ARKTITE PLUGS & RECEPTACLES — MODEL M-72*

30, 60, 100 AMP-2, 3, 4 POLE-STYLES 1 or 2

APPLICATION

These plugs and receptacles are designed for the distrubution of secondary electrical power and to provide for quick disconnect from the power source.

HOW TO INSTALL

WARNING: Be sure power is OFF before starting.

PROCEDURE FOR ASSEMBLING APJ PLUG

1. Remove gasket and clamping unit from plug assembly, turning clamping nut until notch can slide over boss. Completely back off screws in body and take halves apart. Set half with screws to one side until ready to re-assemble. (See Fig. 1.)

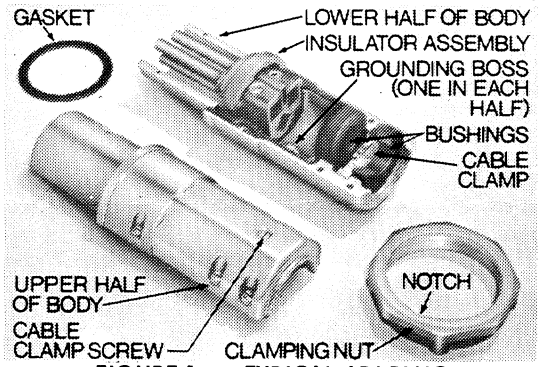


FIGURE 1. TYPICAL APJ PLUG

2. Back off cable clamp screws fully to allow cable to fit.
3. Using length of jacket strip gage on 60 and 100 amp. plugs, length of strip gage plus ½" for 30 amp., remove that much of the cable jacket. (See Figure 2.)

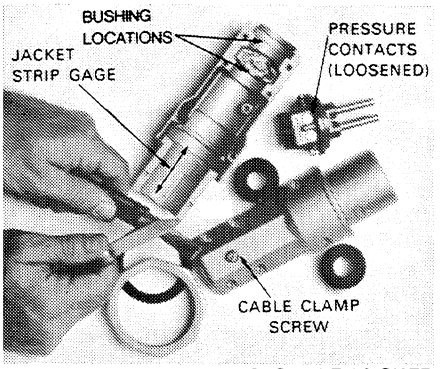


FIGURE 2. STRIPPING CABLE JACKET

4. Strip enough insulation from each individual wire to allow it to bottom in contact recess. (On 60 and 100 amp. use strip gage on rear of insulator. On 30 amp. strip insulation ½".) (See Figure 2.)
5. Slightly stretch cable seal bushings and put them over cable jacket flush with stripped end. Proper bushings are largest provided that fits snugly over cable. Discard others. (See Figure 3.)

CAUTION

Make sure no twists are left in bushings and that they are not inside out. Twists prevent proper sealing and stretch of inside diameter in inside out position shortens life of a cable seal bushing.

6. Loosen pressure contact screws in insulator and insert stripped wire ends into contact recesses, black, white, and red, if present, into numbered holes. Style 2 plugs have green wire end inserted into unnumbered recess and grounding strap fastened to boss in either half using screw provided in boss in the bottom half. When necessary to fasten strap to boss in upper half use screw provided, noting it forms its own threads in hole in that half. Style 1 plugs require screw and terminal in boss be removed, the terminal crimped to the green wire, and screw and terminal replaced in boss. (See Table 1.) All pressure contacts are to be tightened securely. (See recommended torque values toward bottom of next page.)

WARNING

A wire pattern must be established so that same color wire is put into same numbered contact opening in all plugs and receptacles in the system. This provides correct polarity for the system and eliminates possibilities for equipment damage and/or personal injuries.

TABLE 1. CRIMPING TOOL FOR ATTACHING CONDUCTOR TO GROUNDING LUG IN STYLE 1 PLUG AND RECEPTACLE

Amp	Grounding Lug	Lug Wire Range	Amp Inc. Hand Tool	Amp Inc. Pneumatic	
				Tool	Head
30	20x11-007	12-10	49935 or 49900	69010-300583 or	69005-300454
60	20x11-016	8	69355	69010-38394	
100	20x11-017	6	59083	69010-38923	

7. Place clamping nut over cable with threaded end toward insulator assembly. (See Figure 3.)
8. Place insulator assembly into half of plug in which grounding strap has been put. If lower half (gasketed), wide notch must be to the left, if upper half, wide notch goes to the right, viewing from cable end. This is only way insulator can be oriented so halves will fit together. (See Figures 3 and 4.)

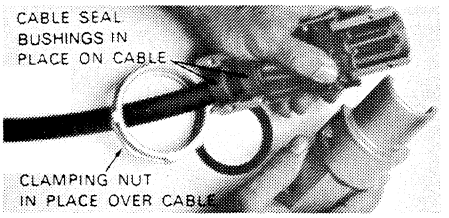


FIGURE 3. ASSEMBLING PLUG

CAUTION

Before assembling halves make sure both flange faces are free of any dirt, chips or other foreign material that could prevent good metal to metal contact between them.

9. Adjust one bushing until it sits on land ahead of cable clamp and remaining bushing on land behind cable clamp. (See illustrations.) Mate other plug half to the assembly making sure locating pins on one half meet locating holes on other half. (See Figures 3 and 4.)
10. Tighten all screws in assembly evenly so halves are drawn together properly. Push clamping nut into position on assembly, sliding notch over boss. (See Figures 4 and 5.)

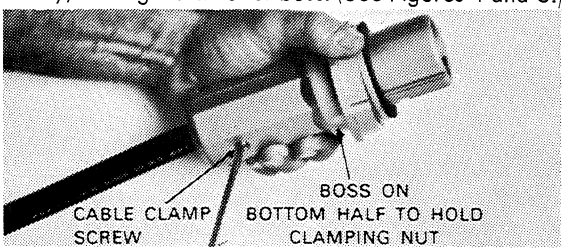


FIGURE 4. TIGHTENING CABLE CLAMP SCREW

Refer to Section 1P in the Crouse-Hinds Catalog CM4000 for total product listing.

11. Tighten cable clamp screws, tightening both sides evenly, to prevent cable from being pushed off center causing strain on wire terminations and/or adversely affecting cable seal bushings. (See Figure 4.)
12. Place gasket on plug in position shown in Figures 4 and 5.

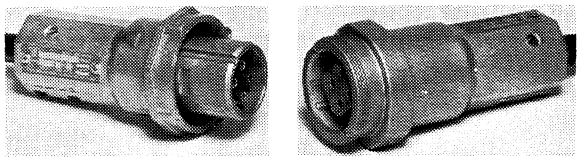


FIGURE 5. TYPICAL APJ PLUG AND APR RECEPTACLE

PROCEDURE FOR ASSEMBLING APR RECEPTACLE

APR Receptacle is assembled in a manner similar to APJ plug except insulator body is longer, completely shrouding contacts. The insulator is placed in gasketed half of shell with wide notch over boss in insulator recess. (See Fig. 4.)

PROCEDURE FOR INSTALLING AR RECEPTACLE

1. Install back box on conduit and securely fasten in desired position, using lag bolts or machine screws.
2. Strip insulation from wires for 60 and 100 amp. receptacles for distance shown on strip gage on insulator. For 30 amp. receptacle strip insulation back ½" from wire end. (See Figure 6.)
3. Loosen pressure contact screws in insulator and insert wires into contact recesses in same manner as outlined under APJ plug. (See Figure 6.)
4. Fasten receptacle to back box with gasket properly positioned, using four (4) screws provided. If dust cover is used, put end of chain under one screw. When spring door is used install on receptacle, turning down until door touches receptacle. Continue until hinge is in desired position and door gasket seats fully on receptacle housing. Tighten set screw.

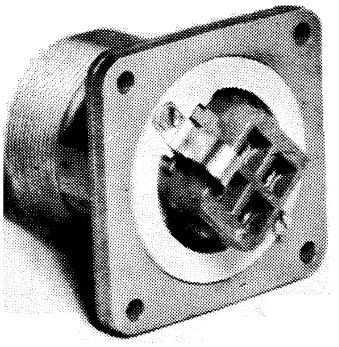


FIGURE 6. BACK VIEW OF TYPICAL AR RECEPTACLE

INSTALLING PLUG IN RECEPTACLE

APJ/APR

1. Insert plyg into receptacle, aligning groove in plug with boss in receptacle. Seat plug completely. (See Figure 7.)
2. Fasten clamping nut to receptacle threads securely.

APJ/AR

1. a) Dust cover — remove cover and let hang from screw. Repeat steps in 1 and 2 above.
   b) Spring door — raise door. Repeat steps in 1 and 2 above.

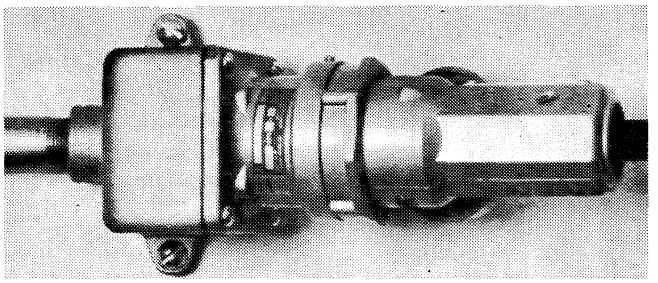


FIGURE 7. APJ PLUG IN AR RECEPTACLE ON BACK BOX

NOTES

Recommended Minimum Torque Values for Pressure Contact Screws		
APJ/AR	30 Amp	20 inch/lbs.
	60 Amp	25 inch/lbs.
APJ/APR	100 Amp	30 inch/lbs.

AR receptacle can be used with APJ and AP plugs

APR cable connector receptacle can be used with APJ, APQ and AP plugs

APJ plug can be used in AAP, AEQ, AR, APR, DBR, DR*, EPC, EPCB, FAR, FSQ, WSRD and WSR receptacles.

*For proper operation of APJ plugs in DR receptacles remove both clamping nut and plug flange gasket from APJ assembly.

APJ plugs may be mated with Arktite receptacles in both hazardous and ordinary locations. However, utilization equipment and APJ plugs which are attached MUST be approved for use in the area intended. Arktite receptacles will accept APJ plugs which may be used with equipment not suitable for hazardous locations. If ordinary location equipment to which APJ's are attached must be used in a normally hazardous area, that area MUST be purged of the hazard and declared nonhazardous.

All statements, technical information and recommendations contained herein are based on information and tests we believe to be reliable. The accuracy or completeness thereof are not guaranteed. In accordance with Crouse-Hinds' "Terms and Conditions of Sale", and since conditions of use are outside our control, the purchaser should determine the suitability of the product for his intended use and assumes all risk and liability whatsoever in connection herewith.

FILE THIS INSTRUCTION SHEET FOR FUTURE USE

©1977 CROUSE-HINDS COMPANY
Syracuse, N.Y. 13221