

# RCB09A

## Touch Screen Remote Control for Millivolt Valve Installation and Operating Instructions

IF YOU CANNOT READ OR UNDERSTAND THESE INSTALLATION INSTRUCTIONS. DO NOT ATTEMPT TO INSTALL OR OPERATE

This wireless thermostatic on/off/ remote control transmitter is designed to be used with millivolt valve gas appliances. It can be operated thermostatically or manually from the transmitter or turned on and off manually from the receiver.

### CONTENTS OF KIT

Description	Quantity
Transmitter	1
RCB09A Touch Key Remote Control Transmitter	1
Receiver	1
White Color Slide Button	1
White Color Wall Cover Plate	1
Wiring Assembly – 18” Inches	1
Installation Instructions	1
#6 3/4 Screws (for Wall Cover Plate and Remote control)	4
#6 3/4 Screws (for fireplace system control covers)	2
Plastic wall anchors (for installing transmitter)	2

**NOTE:** Due to the sensitive temperature monitoring components in the transmitter, it is necessary to allow the transmitter to stabilize to room temperature before accurate room temperature are displayed, If the transmitter is activated from a severe cold condition allow 15 minutes for accurate temperature reading to appear on the LCD.

The user hand don't closed to temperature sensor location to avoid it influence the detect temperature of sensor

Touch anyplace on the screen and the screens blue back light will light up and stay on Four seconds.

### WARNING

#### Important Safety Information

- Read this manual thoroughly prior to installing, programming or operating any remote control.
- This remote control system is designed for use with a millivolt or 24V gas valve system. Do not use this remote control system on applications with voltages above 24 Volts AC/DC and 1 amp current.
- This remote control system requires four (4) “AAA” and four (4) “AA” alkaline batteries to power the transmitter and receiver.
- **Turn appliance OFF (at the appliance or remote receiver) if you are away from your house for a long period of time.**

#### FEATURES/SPECIFICATIONS

- Easy Operate Manual Adjustment and Thermostat Control
- Battery Powered Transmitter and Receiver
- Low battery Indication
- Select Between °C and °F display
- Child Proof Lock-out
- 16 Security Codes
- Quick Disconnect Wiring Assembly
- Touch Key Function

**Note** On initial startup if a LOW battery icon appears on the screen, check the position of the batteries.

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**Turn appliance OFF and allow to cool before installing or servicing. DO NOT connect 110-120 VAC wiring to the millivolt gas control valve. The remote operator must be installed exactly as outlined in these instructions. Read all instructions completely before attempting installation. Follow instructions carefully during installation. Any modification of components will void the warranty and may cause a fire hazard.**



## **RCB09A Transmitter:**

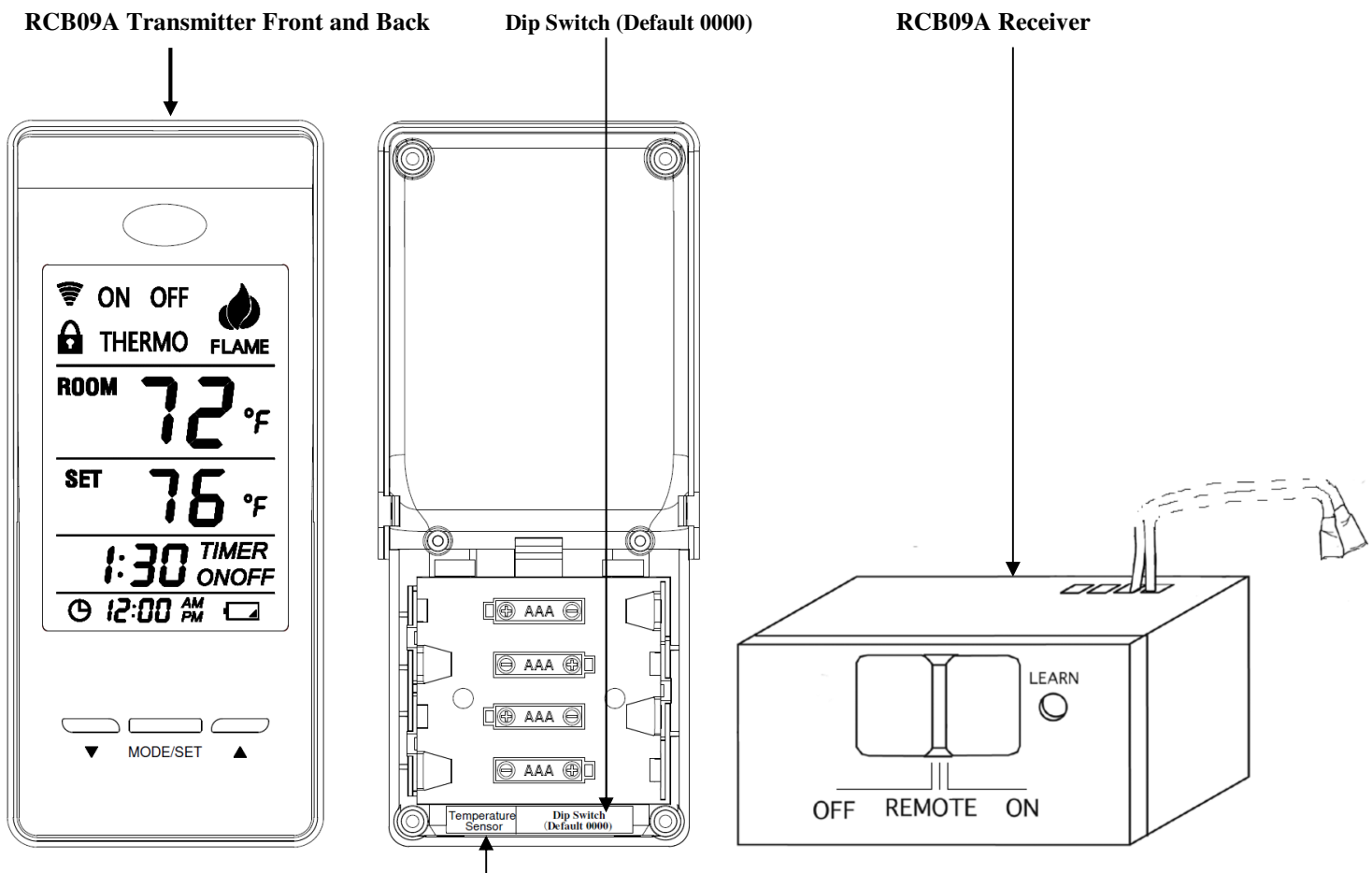
### **Installing Batteries:**

The remote transmitter uses four (4) “AAA” batteries. To install batteries:

1. Press down the battery door and remove the battery door.
2. Install uses four (4) “AAA” batteries as indicated on transmitter.
3. Close the battery door by snapping in place.
4. The batteries should be replaced when the low battery indicator display in LCD.
5. When (4) “AAA” batteries are installed, the transmitter will initialize for 1 seconds and then is ready for use.

### **LEARNING TRANSMITTER TO RECEIVER (Manufactory have done the default setting learning, User can skip learning if not change the Security Codes)**

1. The transmitter privacy (DIP) Switches are preset at the factory. Setting the 4 bits DIP Switches on transmitter to select a security code.
2. Put the receiver slide switch to “**REMOTE**” location. Using a small screwdriver or end of a paper clip gently press and Hold the **LEARN** button on the receiver to accept the transmitter security code upon initial use, When you release the **LEARN** button the receiver will emit an audible “beep”
3. After the receiver emits the beep. Press the “Mode/SET” button or press “On Thermo OFF” button of touch screen, The remote will transmitter signal and receiver will emit several beeps indicating that the transmitter’s code has been accepted into the receiver.
4. If you are unsuccessful in matching the security code on the first attempt repeat step 1-3

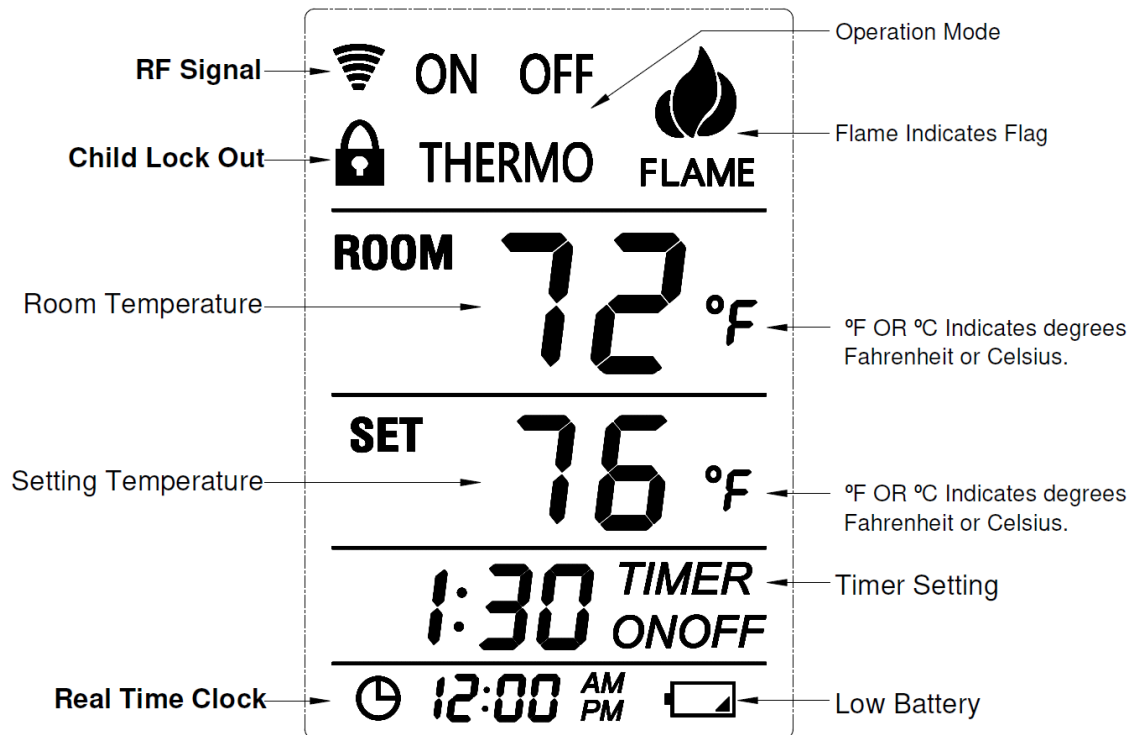


The user hand don't closed to temperature sensor location to avoid it influence the detect temperature of sensor

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**Do not use two (2) or more remote control systems in the same area with the same dip switch settings, as they will communicate with each other. This may cause the appliances to malfunction. It need to User setting new DIP Switch ID**

## LCD - Liquid Crystal Display



1. **Low Battery** - Battery power is low. Replace batteries within 2 weeks.
2. **TIMER On Setting**- It Indicates time remaining before system shuts off, when timer-programmed; 9-hour maximum setting.
3. **MODE**- Indicates operation MODE of system.
  - a) ON indicates the system is on, either manually or thermostatically.
  - b) OFF indicates the entire system is turned off,
  - c) THERMO indicates the system will automatically cycle on/off, depending on programmed
4. **SET**- Indicates desire SET room temperature for THERMO operation
5. **FLAME** – Indicates burner/valve in operation.
6. **CLOCK** – Indicates the current time in AM/PM
7. **ROOM** – Indicates CURRENT room temperature.
8. **°F** – indicates degrees Fahrenheit (°C indicates degrees Celsius).
9. **LOCK** – Child lock out.

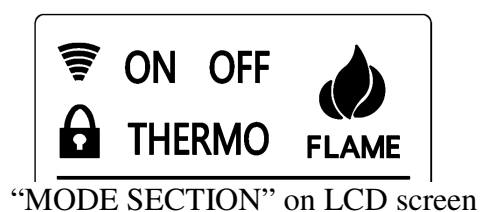
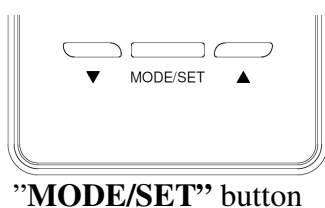
## OPERATIONS:

### Transmitter:

#### MODE Operate Setting:

To operate the system, press the "MODE/SET" button or press the "MODE Section" on The LCD screen on the front of the transmitter to select the operational MODE desired.

- 1) ON indicates the entire system is turned ON,
- 2) THERMO indicates the system will automatically cycle ON/OFF, depending on programmed set Temperature.
- 3) OFF indicates the entire system is turned OFF.



### Real Time Clock Setting:

Press and Hold the “Clock Section” on The LCD screen on the bottom of the transmitter for 3 second, the clock flag flashing indicates Real Time Clock Setting is active status, press “UP” or “DN” button to adjust the Real Time Clock. And then press “MODE/SET” button to finish setting the Clock.

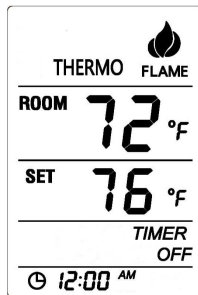


### SETTING °F and °C SCALE:

The factory setting for temperature is °F. To change this setting to °C, first press and hold the UP button and the DOWN button on the transmitter at the same time. Follow this same procedure to change from °C back to °F. When changing between the °F and °C scales,

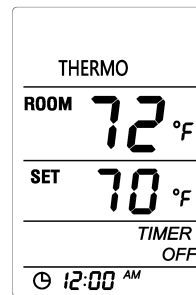
### SETTING DESIRED ROOM TEMPERATURE:

This remote control system can be thermostatically controlled when the transmitter is in the THERMO mode (**THERMO must be displayed on the screen**). To set the DESIRED room temperature, press the MODE/SET button or press the “MODE Section” on the LCD to place the transmitter into **THERMO** mode, then press the UP or DOWN button to setting the desired room temperature. The highest SET temperature is 99°F (32°C).



In **Thermo** Mode:

Setting Room Temperature > Room Temperature  
Flame Flag is on and control system is ON



In **Thermo** Mode:

Setting Room Temperature < Room Temperature  
Flame Flag is off and control system is OFF

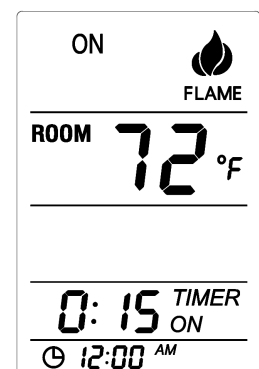
1. There may be a slight delay in the response of the unit (on/off) to a temperature setting as room temperature is monitored every 3 minutes.

Operational note: To conserve battery power, the remote monitored room temperature every 3 minutes and transmit the RF signal to Receiver.

### SETTING THE COUNTDOWN TIMER:

This remote control system can operate with a built-in countdown timer when the transmitter is in the ON or THERMO modes (**THERMO or ON must be displayed on the screen**).

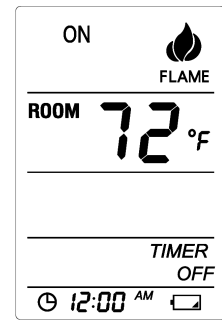
1. Touch the word **TIMER** on the LCD screen of the transmitter for more than two seconds. The minimum 0:15 minute setting on the will begin to flash.
2. Press the UP or DOWN button to begin advancing through each of the countdown time options. Available countdown times are 15 minutes, 30 minutes, 45 minutes, 1 hour, 1:30 minutes, 2 hours, 2:30 minutes, and each additional half-hour up to nine hours.
3. Press the **MODE/SET** button do the Timer setting, if the system is ON. It will remain on until the time has expired. If the system is in the THERMO mode, it will cycle on and off, as the room temperature requires until the “time” has expired.



**OPERATIONAL NOTE:** When the timer is used in the **THERMO** mode, the **THERMO** operation will discontinue when the “time” has expired. System will return to the **OFF** position.

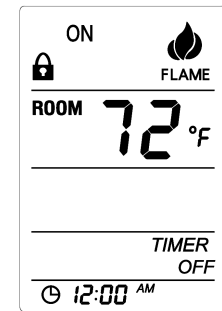
## LOW/BATTERY INDICATOR

The battery ICON on the bottom and right side of the LCD screen will appear when battery power has dropped significantly. At this time, approximately 2 weeks of battery power remains until the transmitter may experience partial or complete loss of functions.



## Child-proof protection:

1. Press and hold “MODE/SET” and “UP” buttons at same time for 5 seconds to activate child-proof mode. The LOCK ICON will appear on the LCD screen. The buttons will deactivated.
2. The remote control will not work until child-proof mode is deactivated by pressing the “MODE/SET” and “UP” buttons at same time for 5 seconds again to exit child-proof mode.



## Transmitter Wall Bracket

The transmitter can be hung on a wall using the **Wall Bracket** provided. If the **Wall Bracket** is installed on a solid wood wall, drill 1/8” pilot holes and install with the screws provided. If it is installed on a laster/wallboard wall, first drill two 1/4” holes into the wall. Then use a hammer to tap in the two plastic wall anchors flush with the wall; then install the screws provided.

## TRANSMITTER

The remote control operates, on RF (radio frequency) signals that are sent by the TRANSMITTER (remote) to the RECEIVER that operates the appliance. It is recommended that the TRANSMITTER always be located within the 30-foot operating range, preferably in the same room in which the appliance is located.

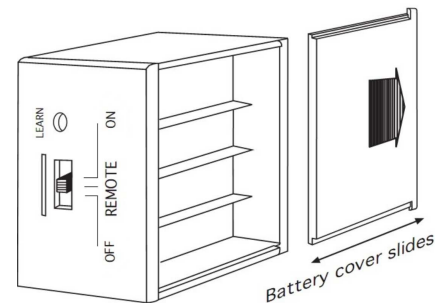
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**Make sure that the wires do not contact the appliances any place other than at the terminals. Exposure to temperatures higher than 250°F(105°C) may cause the receiver to malfunction or cause a fire hazard.**

## Receiver:

**Begin by installing** (4) AA-size batteries. Slide open the battery cover on receiver. It is recommended that ALKALINE batteries always be used for this product. Be sure the batteries are installed with the (+) and (-) ends facing the correct direction. Close battery cover

NOTE: The remote receiver will only respond to the transmitter when the 3-position slide button on the remote receiver is in the **REMOTE** position. The remote receiver houses the microprocessor that responds to commands from the transmitter to control system operation



## **FUNCTIONS:**

1) with the slide switch in the” **ON**” position (toward the LEARN button), the system will remain ON until the slide switch is placed in the OFF or REMOTE position.

2) with the slide switch in the” **REMOTE**” position (centered), the system will only operate if the remote receiver receives commands *from the transmitter*.

3) with the slide switch in the” **OFF**” position (away from the LEARN button), the system is OFF.

**It is suggested that the slide switch be placed in the OFF position if you will be away from your home for an extended period of time. If the remote receiver is mounted out of children’s reach, placing the slide switch in the OFF position**

**Also functions as a safety “lock-out” by both turning the system off and rendering the remote receiver inoperative**

## **Installation**

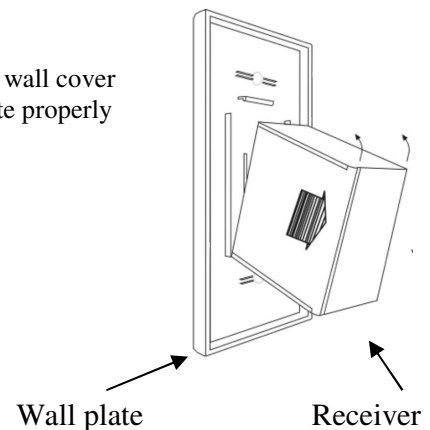
The remote receiver can be either wall-mounted in a standard plastic switch box (not metal) or placed on or near the fireplace hearth. Preferably, the remote receiver should be wall-mounted in a plastic switch box, as this will protect its electronic components from the heat produced by the gas appliance. The remote receiver should be kept away from temperatures exceeding 130° F. Battery life is also significantly shortened if batteries are exposed to temperatures 130° F or higher. Before installation make sure the remote receiver slide switch is in the OFF position.

### **Wall Mounting**

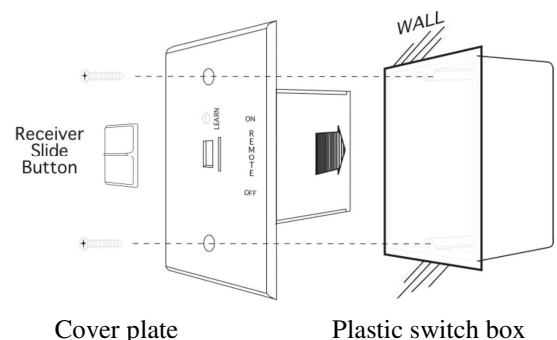
When wall mounting the remote receiver, longer wires (not included) are required to connect to the gas valve or electronic module. These wires must: Be at least 18 Gauge (AWG) • Be no longer than 20’ • Have no splices

To attach wall cover plate to receiver box:

1. Position the receiver as shown in diagram to the right with lower tab on wall cover Plate into groove of receiver (Make sure the LEARN hole on cover plate properly Aligns with remote receiver)
2. Pull receiver up and snap into top tab of cover plate.
3. Position the wall cover plate so the word ON is facing up.
4. Install the remote receiver into the plastic switch box using the two Long screws provided. Push the slide Button over the receiver slide



NOTE: The remote receiver will only respond to the transmitter when the 3-position slide button on the remote receiver is in the REMOTE position. If the system does not respond to the battery transmitter on initial use, see LEARNING TRANSMITTER TO RECEIVER, and recheck battery positions in the remote receiver.



### **Hearth Mount**

The remote receiver can be placed on the fireplace hearth or under the fireplace, behind the control access panel. Position where the ambient temperature inside the receiver case does not exceed 130 °F.

NOTE: Black Slide Button is used for Hearth Mount applications.

## WIRING INSTRUCTIONS

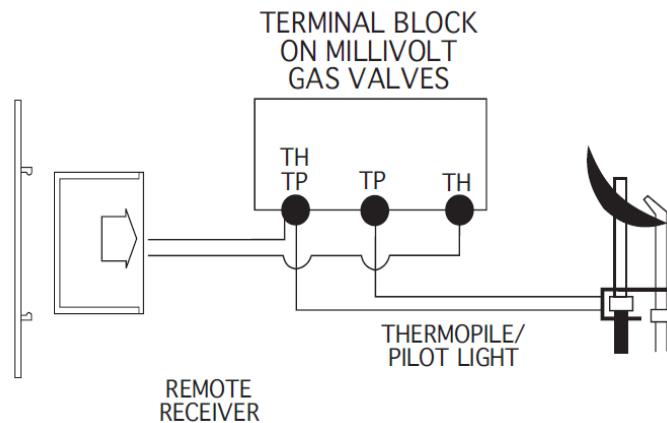
A qualified electrician or a gas technician who is familiar with the gas appliance and gas valves that will be operated by this remote should install the remote control system. Incorrect wiring connections **WILL** cause damage to the gas valve or electronic module operating the gas appliance and may also damage the remote receiver.

### WIRING MILLIVOLT VALVES

The remote receiver is connected to the millivolt valve using the TH (thermostat) terminals on the terminal block on the millivolt gas valve. Connect 18 gauge stranded or solid wires from the remote receiver to the gas valve.

Operation of the remote receiver is similar to that of a thermostat in that both turn the gas valve on and off based on input signals. A thermostat's input signals are different temperatures. The remote receiver's input signals come from the transmitter.

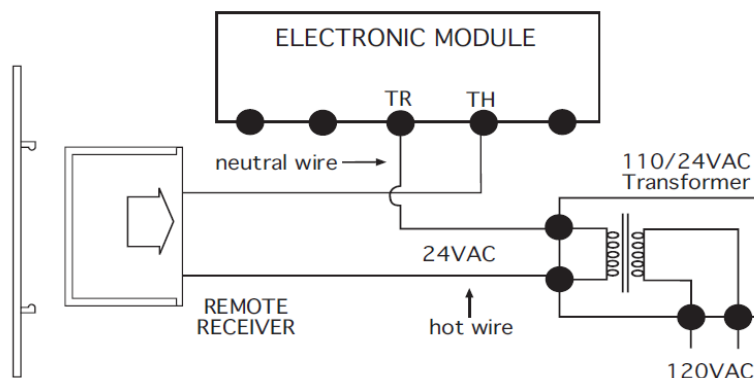
Connect each of the two wires leading from the TH and TH/TP terminals on the millivolt gas valve to either of the two wire terminals on the remote receiver. Normally it does not matter which wires go to which terminal.



### WIRING ELECTRONIC SPARK IGNITIONS

The remote control receiver can be connected, in series, to a 24VAC transformer to the TR (transformer) terminal on the ELECTRONIC MODULE. Connect the hot wire from the 24VAC transformer to either of the wire terminals on the remote receiver. Connect another wire between the other receiver wire terminal and the TH (thermostat) terminal on the ELECTRONIC MODULE.

### WIRING ELECTRONIC SPARK IGNITIONS



### Slide Switch:

1. **ON position:** the system will remain on until the slide switch is placed in the OFF or REMOTE position.
2. **REMOTE position:** the system will only operate if the remote receiver receives a signal from the transmitter.
3. **OFF position:** the system is off. **The slide switch should be placed in the OFF position if you will be away for an extended period of time.** If the remote receiver is mounted out of children's reach, the OFF position also functions as a safety device by both turning the system off and rendering the receiver inoperable.

## **Testing Your New Remote System**

1. Light your gas appliance following the appliance lighting instructions that come with the appliance. Confirm that the pilot light is on; it must be in operation for the remote control to operate the main gas valve. Appliance control knob must be in the ON position. Appliance ON/OFF switch must be in ON position.
2. Slide the 3 position button on the remote receiver to the ON position. The main gas flame should ignite.
3. Slide the button to OFF. The flame should extinguish (the pilot light will remain on).
4. Slide the button to REMOTE (the center position), then press the transmitter to turn the system to ON. The main gas flame should ignite.
5. Press the transmitter to turn the system to OFF. The flame should extinguish (the pilot light will remain on).

## **TROUBLESHOOTING**

<b>Symptom</b>	<b>Causes</b>	<b>Action</b>
Battery icon on LCD on transmitter.	Low Battery	Replace batteries.
LCD Display is blank	Low Battery	Check battery installation and replace batteries.
Receiver emits the beep in every minute	Low Battery	Replace batteries.
Receiver cannot receive signal.	1. Receiver is installed in an enclosure 2. Low Battery for Transmitter or Low Battery for Receiver	1. Make sure the receiver is not inside a tight enclosure. 2. Replace batteries.
Appliance does not come on.	1. DIP (Privacy) switch setting on transmitter does not match receiver	1. Make sure the transmitter is matched to the receiver.
	2. Transmitter measures temperature exceeding 99 degrees and shows "HI" on LCD display.	2. Move transmitter to a cooler place and wait until temperature drops below 99 degree.
	3. Distance between the transmitter and receiver is more than 30 feet	3. Make sure the operating distance is less than 30 feet

#### **FCC Statement**

1. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference.

(2) This device must accept any interference received, including interference that may cause undesired operation.

2. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

#### **NOTE:**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient or relocate the receiving antenna.

Increase the separation between the equipment and receiver.

Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.

To comply with RF exposure requirements, a minimum separation distance of 20mm must be maintained between the user's body and the handset, including the antenna.

#### **IC STATEMENT**

This device complies with Industry Canada licence-exempt RSS standard(s)

Operation is subject to the following two conditions:

(1) This device may not cause interference, and

(2) This device must accept any interference, including interference that may cause undesired operation of the device.

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. End user must follow the specific operating instructions for satisfying RF exposure compliance. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence.

Ce dispositif est conforme aux normes autoriser-exemptes du Canada RSS d'industrie

L'exploitation est autorisée aux deux conditions suivantes :

(1) l'appareil ne doit pas produire de brouillage, et

(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement. Cet équipement

est conforme avec l'exposition aux radiations IC définies pour un environnement

non contrôlé. L'utilisateur final doit respecter les instructions de fonctionnement spécifiques pour satisfaire la conformité aux expositions RF. Cet émetteur ne doit pas être co-localisées ou opérant en conjonction avec une autre antenne ou transmetteur.