

Undercarpet Power Cabling System Vinyl Floor Preparation and Flat Conductor Cable (Type FCC)



LENGTH	FLAT CONDUCTOR CABLE			VINYL FLOOR
	3-CONDUCTOR	5-CONDUCTOR		PREPARATION
76.2 [250]	3-553079-1	3-553820-1 🖬	3-553239-1	554123-1
15.24 [50]	3-553079-3	3-553820-3 🖬	3-553239-3	554123-3
30.48 [100]	3-553079-4	3-553820-4 🔳	3-553239-4	554123-4

 Green and yellow color-coded conductors denote isolated ground. Figure 1

1. INTRODUCTION

The 3- conductor and 5-conductor flat conductor cable and vinyl floor preparation listed in Figure 1 is designed for use in undercarpet power applications. The vinyl floor preparation is designed to protect the flat conductor cable from floor moisture, chemical reaction, and abrasions.



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

2. DESCRIPTION

The cable consists of color-coded flat conductors and vinyl shield (bonded to both sides of the cable). See Figure 1. An isolated ground is available on 5-conductor cable. The cable is available in sizes corresponding to round wire size 12 AWG. The cable is rated 300 volts and 20 amps.

3. INSTALLATION PROCEDURE

IMPORTANT: It is recommended that a gualified electrician install the flat conductor cable and vinyl floor preparation.



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

Pour éviter les blessures corporelles. TOUJOURS DÉCONNECTER l'alimentation électrique avant de commencer à travailler sur n'importe quel circuit.

3.1. Preparation

 Mount the transition box according according to the instructions included with the product.



Instruction sheet included with product is: 408-10336 — Surface-Mount Wall Transition Box 408-10412 — Flush Mount Wall Transition Box



The cable must be installed over a clean and level floor surface.

2. Level or patch all uneven floor surfaces. Fill in and smooth all holes and cracks, and remove all projections, ensuring a smooth and continuous floor surface. Seal all porous floors.

3. Mark the circuit centerlines on the floor using chalk. Mark the locations for the floor fittings using

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permanent marker. Extend the marking to a minimum of 102 mm [4 in.] on each side of the circuit centerline. Refer to Figure 2. Use appropriate symbols to indicate the cable run and floor fitting and tap locations.



Figure 2

4. Drill holes and install anchors for the floor fittings according to the instructions included with the product. Do not install the floor fittings at this time.



Instruction sheet included with product is:

408-3144 — Power Whip Kit 408-3129 — 3-Conductor Direct Connecting Receptacle (DCR) 408-3131 — 5-Conductor Direct Connecting

08-3131 — 5-Conductor Direct Connecti Receptacle (DCR)

5. Clean the floor surface thoroughly. Ensure the floor is free of grease, oil, moisture, concrete chips, wood splinters, metal shavings, dirt, and similar debris.

3.2. Vinyl Floor Preparation



Vinyl floor preparation is recommended for all installations; however, it is required for slab-on-grade installation or where floor moisture is of concern.

Lay the vinyl floor preparation on the floor and center it over the circuit centerline marking on the floor. Then, refer to Figure 3, and perform the following:

1. At wall transition boxes, trim the vinyl floor preparation flush with the wall.

2. At floor transition boxes, trim the vinyl floor preparation flush with the edge of the floor transition box.

3. Tape the edges of the vinyl floor preparation to the floor approximately every 3.05 to 3.66 m [10 to 12 ft].



The vinyl floor preparation should be laid continuously at the floor fitting locations. The floor fittings will be installed on top of the vinyl floor preparation.



Figure 3

4. At taps, splices, and turns, butt the vinyl floor preparation edges together and tape it to the floor.

3.3. Flat Conductor Cable

1. Starting at the transition box or power whip kit, lay the cable on the floor and center it over the circuit centerline marking or vinyl floor preparation on the floor.

2. At the transition box or power whip kit, cut the cable squarely across the end. Install the cable onto the power transition block assembly according to the instructions included with the product.



Instruction sheet included with product is: 408-3176 — Power Transition Block Assembly 408-3144 — Power Whip Kit

3. Proceed to lay the cable on the floor, maintaining alignment over the circuit centerline or vinyl floor preparation on the floor. Then, perform the following:

a. Tape the edges of the cable to the floor approximately every 1.83 to 3.66 m [6 to 12 ft]. See Figure 4, Detail A.

b. Fold the cable to make directional changes (turns). See Figure 4, Detail B.

Installing Flat Conductor Cable





Figure 4

3.4. Taps and Splices

If taps or splices are not used, proceed to Paragraph 3.5.

Tap Connector 553455-2 is required for each tap and Splice Connector 553454-1 is required for each splice.

Cable Insulator 556411-1 is required for each tap, splice, and cable dead end.

Install the taps, splices, and cable insulator according to the instructions included with the product:



Instruction sheet included with product is:

408-3128 — Undercarpet Splice Connector and Power Tap Connector 408-10267 — PRO-CRIMPER* III Hand Tool

Assembly 91392-1 408-3218 — Cable Insulator 556411-1

Ensure the following:

- the cables are cut squarely across the end

— the bottom blue vinyl shield of the cable is not cut during installation

— the bottom blue vinyl shield of the cable runs under the cable insulator

3.5. Floor Fitting

Install the floor fittings according to the instructions included with the product.



Instruction sheet included with product is: 408-3144 — Power Whip Kit 408-3129 — 3-Conductor Direct Connecting

Receptacle (DCR) 408-3131 — 5-Conductor Direct Connecting Receptacle (DCR)

Ensure the following:

— the bottom blue vinyl shield of the cable is not cut during installation

— the bottom blue vinyl shield of the cable runs under the mounting plate of the floor fitting, not on top of it

3.6. Top Shield

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

2. Install the top shield according to the instructions included with the product.

NOTE 1

Instruction sheet included with product is:

408-3150 — Top Shield and Bonding Clips

4. REPLACEMENT AND REPAIR

Minor damage to the cable insulation may be repaired by installing Cable Insulator 556411-1 according to 408-3218. Other damage to the cable is not repairable.

If the cable insulation is repaired, outlets or transition components cannot be terminated to the cable in the area of the repair.

Vinyl floor preparation may be repaired using standard electrical tape.

DO NOT use any unrepaired, defective, or damaged components.

5. REVISION SUMMARY

Revisions to this instruction sheet include:

• Add French translation for 'Danger' text.