

# 83S™ NON-FUSED Y CONNECTOR KIT

THIS KIT CONTAINS:

- 1 Line Side 'Y' insert assembly
- 1 Load Side housing
- 1 Line Side housing
- 1 Pin contact (dummy fuse)
- 1 Packet of lubricant

#### INSTALLATION INSTRUCTIONS

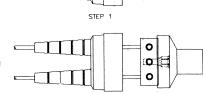
CAUTION: Identify LINE and LOAD sides of wiring with correct molded connector bodies before installing.

MAXIMUM 75°C (167°F) OPERATING TEMP. 600 VOLT LINE SIDE-70 AMP LOAD SIDE-30 AMP

Cu OR AI CONDUCTORS

#### **LINE SIDE**

- 1. Measure or determine the outside diameter of the wire on the Line Side, and from CHART A, select the correct size for the molded sleeve and cut off to the size required.
- 2. **Thoroughly clean** approximately 6" of the insulation at the end of the Line Side wires and apply a light coating of the lubricant (do not substitute) to the cleaned insulation and the small holes in the Line Side housing. Push the line side wires into the Line Side housing as shown in step 1.



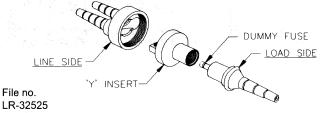
STEP 2

- 3. Strip the Line Side wires approximately 5/8". An application of oxidation inhibitor such as Noalox® is required on properly cleaned aluminum conductors. Tighten set screws on both conductors, as illustrated in step 2, with a 5/32" hex key.
- Tighten center set screw on insert contact if it is not already tight, this assembly should look like step 3. Plug 'Y' insert into Line Side housing.



### **LOAD SIDE**

- 1. Measure or determine the outside diameter of the wire on the Load Side, and from CHART B, select the correct size for the molded sleeve and cut off to the size required. Example: If cable O.D. is 0.270", it falls within the "C" range-cut off between "B" and "C".
- 2. Thoroughly clean approximately 8" of the Load Side wire insulation and apply a light coating of lubricant to the cleaned wire insulation and the small hole in the Load Side housing.
- 3. Insert the wire through the small hole in the housing, and push through sufficiently to allow for stripping of insulation.
- 4. For wire sizes 14 AWG through 10 AWG strip wire 3/4". For wire sizes 8 AWG through 2 AWG strip 3/8" (DO NOT PENCIL INSULATION). An application of oxidation inhibitor such as Noalox® is required on properly cleaned aluminum conductors. Crimp on the Load Side pin contact. (Refer to chart C for correct tool & die).
- 5. For ease of assembly, first apply a small amount of lubricant to the opening in the housing for the pin contact. Place the free end of the Pin Contact against a firm surface and push the housing forward until the pin contact snaps into a locked position. Wipe off any excess lubricant. NOTE: WHEN PROPERLY SEATED, THE PIN CONTACT SHOULD EXTEND APPROXIMATELY 9/16" BEYOND THE LOAD SIDE HOUSING.
- 6. Plug Load Side housing into Line Side assembly. If less breakaway force is desired, lubricate mating housings with grease supplied. CAUTION: WHEN PROPERLY MATED, THE SEAM BETWEEN THE HOUSINGS SHOULD NOT EXCEED 1/32 INCH.





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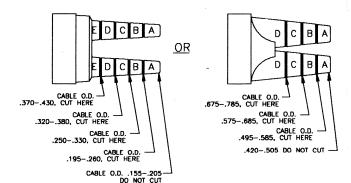
# EXCERPTS OF 1996 US NEC TABLES 5 & 5A DIMENSIONS OF INSULATED CONDUCTORS

			APPROX DIAMETER IN INCHES FOR INSULATION:				APPROX DIAMETER IN INCHES FOR COMPACT AL CONDUCTORS		
SIZE in AWG	RH	RHH RHW, RHW-2	THW,THW-2, THHW	TW	THHN, THWN, THWN-2	XHHW XHHW-2	THW THHW	THHN	XHHW
14	.163	.193	.163	.133	.111	.133	_		
12	.182	.212	.182	.152	.130	.152	-	-	-
10	.236	.236	.206	.176	.164	.176	-	-	-
8	.326	.326	.266	.236	.216	.236	.255	-	.224
6	.364	.364	.304	.304	.254	.274	.290	.240	.260
4	.412	.412	.352	.352	.324	.322	.335	.305	.305
3	.440	.440	.380	.380	.352	.350	-	-	-
2	.472	.472	.412	.412	.384	.382	.390	.360	.360
1	. <b>58</b> 2	.582	.492	.492	.446	.442	.465	.415	.415
1/0	.622	.622	.532	.532	.486	.482	.500	.450	.450

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#### **CHART A - LINE SIDE HOUSING (inches)**

<b>E</b> 27770			ABLEOD (frich)
Α	.155205	Α	.420505
В	.195260	В	.495585
С	.250330	С	.575685
D	.320380	D	.675785
E	.370430		

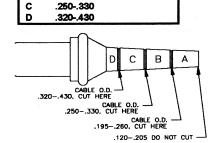


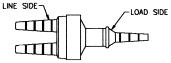
#### **CHART B - LOAD SIDE HOUSING (inches)**

.120-.205

.195-.260

В





## ASSEMBLED KIT

## **CHART C**



	CONTACT COLA		
CRUMP	CONDUCTOR SUZE N	AVIG STRANTED	RECOMMENDED CRIMP TOOLS & DIES
Α	14, 12 10, 8	14 10.12	IDEAL No. 30-429 "BARE" IDEAL No. 30-429 "BARE"
В	6	8	IDEAL No. 30-425 large crimp area IDEAL No. 30-425 large crimp area
TARGE EVA	TACT LOWLA	U	
- <b>L</b>		2	IDEAL No. 30-425 large crimp area IDEAL No. 30-425 large crimp area

NOTE: ALUMINUM PARTS HAVE A SCRIBED LINE ON THE BARREL DIAMETER-OXIDATION INHIBITOR REQD.

#### WARRANTY

All statements, technical information and recommendations contained herein are based on tests we believe to be reliable, but the accuracy or completeness thereof is not guaranteed, and the following is made in lieu of all warranties, expressed or implied.

BUCHANAN CONSTRUCTION PRODUCTS, INC. (BCP, INC.) products are warranted to perform within recommended operational ratings when installed and used in accordance with applicable operating instructions. BCP, INC. liability is limited to replacement of component parts designed and manufactured by BCP, INC. which are proved to be defective in workmanship or material. In adjustment of any claims inspection of parts and the application will be required. This warranty is effective for two (2) years from the date of shipment by BUCHANAN CONSTRUCTION PRODUCTS, INC.



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