

# tekmar® - Data Brochure

Remote Display Module (RDM) 040

D 040

05/07

The tekmar Remote Display Module (RDM) 040 provides the user with a remote interface to any tekmar control that is tekmar Net™ (tN2) capable. The RDM can be used to view and / or adjust the settings on the control that it is connected to, or on any Room Temperature Unit (RTU) that may be connected to the control. The RDM can display any of the system and status indicators visible on the control or RTU. It also has a built in alarm contact that can be used to trigger an external alarm if either a control or sensor error occurs.

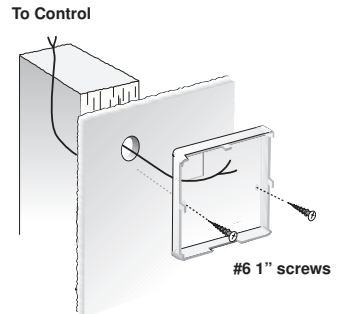
## Installation

### STEP ONE — REMOVING THE FRONT COVER

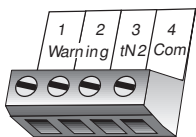
Place a screwdriver or similar object into the small slot located in the top of the RDM. Push the screwdriver against the plastic tab, and pull the top of the front cover so that it pivots around the bottom edge of the RDM.

### STEP TWO — MOUNTING THE RDM

The base of the RDM should be securely installed in the desired location. Mount the RDM directly to the desired location using two #6-1" screws. The screws are inserted through the mounting holes and must be securely fastened to the desired location. If possible, at least one of the screws should enter a wall stud or similar surface. If the RDM is to be mounted to a 2" x 4" electrical box, order an Adaptor Plate 007. This plate mounts to the electrical box and the RDM will then mount to the plate.



### STEP THREE — WIRING THE RDM

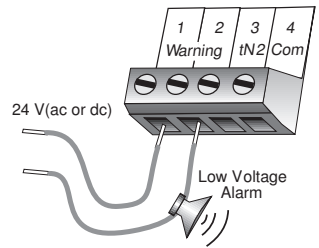


Run 18 AWG twisted pair or similar wire between the RDM and the control. Insert the wires through the hole provided in the back of the RDM enclosure and connect them to the Com and the tekmar Net™ (TN2) terminals. Do not run the wires parallel to telephone or power lines as this may interfere with the operation of the RDM. If the RDM wires are located in an area with strong sources of electromagnetic noise, shielded cable should be used or the wires can be run in a grounded metal conduit.

**NOTE:** Do not apply power to the RDM. The RDM is to be wired directly to the control. The connection between the control and the RDM is polarity sensitive. The Com terminal of the RDM must be connected to the Com terminal of the control and the tekmarNet™ (tN2) terminal of the RDM must be connected to the appropriate terminal of the control. If the wires are reversed, the display on the RDM will remain blank and the control will display a short circuit error for the tekmarNet™ (tN2) device.

## STEP FOUR — WIRING A REMOTE ALARM

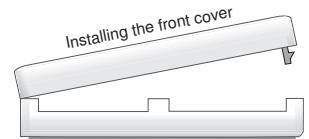
The RDM comes with a built in alarm contact. This contact will close anytime either a sensor or control error is detected by the control. The contact will remain closed until the error is cleared. To clear the error message on the RDM and turn off the alarm relay, refer to the control Data Brochure. This contact will also close if a Warning in the control is triggered. However, if a warning is triggered, the alarm contact will only remain closed for 60 seconds. After 60 seconds, the warning message will continue to be displayed, but the alarm contact will be shut off. To clear the warning message, the keypad of the RDM must be pressed as described in the control Data Brochure.



Between terminals 1 and 2, the contact is capable of switching a low voltage signal that is less than 0.5 Amps. This switch can be used to operate a low voltage alarm device directly, or it can be used to energize an external relay to trigger a line voltage or high current alarm device.

## STEP FIVE — INSTALLING THE FRONT COVER

Align the hinges on the bottom of the front cover with the bottom of the RDM mounting base. Pivot the front cover around the bottom hinges and push the top against the mounting base until it snaps firmly in place.



### SELECTING THE DEVICE

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The RDM can be used to view and / or adjust any of the settings on either the control or any of the RTU's connected to the control.

The device that is to be viewed or adjusted is selected as follows:

- Select the Miscellaneous (Misc) Menu by pressing the Menu button.
- Press the Item button until the word DEVICE is displayed in the LCD.
- Use the Up and Down buttons to select either the Control (CTRL) or one of the RTU's (RTU1, RTU2, ...).

Once the device has been selected, the RDM can be used to view and / or adjust the settings of the selected device.

### TEMPERATURE UNITS

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The RDM is capable of displaying the temperature in either °F or °C. In order to select the temperature units, press the Menu button until the Miscellaneous (Misc) menu is displayed. Next, press the Item button until the UNITS item is displayed. Then use the Up or Down button to select the desired units of measure.

### ACCESS LEVELS

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The RDM has four access levels that restrict the number of Menus, Items, and Adjustments that can be accessed by the user. The four access levels are Limited (LTD), User (USER), Installer (INST), and Advanced (ADV).

The access level of the RDM is found in the Miscellaneous (Misc) menu. The access level can only be viewed and / or adjusted when the Lock / Unlock DIP switch of the control that the RDM is connected to is set to the Unlock position. To determine if the RDM's access level is currently locked or unlocked, a small segment representing a padlock is viewed in the bottom right hand corner of the display.

## Technical Data

### REMOTE DISPLAY MODULE (RDM) 040

|                    |   |
|--------------------|---|
| Literature         | D 040   |
| Packaged weight    | 0.22 lb. (100 g), Enclosure J, white PVC plastic                  |
| Dimensions         | 2-7/8" H x 2-7/8" W x 13/16" D (73 x 73 x 21 mm)                  |
| Approvals          | CSA NRTL/C, meets DOC & FCC regulations for EMI/RFI.              |
| Ambient conditions | Indoor use only, 32 to 122°F (0 to 50°C), < 90% RH non-condensing |
| Power Supply       | tekmar control; tekmar Net 2 (tN2)                                |
| Relay              | 24 V (ac or dc) 0.5 A, pilot duty 6 VA                            |

## 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.



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