

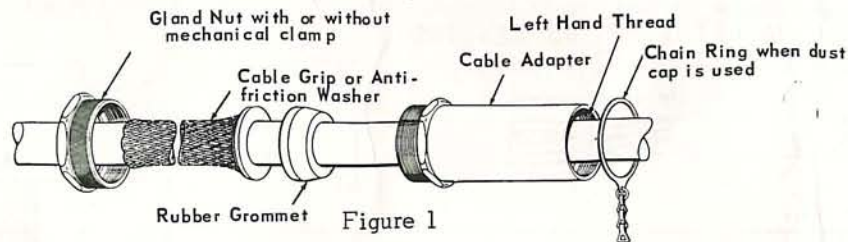
PYLE-STAR-LINE[®]

Neptune Series

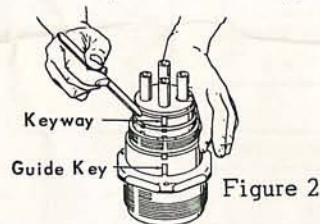
Electrical Connectors with Mod I Inserts

ASSEMBLY and TERMINATING INSTRUCTIONS

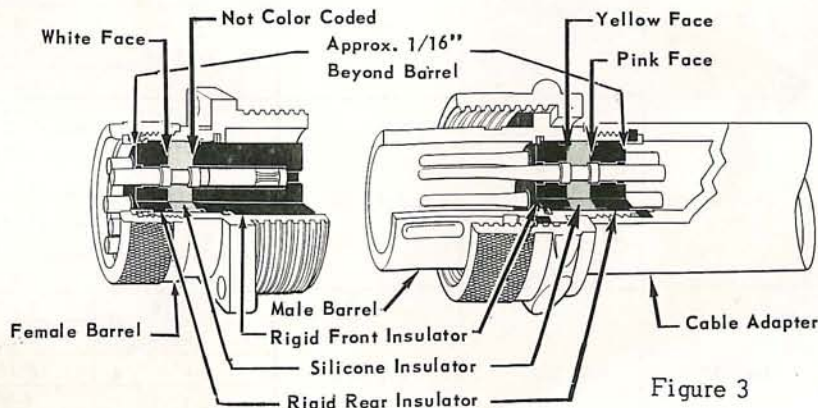
- A. Prepare end of cable by stripping jacket and insulation per tables shown on page 2. Remove any rigids or grooves by scarfing the edges to provide a smooth surface on the cable to insure good grommet sealing. Tin conductors to be soldered to within 1/16" of insulation. Use only rosin flux for all soldering.
- B. Slide the gland nut, cable grip or anti-friction washer, grommet and cable adapter over the cable in the order named. Be sure the right size grommet has been selected to obtain a good grommet seal. If a dust cover with ring and chain is used, ring must be placed on cable barrel before terminating. See Fig. 1.



- C. Place contact-insert complete with contacts in barrel, lining up keyway in insert and key in barrel. See Fig. 2. Use a thin, blunt wood or plastic object to assist in seating silicone insulation. Push entire insert assembly into barrel shell until fully seated. When properly seated, back face of back cap insulation shoulder should protrude from back end of barrel 1/16" maximum. See Fig. 3. If the insert assembly becomes separated, re-assemble the insulation members so when correctly assembled no color coding will be exposed to view, as shown in Fig. 3.



- D. Solder conductors to contacts. **ALL CONTACTS MUST REMAIN IN PLACE EVEN IF EVERYONE IS NOT BEING USED IN ORDER TO INSURE ENVIRONMENTAL SEALING.** The Silicone insulation is heat resistant, but reasonable care must be exercised to prevent unnecessary heating.
- E. Support the barrel assembly in a vise having smooth-faced jaws; shells with female skirt have flange for holding. Shells with male skirt but without flange should be held with dust cover or female shell as a holding fixture. The shell keys are designed to withstand the assembly torque.
- F. Apply cable adapter or insulation clamp nut by hand, turning counter-clockwise (left hand thread) until hand-tight. **APPLY WRENCH TO CABLE ADAPTER OR INSULATION CLAMP AND TIGHTEN UNTIL IT SHOULDERS FULLY ON BARREL.** See Fig. 3.



- G. Slip grommet into cable adapter and engage either cable grip or gland washer in gland nut. **DRAW UP TIGHT WITH WRENCH.** If split clamp nut is used, tighten clamp screws.

PREPARING CABLE FOR TERMINATING

Use suitable tools and strippers to remove cable sheath and conductor insulation. Be sure cable end is cut square.

Refer to Tables below for wire cutting and stripping dimensions. Use applicable dimensions for whichever method of termination is used.

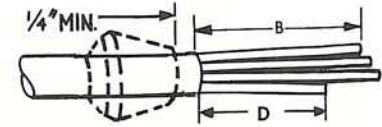
CABLE AND WIRE CUTTING AND STRIPPING DIMENSIONS

Dimension "A" is the maximum cable jacket stripping length recommended for maintaining effective sealing and gripping of the cable by the grommet. Dimension "B" is the correct length of straightened conductors to provide proper contact termination. Dimension "C" is slightly longer than the depth of the contact terminal well.

NOTE: The ground conductor using pressure type contacts should be cut to dimension "D", and conductor insulation stripped to dimension "E". Likewise, conductors for all-pressure-contact connectors should be cut and stripped to dimensions "D" and "E".

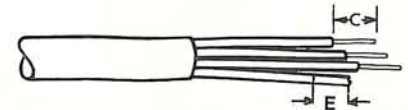
DIMENSION B & D

INDIVIDUAL CONDUCTOR CUTTING LENGTHS/varies with Shell Size, Contact Size and method of termination, and must be measured after wires are straightened and formed parallel.

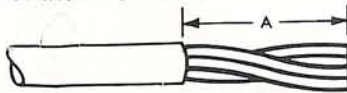


Dimension "C" & "E"

INDIVIDUAL CONDUCTOR STRIPPING LENGTHS/varies with method of terminating and Contact Size.



DIMENSION A CABLE JACKET STRIPPING LENGTHS/
varies with Shell Size.



Dimension "A" Table

| SHELL SIZE | ADAPTER TYPE | | |
|------------|--------------|---------|---------|
| | 2000 | 2400 | 2900 |
| 12 | 1-21/32 | 3-29/32 | 5-5/32 |
| 16 | 1-29/32 | 4-5/32 | 5-13/32 |
| 20 | 2-13/32 | 4-21/32 | 5-29/32 |
| 24 & C24 | 2-29/32 | 5-5/32 | 6-13/32 |
| 28 & C28 | 3-13/32 | 5-13/32 | 6-21/32 |

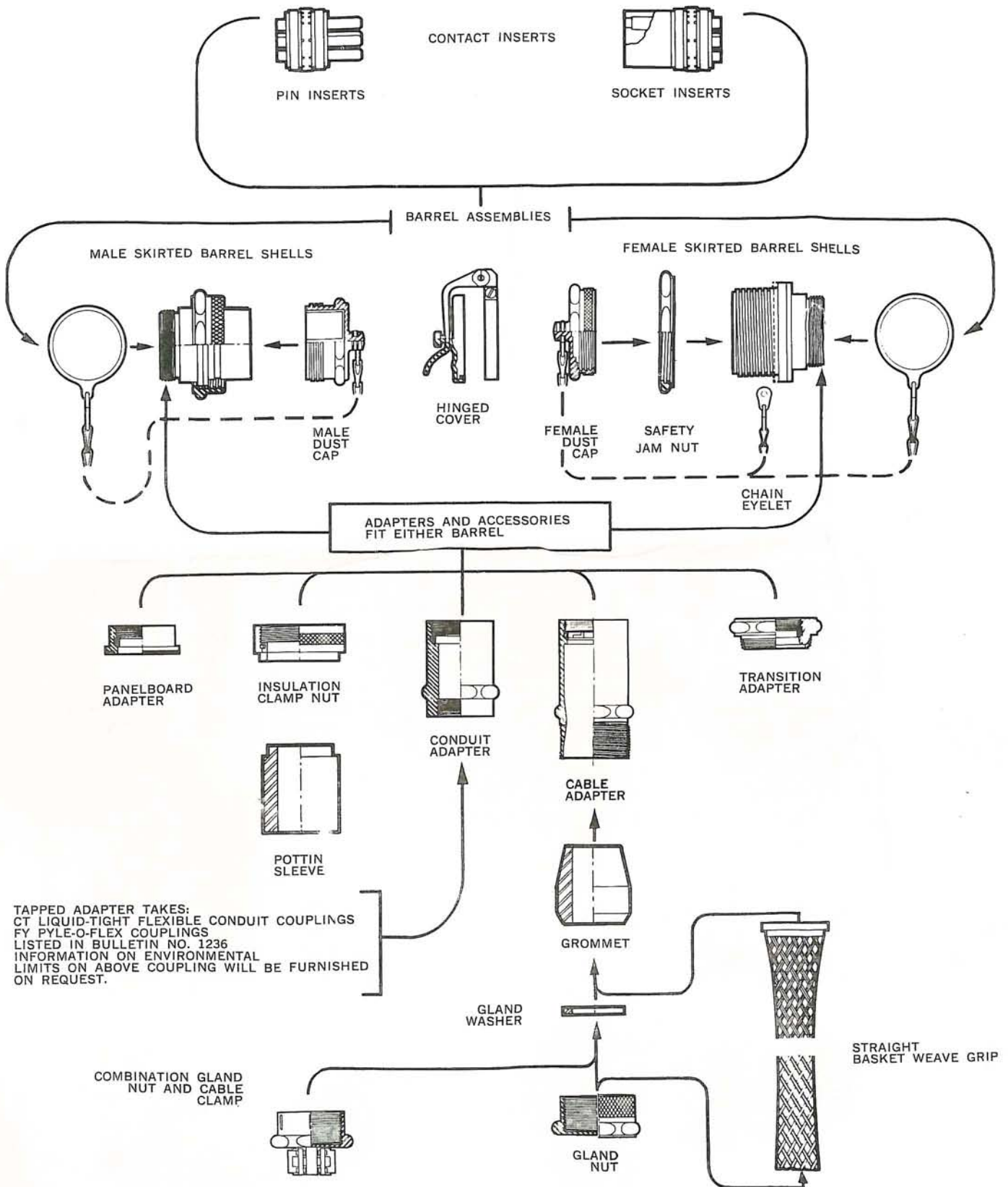
Dimension "C" & "E" Table

| CONTACT SIZE | SOLDER CONTACTS "C" | PRESSURE CONTACTS "E" |
|--------------|---------------------|-----------------------|
| 18 | 9/32 | |
| 16 | 9/32 | |
| 12 | 11/32 | 11/16 |
| 10 | 15/32 | 9/16 |
| 8 | 19/32 | 11/16 |
| 4 | 21/32 | 11/16 |
| 1/0 | 23/32 | 3/4 |
| 4/0 | 25/32 | 3/4 |

Dimension "B" & "D" Table

| SHELL SIZE | CONTACT SIZE | FOR SOLDER CONTACTS ("B") | | | FOR PRESSURE CONTACTS ("D") | | |
|------------|--------------|---------------------------|---------|---------|-----------------------------|---------|---------|
| | | ADAPTER TYPE | | | ADAPTER TYPE | | |
| | | 2000 | 2400 | 2900 | 2000 | 2400 | 2900 |
| 12 | 18 thru 12 | 1-21/32 | 3-29/32 | 5-5/32 | 1-5/16 | 3-9/16 | 4-13/16 |
| | 10 | | | | 1-1/16 | 3-5/16 | 4-9/16 |
| | 8 | | | | 1 | 3-1/4 | 4-1/2 |
| | 4 | | | | 15/16 | 3-3/16 | 4-7/16 |
| 16 | 18 thru 12 | 1-29/32 | 4-5/32 | 5-13/32 | 1-9/16 | 3-13/16 | 5-1/16 |
| | 10 | | | | 1-5/16 | 3-9/16 | 4-13/16 |
| | 8 | | | | 1-1/4 | 3-1/2 | 4-3/4 |
| | 4 | | | | 1-3/16 | 3-7/16 | 4-11/16 |
| 20 | 18 thru 12 | 2-13/32 | 4-21/32 | 5-29/32 | 2-1/16 | 4-5/16 | 5-9/16 |
| | 10 | | | | 1-13/16 | 4-1/16 | 5-5/16 |
| | 8 | | | | 1-3/4 | 4 | 5-1/2 |
| | 4 | | | | 1-11/16 | 3-15/16 | 5-3/16 |
| | 1/0 | | | | 1-5/8 | 3-7/8 | 5-1/8 |
| 24 & C24 | 18 thru 12 | 2-29/32 | 5-5/32 | 6-13/32 | 2-9/16 | 4-13/16 | 6-1/16 |
| | 10 | | | | 2-5/16 | 4-9/16 | 5-13/16 |
| | 8 | | | | 2-1/4 | 4-1/2 | 6 |
| | 4 | | | | 2-3/16 | 3-15/16 | 5-11/16 |
| | 1/0 | | | | 2-1/8 | 4-5/8 | 5-5/8 |
| | 4/0 | | | | 2-3/4 | 5 | 6-1/4 |
| 28 & C28 | 18 thru 12 | 3-13/32 | 5-13/32 | 6-21/32 | 3-1/16 | 5-1/16 | 6-5/16 |
| | 10 | | | | 2-13/16 | 4-13/16 | 6-1/16 |
| | 8 | | | | 2-3/4 | 4-3/4 | 6-1/4 |
| | 4 | | | | 2-11/16 | 4-3/16 | 5-15/16 |
| | 1/0 | | | | 2-5/8 | 4-7/8 | 5-7/8 |
| | 4/0 | | | | 3-1/4 | 5-1/4 | 6-1/2 |

**MOD. 1 PYLE-STAR-LINE CONNECTOR
SEQUENCE OF ASSEMBLY**



TAPPED ADAPTER TAKES:
 CT LIQUID-TIGHT FLEXIBLE CONDUIT COUPLINGS
 FY PYLE-O-FLEX COUPLINGS
 LISTED IN BULLETIN NO. 1236
 INFORMATION ON ENVIRONMENTAL
 LIMITS ON ABOVE COUPLING WILL BE FURNISHED
 ON REQUEST.

RECOMMENDED CLEANING PROCEDURES
FOR PYLE-STAR-LINE
NEPTUNE SERIES CONNECTORS

The following is a guide relative to our recommended practice for removing foreign matter from Pyle-Star-Line Neptune Series connectors when they become contaminated:

1. Blow-off surface material with compressed air.
2. Do not use solvents of any kind to remove oil or grease. Use a solution consisting of 1-1 1/2 fluid ounces of Ninol 1281 detergent in 4 gallons of water. (Ninol is a product of Stepan Chemical Co., Edans and Winnetka Road, Northfield, Illinois, Phone 312-446-7500.)
3. For best results, the solution should be at a temperature of 160 to 180.
4. A stiff bristle brush should be used to scour the surface.
5. Wash with a 50% solution of alcohol & water. Any potable water can be used.
6. Blow off surplus water and surface moisture.
7. Wash only with alcohol (not denatured).
8. Blow dry with air. Warm air from a heat gun can be used at a temperature tolerable to the touch of bare hands. Open flames of any kind must not be used.
9. After connector is thoroughly dry, check insulation resistance between contacts and between contacts and shell. The insulation resistance readings will be affected by the circuit conditions. This must be taken into consideration before energy is applied to the connectors.
10. If an oven is used for drying, temperature should be maintained at 160° to 180°.
11. In field cleaning where no heat is available, place the cleaned connectors, with covers off, in the sun to aid in thorough drying.



CONNECTOR DIVISION PYLE-NATIONAL
1334 NORTH KOSTNER AVE. • CHICAGO, ILL. 60651