM 1201 – TRM 1208, TRM 2201 – TRM 2208, which have two conductors, are designed for plug RPR 2401, RPR 2402, RPR 2701 or RPR 2705 and cord clip block RTA 1001 or RTA 1002.

One end of the cord has a contact point 0-10277 for the first conductor, fitting the spring contact tip of the plug and for the second conductor a binding of tinned copper wire fitted for screwing or pressing into the plug shaft. The other end has a contact 134307 of white boiled brass for the first conductor and for the other conductor a binding of tinned copper wire, to fit the clips of the cord clip block.

normal	replacing	tropical	colour	length L	weight
				mm	kg
TRM 1201	RS 72601	TRM 2201	red	1600	0.033
TRM 1202	RS 72602	TRM 2202	grey	1600	0.033
TRM 1203	RS 72801	TRM 2203	red	2800	0.057
TRM 1204	RS 72802	TRM 2204	grey	2800	0.057
TRM 1205	RS 72701	TRM 2205	red	1780	0.038
TRM 1206	RS 72702	TRM 2206	grey	1780	0.038
TRM 1207	—	TRM 2207	red	1030	0.023
TRM 1208	—	TRM 2208	grey	1030	0.023



TRM 13, TRM 23

TRM 1301 – TRM 1314, TRM 2301 – TRM 2314, which have three conductors, are designed for plugs RPR 3402, RPR 3404, RPR 3501 – RPR 3504, RPR 3507 – RPR 3510 and cord clip block RTA 1003 or RTA 1004.

One end of the cord has cable lug SNG 10601 for the first and second conductors and for the third conductor a binding of tinned copper wire fitted for screwing into the plug shaft. The other end of the cord has a contact 134307 of white boiled brass for the first conductor and for the second and third conductors a binding of tinned copper wire fitting the clips of the cord clip block.

normal	replacing	tropical	colour	length L	weight
				mm	kg
TRM 1301	RS 63501	TRM 2301	red	1030	0.030
TRM 1302	RS 63502	TRM 2302	grey	1030	0.030
TRM 1303	RS 63601	TRM 2303	red	1630	0.043
TRM 1304	RS 63602	TRM 2304	grey	1630	0.043
TRM 1305	RS 63801	TRM 2305	red	2830	0.070
TRM 1306	RS 63802	TRM 2306	grey	2830	0.070
TRM 1307	RS 63701	TRM 2307	red	1780	0.046
TRM 1308	RS 63702	TRM 2308	grey	1780	0.046
TRM 1309	—	TRM 2309	red	390	0.016
TRM 1310	—	TRM 2310	grey	390	0.016
TRM 1311	—	TRM 2311	red	490	0.018
TRM 1312	—	TRM 2312	grey	490	0.018
TRM 1313	—	TRM 2313	red	630	0.021
TRM 1314	—	TRM 2314	grey	630	0.021



CORDS FOR TEST INSTRUMENTS

TRM 2401, TRM 2407 Cords

These cords are used as test cords type *RPM 24* with test instruments at telephone exchanges.

They are made of No. 7900 type cord.

The cords have four conductors and are braided outside with brown glazed yarn. They can also be used in tropical climates.



TRM 2401, TRM 2402

At one end the cords *TRM 2401*, *TRM 2402* have the trim with eyelets arranged for test plug *RPR 4201* and in the other end with eyelets for plug *RPT 5044*.



TRM 2403—TRM 2407

At each end the cords *TRM 2403*—*TRM 2407* have the trim arranged for test plug *RPR 4201*.

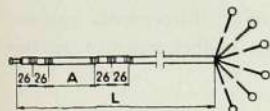
Dimensions:

external diameter 5.9 mm; other dimensions, see table.

	trim of the first end	length L	trim of the second end	weight
	mm	mm	mm	kg
TRM 2401	30	3000	13 and 21	0.075
TRM 2402	30	2000	13 and 21	0.050
TRM 2403	13 and 21	1000	13 and 21	0.025
TRM 2404	13 and 21	2000	13 and 21	0.050
TRM 2405	13 and 21	3000	13 and 21	0.075
TRM 2406	13 and 21	4000	13 and 21	0.100
TRM 2407	13 and 21	5000	13 and 21	0.125

CORDS FOR AMPLIFIERS

TRM 3601, TRM 3602 Cords



TRM 3601, TRM 3602

These cords are used as connecting cords for amplifiers in trunk switchboards.

They are made of No. 8790 type cord.

The individual conductors are insulated with two covers silk, black composition impregnated and then covered with a layer of coloured silk. Six conductors are cabled with filling yarn and braided together with a layer of cotton yarn and then a further braiding of coloured mercerized cotton yarn. The insulation resistance is not less than 100 megohm/m after 24 hours in 80 % relative humidity.

The cords are made at one end for connection to plug *RPR 6501* and at the other end for cord clip block *RTA 1003* or *RTA 1004*. The cords have six terminal tappings, so that all the terminals on the cord clip block are used for connection.

TRM 3601 is red.

TRM 3602 is green.

Dimensions:

length *L* 2000 mm, *A* 50 mm, external diameter 6 mm, other dimensions as per sketch, weight 0.07 kg.

CORDS FOR TELEPHONE INSTRUMENTS

These cords are used for telephone instruments connected to wall terminal as also for handsets, receivers etc.

The cords are normally made with connection eyes, but in certain cases they have cable lugs instead of eyes, see tables.



The dimensions for trim run from the centre of the projection eyes.

Some of the cords are protected against strain at the connection points by means of reinforcements, consisting of supporting eyes, knots, rubber stops or rubber case, see tables.

The execution is of two kinds: normal and tropical.

TRS 1201—TRS 1901 Cords, normal execution

They are made of No. 7560 type cord.

The individual conductors are insulated by two covers silk with black composition impregnation between the covers and have externally a braiding of black mercerized cotton yarn. The requisite number of conductors is cabled and braided together with coarse black artificial silk.

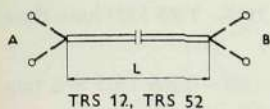
The insulation resistance is not less than 100 megohm/m after 24 hours in 80 % relative humidity.

TRS 5201—TRS 5901 Cords, tropical execution

They are made of No. 3464 type cord.

The individual conductors are insulated with a yarn cover over which is vulcanized rubber and finally a braiding of black mercerized cotton yarn. The requisite number of conductors is cabled and braided together with coarse black artificial silk.

The insulation resistance is not less than 1000 megohm/m after one hour in water.



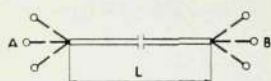
TRS 1201 – TRS 1208, TRS 5201 – TRS 5208 have two conductors.

External diameter for TRS 1201 – TRS 1208 is 5.3 mm and for TRS 5201 – TRS 5208 it is 5.8 mm.

Other dimensions: see table.

normal	replacing	tropical	colour	trim A		length L	trim B		weight
				length	identifying colours		length	identifying colours	
TRS 1201	RS 4105/1	TRS 5201	black	mm 25 37	yellow black	mm 1250	mm 40 33 rubber case cable lugs	yellow black	kg 0.025
TRS 1202	—	TRS 5202	black	25 37	yellow black	1250	20 20 retaining eyelet	yellow black	0.025
TRS 1206	—	TRS 5206	black	25 37	yellow black	1500	40 33 rubber case cable lugs	yellow black	0.025
TRS 1208	—	TRS 5208	black	15 30	yellow black	420	15 15 retaining eyelet	yellow black	0.010





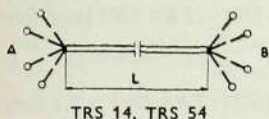
TRS 13, TRS 53

TRS 1301 – TRS 1303, TRS 5301 – TRS 5303 have three conductors.

External diameter for TRS 1301 – TRS 1303 is 6 mm and for TRS 5301 – TRS 5303 it is 6.7 mm.

Other dimensions: see table.

normal	replacing	tropical	colour	trim A		length L	trim B		weight
				length	identifying colours		length	identifying colours	
TRS 1301	RS 5220	TRS 5301	black	mm 25 37 49	yellow black red	1250	mm 25 25 25 seizing	yellow black red	kg 0.085
TRS 1302	RS 5080	TRS 5302	black	25 37 49	yellow black red	1250	20 20 20 retaining eyelet	yellow black red	0.035
TRS 1303	—	TRS 5303	white	25 37 49	yellow black red	1250	20 20 20 retaining eyelet	yellow black red	0.035



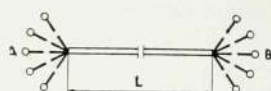
TRS 14, TRS 54

TRS 1401—TRS 1409, TRS 5401—TRS 5409 have four conductors.

External diameter for TRS 1401—TRS 1409 is 6.7 mm, and for TRS 5401—TRS 5409 it is 7.3 mm.

Other dimensions: see table.

normal	replacing	tropical	colour	trim A		length L	trim B		weight
				length	identifying colours		length	identifying colours	
TRS 1401	RS 6162	TRS 5401	black	mm 25 37 49 61	yellow black red white	1250	mm 20 20 20 20 retaining eyelet	yellow black red white	0.040
TRS 1402	RS 6164	TRS 5402	black	30 30 30 30	yellow black red white	1250	20 20 20 20 retaining eyelet	yellow black red white	0.040
TRS 1403	—	TRS 5403	black	25 37 49 61	yellow black red white	1250	125 125 125 125 retaining eyelet	yellow black red white	0.040
TRS 1404	RS 6160	TRS 5404	black	17 17 17 17	yellow black red white	1250	20 20 20 20 retaining eyelet	yellow black red white	0.040
TRS 1409	—	TRS 5409	white	25 37 49 61	yellow black red white	1250	20 20 20 20 retaining eyelet	yellow black red white	0.040



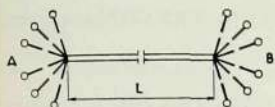
TRS 15, TRS 55

TRS 1501–TRS 1503, TRS 5501–TRS 5503 have five conductors.

External diameter for TRS 1501–TRS 1503 is 7.1 mm and for TRS 5501–TRS 5503 it is 7.9 mm.

Other dimensions: see table.

normal	replacing	tropical	colour	trim A		length L	trim B		weight
				length	identifying colours		length	identifying colours	
TRS 1501	RS 9509	TRS 5501	black	mm		1250	mm		0.045
				25	yellow		125	yellow	
				37	black		125	black	
				49	red		125	red	
				61	white		125	white	
73	brown	125	brown						
							retaining eyelet		
TRS 1502	RS 9506	TRS 5502	black	22	yellow	1250	20	yellow	0.045
				22	black		20	black	
				22	red		20	red	
				22	white		20	white	
				22	brown		20	brown	
TRS 1503	RS 9507	TRS 5503	black	25	yellow	1250	22	yellow	0.045
				37	black		22	black	
				49	red		22	red	
				61	white		22	white	
				73	brown		22	brown	



TRS 16, TRS 56

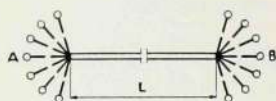
TRS 1601, TRS 5601 have six conductors.

External diameter for TRS 1601 is 7.9 mm and for TRS 5601 it is 8.7 mm.

Other dimensions: see table.

normal	replacing	tropical	colour	trim A		length L	trim B		weight
				length	identifying colours		length	identifying colours	
TRS 1601	RS 9637	TRS 5601	black	mm		mm	mm		kg
				25	yellow	1250	125	yellow	0.054
				37	black		125	black	
				49	red		125	red	
				61	yellow-white		125	yellow-white	
				73	black-white		125	black-white	
				85	red-white		125	red-white	
							retaining eyelet		





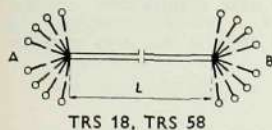
TRS 17, TRS 57

TRS 1701 – TRS 1702, TRS 5701 – TRS 5702 have seven conductors.

External diameter for TRS 1701 – TRS 1702 is 8.1 mm for TRS 5701 – TRS 5702 it is 9.1 mm.

Other dimensions: see table.

normal	replacing	tropical	colour	trim A		length L	trim B		weight
				length	identifying colours		length	identifying colours	
TRS 1701	RS 9701	TRS 5701	black	25	yellow	1300	33	yellow	0.072
				37	black		33	black	
				49	red		33	red	
				61	yellow-white		33	yellow-white	
				73	black-white		33	black-white	
				85	red-white		33	red-white	
90	brown	33	brown						
							seizing		
TRS 1702	RS 9702	TRS 5702	black	25	yellow	1250	125	yellow	0.084
				37	black		125	black	
				49	red		125	red	
				61	yellow-white		125	yellow-white	
				73	black-white		125	black-white	
				85	red-white		125	red-white	
90	brown	125	brown						
							retaining eyelet		



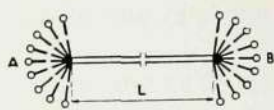
TRS 1801 – TRS 1802, TRS 5801 – TRS 5802 have eight conductors.

External diameter for TRS 1801 – TRS 1802 is 8.8 mm and for TRS 5801 – TRS 5802 it is 9.7 mm.

Other dimensions: see table.

normal	replacing	tropical	colour	trim A		length L	trim B		weight
				length	identifying colours		length	identifying colours	
TRS 1801	—	TRS 5801	black	mm		1250	mm		0.070
				25	yellow		125	yellow	
				37	black		125	black	
				49	red		125	red	
				61	yellow-white		125	yellow-white	
				73	black-white		125	black-white	
				85	red-white		125	red-white	
				90	brown		125	brown	
78	blue	125	blue						
							retaining eyelet		
TRS 1802	—	TRS 5802	black	25	yellow	1250	125	yellow	0.067
				25	black		125	black	
				25	red		125	red	
				25	yellow-white		125	yellow-white	
				25	black-white		125	black-white	
				25	red-white		125	red-white	
				25	brown		125	brown	
				25	blue		125	blue	
							retaining eyelet		





TRS 19, TRS 59

TRS 1901, TRS 5901 have nine conductors.

External diameter for TRS 1901 is 9.6 mm and for TRS 5901 it is 10.5 mm.

Other dimensions: see table.

normal	replacing	tropical	colour	trim A		length L	trim B		weight
				length	identi- fying colours		length	identi- fying colours	
TRS 1901	RS 9951	TRS 5901	black	mm		1250	mm		0.080
				25	yellow		125	yellow	
				37	black		125	black	
				49	red		125	red	
				61	yellow- white		125	yellow- white	
				73	black- white		125	black- white	
				85	red- white		125	red- white	
				90	brown		125	brown	
				78	blue		125	blue	
66	brown- white	125	brown- white						
							retaining eyelet		

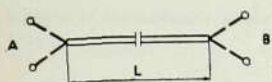
RUBBER HOSE CORDS, THICK-WALLED

TRS 2201—TRS 2405 Rubber hose cords

These cords are used for portable telephone instruments, ship's telephones, mine telephones etc.

They are made of No. 7684 type cord.

Each individual conductor is insulated by a yarn covering, on top of which is vulcanized rubber. The requisite number of conductors is cabled and together pressed into a rubber hose which entirely fills up the spaces between the conductors. The insulation resistance is not less than 1000 megohm/m after one hour in water.

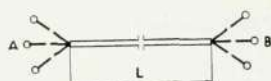


TRS 2201—TRS 2204

TRS 2201—TRS 2204 have two conductors. External diameter is 7 mm.

Other dimensions: see table.

	replacing	colour	trim A		length L	trim B		weight
			length	identi- fying colours		length	identi- fying colours	
			mm		mm	mm		kg
TRS 2201	RS 4900	black	25 37	yellow black	1500	50 50	yellow black	0.083
TRS 2202	—	black	25 37	yellow black	1500	40 33 cable lug rubber case	yellow black	0.085
TRS 2203	—	white	25 37	yellow black	1250	40 33 cable lug rubber case	yellow black	0.070
TRS 2204	—	black	25 37	yellow black	380	40 33 cable lug rubber case	yellow black	0.020

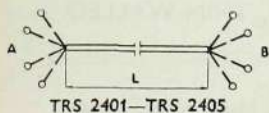


TRS 2301—TRS 2304

TRS 2301—TRS 2304 have three conductors. External diameter is 7 mm.

Other dimensions: see table.

	replacing	colours	trim A		length L	trim B		weight
			length	identi- fying colours		length	identi- fying colours	
			mm		mm	mm		kg
TRS 2301	RS 5120	black	25 37 49	yellow black red	1500	20 20 20 rubber case	yellow black red	0.095
TRS 2302	—	white	25 37 49	yellow black red	1250	20 20 20 rubber case	yellow black red	0.080
TRS 2303	—	black	25 37 49	yellow black red	450	20 20 20 rubber case	yellow black red	0.030
TRS 2304	RS 5121	black	25 37 49	yellow black red	1500	50 50+80 60	yellow black red	0.093



TRS 2401—TRS 2405 have four conductors. External diameter is 7 mm.

Other dimensions: see table.

	replacing	colour	trim A		length L	trim B		weight
			length	identifying colours		length	identifying colours	
TRS 2401	—	black	mm 25 37 49 61	yellow black red white	mm 450	mm 20 20 20 20 rubber case	yellow black red white	kg 0.030
TRS 2402	RS 6200	black	25 37 49 61	yellow black red white	1500	50 50 60 60	yellow black red white	0.090
TRS 2405	—	white	25 37 49 61	yellow black red white	1250	20 20 20 20 retaining eyelet	yellow black red white	0.075



RUBBER HOSE CORDS, THIN-WALLED

TRS 3201—TRS 3402 Rubber hose cords

These cords are used in conjunction with handsets, laryngophones receivers etc.

Because of the weaker rubber insulation they are more pliable than rubber cords *TRS 2201* etc.

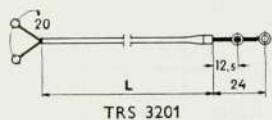
The cords *TRS 3206*, *TRS 3207* are specially designed for series connection of two receivers in head-gear receivers. Some of the cords have round or flat plug which is cast in along with the cord.

They are made of No. 8920 type cord.

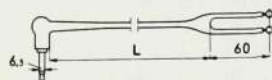
The individual conductors are insulated by a yarn covering, on top of which is vulcanized rubber. The requisite number of conductors is pressed in together with a vulcanized rubber hose, black or grey in colour, which entirely fills up the spaces between the conductors. The insulation resistance is not less than 1000 megohm/m after one hour in water.

TRS 3201—TRS 3223 have two conductors. External diameter is 5.2 mm.

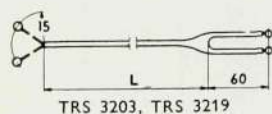
Other dimensions: see table.



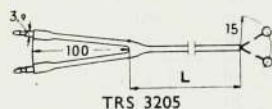
TRS 3201



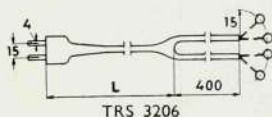
TRS 3202



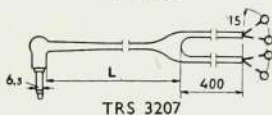
TRS 3203, TRS 3219



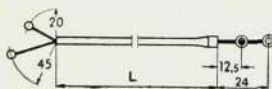
TRS 3205



TRS 3206



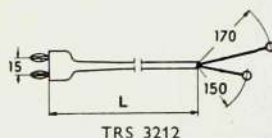
TRS 3207



TRS 3210

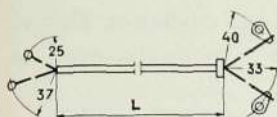


TRS 3211

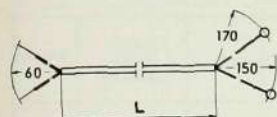


TRS 3212

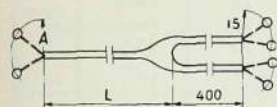
	replacing	colour	length		weight
			A	L	
			mm	mm	kg
TRS 3201	—	black		400	0.015
TRS 3202	RS 4850	black		2500	0.100
TRS 3203	—	black		560	0.020
TRS 3205	—	black		900	0.045



TRS 3215



TRS 3218



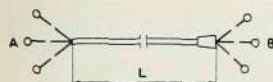
TRS 3222, TRS 3223

	replacing	colour	length		weight
			A	L	
TRS 3206	RS 4831	grey	mm	1340	0.095
TRS 3207	RS 4812	grey		1350	0.090
TRS 3210	—	black		430	0.015
TRS 3211	—	black		1025	0.035
TRS 3212	—	black		1530	0.070
TRS 3215	—	black		1250	0.040
TRS 3218	—	black		1530	0.050
TRS 3219	—	black		800	0.040
TRS 3222	—	black	20	1350	0.070
TRS 3223	—	black	60	1350	0.070

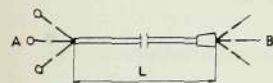
TRS 3301 – TRS 3303 have three conductors. They are black.

External diameter is 5.7 mm.

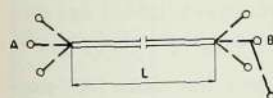
Other dimensions: see table.



TRS 3301



TRS 3302



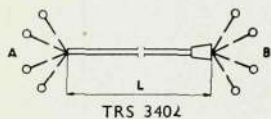
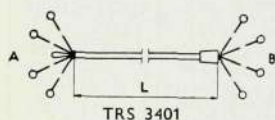
TRS 3303

	length L	trim A	trim B	identifying colours	weight
	mm	mm	mm		kg
TRS 3301	1025	30	22	yellow	0.040
		30	22	black	
		30	22	red	
TRS 3302	310	30	65	red	0.015
		30	65	blue	
		30	65	white	
TRS 3303	1250	25	50	yellow	0.050
		37	50+80	black	
		49	60	red	

TRS 3401—TRS 3402 have four conductors. They are black.

External diameter is 6.2 mm.

Other dimensions: see table.



	length L	trim A	trim B	identifying colours	weight
	mm	mm	mm		kg
TRS 3401	1025	20	22	yellow black red white	0.040
		20	22		
		20	22		
		20	22		
		retaining eyelet	rubber case		
TRS 3402	1025	30	22	yellow black red white	0.045
		30	22		
		30	22		
		30	22		
			rubber case		

CORDS FOR DOMESTIC TELEPHONES

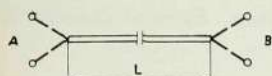
TRS 4201—TRS 4501 Cords

These cords are used for domestic telephones etc.

They are made of No. 8940 type cord.

The individual conductors are insulated by a covering of silk and a braiding of black mercerized cotton yarn. The requisite number of conductors is cabled and then braided in common with coarse black artificial silk.

The insulation resistance is not less than 100 meg-ohm/m after 24 hours in 60 % relative humidity.

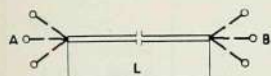


TRS 4201—TRS 4203

TRS 4201—TRS 4203 have two conductors. External diameter is 4.9 mm.

Other dimensions: see table.

	replacing	colours	trim A		length L	trim B		weight
			length	identifying colours		length	identifying colours	
TRS 4201	RS 4253	black	mm 60 60 rubber case	yellow black	mm 1000	mm 20 20 retaining eyelet	yellow black	kg 0.017
TRS 4202	—	black	60 60 rubber case	yellow black	1250	20 20 retaining eyelet	yellow black	0.021
TRS 4203	—	black	25 37	yellow black	1250	20 20 retaining eyelet	yellow black	0.021

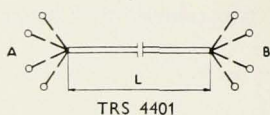


TRS 4301

TRS 4301 has three conductors. External diameter is 5.8 mm.

Other dimensions: see table.

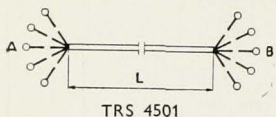
	replacing	colours	trim A		length L	trim B		weight
			length	identifying colours		length	identifying colours	
TRS 4301	RS 5083	black	mm 60 60 60 rubber case	yellow black red	mm 1000	mm 20 20 20 retaining eyelet	yellow black red	kg 0.023



TRS 4401 has four conductors. External diameter is 6.2 mm.

Other dimensions: see table.

	replacing	colour	trim A		length L	trim B		weight
			length	identifying colours		length	identifying colours	
TRS 4401	RS 6165	black	mm		1250	mm		kg
			60	yellow		20	yellow	
			60	black		20	black	
			60	red		20	red	
			60	white		20	white	
		rubber case						



TRS 4501 has five conductors. External diameter is 6.6 mm.

Other dimensions: see table.

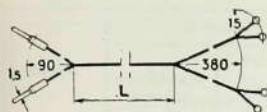
	replacing	colour	trim A		length L	trim B		weight
			length	identifying colours		length	identifying colours	
TRS 4501	—	black	mm		1250	mm		kg
			60	yellow		20	yellow	
			60	black		20	black	
			60	red		20	red	
			60	white		20	white	
		rubber case						

CORDS FOR RECEIVERS ETC.

TRS 6201 Cord for receivers, twisted

This cord is used in conjunction with receivers *RLD 3402* and *RLD 3404*.

It is made of No. 5991 type cord.



TRS 6201

The individual conductors are insulated by two coverings of silk with black composition impregnation between the coverings and an outside braiding of black mercerized cotton yarn. Two such conductors are twisted together. The insulation resistance is not less than 100 megohm/m after 24 hours in 80 % relative humidity. The cord has eyes at one end for connection to the receiver case and in the other end a terminal point of white boiled brass.

Dimensions: distance *L* between trims 1350 mm, external diameter 4.2 mm, other dimensions see sketch, weight 0.025 kg.

TRS 7401—TRS 7503 Cords for head sets

These cords are used for head sets *RLF 2001* etc.

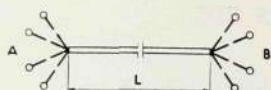
They may be used in tropical climates.

They are made of No. 11540 type cord.

The individual conductors are insulated by two layers of guttapercha tape, one covering artificial silk and an outside braiding of artificial silk. The conductors are cabled and braided together with artificial silk.

The insulation resistance is not less than 100 megohm/m after 24 hours in 75 % relative humidity at a temperature of 50° C or 1000 megohm/m after 1 hour in water.

The cords have a rubber cap as protection against strain of screwing in.



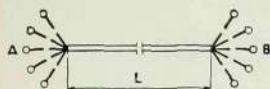
TRS 7401—TRS 7403

TRS 7401—TRS 7403 has four conductors. External diameter is 5.5 mm.

Other dimensions: see table.

	trim A			length L	trim B		weight
	colour	length	identifying colours		length	identifying colours	
		mm			mm		
TRS 7401	black	14 23 28 40 rubber case	yellow black red white	1600	22 22 22 22 retaining eyelet*	yellow black red white	0.038
TRS 7402	black	14 23 28 40 rubber case	yellow black red white	1600	30 30 30 30	yellow black red white	0.038
TRS 7403	black	14 23 28 40 rubber case	yellow black red white	1600	20 20 20 20 retaining eyelet	yellow black red white	0,038

* Special retaining eyelet for plug RF 3551



TRS 7501—TRS 7503

TRS 7501—TRS 7503 has five conductors. External diameter is 5.9 mm.

Other dimensions: see table.

	trim A			length L	trim B		weight
	colour	length	identifying colours		length	identifying colours	
		mm		mm	mm		kg
TRS 7501	black	14	yellow	1600	22	yellow	0.045
		23	black		22	black	
		28	red		22	red	
		40	brown		22	brown	
		55	white		22	white	
	rubber case		retaining eyelet*				
TRS 7502	black	14	yellow	1600	30	yellow	0.05
		23	black		30	black	
		28	red		30	red	
		40	brown		30	brown	
		55	white		30	white	
	rubber case						
TRS 7503	black	14	yellow	1600	20	yellow	0.045
		23	black		20	black	
		28	red		20	red	
		40	brown		20	brown	
		55	white		20	white	
	rubber case		retaining eyelet				

* Special retaining eyelet for plug RF 3551

CABLE LUGS ETC. FOR CONNECTING CORDS

SNG 10601 Cable lug



SNG 10601

This cable lug is used in conjunction with connecting cords *TRM 10*, *TRM 11* etc.

The cable lug, which is of white boiled brass, has a 2.4 mm hole fitting the terminal screw in plugs *RPR 25*, *RPR 34* and *RPR 35*.

Dimensions :

length 8 mm, width 4 mm, weight per 100: 0.015 kg.

O-10277 Contact tip



O-10277

This contact tip is used in conjunction with connecting cords *TRM 12* and *TRM 22* and fits the spring contact point in plugs *RPR 24* and *RPR 27*.

The contact tip, which is of brass, has a screw thread for fixing in the cord end.

Dimensions :

length 13 mm, diameter 3.2 mm, weight per 100: 0.035 kg.

134307 Cord fixed contact



134307

This cord fixed contact is used in conjunction with connecting cords *TRM 11*, *TRM 12* etc. and fits the spring clip in cord clip terminals *RTA 1001*–*RTA 1004*.

The cord fixed contact, which is of white boiled brass, has a screw thread for fixing in the cord end.

Dimensions :

length 15 mm, diameter 5.5 mm, weight per 100: 0.150 kg.

ERECTION PARTS FOR MANUAL SWITCHBOARDS

FITTING STRIPS

1-713—213805 Fitting strips

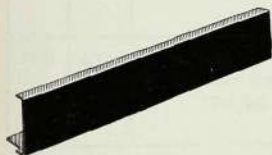
The fitting strips are used in manual switchboards which have 282 mm panel width.

The strips are of black dull lacquered brass sheet and are made as fillings with the front all in one piece or with fitting holes for drop indicators, combined drop indicators and jacks, visual indicators, press-button keys and lever keys. The height is equivalent to the height of 1, 2, 3, 4 or 5 jack strips. The fitting accessories are to be ordered separately. For capping plates, capping plugs see page 318.

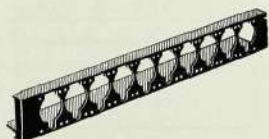
The fitting strips are inserted in grooves in the switchboard frame and are held in place by the fixing plates.

Dimensions:

length 281.5 mm, height and width see table.



81311

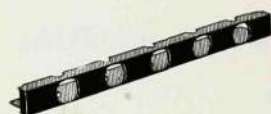


137021

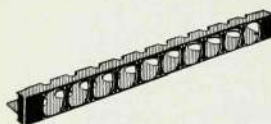


133511

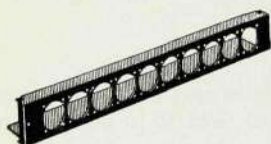




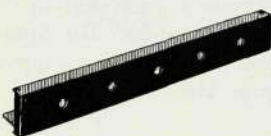
1-713



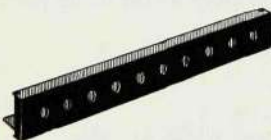
131378



137326



148957/2



133685



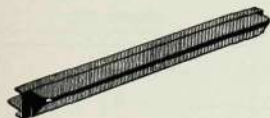
213805

	intended for	assembly parts to be ordered separately	height	weight
			mm	kg
80146	filling		11.9	0.07
80149	filling		23.9	0.14
80147	filling	—	35.9	0.17
81311	filling		47.9	0.19
80148	filling		59.9	0.20
137021	ten drop indicators RNA 11 RNA 12 or RNA 20	for each drop indicator four screws G9 G5.5 M07	35.9	0.21
133511	ten drop indicator jacks RNE 11	for each drop indicator jack four screws G9 G5.5 M07	47.9	0.21
1-713	five visual indicators RNC 15	for each visual indicator four screws G9 C5 M07	23.9	0.19
131378 131378/1*	ten visual indicators RNC 15	for each visual indicator four screws G9 C5 M07	23.9	0.16
137326	ten visual indicators RNC 14	for each visual indicator four screws G9 C5 M07	35.9	0.22
148957/2	five key switches RMD 10-13	for each key switch one distance tube 169385/1	35.9	0.28
133685	ten key switches RMD 10-13	for each key switch one distance tube 169385/1	35.9	0.28
213805	ten lever switches RMA 10-15	for each lever switch two screws G6 G5 M21	47.9	0.29

* This filling resembles 131378 but has a 13 mm soldering tag at each end

DROP INDICATOR SHIELD

80187 Drop indicator shield



80187

This drop indicator shield is used in manual switchboards with 282 mm panel width. Its object is to protect the clearing signal indicators when the cords are disconnected.

The shield consists of black lacquered sheet brass fitted with a fibre coated wooden strip.

The indicator shield is inserted in a groove in the switchboard frame and held in place by the fixing plates.

Dimensions:

length 281.5 mm, height 23.9 mm, weight 0.23 kg.

FIXING PLATES

135403—135403/19 Fixing plates



135403

These fixing plates are used in manual switchboards *ABH*, *ABK*, *ADK* etc. to hold firm jack strips, lamp strips, visual indicator strips etc.

The plates are of dull black oxidized brass and the length is equivalent to the height of five jack strips.

The fixing plates may be had in two executions, engraved or not engraved as per table below. The engraved plates, which have white figures, are intended for twenty-number jack strips that are engraved 0-9, 0-9. The engraved plates are labelled 0, 2, 4, 6, 8; one figure for each 20 jacks, and are also made with pilot figures for 100s and 1000s, as per table.

Fixing requires two screws G5 G21.5 M07.





135403/2



135403/12

Dimensions :

length 59.9 mm, width 20 mm, thickness 3 mm, weight 0.03 kg, distance between fixing holes 48 mm.

	engraving
135403	
135403/0	0
135403/1	1
135403/2	2
135403/3	3
135403/4	4
135403/5	5
135403/6	6
135403/7	7
135403/8	8
135403/9	9
135403/10	10
135403/11	11
135403/12	12
135403/13	13
135403/14	14
135403/15	15
135403/16	16
135403/17	17
135403/18	18
135403/19	19

CAPPING PLATES, CAPPING PLUGS

133513—218412 Capping plates



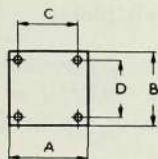
133513



218412

These capping plates are used to cap unfitted holes for drop indicators, combined drop indicators and jacks, visual indicators and lever keys in fitting strips.

The capping plates are of 1 mm black lacquered brass sheet and have holes for fixing corresponding to the holes in the strips. 133513—139552 have four holes without thread and are fixed to the front of the strips.



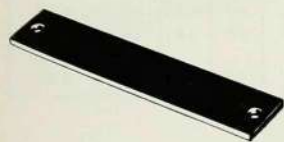
218412 has two threaded holes and is fixed to the rear of the strip.

Fixing screws, see table, to be ordered separately.

Dimensions: see table.

	for strip	instead of	fixing screws		A	B	C	D	weight
			num-ber of	designation					
133513	133511	combined indicator and jack RNE visual indicator RNC 15	4	G9 G5.5 M07	mm	mm	mm	mm	kg
133526	1—713 131378				24.9	46	20.4	41.5	0.010
137023	137021	indicator RNA visual indicator RNC 14	4	G9 G5.5 M07	24	32	19.5	27	0.006
139552	137326				22.8	25	18	20	0.005
218412	213805	lever key RMA	2	G6 G5 M21	6	32	—	26	0.002

225922/1, 225922/2 Capping plates



225922/1

These capping plates are used in manual switchboards instead of switch plates 215434/1—215434/2, in cases where the full number of switches is not used.

The capping plates are made of brass with two kinds of surface finish: dull nickel-plating and dull black oxidizing, and they have two countersunk 3.6 mm holes for fixing.

225922/1 is dull nickel-plated.

225922/2 is dull oxidized.

Fixing requires two screws: for nickel-plated plates G5 G7 M21 and for oxidized plates G5 G7 M07, to be ordered separately.

Dimensions:

length 120 mm, width 24.9 mm, thickness 3 mm, weight 0.08 kg, distance between fixing holes 108 mm.



144345/1-2, 300593/1-2 Capping plates



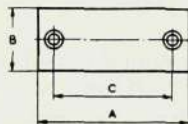
300593/1

These capping plates are used in manual switchboards instead of switch plates 213214/1-213215/2 in cases where the full number of switches is not fitted.

The capping plates, which are of 2 mm sheet brass, are made with two kinds of surface finish: dull nickel-plating and dull black oxidizing, and have two countersunk 3.6 mm holes for fixing.

Fixing requires two screws: for nickel-plated plates G5 G7 M21 and for oxidized plates G5 G7 M07, to be ordered separately.

Dimensions: see table.



144345/1-300593/2

	surface-finish	A	B	C	weight
		mm	mm	mm	kg
300593/1	matt oxidized	60	24.9	48	0.025
300593/2	matt nickel-plated	60	24.9	48	0.025
144345/1	matt oxidized	70	24.9	58	0.027
144345/2	matt nickel-plated	70	24.9	58	0.027

302420/1 Capping plug



302420/1

This capping plug is used in conjunction with plug plate 130669 to cap the empty holes in the plug plate when the switchboard is not equipped with the full number of cord pairs.

The plug is of dark brown insulating material.

The capping plug, which is slit, sits firm in the cord hole because of its spring.

Dimensions:

length 18 mm, diameter 15 mm, weight 0.002 kg.

O-4531 Capping plug



O-4531

This capping plug is used to cap unfitted holes for press-button keys *RMD* in fitting strips.

The plug is of black material.

The capping plug is held firm by a spring ring *O-4532*, to be ordered separately.

Dimensions:

diameter 12 mm, thickness 7 mm, diameter of tap 10.55 mm, weight 0.001 kg.

PLUG PLATES, PLUG SUPPORTS

130669, 247243 Plug plates



130669, 247243

These plug plates are used in manual switchboards to protect the switchboard so that it is not injured by the connecting plugs.

The plug plate *130669* is of dark-brown insulating material and *247243* is of red fibre.

They have holes for ten cord pairs.

A suitable capping plug is *302420/1*.

Fixing requires twelve wood screws *Trsker No. 4-1/2" FS M07*, to be ordered separately.

Dimensions:

length 255 mm, width 55 mm, diameter of holes 9.75 mm.

130669: thickness 2 mm, weight 0.036 kg.

247243: thickness 5 mm, weight 0.09 kg.



136057 Plug support



136057

This plug support is fitted to the underside of the plug plate in manual switchboard when connecting plugs without spiral, e.g., RPR 2501, are to be used.

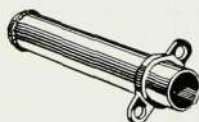
The plug support is of white boiled brass and has two lugs for fixing.

Fixing requires two wood screws *Trsker* No. 4- $\frac{1}{2}$ " KS M05, to be ordered separately.

Dimensions:

diameter 10.75 mm, diameter of holes 7 mm, length 10 mm, weight 0.007 kg.

136056, 241421 Plug supports



136056, 241421

These plug supports are fitted to the underside of the plug plate in manual switchboard in which connecting plugs with protective spiral are to be used.

The plug support is of white boiled brass and has plugs two lugs for fixing.

Fixing requires two wood screws *Trsker* No. 4- $\frac{1}{2}$ " KS M05, to be ordered separately.

Dimensions: see table.

	for plug		dia- meter	hole dia- meter	length	weight
	designation	shaft dia- meter				
		mm	mm	mm	mm	kg
136056	RPR 2502 etc.	9.3	10.75	9.75	69	0.013
241421	RPR 2402 etc.	10.5	12	11	74	0.016

PROTECTING PLATES



236640



302089, 302089/1



302090

236640—302090 Protecting plates

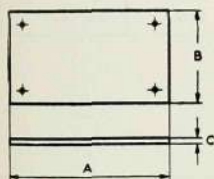
These protecting plates are used in manual switchboard to protect the wood frame from injury from the handset.

The plates are of moulded material resembling tortoise shell.

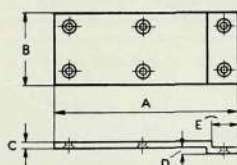
Protecting plate 236640 is intended for nailing. Fixing of 302089—302090 requires six wood screws *Trsker* No. 1— $3/8$ " FS M07, to be ordered separately.

Dimensions: see table.

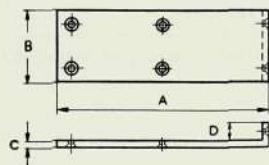
	A	B	C	D	E	weight
	mm	mm	mm	mm	mm	kg
236640	90	50	1	—	—	0.003
302089	130	50	1.5	1.5	7	0.013
302089/1	120	50	1.5	1.5	7	0.012
302090	150	50	1.5	12	—	0.017



236640



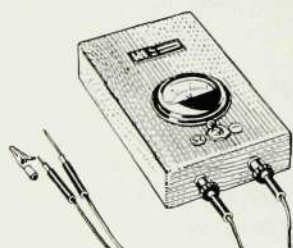
302089, 302089/1



302090

TESTING INSTRUMENTS

AEP 4001 Testing instrument



AEP 4001

This instrument is intended for use when ringing out and testing current circuits and line loops. It consists of a signal device, a voltmeter, switch and a dry battery all fitted into a case of polished wood, together with two connecting cords.

The switch is used to connect in either the signal device or the voltmeter in series with the battery.

The pole screws are provided with jacks for insertion of banana contacts.

Dimensions see table:

Weight, with cord and dry cell, 0.9 kg.

	length	width	height
	mm	mm	mm
AEP 4001	180	110	47

Parts:

	design- nation
dry cell	BKA 1101
voltmeter, measuring range 3 V	VRB 1051
switch	204167/3
pole screws (two)	61—321/1
cord, length 1500 mm, fitted with plug 244291/1 and banana contact 229532	244290/1
cord, length 1300 mm with plug 244291/2 and banana contact 229532	244290/2
crocodile clip	232035

AEP 4101 Testing instrument

This instrument consists of a signal device built into a green enamelled case of type similar to that used for electric flashlights.

The instrument has two cords, each with one end fixed inside the instrument. Both cords have banana contact in the free end. A tip and a crocodile clip fitting the cord banana contacts is supplied.

Dimensions see table:

weight,
with cord, without battery, 0.145 kg.
with cord, with battery, 0.265 kg.

	height	width	depth
	mm	mm	mm
AEP 4101	98	72	25

Parts:

	design- nation
flashlight battery, 4.5 V*	—
contact tip	245575
crocodile clip	232035
cord, length 1000 mm	245481/1

* The dry cell is not included but should be ordered separately



AEP 4101

TOOLS

Below is given a selection of special tools, chiefly used for assembling and adjusting the parts included in this catalogue.

LDK 1001—LDK 1007 Insulation removers

(photo 50223/171)

(replacing NK 205/04—NK 205/1.0)



LDK 1001—LDK 1007

These insulation removers are used to remove the insulation from copper conductors.

The remover is of steel with teeth for different diameters of wire, see table.

Dimensions:

length 148 mm, weight 0.075 kg.

	old designation	diameter of the conductor
		mm
LDK 1001	NK 205/04	0.4
LDK 1002	NK 205/05	0.5
LDK 1003	NK 205/06	0.6
LDK 1004	NK 205/07	0.7
LDK 1005	NK 205/08	0.8
LDK 1006	NK 205/09	0.9
LDK 1007	NK 205/1.0	1

Scraping knife

(photo 50223/166)



Photo 50223/166

This scraping knife is used to scrape off the insulation from connecting wires.

Dimensions:

length 175 mm, weight 0.028 kg.

LMT 1001—LMT 1003 Blade-form gauge sets



LMT 1001—LMT 1003

These gauge sets are used among other things for measuring the width of stroke on relays etc. and for determining contact distances, pole distances etc.

The gauge blades are fitted in a holder, into which they shut like a knife.

LMT 1001 has holder and gauge blades of steel.

LMT 1002 and *LMT 1003* have holder and gauge blades of phosphor bronze.

On *LMT 1001* and *LMT 1002* the figures engraved give the thickness of blade in hundredths of millimetre.

On *LMT 1003* the figures engraved give the thickness of blade in millimetres.

Dimensions:

collapsible length 68 mm free length of blade 45 mm, width 11 mm, height *LMT 1001* and *LMT 1002* 9.5 mm, *LMT 1003* 17.5 mm.

	old designation	measuring range	blade thickness with steps between blades		number blades	weight approx.
			0.05 mm	0.1 mm		
	photo					kg
LMT 1001	50219/51	0.05—1	0.05—0.5	0.6—1	15	0.035
LMT 1002	—	0.05—1	0.05—0.5	0.6—1	15	0.035
LMT 1003	—	1.1—2	—	1.1—2	10	0.065

LMV 1101—LMV 1108 Spring balances

(photo 50223/184)



LMV 1101—LMV 1108

These spring balances are used for measuring the spring pressure of contact springs in relays, dials etc.

The mechanism is built into a case of nickel-plated brass, which has a glass face to protect the weight scale and the pointer.

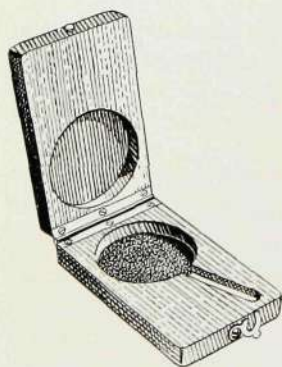
Dimensions:

diameter 50 mm, height 18.5 mm, weight about 0.11 kg.

The spring balances can be supplied in case on request and at an extra cost.

The spring balances are made as per following table.

	scale graduated in grammes	readings in	length of scale arm
LMV 1101	0—10	g 0.5	mm 41
LMV 1102	0—35		
LMV 1104	10—70		
LMV 1105	60—130	1	33
LMV 1106	120—180		
LMV 1107	150—350	5	24
LMV 1108	300—550		



LTV 1001

LTV 1001 Case for spring balance

This case is designed for spring balances *LMV 1101—LMV 1108*. It is made of wood, light polished.

Dimensions:

length 105 mm, width 63 mm, height 28 mm, weight 0.1 kg.

LSB 1005 Box spanner

(photo 50219/41, 50363/167)

(replacing 11/AV 1838)

This box spanner is used for fitting spring sets on switches *RMA-RMD*.

The box spanner is of steel with wooden shaft.

Dimensions:

length about 145 mm, gauge 6 mm, weight 0.038 kg.



LSB 1005

LSB 1009 Box spanner

(photo 50219/37)

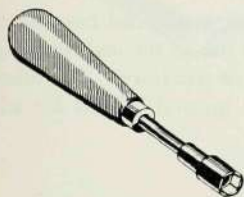
(replacing 14/AV 1838)

This box spanner is used for fitting relays.

The box spanner is of steel with wooden shaft.

Dimensions:

length about 170 mm, gauge 9 mm, weight 0.05 kg.



LSB 1009

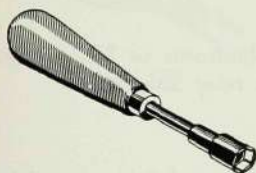
LSB 1012 Box spanner

This box spanner is used for fixing relay coils in relays type *RAB* and *RAC*.

The box spanner is of steel with wooden handle.

Dimensions:

length about 170 mm, for nuts with key gauge 12 mm, weight 0.07 kg.



LSB 1012

LSB 1013 Box spanner

(photo 50219/38, 50363/169)

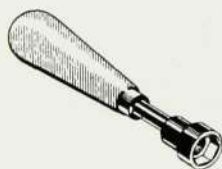
(replacing 15/AV 1838)

This box spanner is used for fixing relay coils on relay angle-iron.

The box spanner is of steel with wooden shaft.

Dimensions:

length about 170 mm, gauge 14 mm, weight 0.083 kg.



LSB 1013

LSB 2204 Key for dials

(replacing 135093)

This key is used for dials *RGA 10–RGA 20*.

The key, which is of steel, has at one end two points fitting two holes in the centre nut of the dial, enabling the nut to be easily screwed or unscrewed. The other end of the key, which has a groove, is used for adjustment of the dial spring.

Dimensions:

length 80 mm, diameter 11 mm, weight 0.024 kg.



LSB 2204

16/AV 1836 Spanner

(photo 50219/46)

This spanner is used for adjustment of lifting dogs and spiral spring fixings on relay armatures.

Dimensions:

length 60 mm, key gauge 5 mm and 2.5 mm weight 0.003 kg.



16/AV 1836

173778 Spanner

(photo 50371/260)



173778

This spanner is used for fitting relays.

The spanner has a large gauge to fit the relay coil fixing nuts and a smaller gauge for the relay fixing nuts.

Dimensions:

length 110 mm, gauges 14.6 and 9.1 mm, weight 0.053 kg.

161256 Spanner

(photo 50219/43)



161256

This spanner is used for fitting press-button keys *RMD*.

Dimensions:

length 110 mm, gauge 16.2 mm, weight 0.026 kg.

LSD 1001 Lamp and lens tongs

(photo 50344/253)

(replacing 127581)



LSD 1001

This tongs is used to facilitate the removal of lamps from lamp jacks and lamp strips etc.

The tongs which is of dull nickel-plated brass, has special jaws for the lamps. The tongs can also be used for taking out lamp lenses when the shanks of the tongs are used, these being specially shaped for the purpose.

Dimensions:

length 112 mm, weight 0.028 kg.

LSD 1002 Lens tongs



LSD 1002

This tongs is used for facilitating the taking out of lamp lenses from lamp jacks and lamp strips etc.

The tongs which is of dull nickel-plated brass has special jaws for lamp lens.

Dimensions:

length 107 mm, weight 0.028 kg.

248569 Ring remover



248569

This ring remover is used to take off the lock ring of the plug shaft on plugs *RPR 2501*, *RPR 3501* etc.

The ring remover, which is of steel, has a hole at the rear end designed for use in conjunction with cap *248570* for fixing the lock rings on the plugs.

Dimensions:

length 70 mm, width 12.6 mm, thickness 1 mm, weight 0.006 kg.

248570 Cap



248570

This cap is used when fitting the lock ring on the plug shaft of plugs *RPR 2501*, *RPR 3501* etc.

The cap, which is of steel, is conical and is used in conjunction with ring remover *248569*.

Dimensions:

length 10 mm, diameter of hole 5.8 mm, weight 0.001 kg.

7/AV 1837 Taper hook

(photo 50219/49)



7/AV 1837

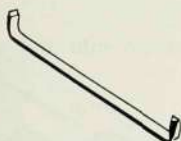
This hook has steel point and is used for adjusting or changing spiral springs on relay armatures.

Dimensions:

length 95 mm, weight 0.008 kg.

8/AV 1837 Angle screw-driver

(photo 50219/48)



8/AV 1837

This screw-driver is used for adjusting relays where the ordinary straight screw-driver cannot be employed.

Dimensions:

length 87 mm, weight 0.006 kg.

232750 Spring bender, double

(photo 50371/277)



232750

This spring bender is used for the adjustment of contact springs in switches *RMA-RMD*.

It is of steel and has at one end a slot 0.6 mm and at the other end a slot 0.9 mm wide,

Dimensions:

length 120 mm, depth of slots 6 mm; weight 0.015 kg.

10-24 Spring bender, double

(photo 50371/261)



10-24

This spring bender is used for adjusting the contact springs in relay spring sets. It is of steel with grip of brass and nickel-plated.

Dimensions:

length 142 mm, depth of slots 4 mm and width 0.6 mm; weight 0.019 kg.

135681 Spring bender, double

(photo 50371/262)



135681

This spring bender differs from the preceding one only in the dimensions.

Dimensions:

length 175 mm, depth of slots 2.5 mm and width 0.5 mm; weight 0.019 kg.

1/AV 1837 Spring bender, single

(photo 50219/55)



1/AV 1837

This spring bender is used for adjusting the spring set in dials.

The bender is of steel with wooden shaft.

Dimensions:

length about 130 mm, depth of slot 5 mm, width 0.5 mm; weight 0.012 kg.

216146 Spring bender, single

This spring bender differs from the preceding one only in the dimensions.

Dimensions:

length about 165 mm, depth of slot 7 mm, width 0.4 mm; weight 0.02 kg.

232520 Polishing-steel

(photo 50371/275)



232520

This polishing-steel is used for cleaning contacts in relays etc.

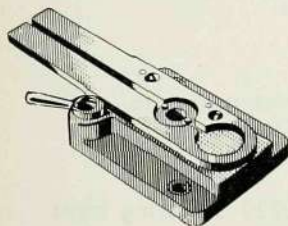
The polishing steel is fitted in a shaft of black insulating material.

Dimensions:

length 150 mm, weight 0.008 kg.

LTD 1001 Tool for transmitter insets

This tool is designed for use in conjunction with carbon granule filler *LTS 1001* when filling in or changing carbon in transmitter insets type *RLA 16* and *RLA 17*.



LTD 1001

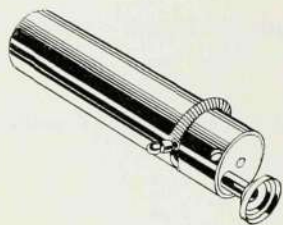
The tool consists of two shanks of nickel-plated steel mounted on a base of grey enamelled cast-iron. One of the shanks is springy. The shanks have a slot fitting the carbon chamber of the transmitter inset. At the bottom of the slot there are two pins which fit corresponding holes in the carbon chamber. By closing the shanks the carbon chamber is stretched tight in the slot. By means of an excentric device fitted with handle, the shanks are locked in closed position. The transmitter inset frame can then be screwed off or on without difficulty.

To facilitate fixing on work benches or the like the tool is provided with two 6.5 mm holes.

Dimensions:

length 176 mm, width 75 mm, height 27 mm, weight 1.06 kg.

LTS 1001 Carbon granule filler for transmitter insets



LTS 1001

This carbon granule filler is designed for transmitter insets types *RLA 16* and *RLA 17*.

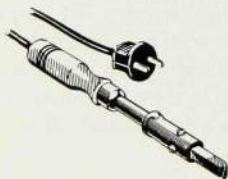
It has casing of nickel-plated brass with inside steel mechanism, precision ground. The upper end is provided with cork to protect the carbon granules.

When filling with or changing carbon granules in transmitter insets types *RLA 16* and *RLA 17*, the inset is placed in a tool *LTD 1001* specially designed for the purpose. The inset frame is then screwed off and the funnel shaped mouth of the filler placed over the carbon chamber. The mobile arm of the filler is then moved to the side, whereupon the proper amount of carbon granular powder runs down into the carbon chamber. When filling is completed the inset frame is screwed on again.

Dimensions:

length 150.5 mm, (with cork approx. 167 mm)
diameter 32 mm, weight 0.42 kg.

NK 262/110—NK 262/220 Soldering irons



NK 262/110—NK 262/220

These soldering irons, which have electric heater, are used especially for soldering the fixed ends of winding wires on coils.

The irons have exchangeable heater *NK 265* and soldering tip *NK 266*. The soldering tip is of chrome nickel and has a slot for the solder. Current consumption is 50 W.

The soldering irons are delivered with two-pole plug-in contact and 1.9 m rubber flex.

Dimensions:

length 250 mm, weight 0.36 kg.

	operating voltage
	V
NK 262/110	110
NK 262/127	127
NK 262/220	220

NK 265/110—NK 265/220 Heaters for soldering irons



NK 265/110—NK 265/220

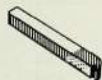
These heaters are used in conjunction with soldering irons NK 262/110—NK 262/220.

Dimensions:

length 52 mm, width 13.5 mm, height 13.5 mm, weight 0.01 kg.

	operating voltage
	V
NK 265/110	110
NK 265/127	127
NK 265/220	220

NK 266 Soldering tip



NK 266

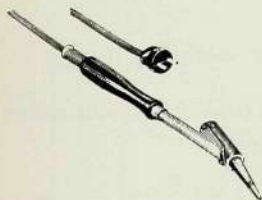
This soldering tip is used in conjunction with soldering irons NK 262/110—NK 262/220.

Dimensions:

length 79 mm, width 9.5 mm, height 9.5 mm, weight 0.055 kg.

NK 271/110—NK 271/220 Soldering irons

These soldering irons, which have electric heater, are used for soldering of cables in terminal blocks, connections in telephone exchanges, switchboards etc.



NK 271/110—NK 271/220

The soldering irons have exchangeable heaters *NK 275* and soldering tip *NK 276*. Current consumption is 100 W.

The soldering irons are supplied with two-pole plug-in contact and 1.9 mm rubber flex.

Dimensions:

length 340 mm, weight 0.6 kg.

	operating voltage
	V
NK 271/110	110
NK 271/127	127
NK 271/220	220

NK 275/110—NK 275/220 Heaters for soldering irons



NK 275/110—NK 275/220

These heaters are used in conjunction with soldering irons *NK 271/110—NK 271/220*.

Dimensions:

length 72 mm, diameter 23 mm, weight 0.17 kg.

	operating voltage
	V
NK 275/110	110
NK 275/127	127
NK 275/220	220

NK 276 Soldering tip for soldering irons



NK 276

This soldering tip is used in conjunction with soldering irons *NK 271/110—NK 271/220*.

Dimensions:

length 115 mm, diameter 14.5 mm, weight 0.15 kg.

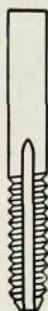
Screw taps for thread systems G000—G12

These screw taps are used for machine or hand screw tapping.

The taps have conical tip so that pre-tapping is not necessary, but if desired pre-taps can be furnished for the threads G000—G8.

A suitable screw stock is 50223/154.

Dimensions: see table.



G000—G12

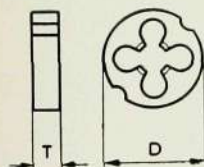
No.	t h r e a d		hole before tapping		total length of the screw taps	weight
	outer diameter	core diameter	min.	max.		
	mm	mm	mm	mm	mm	kg
G000	7.73	6.25	6.50	6.70	75	0.021
G 00	6.81	5.48	5.80	5.95	75	0.018
G 0	6.00	4.80	5.10	5.25	65	0.012
G 1	5.30	4.22	4.40	4.52	60	0.009
G 2	4.70	3.73	3.90	4.02	50	0.006
G 3	4.10	3.22	3.40	3.50	50	0.004
G 4	3.60	2.81	2.95	3.05	50	0.004
G 5	3.20	2.49	2.65	2.75	50	0.003
G 6	2.80	2.16	2.30	2.38	50	0.002
G 7	2.50	1.92	2.05	2.13	50	0.002
G 8	2.20	1.68	1.80	1.86	50	0.002
G 9	1.90	1.43	1.50	1.56	50	0.001
G 10	1.70	1.28	1.35	1.40	50	0.001
G 11	1.50	1.13	1.20	1.25	50	0.001
G 12	1.30	0.96	1.05	1.10	50	0.001

Screw dies for thread systems G000—G12

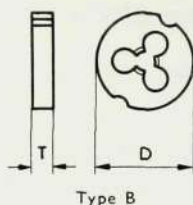
These dies are used for both machine and hand screw threading.

For threads G000, G00, G0 and G1 the dies are made with an external diameter of 25.35 mm.

For threads G2, G3, G4 and G5 the dies are made with external diameters of both 25.35 mm and 19.95 mm.



Type A



For threads G6–G12 the dies are made with external diameter 19.95 mm.

When ordering screw dies G2–G5 the thread number and the external diameter of the die must be stated.

A suitable screw stock for hand screw threading, fitting both 25.35 and 19.95 mm dies, is 50223/156.

Dimensions: see table.

t h r e a d			exe- cution	D	T	bolt diameter before tapping		weight
No.	outer dia- meter	core dia- meter				max.	min.	
G000	7.73	6.25	A	25.35	7	7.73	7.65	0.017
G 00	6.81	5.48	A	25.35	7	6.81	6.73	0.019
G 0	6.00	4.80	A	25.35	6	6.00	5.92	0.016
G 1	5.30	4.22	A	25.35	6	5.30	5.22	0.018
G 2	4.70	3.73	B	25.35	5	4.70	4.64	0.014
				19.95	5			0.009
G 3	4.10	3.22	B	25.35	5	4.10	4.04	0.016
				19.95	5			0.009
G 4	3.60	2.81	B	25.35	4	3.60	3.54	0.013
				19.95	4			0.008
G 5	3.20	2.49	B	25.35	4	3.20	3.14	0.013
				19.95	4			0.008
G 6	2.80	2.16	B	19.95	3.5	2.80	2.74	0.007
G 7	2.50	1.92	B	19.95	3.5	2.50	2.45	0.008
G 8	2.20	1.68	B	19.95	3	2.20	2.15	0.006
G 9	1.90	1.43	B	19.95	3	1.90	1.85	0.006
G 10	1.70	1.28	B	19.95	2.7	1.70	1.65	0.006
G 11	1.50	1.13	B	19.95	2.7	1.50	1.46	0.006
G 12	1.30	0.96	B	19.95	2.5	1.30	1.26	0.006

Screw stock

(photo 50223/154)

This screw stock is used for hand screw threading with taps G000–G00.

The stock has an adjustable chuck.

Dimensions:

length about 160 mm, weight about 0.1 kg.



Photo 50223/154

Screw stock

(photo 50223/156)

This screw stock is used for hand tapping with taps G000–G12.

The stock fits dies with both 25.35 mm and 19.95 mm diameter.

Dimensions:

length 150 mm, weight about 0.15 kg.

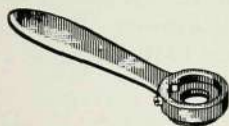


Photo 50223/156

SCREWS, NUTS

L M Ericsson makes screws and nuts on the *metric thread system* and on a system which is special for L M Ericsson, designated *G-threads*.

The metric thread system is used in all independent new designs and now also in insulating material and thus replaces the ebonite thread system formerly employed.

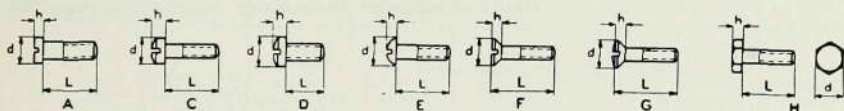
The G-thread system is still used in telephone instruments, telephone switchboards etc., on account of the necessity to provide for replacements. This thread system was formerly designated LME BA-thread.

SCREWS WITH G-THREAD

The screws are designated with different letters for different shapes of screw-head, see figure.

The length of the thread varies for different lengths of screws except as regards the shorter screws which are threaded completely. Screws with shape D are used as terminal screws and they are therefore always completely threaded.

When ordering screws the thread number, designation for shape of head, screw length *L* in millimetres, material and finish are to be stated, (*i.e.* G00 E10 M05) see example page 349.



No.	thread		diameter d for								height h for							
	outer diameter	core diameter	A	C	D	E	F	G	H	A	C	D	E	F	G	H		
G 000	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		
G 00	7.73	6.25	13.0	13.0	15.0	13.0	13.0	13.0	13.0	5.5	6.8	6.8	6.0	3.1	3.1	5.5		
G 0	6.81	5.48	12.0	12.0	13.0	12.0	12.0	12.0	4.8	6.0	6.0	5.5	3.0	3.0	4.8			
G 1	6.00	4.80	10.5	10.5	12.0	10.5	10.5	10.5	4.2	5.2	5.2	4.8	2.7	2.7	4.2			
G 2	5.30	4.22	9.5	9.5	10.5	9.5	9.5	9.5	3.8	4.8	4.8	4.3	2.5	2.5	3.8			
G 3	4.70	3.73	8.5	8.5	9.5	8.5	8.5	8.5	3.2	4.1	4.1	3.8	2.2	2.2	3.2			
G 4	4.10	3.22	7.5	7.5	8.5	7.5	7.5	7.5	3.0	3.8	3.8	3.4	2.0	2.0	3.0			
G 5	3.80	2.81	6.5	6.5	7.5	6.5	6.5	6.5	2.5	3.2	3.2	2.9	1.8	1.8	2.5			
G 6	3.20	2.49	5.5	5.5	6.5	5.5	5.8	5.8	6.0	2.2	2.8	2.8	2.6	1.6	2.2			
G 7	2.80	2.16	4.8	4.8	5.8	4.8	4.8	4.8	5.0	1.9	2.4	2.4	2.2	1.2	1.9			
G 8	2.50	1.92	4.2	4.2	5.5	4.2	4.2	4.2	4.5	1.7	2.2	2.2	2.0	1.1	1.7			
G 9	2.20	1.68	3.8	3.8	4.8	3.8	3.8	3.8	4.0	1.6	2.0	2.0	1.8	1.0	1.6			
G 10	1.90	1.43	3.2	3.2	4.2	3.2	3.2	3.2	3.6	1.3	1.6	1.6	1.5	0.9	1.3			
G 11	1.70	1.28	3.0	3.0	3.8	3.0	3.0	3.0	3.0	1.2	1.5	1.5	1.4	0.9	1.2			
G 12	1.50	1.13	2.8	2.8	3.2	2.8	2.8	2.8	3.0	1.1	1.4	1.4	1.3	0.8	1.1			
G 12	1.30	0.96	2.5	2.5	3.0	2.5	2.5	2.5	2.5	1.0	1.3	1.3	1.2	0.8	1.0			

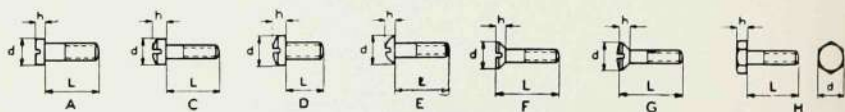
SCREWS WITH EBONITE THREAD

In present-day manufacture screws of the metric thread system are used for ebonite also, so that screws with ebonite thread according to the table below are only supplied for older installations.

The screws are designated with different letters for different shapes of screw-head, see figure.

The length of the thread varies for different lengths of screws except as regards the shorter screws which are threaded completely. Screws with shape D are used as terminal screws and they are therefore always completely threaded.

When ordering screws the thread number, designation for shape of head, screw length L in millimetres, material and finish are to be stated, see example page 349.



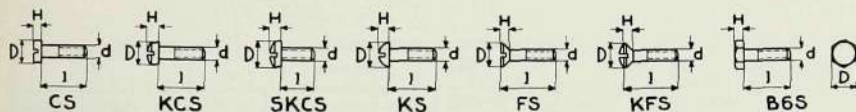
No.	t h r e a d		d i a m e t e r d f o r								h e i g h t h f o r							
	o u t e r d i a - m e t e r	c o r e d i a - m e t e r	A	C	D	E	F	G	H	A	C	D	E	F	G	H		
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		
ebonite 1	1.55	1.09	2.8	2.8	3.0	2.8	2.8	2.8	3.0	1.1	1.4	1.4	1.3	0.8	0.8	1.1		
ebonite 2	1.60	1.14	3.0	3.0	3.8	3.0	3.0	3.0	3.0	1.2	1.5	1.5	1.4	0.9	0.9	1.2		
ebonite 3	2.20	1.62	3.8	3.8	4.8	3.8	3.8	3.8	4.0	1.6	2.0	2.0	1.8	1.0	1.0	1.6		
ebonite 4 a	2.40	1.56	4.2	4.2	5.5	4.2	4.2	4.2	4.5	1.7	2.2	2.2	2.0	1.1	1.1	1.7		
ebonite 4 b	2.85	1.75	4.2	4.2	5.5	4.2	4.2	4.2	4.5	1.7	2.2	2.2	2.0	1.0	1.0	1.7		
ebonite 4 c	3.00	2.10	4.8	4.8	5.8	4.8	4.8	4.8	5.0	1.9	2.4	2.4	2.2	1.2	1.2	1.9		
ebonite 5	3.20	2.30	5.5	5.5	6.5	5.5	5.8	5.8	6.0	2.2	2.8	2.8	2.5	1.6	1.6	2.2		
ebonite 6	3.40	2.42	5.5	5.5	6.5	5.5	5.8	5.8	6.0	2.2	2.8	2.8	2.5	1.6	1.5	2.2		
ebonite 7	3.65	2.55	5.8	5.8	7.5	5.8	6.5	6.5	6.5	2.3	2.9	2.9	2.7	1.7	1.7	2.3		
ebonite 8	4.30	3.20	6.5	6.5	8.5	6.5	7.5	7.5	7.0	2.6	3.3	3.3	3.0	1.9	1.9	2.6		

SCREWS WITH METRIC THREADS

The screws have different letter designations for different shapes of screw head, see figure.

The length of thread varies for the different lengths of screws, except for the shorter screws which are threaded for the whole length. Screws of the shape *SKCS* are used as connecting screws and are therefore threaded for the whole length.

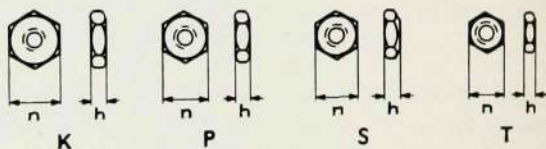
When ordering screws, the designation, thread (*d*) and length (*l*), material and any surface finish should be stated, e.g., *KCS—2.6 X20 M05*, see example on page 349.



Thread			CS-		KCS-		SKCS-		KS-		FS-		KFS-		B6S-	
			slotted screws with cylindrical head		slotted screws with domed cylindrical head		slotted screws with large cylindrical head		slotted screws with domed head		slotted screws with counter-sunk head		slotted screws with domed counter-sunk head		bright hexagonal screws	
d	outside diameter	core diameter	D	H	D	H	D	H	D	H	D	H	D	H	D	H
1	1.0	0.652	2.0	0.7	2	0.9	2.3	0.9	2	0.8	2	0.7	2	0.7	2.5	1
1.2	1.2	0.852	2.3	0.8	2.3	1.1	2.6	1.1	2.3	0.9	2.3	0.8	2.3	0.8	2.5	1
1.4	1.4	0.984	2.6	1.0	2.5	1.3	3	1.3	2.6	1	2.6	0.8	2.6	0.8	3	1.2
1.7	1.7	1.214	3.0	1.2	3.0	1.6	3.5	1.6	3	1.2	3	0.9	3	0.9	3.5	1.4
2	2.0	1.444	3.5	1.4	3.5	1.9	4	1.9	3.5	1.4	3.5	1	3.5	1	4	1.6
2.3	2.3	1.744	4.0	1.7	4.0	2.2	4.5	2.2	4	1.7	4	1.1	4	1.1	4.5	1.8
2.6	2.6	1.974	4.0	1.7	4.0	2.2	5.5	2.2	5	2	4.5	1.2	4.5	1.2	5	2
3	3.0	2.308	5.0	2.3	5.0	3	6	3	5.5	2.3	5.5	1.6	5.5	1.6	6	2
3.5	3.5	2.608	5.0	2.3	5.0	3	7	3	6	2.6	6	1.6	6	1.6	7	2.3
4	4.0	3.028	6.0	2.6	6.0	3.4	8	3.4	7	3	7	1.9	7	1.9	8	2.6
4.5	4.5	3.458	7.0	3.0	7.0	3.9	9	3.9	8	3	8	2.2	8	2.2	9	3
5	5.0	3.888	8.0	3.5	8.0	4.6	10	4.6	9	3.5	9	2.5	9	2.5	9	3.5
5.5	5.5	4.250	8.0	3.5	8.0	4.6	11	4.6	9	3.5	10	2.8	10	2.8	10	4
6	6.0	4.610	9.0	4.0	9.0	5.2	12	5.2	10	4	11	3.1	11	3.1	11	5
7	7.0	5.610	10	4.5	10	5.8	14	5.8	11	4.5	12	3.1	12	3.1	11	5
8	8.0	6.264	12	5.0	12	6.6	16	6.6	13	5	14	3.7	14	3.7	14	6
9	9.0	7.264	13	5.5	13	7.2	18	7.2	14	5.5	16	4.3	16	4.3	17	6
10	10	7.916	14	6.0	14	7.9	20	7.9	16	6.5	18	4.9	18	4.9	17	7

NUTS WITH G-THREAD

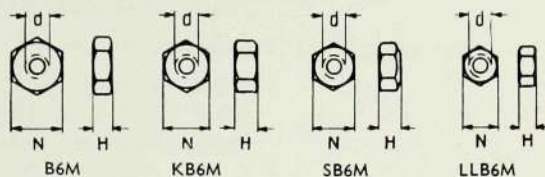
When ordering nuts the thread number, designation, material and finish must be stated. Nuts listed below the thick line in the table are made of brass only.



t h r e a d	K		P		S		T	
	span of jaw n	height h	span of jaw n	height h	span of jaw n	height h	span of jaw n	height h
G 000	mm	mm	mm	mm	mm	mm	mm	mm
G 00	15.0	5.5	13.0	6.5	13.0	5.5	12.0	5.0
G 0	13.0	5.0	12.0	6.0	12.0	5.0	10.5	4.5
G 1	12.0	4.5	10.5	5.2	10.5	4.5	9.5	4.0
G 2	10.5	4.0	9.5	4.8	9.5	4.0	8.5	3.5
G 3	9.5	3.5	8.5	4.2	8.5	3.5	7.5	3.0
G 4	8.5	3.0	7.5	3.8	7.5	3.0	7.0	2.8
G 5	7.5	2.8	7.0	3.5	7.0	2.8	6.5	2.5
G 6	7.0	2.5	6.5	3.0	6.5	2.5	6.0	2.3
G 7	6.5	2.3	6.0	2.5	6.0	2.3	5.0	2.0
G 8	6.0	2.0	5.0	2.0	5.0	2.0	4.5	1.8
G 9	5.0	1.8	4.5	1.8	4.5	1.8	4.0	1.7
G 10	4.5	1.7	4.0	1.7	4.0	1.7	3.5	1.4
G 11	4.0	1.4	3.5	1.4	3.5	1.4	3.0	1.3
G 12	4.0	1.3	3.0	1.3	3.0	1.3	—	—
G 12	3.5	1.2	—	—	—	—	—	—

NUTS WITH METRIC THREADS

When ordering nuts, the designation, thread (d), material and finish should be stated e.g., *KB6M-8M07*, see example on page 349.



t h r e a d			B6M-bright hexagonal		KB6M-bright domed hexagonal		SB6M-bright hexagonal		LLB6M-bright hexagonal	
d	outside diameter	core diameter	span of jaw (stand.)	height (stand.)	span of jaw (stand.)	height (stand.)	span of jaw (large)	height (medium)	span of jaw (small)	height (low)
			N	H	N	H	N	H	N	H
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
1	1.024	0.676	2.5	1	2.5	0.8	3	0.8	2.5	0.6
1.2	1.224	0.876	2.5	1.2	2.5	1	3	1	2.5	0.7
1.4	1.426	1.010	3	1.4	3	1.1	3.5	1.1	2.5	0.8
1.7	1.732	1.246	3.5	1.7	3.5	1.4	4	1.4	3	1
2	2.036	1.480	4	2	4	1.6	4.5	1.6	3.5	1.2
2.3	2.336	1.780	4.5	2.3	4.5	1.8	5	1.8	4	1.4
2.6	2.642	2.016	5	2.6	5	2.1	6	2.1	4.5	1.6
3	3.044	2.350	6	3	6	2.4	7	2.4	5	1.8
3.5	3.554	2.720	7	3.5	7	2.8	8	2.8	6	2.1
4	4.062	3.090	8	4	8	3.2	9	3.2	7	2.4
4.5	4.568	3.526	9	4.5	9	3.6	10	3.6	8	2.7
5	5.072	3.960	9	5	9	4	10	4	9	3
5.5	5.580	4.330	10	5.5	10	4.4	11	4.4	9	3.3
6	6.090	4.700	11	6	11	4.8	14	4.8	10	3.6
7	7.090	5.700	11	7	11	5.6	14	5.6	11	4.2
8	8.112	6.376	14	8	14	6.4	17	6.4	11	4.8
9	9.112	7.376	17	9	17	7.2	19	7.2	14	5.4
10	10.136	8.052	17	10	17	8	19	8	17	6

Wood screws, Trskr No. 0—22

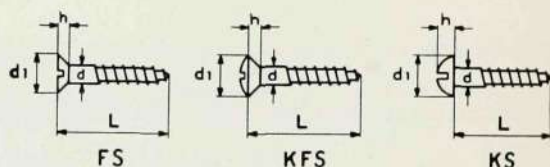
Wood screws are to be had in the following executions:

sunk head *FS*;

rounded sunk head, *KFS*;

rounded head *KS*.

When ordering wood screws the screw number, screw length *L* in English inches, shape of screw head, material and finish must be stated.



screw		the shape of screw head					
no.	dia- meter <i>d</i>	FS		KFS		KS	
		<i>d</i> ₁	<i>h</i>	<i>d</i> ₁	<i>h</i>	<i>d</i> ₁	<i>h</i>
	mm	mm	mm	mm	mm	mm	mm
0	1.47	3.10	0.81	3.05	0.79	3.00	1.10
1	1.80	3.45	0.88	3.40	0.86	3.30	1.30
2	2.14	4.10	1.05	4.05	1.03	3.90	1.50
3	2.47	4.80	1.26	4.75	1.22	4.50	1.75
4	2.81	5.45	1.43	5.40	1.39	5.15	2.00
5	3.14	6.10	1.60	6.05	1.57	5.75	2.20
6	3.47	6.75	1.76	6.70	1.73	6.35	2.45
7	3.81	7.40	1.93	7.35	1.90	7.00	2.65
8	4.14	8.10	2.12	8.05	2.10	7.60	2.90
9	4.48	8.75	2.30	8.70	2.26	8.20	3.10
10	4.81	9.40	2.48	9.35	2.44	8.80	3.35
11	5.15	10.05	2.63	10.00	2.61	9.40	3.60
12	5.48	10.70	2.81	10.65	2.79	10.05	3.80
13	5.81	11.40	3.00	11.35	2.98	10.65	4.05
14	6.15	12.05	3.17	12.00	3.16	11.25	4.25
15	6.48	12.70	3.35	12.65	3.33	11.85	4.50
16	6.82	13.40	3.54	13.35	3.52	12.50	4.75
18	7.49	14.70	3.89	14.65	3.85	13.70	5.20
20	8.15	16.00	4.24	15.95	4.20	14.95	5.65
22	8.82	17.30	4.56	17.25	4.54	16.15	6.10

EXAMPLES OF UTILISATION OF DESIGNATIONS FOR SCREWS AND NUTS

Screws with metric threads (SI)

For a screw *CS—4×10 M07* (bright with finish)

CS = cylindrical head
4 = thread
10 = length (l)
M = brass
07 = finish (see surface finish table)

For a screw *FS—6×35J* (bright without finish)

FS = countersunk head
6 = thread
35 = length (l)
J = iron

For a screw *B6S—8×30 M05* (bright with finish)

B6S = bright, hexagonal head
8 = thread
30 = length (l)
M = brass
05 = finish (see surface finish table)

Nuts with metric thread (SI)

For a nut *B6M—5 M05* (bright, with finish)

B6M = bright hexagonal nut with standard span of jaw and standard height
5 = thread
M = brass
05 = finish (see surface finish table)

For a nut *LLB6M—10J* (bright, without finish)

LLB6M = bright hexagonal nut with small span of jaw and low height
10 = thread
J = iron

Screws with G-thread

For a screw *G3 A30 M21*

- G* = thread system
- 3* = thread number
- A* = shape of screw-head
- 30* = screw length (L) in mm
- M* = brass
- 21* = finish (see surface finish table)

For a screw *G0 H25 J03*

- G* = thread system
- 0* = thread number
- H* = shape of screw-head
- 25* = screw length (L) in mm
- J* = iron
- 03* = finish (see surface finish table)

Nuts with G-thread

For a nut *G7 K M05*

- G* = thread system
- 7* = thread number
- K* = shape of nut
- M* = brass
- 05* = finish (see surface finish table)

Screws with ebonite thread

For a screw *Ebon 4a C12 M05*

- Ebon 4a* = thread designation and thread number
- C* = shape of screw-head
- 12* = length (L) in mm
- M* = brass
- 05* = finish (see surface finish table)

Wood screws

For a wood screw *Trskr* No. 4— $1\frac{1}{2}$ " *KS M05*

Trskr = wood screw
No. 4 = screw number
 $1\frac{1}{2}$ " = screw length in English inches
KS = domed head
M = brass
05 = finish (see surface finish table)

For a wood screw *Trskr* No. 6— $1\frac{1}{4}$ " *FS J03*:

Trskr = wood screw
No. 6 = screw number
 $1\frac{1}{4}$ " = screw length English inches
FS = countersunk head
J = iron
03 = finish (see surface finish table)

Designations of the most common surface finishes of screws and nuts.

designation	finish
01	nickel-plating
02	chromium-plating
03	galvanization
05	white boiling
07	oxidation with enamelling (black)
11	dull nickel-plating
17	dull oxidation with enamelling (black)
21	polished nickel-plating
22	polished chromium-plating

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1959	100000	100,0	100,0	100,0
1960	100000	100,0	100,0	100,0
1961	100000	100,0	100,0	100,0
1962	100000	100,0	100,0	100,0
1963	100000	100,0	100,0	100,0
1964	100000	100,0	100,0	100,0
1965	100000	100,0	100,0	100,0
1966	100000	100,0	100,0	100,0
1967	100000	100,0	100,0	100,0
1968	100000	100,0	100,0	100,0
1969	100000	100,0	100,0	100,0
1970	100000	100,0	100,0	100,0
1971	100000	100,0	100,0	100,0
1972	100000	100,0	100,0	100,0
1973	100000	100,0	100,0	100,0
1974	100000	100,0	100,0	100,0
1975	100000	100,0	100,0	100,0
1976	100000	100,0	100,0	100,0
1977	100000	100,0	100,0	100,0
1978	100000	100,0	100,0	100,0
1979	100000	100,0	100,0	100,0
1980	100000	100,0	100,0	100,0
1981	100000	100,0	100,0	100,0
1982	100000	100,0	100,0	100,0
1983	100000	100,0	100,0	100,0
1984	100000	100,0	100,0	100,0
1985	100000	100,0	100,0	100,0
1986	100000	100,0	100,0	100,0
1987	100000	100,0	100,0	100,0
1988	100000	100,0	100,0	100,0
1989	100000	100,0	100,0	100,0
1990	100000	100,0	100,0	100,0
1991	100000	100,0	100,0	100,0
1992	100000	100,0	100,0	100,0
1993	100000	100,0	100,0	100,0
1994	100000	100,0	100,0	100,0
1995	100000	100,0	100,0	100,0
1996	100000	100,0	100,0	100,0
1997	100000	100,0	100,0	100,0
1998	100000	100,0	100,0	100,0
1999	100000	100,0	100,0	100,0
2000	100000	100,0	100,0	100,0
2001	100000	100,0	100,0	100,0
2002	100000	100,0	100,0	100,0
2003	100000	100,0	100,0	100,0
2004	100000	100,0	100,0	100,0
2005	100000	100,0	100,0	100,0
2006	100000	100,0	100,0	100,0
2007	100000	100,0	100,0	100,0
2008	100000	100,0	100,0	100,0
2009	100000	100,0	100,0	100,0
2010	100000	100,0	100,0	100,0
2011	100000	100,0	100,0	100,0
2012	100000	100,0	100,0	100,0
2013	100000	100,0	100,0	100,0
2014	100000	100,0	100,0	100,0
2015	100000	100,0	100,0	100,0
2016	100000	100,0	100,0	100,0
2017	100000	100,0	100,0	100,0
2018	100000	100,0	100,0	100,0
2019	100000	100,0	100,0	100,0
2020	100000	100,0	100,0	100,0
2021	100000	100,0	100,0	100,0
2022	100000	100,0	100,0	100,0
2023	100000	100,0	100,0	100,0
2024	100000	100,0	100,0	100,0
2025	100000	100,0	100,0	100,0

Ericsson
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