

INSTALLATION INSTRUCTIONS | 2" Adjustable Trimless Downlight RN2A Series

Note: Before attempting installation please refer to your local electrical code.

INSULATED and NON-INSULATED CEILING APPLICATIONS

- The RN2ARM Remodel Version, all series, can NOT be installed in direct contact with insulation. Do not install insulation within 3" of fixture sides or wiring compartment, nor above fixture in such a manner to entrap heat.
- The RN2ANC New Construction version, all series, can be installed in direct contact with insulation.

REMODEL TYPE INSTALLATION PROCEDURES:

- Ensure you have the proper location for the housing. The flexible electrical cable above the ceiling needs to be in close proximity to the hole that will be drilled in the ceiling for easy access.
 - The RN2ARM module requires a precision fit with the gypsum ceiling opening. This opening needs to be a diameter of 4-1/8". It is highly recommended that a 4-1/8" hole saw be used for an accurate ceiling opening. This will ensure a secure installation.
 - Once the ceiling opening has been created, the mud frame can then be installed. It's important to note, the deep side of the mud frame collar gets inserted up into the ceiling, so the shallow side is room facing (Figure 1). Alignment guide and self-drilling screws will not be required.
 - ConTech STRONGLY recommends using three 1/8" toggle bolts, 2" minimum length (supplied by others) to secure mud frame to gypsum board, as the mud frame will support the fixture. Create the smallest holes possible to allow the toggles to pass through, to maintain the integrity of the ceiling.
 - Joint compound can now be applied to ceiling and mud frame
 - After finish coat paint has been applied to ceiling, ensure inner groove in mud frame is clear from excess joint compound and paint, so housing and reflector will seat properly.
 - Pull flexible cable through ceiling opening of mud frame to wire housing.
 - Make all electrical connections (See "Electrical Connection").
 - Insert remote junction box through ceiling opening, while maintaining low voltage harness and seismic tether accessible from below the ceiling opening.
 - Plug in low voltage harness from the remote junction box and connect the seismic tether to the corresponding connections on the Universal Module.
 - Push Universal Module through the hole in the mud frame until it snaps into a fully seated position. The module is held securely in place with spring and ball detents located in the mud frame.
- NOTE:** Markings on Universal Module indicate direction of adjustability, careful consideration of orientation during installation will aid in aiming. (Figure 2).
- Module tilt adjustment can be performed using a finger or with the convenience slot for a flat blade screwdriver. (Figure 2).
 - Tilt adjustment on Universal Module can be locked into place utilizing set screw and provided allen wrench. (Figure 3).
 - See Trim Installation.

NEW CONSTRUCTION TYPE INSTALLATION PROCEDURES

- RN2ANC New Construction housing can be installed in direct contact with insulation.
 - Install hanger bars to RN2ANC mounting frame; ensure end tab is facing outward.
 - Extend bar hangers to fit between joists and position fixture by hammering nail on bars into the joists. Hangers should be level with bottom of the joists.
 - Make all necessary electrical connections (See "Electrical Connection")
 - When gypsum ceiling material is installed, verify that the mounting frame opening location is identified.
 - Using a rotary type cutting tool, plunge tool bit into ceiling and through mounting frame opening. Using the mounting frame opening as a guide, carefully cut an opening in the ceiling.
 - Using a template, mark a 4-1/8" diameter clearance circle for the mud frame on the gypsum ceiling, on the approximate centerline of the housing aperture. Since the mud frame will cover this opening, the exact center point is not necessary.
 - Using the same rotary type cutting tool, plunge tool bit through gypsum until it stops on housing frame. Trace circle to remove remaining gypsum "donut."
 - Use the cardboard alignment guide to center mud frame to the mounting frame, as alignment is critical to assuring a proper installation. (Figure 1)
 - Using the three (3) self-drilling screws provided, drive them through the holes in the mud frame and up through the mounting frame above the ceiling.
 - Joint compound can now be applied to ceiling and mud frame.
 - After finish coat paint has been applied to ceiling, ensure inner groove in mud frame is clear from excess joint compound and paint, so module and reflector will seat properly.
 - Locate the electrical cable in the mounting frame and pull it through the ceiling opening.
 - Plug in low voltage harness from the remote junction box and connect the seismic tether to the corresponding connections on the Universal Module.
 - Push Universal Module through the hole in the mud frame until it snaps into a fully seated position. The module is held securely in place with spring and ball detents located in the mud frame.
- NOTE:** Markings on Universal Module indicate direction of adjustability, careful consideration of orientation during installation will aid in aiming. (Figure 2).
- Module tilt adjustment can be performed using a finger or with the convenience slot for a flat blade screwdriver. (Figure 2).
 - Tilt adjustment on Universal Module can be locked into place utilizing set screw and provided allen wrench. (Figure 3).
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ELECTRICAL CONNECTION - REMODEL:

- Local electrical codes should be consulted to determine acceptable installation: conduit, Romex or flexible metal cable.
- Remove the two screws on the junction box cover to allow wiring RN2ARM.
- A convenience 2-in-1 duplex connector is provided if daisy-chaining housings is desired. The duplex connector must be installed in the knockout located opposite the pre-wired low voltage harness. (Figure 4).
- Follow Wiring Diagram 1 for electrical/dimming options 12D and 27D. Triac dimming is not available for 27D, 277V option. Follow Wiring Diagram 3 for electrical/dimming options 12D4 and 27D4. (Wiring Diagrams - Page 4)
- Ensure all wires are safely within junction box. Close junction box and reinstall screws.

ELECTRICAL CONNECTION - NEW CONSTRUCTION:

- Local electrical codes should be consulted to determine acceptable installation: conduit, Romex or flexible metal cable.
- Remove the outer junction box cover which is retained by spring RN2ANC.
- Follow Wiring Diagram 1 for electrical/dimming options MVD, MVD6, and MVD8. Triac dimming is not available for MVD, 277V option. Follow Wiring Diagram 2 for electrical/dimming option 12D3. Follow Wiring Diagram 3 for electrical/dimming option MVD4. Follow Wiring Diagram 4 for electrical/dimming options MVD7 and MVD9. (Wiring Diagrams - Page 4)
- Close junction box cover after wiring. Ensure that all wires are safely within junction box before closing.

TRIM INSTALLATION:

- Trims are held securely in place with friction springs. Simply push reflector into housing until it sits flush with the ceiling.
- **NOTE:** Slant cut reflectors should be aligned with adjustability of Universal Module for best performance.

RN2ARM REMODEL UNIVERSAL MODULE REMOVAL AND LED DRIVER REPLACEMENT:

- NOTE:** LED Driver should be replaced by a qualified electrician. Turn off power at fuse or circuit breaker box before replacing the LED Driver
- NOTE:** The following instructions are for below ceiling access of RN2ANCxMVD housings, if above ceiling access is available refer to 12D3/MVD4/MVD6/MVD7/MVD8 instructions.
- Pull trim straight down out of housing.
 - Pull straight down on Universal Module.
 - Remove smaller driver box, clipped to inside of housing, and pull through ceiling opening. (Figure 5)
 - Remove driver cover. (Figure 4)
 - Disconnect LED driver from line voltage input wiring in J-Box. Open up the LED driver enclosure and disconnect the LED driver from the LED leads (leads are terminated by crimp connectors).
 - Reinstall factory approved LED driver by reversing above procedure.

RN2ANC NEW CONSTRUCTION HOUSING REMOVAL AND LED DRIVER REPLACEMENT - MVD:

- NOTE:** LED Driver should be replaced by a qualified electrician. Turn off power at fuse or circuit breaker box before replacing the LED Driver
- NOTE:** The following instructions are for below ceiling access of RN2ANCxMVD housings, if above ceiling access is available refer to 12D3/MVD4/MVD6/MVD7/MVD8 instructions.
- Pull trim straight down out of housing.
 - Pull straight down on Universal Module.
 - Remove smaller driver box, clipped to inside of housing, and pull through ceiling opening. (Figure 5)
 - Remove driver cover. (Figure 4)
 - Disconnect LED driver from line voltage input wiring in J-Box. Open up the LED driver enclosure and disconnect the LED driver from the LED leads (leads are terminated by crimp connectors).
 - Reinstall factory approved LED driver by reversing above procedure.

RN2ANC NEW CONSTRUCTION HOUSING REMOVAL AND LED DRIVER REPLACEMENT - 12D3/MVD4/MVD6/MVD7/MVD8:

- NOTE:** LED Driver should be replaced by a qualified electrician. Turn off power at fuse or circuit breaker box before replacing the LED Driver
- NOTE:** Drivers require above ceiling access for service and driver replacement (12D3/MVD4/MVD6/MVD7/MVD8 dimming options).
- Remove the top cover of the NC housing (4 screws).
 - Remove two wingnuts on driver mount plate. (Figure 5)
 - Disconnect LED driver from line voltage input wiring in J-Box and disconnect the LED driver from the LED leads (leads are terminated by crimp connectors).
 - Remove driver from driver mount plate and note orientation. (Figure 5)
 - Reinstall factory approved LED driver by reversing above procedure.

IMPORTANT SAFETY INSTRUCTIONS:

- Read all the instructions before installation. Save instructions for later use.
- Turn off power at fuse or circuit breaker box before installation or before doing any maintenance work.
- Product must be grounded to avoid potential electric shock and any other potential hazards.
- Product must be mounted in locations and at heights and in a manner consistent with its intended use, and in compliance with National Electrical Code and local codes. Use of accessory equipment is not recommended.
- Installing contrary to instructions may cause unsafe conditions.
- Do not block light from the trim aperture, in whole or in part, as this may cause unsafe conditions.
- **Warning:** Risk of fire. Most dwellings built before 1985 have supply wire rated at 60°C. Consult a qualified electrician before installation.
- Avoid hazards to children: account for all parts and properly dispose of all packing materials.
- Call the Technical Support department at ConTech Lighting with any installation questions: 847.559.5500.

WARRANTY:

- Energy Star products are covered for three (3) years by a full replacement guarantee after date of installation. In addition, ConTech LED products carry a five (5) year limited warranty from date of purchase.

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FIGURE 1

Use the cardboard alignment guide to center mud frame to the mounting frame, as alignment is critical to assuring a proper installation.

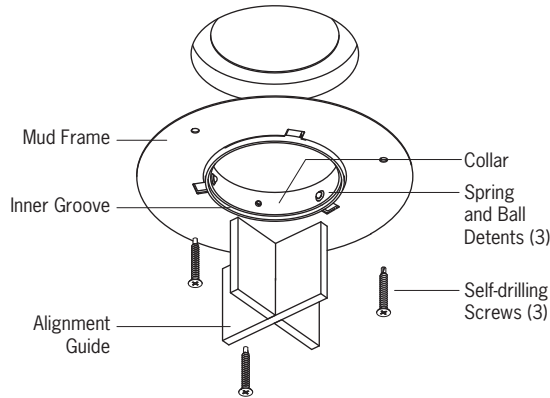


FIGURE 2

Markings on Universal Module indicate direction of adjustability, careful consideration of orientation during installation will aid in aiming. Module tilt adjustment can be performed using a finger or with the convenience slot for a flat blade screwdriver.

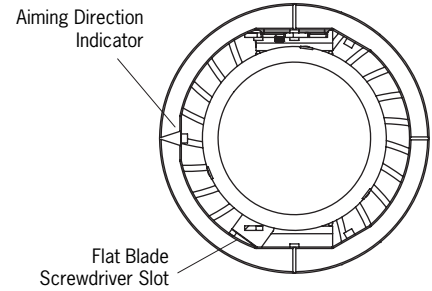


FIGURE 3

Tilt adjustment on Universal Module can be locked into place utilizing set screw and provided allen wrench.

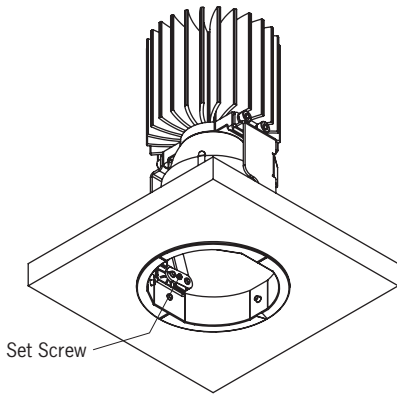


FIGURE 4

A convenience 2-in-1 duplex connector is provided if daisy-chaining housings is desired. The duplex connector must be installed in the knockout located opposite the pre-wired low voltage harness.

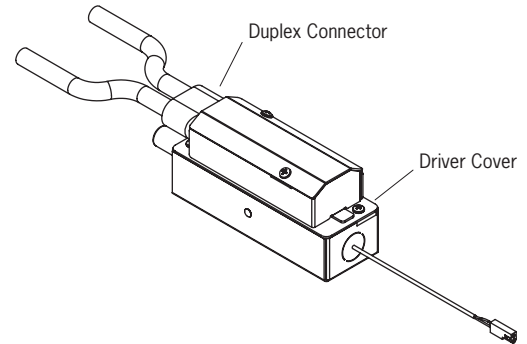
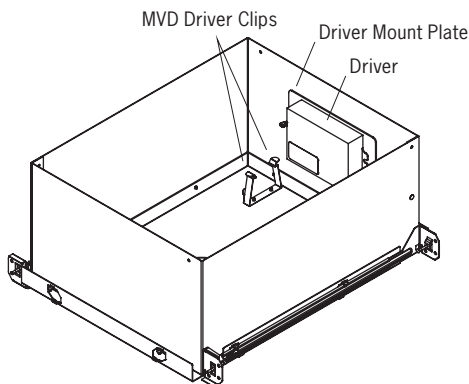


FIGURE 5

Smaller driver box, clipped to inside of housing



All specifications subject to change without notice. For ConTech's limited product warranty, go to www.contechlighting.com. For a printed copy of the warranty, call 1-847-559-5500.

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WIRING DIAGRAMS

DIAGRAM 1

MVD, 12D, 27D, MVD6 and MVD8 Options
 120V or 277V Electrical/Dimming (Triac, ELV & 0-10V)
Triac and ELV Require Purple and Pink/Grey wires to be capped

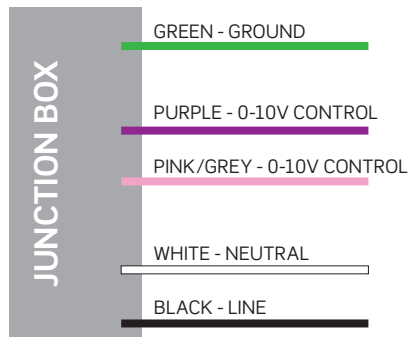


DIAGRAM 2

12D3 Option
 120V ONLY
 120V Lutron HiLume Dimming

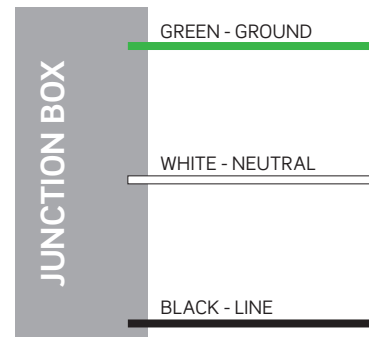


DIAGRAM 3

MVD4, 12D4 and 27D4 Options
 120V or 277V
 Lutron EcoSystem® Dimming

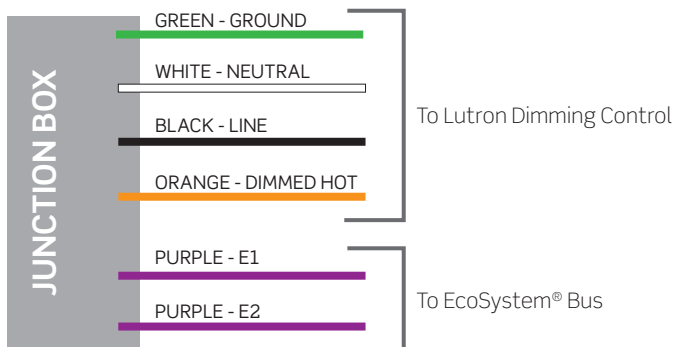
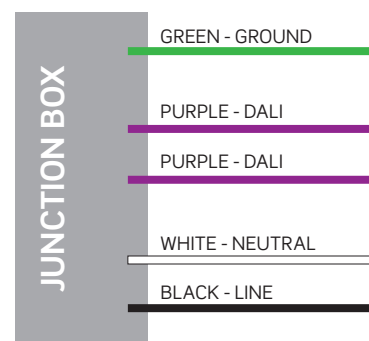


DIAGRAM 4

MVD7 and MVD9 Options
 120V or 277V
 Electrical/Dimming (DALI)



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