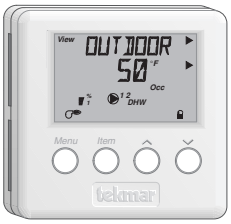
tekmar® - Data Brochure

Remote Display Module (RDM) 040

D 040

06/99



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.

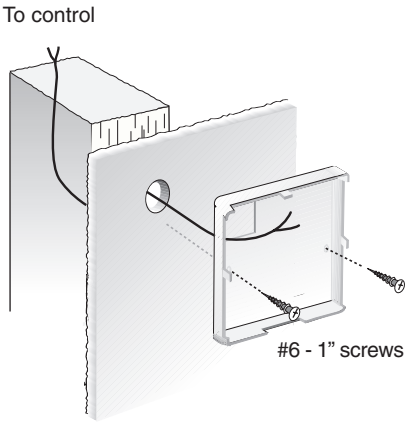
Installation

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.

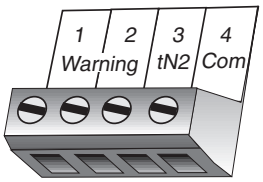
STEP TWO — MOUNTING THE RDM

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.

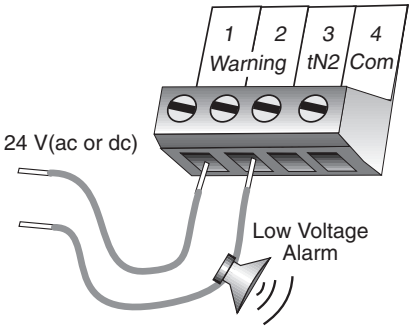


NOTE: Do not apply power to the RDM. The RDM is to be wired directly to the control. The connection between the control and the RDM is polarity sensitive. The Com terminal of the RDM must be connected to the Com terminal of the control and the tekmar Net™ (tN2) terminal of the RDM must be connected to 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 tekmar Net™ (tN2) device.

STEP FOUR — WIRING A REMOTE ALARM

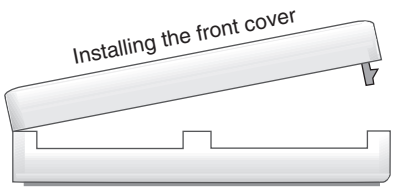
The RDM comes with a built in alarm contact. This contact will close anytime either a sensor or control error is detected by the control. The contact will remain closed until the error is cleared. To clear the error message on the RDM and turn off the alarm relay, refer to the control Data Brochure. 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.



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Settings

Selecting the Device

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

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

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 Control Systems Ltd. and tekmar Control Systems, Inc. ("tekmar") under this warranty is limited. The purchaser, by taking receipt of the tekmar product ("product"), acknowledges receipt of the terms of the warranty and acknowledges that it has read and understands same.

tekmar warrants each tekmar product against defects in workmanship and materials, if the product is installed and used in compliance with tekmar's instructions. The 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 this 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 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.

This warranty applies only to those products returned to tekmar during the warranty period. This 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. Returned products that are not defective are not covered by this warranty.

This warranty does not apply if the 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 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 (being the law of British Columbia) allows parties to contractually exclude, including, without limitation, warranties of merchantability, 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 Return Procedure 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 for that territory. If the address of the representative is not known, please request it from tekmar at the telephone number listed below.

tekmar Control Systems

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