

600/1500-CYCLE
SELECTIVE SIGNALING EQUIPMENT
FOR 4-WIRE PRIVATE LINES
INSTALLATION

1.00 GENERAL

1.01 This section was formerly Station Installation and Maintenance Section C53.433, Issue 2. Except for editorial changes and renumbering for inclusion in the Station Operations Manual, no other revisions have been made.

1.02 This section covers the installation of 600/1500-cycle selective signaling equipment. This equipment provides means for selectively signaling any station or predetermined group of stations on a 4-wire private line.

1.03 The installation of apparatus and battery cabinets, power plants, equipment and key telephone units, keys, hand telephone sets, loudspeakers, and other items common to general station work is not included in this section, since they are covered in other sections of these practices.

1.04 Conduit and power wiring between the commercial power supply distribution box and the power supply receptacles in apparatus cabinets or on relay racks should be arranged for by the customer. The telephone company should advise the customer as to the location of power supply receptacles on these frameworks.

1.05 It is assumed that the service order or its attachments specify figures and options of the circuit drawings that are to be employed in this installation, the calling code or codes assigned, and other pertinent information which would be helpful in the ordering and installing of the equipment.

2.00 LOCATING AND MOUNTING

Apparatus and Battery Cabinets

2.01 Locate and mount cabinets on floors or walls in accordance with information included in the section covering the installation of station system cabinets.

2.02 Avoid locating the cabinets in places subject to mechanical vibrations which would prevent reliable relay operation and avoid locations which would subject equipment to excessive heat or dirt.

Sending, Receiving, and 130-volt Power Supply Units

2.03 When these three units are provided, locate the receiving unit directly above the sending unit and locate the power supply unit directly below the sending unit.

2.04 When the sending unit is not provided, locate the power supply unit directly below the receiving unit.

2.05 When two receiving units only are provided, the power supply unit will serve both units and should be located directly below the second unit.

2.06 Leave unequipped two 1-3/4 inch mounting-plate spaces directly above the receiving unit to provide for maintenance of the 60-type selectors. This clearance is not required where the receiver unit is located in a cabinet with a hinged gate. In this case it may be located in the top mounting-plate position of the gate.

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2.07 When these units are to be located on the same framework as the associated terminating relay equipment, they should be located above the associated equipment whenever possible, either at the top mounting-hole position of the framework, or, if a fuse panel is provided, directly below the panel. In either of the above cases, two 1-3/4 inch mounting-plate spaces are left unequipped when the receiving unit is provided.

2.08 The details used for securing the mounting plates of the sending or receiving unit during shipment should not be removed.

2.09 Attach the sending, receiving, and power supply units directly to a 19-inch framework by means of the machine screws furnished with the units or provide adapters in accordance with ED-90273-01 when mounting these units to a 23-inch framework.

Associated Relay Equipment

2.10 The relay equipment associated with 4-wire private line station terminations consists principally of equipment units and key telephone units. In view of appearance, and ease of installation and maintenance, these units should be centrally located in an apparatus cabinet or relay rack with the associated two-tone equipment, rather than at the various station locations in several 105-type apparatus boxes. Mounting bar assemblies per ED-69143-01, Group 1 for bars 19 inches long or Group 2 for bars 23 inches long are required for mounting these units on a 19- or 23-inch framework, respectively. See the C Section covering ROW for typical equipment layouts showing arrangements of this type.

2.11 Locate the PBX relay equipment required for terminations of two-tone signaling, ie, tie trunk, auxiliary trunk, and signaling connector units, in the rear of the PBX section or on associated PBX framework whenever space is available; otherwise locate on the same framework as the two-tone signaling equipment and mount below the signaling equipment as discussed in 2.07. Provide adapters in accordance with ED-90273-01 when mounting these 19-inch units on 21-5/8- or 23-inch framework.

2.12 The 554A and 554B filters may be located in existing apparatus cabinets or relay racks using mounting bar assemblies ED-69143-01, Group 1 (19 inches) or ED-69143-01, Group 2 (23 inches) or in 105-type apparatus boxes.

3.00 WIRING AND CABLING

3.01 Combine and sew or tape the leads provided on the sending and receiving units for connection to the 130-volt power unit and run vertically to terminal strip of power unit as shown in Fig. 1. Connections to terminal strip should be made in accordance with SD-69168-01.

3.02 The wiring to the screw-type terminal strips mounted on the front of the sending and receiving units shall be run through the insulated entrance hole located above and to the right of the terminal strip and fanned to the proper fanning strip holes, leaving sufficient slack as shown in Fig. 1.

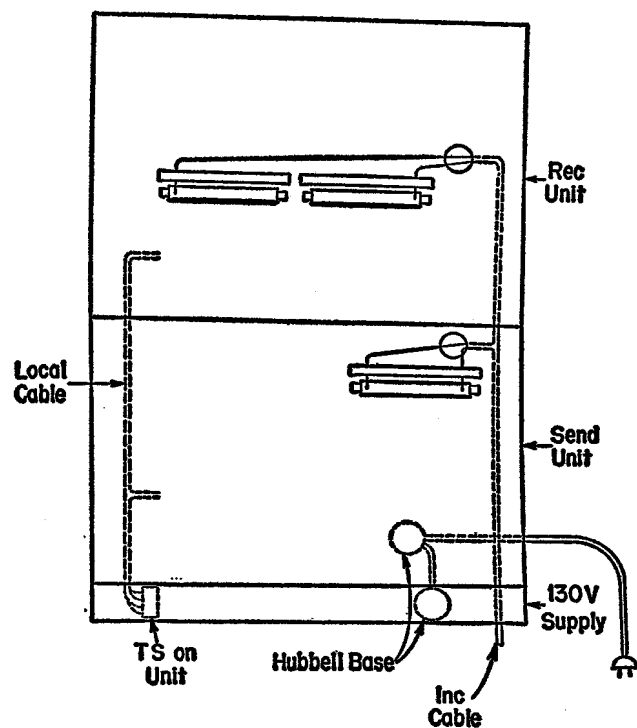


Fig. 1 — Cabling of Sending and Receiving Units

3.03 The cabling and wiring within the cabinet for the associated equipment and key telephone units should be done in accordance with the C Sections covering the installation of station system cabinets. This same method of wiring the units applies when they are mounted on a relay rack.

4.00 CONNECTIONS

4.01 Connections are made in accordance with a number of standard circuit drawings, depending on whether the two-tone equipment terminates at PBXs 4-wire stations, or key equipments. A list of the drawings which may be required to cover the connections are included in the C Section covering description of equipment for 4-wire private lines.

Power Cords

4.02 Where both a sending unit and a receiving unit are provided, the commercial power connections are made to the 24- and 130-volt dc units in the following manner:

1. Plug the Hubbell connector equipped cord of the 24-volt dc supply unit into the Hubbell base (receptacle) provided on the 130-volt dc unit.
2. Plug the Hubbell connector equipped end of the separate connecting cord into the Hubbell base (receptacle) of the 24-volt dc unit and plug the other end equipped with regular power plug into commercial power supply outlet.

4.03 Where the sending unit is not provided, the power connecting cord referred to in Step 2 above should be connected to the Hubbell

base (receptacle) on the 130-volt dc unit and the commercial power supply outlet.

4.04 Where it appears that the plug of the connecting cord may be accidentally disconnected from the commercial power outlet, a locking arrangement as described in the C Section covering station systems power supply should be provided.

5.00 SELECTOR WHEEL MOVABLE CODE PIN SETTINGS

5.01 The method of determining the proper locations on the selector wheel of the two movable code pins in relation to the code assigned is discussed in the C Section covering the description of this equipment.

5.02 If the two movable pins are not located in the proper holes to correspond to the assigned code, they should be removed with the 144 and 145 tools, the former tool being used to unscrew the code pin nut and the latter to hold the code pin securely while the nut is being removed.

5.03 Place the code pin in its proper hole with the No. 145 tool, inserting the pin through the hole from the bottom. With the No. 145 tool holding the code pin in place, screw the code pin nut on the code pin with the No. 144 tool and tighten it securely. Remove the tools.

6.00 FINAL TESTS

Make operating tests at completion of installation in accordance with those included in the C Section covering maintenance.