

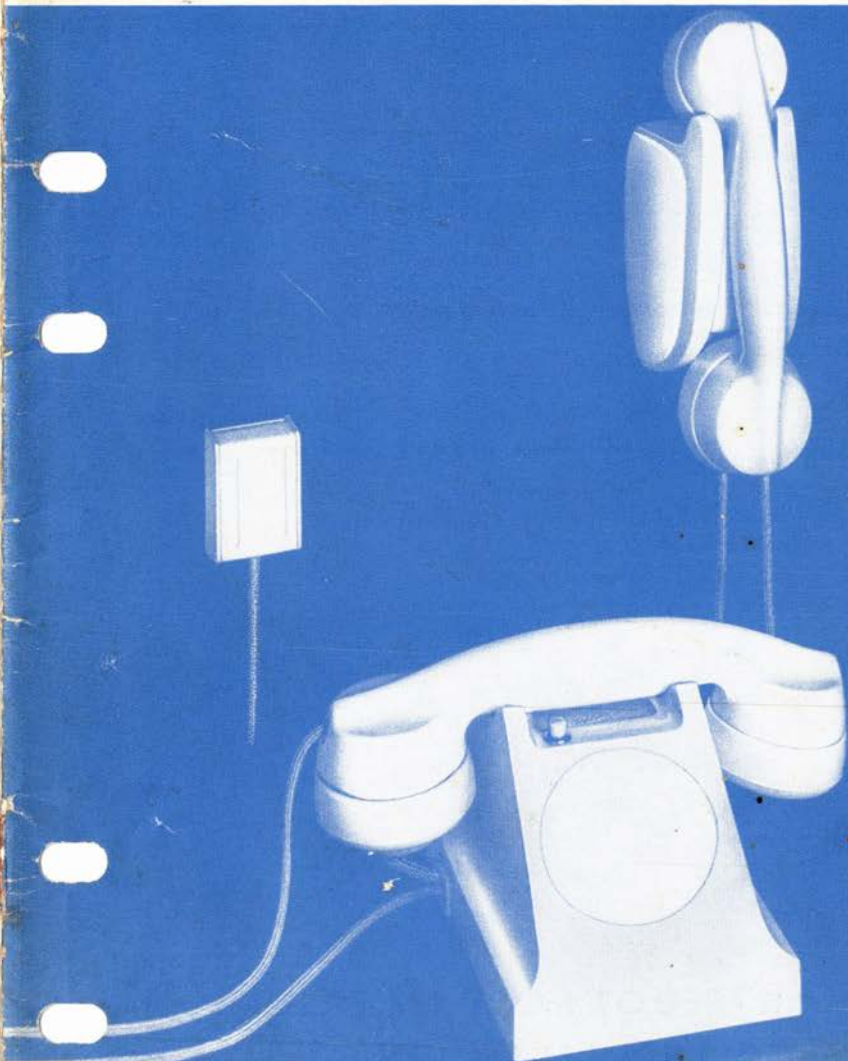


CATALOGUE 682

Section 8

Part 1

Edition 1



DOMESTIC TELEPHONES INTERCOMMUNICATION TELEPHONES

This catalogue replaces the catalogue »Telephone Material» No. 632 issued earlier.

Full right is reserved to make minor departures from the illustrations, as also in respect of dimensions and weight.

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.

All dimensions in millimetres if not otherwise specified.

TELEFONAKTIEBOLAGET LM ERICSSON

STOCKHOLM 32, SWEDEN

CABLE ADDRESS: TELEFONBOLAGET

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DOMESTIC TELEPHONE SYSTEMS

General

A local telephone system in a private residence, a shop or an office may be of a very simple kind but nevertheless of great service. It cuts out unnecessary running about and saves time.

With a domestic system **one call** can be carried on **at a time**. **The calls are non-secret**.

If several simultaneous calls are required, an intercommunication system or a manual or automatic exchange should be installed.

In the systems described below **telephone instruments with or without push button sets** are used.

The telephone instrument without push button set is as a rule used for systems with **two identical instruments**. It is possible to connect together several of these instruments, but this involves calling by means of code signals.

The telephone instrument with push button set is intended for internal calls **between different departments** of offices, shops etc. In an all-to-all system it is possible to connect 8 (exceptionally 9) stations. A call is originated by pressing one of the 8 push buttons.

Instruments with and without push buttons may **be combined in different ways**. A few such systems will be described below. In addition particulars are given of how to supplement a bell system with domestic telephones.

- ☐ For most systems two instrument models are available—a wall set and a desk set.
- ☐ All instruments are turned out in two colours—either black phenolic plastic or **ivory melamine plastic**.
- ☐ An instrument without push button set can without difficulty be converted to push button type.
- ☐ New instruments can be added to an existing system of obsolete type.
- ☐ The instruments are fully comparable with telephones for public systems—the same components being used as far as possible.
- ☐ The wall instruments have soft lines and rounded corners.
- ☐ Internal components of instruments are mounted on a base plate—which simplifies fitting and facilitates maintenance.
- ☐ The spacious interior of the instruments makes it easy to connect incoming cables.
- ☐ Wiring may be run along the surface of a wall or concealed—they can be brought into the instrument either through a recess in the case or through the base plate.
- ☐ Every instrument can be provided with an extension bell.

A domestic telephone system consists of: instruments, wiring and battery eliminator (or sometimes a dry cell battery). Some wiring diagrams will be found on pages 124—127.

The instruments are specified on pages 112—119. A summary of the instruments is given in the table below.

Wiring can be of any type. Recommended cables are specified on page 122. By using a larger wire diameter than that recommended the range may be increased.

A battery eliminator is recommended for normal conditions. Suitable types are specified on pages 120, 121. The mains must be reliable as the system cannot be used during a breakdown in the mains supply.

Batteries give more reliable service. The increase in working costs is insignificant since power consumption is very low.

The instruments are classified as in the table below.

Instrument group	Application	Desk instruments		Wall instruments	
		Black	Ivory	Black	Ivory
I	Domestic telephone without push button set	DEK 9201 (DEP 1101)*	DEK 9202	DEP 4001 (DEP 1003)	DEP 4002
II	Domestic telephone with push button set	DEK 9002	DEK 9004	DEP 3201 (DEP 3002)	DEP 3202
III	Sub-instrument to domestic telephone with push button set	DEK 9203 (DEP 1103)	DEK 9204	DEP 4001 (DEP 1003)	DEP 4002
IV	Instrument for system with signalling panel	—	—	DEP 4011 (DEP 1202)	DEP 4012

* Code numbers in brackets refer to corresponding obsolete instruments

Domestic Telephone System with Two (or more) Instruments without Push Button Set

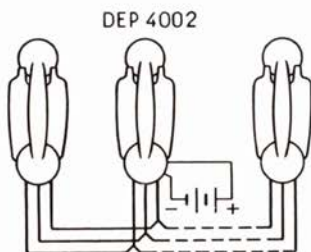
Two instruments, group I, are connected by a three-wire cable. If three-wire cable is not available, four-wire cable may be used. The battery eliminator (or battery) should preferably be connected to one of the instruments.

A further one or more instruments may be added as shown in the diagram. Calling is by code signals since ringing is transmitted to all instruments. In a system with more than two stations the battery eliminator (or battery) should be fitted in the centre of the installation.

Instruments: according to group I in the table on page 107. Wiring: 3×0.7 or 4×0.6 mm.

Battery eliminator: see page 120.

Battery: 4.5 V for lines up to 300 metres.

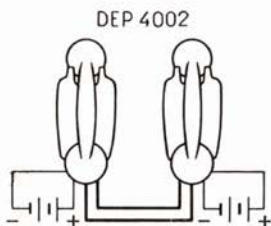


For long line distances between instruments a two-wire cable may be used, but one battery must then be fitted at each instrument. A minor modification in the circuit of the instrument is then required and a correct battery polarity must be maintained.

Instruments: according to group I in the table on page 107. Wiring: 2×0.7 mm.

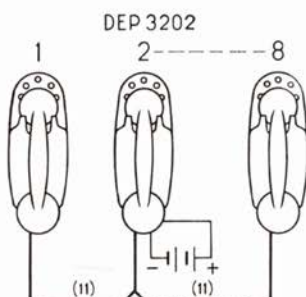
Battery eliminator: see page 120.

Batteries: two, each 4.5 V for line distances up to 400 metres or 6 V for distances up to 500 metres.



Domestic Telephone System with Eight (or nine) Instruments with Push Button Set

Up to 8 (or exceptionally 9) instruments of group II are connected together by means of a 12-wire cable. Calls can be originated from each instrument to any of the others. The system allows only one call at a time.



Normally up to 8 instruments are connected, each instrument being allotted a definite number. If a ninth station is added, it must be called by different numbers from each of the other stations.

Instruments: according to group II in the table on page 107.

Wiring: 12×0.5 mm.

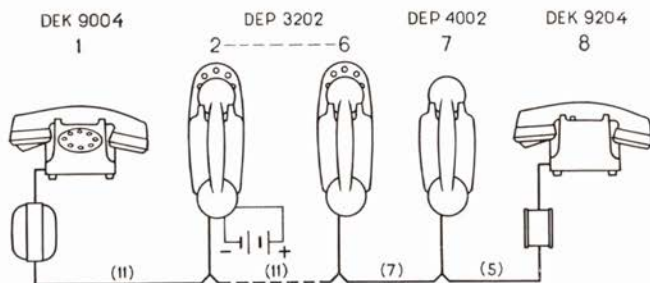
Battery eliminator: *BMN 2023*, page 121.

Battery: 6 V for distances up to 200 metres.

Domestic Telephone System with Master Stations and Sub-stations

Up to 8 (9) instruments may be connected. The master instruments, group II, can call all the other instruments. The sub-stations, group III, have no push button set and can only call one master set each. Only one call can be made at a time.

The number of wires in the cables depends on the number of master instruments and sub-stations. Junction boxes should be used for branching of cables.



Instruments: Master instruments according to group II, substations according to group III in the table on page 107.

Wiring: 12×0.5 mm or 8×0.5 mm.

Battery eliminator: *BMN 2023*, page 121.

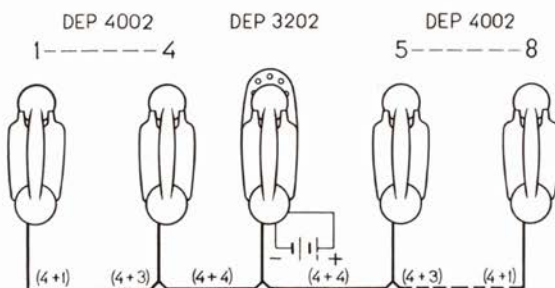
Battery: 6 V for distances up to 200 metres.

System with One Master Station and Sub-stations

This type of system is useful as a master station installation in small organisations. In larger organisations the ordinary conference telephone or loudspeaking intercom should be used.

The executive is provided with a domestic telephone, group II, whereas his assistants have sub-instruments, group III. The executive may call any of the up to 8 sub-stations. Sub-stations can only call the master station. The calls are non-secret.

The sub-stations are connected to the master station over 5 wires, 4 of which are common to all sub-stations. Cable 8×0.5 mm may be used from the executive's instrument. Branching to the sub-stations is done in junction boxes *NEC 1004*.



Instruments: For master station a group II instrument, for sub-stations group III instruments as in table on page 107.

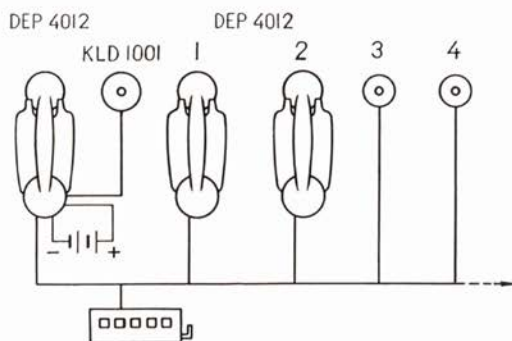
Battery eliminator: *BMN 2023*, page 121.

Battery: 6 V for distances up to 200 metres.

Domestic Telephone System with Signalling Panel

The system consists of a number of instruments without push button set or buzzer, group IV. One of the instruments is supplemented with a D.C. bell and a signalling panel. This instrument may be called from the other stations, but cannot originate calls. The signalling panel indicates which station has initiated the call.

The instruments are connected to the signalling panel and bell over two-wire lines. An existing bell installation with signalling panel can therefore be supplemented with domestic telephones without alternation to the wiring. The resistance in the drop indicators of the panel must not be more than 3 ohms, and in the D.C. bell not more than 10 ohms.



Instruments: According to group IV in the table on page 107. Signalling panel. Bell *KLD 1001* or *KLD 1101*.

Wiring: 2×0.7 mm.

Battery: 4.5 V for distances up to 200 metres.

INSTRUMENTS FOR DOMESTIC TELEPHONE SYSTEMS

All instruments are supplied either in black phenolic plastic or in ivory melamine. The first-mentioned code number in the specifications below refers to black instruments and the second to ivory.

DEP 4001, DEP 4002 Wall Instruments for Domestic Telephone Systems, Groups I and III



DEP 4001



DEP 4002

Each instrument is operated by a button having three positions: a neutral position, a speaking position and a calling position. In the neutral position the handset is resting in the cradle and the buzzer is connected to the line. In the speaking position the handset is lifted and connected to the line. In the calling position (bottom position of the button) a signal is transmitted.

The internal components are mounted on a base plate and are easily accessible for adjustment. The case can be removed for fitting and connecting up the instrument.

These instruments may be used on the one hand for ordinary domestic systems or as sub-stations to master instruments with push button set.

SPARE PARTS:

	DEP 4001 Black	DEP 4002 Ivory
Handset	RLF 1841	RLF 1829
Transmitter inset	RLA 7620	RLA 7620
Receiver inset	RLD 5124	RLD 5124
Handset cord	TRS 91239	TRS 91238
Buzzer	KLK 5001	KLK 5001

DIMENSIONS:

Height 237 mm, width 89 mm, depth 107 mm,
net weight 0.92 kg.

STANDARD PACKING:

35 instruments in one case, gross weight 69 kg,
shipping volume 0.257 m³.

DEK 9201, DEK 9202 Desk Instruments for Domestic Telephone Systems, Group I

The instruments are mounted in a small case and
are provided with signal button and a buzzer
for incoming signals.

They can only be used for ordinary domestic
systems comprising two or more instruments.



DEK 9201

SPARE PARTS:

	DEK 9201 Black	DEK 9202 Ivory
Handset	RLF 1821	RLF 1825
Transmitter inset	RLA 7620	RLA 7620
Receiver inset	RLD 5124	RLD 5124
Handset cord	TRS 91214	TRS 91237
Buzzer	KLK 5001	KLK 5001
Instrument cord	TRS 4403	TRS 4404
Wall terminal	NEF 1003	NEF 1023



DEK 9202

DIMENSIONS:

Height 122 mm, width 237 mm, depth 152 mm,
net weight 1.55 kg.

STANDARD PACKING:

30 instruments in one case, gross weight 86 kg,
shipping volume 0.332 m³.

DEK 9203, DEK 9204 Desk Instruments, Sub-stations, Group III

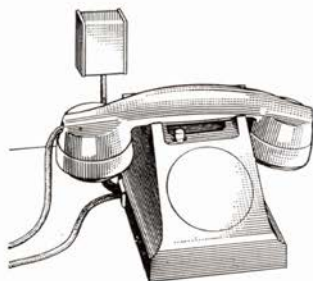


DEK 9203

The instruments are identical with *DEK 9201*, *DEK 9202*, but have a 5-wire instrument cord in place of the 4-wire cord, and a different wall terminal. They are used as sub-stations to master instruments with push button set.

SPARE PARTS:

	DEK 9203 Black	DEK 9204 Ivory
Instrument cord	TRS 91509	TRS 91520
Wall terminal	NEF 1005	NEF 1025
Otherwise as for	DEK 9201	DEK 9202



DEK 9204

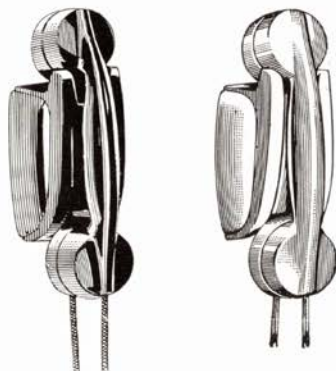
DIMENSIONS:

Height 122 mm, width 237 mm, depth 152 mm, net weight 1.55 kg.

STANDARD PACKING:

30 instruments in one case, gross weight 86 kg, shipping volume 0.332 m³.

DEP 4011, DEP 4012 Wall Instruments for Signalling Panel, Group IV



DEP 4011

DEP 4012

The instruments resemble the normal domestic telephone instruments with buzzer omitted. A call is originated by pressing the button to bottom position, whereupon the corresponding indicator in the signalling panel drops and the bell rings. The calls are answered from the instrument at the signalling panel, but no calls can be originated from this station.

DEP 4011, black.

DEP 4012, ivory.

SPARE PARTS:

See *DEP 4001* and *DEP 4002*.

DIMENSIONS:

Height 237 mm, width 89 mm, depth 107 mm,
net weight 0.87 kg.

STANDARD PACKING:

35 instruments in one case, gross weight 65 kg,
shipping volume 0.257 m³.

DEP 3201, DEP 3202 Wall Instruments with Push Buttons, Group II



DEP 3201



DEP 3202

The instruments consist of a domestic telephone *DEP 4001* or *DEP 4002* and a push button set with 8 numbered push buttons. The set also contains terminal screws for the connection of the instrument.

SPARE PARTS:

	DEP 3201 Black	DEP 3202 Ivory
Handset	RLF 1841	RLF 1829
Transmitter inset	RLA 7620	RLA 7620
Receiver inset	RLD 5124	RLD 5124
Handset cord	TRS 91239	TRS 91238
Buzzer	KLG 5001	KLG 5001
Push button set	RMP 1021	RMP 1022

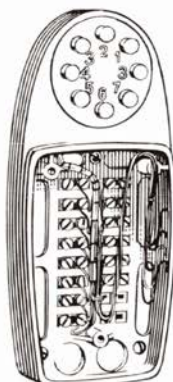
DIMENSIONS:

Height 250 mm, width 95 mm, depth 134 mm,
net weight 1.17 kg.

STANDARD PACKING:

30 instruments in one case, gross weight 73 kg,
shipping volume 0.257 m³.

RMP 1021, RMP 1022 Push Button Sets



RMP 1022

The push button sets are intended to supplement existing domestic telephone instruments *DEP 4001* and *DEP 4002* in the event of an expansion of the plant. After the addition of push button sets the instruments become identical with *DEP 3201* and *DEP 3202* respectively.

The sets are provided with 8 numbered buttons and terminals for the connection of the instrument.

RMP 1021, black

RMP 1022, ivory.

DIMENSIONS:

Height 214 mm, width 95 mm, depth 32 mm,
net weight 0.26 kg.

For obsolete instruments, *DEP 1003*, *DEP 1001* and *BC 3030*, push button set *RMP 1012* must be used.

DEK 9002 A, DEK 9004 Desk Instruments with Push Buttons, Group II



DEK 9002 A

The instruments are provided with a small case and push button set with 8 buttons. The buttons are numbered and can also be labelled. The instruments contain a D.C. bell for incoming signals.

SPARE PARTS:



DEK 9004

	DEK 9002 A Black	DEK 9004 Ivory
Handset	RLF 1821 *	RLF 1825
Transmitter inset	RLA 7620	RLA 7620
Receiver inset	RLD 5124 *	RLD 5124
Handset cord	TRS 91214	TRS 91237
D.C. bell	KLD 1002	KLD 1002
Push button set	RMP 1002	RMP 1004
Instrument cord	TRE 1101	TRE 1102
Wall terminal	NEF 4221	NEF 4222

* For obsolete instruments DEK 9002, RLF 1021 and RLD 5002 respectively are used

DIMENSIONS:

Height 122 mm, width 237 mm, depth 152 mm,
net weight 1.7 kg.

STANDARD PACKING:

30 instruments in one case, gross weight 96 kg,
shipping volume 0.332 m³.



Desk Instrument DEK 9004 and Wall Instrument DEP 3202

BATTERY ELIMINATORS AND BATTERIES

Battery eliminators are recommended for normal conditions, when reliable mains are available. Battery eliminators may be connected to A.C. mains with a frequency between 40 and 60 cycles. Connection to the mains is made over a short flex with plug.

BMN 2011—BMN 2014 Battery Eliminators



BMN 2001—BMN 2014

These power units are used for ordinary domestic telephone systems with 2 or 3 instruments without push button set.

They are normally connected for 4 V, but may easily be altered for 7 V if the line distances so require. Maximum current 0.05 A.

DIMENSIONS:

Height 135 mm, width 155 mm, depth 49 mm, net weight 0.7 kg.

Code	Mains voltage
BMN 2011	110 V
BMN 2012	127 V
BMN 2013	150 V
BMN 2014	220 V

BMN 2023

Battery Eliminator



BMN 2023

This power unit is used for domestic telephone systems with 4 or more instruments.

It is adaptable for 110, 127 or 220 V A.C. The D.C. side has tapings for 4 and 6 V. Maximum current 0.2 A.

DIMENSIONS:

Height 135 mm, width 155 mm, depth 59 mm, net weight 1.6 kg.

Batteries

If batteries are preferred for increased reliability, the following recommendations are made:

4.5 V; three dry cells *BKA 2002* in battery box *BKY 1002*.

6 V; four dry cells *BKA 2002* in battery box *BKY 1003*.

Other types of batteries may be used, but small capacity batteries such as torch batteries should be avoided.

WIRING

Plastic insulated or lead covered cable may be used for the network. Plastic insulated cable should not be used out of doors.

For normal conditions cables are recommended which are insulated with polyvinyl chloride (PVC).

PVC has a smooth and fairly hard surface and is in addition very tough. Due to their thermoplastic properties PVC insulated cables should not be used in positions where the temperature exceeds $+60^{\circ}\text{C}$ ($+140^{\circ}\text{F}$).

The types of PVC insulated cable specified below are ivory coloured.

For mounting of two and three-wire cable enamelled steel nails *NSV 1901* or *NSV 1903* should be used. Multicore cable can be mounted with any suitable enamelled clips or cleats. For a 12-core cable, clip *NSV 2026* or clamp *NSV 2523* may be used.

The following cable is recommended:

For ordinary domestic telephone systems:
PVC cable *EKUA* 3×0.7 mm or
PVC cable *EKUA* 2×0.7 mm.

For domestic telephone systems with push button set:

PVC cable *EKKX* 12×0.5 mm or
PVC cable *EKKX* 8×0.5 mm,
supplemented with 2 or 3-wire cable as above.



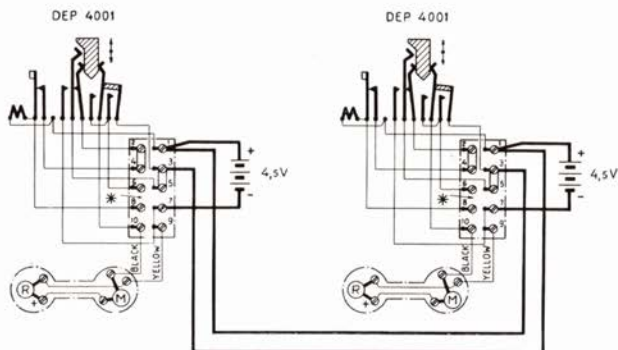
For internal wiring in instruments:
PVC wire *EKUX* 1×0.5 mm.

For **outdoor wiring** and in positions where the temperature is liable to exceed $+60^{\circ}\text{C}$ ($+140^{\circ}\text{F}$) lead covered cable should be used. Suitable types are:

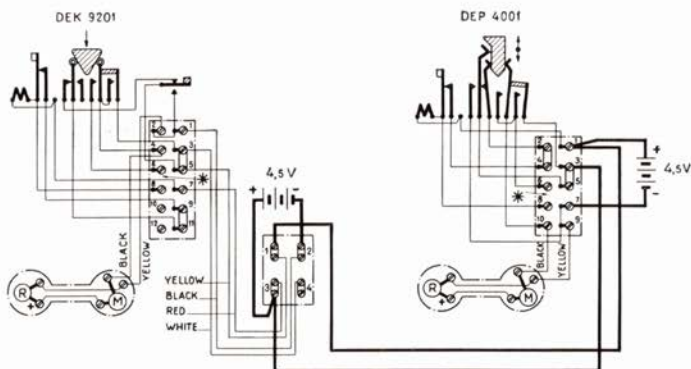
For domestic telephones without push button set:
EDBA 4×0.7 mm or *EEB* 4×0.6 mm and
EDBA 2×0.7 mm or *EEB* 2×0.6 mm.

For domestic telephones with push button set:
EEB 12×0.5 mm and
EEB 8×0.5 mm.

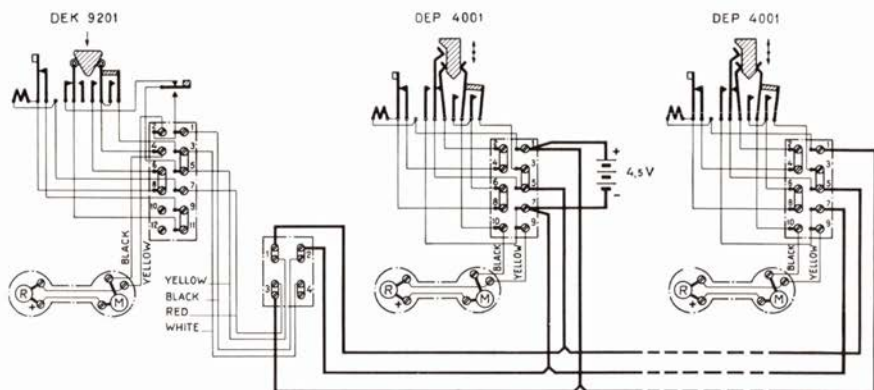
WIRING DIAGRAMS FOR A FEW COMMON VARIATIONS OF DOMESTIC TELEPHONE SYSTEMS



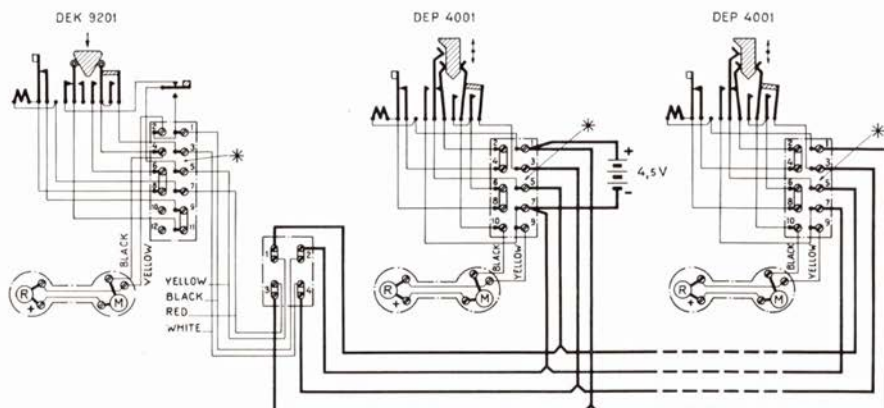
Connection of two instruments DEP 4001.
Remove strap between terminals 6 and 8.



Connection of one desk instrument DEK 9201 and one wall instrument DEP 4001.
Remove strap between terminals 6 and 8.

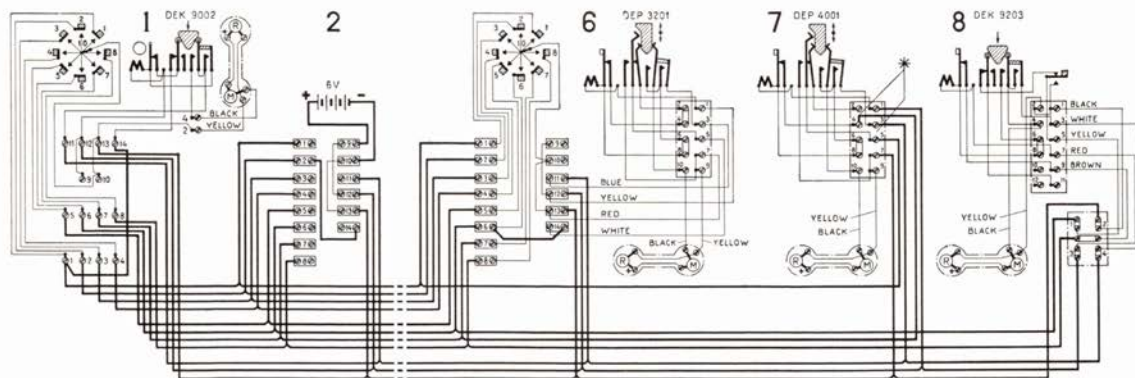


Connection of one desk instrument DEK 9201 and two wall instruments DEP 4001.



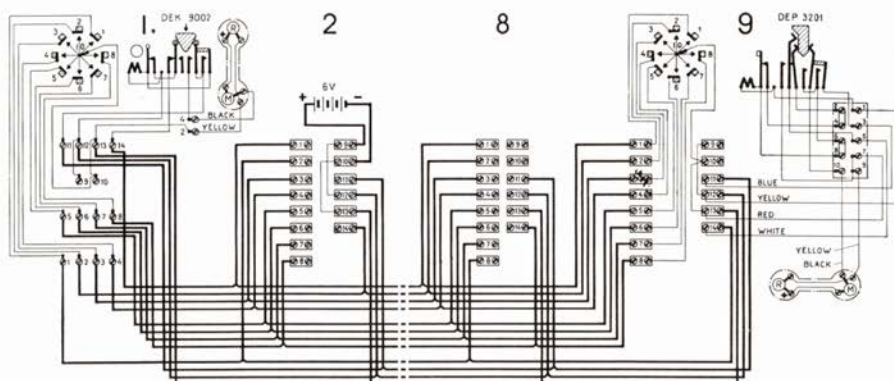
Connection of one desk instrument DEK 9201 and two wall instruments DEP 4001.
Remove strap between terminals 3 and 5.

This installation only differs from that shown above in the fact that the 4-core wiring is intended for lead-covered cable 4×0.7 mm, which is available on the market.

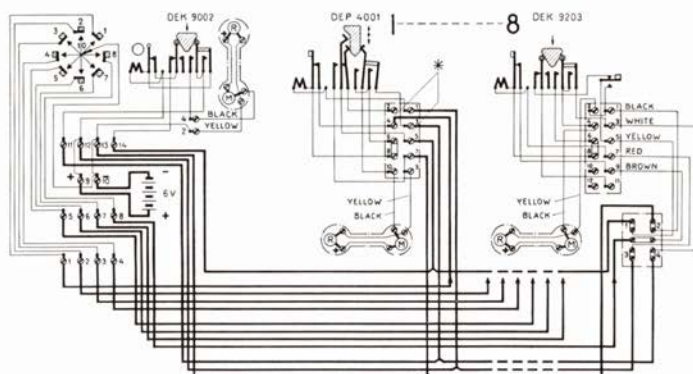


Connection of desk instrument DEK 9002 and wall instruments DEP 3201 together with one sub-instrument DEP 4001, connected to station No. 1 and one sub-instrument DEK 9203, connected to station No. 6. Remove straps between terminals 2 and 4 and between 3 and 5 on sub-instrument DEP 4001. For each master instrument connect terminal 14, for buzzer, to the terminal for the call wire corresponding to the station's own number.

Slack



Connection of 9 instruments DEK 9002 or DEP 3201. Station number 9 is called by number 1 from the first station, by number 2 from the second station a.s.o.



Connection of one desk instrument DEK 9002 and up to 8 sub-instruments DEP 4001 or DEK 9203. Remove straps between terminals 2 and 4 and between 3 and 5 on sub-instrument DEP 4001.

INTERCOMMUNICATION TELEPHONE SYSTEMS

An intercommunication telephone system may be used with advantage in offices, workshops etc. where the cost of a manual or automatic exchange is prohibitive. Intercommunication telephone systems are manufactured on the one hand for **internal traffic** only, on the other for **internal and external traffic**, i.e. with exchange lines to the public network.

INTERCOMMUNICATION TELEPHONE SYSTEMS FOR INTERNAL TRAFFIC

General

Two types of these systems are supplied, one for maximum 10 instruments (*DEH 1210, DEN 1110*) and one for maximum 20 instruments (*DEH 1220, DEN 1120*). They are well suited to situations where **several calls** are required to take place simultaneously. The system cannot be connected to the public telephone network, but its flexibility makes it a useful supplement to a private branch exchange.

If only **one** call at a time is needed, a domestic telephone system may be recommended.

The application of intercommunication telephone systems is limited by the number of instruments and line distances. When distances between instruments are considerable, the cost of wiring will be excessive.

Every station can call any other station. The instruments are provided with a knob (selecting switch), which is turned to the required number. Calling is effected by means of a push button.

- ☐ The system is permanently in operation—the caller connects his own call.
- ☐ No limit to the number of calls.
- ☐ The calls are non-secret—connection is always established.
- ☐ Central battery system—battery eliminator or if necessary a battery.
- ☐ The flexibility of the system makes it easily adaptable to the lay-out of the organization.

The instruments specified below cannot be connected to local battery intercommunication systems of obsolete type. For extensions of such systems quotations should be asked for from case to case.

An intercommunication system consists of instruments, wiring and battery eliminator (or dry cell battery).

The instruments are specified in detail on pages 131, 132.

Instruments for 10-extension line intercommunication system. Intended for small installations. Desk and wall instruments are available.

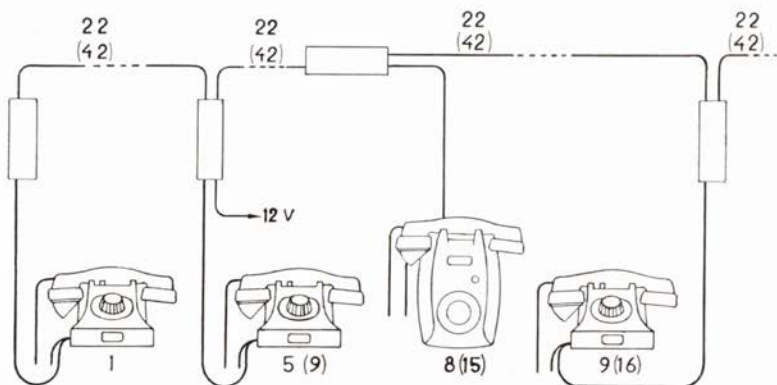
Instrument for 20-extension line intercommunication system. Intended for large-sized installations, but may also be used for small installations if future extensions are anticipated. Desk and wall instruments are available.

The wiring can be carried out in any conventional cable material. Cable *EEB* 22×0.5 mm and 42×0.5 mm respectively is recommended, even if the system initially is not extended to full capacity. The line distance between extreme instruments may amount to 500 metres.

A **battery eliminator**, see page 134, is preferable under normal conditions providing the mains are reliable—the system cannot be used in case of mains failure.

Batteries give more reliable service, but are more expensive to maintain than a battery eliminator. A suitable battery consists of eight dry cells *BKA 2002* in two battery boxes *BKY 1003*. Other types may be used.

The instruments are connected by means of a multicore cable. Generally the cable is run from station to station. When branching is required, junction boxes *NEC 6001* for 10 lines or *NEC 6002* for 20 lines are used.



Instruments for 10 lines: *DEH 1210* (desk), *DEN 1110* (wall).

Instruments for 20 lines: *DEH 1220* (desk), *DEN 1120* (wall).

Wiring: cable *EEB* 22×0.5 mm and 42×0.5 mm respectively.

DEH 1210, DEH 1220

Desk Instruments for Intercommunication Systems



DEH 1210

The instruments have cases of black phenolic plastic and are mechanically of a new design. The calling button is mounted in front of the handset at the top of the instrument.

The line cables are connected to the wall terminal box of the instrument.

SPARE PARTS:

	DEH 1210	DEH 1220
Handset	RLF 1812	RLF 1812
Transmitter inset	RLA 1804	RLA 1804
Receiver inset	RLD 5104	RLD 5104
Handset cord	TRS 91309	TRS 91309
Induction coil	REK 10104	REK 10104
Feed coil	REK 10167	REK 10167
D.C. bell	KLD 1004	KLD 1004
Instrument cord	TRE 1307	TRE 15012
Wall terminal box	NEC 6001	NEC 6002

DIMENSIONS:

Height 143 mm, width 237 mm, depth 180 mm, net weight 2.9 kg for *DEH 1210* and 3.4 kg for *DEH 1220*.

STANDARD PACKING:

15 and 12 instruments respectively in one case, gross weight 75 kg, shipping volume 0.223 m³ and 0.257 m³ resp.



DEN 1110, DEN 1120 Wall Instruments for Intercom- munication Systems



DEN 1110

The instruments have cases of black phenolic plastic and are mechanically of a new design. The calling button is mounted on the front of the instrument.

The lines are connected to terminal strips on the base plate of the instrument which are accessible after removal of the case.

SPARE PARTS (identical for both instruments):

Handset.....	<i>RLF</i>	1812
Transmitter inset.....	<i>RLA</i>	1804
Receiver inset.....	<i>RLD</i>	5104
Handset cord.....	<i>TRS</i>	91309
Induction coil.....	<i>REK</i>	10104
Feed coil.....	<i>REK</i>	10167
D.C. bell.....	<i>KLD</i>	1004

DIMENSIONS:

Height 237 mm, width 237 mm, depth 110 mm,
net weight 2.6 kg.

STANDARD PACKING;

24 instruments in one case, gross weight 102 kg,
shipping volume 0.332 m³.

NEC 6001, NEC 6002 Junction Boxes



NEC 6001

The wall terminal boxes are intended for jointing and branching 22-wire and 42-wire cables respectively in intercommunication telephone systems.

The boxes allow connection of, in all, four cables.

The base plate is made of aluminium enamelled mild steel and is fitted with a moulded terminal strip, which is protected by an aluminium enamelled mild steel cover. The long sides of the strip are provided with open grooves in which the cables are run. Slots are cut in the grooves to serve as wire guides.

Code	No. of 2-wire lines	No. of terminals	Height	Width	Depth	Net weight
NEC 6001	10	20+6	mm 178	mm 52	mm 39	kg 0.49
NEC 6002	20	40+6	295	52	39	0.82



BMN 2022

BMN 2022 Battery Eliminator

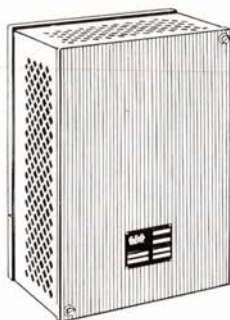
This power unit is used in intercommunication telephone systems with a maximum of 10 stations. It is adaptable for mains voltages of 110, 127 and 220 V A.C. Connection to the mains is via a short flex with plug. The mains frequency may vary between 40 and 60 cycles. The outgoing D.C. voltage is 12 V and maximum current 0.2 A.

DIMENSIONS:

Height 135 mm, width 155 mm, depth 59 mm, net weight 1.6 kg.

BMN 2113 Battery Eliminator

This power unit is used for intercommunication telephone systems with more than 10 stations, but also for smaller systems if extensions are anticipated.



BMN 2113

The unit is adaptable for mains voltages of 110, 127 and 220 V. A.C. Connection to the mains is via terminal screws located in the unit. The mains frequency may vary between 40 and 60 cycles. The outgoing D.C. voltage is 12 V and maximum current 0.5 A.

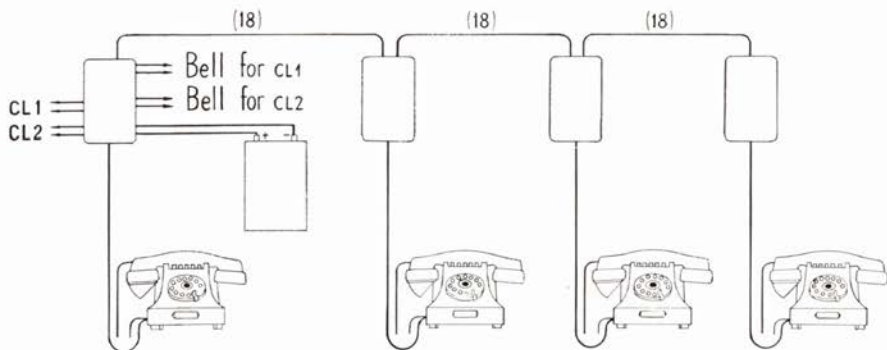
DIMENSIONS:

Height 260 mm, width 190 mm, depth 120 mm, net weight 5.1 kg.

INTERCOMMUNICATION TELEPHONE SYSTEMS WITH EXCHANGE LINES

General

An intercommunication telephone system with exchange lines allows internal calls as well as calls to and from the public telephone network—4 to 5 instruments may be connected. If this capacity is insufficient, a manual or automatic private branch exchange must be used.



Intercommunication telephone system with exchange lines

- ☐ The system is permanently in operation—the caller connects his own calls, internal as well as external.
- ☐ No operator is required for incoming exchange line calls—calls can be received and transferred by any station.
- ☐ The system is the cheapest imaginable for a small number of stations.

The systems described below may be connected to a **manual C.B. exchange or an automatic exchange supplied by L M Ericsson**. For connection to exchanges of other makes the instruments must be modified, and individual quotations will be made from case to case.

A system may include **either** a maximum of 5 local lines (extensions) and 1 exchange line **or** a maximum of 4 extensions and 2 exchange lines. One or more of the extensions may be barred from exchange line calls. Two internal calls may be carried out simultaneously.

Normally all calls are secret.

One or more extensions may be given priority which allows them to cut in on internal calls in progress. If all stations have priority connection, the system will cease to be secret as regards internal calls. Conversations over the exchange lines are always secret.

Each instrument has 5 push buttons, one for each exchange and extension line.

Exchange line calls may be received and transferred by any extension provided that the instruments are equipped with one separate bell for each exchange line. All stations which are to receive incoming exchange line calls should consequently be equipped with bells. In a system with two exchange lines, two stations may receive the incoming calls or both exchange lines may be handled by one station. In the latter case the bells are provided with different gongs in order to differentiate between the signals from the two lines.

Calls from one extension to another are carried out by pressing the corresponding button. If the extension is engaged, the bell rings in the calling station.

Calls to the main exchange are carried out by pressing the exchange line button. Dialling tone is received and the required number is dialled. If the exchange line is engaged or if the calling station is barred from exchange line traffic, the bell in the instrument rings.

Calls from the main exchange are answered by pressing the button for the calling exchange line. Calls may be transferred to another extension by pressing the corresponding extension button. When the latter answers, he is requested to connect to the exchange line in question. The call is transferred when the transferring party replaces the handset.

Enquires may be made to another extension during an exchange line conversation. An enquiry call is made by pressing the button for the wanted extension. The enquiry call cannot be overheard on the exchange line.

At the end of the enquiry call the exchange line connection can be restored or the call may be transferred to the other extension.

The operating voltage for the system is 24 V. The required power may be obtained from the electric mains over a battery eliminator *BMN 2111* or charging unit with a 10 Ah 24 V storage battery.

Wiring between stations requires 13—14 conductors as well as battery leads. Cable *EEB* 18×0.5 mm is recommended. The line resistance between instruments may amount to 50 ohms max. per single conductor. For 0.5 mm wire diameter this corresponds to a length of cable of 600 metres.



DEH 3101 A

DEH 3101 A

Desk Instrument for Intercommunication System with 1 Exchange Line and 5 Extensions

The instrument has a case of black phenolic plastic and is provided with a push button set containing 5 buttons. One button is used for the exchange line and four buttons for the remaining extensions. Calls from extensions are signalled on a D.C. bell in the instrument. A dial is provided for the purpose of calling main exchange subscribers. The internal components are mounted on a base plate and are readily accessible for adjustment.

The instrument is connected to relay set *KFB 1101* over a 30-pin plug. A bell *KLA 2144* is added to each instrument that is to receive calls from the main exchange.

SPARE PARTS:

Handset.....	<i>RLF</i>	1801
Transmitter inset.....	<i>RLA</i>	1820
Receiver inset.....	<i>RLD</i>	5104
Handset cord.....	<i>TRS</i>	91309
Dial.....	<i>RG A</i>	1202
Induction coil.....	<i>REK</i>	10153
Feed coil.....	<i>REK</i>	10152
Bell.....	<i>KLD</i>	1005
Instrument cord.....	<i>TRE</i>	1303
Plug.....		225977

DIMENSIONS:

Height 139 mm, width 237 mm, depth 178 mm, net weight 2.9 kg.

STANDARD PACKING:

15 instruments in one case, gross weight 76 kg, shipping volume 0.223 m³.

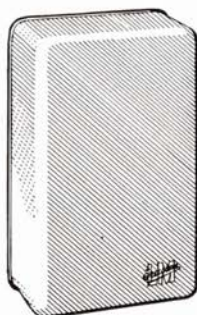
DEH 3102 A

Desk Instrument for Intercommunication System with 2 Exchange Lines and 4 Extensions

The instrument has a push button set with 5 buttons, 2 for the exchange lines and 3 for the remaining extensions. Otherwise the instrument is identical with *DEH 3101 A*.

KFB 1101

Relay Set



KFB 1101

The relay set contains operating relays etc. required for instrument *DEH 3101 A* or *DEH 3102 A*. The relay set contains a 30-pin jack into which the instrument plug fits. The wiring is connected to a terminal block with 60 terminal screws.

All components are mounted on a base plate and are protected by an aluminium enamelled mild steel cover. The relay set should be mounted on a wall near the telephone instrument.

SPARE PARTS:

Relay R1.....	RAC 28710
Relay R2.....	RAC 1890
Relay R3.....	RAC 38267
Rectifier.....	RKS 3104
Jack.....	225978

DIMENSIONS:

Height 220 mm, width 142 mm, depth 84 mm,
net weight 3 kg.

KLA 2144 Magneto Bell



This bell must be mounted at every station which is to receive exchange line calls. If the system has two exchange lines, two bells are required.

The bell is mounted on a base plate for wall fitting. The cover is aluminium enamelled and, apart from the bell mechanism the bell contains a resistance and a capacitor.

SPARE PARTS:

Bell mechanism..... KLA 1564

DIMENSIONS:

Height 135 mm, width 155 mm, depth 49 mm,
net weight 0.9 kg.

FOR NOTES

A large rectangular area with a black border, containing numerous horizontal dotted lines for writing notes.

A large rectangular area containing numerous horizontal dotted lines, intended for handwritten notes or a list.



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