



# 8459/8460/8461/8462

## Shield Adapter Kit for Tape, LC, Wire and UniShield® Cables

15, 25 and 35 kV Class

### Data Sheet

#### 1. Product Description

3M™ Shield Adapter Kits are designed to accommodate the grounding of accessories installed on conventional Tape, Longitudinally Corrugated (LC), Wire and UniShield® power cables.

The Shield Adapter Kit design provides a fault current capacity of 600 amps on 15 through 35 kV class cables.

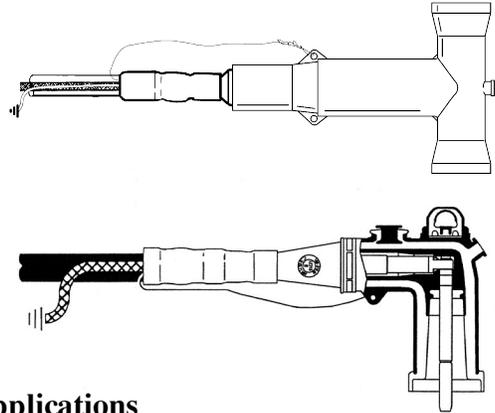
#### Kit Contents

Each kit contains the following materials to ground one cable accessory.

- 1 Cold Shrink Sealing Tube
- 3 Mastic Sealing Strips
- 1 Constant Force Spring
- 1 Preformed Ground Braid/Bleeder Wire
- 1 Strip 3M™ Copper Foil Shielding Tape 1181
- 1 Instruction Sheet

#### Product Features

- Unique integrated ground braid/bleeder wire composite. Adapter Bleeder wire (14 AWG tinned solid copper (Cu) conductor) is soldered to the ground braid making installation quick and simple.
- Accommodates a wide range of cable sizes.
- No torch or heat required.
- Seals tight, retains its resiliency and pressure even after years of aging and exposure.
- Water-resistant. Meets water seal requirements of ANSI C119.1
- Compatible with cable jackets and semi-conducting insulation shields.
- Resists fungus.
- Resists acids and alkalis.
- Resists ozone and ultraviolet light.



#### 2. Applications

The 8459, 8460, 8461 and 8462 Kits are designed to be used with 200 amp Load Break Elbows and up to 600 amp Dead Front Modulares and other accessories where cable jacket-to-accessory sealing and grounding is desired.

#### A. Typical Physical and Electrical Properties

##### EPDM Rubber

##### Physical Properties

Test Method	Typical Value*
Color	Black
300% Modulus (ASTM D 412-75)	480 psi (3,3 MPa)
Ultimate Tensile (ASTM D 412-75)	1400 psi (9,6 MPa)
Ultimate Elongation (ASTM D 412-75)	750%
Original	
Die C Tear (ASTM D 624C-73)	150 pli 38,5 KN/m
Original	
Fungus Resistance (ASTM G-21)	No Growth
28 days exposure	
Moisture Absorption 7 days. 90°C (194°F) H <sub>2</sub> O	wt. gain 1.8%

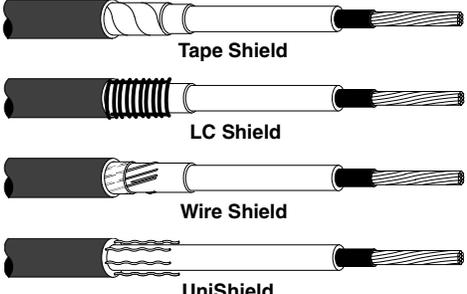
##### Electrical Properties

Test Method	Typical Value*
Dielectric Strength (ASTM D 149-75)	365 V/mil
Original @ 1,78 mm	
7 days in H <sub>2</sub> O at 90°C (194°F)	282 V/mil (11,1 MV/m)

\* All values are averages, based are not intended for specification purposes.

## B. Shield Adapter Kit Selection Table

Product Number	Jacket O.D. Range Inches (mm)	Typical Conductor Size range* AWG & kcmil (mm <sup>2</sup> )			
		5/8kV	15kV	25/28kV	35kV
8459	0.59 - 1.05 (15,0 - 26,6)	8 - 1 (10 - 38)	--	--	--
8460	0.83 - 1.64 (21,1 - 41,6)	1/0 - 350 (50 - 200)	2 - 250 (35 - 150)	2 - 250 (35 - 150)	2 - 1/0 (35 - 60)
8461	1.27 - 2.17 (32,3 - 55,1)	500 - 1000 (240 - 500)	350 - 1000 (185 - 500)	350 - 750 (185 - 500)	2/0 - 350 (70 - 200)
8462	1.70 - 2.60 (43,2 - 66,0)	--	1250 -1750 (600 - 850)	1000 - 1500 (600 - 725)	500 - 1000 (240 - 500)



Tape Shield

LC Shield

Wire Shield

UniShield

\* The cable jacket must fall within the indicated Jacket O.D. range.

## 3. Maintenance

Components of the 3M™ 8459, 8460, 8461 and 8462 Shield Adapter Kits are not impaired by freezing or overheating due to ambient temperatures found in

storage or shipping. Normal stock rotation procedures are recommended. 3M Cold Shrink removable core material is polypropylene and recyclable with other  waste.

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### IMPORTANT NOTICE

Before using this product, you must evaluate it and determine if it is suitable for your intended application. You assume all risks and liability associated with such use.

**Warranty; Limited Remedy; Limited Liability.** This product will be free from defects in material and manufacture as of the date of purchase. **3M MAKES NO OTHER WARRANTIES INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.** If this product is defective within the warranty period stated above, your exclusive remedy shall be, at 3M's option, to replace or repair the 3M product or refund the purchase price of the 3M product. **Except where prohibited by law, 3M will not be liable for any loss or damage arising from this 3M product, whether direct, indirect, special, incidental or consequential regardless of the legal theory asserted.**

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78-8126-0096-9 Rev B