

WIREMOLD



RC3 Poke-Thru Series INSTALLATION INSTRUCTIONS

Installation Instruction No.: 1 001 586 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.

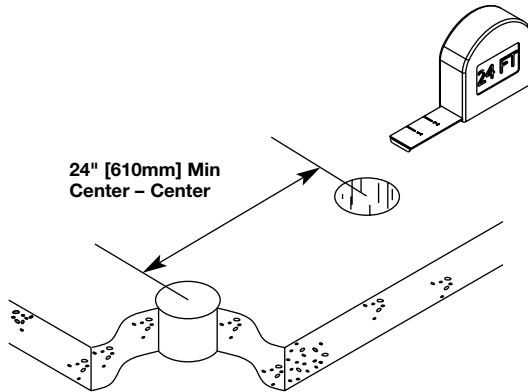
Products Covered: RC3STC, RC3ATC, RC3ARTTC, RC3CTC, RC3CRTTC, and RC3SHTC
RC3ATC-LJB, RC3ARTTC-LJB, RC3ATCLJB25 and RC3ARTTCLJB25

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.

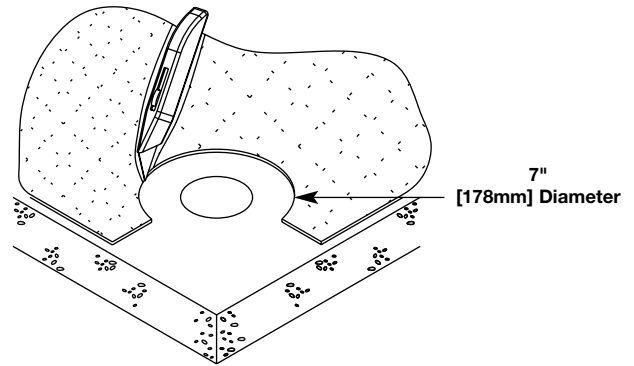
Step 1. Layout and locate position of hole(s).

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" [102mm] from any wall or pillar to leave enough room for Poke-Thru cover assembly.

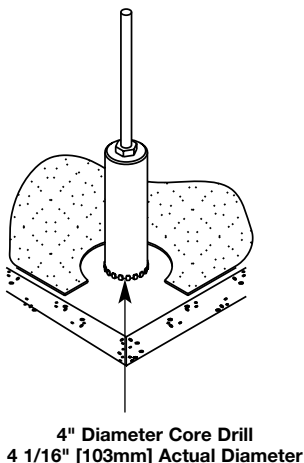
Step 2. Remove 7" [178mm] dia. section from carpet or tile. Use template provided.



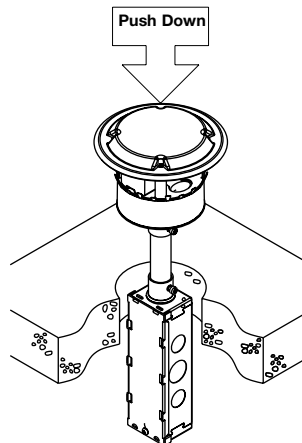
For Tile Applications up to a Maximum of 3/4" [19.1mm] Thick.

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

Step 3. Core drill hole.

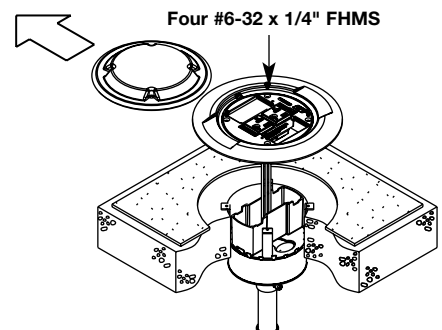


Step 4. Stem Assembly: Catalog No. RC3STC Insert stem into hole.



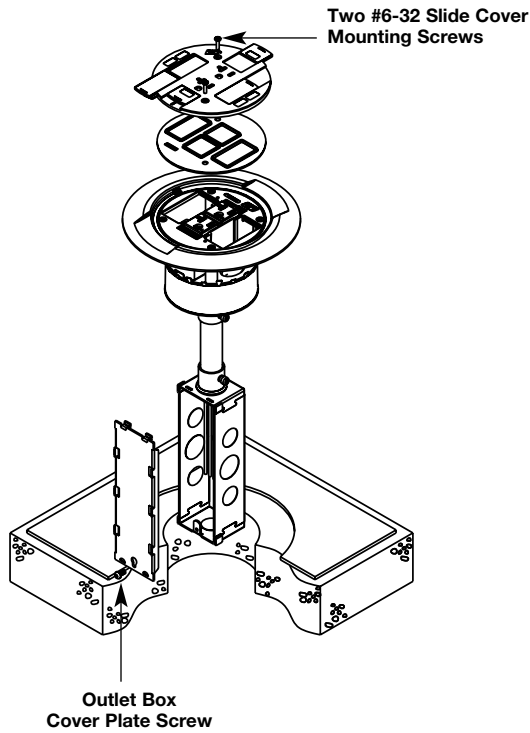
CAUTION: Poke-Thru cannot be rotated in hole after insertion into floor.

Step 5. Cover Assembly: Catalog No. RC3CTC or RC3CRTTC. Remove disposable plate and replace with carpet/ tile flange. Install with four #6-32 x 1/4" [6.4mm] FHMS.

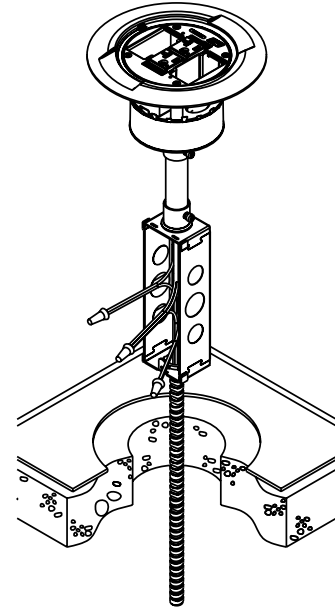


COMPLETE ASSEMBLY:

Step 6. Cat. Nos. RC3ATC or RC3ARTTC.
Wire the Poke-Thru device.
(Can be completed above floor.)
Refer to wiring schematic in Step 8.



Step 7. Wire the power circuit.

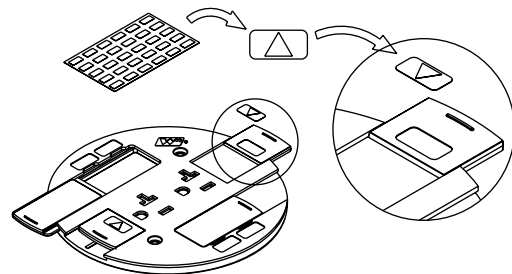


Step 8. Connect Poke-Thru conductors according to required device configuration. See schematic below.

CONVENTIONAL WIRING SCHEMATIC		ISOLATED GROUND WIRING SCHEMATIC	
BLACK or HOT from branch circuit	BLACK from poke-thru receptacle	BLACK or HOT from branch circuit	BLACK from poke-thru receptacle
WHITE or NEUTRAL from branch circuit	WHITE from poke-thru receptacle	WHITE or NEUTRAL from branch circuit	WHITE from poke-thru receptacle
GREEN or GROUND from branch circuit SYSTEM GROUND	GREEN from poke-thru receptacle	ISOLATED GROUND from branch circuit	GREEN from poke-thru receptacle
	GREEN (jumper wire) from poke-thru junction box	GREEN or GROUND from branch circuit SYSTEM GROUND	GREEN (jumper wire) from poke-thru junction box

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

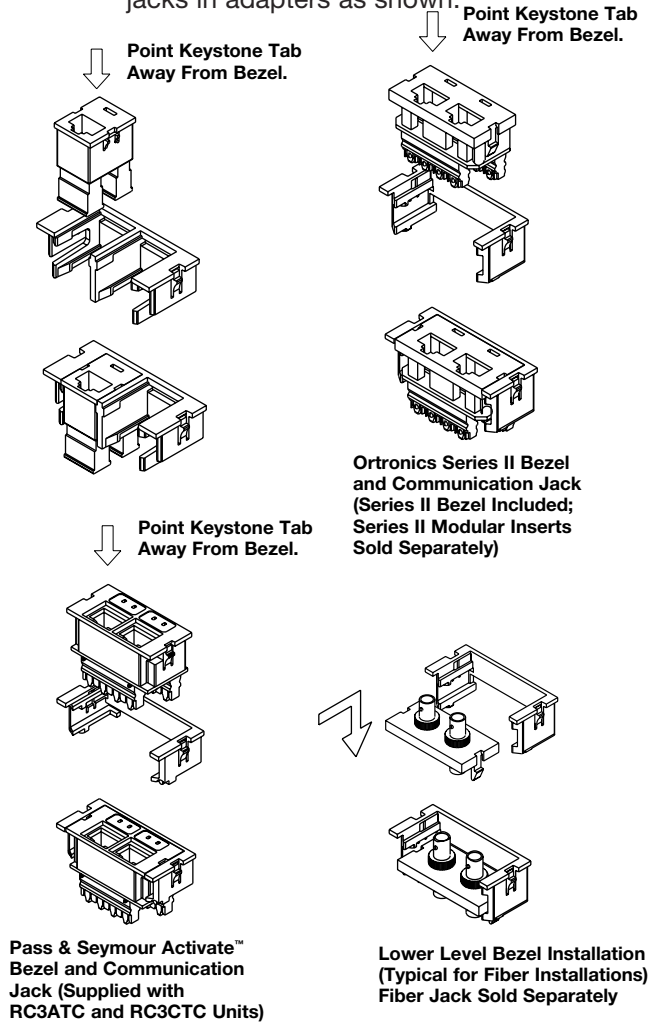
Step 9. If circuit is connected to an isolated ground, apply IG icon on receptacle slide as shown.



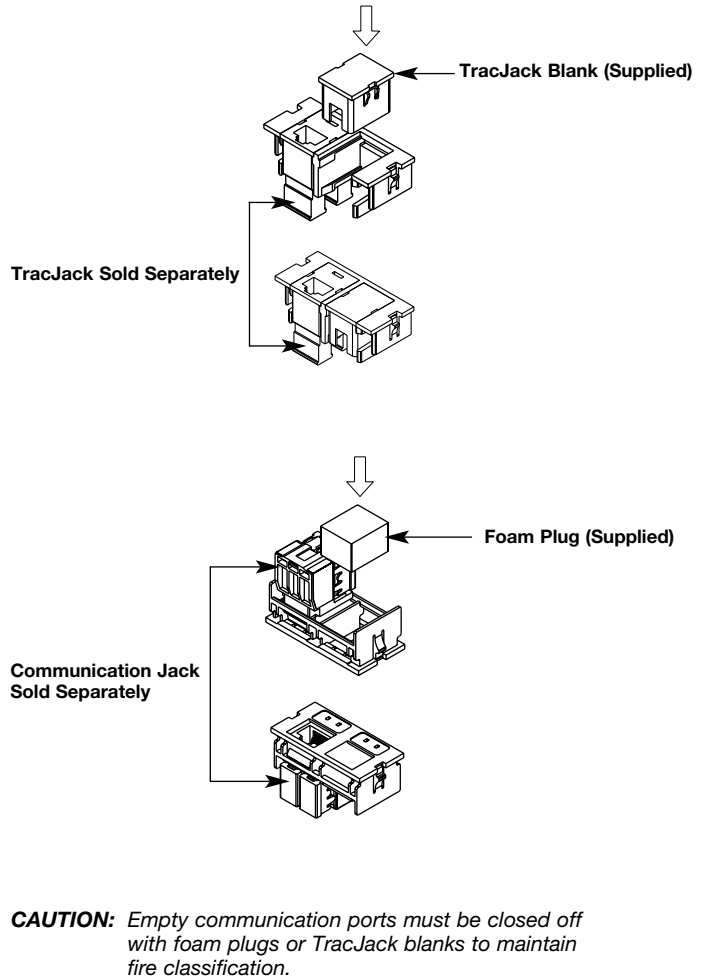
CAUTION: Receptacle mounting means not grounded. Grounding wire connection required. For isolated ground wiring; connect ground leads to a separate isolated grounding conductor. See NEC 250-146(d).

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

Step 10. Wire and snap communication jacks in adapters as shown.

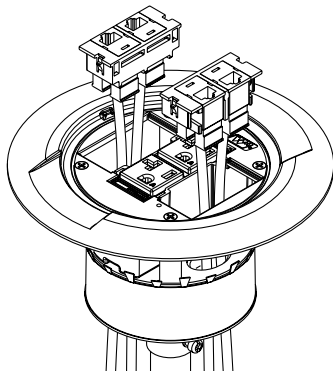


Step 11. Insert blanking plugs or neoprene foam block in unused communication ports.

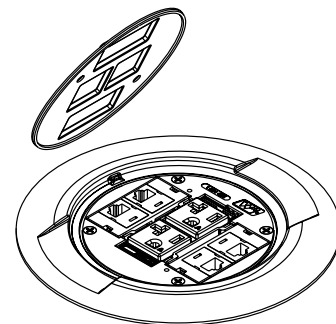


NOTE: To maintain UL Fire Classification, all communication modules or blank inserts (factory or customer supplied) must be UL Listed communication circuit accessories, and must fit securely in the supplied communication brackets with no visible openings between the module and bracket. Supplied foam plugs must be used when passing cables through the communication openings.

Step 12. Snap communication jacks or communication port plugs into flange.

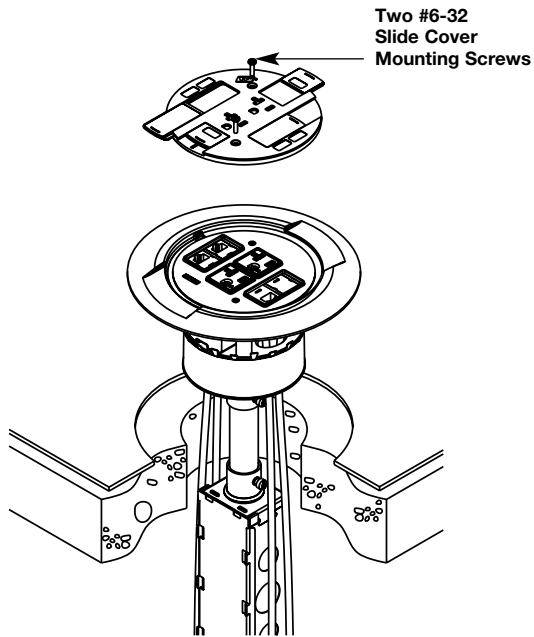


Step 13. Align gasket over receptacle and press bead into flange channel.



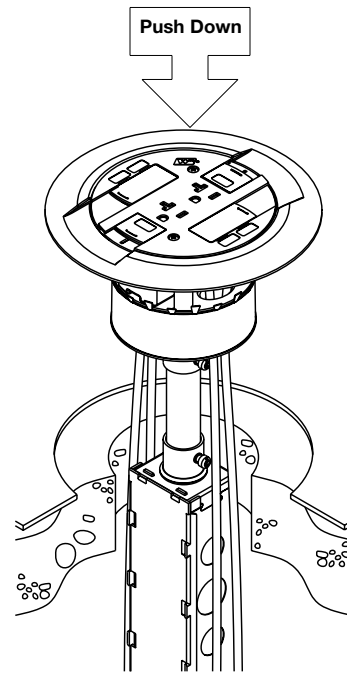
CAUTION: Gasket must be set in place to provide scrub water seal.

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



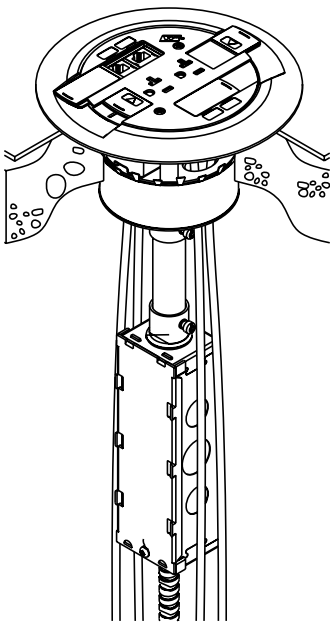
CAUTION: Do not over tighten cover mounting screws.

Step 15. Push Poke-Thru unit into concrete to complete installation.



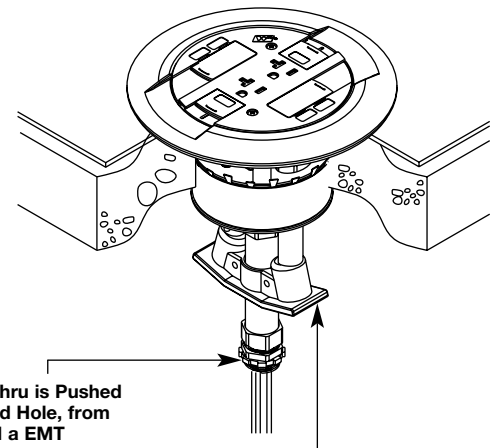
CAUTION: Poke-Thru cannot be rotated in hole after insertion into floor.

Step 16. Installation complete.



RC3 Poke-Thru Less Junction Box
Cat. Nos. RC3ATC-LJB, RC3ARTTC-LJB,
RC3ATCLJB25 and RC3ARTTCLJB25
(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 17. Follow steps 1 through 15 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

The RC3TC Series Poke-Thru Device is UL Listed and Classified to U.S. and Canadian safety standards to the following conditions:

The RC3STC Poke-Thru Stem with the RC3CTC Service Head Fitting or the RC3KTC Conversion Kit Assembly, the RC3ATC factory assembled poke-thru device, and the RC3APTC 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" 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)
RC3ATC	–	3 (.01536 sq in.) [9.9103mm ²]	32 (.01600 sq. in.) [10.323mm ²]
RC3STC	RC3CTC	3 (.01536 sq in.) 9.9103mm ²]	32 (.01600 sq. in.) [10.323mm ²]
RC3STC	RC3KTC	3 (.01536 sq in.) 9.9103mm ²]	32 (.01600 sq. in.) [10.323mm ²]

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 ²]
#22	.00050 sq. in. [.32258mm ²]
#14	.00323 sq. in. [2.08386mm ²]
#12	.00512 sq. in. [3.30321mm ²]
#10	.00815 sq. in. [5.25805mm ²]
# 8	.01296 sq. in. [8.36127mm ²]

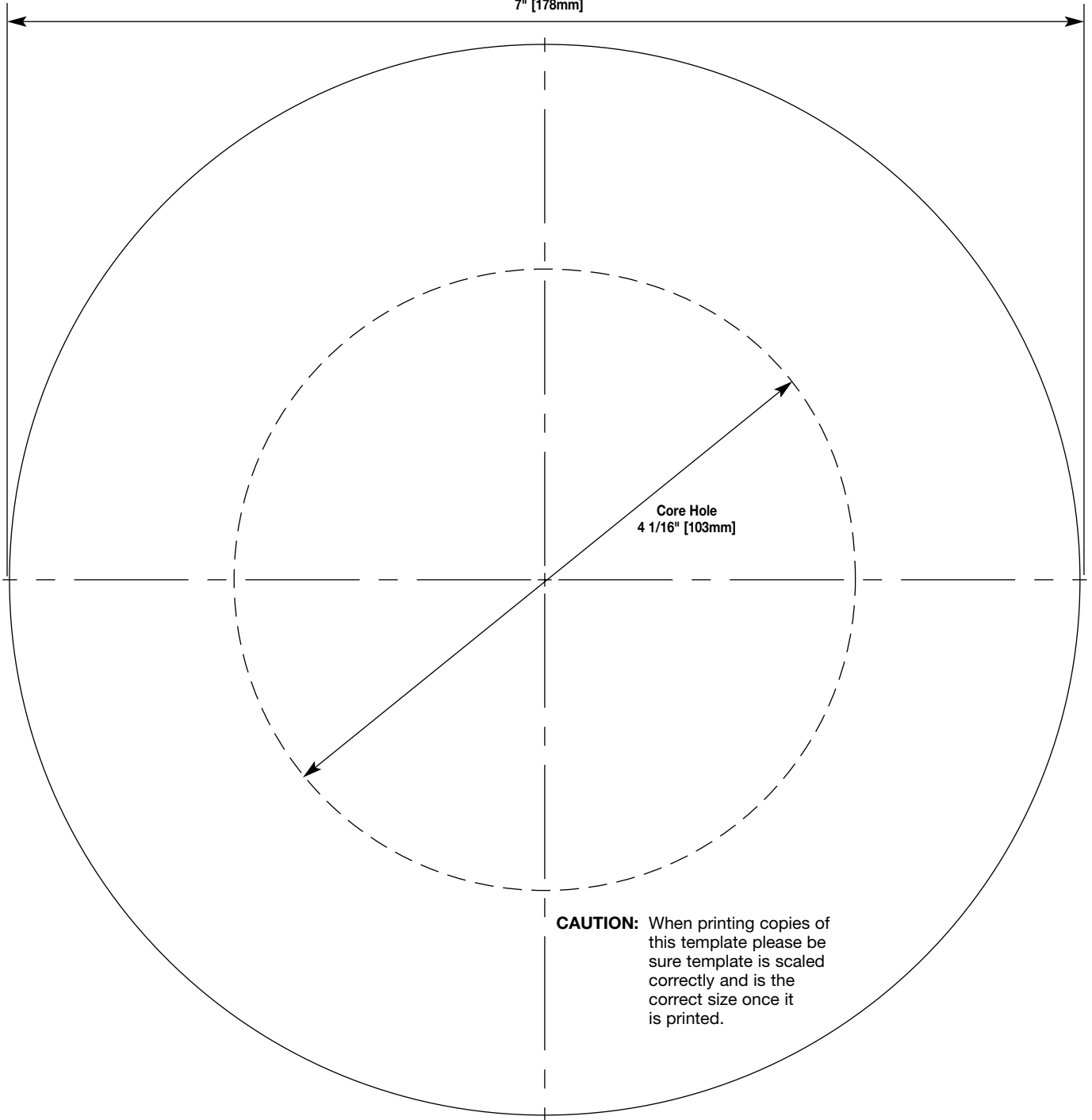
NOTE: Use above values for solid or stranded conductors.

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. RC37REC or RC37REC-25.

CARPET CUTOUT TEMPLATE

Carpet Cutout
7" [178mm]



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