

**EMERGENCY TELEPHONE
DESCRIPTION, INSTALLATION AND MAINTENANCE**

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1. GENERAL

1.01 This section contains descriptive information for Types L-8505-AO, BO, CO, and DO emergency telephone sets. Instructions for installation and maintenance are also provided.

1.02 This section is reissued to add the Type 811 handset. Marginal arrows are used to indicate the changes. Remove and destroy all copies of Issue 1 of this section.

2. DESCRIPTION

2.01 The emergency telephone (Figure 1) consists of a weatherproof cast aluminum housing and, components of a nondial common battery telephone. A telephone handset and cord, a baseplate containing a hookswitch, and a transmission unit are the components that make up the emergency telephone. The housing is equipped with a hinged door at the front that is held in the closed position by a magnetic catch. Holes for mounting the telephone components and the housing are located on the back of the housing. The housing measures 12-5/8 inches wide, 16 1/2 inches high, and 6-5/32 inches deep, and is finished in the following color schemes:

- (a) L-8505-AO. Yellow housing painted with red lettering, without transfer push key, and the words FIRE ONLY screened on the door.
- (b) L-8505-BO. Yellow housing painted with red lettering, with transfer push key and the words FIRE AND POLICE screened on the door.

- (c) L-8505-CO. Red housing painted with white lettering, transfer push key and the words FIRE ONLY screened on the door.
- (d) L-8505-DO. Gray housing painted with white lettering, and the words TELEPHONE - PULL TO OPEN screened on the front. The DO is only the housing, for mounting a Type 90M telephone set.

2.02 Instructions for use of the telephone set are provided on an instruction plate mounted on the cover assembly.

2.03 The emergency telephone set may be mounted on a wall, pole, or pedestal.

2.04 The emergency telephone set can be equipped with an optional transfer push key which, when depressed, actuates transfer equipment to transfer the call from the fire emergency reporting console to the police reporting console. (If the telephone set is to be used for accessing only the fire department console, the push key can be omitted.)

2.05 As an optional feature, the telephone set may be fitted with a red lamp to identify the telephone set at night.

3. INSTALLATION

3.01 The emergency telephone set can be mounted on a pedestal, to a flat surface, or to an irregular surface, such as a pole.

Pedestal Mounting

3.02 The following parts, furnished with the emergency telephone sets are used to mount the telephone set on a pedestal; flange (D-780806-A-yellow, B-red, or C-gray), three 1/4 20 by 3/8-inch Allen head setscrews (D-760860-A), and four 1/4 20 by 3/4 inch screws.

3.03 Use the following procedure to mount the emergency telephone set on a pedestal, referring to Figure 2. (If the telephone line wires are to be run through the pedestal, they should be run through the pedestal pipe before the pipe is buried in the ground.)

- (1) Install a pedestal, made from 2-inch ID galvanized pipe, in the desired location. Figure 3 shows two methods for installing a pedestal. The top of the pedestal pipe must be threaded (2-inch pipe thread).

NOTE: Before placing the pedestal pipe in concrete, the No. 6 ground wire and the buried service wire must be brought up through the pipes.

- (2) Place the threaded portion of the flange (D-780806) on the threaded portion of the pedestal and turn the flange clockwise. Tighten securely. The straight portion of the flange should be positioned to coincide with the back of the housing assembly (when it is installed).
- (3) Insert the three Allen head setscrews into the appropriate tapped holes of the flange and tighten securely with an Allen wrench (not furnished).
- (4) If the telephone line wires are run through the pedestal, remove the 1/2-inch pipe plug from the bottom of the housing assembly and insert the wires through this opening.
- (5) Line up the four tapped mounting holes located on the bottom of the box assembly with the four countersunk holes of the mounting flange and secure the two units together with four 1/4-20 by 3/4-inch screws.

Flat Surface Mounting

→ 3.04 Use the following procedure to mount the telephone on a flat surface, such as a wall (Figure 4 and note 3 of Figure 3):

- (1) Open the box assembly door and drill the required mounting holes in the back of the box assembly, using a 17/64-inch drill. The mounting holes are designated by an "x" in Figure 5.
- (2) With the box assembly door open, place the back of the box assembly against the flat surface and secure the telephone to the surface with applicable screws. (These screws are not provided because the types of mounting surfaces differ.)

Irregular Surface (Pole) Mounting

3.05 A mounting bracket (D-731743-A) and four 1/4-20 by 5/8-inch screws are furnished to mount the telephone on an irregular surface, such as a pole. The bracket can be attached to a wood pole by either of the two methods shown in Figure 6. One method (Figure 6a) is to use 1/27 by 4-inch-long lag screws and 1-3/8-inch round washers (not furnished). The other method (Figure 6b) is to use 5/8-inch crossarm bolts, square washers, and nuts (not furnished). Attachment of the mounting bracket to a light standard or other metal pole should be made with three iron straps (GP-2500, list 160) secured by nuts and bolts as shown in Figure 7 and note 3 of Figure 3).

→ 3.06 After the mounting bracket has been attached, use the following procedure to attach the box assembly to the bracket:

- (1) Open the box assembly door and drill the mounting holes, using a 17/64-inch drill. The mounting holes are designated by an "x" in Figure 5.
- (2) Place the back of the box assembly against the mounting bracket, lining up the box assembly mounting holes with the tapped holes of the mounting bracket, and secure the two parts together with four 1/4-20 by 5/8-inch screws.

Lamp Mounting

3.07 If a lamp (optional) is to be placed on top of the box assembly, the following parts are furnished: gasket (FD-1020-CP), lamp bulb (FD-1023-BA), lamp (FD-1023-BB), and adapter (D-66576-A or B) shown in Figure 8. Use the following procedure to install the lamp on top of the box assembly.

NOTE: It may be more convenient to connect the 110-volt ac wires to the lamp before its installation. (See Note 3 of Figure 3.)

- (1) Remove the three screws and round plate (Figure 5) from the top of the box assembly. The gasket should remain in place.
- (2) Place the adapter (D-66576-A or B) over the gasket that remained on top of the box assembly, and fasten the adapter to the housing with the three screws previously removed. The adapter has provisions for attaching 1/2-inch conduit for running power wires to the lamp. Remove the lamp lens and lens guard from the lamp base. Place gasket (FD-1020-CP) on the top surface of the adapter and the lamp base on the gasket. Fasten the lamp base to the adapter with three 6-32 by 1/2-inch screws.
- (3) Insert the lamp bulb (FD-1023-BA) into the lamp socket and replace the lamp lens and lens guard.

Location of Station Protector

3.08 The station protector should be mounted at a location where it cannot be tampered with.

4. WIRING

Emergency Telephone With Type 81 Handset, Three-Conductor Cord

4.01 Use the following procedure to make the electrical connections to the telephone:

- (1) Install line wires. If the telephone is pedestal mounted, the wires can be routed through the pedestal.

NOTE: This should be done before the pedestal is placed in the ground.

The wires then enter the box assembly through the 1/2-inch conduit hole at the bottom of the housing. In pedestal-mounted units, the line wires, can also be routed through the 1/2-inch conduit hole at the top of the box assembly. On flat or irregular surface-mounted units, the conduit can be attached to either the top or bottom conduit holes (Figure 9). When the conduit is routed through the top it should be equipped with a weather proofhead.

- (2) If the installation is to have a lamp mounted on the top of the box assembly, power wires for this lamp will have to be installed. An adapter (D-65576-A or B) should be installed on top of the housing, providing a facility for routing the power wires through conduit directly to the lamp.
- (3) Open the box assembly door and remove the four cover assembly screws and cover assembly accessing the terminal block. A special screwdriver, furnished with the telephone, is used to remove the cover screws.
- (4) Attach the line wires to the terminals of the terminal block (Figure 10) as follows:
 - (a) Red to terminal L1.
 - (b) Green to terminal L2.
 - (c) Yellow to terminal 4.
 - (d) Attach the ground wire under one of the housing mounting screws.

NOTE: An alarm will sound in the central office when a short, ground, or open appears on the line.

- (5) Connect the power wires to the lamp (if provided), one wire to each lamp terminal.

5. MAINTENANCE

5.01 Field maintenance for this unit should be limited to the handset and to the replacement of the lamp (when used).

Handset Maintenance

5.02 Most handset difficulties can be remedied by replacing the transmitter and receiver capsules and/or the handset cord.

5.03 To replace the capsules, hold the handset horizontally and unscrew the transmitter and receiver caps. Remove and replace the capsules, and replace the caps.

NOTE: The transmitter and receiver capsules are so designed that they cannot be interchanged.

5.04 The handset assembly used in the emergency telephone is a Type 81 handset (part No. L-9024-DO). (The Type 81 handset has been replaced by the Type 811 handset (part No. L-9053-DA) with a four-conductor cord (Figure 11.)

5.05 To replace the handset cord at the telephone, use the following procedure:

- (1) Open the housing door.
- (2) Remove the four cover assembly screws and remove the cover assembly, exposing the telephone wiring.

- (3) Referring to Figure 10, remove the handset cord conductors from the following transmission unit terminals:

- (a) GR-WH from terminal 12.
- (b) RED-BLK from terminal 5T.
- (c) YEL-RED from terminal 4R.

- (4) Remove the four baseplate screws and baseplate from the housing.
- (5) Remove the cord clamp screw and cord clamp.
- (6) Remove the handset cord.
- (7) Insert the new handset cord, placing it under the telephone baseplate and clamping it in position with the cord clamp and cord clamp screw.
- (8) Replace the telephone baseplate and secure it in position with the four screws removed previously.
- (9) Connect the handset cord conductors to the following transmission unit terminals:

- (a) GRN-WHT to terminal 12.
- (b) RED-BLK to terminal 5T.
- (c) YEL-RED to terminal 4R.

- (10) Replace the cover assembly and tighten the four cover assembly screws. Close the housing door.

NOTE: This procedure is used only with the Type 81 handset, three-conductor cord.

5.06 To replace the handset cord at the handset, refer to the appropriate section in the 473-802 subdivision of GTE practices.

Emergency Telephone With Type 811 Handset, Four-Conductor Cord

5.07 For the Type 811 handset, four-conductor cord emergency telephone, make the following electrical conversions (Figure 11):

- (1) Connect the handset cord conductors to the printed wiring card terminal.
 - (a) GRN to terminal 2
 - (b) RED to terminal 5
 - (c) YEL to terminal 4
 - (d) BLK to terminal 2
- (2) Connect the hookswitch leads to the printed wiring terminal.
 - (a) ORN to terminal 4
 - (b) WHT to terminal 6
 - (c) VIO to terminal 2
 - (d) YEL to terminal 1
- (3) Connect the hookswitch leads to the terminal strip terminal.
 - (a) BLK to L1
 - (b) GRN to 3

Lamp Bulb Replacement

5.08 Use the following procedure to replace the lamp bulb if the telephone is equipped with a lamp:

→ (1) First turn off the power before removing guard.

- (2) Loosen the two screws of the globe guard that secure the lens and lens guard to the lamp, and remove the lens and lens guard.
- (3) Unscrew the faulty bulb and install a new bulb (FD-1023-BA).
- (4) Replace the lamp lens and lens guard and secure with the globe guard screws.

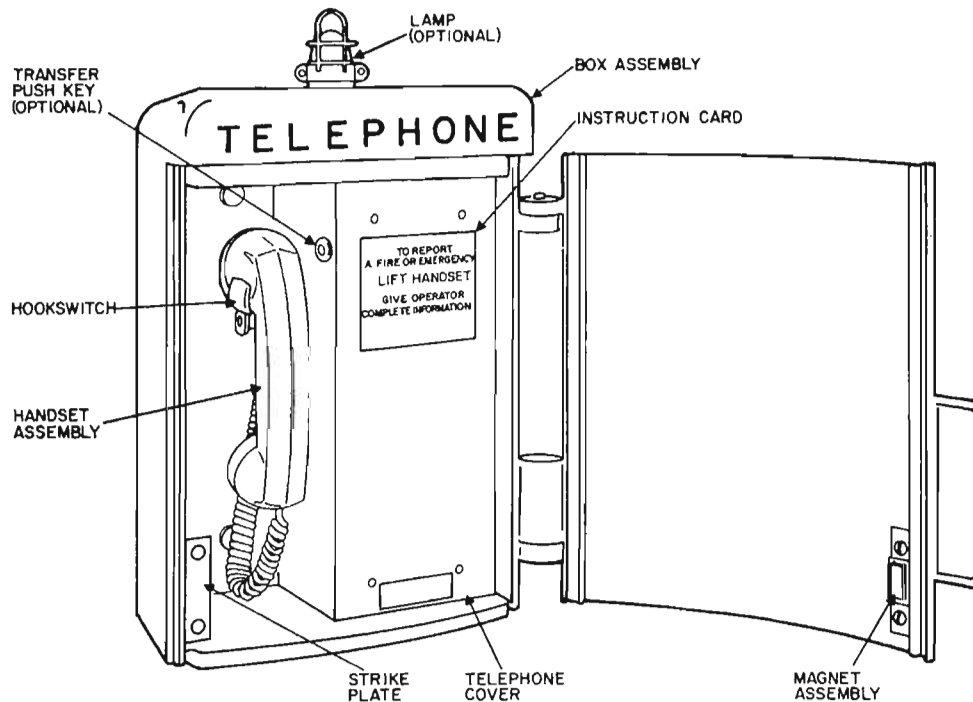


Figure 1. Emergency Telephone (Door Open).

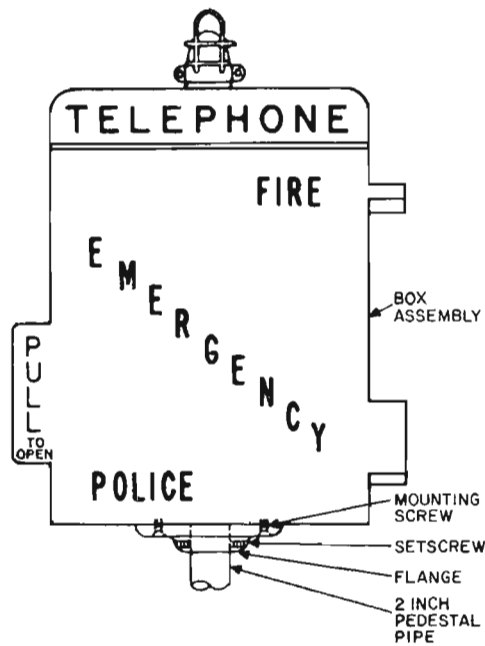
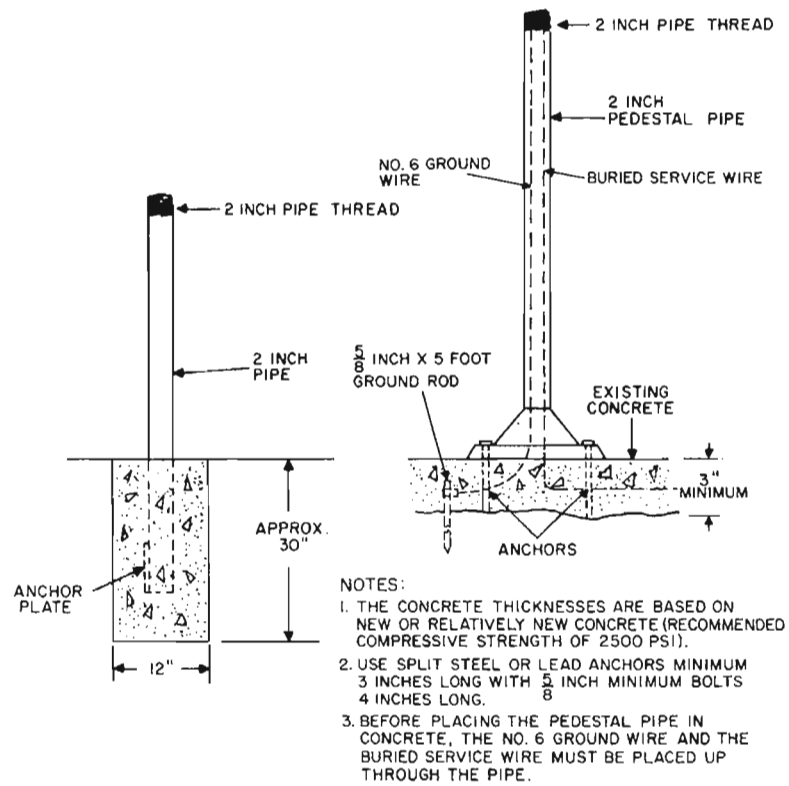


Figure 2. Pedestal Mounting.



→ Figure 3. Pedestal Installation.

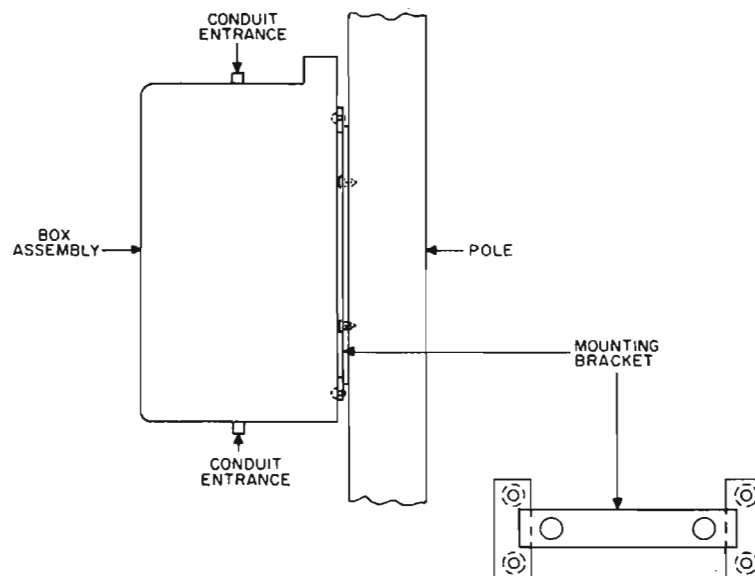


Figure 4. Box Assembly Secured to Flat Surface.

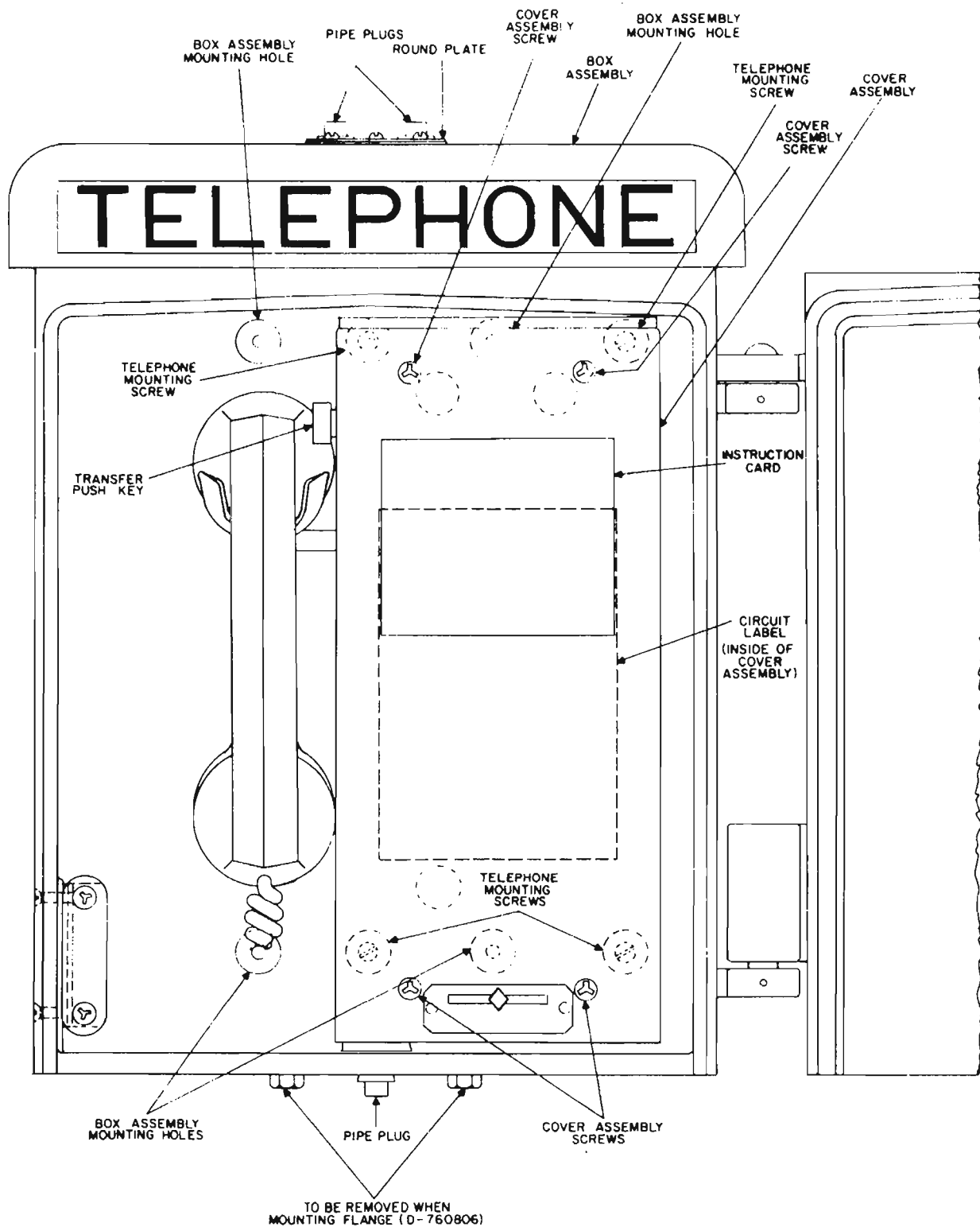


Figure 5. Location of Mounting Holes.

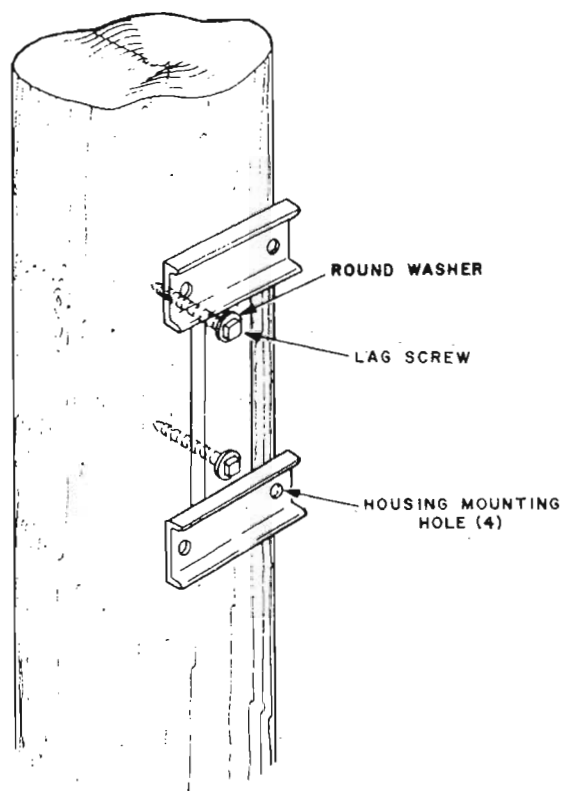


Figure 6a. Lag Screw and Washer Mounting Method for Wood Pole.

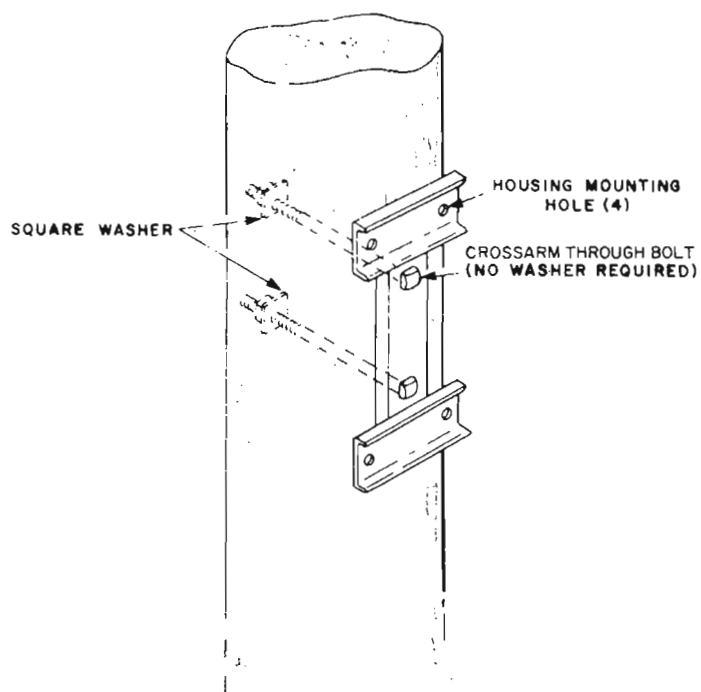


Figure 6b. Crossarm Through Bolt and Square Washer Mounting Method for Wood Pole.

Figure 6. Methods of Attaching Bracket Assembly to Wood Pole.

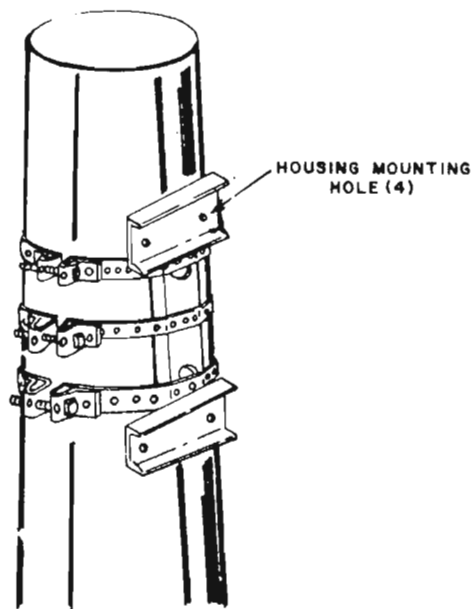


Figure 7. Method of Attaching Bracket to Metal Pole.

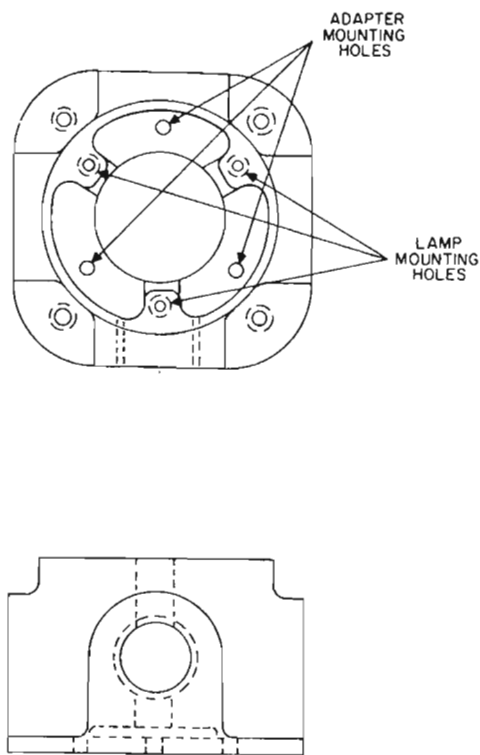


Figure 8. Adapter.

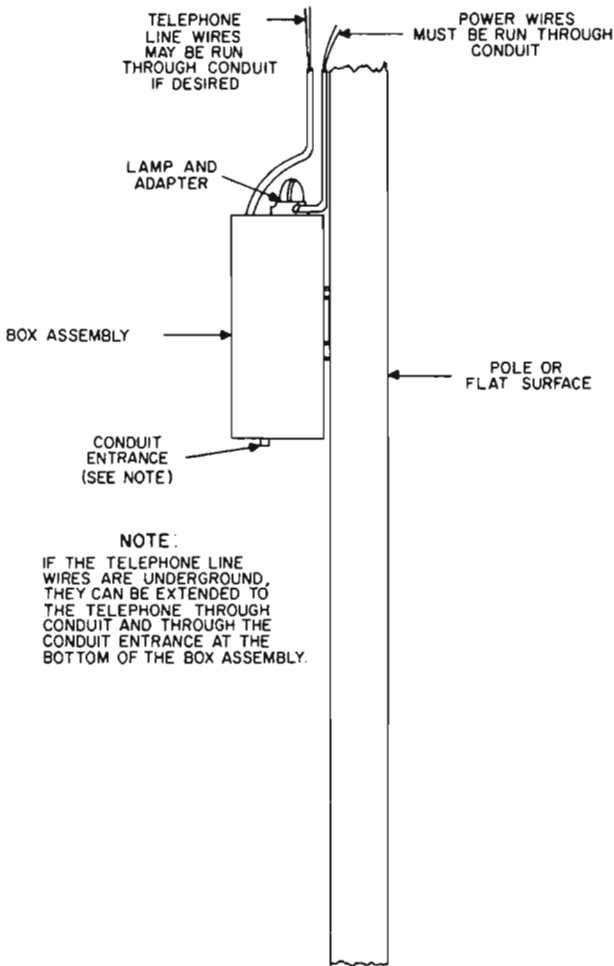


Figure 9. Typical Telephone Line and Power Wire Installation.

NOTES

1. Y CONTACTS TO BREAK LAST WHEN HANDSET IS REMOVED
2. TERMINALS (A) AND (B) ARE FOR TESTING
3. NL DENOTES NONLOCKING.

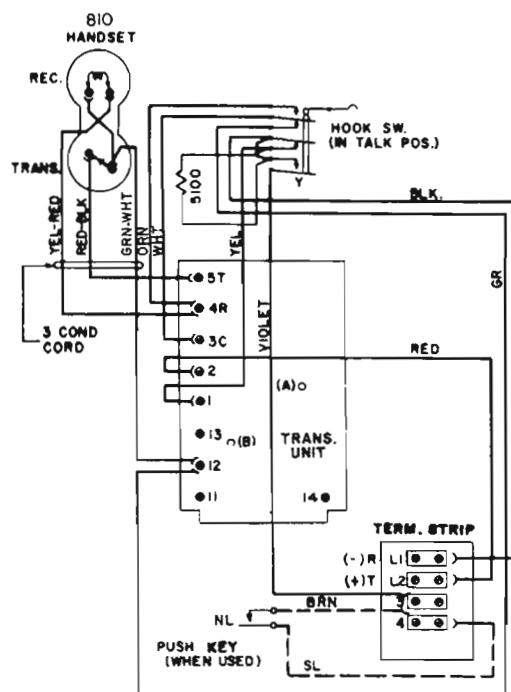
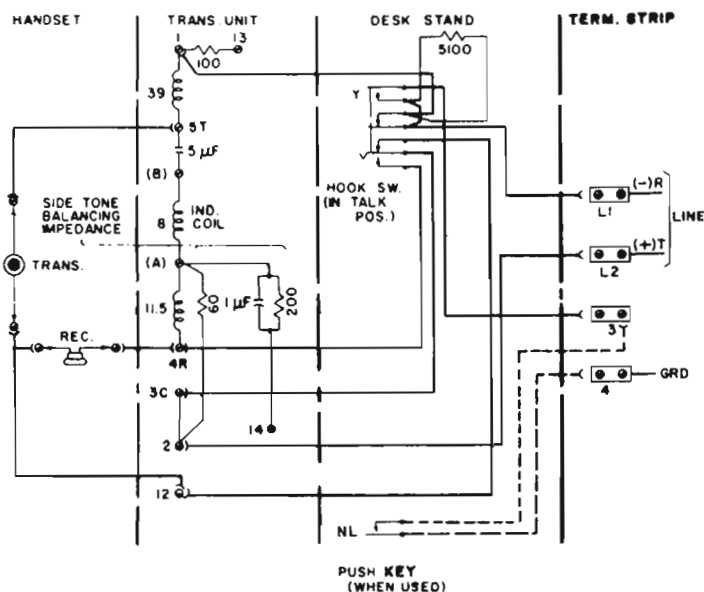
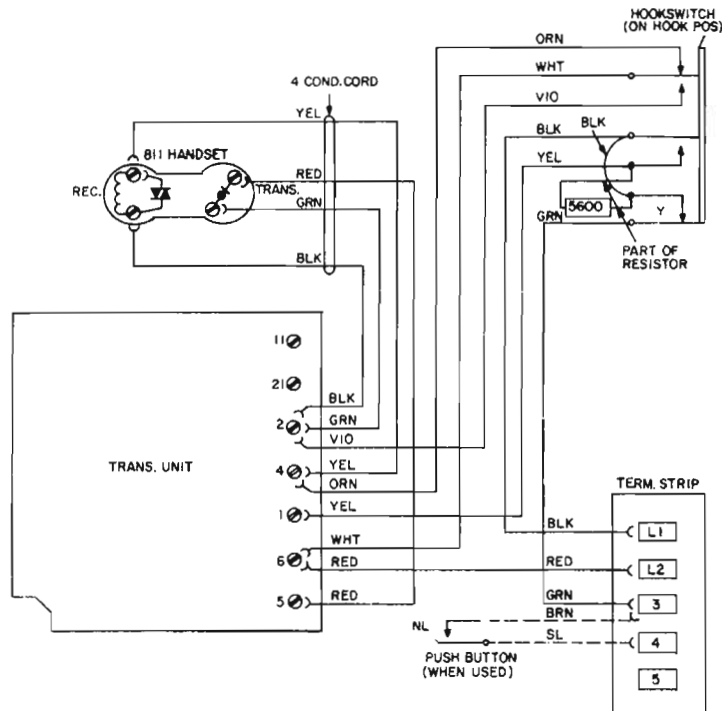
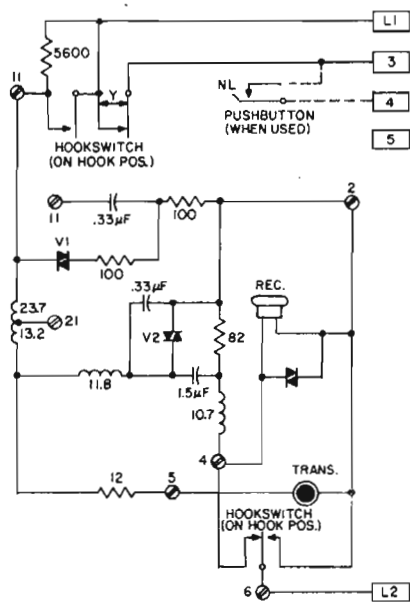


Figure 10. Schematic and Wiring Diagram of Type 81 Handset, Three-Conductor Cord with Potted Transmission Unit.



NOTES:

1. Y CONTACTS TO BREAK LAST WHEN HANDSET IS REMOVED.
2. NL DENOTES NONLOCKING.

→ Figure 11. Schematic and Wiring Diagram of Type 811 Handset, Four-Conductor Cord.