	Benämning	Nr	Sida
	Private automatic exchange type ARD 624	G 1531 - 121 Ue	1 (8)
	Installation instructions	Tillhör	Datum 30.3.67
		Godkänd (tjst och namn)	Korr.
		FhC W Adenstedt	

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Original	Översatt	Andra utgåvor	Uppgi. (tjst och sign)	Kontr. (tjst och sign)	
R 31512Ue	NL - m				G 1531 - 121 Ue

## 1. General

These instructions deal with the unpacking installation and connection of the ARD 624 exchange, with current supply and other accessories.

### 1.1 Cables

Two wires are needed between the exchange and each telephone instrument.

Suitable cable: EKUA 2x07 mm.

### 1.2 Location of the exchange

In order to ensure high operational reliability the room, in which the exchange is to be mounted, should comply with the following demands:

The air should be free from dust, smoke and aggressive gases, which may cause damage to the metal parts, or to the insulating materials, of the exchange.

The relative humidity should generally lie between 40 and 80 %. The relationship between the temperature and the humidity of the air should be such that no condensation can take place.

The exchange is to be mounted on a vibration-free wall, and should be situated so that all parts of the exchange are easily accessible for inspection and maintenance. It should not be exposed to direct sunshine.

The lighting conditions should be good and an extra mains outlet for connecting a soldering iron or an extension hand-lamp should be mounted near the exchange.

## 2. Installation procedure

### 2.1 Rack

The rack is first unpacked and removed from its box, and all packing material is removed. The cover is taken off and relays and other components are inspected and checked for damage.

The terminal blocks on the rear plate are loosened, after which the relay frame is removed from the rack.

The relay frame is now lifted from the box, and the cover is placed over the relay frame for protection.

The rack is removed from the box, after which it can be used as a template for marking the positions of the mounting screws, etc, on the wall.

The ARD 624 - exchange is mounted at an average height of 1 meter over the floor. See fig. 1

The exchange is to be hung at a distance of 20 mm from the wall. Suitable spacer studs can be used for this purpose.

Prior to mounting the exchange on the wall, all cables should be run and their ends prepared for connecting to the terminal blocks by removing the insulation.

The cables are pulled through the cable inlet and the rack is screwed to the wall.

The relay frame is fastened with the left mounting screws A fig. 2, the screws are not to be tightened more than is necessary for swinging out the frame when the cables are to be soldered in.

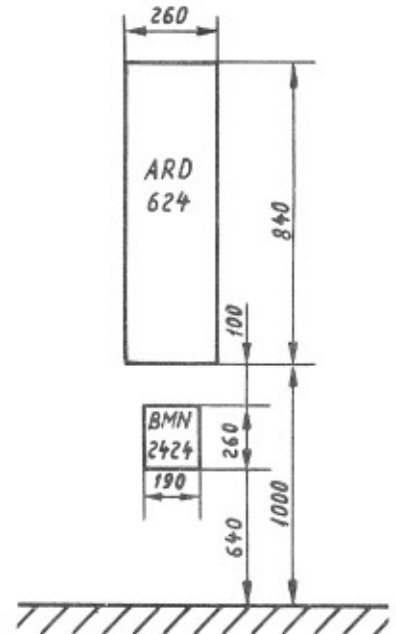


Fig. 1

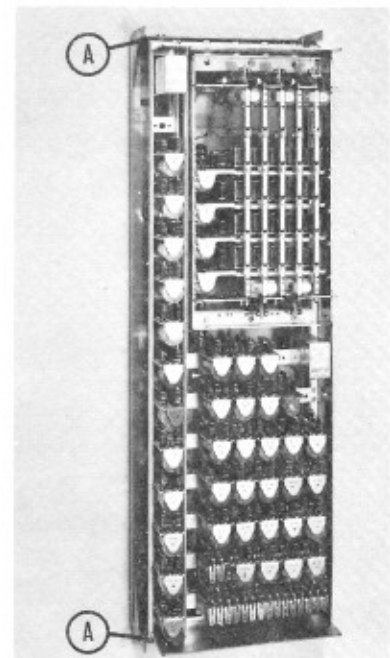


Fig. 2

## 2.2 Current supply set

The current supply set, BMN 2424, fig. 3, is supplied separately.

The set is mounted under the exchange as shown in fig. 1.

The distance between exchange and current supply set should be at least 100 mm.

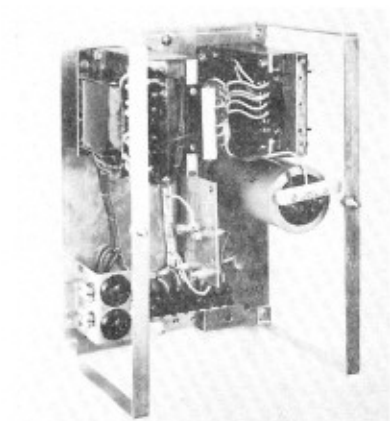


Fig. 3

3. Connection

3.1 Connection of extensions

The extension lines are to be connected to terminal blocks AB and CD, placed on the rear plate.

Re: terminal marking - see fig.4

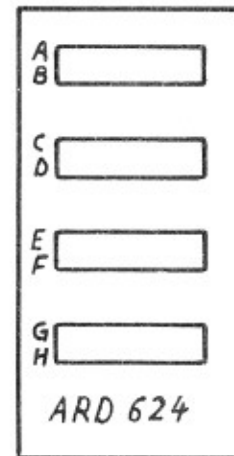


Fig. 4

The relationship between the extension numbers and the line numbers is shown in fig.5

In the example, fig.6, extensions 4 and 15 are connected to lines 4 and 13

Line No.	Extension No.
2	2
3	3
4	4
5	5
6	6
7	7
8	8
1	9
9	11
10	12
11	13
12	14
13	15
14	16
15	17
16	18

Fig. 5

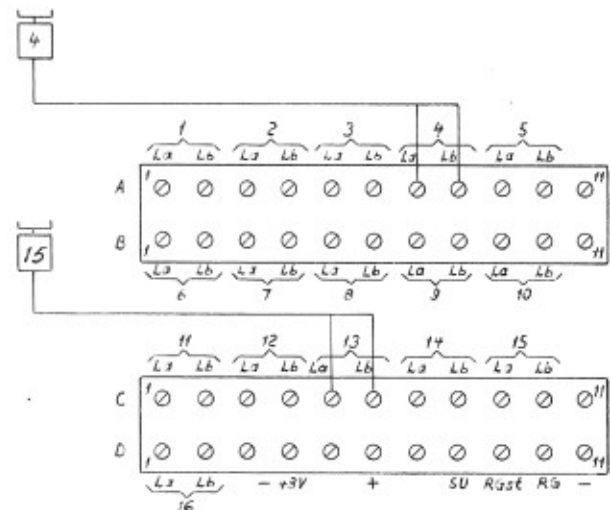


Fig. 6

3.2 Alt. 1 Connection of current supply set

The current supply set, BMN 2424 delivers a working voltage of 48 V D.C. and a ringing current of 90 V.

Connection of the current supply set to the ARD 624 - exchange is done as shown in fig. 7.

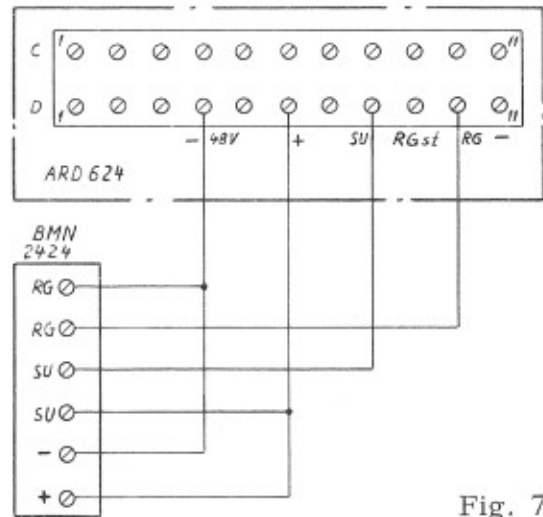


Fig. 7

Alt. 2 Connection of charging set

If desired, the exchange can be run on a battery with a charging set. In this case, a ringing-voltage set is needed.

The ringing equipment is connected as shown in fig. 9.

Note The ROA-board is mounted in positions 55 and 56. The capacitor position 65 is moved to relay position 64. See fig. 8 and circuit diagram. The mounting frame of the ROA-board is seen from the soldering side in fig. 9.

KV				
61	62	63	64	65
51	52	53	54	55
41	-	-	-	-
31	-	-	-	-
21	-	-	-	-
11	-	-	-	-
1	-	-	-	-

Fig. 8

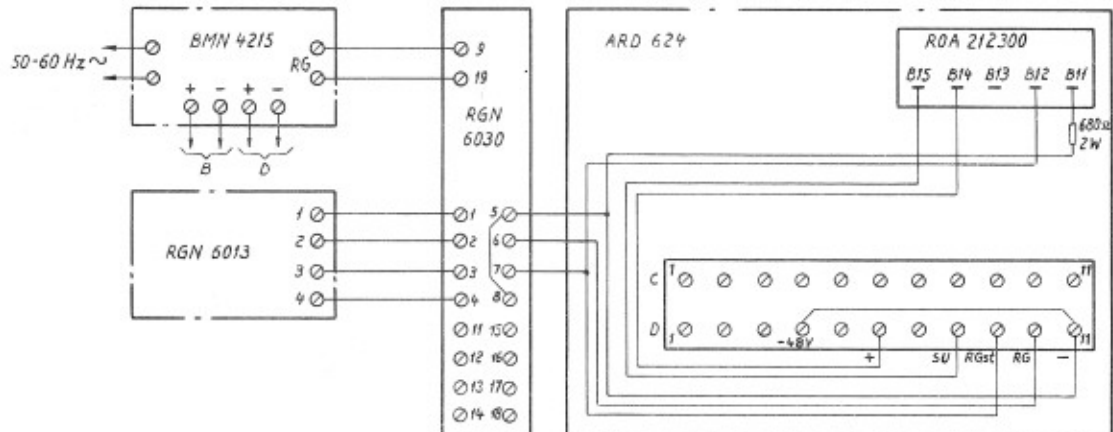


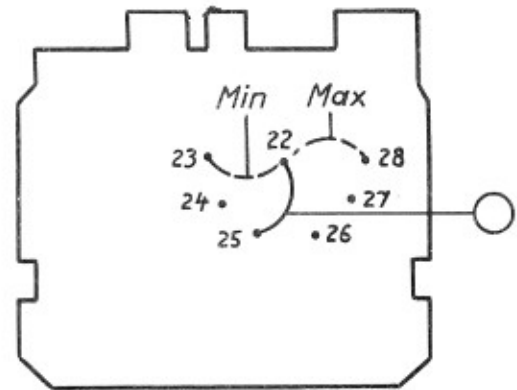
Fig. 9

### ROA-component board strapping

For adjusting the ringing tone volume to a proper value a strap must be inserted on the ROA-component board 21 2300.

Note No strap is inserted on delivering.

In the example, fig.10, a strap is inserted between pins 22 and 25.



seen from the component-side

Fig. 10

#### 4. The rack is to be earthed and connected to plus

When connecting the current supply set the exchange rack is to be connected to earth and to plus.

This is done by connecting the incoming earth wire (not to be confused with the protection earth wire from the mains ) to a screw on the rack.

From plus on block CD a connection is made to the same screw on the rack. See fig.11.

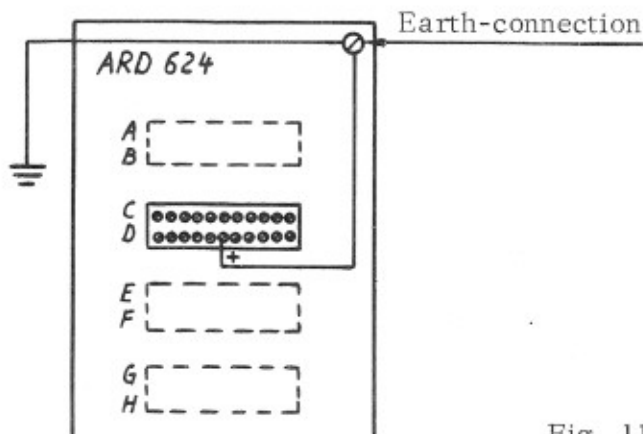


Fig. 11

5. Connection of paging equipment PSR ( speaker )

PSR is connected to anyone of the lines 1, 6, 7 or 8, on terminal AB, and to the corresponding pair of screws on block GH. The strap No. 4 for this line is to be removed. See fig. 12.

In the example, fig. 12, PSR is connected to line 8 with dial number 8 or 0.

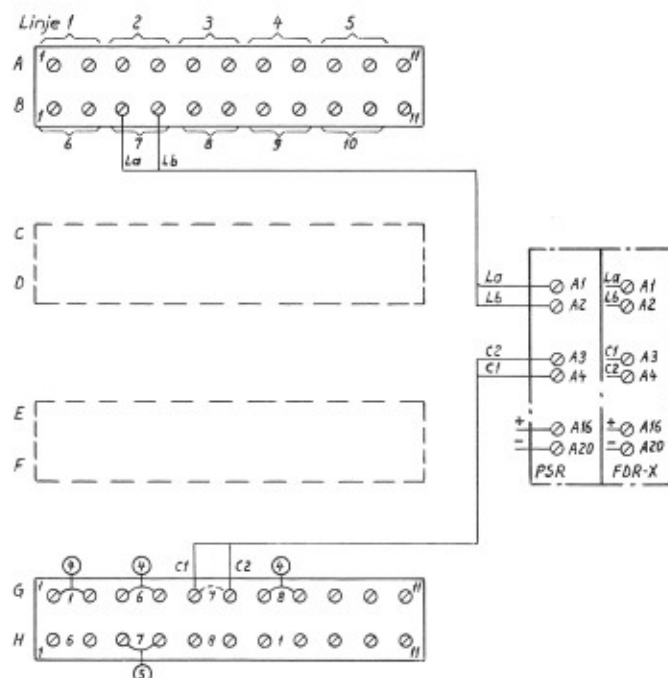


Fig. 12

5.1 Connection of FDR - X, the connection-line unit for traffic with other local exchanges

As with PSR, FDR - X is connected to any of the lines 1, 6, 7 or 8. The corresponding strap should not be inserted. See fig. 12.

## 5.2 Connection of relay set KFR for "triangle calls"

With the aid of KFR, a third party can be connected up to a call in progress, a conference call can be established.

For this facility an extension line is necessary, the telephone instrument must also be provided with an earth-button.

In the example in fig.13, where a KFR-connection is shown, the extension has 15 conference possibilities. As a separate extension number, the number 5 has been connected up to the KFR-unit.

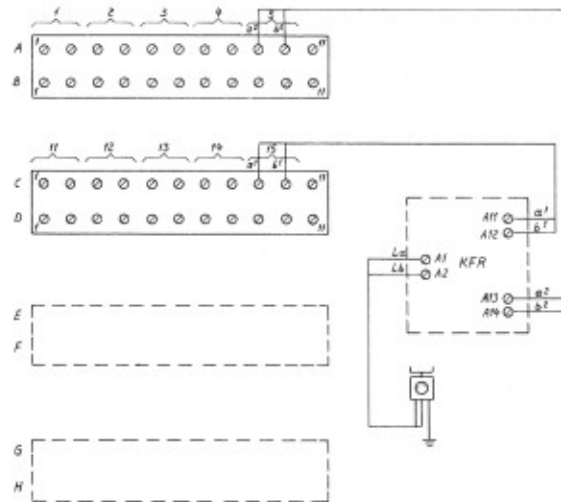


Fig. 13

## 6. Mains connection

### 6.1 Connection of exchange to mains

The cable from the mains is to be connected to terminal block A of the current supply equipment, connection is made in relation to the voltage of the mains, as shown in fig.14 and 15.

The earthing conductor in the mains cable is connected to the earth screw of the current supply set.

After having switched on the current check that no relays operate incorrectly or that no fuses are blown.

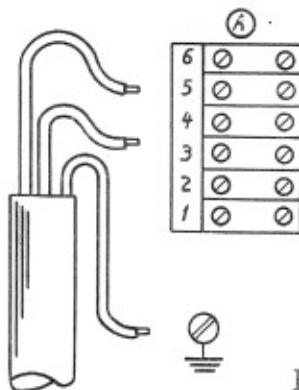


Fig. 14

Screw No. on the A-block	Mains voltage
1 5	240
2 5	220
3 5	200
1 4	150
2 4	130
3 4	110

Fig. 15