tekmar® - Wiring Brochure

tekmarNet®4 User Switch 479

tN4

W479
12/08

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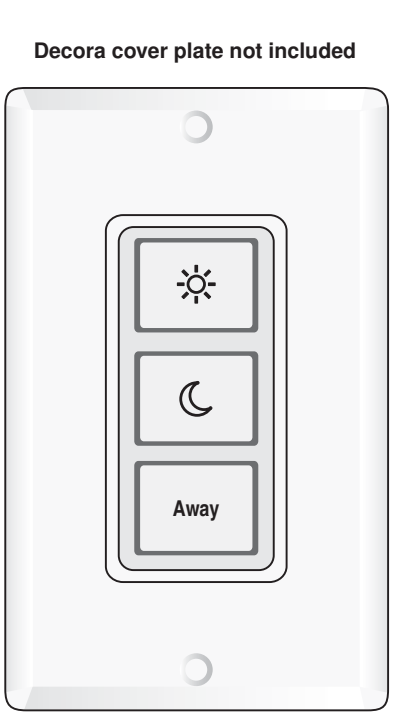
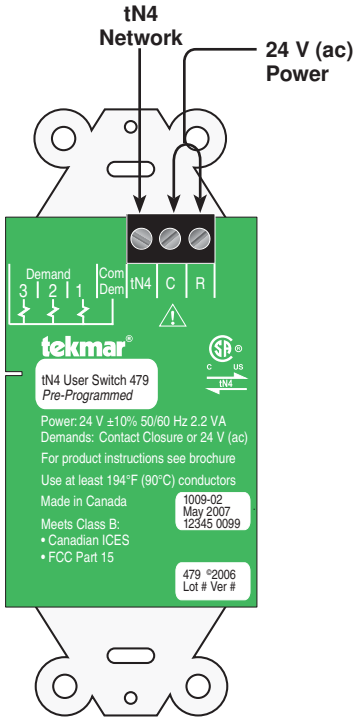
Choose controls to match application	Design your mechanical applications	Rough-in wiring instructions	Wiring and installation of specific control	Control settings and sequence of operation	Record settings & wiring details for future reference

Overview

The following brochure describes how to wire the tekmarNet®4 User Switch 479.





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Definitions

The following defined terms and symbols are used throughout this manual to bring attention to the presence of hazards of various risk levels, or to important information concerning the life of the product.

– Caution: Refer to accompanying documents.

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INSTALLATION CATEGORY II – Local level appliances.

⚠ Caution ⚠

Improper installation and operation of this control could result in damage to the equipment and possibly even personal injury or death. It is your responsibility to ensure that this control is safely installed according to all applicable codes and standards. Do not attempt to service the control. Refer to qualified personnel for servicing. Disassembly of the control voids warranty and could result in damage to the equipment.

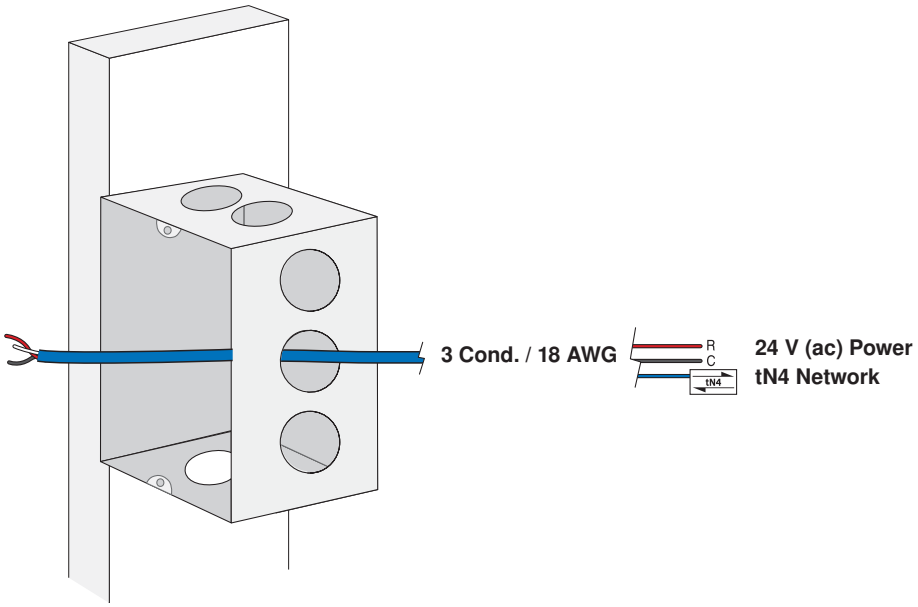
Rough-In Wiring

The 479 is designed to fit in standard electrical switch boxes. It is recommended that the User Switch be installed in a dedicated switch box. It is not recommended to mix the User Switch with high voltage wiring. In the event that a User Switch shares the switch box with a line powered device, a suitable barrier must be installed which is in accordance to local codes.

Choose the placement of the User Switch early in the construction process to enable proper wiring during rough-in.

Consider the following:

- Interior wall.
- Keep dry in a non-condensing environment.
- No exposure to extreme temperatures beyond 32-122°F (0-50°C).
- Easy access for wiring and viewing.
- Standard 18 AWG wire is recommended for all connections.

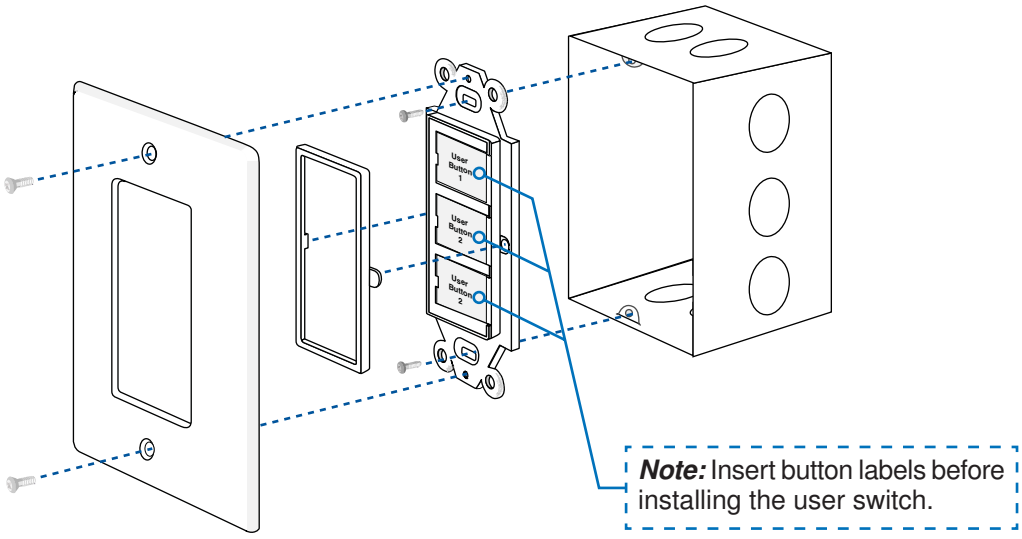


Installing the User Switch

The User Switch is designed for use with Decora style cover plates which are not included.

Fasten the User Switch to the switch box using the supplied mounting screws.

Fasten the Decora cover plate over the User Switch.



Wiring the User Switch

⚠ Power (24 V (ac))

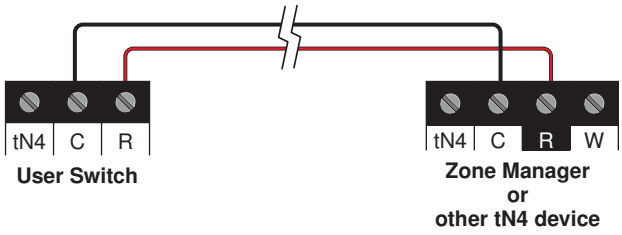
Wire 24 V (ac) to terminals C and R.

If a Zone Manager is used:

- Connect C on the User Switch to C on any zone of the Zone Manager.
- Connect R on the User Switch to R on any zone of the Zone Manager.
- The User Switch can be wired in parallel to thermostats.

If a 24 V (ac) transformer is used:

- Connect C on the User Switch to C on the transformer.
- Connect R on the User Switch to R on the transformer.



⚠ tN4 Communication

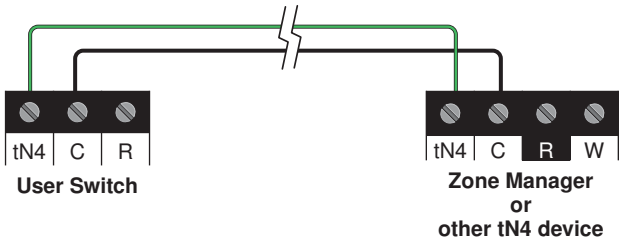
Wire the tN4 communication to terminals tN4 and C.

If a Zone Manager is used:

- Connect tN4 on the User Switch to tN4 on any zone of the Zone Manager. The C terminal is already connected.

If a Zone Manager is not used:

- Connect tN4 to the tN4 terminal on another tN4 device on the same tN4 bus.
- Connect C to the C terminal on another tN4 device on the same tN4 bus.

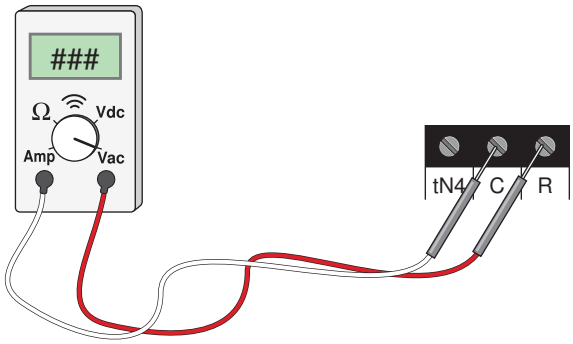


Troubleshooting the Wiring

⚠ General

The following tests are to be performed using standard testing practices and procedures and should only be carried out by properly trained and experienced persons.

A good quality electrical test meter, capable of reading from at least 0-300 V (ac), and testing for continuity is essential to properly test the wiring.



Testing the Wiring

⚠ Testing 24 V (ac) Power Supply

1. Remove the User Switch from the switch box.
2. Use an electrical test meter to measure (ac) voltage between the R and C terminals. The reading should be 24 V (ac) +/– 10%.
3. Reinstall the User Switch.

Technical Data

tekmarNet®4 User Switch 479 *Pre-Programmed*	
Packaged Weight	0.46 lb. (210 g)
Enclosure	White PC+ABS plastic
Dimensions	4.09” H x 1.7” W x 0.8” D (104 x 43 x 20 mm)
Approvals	CSA C US, CSA/UL 61010-1, meets Class B: ICES and FCC Part 15
Ambient Conditions	Indoor use only, 32 to 122°F (0 to 50°C) 92% RH up to 104°F (40°C), 50% RH if > 104°F (40°C) Altitude <9840 feet (3000 m), Installation Category II, Pollution Degree 2
Power Supply	24 V (ac) ± 10% 50/60 Hz, 2.2 VA

The installer must ensure that this control and its wiring are isolated and/or shielded from strong sources of electromagnetic noise. Conversely, this Class B digital apparatus complies with Part 15 of the FCC Rules and meets all requirements of the Canadian Interference-Causing Equipment Regulations. However, if this control does cause harmful interference to radio or television reception, which is determined by turning the control off and on, the user is encouraged to try to correct the interference by re-orientating or relocating the receiving antenna, relocating the receiver with respect to this control, and/or connecting the control to a different circuit from that to which the receiver is connected.

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

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