

Figure 1

1. INTRODUCTION

The top shield is used to protect the undercarpet power cable, and can be used to protect undercarpet communications cable, against penetration hazards and when installed according to these instructions also provides electrical connection to a ground. Refer to 408-3194 for details concerning the communications cable.

NOTE *Floor Preparation Adhesive 6-553453-1 and Hold-Down Tape 553481-1 are required for proper installation of the top shield.*

Top Shield Bonding Clip 553534-1 electrically and mechanically connects two top shields together at taps, splices, and turns.

Stainless Steel Bonding Clip 554178-1 electrically and mechanically connects the top shield to transition boxes and direct connecting receptacles (DCR).

NOTE *Dimensions in this instruction sheet are in metric units [with U.S. customary units in brackets]. Figures are not drawn to scale.*

To obtain information on AMP NETCONNECT products, call PRODUCT INFORMATION at the number at the bottom of this page, or visit the AMP NETCONNECT website at www.ampnetconnect.com.

Reasons for reissue of this instruction sheet are provided in Section 5, REVISION SUMMARY.

2. DESCRIPTION

The top shield is made of stainless steel and can be used with 3- and 5-conductor undercarpet power or communications cable.

AMP NETCONNECT logo is a trademark of TE Connectivity.

The top shield bonding clip is made of copper alloy.

The stainless steel bonding clip is made of stainless steel. This clip is included with the transition box and floor fittings; and is also available separately.

3. INSTALLATION PROCEDURE

IMPORTANT: It is recommended that a qualified electrician install the top shield and bonding clips.

DANGER *To avoid personal injury, ALWAYS DISCONNECT electrical power before beginning work on any circuit.*

Install the transition box, power transition block, floor fittings, DCRs, vinyl floor preparation, and undercarpet power cable according to the instructions included with the product.

If extra protection is required for the back side of the cable along the entire length of the cable run, the top shield may also be used as a "bottom shield". This method will sandwich the cable between two metal shields. For this application, install the transition box, power transition block, floor fittings, DCRs, and vinyl floor preparation. DO NOT install the undercarpet power cable at this time.

NOTE *Local inspection requirements and certain floor finishes are examples where extra protection for the cable would be desirable.*

NOTE *Instruction sheet included with product is:*
 408-10336 — Surface-Mount Wall Transition Box
 408-10412 — Flush Mount Wall Transition Box
 408-3176 — Power Transition Block Assembly
 408-3144 — Power Whip Kit (Transition Block)
 408-3129 — 3-Conductor DCR
 408-3131 — 5-Conductor DCR

408-3154 — Vinyl Floor Preparation and Undercarpet Power Cable

If not installing extra protection for the undercarpet power cable (bottom shield application), skip to Paragraph 3.2.

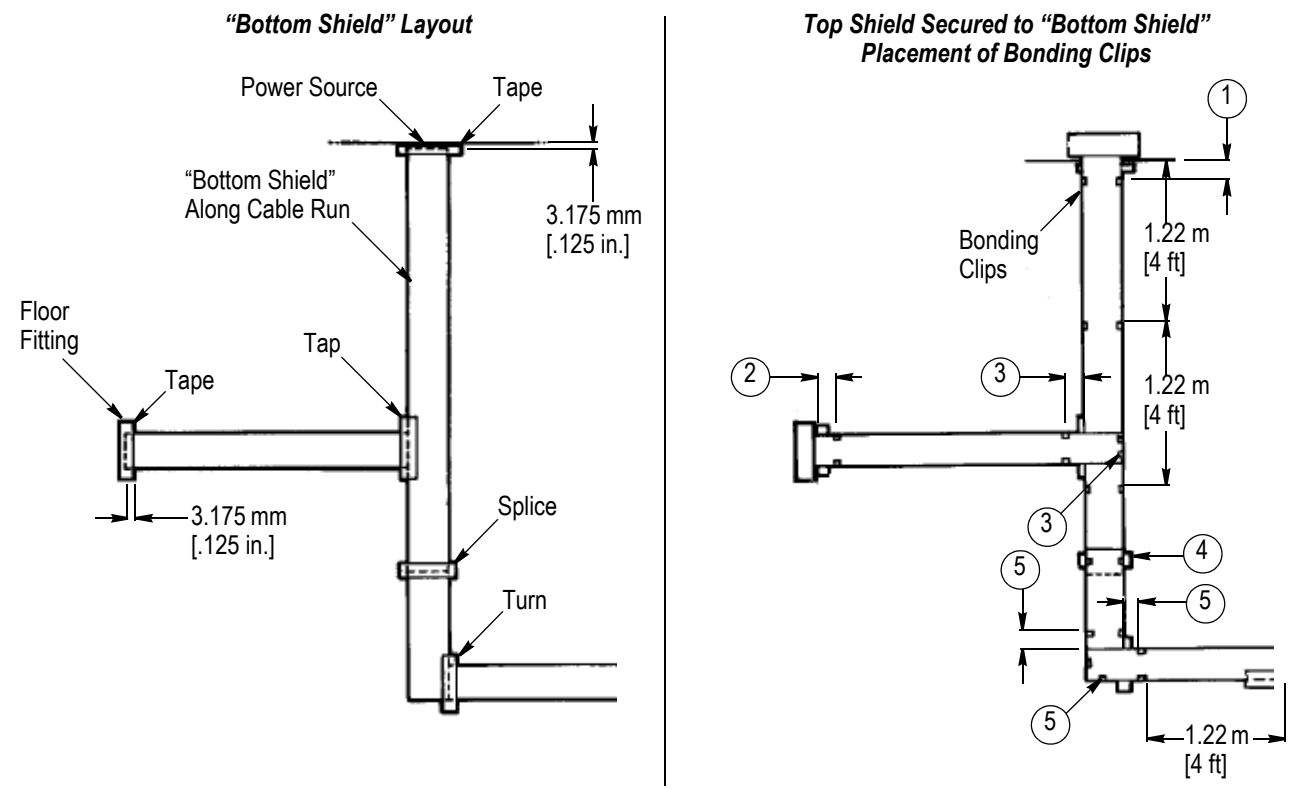
3.1. Bottom Shield Application

1. Starting at the power source (transition box or power transition block assembly), lay the top shield (that is being used as a “bottom shield”) approximately 3.175 mm [.125 in.] from the wall, and tape it to the floor. Continue laying the “bottom shield” along the cable run. If the floor preparation is used, install the “bottom shield” on top of the floor preparation. Then refer to Figure 2, and proceed with the following:

- a. At the floor fittings, stop the “bottom shield” approximately 3.175 mm [.125 in.] from the floor fitting, and tape it to the floor.
- b. At the taps, splices, and turns, butt the two “bottom shields” together, and tape them to the floor.

2. Install the cable according to the instructions included with the cable.

3. Install the top shield according to Paragraphs 3.1 and 3.2. Use additional top shield bonding clips to secure the top shield and “bottom shield” together approximately every 1.22 m [4 ft]. Secure the top shield and “bottom shield” together according to Figure 2.



ITEM	LOCATION	BONDING CLIPS PER LOCATION	DISTANCE FROM LOCATION
1	Wall Transition Box	2	152.4 mm [6.0 in.] From Wall
2	Floor Fitting—Dead End	2	152.4 mm [6.0 in.] From Baseplate
Not Shown	Floor Fitting—Feed-Through	4	50.8-152.4 mm [2.0-6.0 in.] From Base Plate, Both Sides
3	Tap	2	At Location
		2	152.4 mm [6.0 in.] From Main Cable Run
4	Splice	2	At Location
5	Turn	2	At Location
		4	50.8-152.4 mm [2.0-6.0 in.] From Turn, Both Directions

Figure 2

3.2. Straight Cable Run

NOTE



Before installing the top shield, perform an electrical continuity check of the cable.

1. Starting at the power source (transition box or power transition block assembly), center the top shield over the main cable run.
2. Trim, then terminate the top shield to the power source (transition box or power transition block assembly). Connect the top shield to the power source using the stainless steel bonding clips. Refer to Figure 3. Then, proceed with the following:
 - a. At the floor fittings, lay the top shield over the top of the floor fitting and continue laying the top shield to the end of the cable run. Refer to Figure 3.

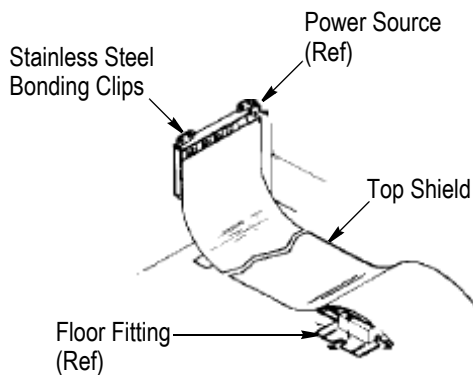


Figure 3

- b. If the cable run is dead-ended, lay the top shield past the cable run by approximately 50.8 mm [2.0 in.].
 - c. Trim, then connect the top shield to the floor fittings using the stainless steel bonding clips.

NOTE



The stainless steel bonding clips, not the top shield bonding clips, should be used for this application.

3. Secure the top shield to the floor as follows:
 - a. Smooth the top shield flat while working any buckles toward the end of the cable run. Maintain alignment to ensure that the top shield completely covers the cable along the entire length of the cable run.
 - b. Apply the floor preparation adhesive along the edge of the top shield and floor. Allow the adhesive to become tacky (approximately 1 to 5 minutes, depending on temperature and humidity) before continuing.

NOTE



Only work over a span of floor that can adequately be taped before the adhesive dries.

- c. Using the hold-down tape, continuously tape all edges of the top shield to the floor as close as possible to the floor fittings. Overlapping the tape is permissible. Refer to Figure 4. For slab-on-grade applications, the tape should overlap the top shield, floor preparation, and floor equally.

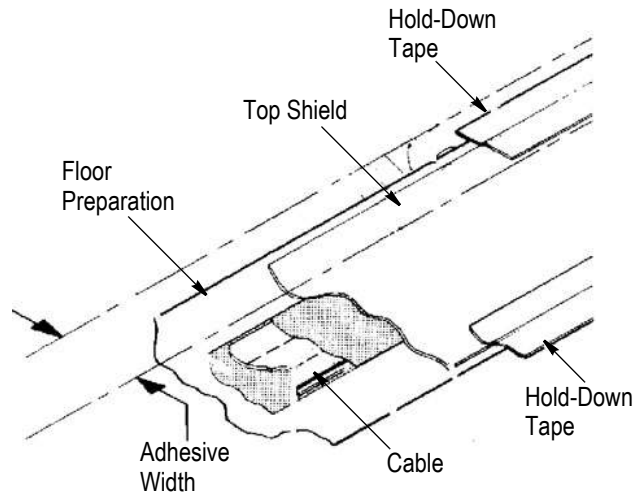


Figure 4

3.3. Taps, Splices, and Turns

1. Perform Steps 1 and 2 of Paragraph 3.2. DO NOT secure the top shield to the floor at this time.
2. Lay the taps, splices, and turns as required. For taps and turns, trim the two top shields flush with each other. Overlap the edges by approximately 50.8 mm [2.0 in.], then tape the overlapping edges to prevent creeping. Continue laying the top shield to the end of the cable run. Refer to Figure 5.

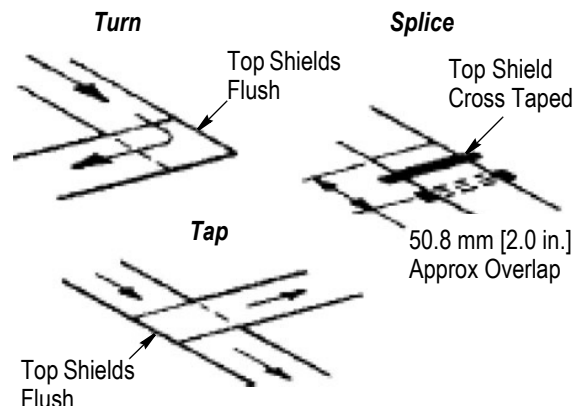


Figure 5



After installing the taps, splices, and turns, ensure that the top and bottom blue vinyl shields of the cable are properly replaced or repaired.

3. Connect the top shield to the taps, splices, and turns using 2 top shield bonding clips at each tap, splice, and turn as shown in Figure 6 and according to the following:



Top shield bonding clips are required for connecting taps, splices, and turns. DO NOT use the stainless steel bonding clips for these applications.

- a. Separate the overlapping top shields, and slide the top shield bonding clip over one top shield until it bottoms. See Figure 6.
- b. Slide the other top shield into the top shield bonding clip until the edges of both of the top shields are flush.

Repeat Steps a and b to apply the second top shield bonding clip. Ensure that the bonding clips are equally spaced from the edges of the top shield.

4. Secure the top shield to the floor according to Step 3 of Paragraph 3.2.

4. REPLACEMENT AND REPAIR

The top shield and bonding clips are not repairable. DO NOT use any defective or damaged components.

5. REVISION SUMMARY

Revisions to this instruction sheet include:

- Changed company logo
- Updated instruction sheet to corporate requirements
- Changed “spring clip” to “top shield bonding clip”, and added stainless steel bonding clip
- Removed CAUTION from Section 1
- Added Section 2
- Added IMPORTANT and DANGER to Section 3
- Changed procedure in Section 3
- Removed Figure 5

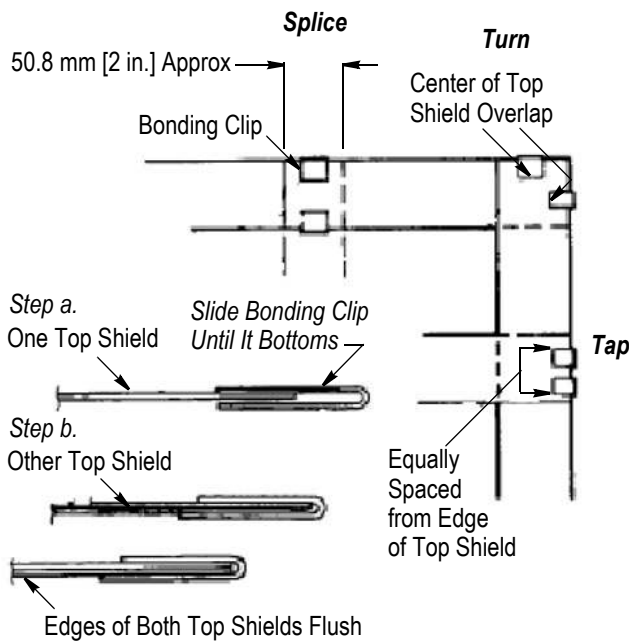


Figure 6