

# WIREMOLD



## RC4 Poke-Thru Series INSTALLATION INSTRUCTIONS

Installation Instruction No.: 1 001 636 R2 – Updated April 2005

Wiremold Electrical Systems conform to and should be installed and properly grounded in compliance with requirements of the current National Electrical Code, Canadian Electrical Code or codes administered by local authorities.

All electrical products may represent possible shock or fire hazard if improperly installed or used. Wiremold electrical products are UL Listed to U.S. and Canadian safety standards, made for interior use only, and should be installed in conformance with current local and/or the National Electrical Code.

### **IMPORTANT – PLEASE READ ALL INSTRUCTIONS BEFORE BEGINNING.**

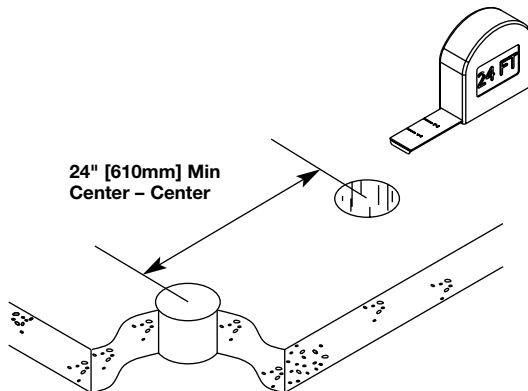
**Products Covered:** RC4ATC, RC4ARTTC, RC4CTC, RC4CRTTC, RC4STC, RC4SRTTC, and RC4SHTC  
RC4ATC-LJB, RC4ARTTC-LJB, RC4ATCLJB25 and RC4ARTTCLJB25

**CAUTION:** Do Not operate tile stripper or resurfacing equipment over top of covers. This may result in damage to the surface finish of the product.

Suitable for use in air handling spaces in accordance with Sec. 300-22 (C) of the National Electrical Code.

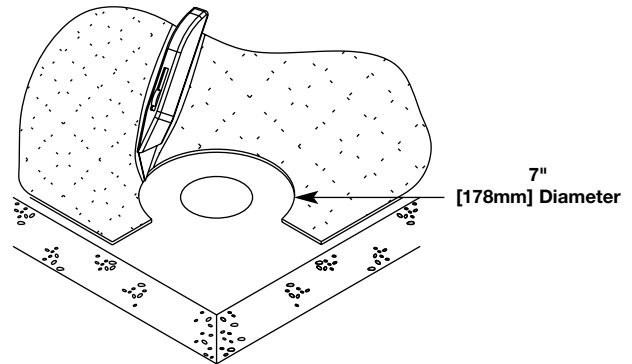
#### **Step 1.** Layout and locate position of hole(s).

**CAUTION:** Holes shall be spaced a minimum of 2' [610mm] on center and not more than one hole per each 65 sq. ft. [6 sq. m] of floor area in each span.



**NOTE:** Be certain to drill hole at least 4 1/4" [108mm] from any wall or pillar to leave enough room for Poke-Thru cover assembly.

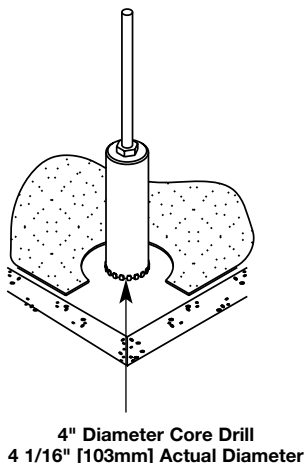
#### **Step 2.** Remove 7" [178mm] dia. section from carpet or tile. Use template provided.



For Tile Applications up to a Maximum of 3/4" [19.1mm] Thick.

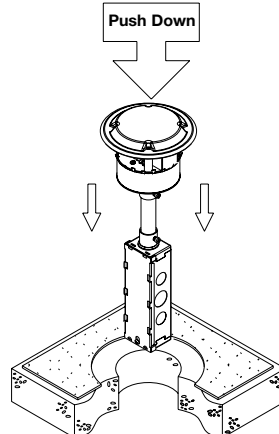
**NOTE:** For tile thickness greater than 3/4" [19.1mm] consult factory.

#### **Step 3.** Core drill hole.



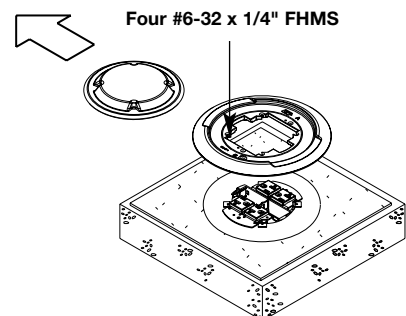
4" Diameter Core Drill  
4 1/16" [103mm] Actual Diameter

#### **Step 4. Stem Assembly:** Catalog No. RC4STC Insert stem into hole.



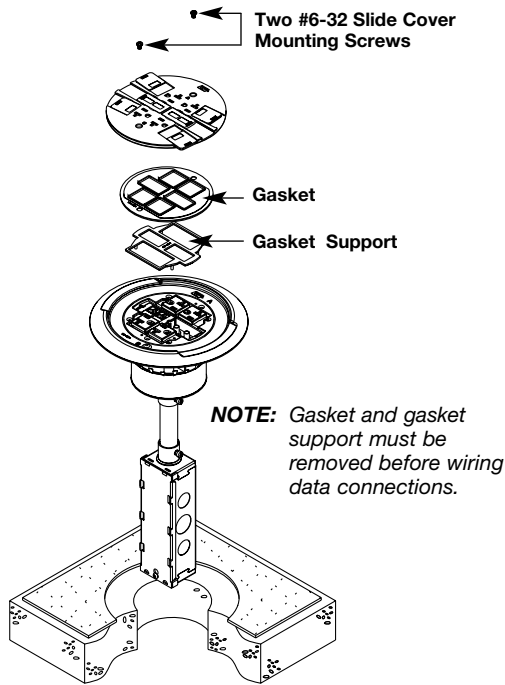
**CAUTION:** Poke-Thru cannot be rotated in hole after insertion into floor.

#### **Step 5. Cover Assembly:** Catalog No. RC4CTC Remove disposable plate and replace with carpet/tile flange. Install with four #6-32 x 1/4" [6.4mm] FHMS.



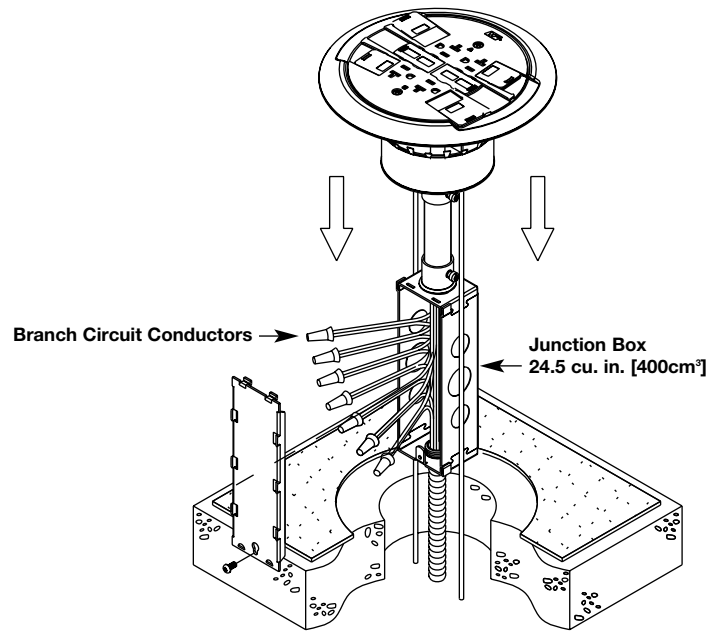
## COMPLETE ASSEMBLY:

**Step 6.** Cat. Nos. RC4ATC or RC4ARTTC.  
Wire the Poke-Thru device.  
(Can be completed above floor.)  
Refer to wiring schematic in Step 8.



Electrical and Communication Cables May be Connected to Unit Prior to or After Activation.

**Step 7.** Wire the power circuit. See wiring diagram.



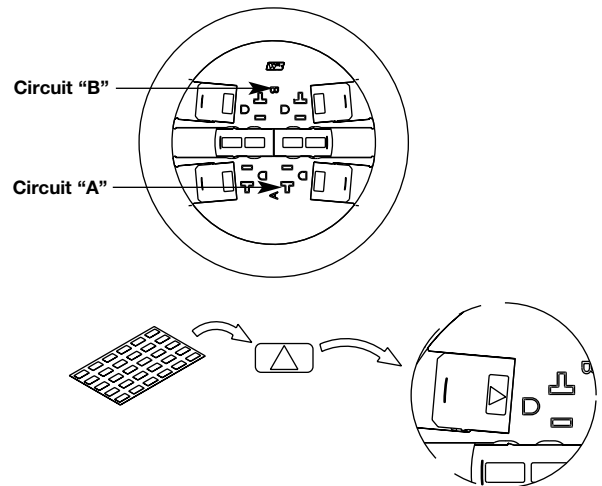
**Step 8.** Wiring Diagram. Connect receptacle leads to branch circuit conductors as required.

Electrical Wiring Chart		
	Circuit "A"	Circuit "B"
Line	Black	Red
Neutral	White	White w/Blue Stripe
Ground	Green	Green w/Yellow Stripe

**WARNING:** Ground wire from junction box must be connected to SYSTEM GROUND.

**CAUTION:** Receptacle mounting means not grounded. Grounding wire connection required. For isolated ground wiring; connect ground leads to a separate isolated grounding conductor. See NEC 250-146(d).

**Step 9.** If circuit is connected to an isolated ground apply IG icon on receptacle slide as shown.



**NOTE:** The orange triangle shall only be placed on devices that are wired for isolated ground. See NEC 250-146(d).

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## Step 10. Communication Circuit Connections:

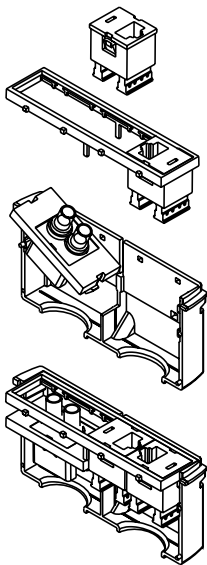
Wire communication devices per instructions provided with product. Mount in Poke-Thru per illustrations shown below.

*Communication inserts may be mounted either flush or recessed. Some inserts, such as fiber optic, must be mounted recessed in order for slides to close properly.*

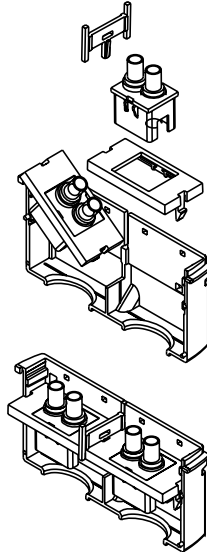
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### Ortronics® TracJack® Installation:

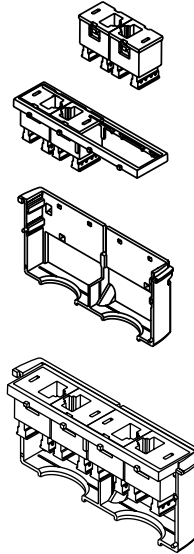
*TracJack Modules not included (sold separately).*



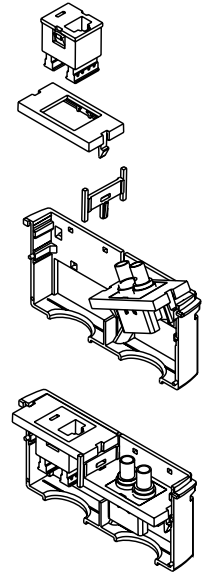
**Combination**



**Both Recessed**



**Both Flush**

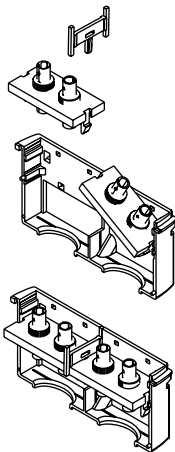


**Recessed/Flush**

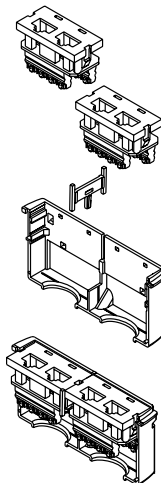
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### Ortronics Series II Installation:

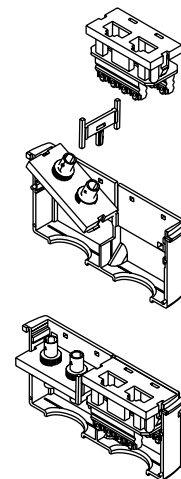
Important: *Series II Modular Inserts not included, sold separately.*



**Both Recessed**



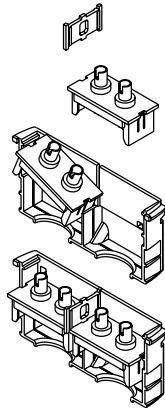
**Both Flush**



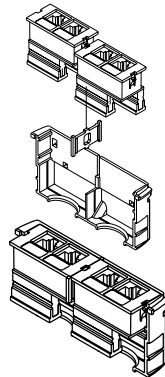
**Recessed/Flush**

## Pass & Seymour Network Wiring:

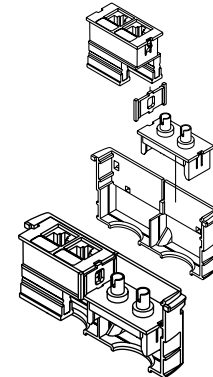
Two Category 5e inserts provided with Cat. Nos. RC4A and RC4C, other modules shown not included, sold separately.



**Both Recessed**



**Both Flush**



**Recessed/Flush**

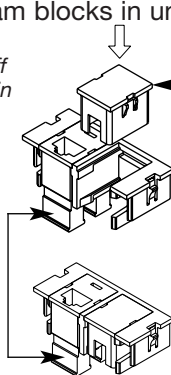
**NOTE:** To accommodate both Keystone and Avaya jacks, four communication inserts are provided with every unit (two dual port Keystone jack inserts, 2A-U2KEY-BK, and two dual port Avaya jack inserts, 2A-U2ATT-BK). Two Activate Dual Category 5e (2A245-B5-BK) inserts are also included. Whichever option is not installed may be discarded.

**Step 11.** Insert blanking plugs or neoprene foam blocks in unused communication ports.

**CAUTION:** Empty communication ports must be closed off with foam blocks or TracJack blanks to maintain fire classification.

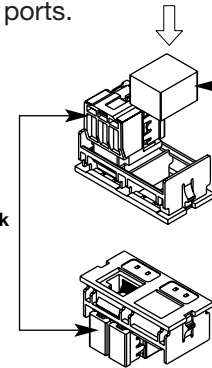
Communication inserts may be mounted either flush or recessed. Some inserts, such as fiber optic, must be mounted recessed in order for slides to close properly. Instructions for mounting communication inserts are shown in Step 10.

TracJack Sold Separately



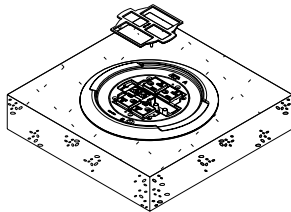
TracJack Blank (Supplied)

Communication Jack Sold Separately

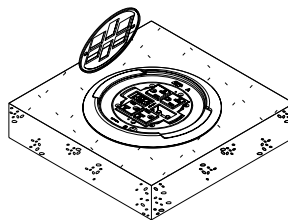


Foam Plug (Supplied)

**Step 12.** Place gasket support plate on Poke-Thru inserting the four posts through holes on receptacle brackets.

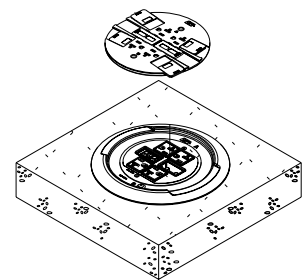


**Step 13.** Align gasket over receptacles and press bead into flange channel.



**CAUTION:** Gasket must be set in place to provide scrub water seal.

**Step 14.** Attach slide cover with two #6-32 screws.

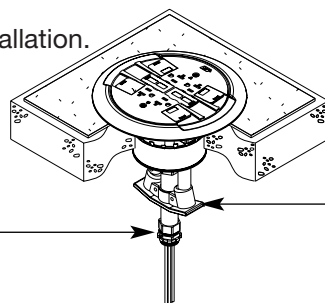


## RC4 Poke-Thru Less Junction Box Assemblies Only Cat. Nos. RC4ATC-LJB, RC4ARTTC-LJB, RC4ATCLJB25 and RC4ARTTCLJB25.

(Applies to installations in the City of Chicago or other locations where local codes require the use of a communication adapter, EMT compression fittings, and a junction box suitable for use in environmental air spaces.)

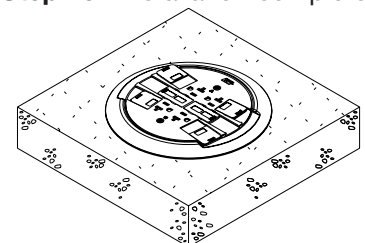
**Step 15.** Follow steps 1 - 14 for installation.

Once Poke-Thru is Pushed into the Cored Hole, from Below, Install a EMT Compression Fitting (Not Supplied) and Junction Box (Not Supplied) to the Conduit System. Complete Installation Per NEC and Local Codes.



Attach COM75 Adapter (Included with LJB Units) Per Instructions Supplied with Unit

**Step 16.** Installation complete.



**The RC4TC Series Poke-Thru Device is UL Listed and Classified to U.S. and Canadian safety standards to the following conditions:**

The RC4STC Poke-Thru Stem with the RC4CTC Service Head Fitting or the RC4KTC Conversion Kit Assembly, the RC4ATC factory assembled Poke-Thru device, and the RC4APTC Abandonment Fitting are for use with 1-, 1 1/2-, or 2-hour rated unprotected reinforced concrete floors and 1-, 1 1/2-, or 2-hour rated floors employing unprotected steel floor units and concrete topping (D900 Series Designs), or concrete floors with suspended ceilings. (Fire resistive designs with suspended ceilings should have provisions for accessibility in the ceiling area below the poke-thru fittings).

The assembled Poke-Thru stem and service fitting or the abandonment fittings will not reduce the ratings of the floor assembly when the thickness and type of concrete (required for the specific rating) are within the specified limits and the fittings are installed as specified:

1. **Spacing** – Minimum of 2' [610mm] OC and not more than one unit per 65 sq. ft. [6 sq. m] of floor area in each span.
2. **Concrete** – Minimum thickness of structural concrete topping of 2 1/4" [57mm] over metal deck or a minimum 3" [76mm] thick reinforced concrete slab. Unit weight of concrete to be 110 to 155 pcf.
3. **Installation** – Mounted in a 4" [102mm] diameter core-drilled hole in concrete per installation instructions accompanying the fittings or abandonment fittings. For use with power circuits, data and/or telephone cables as tabulated below:

POKE-THRU FITTING TYPE	SERVICE FITTING TYPE	POWER CONDUCTORS (A)	COMMUNICATION CONDUCTORS (B)
RC4ATC	–	6 (.03072 sq in.) [19.8205mm <sup>2</sup> ]	32 (.01600 sq. in.) [10.323mm <sup>2</sup> ]
RC4STC	RC4CTC	6 (.03072 sq in.) [19.8205mm <sup>2</sup> ]	32 (.01600 sq. in.) [10.323mm <sup>2</sup> ]
RC4STC	RC4KTC	6 (.03072 sq in.) [19.8205mm <sup>2</sup> ]	32 (.01600 sq. in.) [10.323mm <sup>2</sup> ]

The "TC" suffix letters indicate that device may be installed on tile or carpet covered concrete floors. All catalog numbers may have an "RT" suffix to indicate units supplied with Ortronics, Inc. communication modules and accessories. The "LJB" suffix letters indicate units supplied without a junction box. The "25" suffix numbers indicate units supplied with 25 foot receptacle leads.

- (A) Maximum number of No. 12 AWG Type THHN conductors in power compartment of Poke-Thru fitting.
- (B) Maximum number of 22 AWG conductors in low voltage compartment of Poke-Thru fitting (4-pair cables have (8) conductors). When conductors larger than No. 22 AWG are used, the aggregate cross-sectional area of the copper conductors shall not exceed the aggregate cross-sectional area of the 22 AWG conductors permitted in the low voltage compartment.

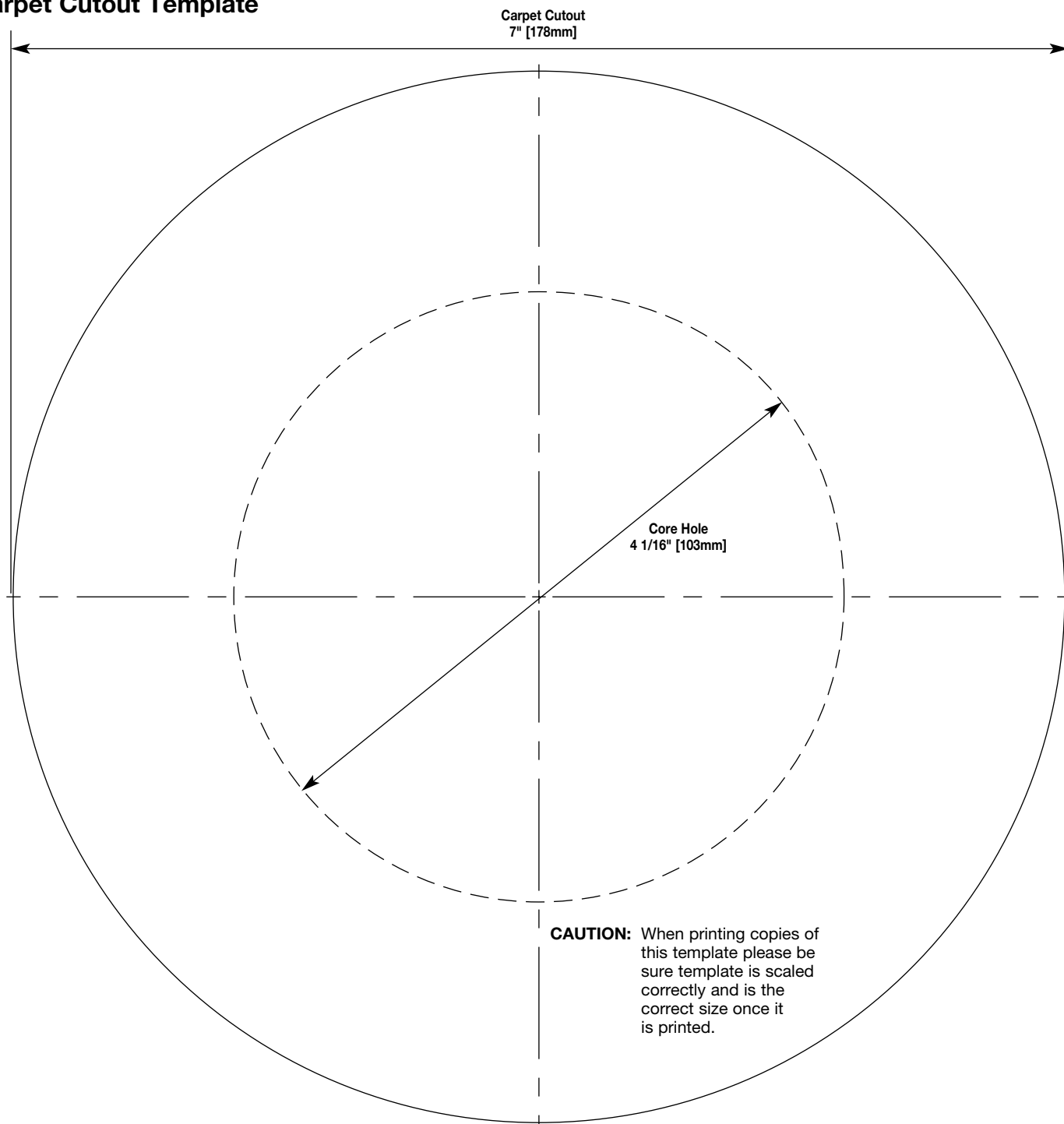
Copper Cross Sectional Area of Commonly Used Conductors	
Size	Solid
#24	.00032 sq. in. [.20645mm <sup>2</sup> ]
#22	.00050 sq. in. [.32258mm <sup>2</sup> ]
#14	.00323 sq. in. [2.08386mm <sup>2</sup> ]
#12	.00512 sq. in. [3.30321mm <sup>2</sup> ]
#10	.00815 sq. in. [5.25805mm <sup>2</sup> ]
# 8	.01296 sq. in. [8.36127mm <sup>2</sup> ]

**NOTE:** Use above values for solid or stranded conductors.

**For use on carpet covered and tile floors up to 3/4" [19.1mm] thick.**

**CAUTION:** Receptacle supplied with this Poke-Thru is not suitable for direct field wiring. Contact manufacturer for replacement. Field modifications will void UL Listing and Classification. Replacement receptacle is limited to this manufacturers' Catalog No. RC4REC2 or RC4REC2-25.

## Carpet Cutout Template



# WIREMOLD



### Wiremold / Legrand

U.S. and International:

60 Woodlawn Street • West Hartford, CT 06110

1-800-621-0049 • FAX 860-232-2062 • Outside U.S. 860-233-6251

Canada:

570 Applewood Crescent • Vaughan, Ontario L4K 4B4

1-800-723-5175 • FAX 905-738-9721

