

P1 CARRIER TELEPHONE SYSTEM  
POLE MOUNTED APPARATUS CASES  
AND BATTERY CABINETS  
TELEPHONE AND POWER WIRING

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1. GENERAL

1.01 This section covers the installation of telephone cross-connecting wires and power supply conductors at terminals and repeaters of P1 carrier systems. The method of grounding the telephone and power installation is also covered.

1.02 The apparatus cases are provided with entrance holes at the back of the terminal block housing. The primary battery cabinet is provided with knockout blanks at the back and the side panels.

1.03 Make arrangements with the power company to furnish 60-cycle 110- to 120-volt AC power at the terminal pole when commercial power is available.

1.04 A bracket circuit on a joint lead should generally be transferred to a crossarm at terminal locations. This will provide adequate climbing space and provide space for the network.

1.05 Material and wiring must conform to all laws or orders of state and local bodies having jurisdiction.

## 2. INSTALLATION OF TELEPHONE CROSS-CONNECTIONS

- 2.01 AL wire is used for all cross-connections between the line wire and the carrier terminal or repeater.
- 2.02 The carrier circuit and the voice frequency circuit or the carrier in and out of the repeater may be brought down the pole in a common run.
- 2.03 Use AL or B Block wire between the terminal block in the 386A apparatus case and the power equipment in either the 386B apparatus case of the primary battery cabinet. Place all wiring, except ground wire within 8 feet of the ground, in flexible metal conduit.

## 3. POWER WIRING AT REMOTE TERMINALS AND REPEATERS

- 3.01 AC power is used at terminals where commercial 60-cycle 110- to 120-volt service is economically available. The rectifier and associated equipment is located in the 386B apparatus case.
- 3.02 In general, after the apparatus cases have been mounted, the electrical contractor will install the watt hour meter socket, service switch, all necessary conduit, and provide a proper ground connection according to the type of power being supplied. He will lock the circuit open at the service switch. He will also provide the power company with the necessary metal and fiber conduit and weather head or equivalent.
- 3.03 The power conductors from the service switch to the 386B apparatus case or cases shall be run in rigid metallic conduit.
- 3.04 A weatherproof convenience outlet may be installed in the secondary circuit.

## 4. GROUNDING PRACTICES

- 4.01 The apparatus cases and battery cabinets are bonded by the flexible metal conduit.
- 4.02 To ground a primary battery cabinet, place a cable lashing clamp on the lifting lug and attach the ground wire.

4.03 On the apparatus cases the ground connection is made with a Thomas and Betts "Tite-Bind" No. 22121 lug attached with a No. 10-32 machine screw at one of the two tapped hole locations on the channel assembly which supports the case on the saddle. Two lugs and machine screws are provided with each 386-type case.

4.04 The following typical installation shows one channel terminal or one repeater. The power connections will be the same whether the system is on cable or wire. The ground connections are shown for a system on open wire. For a system on cable, also place a No. 6 AWG ground wire between the apparatus case and the cable strand. Bond ground wire to cable strand with cable lashing clamp. Bond ground wire to apparatus case using upper Thomas and Betts "Tite-Bind" No. 22121 lug that is provided on the case assembly.

