

tekmar[®]

24 V (ac) Transformer 013



013_D

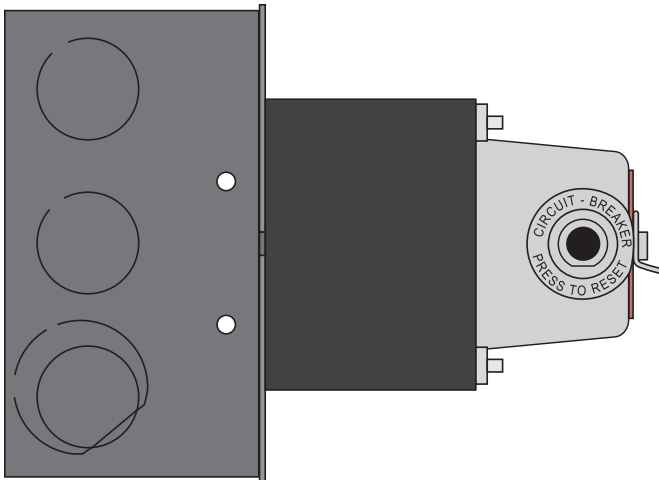
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Accessories Replaces: New

Installation & Operation Manual

Introduction

The 24 V (ac) Transformer 013 has a 115 V (ac) primary and a 24 V (ac) secondary with a capacity of 96 VA. A resettable circuit breaker protects the transformer from overloading. A 4" x 4" electrical junction box is included for mounting.



WARNING



It is the installers responsibility to ensure that this device is safely installed according to all applicable codes and standards. tekmar is not responsible for damages resulting from improper installation and/or maintenance.



Read this Manual BEFORE using this equipment.

Failure to read and follow all safety and use information can result in personal injury, property damage, or damage to the equipment.

Keep this Manual for future reference.



- Disconnect all power before opening the device.
- Improper installation and operation of this device could result in damage to the equipment and possibly even personal injury or death.

Installation

Check the Contents

Check the contents of this package. If any of the contents listed are missing or damaged, please refer to the Limited Warranty and Product Return Procedure on the back of this brochure and contact your wholesaler or tekmar sales representative for assistance. Type 013 includes:

- One 24 V (ac) Transformer 013
- One Installation & Operation Manual 013_D

Preparation

Tools Required

- Phillips screwdriver
- Wire Stripper

Materials Required

- Wood screws
- 2 conductor, 18 AWG LVT solid wire
- Wire nuts
- 2 conductor with ground, 14 AWG cable

Installation Location

Choose the placement of the 24 V (ac) early in the construction process to enable proper wiring during rough-in.

Consider the following:

- Keep dry. Avoid potential leakage onto the control.
- No exposure to extreme temperatures beyond 32-122°F (0 to 50°C).
- Easy access for wiring.

Step 1 - Install the Electrical Box

Mount the electrical box to a wall with two woods screws centered on a wall stud.

Step 2 - Line Voltage Wiring

- Pull two conductor 14 AWG cable from the power disconnect to the electrical box. Strip wire to 3/8" (10 mm) for all connections.
- Connect the cable ground to the electrical box ground screw.
- Connect the cable neutral wire to the transformer white wire using a wire nut.
- Connect the cable line voltage wire to the transformer black wire using a wire nut.
- Mount the transformer to the electrical box by aligning the slotted holes with the electrical box screws.
- Tighten the electrical box screws with a Phillips screwdriver.

Step 3 - Low Voltage Wiring

- The top of the transformer has two Phillips screws. Loosen the screws using a Phillips screwdriver.
- Strip the 18 AWG wire to 3/8" (10 mm) for all connections.
- Connect the "C" on the transformer to the control "C" wiring terminal.
- Connect the "R" on the transformer to the control "R" wiring terminal.

Resettable Circuit Breaker

In the event that the current between the 24 V (ac) R and C terminals exceeds 4 A, the 013 circuit breaker will trip thereby shutting off 24 V (ac) power. Push the button on the top of the 013 to reset the circuit breaker.

Testing and Troubleshooting

Using a volt meter, measure the voltage on the 24 V (ac) wiring terminals. The voltage should measure 22 to 30 V (ac). If no voltage is present, press the button to reset the circuit breaker, then check the 115 V (ac) supply voltage.

Technical Data

24 V (ac) Transformer 013 96 VA, includes Mounting Box

Literature	013_C, 013_D
Packaged weight	5.0 lb (2300 g)
Dimensions	4" L x 4" W x 5-7/8" H (102 x 102 x 150 mm)
Approvals	Transformer UL C US, Electrical Box UL and CSA
Ambient conditions	Indoor use only, 32 to 122°F (0 to 50°C)
Input power supply	115 V (ac) ± 10%, 60 Hz
Output power available	22 to 30 V (ac), 60 Hz, Class 2
Circuit breaker	4 A

Limited Warranty and Product Return Procedure

Limited Warranty *The liability of tekmar under this warranty is limited. The Purchaser, by taking receipt of any tekmar product ("Product"), acknowledges the terms of the Limited Warranty in effect at the time of such Product sale and acknowledges that it has read and understands same.*

The tekmar Limited Warranty to the Purchaser on the Products sold hereunder is a manufacturer's pass-through warranty which the Purchaser is authorized to pass through to its customers. Under the Limited Warranty, each tekmar Product is warranted against defects in workmanship and materials if the Product is installed and used in compliance with tekmar's instructions, ordinary wear and tear excepted. The pass-through warranty period is for a period of twenty-four (24) months from the production date if the Product is not installed during that period, or twelve (12) months from the documented date of installation if installed within twenty-four (24) months from the production date.

The liability of tekmar under the Limited Warranty shall be limited to, at tekmar's sole discretion: the cost of parts and labor provided by tekmar to repair defects in materials and / or workmanship of the defective product; or to the exchange of the defective product for a warranty replacement product; or to the granting of credit limited to the original cost of the defective product, and such repair, exchange or credit shall be the sole remedy available from tekmar, and, without limiting the foregoing in any way, tekmar is not responsible, in contract, tort or strict product liability, for any other losses, costs, expenses, inconveniences, or damages, whether direct, indirect, special, secondary, incidental or consequential, arising from ownership or use of the product, or from defects in workmanship or materials, including any liability for fundamental breach of contract.

The pass-through Limited Warranty applies only to those defective Products returned to tekmar during the warranty period. This Limited Warranty does not cover the cost of the parts or labor to remove or transport the defective Product, or to reinstall the repaired or replacement Product, all such costs and expenses being subject to Purchaser's agreement and warranty with its customers.

Any representations or warranties about the Products made by Purchaser to its customers which are different from or in excess of the tekmar Limited Warranty are the Purchaser's sole responsibility and obligation. Purchaser shall indemnify and hold tekmar harmless from and against any and all claims, liabilities and damages of any kind or nature which arise out of or are related to any such representations or warranties by Purchaser to its customers.

The pass-through Limited Warranty does not apply if the returned Product has been damaged by negligence by persons other than tekmar, accident, fire, Act of God, abuse or misuse; or has been damaged by modifications, alterations or attachments made subsequent to purchase which have not been authorized by tekmar; or if the Product was not installed in compliance with tekmar's instructions and / or the local codes and ordinances; or if due to defective installation of the Product; or if the Product was not used in compliance with tekmar's instructions.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, WHICH THE GOVERNING LAW ALLOWS PARTIES TO CONTRACTUALLY EXCLUDE, INCLUDING, WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, DURABILITY OR DESCRIPTION OF THE PRODUCT, ITS NON-INFRINGEMENT OF ANY RELEVANT PATENTS OR TRADEMARKS, AND ITS COMPLIANCE WITH OR NON-VIOLATION OF ANY APPLICABLE ENVIRONMENTAL, HEALTH OR SAFETY LEGISLATION; THE TERM OF ANY OTHER WARRANTY NOT HEREBY CONTRACTUALLY EXCLUDED IS LIMITED SUCH THAT IT SHALL NOT EXTEND BEYOND TWENTY-FOUR (24) MONTHS FROM THE PRODUCTION DATE, TO THE EXTENT THAT SUCH LIMITATION IS ALLOWED BY THE GOVERNING LAW.

Product Warranty Return Procedure All Products that are believed to have defects in workmanship or materials must be returned, together with a written description of the defect, to the tekmar Representative assigned to the territory in which such Product is located. If tekmar receives an inquiry from someone other than a tekmar Representative, including an inquiry from Purchaser (if not a tekmar Representative) or Purchaser's customers, regarding a potential warranty claim, tekmar's sole obligation shall be to provide the address and other contact information regarding the appropriate Representative.

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. For more information: www.watts.com/prop65



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