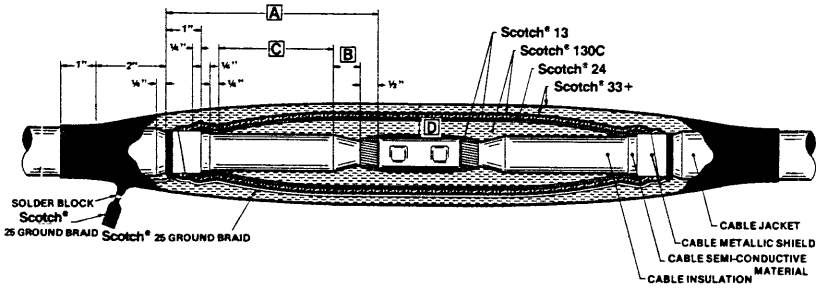
SHIELDED CABLE INLINE SPLICE



PREPARE CABLES (Figure 1)
1. Thoroughly scrape jacket 3" beyond dimension A to remove all contaminates and make a moisture tight seal.
2. Prepare cable according to standard practice, see Figure 1.
3. CLEAN CABLE USING STANDARD PRACTICE:
   a. Use "Scotch" Brand Cable Prep. Kit A-2. DO NOT ALLOW SOLVENT TO TOUCH SEMI-CON.

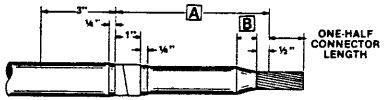


FIGURE 1

CONNECTOR INSTALLATION
1. Install connector following manufacturer's direction.

APPLY SEMI-CONDUCTING TAPE — #13
1. Fill indents in connector.
2. Wrap two half-lapped layers of 13 Tape over connector, exposed conductor and onto cable insulation for 1/16". HIGHLY ELONGATE 13 TAPE.

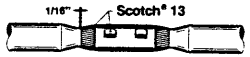


FIGURE 2

APPLY HIGH VOLTAGE TAPE — #130C
1. Build up 130C Tape over the 13 Tape to dimension D, and taper gradually along dimension C to 1/4" from cable semi-conductive material. HIGHLY ELONGATE TAPE WITH TACKY SIDE OUT.

APPLY SEMI-CONDUCTING TAPE — #13
1. Wrap one half-lapped layer of 13 Tape over 130C Tape, extending onto metallic shielding for 1/4". HIGHLY ELONGATE TAPE.

APPLY ELECTRICAL SHIELDING TAPE — #24
1. Wrap one half-lapped layer of 24 Tape over 13 Tape, overlapping 1/2" onto metallic shielding. Solder to metallic shielding.

APPLY VINYL PLASTIC ELECTRICAL TAPE — 33+
1. Wrap one half-lapped layer of 33+ Tape, covering entire area of 24 Tape. Stretch tightly to flatten and confine 24 Tape.

APPLY GROUND BRAID TAPE — #25
1. Lay 25 Tape across splice and solder to metallic shielding.

CONSTRUCT A MOISTURE SEAL
1. Provide a solder block where braid leaves splice.
2. Wrap two layers of 130C Tape covering the end 2" of the cable jacket.
3. Wrap two half-layers of 130C Tape for 3" around 25 Tape, beginning where #25 Tape is soldered to shield.
4. Lay braid over 130C Tape for 1" then bend braid away.

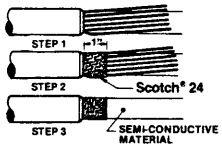
APPLY OUTER SEAL
1. Wrap four half-lapped layers of 130C Tape over entire splice 2" onto cable jackets. HIGHLY ELONGATE, WRAP WITH TACKY SIDE OUT.
2. Wrap two half-lapped layers of 33+ Tape over entire splice, including 1" onto cable jacket, and 1" along ground braid.

ALL INFORMATION WITHIN THIS COLUMN APPLIES TO BOTH THE SHIELDED INLINE AND TEE SPLICE

DIMENSIONS FOR XLP, POLY AND EPR INSULATED CABLES

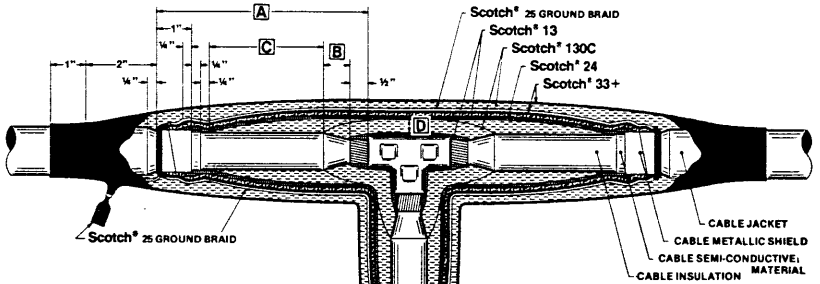
VOLTAGE (LEVEL)	A	B	C	D
5 KV (100%) (133%)	4-3/4"	3/4"	2"	1/4"
15 KV (100%) (133%)	6"	3/4"	3-1/4"	3/8"
15 KV (173%)	7"	1"	4"	7/16"

WIRE SHIELD PROCEDURE
1. Remove cable jacket as per instructions above. BE CAREFUL NOT TO CUT ANY OF THE WIRES.
2. Wrap two unstretched layers of "SCOTCH" Brand 24 Electrical Shielding Tape over shield wires for 1" beyond cable jacket. Tack in place with solder. **CAUTION: DO NOT OVERHEAT THERMOPLASTIC INSULATION.**
3. Cut shielding wires off flush with leading edge of "SCOTCH" #24
4. Return to instructions and continue cable preparation.



3M Systems for Splicing and Terminating.

SHIELDED CABLE TEE SPLICE



CAUTION:
TEE SPLICES REQUIRE A HIGH DEGREE OF SKILL TO CONSTRUCT. ON TEE SPLICES BE SURE TO HIGHLY ELONGATE ALL TAPES IN CROTCH AREA.

PREPARE CABLES (Figure 1)
1. Thoroughly scrape jacket 3" beyond dimension A to remove all contaminants.
2. Prepare cable according to standard practice, see Figure 1.
3. CLEAN CABLE USING STANDARD PRACTICE.
   a. Use "Scotch" Brand Cable Prep. Kit A-2. DO NOT ALLOW SOLVENT TO TOUCH SEMI-CON.

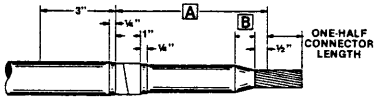


FIGURE 1

CONNECTOR INSTALLATION
1. Fill indents in connector with 13 Tape.
2. Wrap two half-lapped layers of 13 Tape over connector, exposed conductor and onto cable insulation for 1/16". HIGHLY ELONGATE 13 TAPE.

APPLY HIGH VOLTAGE TAPE — #130C
1. Build up 130C Tape over the 13 Tape to dimension D, and taper gradually to top of pencils on cable insulation of each leg. CARE MUST BE TAKEN TO PREVENT VOIDS IN CONNECTOR AREA. HIGHLY ELONGATE TAPE AND WRAP WITH TACKY SIDE OUT.

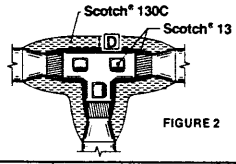


FIGURE 2

2. Complete insulation of splice by half-lapping 130C Tape from 1/4" in front of semi-con to the build-up over connector. Taper gradually along dimension C, reaching maximum diameter over pencilled insulation.

APPLY SEMI-CONDUCTING TAPE — #13
1. Wrap one half-lapped layer of 13 Tape, extending onto metallic shielding for 1/4". HIGHLY ELONGATE TAPE.

APPLY ELECTRICAL SHIELDING TAPE — #24
1. Wrap one half-lapped layer of 24 Tape over 13 Tape, overlapping 1/2" onto metallic shielding. Solder to metallic shielding.

APPLY VINYL PLASTIC ELECTRICAL TAPE — #33+
1. Wrap one half-lapped layer of 33+ Tape, covering entire area of 24 Tape. Stretch tightly to flatten and confine 24 Tape.

APPLY GROUND BRAID TAPE — #25
1. Lay 25 Tape across each splice leg and solder to metallic shield.

CONSTRUCT A MOISTURE SEAL
1. Provide a solder block where braid leaves splice.
2. Wrap two layers of 130C Tape covering the end 2" of the cable jacket.
3. Wrap two half-lapped layers of 130C Tape for 3" around 25 Tape, beginning where 25 Tape is soldered to shield.
4. Lay braid over cable for 1", then bend braid away.

APPLY OUTER SEAL
1. Wrap four half-lapped layers of 130C Tape over entire splice 2" onto cable jackets. HIGHLY ELONGATE, WRAP WITH TACKY SIDE OUT.
2. Wrap two half-lapped layers of 33+ Tape over entire splice, including 1" onto cable jackets and 1" along ground braid.

TECHNICAL DATA:
- VOLTAGE RATING — 5 TO 15 KV
- DIMENSIONS AND MATERIAL REQUIREMENTS FOR INLINE SPLICES UP TO 69 KV AND TEE SPLICES UP TO 35 KV AVAILABLE ON REQUEST.
- CONDUCTORS — COPPER OR ALUMINUM
- TEMPERATURE — 90°C MAX.
  130°C EMERGENCY OPERATION

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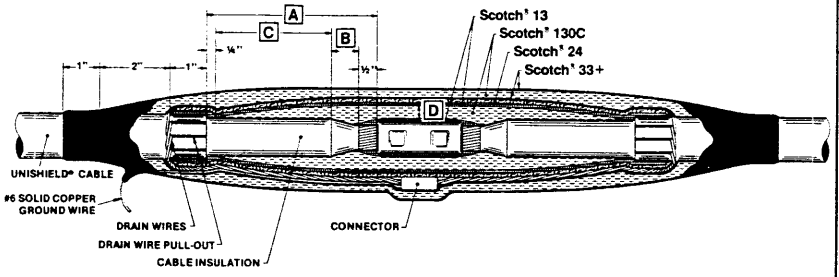
2047-AC-1

Electro-Products Division/3M
St. Paul, MN 55144 Made in U.S.A.

SCOTCH BRAND
ALL TAPE INLINE AND TEE JOINT
KIT #5717 TO 5720
RIBBON SHIELDED AND WIRE SHIELDED CABLES
VOLTAGE RATING — 5 to 15 KV

*UNISHIELD® CABLE INLINE SPLICE



PREPARE CABLES
1. Allow sufficient length of drain wires for ground connection, as shown.
2. Prepare cable according to standard practice. (Figures 1, 2 and 3 center column).
3. Ring cut 80% through semi-conductive jacket at leading edge of hose clamp and remove jacket.
4. Continue preparation of cable.
5. Twist drain wires together.
6. CLEAN CABLE USING STANDARD PRACTICE.
   a. Use "Scotch" Brand Cable Prep. Kit A-2. DO NOT ALLOW SOLVENT TO TOUCH SEMI-CON.

CONNECTOR INSTALLATION
1. Install connector following manufacturer's directions.

APPLY SEMI-CONDUCTING TAPE — #13
1. Fill indents in connector.
2. Wrap two half-lapped layers of 13 Tape over connector, exposed conductor and onto cable insulation for 1/16". HIGHLY ELONGATE #13 TAPE.

FIGURE 1

APPLY HIGH VOLTAGE TAPE — #130C
1. Build up 130C Tape over the 13 Tape to dimensions D, and taper gradually along dimension C to 1/4" from cable semi-conductive material. HIGHLY ELONGATE TAPE WITH TACKY SIDE OUT.

APPLY SEMI-CONDUCTING TAPE — #13
1. Wrap one half-lapped layer of 13 Tape over 130C Tape, extending 1" onto semi-con jacket. MAKE SURE 13 TAPE EXTENDS JUST UP TO THE EXPOSED DRAIN WIRES. HIGHLY ELONGATE TAPE.

APPLY ELECTRICAL SHIELDING TAPE — #24
1. Wrap one half-lapped layer of 24 Tape over #13 Tape, up to the drain wires. SOLDER TO DRAIN WIRES.

CONNECT DRAIN WIRES
1. Train the twisted drain wires into position across splice and connect to a parallel "C" type connector. Before crimping, insert a #6 (minimum) solid copper wire as shown in main illustration, and crimp. Allow sufficient length of ground wire to exit splice.

APPLY VINYL PLASTIC ELECTRICAL TAPE — #33+
1. Wrap one half-lapped layer of 33+ Tape covering entire area of 24 Tape and drain wires.

CONSTRUCT A MOISTURE SEAL
1. Wrap two layers of 130C Tape, covering 2" of the cable jacket.
2. Wrap two half-lapped layers of 130C Tape for 2" around the ground wire, beginning where the wire leaves the 33+ Tape.
3. Lay wire along cable for 1" then bend away.

APPLY OUTER SEAL
1. Wrap four half-lapped layers of 130C Tape over entire splice. HIGHLY ELONGATE TAPE AND WRAP WITH TACKY SIDE OUT.
2. Wrap two half-lapped layers of 33+ Tape over entire splice including 1" beyond 130C Tape, and 1" along ground wire.

*UNISHIELD is a registered trademark of Anaconda Wire & Cable Co.

ALL INFORMATION WITHIN THIS COLUMN APPLIES TO BOTH THE UNISHIELD® INLINE AND TEE SPLICE

DIMENSIONS FOR XLP AND EPR INSULATED CABLES

VOLTAGE (LEVEL)	A	B	C	D
5 KV (100%) (133%)	3-1/2"	3/4"	2"	1/4"
15 KV (100%) (133%)	4-3/4"	3/4"	3-1/4"	3/8"
15 KV (173%)	5-3/4"	1"	4"	7/16"

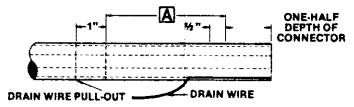


FIGURE 1

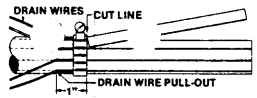


FIGURE 2

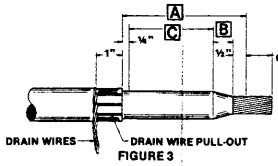
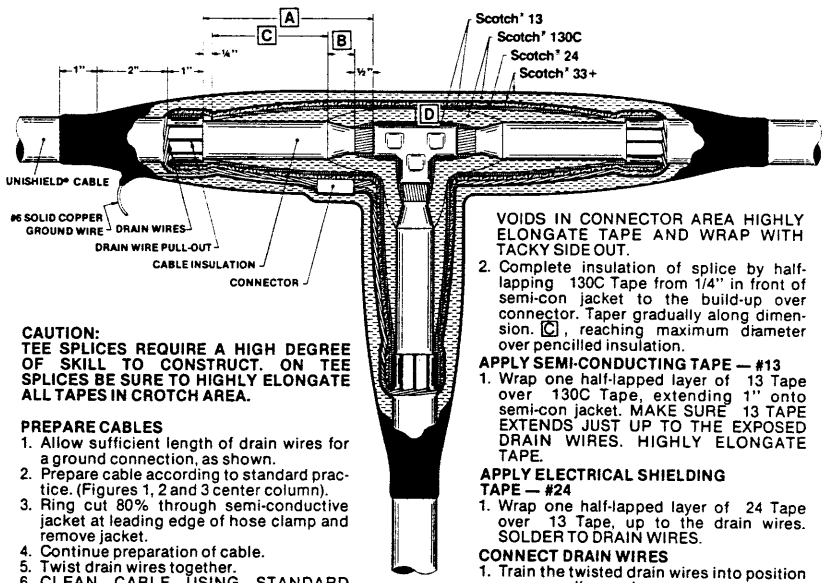


FIGURE 3

3M Systems for Splicing and Terminating.

*UNISHIELD® CABLE TEE SPLICE



CAUTION:
TEE SPLICES REQUIRE A HIGH DEGREE OF SKILL TO CONSTRUCT. ON TEE SPLICES BE SURE TO HIGHLY ELONGATE ALL TAPES IN CROTCH AREA.

PREPARE CABLES
1. Allow sufficient length of drain wires for a ground connection, as shown.
2. Prepare cable according to standard practice. (Figures 1, 2 and 3 center column).
3. Ring cut 80% through semi-conductive jacket at leading edge of hose clamp and remove jacket.
4. Continue preparation of cable.
5. Twist drain wires together.
6. CLEAN CABLE USING STANDARD PRACTICE.
   a. Use "Scotch" Brand Cable Prep. Kit A-2. DO NOT ALLOW SOLVENT TO TOUCH SEMI-CON.

CONNECTOR INSTALLATION
1. Install connector following manufacturer's directions.

APPLY SEMI-CONDUCTING TAPE — #13
1. Fill indents in connector.
2. Wrap two half-lapped layers of 13 Tape over connector, exposed conductor and onto cable insulation for 1/16". HIGHLY ELONGATE 13 TAPE.

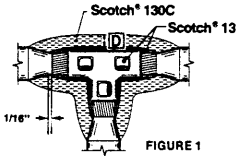


FIGURE 1

APPLY HIGH VOLTAGE TAPE — #130C
1. Build up 130C Tape over the #13 Tape to dimension D and taper gradually to top of pencils on cable insulation of each leg.CARE MUST BE TAKEN TO PREVENT VOIDS IN CONNECTOR AREA HIGHLY ELONGATE TAPE AND WRAP WITH TACKY SIDE OUT.
2. Complete insulation of splice by half-lapping 130C Tape from 1/4" in front of semi-con jacket to the build-up over connector. Taper gradually along dimension C, reaching maximum diameter over pencilled insulation.

APPLY SEMI-CONDUCTING TAPE — #13
1. Wrap one half-lapped layer of 13 Tape over 130C Tape, extending 1" onto semi-con jacket. MAKE SURE 13 TAPE EXTENDS JUST UP TO THE EXPOSED DRAIN WIRES. HIGHLY ELONGATE TAPE.

APPLY ELECTRICAL SHIELDING TAPE — #24
1. Wrap one half-lapped layer of 24 Tape over 13 Tape, up to the drain wires. SOLDER TO DRAIN WIRES.

CONNECT DRAIN WIRES
1. Train the twisted drain wires into position across splice and connect to a parallel "C" type connector. Before crimping, insert a #6 (minimum) solid copper wire as shown in main illustration, and crimp. Allow sufficient length of ground wire to exit splice. (Be sure all legs are connected.)

APPLY VINYL PLASTIC ELECTRICAL TAPE — #33+
1. Wrap one half-lapped layer of 33+ Tape, covering entire area of 24 Tape and drain wires.

CONSTRUCT A MOISTURE SEAL
1. Wrap two layers of 130C Tape, covering 2" of the cable jacket on leg to be grounded.
2. Wrap two half-lapped layers of 130C Tape for 2" around the ground wire, beginning where the wire leaves the 33+ Tape.
3. Lay wire along cable for 1" then bend away.

APPLY OUTER SEAL
1. Wrap four half-lapped leaves of 130C Tape over entire splice. HIGHLY ELONGATE TAPE AND WRAP WITH TACKY SIDE OUT.
2. Wrap two half-lapped layers of 33+ Tape over entire splice including 1" onto cable jackets, and 1" along ground wire.

TECHNICAL DATA:
- VOLTAGE RATING — 5 TO 15 KV
- DIMENSIONS AND MATERIAL REQUIREMENTS FOR INLINES SPLICES UP TO 69 KV AND TEE SPLICES UP TO 35 KV AVAILABLE ON REQUEST.
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SCOTCH BRAND
ALL TAPE INLINE AND TEE JOINT KIT #5717 TO 5720 UNISHIELD© CABLE VOLTAGE RATING 5 TO 15 KV

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