INSTALLATION INSTRUCTIONS FOR PLM POTHEADS

Single Conductor Flange and Bracket Mounted

NOTES:

- 1. These instructions assume that the installer has acquired the appropriate compound to suit the cable insulation material and that the stress cone is installed in accordance with the manufacturer's recommendation. The stress cone procedure should deal with the precise positioning of insulation build up and shielding braid.
- 2. It is vital that the installer uses clean and dry tools and makes sure that all pothead materials are dry and ready at hand so that installation can proceed without interruptions. The installer should familiarize himself with these instructions by reading them completely prior to starting the pothead installation.
- 3. Pothead should be mounted temporarily in its final position to determine sufficient clearances are available. The cable should be trained into final location and cut so that the end extends 2'' beyond the top of the pothead.



SUBJECT TO CHANGE WITHOUT NOTICE

The information in this bulletin is compiled on information and data which we believe is reliable and is given in good faith. Since the methods of application and conditions under which our products are put to use are beyond our control, we are not able to guarantee the application and/or use of same. The user assumes all risks and liability in connection with the application and use of our products.

Products

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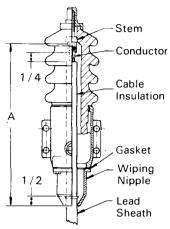


INSTRUCTION SHEET

1/C Pothead

² INSTALLATION INSTRUCTIONS - SINGLE CONDUCTOR POTHEAD (FOR USE WITH LEAD SHEATHED CABLES)

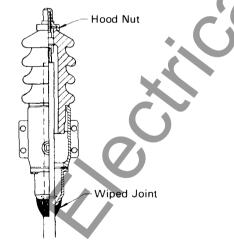
NOTE: THE ILLUSTRATION SHOWS AN OUTDOOR TYPE PORCELAIN. THE INDOOR TYPE IS SIMILAR BUT WITH GREATER NUMBER OF SMALLER SKIRTS.



1. PREPARATION OF CABLE

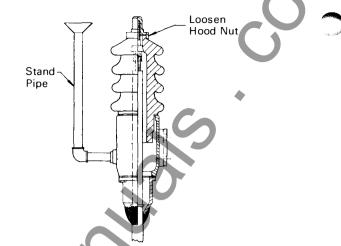
- A. Cut the wiping nipple to fit over the cable. Mark a point on the Lead Sheath about 1/2'' above the bottom of the wiping nipple and allowing 2'' of spare cable above porcelain.
- B. Remove the Lead Sheath from the end of the cable to the point marked using a chipping knife, care being used not to damage the insulation.
- C. Remove the wiping nipple and gasket from the pothead and slip these parts back over the cable.
- D. By means of a blunt tool, bell out the Lead Sheath where it has been cut off.
- E. Measure the distance "A" from the bottom of the wiping nipple to the bottom of the hole in the stem using a stiff wire and cut cable to length.
- Remove the cable insulation from the end of the conductor a distance 1/4" more than the depth of the hole in the stem.
- G. Thoroughly tin the exposed conductor strands.
- H. Remove the stem from the pothead and thoroughly solder to the conductor.

BUILD A STRESS CONE ON THE INSULATED CONDUCTOR IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.



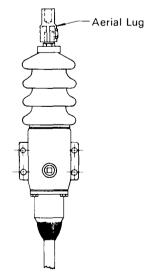
2. INSERTION OF CABLE

- A. Slip the body and its porcelain in place over the cable.
- B. Adjust the stem in the insulator to obtain proper seating. This is important since it affects subsequent alignment.
- C. Bolt the wiping hipple on to the body insuring that the gasket is properly seated.
- D. Slip the hood nut gasket over the stem and screw the hood nut tightly in place insuring it fits square and tight on the porcelain top shoulder.
- E. Make a plumbers wiped joint between the wiping nipple and the Lead Sheath **after** the sheath has been scraped clean with a shave hook or rasp for a distance of about 3" **and** then cleaned with stearine flux.
- NOTE: WHEN THE STRESS CONE HAS BEEN INSTALLED ENSURE AT LEAST 3/16" CLEARANCE BETWEEN CONE AND PORCELAIN TO FACILITATE COMPOUND POURING.



3. FILLING WITH COMPOUND

- A. Bolt the pothead with cable attached into its final position.
- B. Remove the pipe plug from the body and insert a standpipe with filling funnel of sufficient length to extend above the top of the porcelain insulator.
- C. Loosen the hood nut to allow escape of air.
- When filling, air should naturally egress as the compound rises. D. Completely fill with compound heated in accordance with the
- D. Completely fin with compound heated in accordance with the compound manufacturer's instruction up to the neck of the porcelain.
- E. Screw the hood nut tightly in place.
- F. Leave the standpipe in place maintaining heat on to it until the pothead body cools.
- NOTE: THE CORRECT GRADE OF COMPOUND MUST BE SE-LECTED CONSISTENT WITH THE CHARACTERISTICS OF THE CABLE. THE POTHEAD SHOULD BE PREHEATED TO INSURE COMPOUND DOES NOT CONGEAL UPON CONTACT WITH COLD SURFACES. USE CARE WHEN HEATING TO INSURE FLAME NOT DIRECTLY APPLIED TO PORCELAIN.



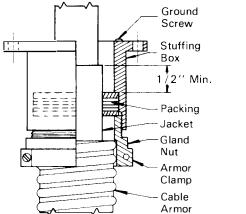
- 4. FINAL CONNECTION
 - A. When the compound has cooled sufficiently as evidenced by the pothead body temperature being cool to the touch i.e., below body temperature, remove the standpipe and replace pipe plug in the body.
 - B. Re-tighten the hood nut and entrance fitting bolts.
 - C. Bolt the aerial lug with the aerial lead on to the hood nut post and tighten securely.
 - D. The installation is complete.

It is considered good practice to tape over the aerial lug and hood nut to present a rounded surface to the aerial conductor thus minimizing external corona effects.



INSTALLATION INSTRUCTIONS FOR POTHEADS WITH ENTRANCE FITTINGS OTHER THAN LEAD WIPING SLEEVE

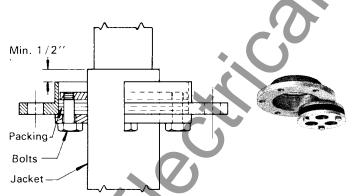
NOTE: STEPS 3 AND 4 OVERLEAF ARE IDENTICAL FOR POTHEADS WITH ANY ENTRANCE FITTING. THE FOLLOWING INSTRUCTIONS THEREFORE COVER STEPS 1 AND 2 ONLY.





TYPE "RSO" ENTRANCE FITTING FOR ARMORED CABLES

- 1. A. Allowing 2" spare cable above top of the porcelain mark a point on the armor corresponding to the shoulder within the armor clamp and remove the armor to this point.
 - B. Mark a point on the jacket 1/2 above the top plate of the seal and remove any shielding material from the cable insulation to a point 1/2 above the cut jacket.
 - C. Slip the armor clamp, packing and entrance fitting over the cable.
 - D. Screw the stuffing gland in place compressing the packing around the cable to form a tight seal.
 - E. Secure the armor clamp on to the armor.
 - F. Measure the distance from the lower flange of the pothead body to the bottom of the hole in the stem and cut cable to this length.
 - G. Remove the cable insulation from the end of the conductor $1\,/\,4^{\,\prime\prime}$ more than the depth of the hole.
 - H. Thoroughly tin the exposed conductor.
 - I. Remove the pothead stems and solder onto the conductors.
 - J. Install stress cone in accordance with manufacturer's instructions or proceed to Step 2 if not required.

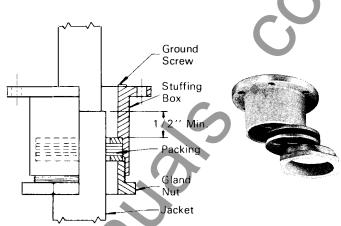


TYPE "RSL" ENTRANCE FITTING FOR NON ARMORED CABLES

- 1. A. Allowing 2'' spare cable above top of the porcelain mark a point on the jacket 1/2' above the top of the entrance fitting and remove jacket to this point.
 - B. Remove any shielding material from the cable insulation to a point 1/2'' above the cut jacket.
 - C. Remove the stuffing box from the pothead and assemble it over the cable by tightening the bolts to compress the packing ''sandwich''.
 - Note: When installed correctly the jacket should protrude 1/2" above top.
 - D. Measure the distance from the lower flange of the pothead body to the bottom of the hole in the stem and cut cable to this length.

Remove the cable insulation from the end of the conductor a distance 1/4'' more than the depth of the hole in the stem. Thoroughly tin the exposed conductor.

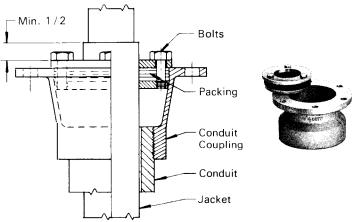
- G. Remove the pothead stem and solder on to the conductor.
- H. Install stress cone or proceed to Step 2 if not required.



3

TYPE "RSQ" ENTRANCE FITTING FOR NON ARMORED CABLES

- A. Allowing 2' spare cable above top of the porcelain mark a point on the jacket 1/2' above the top plate of the seal and remove jacket to this point.
 - B. Remove any shielding material from the cable insulation to a point 1/2'' above the cut jacket.
 - C. Remove the stuffing box from the pothead and assemble it over the cable by screwing the stuffing gland nut tightly into the stuffing box.
 - D. Measure the distance from the lower flange of the pothead body to the bottom of the hole in the stem and cut cable to this length.
 - E. Remove the cable insulation from the end of the conductor a distance 1/4" more than the depth of the hole in the stem.
 - F. Thoroughly tin the exposed conductor.
 - G. Install stress cone or proceed to Step 2 if not required.

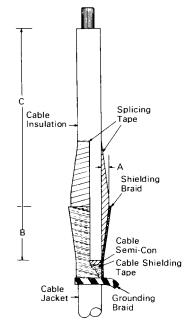


TYPE "RSN" ENTRANCE FITTING FOR CONDUIT COUPLING

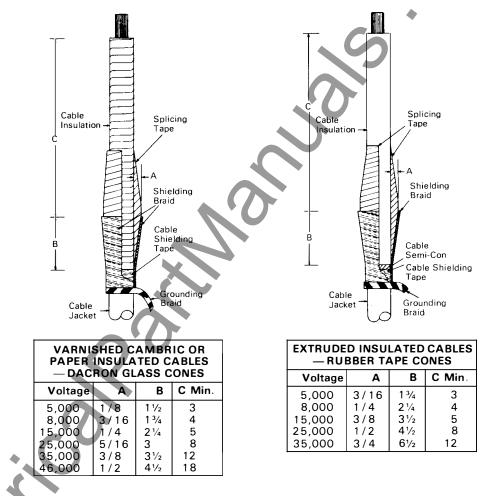
- 1. A. Allowing 2" spare cable above top of the porcelain mark a point on the jacket 1/2" above the top flange and remove jacket to this point.
 - B. Remove any shielding material from the cable insulation to a point 1/2 " above the cut off length.
 - C. Remove the pipe connection and the packing sandwich from the pothead and screw the pipe connector on to the pipe to allow cable jacket to protrude.
 - D. Place the packing sandwich over the cable and compress it down into the pipe connector by means of bolts.
 - E. Measure the distance from the bottom of the pothead body to the bottom of the hole in the stem and cut cable to length.
 - F. Remove the insulation from the end of the conductor a distance $1/4^{\prime\prime}$ more than the depth of the hole in the stem.
 - G. Thoroughly tin the exposed conductor.
 - H. Remove the pothead stem and solder on to conductor.
 - I. Install stress cone or proceed to Step 2 if not required.

NOTE: THE OPERATION OF INSERTING THE PREPARED CABLE END PLUS STEMS INTO THE POTHEAD IS SIMILAR TO THE POTHEAD WITH WIPING NIPPLE EXCEPT FOR STEP 2-B WHICH WILL READ "BOLT ENTRANCE FITTING INTO POSITION" AND STEP 2-E WHICH DOES NOT APPLY.

TYPICAL STRESS RELIEF CONES FOR POTHEADS



EXTRUDED INSULATED CABLES — DACRON GLASS CONES			
Voltage	Α	В	C Min.
5,000	1/8	1 3⁄4	3
8,000	3/16	21/2	4
15,000	1/4	31/2	5
25,000	5/16	4	8
35,000	3/8	4 ³ /4	12
46,000	1/2	51⁄2	18



DIMENSIONS:

- "A" Thickness of applied insulation
- "B" Length of cone
- "C" Minimum creepage from live conductor to end of shielding.

NOTE: Distance for "C" in these tables are minimum creepage distances. Locating of the stress cone is very important (see dimensions). Sufficient clearance between the porcelain wall of the pothead, cable insulation, and/or stress cone should be 3/16" minimum to allow free passage of the insulating compound.

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