

The tekmar Transformer 009 is a 40 VA, 24 V (ac) transformer for use with products that require an external transformer. The Transformer Kit 009K includes a 4" x 4" electrical J-Box.

### Basic Installation

#### Mount the Electrical Box

- Mount the electrical box securely in the location where the transformer is to be installed.
- Mount the transformer to the electrical box. Figure 1 shows how the transformer could be mounted.

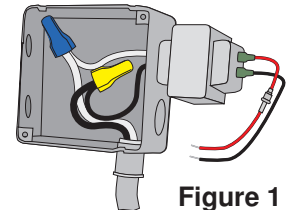


Figure 1

#### Wiring the Transformer

##### High Voltage Side:

- The high voltage side of the transformer can be determined by locating the two permanently connected, black and black or black and white wires, which are factory-installed.
- Connect 120 V (ac) hot (L) to the black (L) wire on the transformer.
- Connect 120 V (ac) neutral (N) to the white or opposite black (N) wire on the transformer.

##### Low Voltage Side:

- The low voltage terminals have male spade connectors and are labelled R and C.
- Connect the red lead (with the in-line fuse) provided with the Transformer 009 to the R spade connector on the secondary side of the transformer. The fuse is rated at 250 V (ac) 2.0 A slow-blow type.
- Connect the black lead provided with the 009 to the C spade connector on the secondary side of the transformer.

### Sizing the Transformer Load

When sizing a transformer it is important to know the load that it will be operating. Transformers are sized based on the VA (Volt X Amps) power that they can provide. Use the sizing chart below to calculate the required VA. The tekmar Transformer 009 can supply a total of 40 VA. If the load exceeds 40 VA, a larger transformer is required.

Zone	1	2	3	4	5	6	
Thermostat Load							
Zone Valve Load							
Other Load							
Total Zone Load	_____ +	_____ +	_____ +	_____ +	_____ +	_____ +	_____ =

Control Load (VA)

➔

Transformer must exceed:

=

\_\_\_\_\_ VA

### ⚠ WARNING



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



#### To avoid serious personal injury and damage to the equipment:



- Read Manual and all product labels BEFORE using the equipment. Do not use unless you know the safe and proper operation of this equipment.
- It is the installers responsibility to ensure that this product is safely installed according to all applicable codes and standards.
- Ensure power to the circuit is off before wiring.

## Technical Data

24 V (ac) Transformer 009 40 VA	
Packaged weight	1.6 lb (750 g)
Dimensions	2" W x 2-1/4" L x 2-1/2" D (51 x 57 x 64 mm)
Approvals	CSA standard C22.2 #66 part B & UL 5085
Ambient conditions	Indoor use only, 32 to 104°F (0 to 40°C)
Input power supply	120 V (ac) ± 10%, 60 Hz
Output power available	24 V (ac) ± 10% 60 Hz, 1.67A, 40 VA, Class 2
Supplied fuse rating	T2 A 250 V slow-blow

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](http://www.watts.com/prop65)

## 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.