

PORTABLE TELEPHONE PLUGS AND JACKS
DESCRIPTION AND INSTALLATION

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wire run. The jack may be installed with or without conduit.

Flush-Mounted Jacks

2.04 The 548A indoor jack may be used in conjunction with a customer-installed conduit outlet box as shown in Figure 3 or for prewiring in association with a Type 60A mounting ring as shown in Figure 4. The jack accepts a → Type 28 plug.

2.05 The 16152 outdoor jack houses a 493A jack and may be used for prewiring at outdoor locations. The conduit outlet box supplied with the assembly (Figure 5) is employed. When the outdoor jack is to be installed in conjunction with a customer-installed conduit outlet box, the conduit outlet box supplied with the unit is not used. The → jack accepts a Type 28 plug.

1. **GENERAL**

1.01 This section provides description and installation procedures for plugs and jacks used with portable telephone sets in a wide variety of locations.

1.02 Consistency should be maintained in positioning the jacks so that after a few connections, the customer readily → remembers the plug orientation and is able to complete a connection with minimum time and effort.

1.03 This section is reissued to add descriptive information regarding the connecting block, split outlet plate, and mating plates. Marginal arrows are used to identify the new material. Remove the previous issue of this section from the binder or microfiche file, and replace it with this issue.

2. **DESCRIPTION**

2.01 The various types of jacks can best be described by putting them in two categories, surface-mounted and flush-mounted. The surface-mounted jacks are the 404B indoor jack and the 16151 outdoor jack (Figures 1 and 2). The flush-mounted jacks are the 16152 outdoor jack and those installations employing the 548A jack and various outlet plates and mounting brackets (Figures 3, 4 and 5).

Surface-Mounted Jacks

2.02 The 404B indoor jack shown in Figure 1 is principally intended for use where wiring is run exposed along the baseboard or floor. Two wood screws are supplied with the jack for mounting to a wood surface. It accepts a Type → 28 plug.

2.03 The 16151 outdoor jack shown in Figure 2 houses a → modified 493A jack which accepts a Type 28 plug. This jack is designed for service at outdoor locations such as breezeways, terraces, and patios where there is an exposed

Connecting Block

2.06 The Dracon Industries Model 1105 connecting block (Figure 6) is for terminating station wire and line cord within walls or electrical conduit boxes when prewiring. The block has five screw terminals and provisions for wing-band strain relief. The 19C or split outlet plate may be used with the 1105 block.

Split Outlet Plate and Mating Plate

2.07 The EMCO facilities engineering split outlet plate (Figure 7) consists of two high-impact polystyrene identical mating plates (Figure 8) which, when joined, form a cover for a standard rectangular (2X4) electrical conduit box. The cover comes with a 1/2-inch hole in the center for the line cord to pass through. A breakaway section permits the hole to be enlarged to a 13/16-inch diameter to accommodate 25- to 100-pair cables.

Plug

2.08 Station plugs used with flush- and surface-mounted station jacks are furnished with four contacts. The Type 28 plug (Figure 9) fits the previously mentioned jacks. It is designed to accept either a wing band or a stay hook for strain relief. Two projecting ears provide a more positive grip when removing the plug from the associated jack.

3. **INSTALLATION**

3.01 The following paragraphs cover the procedures for installing the various combinations of jacks. It is assumed that conduit outlet boxes (when employed) are installed in buildings already constructed and that the installer is responsible for prewire installations.

3.02 The face of each jack and the side of the Type 28 plug opposite the cord exit are marked with a raised ridge. During installation, the ridges on the plug and jack are to be matched. The jack should be mounted with its ridge located at the top so the cord exist at the bottom of the plug. This is particularly important in outdoor installations, where moisture may travel down the cord.

Surface-Mounted Jacks

3.03 Install station wire to the 404B indoor jack in the following manner (Figure 1):

- (a) Connect station wire to terminals in accordance with the color code markings shown in Figure 1. Orient the 404B jack so that the cord entry hole is located at the top; with the cord exit at the bottom of the plug.
- (b) Coil excess station wire around periphery of the molded case.
- (c) Mount the 404B indoor jack using two 1-1/2 inch wood screws supplied with the jack.

NOTE: If A 404B indoor jack is to be mounted to a masonry wall (or any similar hard surface), use appropriate standard mounting hardware.

3.04 The 16151 outdoor jack may be installed with or without conduit. If installed without conduit, the wire entrance fitting should always be at the bottom with the cover hinge of the assembly at the top (Figure 2). The jack should be fastened to wood or to masonry (or other similar hard surfaces) with appropriate standard mounting hardware. To install station wire to a 16151 outdoor jack, proceed as follows:

- (a) Remove the retainer spring, retainer ring, and 493A jack.
- (b) Loosen the gland nut.
- (c) Run station wire through the gland nut, friction washer and grommet, and into the housing.
- (d) Connect the station wire to the terminals marked R, Y, G, and B on the rear of the 492A jack. If excess cordage is left, it may be coiled around the periphery of the molded case.
- (e) Pull excess station wire back through the grommet while inserting the 493A jack in place.

NOTE: Arrange the 493A jack inside the housing so that the ridge of the face is located at the top. The cord on the Type 28 plug should exit at the bottom of the plug.

- (f) Place a friction washer over the grommet and tighten the gland nut.
- (g) Insert the retainer ring over the 493A jack.
- (h) Insert the retainer spring.

3.05 The 16151 outdoor jack may be coupled directly to 1/2-inch conduit (Figure 2b). When attached in this manner, the cover assembly (Figure 2c) can be rotated (by loosening the cover lock screw) to position the cover hinge at the top. To connect station wire to the 493A jack, pull station wire through the conduit and proceed as follows (Figure 2c):

- (a) Remove the gland nut, friction washer, and grommet from the entry hole (these items are not necessary when connecting 16151 jack to conduit).
- (b) Remove the retainer spring, retainer ring, and 493A jack.
- (c) Connect the housing to the conduit (using 1/2-inch conduit fitting) and secure it to the mounting surface of wood or masonry (or similar hard surface) with appropriate standard mounting hardware.
- (d) Bring the station wire out through the housing and connect it to the 493A jack according to the color code marked on the rear of the jack.
- (e) Wrap any excess cordage around the periphery of the molded case.
- (f) Insert the 493A jack into the housing.
- (g) Replace the retainer ring and retainer spring.

Flush-Mounted Jacks

3.06 For an installation where a conduit outlet box is used, pull station wire through the conduit outlet box and proceed as follows (Figure 3):

- (a) Secure the 43A mounting bracket to the front of the conduit outlet box with two 1-inch flat head machine screws provided.
- (b) Bring station wire out through the conduit outlet box and 43A mounting bracket and connect it to the rear of the 548A jack in accordance with the color code markings. If excess cordage is left, it may be coiled around the periphery of the molded case.
- (c) Insert the 548A jack into the 43A mounting bracket and secure it with the two 6-32x5/16-inch flat head screw supplied with the 548A jack. When installed in a conduit outlet box, the face of a flush-type jack should be aligned with the supporting surface and should be brought forward a sufficient distance so that the outlet plate does not interface with insertion of the plug. To secure a flush fit, it may be necessary to remove tabs as directed in Figure 3, or to place washers between the mounting bracket and conduit outlet box.
- (d) Attach the 19A outlet plate to the 43A mounting bracket with the two 6-32x3/8-inch oval head machine screws supplied with the outlet plate.

3.07 For prewiring installations, the 63A junction box is nailed to a studding during construction prior to the finishing of wall surfaces. Install the 548A jack and associated hardware as follows (Figure 4):

- (a) Connect the 60A mounting ring to the 63A junction box with the two screws supplied with the mounting ring.
- (b) Bring station wire through the 63A junction box and 60A mounting ring and secure it to the 548A jack by connecting station wire in accordance with color code markings. If excess cordage is left, coil it around the periphery of the molded case.
- (c) Secure the 548A jack to the 60A mounting ring with screws provided.
- (d) Mount the 16A outlet plate to the 43A mounting bracket with the two oval head machine screws provided.

3.08 For outdoor installations, in conjunction with the customer-installed conduit outlet box, pull station wire through the conduit and install the 16152 outdoor jack as follows (Figure 5):

- (a) Mount the 43A mounting bracket to the conduit outlet box with screws provided.
- (b) Bring the station wire out through the 43A mounting bracket and connect it to the 493A jack by connecting the station wire in accordance with color code markings. If excess cordage is left, coil it around the periphery of the molded case.
- (c) Mount the 493A jack to the 43A mounting bracket with screws provided.
- (d) Secure the neoprene gasket and outlet plate to the 43A mounting bracket with screws provided.

3.09 Prewired outdoor installations require the use of the conduit box supplied with the 16152 outdoor jack. Prior to installing a conduit box in an area where one does not already exist, obtain permission of the customer for the particular installation. To mount the 16152 outdoor jack, proceed as follows:

- (a) Secure the conduit box supplied with the 16152 outdoor jack between suitable studs according to standard procedures.
- (b) Repeat steps (a) through (d) of paragraph 3.08.

Plug

3.10 To connect a telephone line cord to a Type 28 plug, proceed as follows (Figure 9):

- (a) Remove the two self-tapping round-head screws securing the body of the plug to the plug housing.
- (b) If wing band is used with line cord, connect the cord and dress the leads as shown in Figure 9.
- (c) If a stay hook is used with the line cord, connect it as shown in Figure 9.
- (d) Fasten leads and bend cord tips.
- (e) Insert the plug body into the housing (with the stay-hook screw farthest from the cord entry hole) and secure it with the self-tapping screws removed in step 1.

NOTE: Care should be exercised to have the body of the plug properly seated in the housing prior to tightening screws, because there is the possibility of stripping threaded holes in the cover.

4. MAINTENANCE

4.01 No maintenance, other than replacement of a broken item should be performed on the customer's premises.

4.02 The spring-operated covers on the outdoor faceplates should be completely replaced if broken, but no effort will be made to disassemble and repair the spring.

4.03 When jack contacts are found to be faulty or are questionable, replace the complete jack.

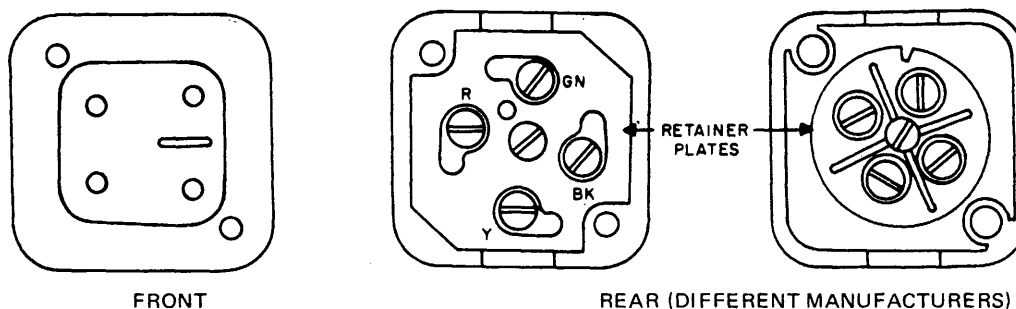


Figure 1. Surface-Mounted Indoor Installation (404B Jack).

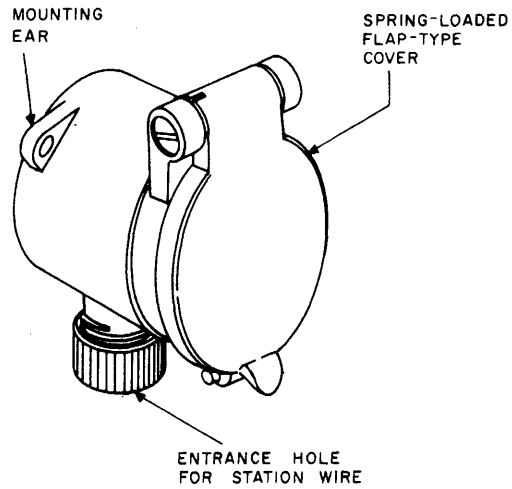


Figure 2a. Installation of 16151 Jack Without Conduit.

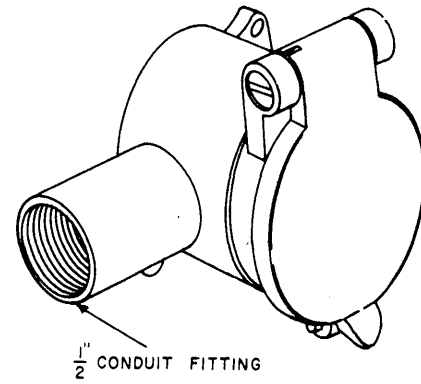


Figure 2b. Installation of 16151 Jack with Conduit.

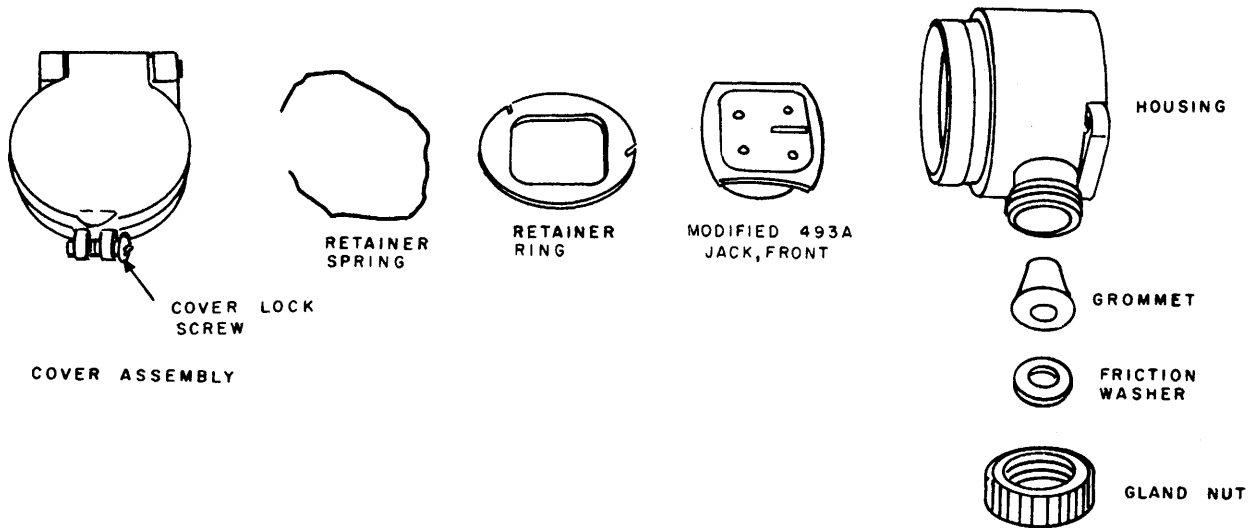


Figure 2c. Assembly of 16151 Jack.

Figure 2. Surface-Mounted Outdoor Installation (16151 Jack).

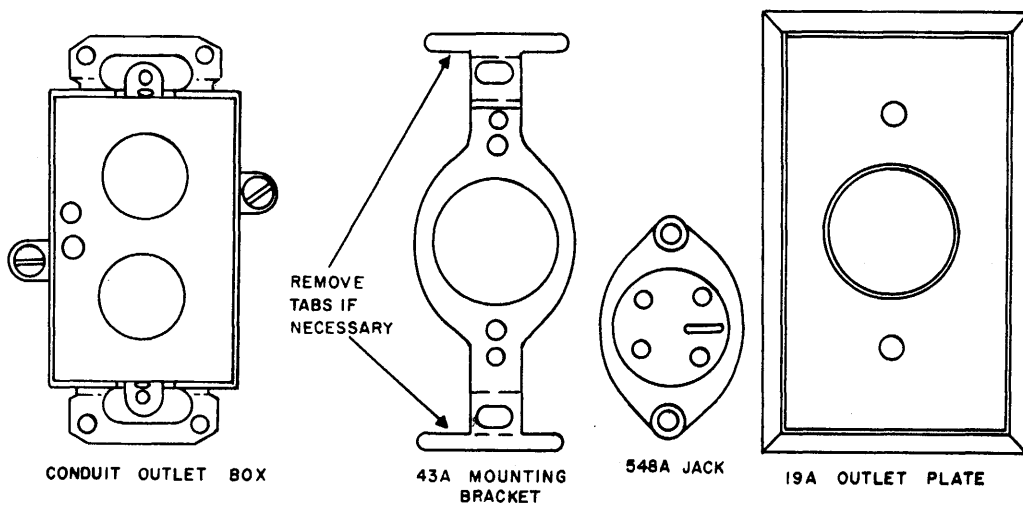


Figure 3. Installation Using Customer-Installed Conduit Outlet Box (548A Jack).

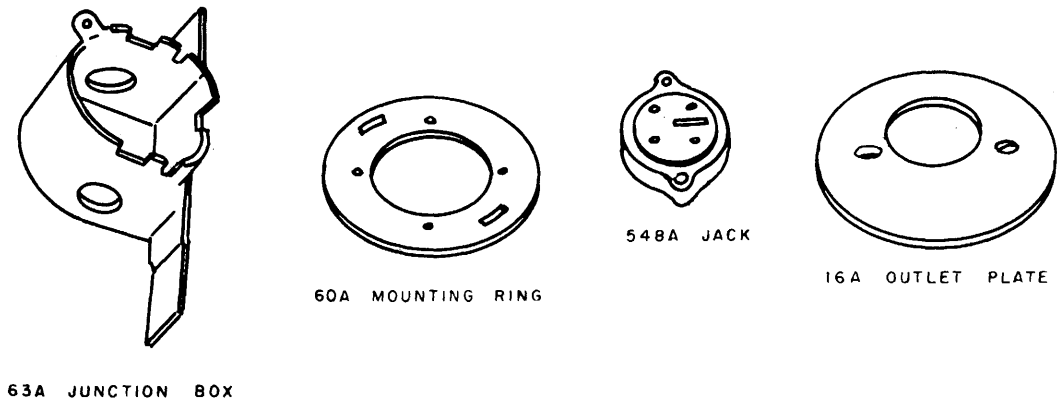


Figure 4. Flush-Mounted Indoor Installation for Prewiring (548A Jack).

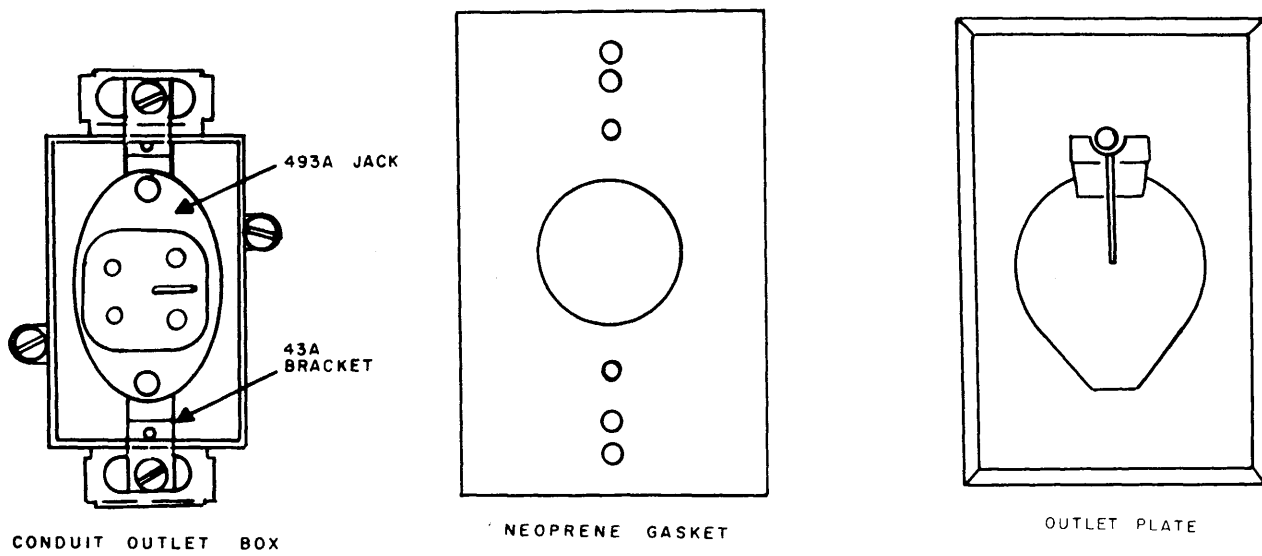
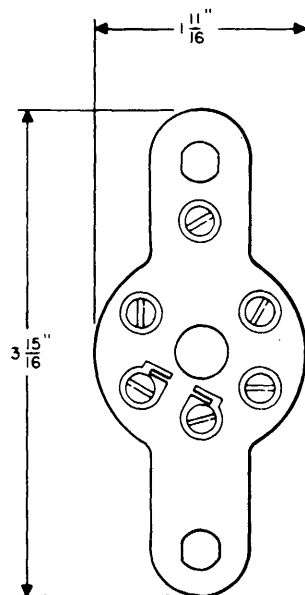
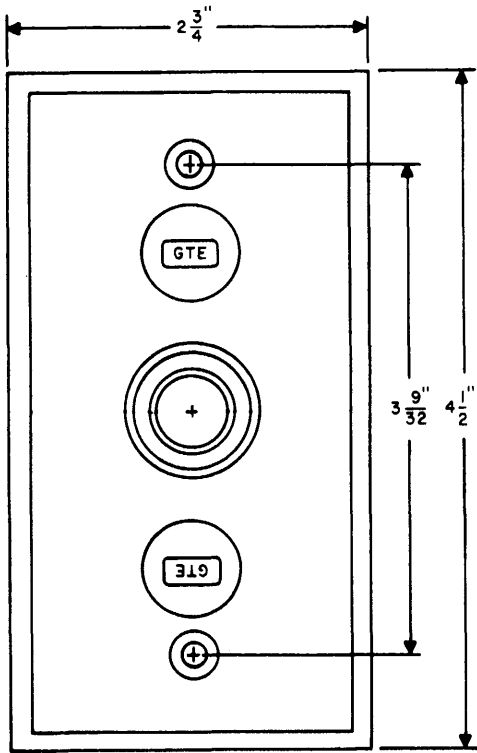


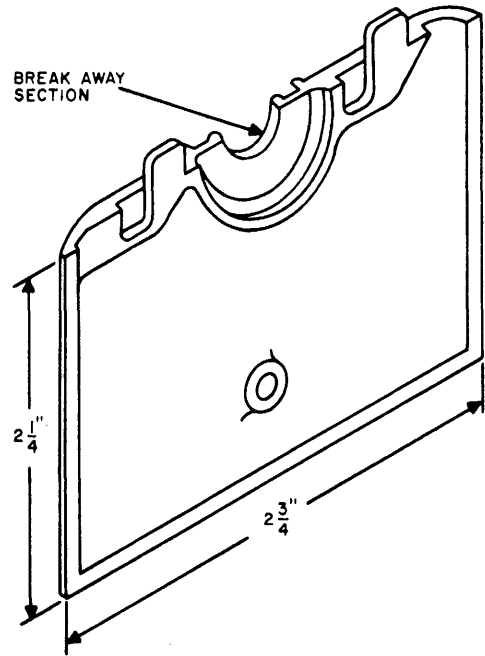
Figure 5. Flush-Mounted Outdoor Installations (16152 Jack).



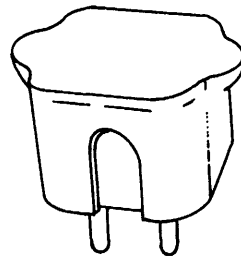
→ Figure 6. Model 1105 Connecting Block.



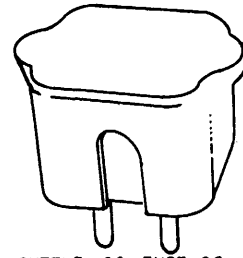
→ Figure 7. Split Outlet Plate.



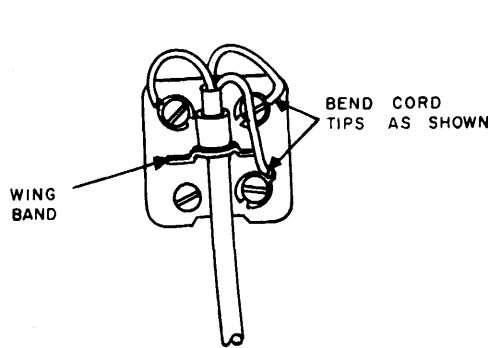
→ Figure 8. Mating Plate.



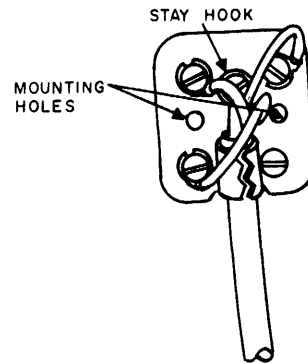
GTE AUTOMATIC ELECTRIC TYPE 28 PLUG



SUTTLE CO. TYPE 28 PLUG



TYPE 28 PLUG WITH WING BAND



TYPE 28 PLUG WITH STAY HOOK

→ Figure 9. Type 28 Plug.