

# 3M™ Scotchcast™ Multi-Mold Power CableSplice Kits 85 Series

## Instructions

### 1.0 Applications

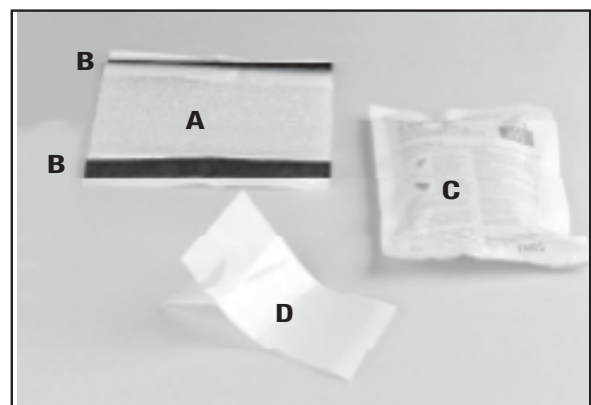
Designed for insulating and sealing cables rated up to a maximum of 1000 volts. These kits will accommodate the following connectors and conductor sizes:

Kit No.	Connector Type	Maximum Conductor Size*	Max. Connector Size (height plus width)	Max. Sheath Opening	Max. Cable O.D.* Wye or 4-Way
85-10	Split Bolt	#8 Stranded AWG	1 3/4"	3"	Run & Tap – 7/16"
	H & C Tap Compression	#4 Stranded AWG	1 3/4"		
85-12	Split Bolt	#1 Stranded AWG	2 3/4"	3 1/2"	Run & Tap – 3/4"
	H & C Tap Compression	2/0 Stranded AWG	2 3/4"		
85-14	Split Bolt	2/0 Stranded AWG	3 1/4"	6 1/2"	Run & Tap – 7/8"
	H & C Tap Compression	4/0 Stranded AWG			
85-16	Inline Compression	750 kcmil	N/A	9"	Inline – 1 1/2"
	Split Bolt	250 kcmil (Run) 2/0 Stranded AWG (Tap)	3 3/4"		Run & Tap – 7/8"
	H & C Tap Compression	500 kcmil (Run) 4/0 Stranded AWG (Tap)	6"		

\* Assuming wye or 4-way connection using same cable sizes. For other information's and configurations, see back of instruction sheet.

### 2.0 Kit Contents

Mold Body.....	A
Sealing Mastic (attached to mold body) .....	B
3M™ Scotchcast™ Resin 2104 .....	C
Adhesive Film Strip.....	D



#### **CAUTION**

Working around energized electrical systems may cause serious injury or death. Installation should be performed by personnel familiar with good safety practice in handling electrical equipment. De-energize and ground all electrical systems before installing product.

### 3.0 Cable Connection for Horizontal Run

**3.1 Prepare Cable.** Scrape each cable exterior clean for a distance of 5" (8" for 85-16) from connector. If cable is sheathed, pencil insulation 3/4".

**3.2 Make Connection.** Make connection according to connector manufacturer's instructions. Crimped connector length should not be more than dimension "A".

**Table for dimension "A"**

85-10	85-12	85-14	85-16
1 1/2"	1 1/2"	4 1/2"	6"

**3.3 Train Cables.** Place cables in a horizontal position. Spread legs of cable so there will be 3/8" space between cables to allow for sealing around each cable with mastic sealing strips.

**3.4 Prepare Mold Body.** Remove liners from sealing mastic on mold body.

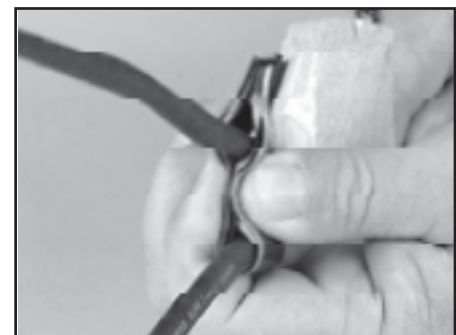
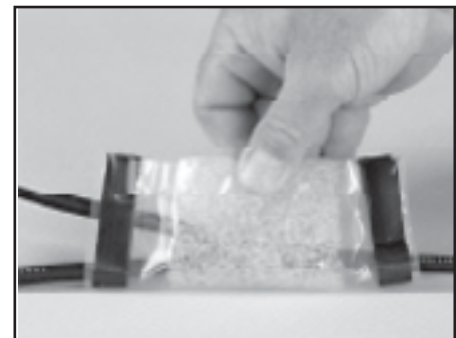
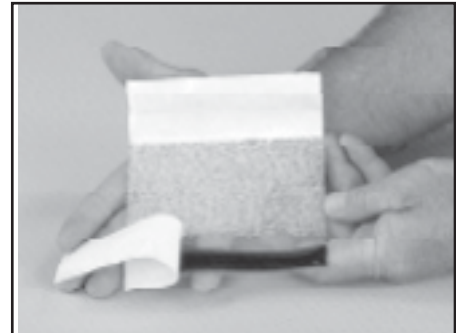
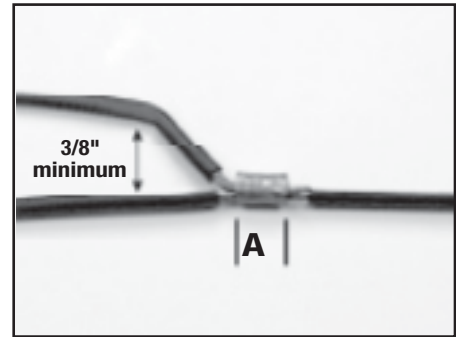
**3.5 Position Mold Body Around Splice.** Center mold body along connector. Wrap mold body around connection.

**3.6 Seal Film.** Seal film together between spacer pad and mastic.



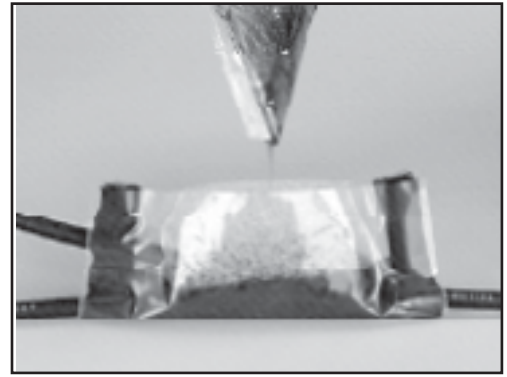
**3.7 Seal Mold.** Starting at bottom of mold, seal and compress sealing mastic around and between each cable to form a resin tight seal.

**Note:** *Compress the sealing mastic around and between each cable with thumbs as shown.*



**3.8 Level Splice.** Ensure that top of mold is level. If support is needed, support the cable outside of the splice area.

**3.9 Pour Splice.** Mix resin per instructions on resin package. Pour into mold.



**3.10 Seal Top of Mold.** Remove liner from adhesive film strip supplied with kit. Tape it over the mold leaving a loop over mold opening.



**3.11** Starting at top of looped film strip and proceeding downward, seal the loop together until top of mold is closed and the resin fills the mold completely.

**NOTE: DO NOT MOVE CABLES OR SPLICE UNTIL RESIN HAS COMPLETELY HARDENED.**

**Typical Minimum Cure Times**

Temp.	Cure
70°F (21°C)	1 Hour
20°F (-4°C)	20 Hours

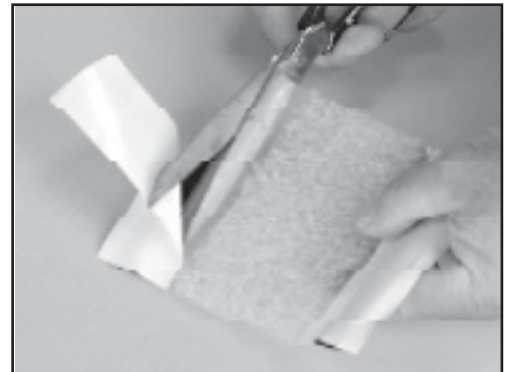


## 4.0 Cable Connection for Vertical Run

**4.1** Prepare cables in the same manner as steps 3.1 and 3.2.

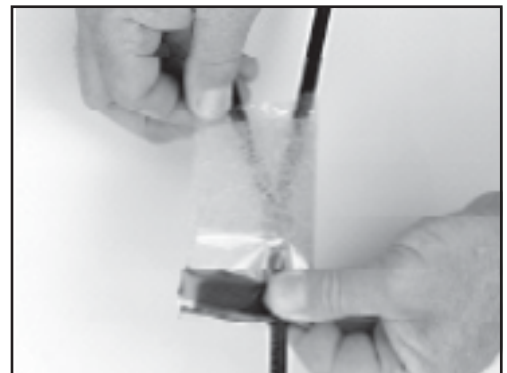
**4.2** Cut off one sealing mastic strip.

**4.3** Remove liner from sealing mastic strip on mold. Center mold on connector, extending mold 2" above connector.



**4.4** Wrap mold around connector and seal mold. Form and compress sealing mastic strip around and between each cable to make a resin tight seal.

**Note:** *Compress the sealing mastic strip around the cables with the thumb as shown in step 3.7.*



4.5 Remove liner from adhesive film strip supplied with kit.

4.6 Seal the open side of mold. Bring the mold's edges together, fold over and compress the adhesive film strip. Be sure the seal is complete.



4.7 Mix the resin per instructions on resin package. Pour into mold.

**NOTE: DO NOT MOVE CABLES OR SPLICE UNTIL RESIN HAS COMPLETELY HARDENED.**

Typical Minimum Cure Times	
Temp.	Cure
70°F (21°C)	1 Hour
20°F (-4°C)	20 Hours



## 5.0 Other Installation Hints

5.1 The 3M™ Scotchcast™ Multi-mold Kits can insulate many more splice configurations. These instructions show only a typical tap splice. Some general rules for insulating multiple splice configurations follow.

5.2 **For Multiple Tap Connections.** Follow the same procedures in these instructions. The number of taps the multi-mode kit can handle will depend on the connector and the size of the cables being spliced. The following guidelines should be used:

- In making horizontal splices, cables should be brought out of the splice from the sides (through the sealing mastic) and not out of the top of the splice. This will ensure the proper length of cable to be sealed in resin.
- Resin coverage along cable sheath or jacket must be a minimum of 1" for a proper moisture seal.
- The sealing mastic must surround each cable to ensure a resin tight seal.
- In making vertical splices, cables can be brought out the top of the mold.

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