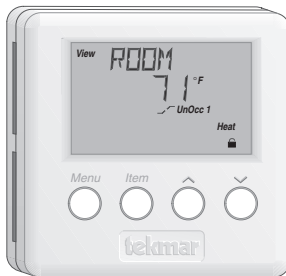


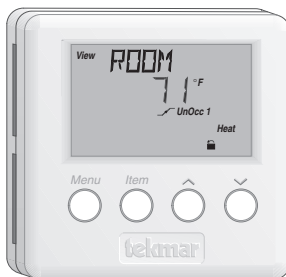
Room Temperature Unit (RTU) 062



The tekmar Room Temperature Unit (RTU) 062 consists of an air temperature sensor, a liquid crystal display (LCD) and four buttons. These buttons and the LCD are used to set and view the desired room temperature. The RTU's LCD displays the current room temperature, the outdoor air temperature and a number of other items.

The 062 can only be used with tekmar controls that are tekmar Net™ capable (tN1 or tN1/tN2) terminals. The items that the 062 displays depends on the type of tekmar control that the RTU is connected to. To determine the exact items that are displayed by the RTU, refer to the Data Brochure for the control that the 062 is to be used with. In cases where a restricted temperature range is required, the RTU's range can be limited by changing the access level of the RTU.

Room Temperature Unit (RTU) 063



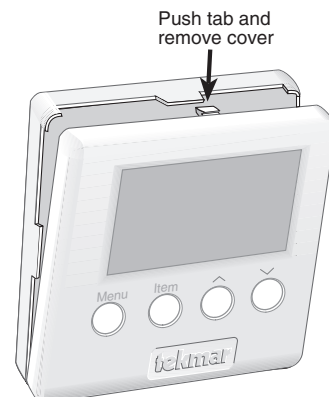
The tekmar Room Temperature Unit (RTU) 063 consists of one internal air sensor, three remote temperature sensor inputs, a liquid crystal display (LCD) and four buttons. These buttons and the LCD are used to set and view the desired room temperature. The RTU's LCD displays the current room temperature, the outdoor air temperature, temperatures at the remote air or slab sensors, and a number of other items.

The 063 can only be used with tekmar controls that are tekmar Net™ capable (tN1 or tN1/tN2 terminals). The items that the 063 displays depends on the type of tekmar control that the RTU is connected to. To determine the exact items that are displayed by the RTU, refer to the Data Brochure for the control that the 063 is to be used with. In cases where a restricted temperature range is required, the RTU's range can be limited by changing the access level of the RTU.

Installation

STEP ONE — REMOVING THE FRONT COVER —

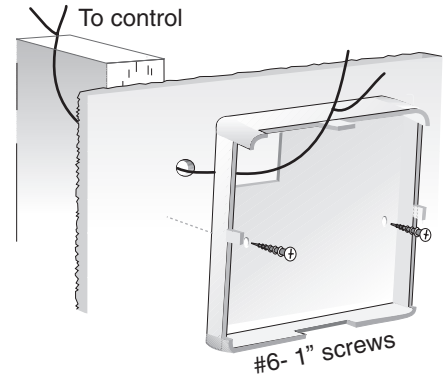
Place a small screwdriver or similar object into the small slot located in the top of the RTU enclosure. Push the screwdriver down against the plastic tab and pull the top of the front cover so that it pivots around the bottom edge of the RTU. The back cover provides the base to which the front of the RTU mounts. Store the front of the RTU in a safe place until wiring must be completed.



STEP TWO — MOUNTING THE RTU

The RTU should be installed on an interior wall of the desired zone to be controlled. Do not mount the RTU in a location that may be affected by localized heat sources or cold drafts. It may be necessary to install a draft barrier behind the enclosure in order to prevent air from blowing through the wiring hole and affecting the RTU reading.

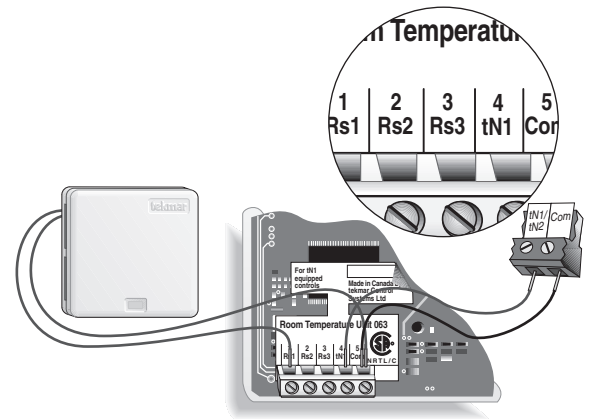
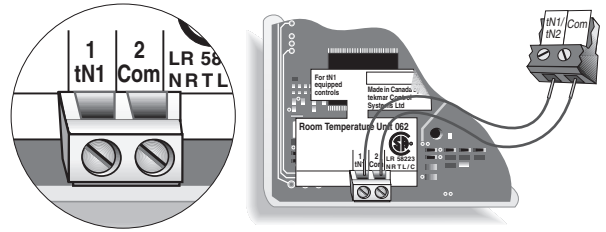
Mount the RTU directly to the wall using two #6-1" screws. The screws are inserted through the mounting holes and must be securely fastened to the wall. If possible, at least one of the screws should enter a wall stud or similar surface. If local code requires that the RTU be mounted to a 2" x 4" electrical box, order an Adapter Plate 007. This plate will mount to the electrical box and the RTU will then mount to the plate. Ensure that the electrical box does not provide cold air to the RTU.



STEP THREE — WIRING THE RTU

Run 18 AWG twisted pair or similar wire between the RTU and the control. Insert the wires through the hole provided in the back of the RTU enclosure and connect them to the *Com* and the tekmar Net™ (*tN1*) terminals. Do not run the wires parallel to telephone or power lines as this may interfere with the operation of the RTU. If the RTU 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 RTU. The RTU is powered by the control. The connection between the control and the RTU is polarity sensitive. The *Com* terminal of the RTU must be connected to the *Com* terminal of the control and the tekmar Net™ (*tN1*) terminal of the RTU must be connected to the appropriate tekmar Net™ (*tN1*) terminal of the control. If the wires are reversed, the display on the RTU will remain blank and the control will display a short circuit error for the tekmar Net™ (*tN1*) device.



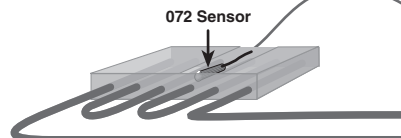
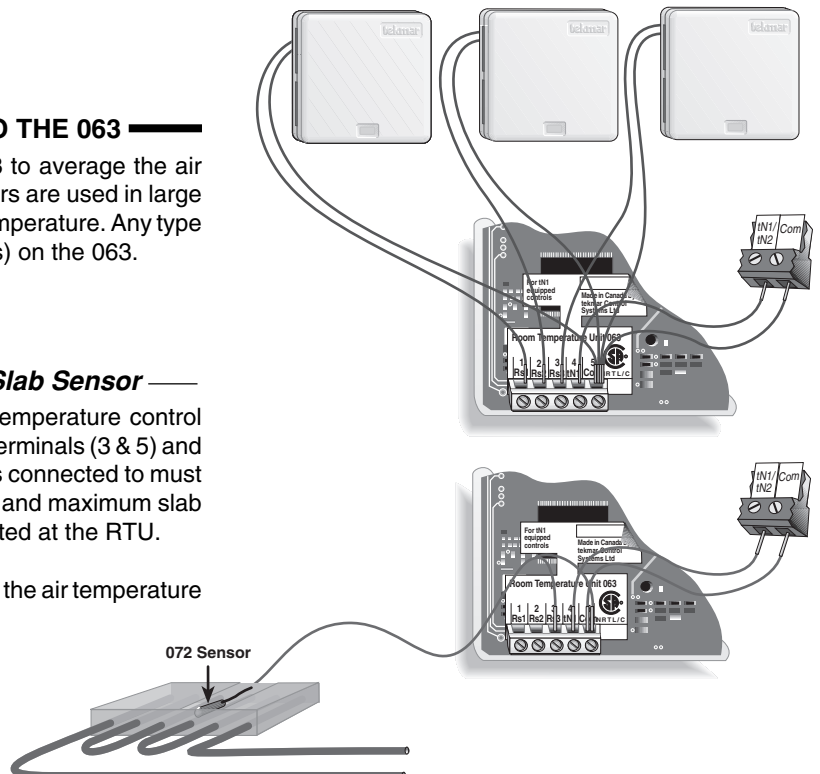
STEP FOUR — REMOTE SENSORS TO THE 063

Remote indoor sensors can be connected to the 063 to average the air temperature reading. Typically, multiple remote sensors are used in large open areas in a building to get an average indoor air temperature. Any type of tekmar 10K sensor can be connected to the input(s) on the 063.

Room or Slab Temperature Control using a Slab Sensor

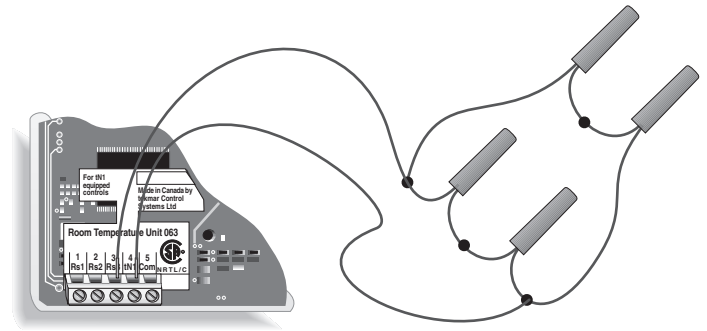
The RTU 063 can be configured for slab and air temperature control using a slab sensor connected to the *Rs3* and *Com* terminals (3 & 5) and the air sensor in the RTU. The control that the 063 is connected to must be configured to support this feature. The minimum and maximum slab temperature and air temperature settings are adjusted at the RTU.

If the air temperature sensor at the RTU is turned off, the air temperature is ignored.



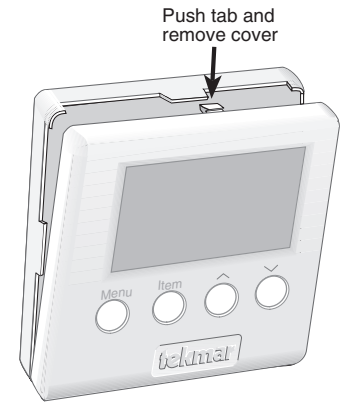
Averaging Slab Temperature

The slab sensor can only be connected to the *Rs3* input on the 063. If you wish to average slab temperatures, connect slab sensors in a series / parallel arrangement as shown. The 063 will see one average slab temperature and respond accordingly. Refer to Data Brochure D 071A for multiple sensor wiring arrangements.



STEP FIVE ——— INSTALLING THE FRONT COVER

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



View Menu

When in the view menu, press either the Up or Down button to adjust the desired room temperature. The temperature being adjusted depends on whether the control is in the Occupied or UnOccupied mode. Refer to the control's Data Brochure for available items.

Adjust Menu

Use the Menu button to select the *Adjust* menu. In the Adjust menu, use the Item button to select the item to adjust, then use either the Up or Down buttons to adjust it. Refer to the control's Data Brochure for available items.

Temperature Units

The RTU 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. Then, while the UNITS item is displayed, use the Up or Down button to select the desired units of measure.

Access Levels

The RTU 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 RTU 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 RTU is connected to is set to the *Unlock* position. To determine if the RTU'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.

Limiting the Temperature Range

The adjustment range of the desired room temperature can be limited in order to avoid extreme temperature settings. Set the desired room temperature in the *Adjust* menu. Then go to the Miscellaneous (*Misc*) menu and select the LTD access level. If desired, set the *Lock / Unlock* DIP switch on the control to the *Lock* position so that the access level can no longer be adjusted.

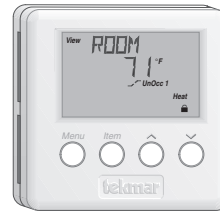
As long as the RTU remains in the LTD access level the room temperature setting(s) can only be adjusted $\pm 3^{\circ}\text{F}$ ($\pm 1^{\circ}\text{C}$) from the setting that was selected when the RTU was placed into the LTD access level.

Notes

Technical Data

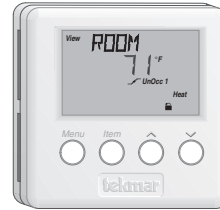
Room Temperature Unit (RTU) 062

Literature	— D 062
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™ 1 (tN1)
Internal Sensor	— NTC thermistor, 10 kΩ @ 77°F (25°C ±0.2°C), β=3892



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Internal Sensor	— NTC thermistor, 10 kΩ @ 77°F (25°C ±0.2°C), β=3892
Remote Sensors	— tekmar type #: 070, 071, 072, 073, 076, 077.



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 de-

fective 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 Ltd., Canada
tekmar Control Systems, Inc., U.S.A.
**Head Office: 4611 - 23rd Street
Vernon, B.C. Canada V1T 4K7
Tel. (250) 545-7749 Fax. (250) 545-0650
Web Site: www.tekmarcontrols.com**