

WIREMOLD



RC9 Poke-Thru Series INSTALLATION INSTRUCTIONS

Installation Instruction No.: 1 002 947 R3 – 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.

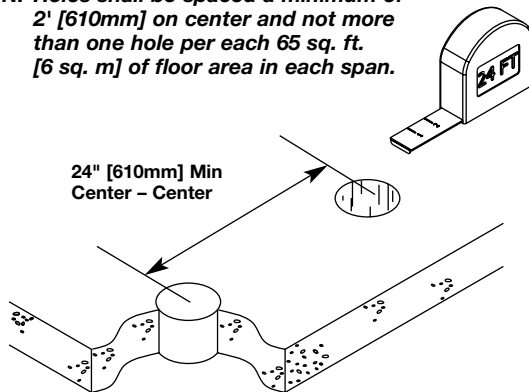
Products Covered: RC9STC, RC9A15TC, RC9CTC, RC9SHTC, RC9A15TC-LJB and RC9A15TCLJB25

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.

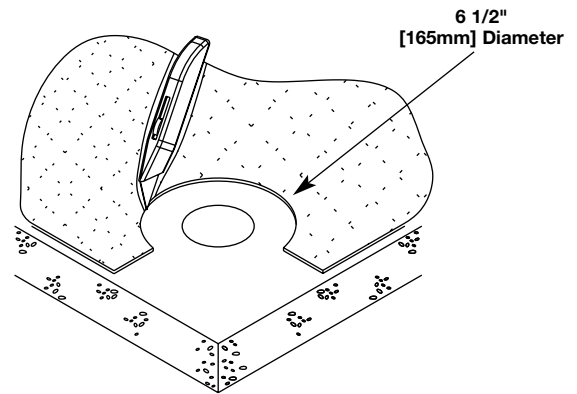
Step 1 Layout and locate position of hole(s).

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.



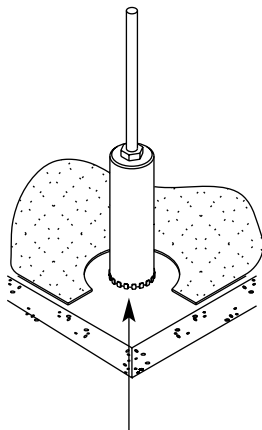
NOTE: Be certain to drill hole at least 4" [102mm] from any wall or pillar to leave enough room for poke-thru cover assembly.

Step 2 Remove 6 1/2" [165mm] section from carpet or tile. Use template provided.



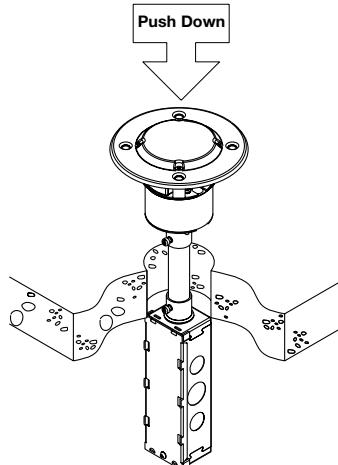
NOTE: For tile installations up to a maximum of 3/4" [19.1 mm] thick. For tile thickness greater than 3/4" [19.1mm] consult factory.

Step 3 Core drill hole.



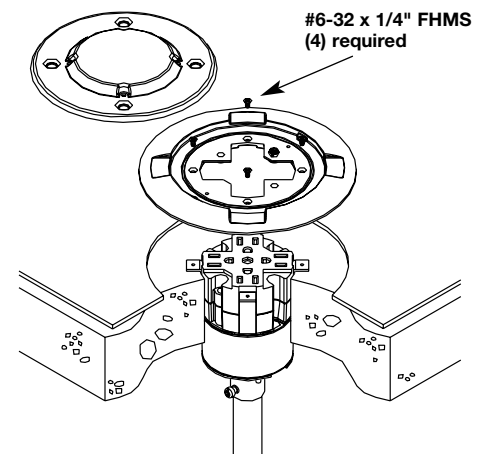
3" [76mm] Diameter Core Drill
3 1/16" [78mm] Actual Diameter

Step 4 Stem Assembly
Catalog No. RC9STC
Insert stem into hole.



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

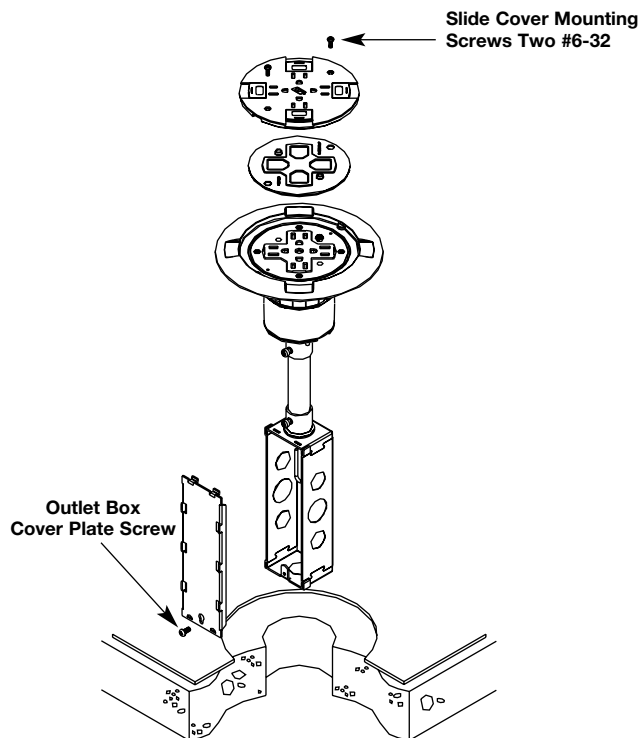
Step 5 Cover Assembly
Catalog No.: RC9CTC
Remove disposable plate and replace with carpet/tile flange. Install with (4) #6-32 x 1/4" [6.4mm] FHMS



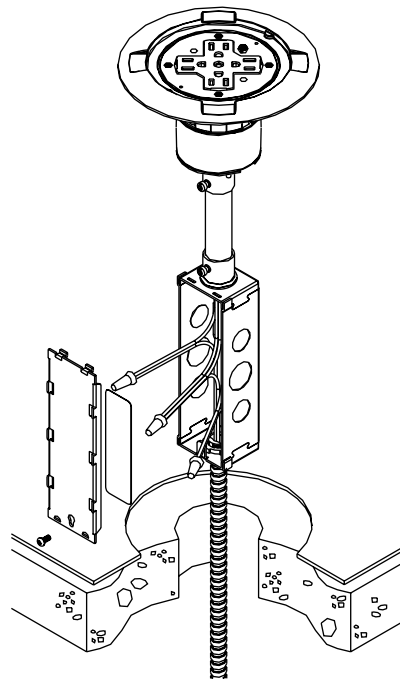
COMPLETE ASSEMBLY

Step 6 Cat. No. RC9A15TC

Wire the Poke-Thru device (Can be completed above floor). Refer to wiring schematic in Step 8.



Step 7 Wire the POWER circuit.



NOTE: When installing Cat No. RC9CTC to existing stems, apply wiring label to the inside of the junction box cover.

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

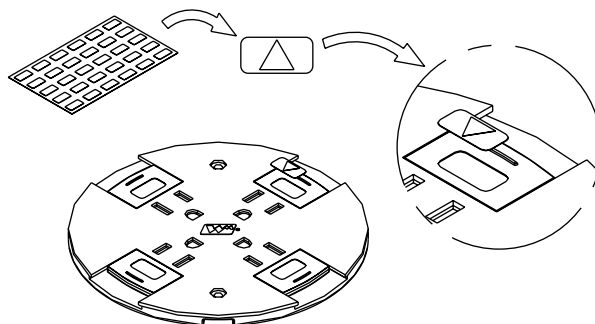
CONVENTIONAL WIRING SCHEMATIC		ISOLATED GROUND WIRING SCHEMATIC	
BLACK or HOT from branch circuit	BLACK from poke-thru receptacle	BLACK or HOT from branch circuit	BLACK from poke-thru receptacle
WHITE or NEUTRAL from branch circuit	WHITE from poke-thru receptacle	WHITE or NEUTRAL from branch circuit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

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).

SLIDE HOLDER ASSEMBLY

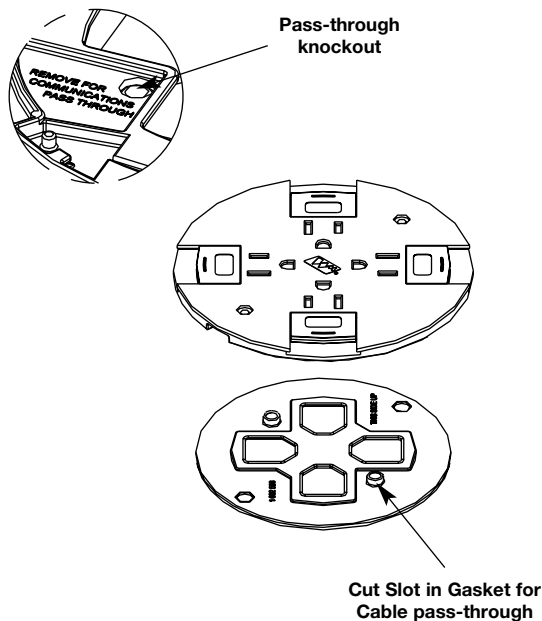
Step 9 If circuit is connected to an isolated ground, apply IG icon on receptacle slide as shown.



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

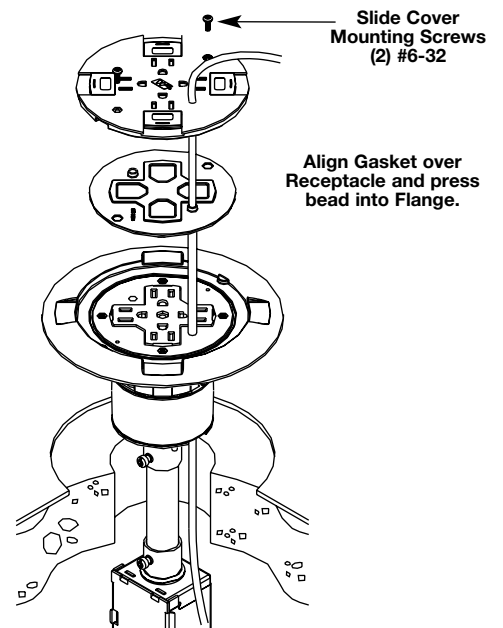
Step 10 Communication Wiring

For cable pass-through, remove the egress knockout located on the underside of the cover



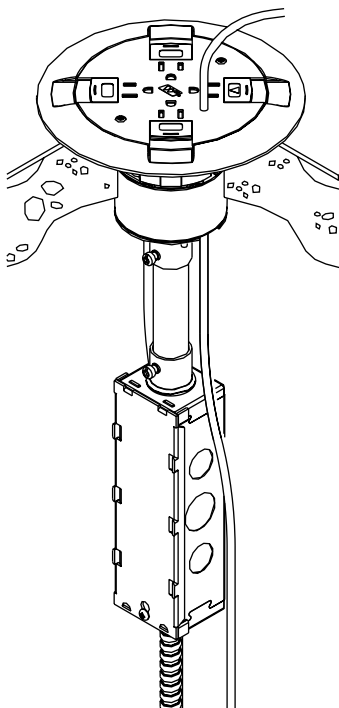
CAUTION: To maintain UL Fire Classification, Slide Cover must be replaced when communication cables are removed. Order Cat.No. RC9SHTC.

Step 11 Attach Slide Cover with (2) #6 screws. Pass-through cabling must pass through internal gasket and data slide.

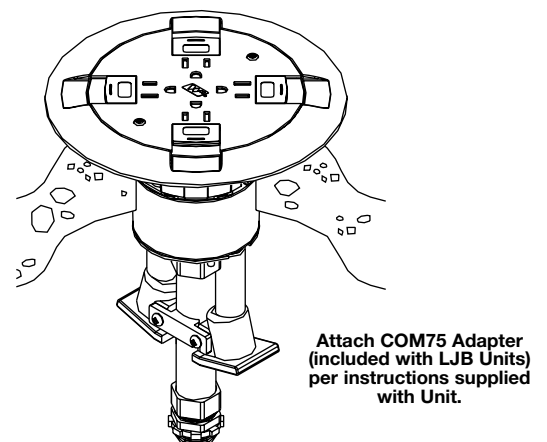


CAUTION: Gasket must be set in place to provide scrub water seal. Do not over-tighten Cover Mounting Screws.

Step 12 Installation complete



Step 13 RC9 Less Junction Box
Cat No. RC9A15TC-LJB, and RC9A15TCLJB25
(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.)
Follow Steps 1-11 for installation.



Once Poke-Thru is pushed into the cored hole, from below, install an EMT compression fitting (not supplied) and junction box to the conduit system. Complete installation per NEC and local codes.

The RC9TC Series Poke-Thru Device is UL Listed and Classified to U.S. and Canadian safety standards to the following conditions:

The RC9STC Poke-Thru Stem with the RC9CTC Service Head Fitting, the RC9A15TC factory assembled Poke-Thru device, and the RC9APTC 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 3" 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)
RC9A15TC	–	3 (.01536 sq. in.) [9.910mm ²]	16 (.00800 sq. in.) [5.162mm ²]
RC9STC	RC9CTC	3 (.01536 sq. in.) [9.910mm ²]	16 (.00800 sq. in.) [5.162mm ²]

The "TC" suffix letters indicate that device may be installed on tile or carpet covered concrete floors. 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.

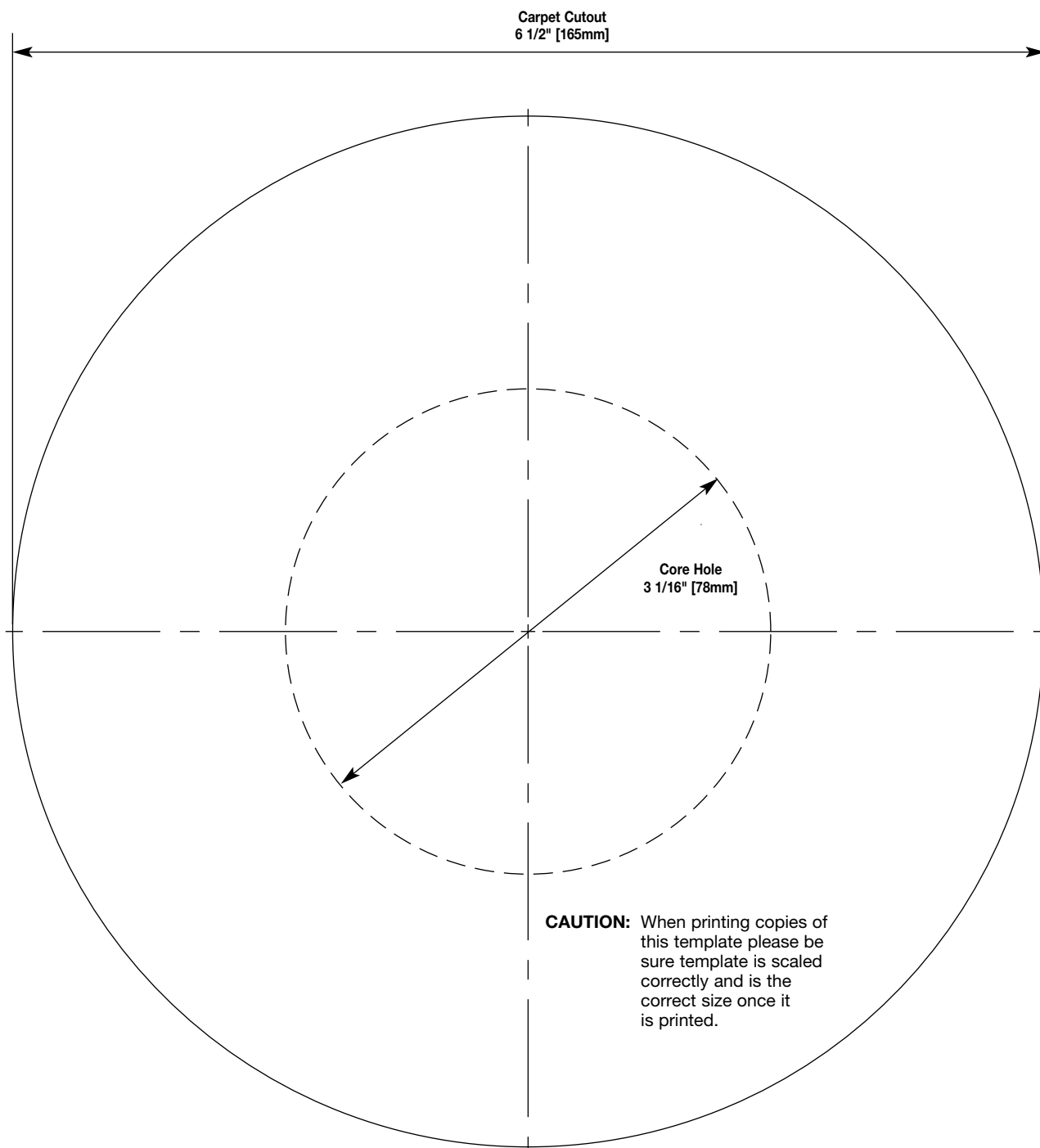
COPPER CROSS SECTIONAL AREA OF COMMONLY USED CONDUCTORS		
SIZE	SOLID	
#24	.00032 sq. in.	[.20645mm ²]
#22	.00050 sq. in.	[.32258mm ²]
#14	.00323 sq. in.	[2.08386mm ²]
#12	.00512 sq. in.	[3.30321mm ²]
#10	.00815 sq. in.	[5.25805mm ²]
# 8	.01296 sq. in.	[8.36127mm ²]

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. RC9REC or RC9REC-25.

Carpet Cutout Template



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