

# 3301PF RX function description

## REMOTE RECEIVER

**IMPORTANT: THE REMOTE RECEIVER SHOULD BE POSITIONED WHERE AMBIENT TEMPERATURES INSIDE THE RECEIVER DO NOT EXCEED 130 DEGREES F.**

The remote receiver is powered by 110-120 VAC. For operational functions and personal safety, the receiver must be properly grounded. The receiver's power cord is equipped with a three-prong (grounding) plug which mates to a standard three-prong (grounding) receptacle minimizing the possibility of electrical shock hazard. Some fireplace products require a grounded circuit to operate.

**WARNING:** Improper use of the grounding plug can result in a shock. Do not use a 2-prong adapter to accept the 3-prong plug from the receiver. The customer should have the fan/blower receptacle in the FIREPLACE checked by a qualified electrician to make sure the receptacle is properly grounded and correctly polarized.

**CAUTION:** All wiring should be done by a qualified electrician and shall be in compliance with local codes and with the National Electric Code ANSI/NFPA No. 70-current (in the United States), or with current CSA C22.1 Canadian Code (in Canada).

**WARNING: DO NOT CONNECT 110-120 VAC WIRING TO THE GAS CONTROL VALVE OF THIS APPLIANCE.**

The remote receiver houses the integrated circuits that respond to commands from the transmitter to control system operation. It has a 3-position slide switch to select the MODE of operation: OFF/REMOTE/ON.

1. With the slide switch in the ON position, the valve terminals remain on until the slide switch is placed in the OFF or REMOTE position.
2. With the slide switch in the REMOTE position, the system only operates if the remote receiver receives commands from the transmitter.
3. With the slide switch in the OFF position, 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. With the remote receiver located 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 transmitter inoperative. You may also engage the CHILD PROOF (CP) "LOCK OUT" at the transmitter. See section CHILD-PROOF "LOCKOUT" (CP) in later section of this manual.

## LOCATING RECEIVER AND OPERATING FUNCTIONS

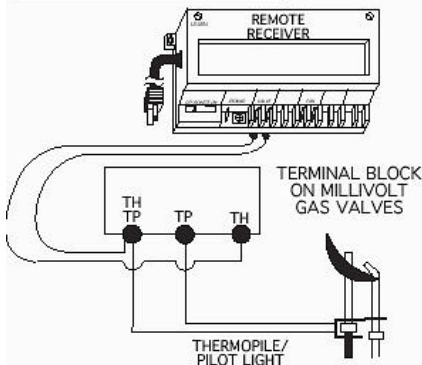
The remote receiver can be positioned under the firebox in the control compartment of the fireplace if ambient temperatures do not exceed 120 Degrees F. The remote receiver accepts commands from the transmitter and is capable of remotely operating several separate circuit functions. This system is designed to control the following components:

	<u>WIRE COLORS</u>	
Gas Valve	(Red wires)	-Millivolt or electronic ignition
Fan/Blower	(Blue wires)	-110 VAC plug-in or in-line ON/OFF switch

NOTE: 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 transmitter on initial use, see section, MATCHING SECURITY CODES.

## WIRING INSTRUCTIONS

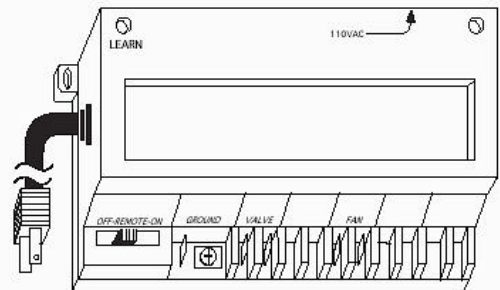
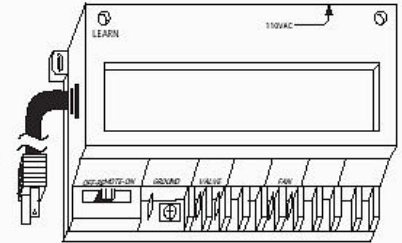
### WIRING MILLIVOLT VALVES



The terminal block on the receiver includes two 1/4" terminals marked VALVE. Using two, 18 ga. stranded wires (RED), with appropriate insulated connectors attached to each end, plug one end of each wire into one of the two terminals marked VALVE on the remote receiver, and connect the other ends of these wires to the (1) TH and (1) TP terminals located on the gas valve. It does not matter which wires go to which set of terminals at the receiver or at the gas valve. This is a DRY CONTACT circuit and no power is provided to these terminals by the remote receiver.

NOTE: Some gas valves are polarized. If the remote receiver's ON/REMOTE/OFF functions don't operate the gas valve, reverse the receiver wires at the TH transmitter on the gas valve terminal block.

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



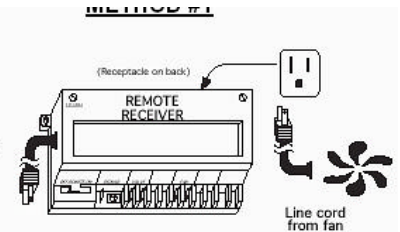
## WIRING A FAN/BLOWER

NOTE: When connecting wires to the fan, make sure the 110VAC power to the fan has been turned off!

This SKYTECH receiver provides 2 separate methods to operate a fan/blower system that may be included with your heating appliance.

### METHOD #1 PLUG FAN CORD DIRECTLY INTO REMOTE RECEIVER

On the backside of the receiver, the fan's 2-prong or 3-prong power cord can be plugged into the receiver's receptacle. This receptacle provides 110/120 – 5AMP power for a fan/blower.

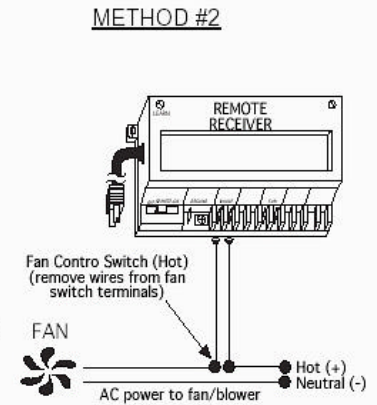


### METHOD #2 WIRE FAN LINE TO DRY CONTACT RECEIVER TERMINALS

For fan/blower systems that are "hard wired" directly to the appliance's internal J-BOX, and use an in-line switch to control the fan/blower. The front of the receiver includes two 1/4" terminals that are controlled by a "DRY CONTACT" relay. These two terminals DO NOT provide any power to the fan/blower, they only complete a "dry contact" circuit between the "hot" leg leading to the fan/blower. These terminals are marked FAN.

**CAUTION: DISCONNECT POWER TO FIREPLACE BEFORE MAKING THIS CONNECTION.**

The SKYTECH receiver in this remote control system is designed to control the fan motor to either ON or OFF. It will not operate a 3-speed or variable controller other than to turn it OFF or ON at whatever position the switch or controller is set. If the fireplace system has a 3-speed or variable speed fan and you wish to remotely control it ON/OFF, attach two wires from the remote receiver to this switch. The speed selection switch will be operational, however, the receiver will only operate the fan/blower ON or OFF at the current setting of the speed controller.

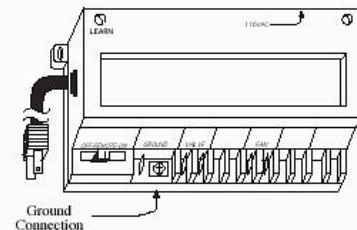


## DRY CONTACT TERMINALS

There may be other sets of 1/4" terminals on the receiver which may be available for controlling other "DRY CONTACT" functions. Refer to the SUPPLEMENTAL DRY CONTACT instruction sheet for operation of these "DRY CONTACT" TERMINALS.

## GROUNDING THE RECEIVER

The terminal block on the receiver includes a 1/4" male terminal and a 1/4" screw that can be used to ground the fan/blower or appliance to the 110/120 VAC circuit powering the receiver. These connectors are marked GROUND. Using an 18 ga. Wire, usually GREEN in color, attach the grounding wire to the 1/4" terminal on the remote receiver. You may also attach the grounding wire under the grounding screw.



## SYSTEM CHECK

### MILLIVOLT VALVES

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.

1. Slide the 3-position button on the remote receiver to the ON position. The main gas flame (i.e., the fire) should ignite.
2. Slide the button to OFF. The flame should extinguish (the pilot flame will remain on).
3. Slide the button to REMOTE (the center position), and then press the **MODE** button on the transmitter to change the system to ON. The main gas flame should ignite.
4. Press the **MODE** button on the transmitter to change the system to OFF. The flame should extinguish (the pilot flame will remain on).
5. Press the **MODE** button on the transmitter to change the system to THERMO. Advance the SET temperature on the transmitter to a temperature of at least 2 °F (1 °C) above the ROOM temperature displayed on the LCD screen. With this manual setting, the normal thermostatic cycle is overridden and the system flame will ignite. Set the SET temperature to at least 2 °F (1 °C) below the room temperature and the system flame will extinguish in a few seconds. Thereafter, it should continue to cycle to on and off thermostatically approximately every two minutes as the ROOM temperature changes, but only when the temperature differential between ROOM and SET temperatures differ at least 2 °F (1 °C). The 2 °F differential is the factory setting.

### ELECTRONIC IGNITION SYSTEMS

1. Slide the 3-position button on the remote receiver to the ON position. 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.
2. Slide the button to OFF. The main gas flame and pilot flame should BOTH extinguish.
3. Slide the button to REMOTE (the center position), and then press the **MODE** button on the transmitter to change the system to ON. The spark electrode should begin sparking to ignite the pilot. After the pilot is lit, the main gas valve should open and the main gas flame should ignite.
4. Press the **MODE** button on the transmitter to OFF. The main gas flame and pilot flame should BOTH extinguish.

## **FCC Notice**

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

**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.**