

SKYTECH 1001SR/P TH

INSTALLATION AND OPERATING INSTRUCTIONS

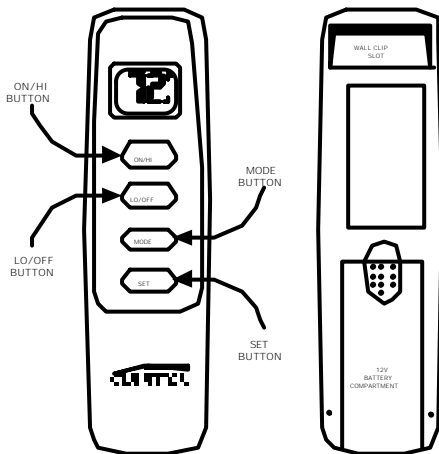
**MULTI-FUNCTION WIRELESS REMOTE CONTROL SYSTEM
FOR OPERATING SERVO MOTORS VALVES OR PULSE SOLENOIDS VALVES**

INTRODUCTION

This remote control system was developed to provide a safe, reliable, and user-friendly remote control system for gas heating appliances. The system is operated manually from the transmitter. The system operates on radio frequencies (RF) within a 20' range using non-directional signals. The system operates on one of 255 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 THERMO SAFETY SECTION under RECEIVER section. This high temperature safety feature shuts down the appliance when a potentially unsafe condition exists.

TRANSMITTER



FRONT

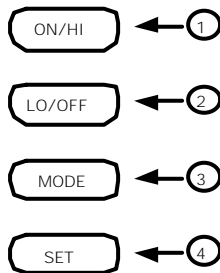
BACK

This remote control SYSTEM offers the user a battery-operated remote control to power up to a 6 VDC servo motor or solenoid such as those used with gas valves used in some heater rated gas logs, gas fireplaces and other gas heating appliances.

The servo motor or solenoid circuit uses the battery power from the receiver to operate a servo motor or solenoid. The circuit has reversing polarity software which reverses the positive (+) and negative (-) output of the receiver's battery power to drive the servo motor or solenoid forward/backward (HI/LO FLAME) or open/close (FLAME SOLENOID - ON/OFF). The SYSTEM is controlled by the remote transmitter.

The transmitter operates on a (2) 1.5V AAA batteries made specifically for remote controls and electronic lighters. Before using the transmitter, remove the insulation tab protecting one end of the battery in the battery compartment.

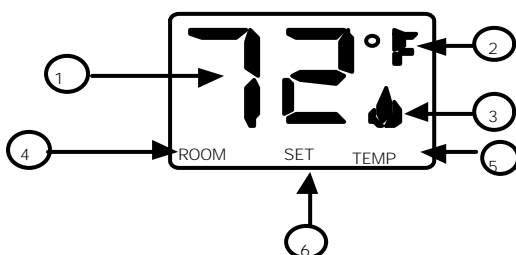
It is recommended that ALKALINE batteries always be used for longer battery life and maximum operational performance.



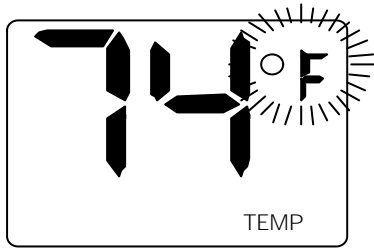
KEY SETTINGS

- ON/HI - Operates unit to on position.
- LO/OFF - Operates unit to off position
- MODE - Changes unit from manual feature to thermo feature.
- SET - Sets temperature in thermo in feature.

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** - Indicates remote is in THERMO operation.
5. **TEMP** - Appears during manual operation.
6. **SET** - Appears during time the of setting the desired temperature in the thermo operation.



SETTING °F/°C SCALE

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

- Press the ON/HI key and the LO/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

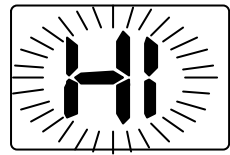
To operate the system in the manual mode do the following.

ON OPERATION

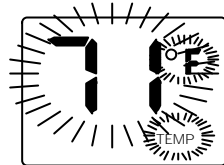
Press and hold the ON/HI key until the appliance flame comes on and reaches the desired flame height or is at full on. During this time the LCD screen will show HI, after 3 seconds the LCD screen will default to display room temperature and the word TEMP will show.

OFF OPERATION

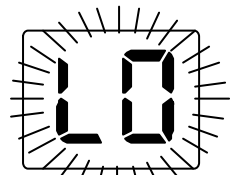
Press and hold the LO/OFF key until the appliance flame reaches the desired flame height or completely shuts off. During this time the LCD screen will show LO, after 3 seconds the LCD screen will default to display room temperature and the word TEMP will show.



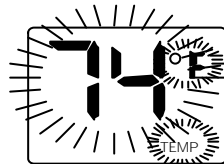
SCREEN DURING
ADJUSTING TO ON



SCREEN AFTER 3
SECOND DEFAULT

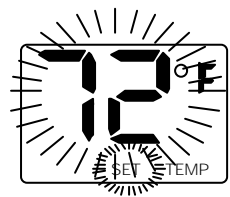


SCREEN DURING
ADJUSTING TO OFF

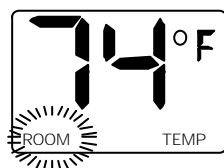


SCREEN AFTER 3
SECOND DEFAULT

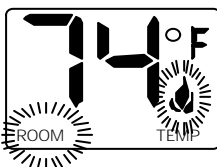
THERMOSTAT FUNCTION



THERMO SET



THERMO OFF



THERMO ON

SETTING DESIRED ROOM TEMPERATURE

This remote control system can be thermostatically controlled when the transmitter is in the THERMO mode (**SET must be displayed on the screen**). To set the DESIRED room temperature,

Press the MODE key the display will show the words SET TEMP and the temperature display will begin to flash.

Press and hold the SET key until the desired set temperature is reached then release the SET key.

Press the MODE key to disengage the thermo mode. The word ROOM on the LCD screen will not show when the thermo is not in operation.

NOTE: The highest SET temperature is 99° Fahrenheit (32° Celsius) and the lowest temperature (45° F, or 6° C).

OPERATIONAL NOTE: TO CONSERVE BATTERY POWER, CHANGES IN ROOM TEMPERATURE ARE ONLY UPDATED EVERY TWO MINUTES.

The Thermo Feature on the transmitter operates the appliance whenever the ROOM TEMPERATURE varies a certain number of degrees from the SET TEMPERATURE. This variation is called the "SWING" or TEMPERATURE DIFFERENTIAL. The normal operating cycle of an appliance may be 2-4 times per hour depending on how well the room or home is insulated from the cold or drafts. The factory setting for the "swing number" is 2. This represents a temperature variation of +/- 2^oF (1^oC between SET temperature and ROOM temperature, which determines when the fireplace will be activated.

The transmitter has ON/HI and LO/OFF functions that are activated by pressing either button on the face of the transmitter. When a button on the transmitter is pressed, a signal light on the transmitter illuminates to verify that a signal is being sent. Upon initial use, there may be a delay of three seconds before the remote receiver will respond to the transmitter. This is part of the system's design. If the signal light does not illuminate, check the position of the transmitter's battery.

POWER SETTING - 1001SR or 1001P

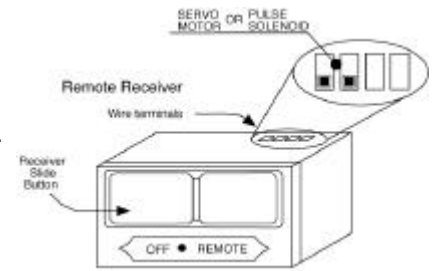
The electronics in the remote control system have the capability of "powering" two different types of DC-powered components.

The RECEIVER comes from the factory programmed to provide continuous DC voltage (4.5 VDC to 6.0 VDC) to a servo motor and is referred to as the SKYTECH 1001SR/P setting.

The RECEIVER can be reprogrammed, by the user, to provide "pulse" DC voltage (3.0 VDC) to a latching relay-solenoid and is referred to as the SKYTECH 1001P setting.

Depending on the type of gas valve and/or solenoid controlling the gas flow in your fireplace system, the RECEIVER needs to be programmed to the proper "power setting". To change the factory "power setting" from the 1001SR to the 1001P setting, first load the RECEIVER with a 4-AA batteries as instructed in the REMOTE RECEIVER SECTION which follows. Then:

- Slide switch on RECEIVER to the remote position.
- Then push and hold in the LEARNING BUTTON on the front of the RECEIVER.
You will hear a continuous "beep sound" for about three seconds. Then, still holding in the LEARN button, the "beep sound" will stop for about four seconds and then a second "beep sound" of a different pitch, will be heard. The conversion from the 1001SR setting to 1001P setting is complete. To reprogram RECEIVER to the 1001SR setting, repeat process and receiver will reset to 1001SR setting.
- The LEARN button is used to set the unique security code for your remote control system. The SECURITY CODE is reset during the "power setting" process.



REMOTE RECEIVER

IMPORTANT

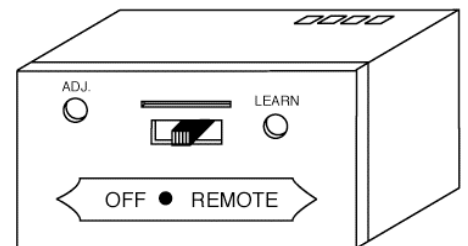
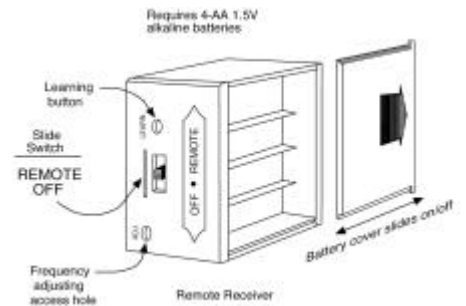
THE REMOTE RECEIVER SHOULD BE POSITIONED WHERE AMBIENT TEMPERATURES DO NOT EXCEED 130° F.

The remote receiver (right) operates on four 1.5V AA-size 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 to proper operation of the remote receiver as a servo motor's power consumption is substantially higher than standard remote control systems.

NOTE: The remote receiver will only respond to the transmitter when the 2-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:

- With the slide switch in the REMOTE position, the system will only operate if the remote receiver receives commands from the transmitter. Upon initial use or after an extended period of no use, the ON button may have to be pressed for up to three seconds before activating servo motor. If the system does not respond to the transmitter on initial use, see Matching Security Codes.
- With the slide 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. Placing the



Since switch in the OFF position also functions as a safety lock out by both turning the system OFF and rendering the transmitter inoperative.

INSTALLATION INSTRUCTIONS

WARNING

DO NOT CONNECT REMOTE RECEIVER DIRECTLY TO 110-120VAC POWER. THIS WILL BURN OUT THE RECEIVER. FOLLOW INSTRUCTIONS FROM MANUFACTURER OF GAS VALVE FOR CORRECT WIRING PROCEDURES. IMPROPER INSTALLATION OF ELECTRIC COMPONENTS CAN CAUSE DAMAGE TO GAS VALVE AND REMOTE RECEIVER.

INSTALLATION

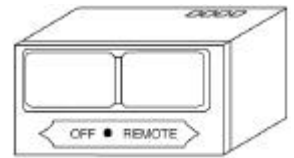
The remote receiver can be mounted on or near the fireplace hearth. PROTECTION FROM EXTREME HEAT IS VERY IMPORTANT. Like any piece of electronic equipment, the remote receiver should be kept away from temperatures exceeding 130° F inside the receiver case. Battery life is also significantly shortened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

Make sure the remote receiver switch is in the OFF position. It is recommended that 18 gauge stranded or solid wires (not included) are used to make connections. For best results, use 18 gauge stranded or solid wire, with no splices and measuring no longer than 20 ft.

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 Button is used on Hearth Mount Applications.



WIRING INSTRUCTIONS

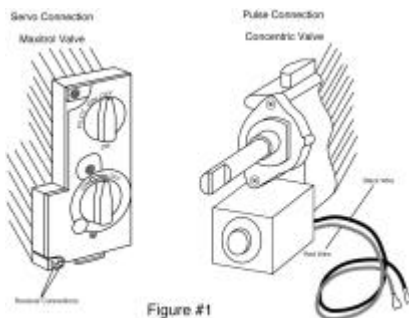
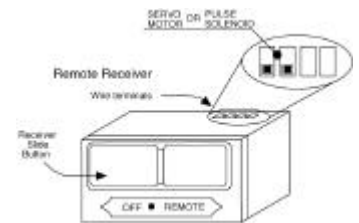


Figure #1

This remote receiver can be connected to either a manual valve with a SERVO MOTOR or manual valves with a latching relay that operates OFF/ON with a pulse signal. (See Figure #1). Connect two 18 gauge stranded or solid wires from the remote receiver (See figure to the right) terminals to the servo motor or pulse solenoid.

IMPORTANT NOTE: Operation of these controls is dependent on which wire is attached to which terminal. If operation of control does not correspond to operating buttons on transmitter, reverse wire installation at the receiver or at the control.

NOTE: Up to 6 VDC of power is provided at the receiver terminal.



THERMO-SAFETY FEATURE - RECEIVER (T/S - RX)

When the ambient temperature at the THERMISTOR, inside the receiver case, reaches 130°F, the THERMISTOR will automatically send 10 seconds of power to the down or off terminal on the valve to shut the fireplace system down and the RECEIVER will begin emitting a series of 4 "beeps" every 2 seconds. When the ambient temperature, at the RECEIVER, drops between 120° F and 130° F, the user can reactivate the fireplace by pushing either button on the transmitter. When any transmitter button is pressed, the THERMISTOR "resets" itself and the fireplace will begin operating again. However, the "beeping" will continue, if the ambient temperature remains between 120° F and 130° F. This "beeping" alerts the user that the RECEIVER should be repositioned so the ambient temperature drops below 120° F.

When the temperature drops below 120° F, the "beeping" will cease, providing the user has "reset" the THERMISTOR by pushing either transmitter button to operate the fireplace. Allow sufficient time for receiver to cool below 120° F, and then press transmitter button to stop beeping.

GENERAL INFORMATION

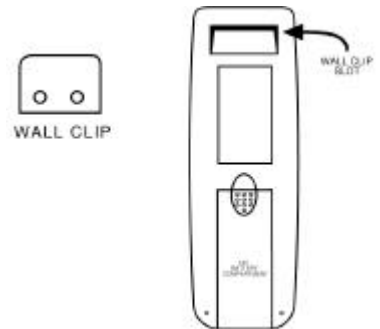
MATCHING SECURITY CODES

Each transmitter can use one of 255 unique security codes. It may be necessary to program the remote receiver to LEARN the security code of the transmitter upon initial use, if batteries are replaced, or if a replacement transmitter is purchased from your dealer or the factory. When matching security codes, be sure slide button on the receiver is in the REMOTE position; the code will NOT "LEARN" if the slide switch is in the OFF position. Program the remote receiver to LEARN a new security code by pushing in the LEARN button on the top of the remote receiver and then pressing any button on the transmitter. A change in the beeping pattern, at the receiver, indicates the transmitter's code has been programmed into the receiver. When an existing receiver is matched to a new transmitter, the new security code will overwrite the old one.

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.

TRANSMITTER WALL CLIP

The transmitter can be hung on a wall using the clip provided. If the clip is installed on a solid wood wall, drill 1/8" pilot holes and install with the screws provided. If it is installed on a plaster/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.



BATTERY LIFE

Life expectancy of the alkaline batteries in the 1001SR can be up to 12 months depending on use of the servo function. Check 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 4.5volts. The transmitter should operate with as little as 2.5 volts battery power. NOTE: Extensive use of the SERVO MOTOR setting will reduce the receiver's battery life significantly.

TROUBLE SHOOTING

If you encounter problems with your fireplace system, the problem may be with the fireplace itself or it could be with the 1001SR 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 make sure contacts are touching (+) and (-) ends of battery. Bend metal contacts in for tighter fit.
- Be sure RECEIVER and TRANSMITTER are within 20'-25' 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.

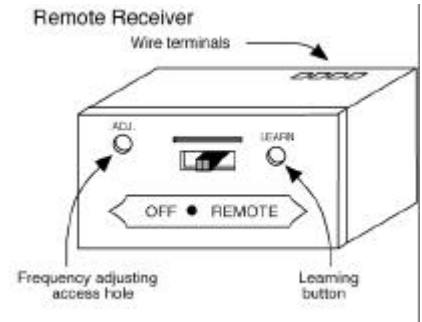
- Due to handling and shipping of the unit, handling or dropping of the transmitter by the customer, and/or heat conditions at the receiver, some receivers may need an occasional frequency adjustment. This adjustment is made to improve the communication and operating distance between the transmitter and the receiver. Follow the steps below for making the adjustment.

FREQUENCY (DISTANCE) ADJUSTMENT PROCEDURE

RECEIVER ADJUSTMENT

1. To adjust at the receiver, use a small slotted screwdriver. Turn the adjustment (ADJ) screw counter-clockwise about 5° or maximum of 1/8 turn. This should correct the distance problem.
2. If that does not correct the problem, return adjustment screw to original position and then turn adjustment screw clockwise.

This adjustment is like tuning your radio. If you keep turning the adjustment screw, in either direction, you will go past the proper setting (tuning).



SPECIFICATIONS

BATTERIES: Transmitter (2) 1.5 volt AAA t batteries

Remote Receiver 6V - 4 ea. AA 1.5 Alkaline

FCC ID No.'s: transmitter - K9L1003TX; receiver - K9L300IRX

Operating Frequency: 318.79 MHZ

Canadian ISC ID No.'s: transmitter - (XXXXX); receiver - 2439 102 728A

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.

WARRANTY

All warranty information is listed on the warranty sheet packed with this product. If you did not receive this warranty sheet, please contact Skytech Systems, Inc. at the following:
9230 Conservation Way, Fort Wayne, IN 46809
(888) 672-8929 or (260) 459-1703

FOR TECHNICAL SERVICE, CALL:

U. S. INQUIRIES

888/672-8929 or

260/459-1703

WEBSITE: skytechsystem.com

MANUFACTURED EXCLUSIVELY FOR SKYTECH II, INC.

CANADIAN INQUIRIES

877/472-3923

Federal Communication Commission Interference Statement

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 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.

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.

Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.