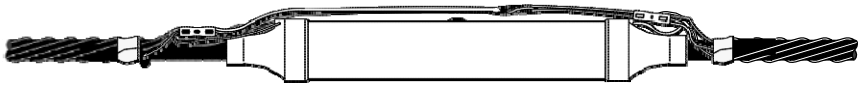
3M™ QS II Inline Cable Repair Splice Kit 5412R

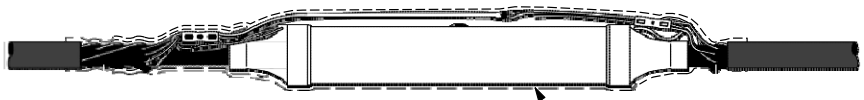
Instruction Sheet

IEEE Std. No. 404
15 kV Class
150 kV BIL

Kit Contents:
1 Molded Rubber Splice Body
1 Connector
2 Packets of Silicone Grease
1 Template
1 Instruction Sheet



(CN) Cable



(JCN) Cable

Selection Chart

Note: Final Determining factor is cable insulation diameter.

Kit Number (With Connector)	Cable Insulation O.D. Range	Conductor Size	Cable Insulation Thickness
		AWG	mils
5412R-CIR-2/0	0.870" - 1.055" (22,1 - 26,8 mm)	2/0	220
5412R-CIR-3/0		3/0	175 220
5412R-CIR-4/0		4/0	175 220

Concentric Neutral Cable

Jacketed Concentric Neutral Cable

3M™ QS-II

Inline Cable Repair Splice Kit

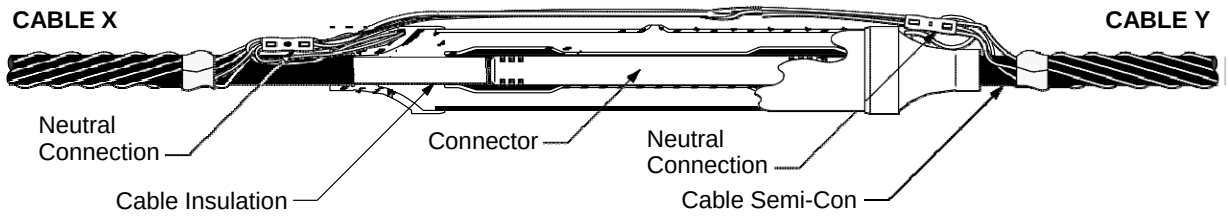
for use on Concentric Neutral (CN) Cable and Jacketed Concentric Neutral (JCN) Cable (With Accessory Splice Jacket)

5412R

78-8124-5411-0-C

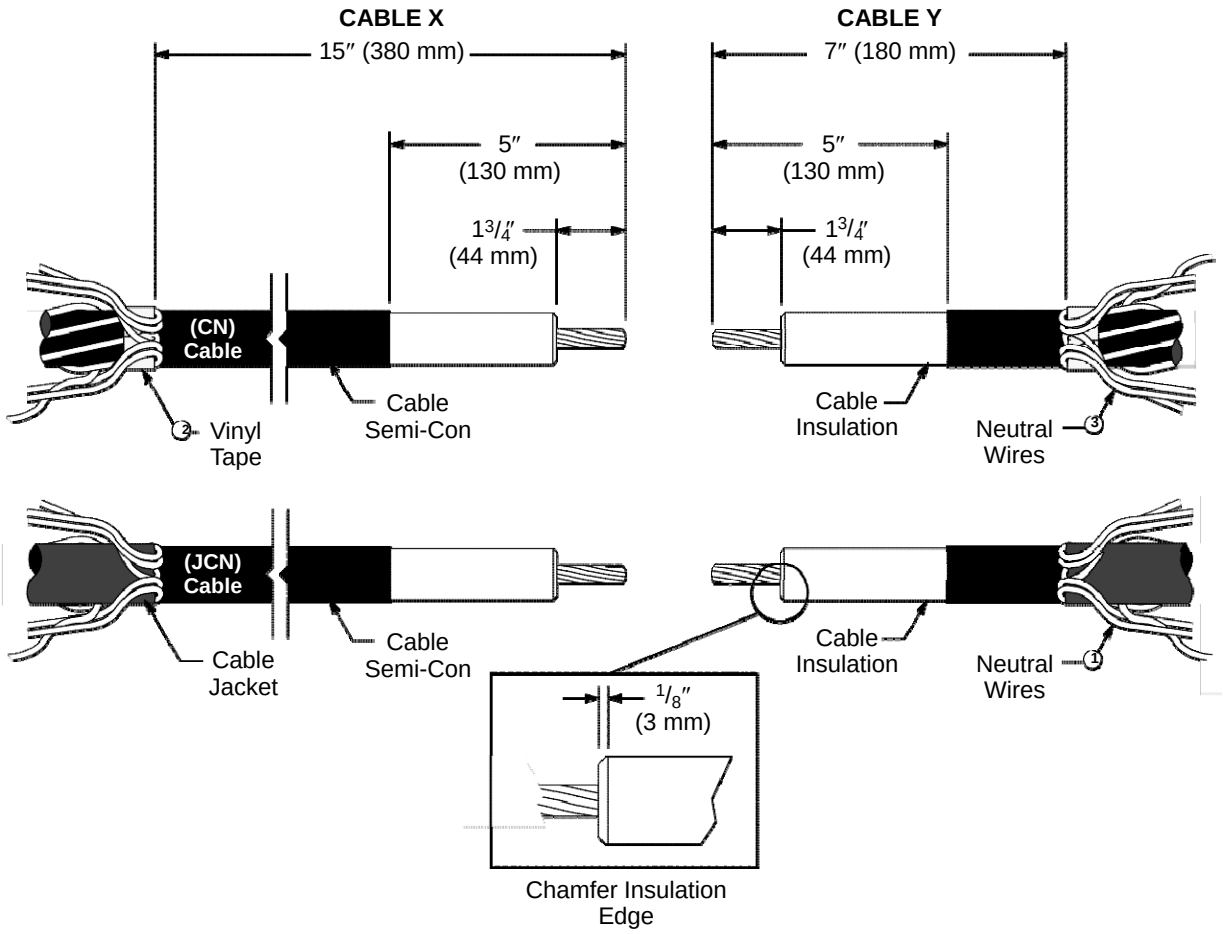
A. **Prepare Cables Using Standard Procedures** (Shown on CN Cable)

1. Cut out damaged section of cable, but do not exceed 6” (152 mm). Check to make certain that the cable insulation diameter is between 0.870” and 1.055” (22,1 to 26,8 mm).



2. Gently fold neutral wires back over cable,① avoiding sharp bends. If cable does not have a jacket, bind neutral wires as shown with wire or vinyl tape② and fold neutral wires back over binding.③

3. Continue cable preparation according to figure below.



4. Clean cable using standard practice:

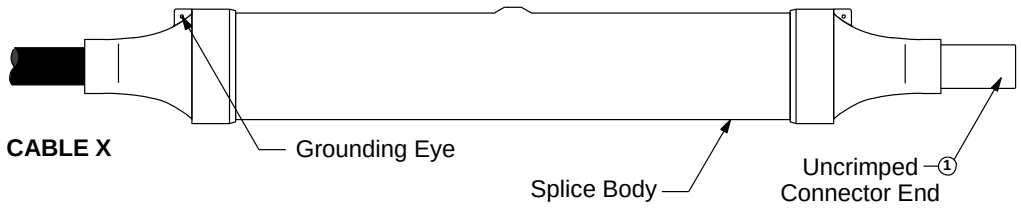
a. Do not use solvent or abrasive on cable semi-conductive insulation shield.

b. If abrasive must be used, do not reduce cable insulation diameter below the 0.870” (22,1 mm) specified for splice.

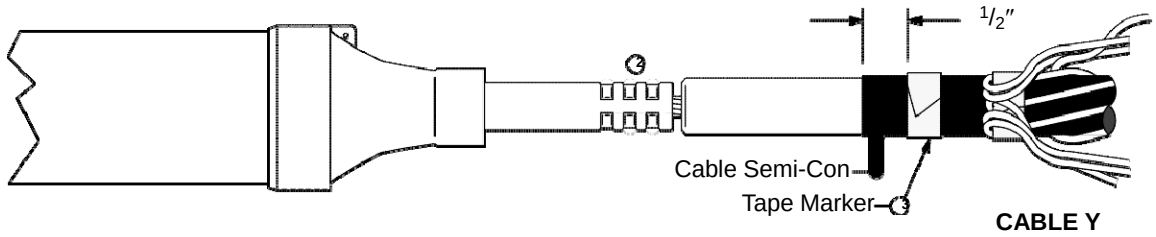
B. **Installation** (Shown on CN Cable)

1. Install CIR Connector provided onto Cable X only and crimp per the **Crimping Tool Table.**
2. Remove excess contact aid from connector end and file off any sharp crimp flashing.
3. Lubricate the connector, Cable X insulation and both ends of splice bore with silicone grease provided.
4. Slide the splice body onto connector and Cable X until uncrimped connector end is exposed, ① as shown. For easier installation, the splice body may be rotated while being installed.

Note: ***For Jacketed Concentric Neutral (JCN) Cables, accessory splice jacketing components should also be slid onto cable at this time.***



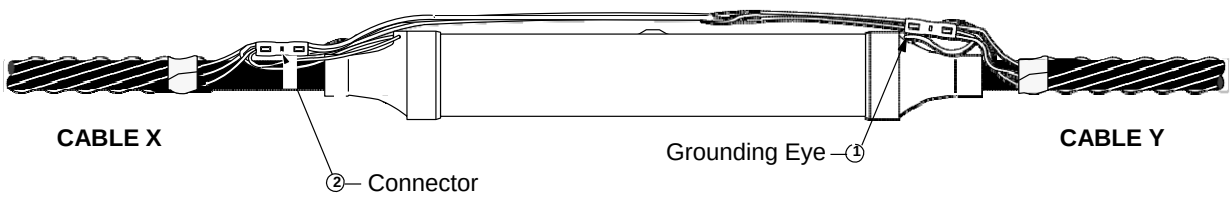
5. Connect exposed connector end to Cable Y ② and crimp per **Crimping Tool Table.**
6. Remove excess contact aid from connector end and file off any sharp crimp flashing.
7. Place a tape marker on Cable Y semi-conductive insulation shield, 1/2” (13 mm) from end of cable semi-con. ③



8. Lubricate exposed connector and Cable Y insulation with silicone grease.
9. Center splice body over connector, so leading edge aligns with tape marker. ④ Remove tape marker.

C. **Grounding Splice** (Shown on CN Cable)

1. Position concentric neutral wires back over cable and splice. Attach one strand from each cable to its respective grounding eye, ① returning it back to the neutral wire bundle.
2. Join neutral wires using an appropriate connector(s). A low profile inline compression connector is recommended. ②

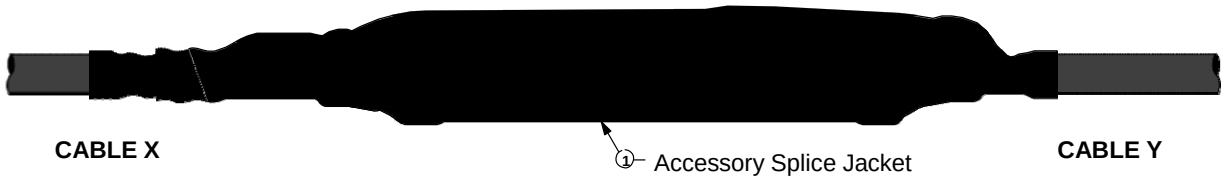


D. Jacketed Concentric Neutral (JCN) Cable Only

1. Install Accessory Splice Jacket Kit over splice and exposed neutral wires. ①

2. The 3M™ Cold Shrink Stacked Sleeve Repair Splice Jacket Kit SJ-2SSR may be used for rejacketing. Refer to the instructions provided with the kit.

3. If using the 3M splice jacket kit SJ-2A series or 3M splice jacket HSJ-2 series, refer to instructions provided with kit. Note that an additional 3M Cold Shrink Tubing 8420 series or 3M Heat Shrink Tubing ITCSN is also required to cover the longer length of the repair splice.



CRIMPING TOOL TABLE					
Mechanical			Hydraulic		Technical
Mfg.	Tool	Die (Crimps per End)	Tool	Die (Crimps Per End)	Data
BURNDY	MD6	W-K840 (4) W-249 (3)	Y-35, Y-39, Y-45*	U28 ART (2)	Voltage Rating 15kV - 150 kV BIL for cables rated 90°C conductor temp. continuous al. or cu. cond. passes tests required in IEEE Standard 404 for power cable joints
KEARNEY	0-52, 0-51	840 (4)** 845H (3)	WH-1, WH-2	840 (3)**	
T&B	TBM-8	Blue (4)	TBM-15	76 (2)	
ANDERSON	--	--	VC6	UNIVERSAL (2)	

* Usable with - Die Adapter PT651
** Excess flash must be filed off to round out connector

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