



## Cat. No. H8860 Model: RC-S-1

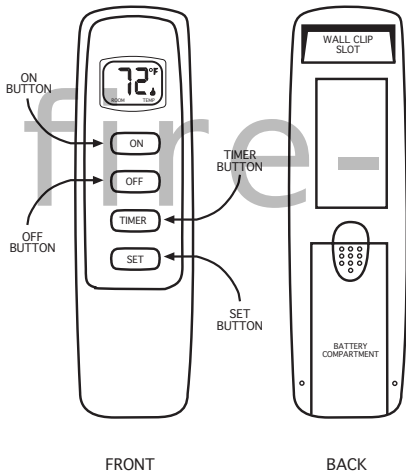
### INSTALLATION AND OPERATION INSTRUCTIONS

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

#### INTRODUCTION

This remote control system was developed to provide a safe, reliable and user-friendly remote control system for gas heating appliances. This all battery system operates independently of household current. The system operates on radio frequencies with non-directional signals. The SYSTEM's operating range is approximately 20-foot range. The system operates on one of 1,048,576 security codes that are programmed into the transmitter at the factory; the remote receiver's code must be matched to that of the transmitter prior to initial use.

Review **COMMUNICATION SAFETY SECTION** under TRANSMITTER section.  
These safety features shut down the fireplace system



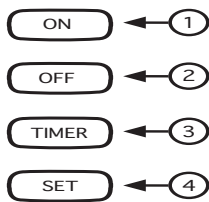
#### TRANSMITTER

This remote control SYSTEM offers the user a battery-operated remote control that operates most millivolt gas valves used in some heater rated gas logs, gas fireplaces and other gas heating appliances.

The transmitter operates on (2) 1.5V AAA batteries.

It is recommended that ALKALINE batteries always be used for longer battery life and maximum operational performance.

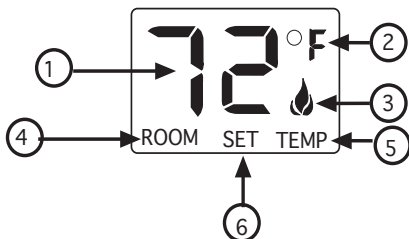
Before using the transmitter, install the (2) AAA transmitter batteries into the battery compartment. (Use caution that batteries are installed in the proper direction)



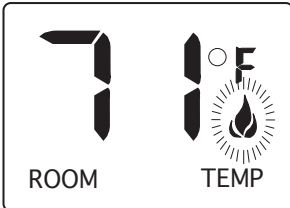
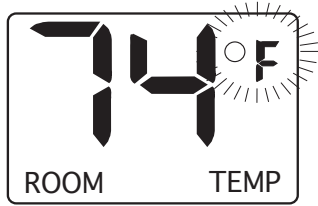
#### KEY SETTINGS

- |          |  |
|----------|--|
| 1. ON    | - Operates unit to on position, Manually ON.   |
| 2. OFF   | - Operates unit to off position, Manually OFF. |
| 3. TIMER | - Changes unit from manual mode to timer mode. |
| 4. SET   | - Sets the timer in minutes.                   |

#### LCD - Liquid Crystal Display



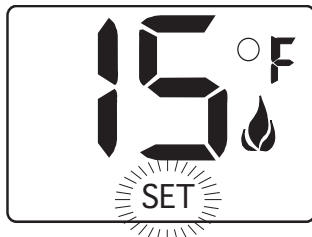
- |               |  |
|---------------|--|
| 1. DISPLAY    | Indicates CURRENT room temperature.      |
| 2. ° F OR ° C | Indicates degrees Fahrenheit or Celsius. |
| 3. FLAME      | Indicates burner/valve in operation.     |
| 4. ROOM       | Appears when LCD screen is on.           |
| 5. TEMP       | Appears when LCD screen is on.           |
| 6. SET        | Appears when setting the timer.          |



### ON MODE



### OFF MODE



### SET MODE



### COUNT DOWN MODE

### SETTING ° F / ° C SCALE

The factory setting for temperature is ° F. To change this setting to ° C, first

- Press the ON key and the OFF key on the transmitter at the same time. This will change from ° F to ° C. Follow this same procedure to change from ° C back to ° F.

### MANUAL FUNCTION

To operate the system in the manual "MODE" follow these steps.

#### ON OPERATION

Press the ON key; the appliance flame will come on. During this time the LCD screen will display the room temperature and the Flame icon.

#### OFF OPERATION

Press the OFF key; the appliance flame will shut off. During this time the LCD screen will display the room temperature. **(The Flame icon will not appear)**

### TIMER FUNCTION

#### SETTING DESIRED TIME

To operate the (3) hour count down feature following steps.

Press the ON button to start the appliance. Note the transmitter must be ON for the TIMER feature to operate

Press the TIMER button. The LCD screen will show the word SET.

Press and release the SET button until the desired time is reached minute intervals. (15-30-45-60-75-90-105-120-135-150-165-180) Note: the LCD display will flash the set time for (2) seconds then default to the set time and count down in minutes until set time has elapsed.

Press the OFF button to disengage the timer.

## REMOTE RECEIVER

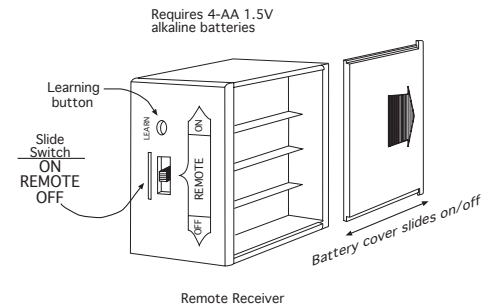
### IMPORTANT

**THE REMOTE RECEIVER SHOULD BE POSITIONED WHERE AMBIENT TEMPERATURES DO NOT EXCEED 130° F.**

The remote receiver operates on (4) AA-size 1.5 volt batteries. It is recommended that ALKALINE batteries be used for longer battery life and maximum microprocessor performance. **IMPORTANT:** New or fully charged batteries are essential for proper operation of the remote receiver.

The remote receiver houses the microprocessor that responds to commands from the transmitter to control system operation. It emits one beep when it receives an ON or OFF command manually, but no beep when cycling on and off automatically in THERMO mode. The remote receiver has a 3-position slide switch for selecting the MODE of operation: ON/REMOTE/OFF

- 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.
- With the slide switch in the REMOTE position (centered), the system will only operate if the remote receiver receives commands **from the transmitter**.
- 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 INSTRUCTIONS

### INSTALLATION

The remote receiver can be mounted on or near the fireplace hearth. **PROTECTION FROM EXTREME HEAT IS VERY IMPORTANT.** Like any piece of electronic equipment, the remote receiver should be kept away from temperatures exceeding 130°F inside the receiver case. Battery life is also significantly shortened if batteries are exposed to high temperatures.

### HEARTH MOUNT

The remote receiver can be placed on the fireplace hearth or under the fireplace, behind the control access panel. Locate the receiver where it is not exposed to Extreme heat.

NOTE: Black Button is used on Hearth Mount Applications.

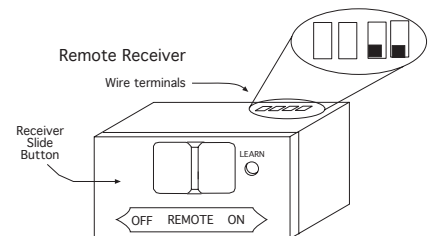
### INSTALLATION

The remote receiver can be either wall-mounted in a standard plastic switch box 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 both the heat produced by the gas appliance and potential damage or abuse that can occur if it is left exposed on the hearth. **PROTECTION FROM EXTREME HEAT IS VERY IMPORTANT** Battery life is also significantly shortened if batteries are exposed to high temperatures.

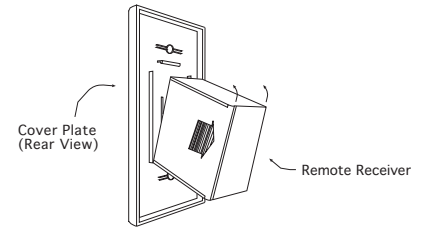
It is recommended that 18-gage solid or stranded wires (included) be used to make connections between the terminal wiring block on the millivolt gas valve or electronic module and the wire terminals on the remote receiver. For the best results, use 18-gage stranded wire, with no splices and measuring no longer than 20-foot.

### WALL MOUNTING

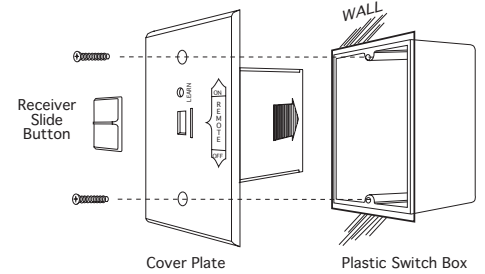
Install (4) AA-size 1.5 ALKALINE batteries in the remote receiver. For best performance, remote receiver batteries should be factory fresh when installed. Very little battery power is required to operate the remote receiver, but the electronics are tuned to operate best when battery output is greater than 5.3 volts. Four new AA batteries should provide an output voltage of 6.0 to 6.2 volts. **Be sure batteries are installed with the (+) and (-) ends facing the correct direction.**



To attach Cover Plate to Receiver box: Position the receiver as shown in diagram to the left with lower tab on cover plate inserted into groove of receiver (Make sure LEARN hole on cover plate properly aligns with remote receiver) Pull Receiver up and snap into top tab of cover plate.



Position the cover plate so the word ON is facing up; then, install the remote receiver into the plastic switch box using the two long screws provided. Push the White Button over the receiver slide switch only after making sure the remote receiver has LEARNED the transmitter's security code (see LEARNING TRANSMITTER TO RECEIVER).



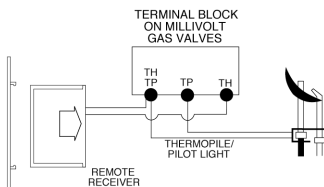
**NOTE:** The remote receiver will only respond to the transmitter when the 3-position slide button on the remote receiver is in the REMOTE position. If the system does not respond to the battery transmitter on initial use, see LEARNING TRANSMITTER TO RECEIVER, and recheck battery positions in the remote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

## 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

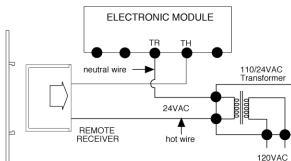
The remote receiver is connected to the millivolt valve using the TH (thermostat) terminals on the terminal block on the millivolt gas valve. Connect 18-gage solid or stranded wires from the remote receiver to the gas valve.



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 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 (not included) between the other receiver wire terminal and the TH (thermostat) terminal on the ELECTRONIC MODULE.

## **SYSTEM CHECK**

### **MILLIVOLT VALVES AND ELECTRONIC IGNITION**

Light your gas appliance following the lighting instructions that came with the appliance. Confirm that the pilot flame is on; it must be in operation for the main gas valve to operate.

- Slide the 3-position button on the remote receiver to the ON position. On millivolt systems the main gas flame (i.e., the fire) should ignite.
- On Electronic ignition systems the spark electrode should begin sparking to ignite the pilot (the pilot may ignite after only one spark). After the pilot flame is lit, the main gas valve should open and the main gas flame should ignite.
- Slide the button to OFF. On millivolt systems the flame should extinguish (the pilot flame will remain on). On electronic ignition systems the main gas flame and pilot flame should BOTH extinguish.
- Slide the button to REMOTE (the center position), and then press the ON button on the transmitter to turn the system to ON. The main gas flame should ignite.
- Press the OFF button on the transmitter to turn the system to OFF. On millivolt systems the flame should extinguish (the pilot flame will remain on). On electronic ignition systems the main gas flame and pilot flame should BOTH extinguish.
- Press the TIME button on the transmitter to change the system to TIMER mode. Note: the transmitter must be in the ON mode before the timer will operate.
- Press the SET button on the transmitter to advance the time on the (3) hour count down timer. It will advance in the following minute intervals. (15-30-45-60-75-90-105-120-135-150-165-180) Note: the LCD display will flash the set time for (2) seconds then default to the set time and count down it minutes until set time has elapsed
- Press the OFF button to disengage the timer.

### **CP (CHILDPROOF) FEATURE**

This remote control includes a CHILDPROOF "LOCK-OUT" feature that allows the user to "LOCK-OUT" operation of the appliance, from the TRANSMITTER.

#### **SETTING "LOCK-OUT" –(CP)**

- To activate the "LOCK-OUT" feature, press and hold the ON button and the TIMER button at the same time for 5 seconds. The letters CP will appear in the TEMP frame on the LCD screen.
- To disengage the "LOCK-OUT", press and hold the ON button and the TIMER button at the same time for 5 seconds and the letters CP will disappear from the LCD screen and the transmitter will return to its normal operating condition.
- To verify that transmitter is in the CP lock-out mode press any key and the LCD screen will show "CP"

**NOTE:** If the appliance is already operating in the ON or TIMER mode, engaging the "LOCK-OUT" will not cancel the operating MODE. Engaging the "LOCK-OUT" prevents only the manual operation of the TRANSMITTER. If in the auto modes, the TIMER operation will continue to operate normally. To totally "LOCK-OUT" the operation of the TRANSMITTER'S operating signals; the transmitter's MODE must be set to OFF.

### **TEMPERATURE UPDATING FEATURE –TRANSMITTER – (T/S –TX)**

This SKYTECH remote control has a TEMPERATURE UPDATING Feature built into its software. The TEMPERATURE UPDATING Feature operates in the following manner.

The transmitter reads the ROOM temperature every 2 minutes then updates the ROOM temperature on the LCD screen.

### **COMMUNICATION – SAFETY – TRANSMITTER – (C/S – TX)**

This remote control has a COMMUNICATION –SAFETY function built into its software. It provides an extra margin of safety when the TRANSMITTER is out of the normal 20-foot operating range of the receiver.

The COMMUNICATION – SAFETY feature operates in the following manner, in all OPERATING MODES – ON/ ON TIMER.

At all times and in all OPERATING MODES, the transmitter sends an RF signal every fifteen (15) minutes, to the receiver, indicating that the transmitter is within the normal operating range of 20-feet. Should the receiver NOT receive a transmitter signal every 15 minutes, the IC software, in the RECEIVER, will begin a 2-HOUR (120-minute) countdown timing function. If during this 2-hour period,

the receiver does not receive a signal from the transmitter, the receiver will shut down the appliance being controlled by the receiver. The RECEIVER will then emit a series of rapid “beeps” for a period of 10 seconds. Then after 10 seconds of rapid beeping, the RECEIVER will continue to emit a single “beep” every 4 seconds until a transmitter ON or MODE Button is pressed to reset the receiver. The intermittent 4-second beeping will go on for as long as the receiver’s batteries last which could be in excess of one year.

To “reset” the RECEIVER and operate the appliance, you must press the ON or TIMER button on the transmitter. By turning the system to ON, the COMMUNICATION -SAFETY operation is overridden and the system will return to normal operation depending on the MODE selected at the transmitter. The COMMUNICATION – SAFETY feature will reactivate should the transmitter be taken out of the normal operating range or should the transmitter’s batteries fail or be removed.

### **LEARNING TRANSMITTER TO RECEIVER**

Each transmitter uses a unique security code. It will be necessary to press the LEARN button on the receiver to accept the transmitter security code upon initial use, if batteries are replaced, or if a replacement transmitter is purchased from your dealer or the factory. In order for the receiver to accept the transmitter security code, be sure the slide button on the receiver is in the REMOTE position; the receiver will **not** LEARN if the slide switch is in the ON or OFF position. The LEARN button is located on the front face of the receiver; inside the small hole labeled LEARN. Using a small screwdriver or end of a paperclip gently press and release the black LEARN button inside the hole. When you release the LEARN button the receiver will emit an audible “beep”. After the receiver emits the beep press the transmitter ANY button and release. The receiver will emit several beeps indicating that the transmitter’s code has been accepted into the receiver.

The microprocessor that controls the security code matching procedure is controlled by a timing function. If you are unsuccessful in matching the security code on the first attempt, wait 1 - 2 minutes before trying again--this delay allows the microprocessor to reset its timer circuitry--and try up to two or three more times.

### **BATTERY LIFE**

Life expectancy of alkaline batteries in the 1001T/LCD-A should be at least 12 months. Check and replace all batteries annually. When the transmitter no longer operates the remote receiver from a distance it did previously (i.e., the transmitter's range has decreased) or the remote receiver does not function at all, the batteries should be checked. It is important that the remote receiver batteries are fully charged, providing combined output voltage of at least 5.3 volts. The transmitter should operate with as little as 2.5 volts battery power, measuring at the (2) 1.5-volt batteries.

### **TROUBLE SHOOTING**

If you encounter problems with your fireplace system, the problem may be with the fireplace itself or it could be with the RC-S-1 remote system. Review the fireplace manufacturer's operation manual to make sure all connections are properly made. Then check the operation of the remote in the following manner:

- Make sure the batteries are correctly installed in the RECEIVER. One reversed battery will keep receiver from operating properly.
- Check battery in TRANSMITTER to ensure contacts are touching (+) and (-) ends of battery. Bend metal contacts in for tighter fit.
- Be sure RECEIVER and TRANSMITTER is within 20 to 25-foot operating range.
- Keep RECEIVER from temperatures exceeding 130° F. Battery life shortened when ambient temperatures are above 115° F.
- If RECEIVER is installed in tightly enclosed metal surround, the operating distance will be shortened.

**NOTE:** A receiver located in an area, where the ambient temperature inside the case exceeds 130° F, will cause the THERMO-SAFETY feature to cut in, requiring you to reposition the receiver to stop the warning beeps, and to "reset" the receiver's operation.

## **SPECIFICATIONS**

BATTERIES: Transmitter (2) 1.5 volt AAA t batteries  
Remote Receiver 6-volts – (4 ) AA 1.5 Alkaline batteries  
FCC ID No.'s: transmitter - K9LSP1001TH; receiver - K9L3301RX

Operating Frequency: 303.8 MHZ

Canadian IC ID No.'s: transmitter – 2439A-SP1001TH; receiver – 2439A-3301RX

### **FCC REQUIREMENTS**

**NOTE: THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS TO THIS EQUIPMENT. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.**

### **HOW TO REGISTER A CLAIM AGAINST WARRANTY**

In order for any claim under this warranty to be valid, you must contact the IHP dealer/distributor from which you purchased the product. If you cannot locate the dealer/distributor, then you must notify IHP in writing. IHP must be notified of the claimed defect in writing within 90 days of the date of failure. Notices should be directed to the IHP Warranty Department at 1508 Elm Hill Pike, Suite 108; Nashville, TN 37210 or visit our website at [www.IHP.us.com](http://www.IHP.us.com)

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