



# 3301P BE

## INSTALLATION AND OPERATING INSTRUCTIONS

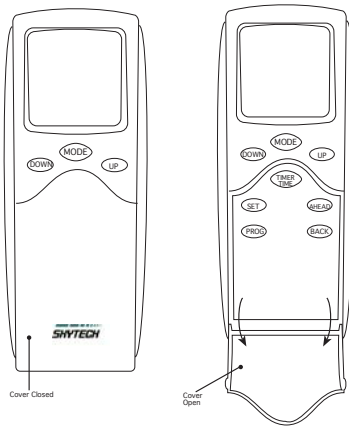
**IF YOU CANNOT READ OR UNDERSTAND THESE INSTALLATION INSTRUCTIONS DO NOT ATTEMPT TO INSTALL OR OPERATE**

### INTRODUCTION

This SKYTECH remote control system was developed to provide a safe, reliable, and user-friendly remote control system for gas heating appliance. The system can be operated thermostatically or manually from the transmitter. The system operates on radio frequencies (RF) within a 20' range using non-directional signals. The system operates 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 and **THERMO SAFETY SECTION** under **REMOTE RECEIVER** section. These signal/temperature safety features shut down the fireplace system when a potentially unsafe condition exists.

### TRANSMITTER

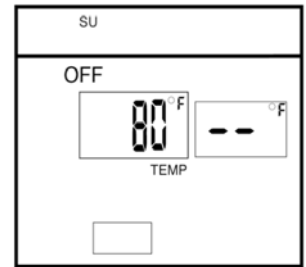


The transmitter operates on 2AAA-size 1.5V batteries. It is recommended that ALKALINE batteries always be used for longer battery life and maximum operational performance. **IMPORTANT:** New or fully charged batteries are essential for proper operation of the multi-function transmitter.

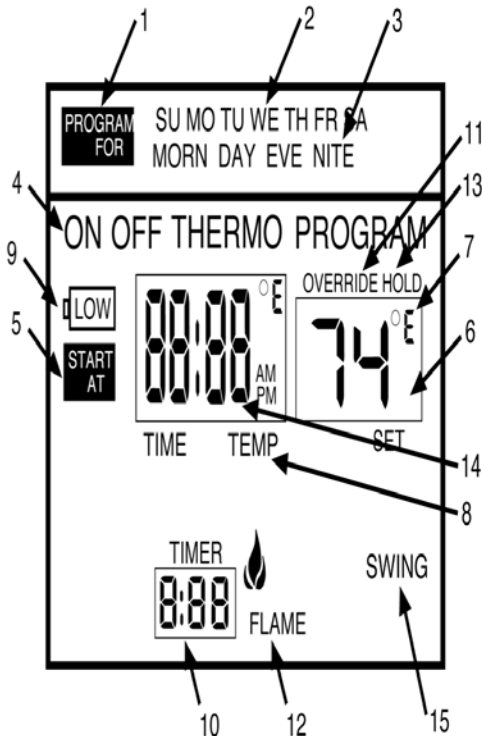
Insert 2 AAA-size 1.5 V batteries into the battery transmitter, positioning the (+) and (-) ends of the batteries as indicated on the casing. When the batteries are inserted, the screen below (with similar numbers) will display.

**Note:** If a LOW battery icon appears on the screen, check the position of the batteries.

**Note:** Due to the sensitive temperature-monitoring components in the transmitter, it may be necessary to allow the transmitter to stabilize to room temperature before accurate room temperatures are displayed on the screen. If the transmitter is activated from a severe cold condition, it can take up to fifteen minutes for accurate temperature readings to appear.



### LCD DISPLAY SCREEN

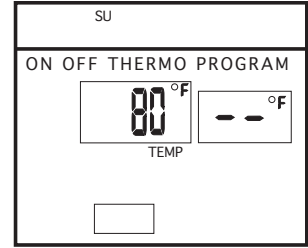


- PROGRAM FOR: Flashes when programming days of week and periods of the day. When in normal state, only current DAY displays. When programming or in PROGRAM mode, both day and week will appear.
- DAY –Flashes when current day or day of week is being programmed.
- PERIOD – Flashes when current period of day or period of week is being programmed.
- MODE – Indicates operation MODE of system.
  - ON indicates the system is ON, either manually, thermostatically, or program.
  - Off indicates the entire system is turned OFF.
  - THERMO indicates the system will automatically cycle ON/OFF, depending on SET temperature.
  - PROGRAM – indicates the system is operating with PROGRAMMED settings.
- START AT – Flashes when programming the time to turn system ON.
- SET – Indicates desired SET room temperature, when in THERMO or PROGRAM mode.
- ° F / °C – Factory programmed in ° F. ( °C indicates degrees in Celsius)
- TIME/TEMP – Displays the CURRENT room temperature. In same frame, the current time will display in AM or PM. You must depress the TIME/TIMER button to display current time.
- LOW – Battery power is low. Replace batteries within 2 weeks.
- TIMER – When displayed, indicates countdown timer in operation.
- OVERRIDE – Displays when “programmed” SET temperature is overridden.
- FLAME – Single flame symbol indicates burner/valve is operational.
- HOLD – Displays when “programmed” SET temperature is overridden and will hold hat temperature until cancelled.
- CP – Displays when CHILD PROOF “LOCK OUT” is engaged. Pressing the UP and TIMER buttons together, engages CP.
- SWING- Displays in SET frame when setting TEMPERATURE DIFFERENTIAL.

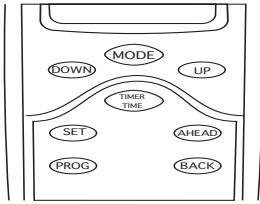
## FUNCTIONS

To operate the system, press the MODE button on the transmitter to select the operational MODE desired.

- ON indicates the system is on, either manually, timed, thermostatically, or program
- THERMO indicates the system will automatically cycle ON/OFF, depending on programmed set temperature.
- OFF indicates the entire system is turned off.
- PROGRAM indicates the system will automatically cycle ON/OFF in the programmed mode depending on the 7 day/4 period program that is in memory.

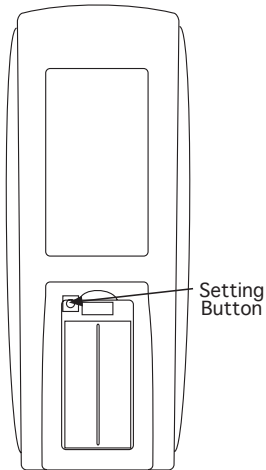


## BUTTON SETTINGS



Flip open the plastic cover on the front of the transmitter to expose the “SET” buttons. The flip cover protects the SET buttons from being changed accidentally. Close the cover after completing the following settings/ programming.

Flashing numbers on the display indicate the system is awaiting user input, such as using the UP and DOWN buttons to program a new setting. If no change is made to flashing digits within 15 seconds, the system will complete the procedure last programmed and reset the display to its normal state.



## INITIAL SET-UP PROGRAMMING OF TRANSMITTER

Follow the procedures below, upon FIRST USE of transmitter, setting the following program options:

- TEMPERATURE SETTING –  $^{\circ}\text{F}$  (Fahrenheit) or  $^{\circ}\text{C}$  (Celsius)
- CURRENT DAY OF WEEK – SU, MO, TU, WE, TH, FR, SA
- CURRENT TIME OF DAY –Hours and minutes

To program settings, first remove the battery cover on the back of the transmitter. If you have not already installed the 2-AAA batteries, this would be a good time to do so. Note the small push button at the upper left side of the battery compartment. This is the button used to perform the initial transmitter programming. You will need to use a paper clip or sharp end of a pencil to depress this button.

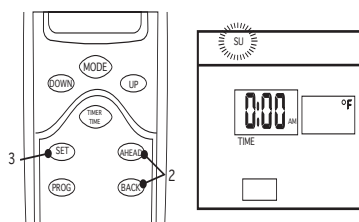
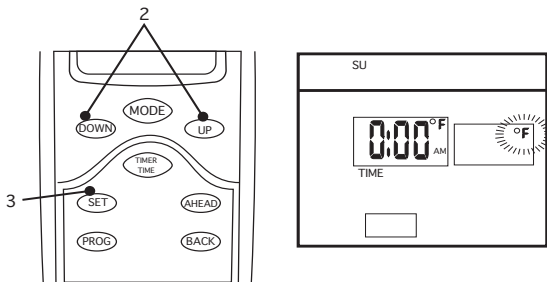
### CHANGING THE TEMPERATURE SCALE

1. Press setting button on back of transmitter ONCE and the  $^{\circ}\text{F}$  symbol will begin flashing on the LCD screen. You may replace the battery cover at this time.
2. To change  $^{\circ}\text{F}$  to  $^{\circ}\text{C}$ , press the UP or DOWN button on the front of the transmitter.
3. After setting/confirming the preferred temperature SCALE, press the SET button on the front of the transmitter.  
NOTE: You will need to press the SET button, confirming  $^{\circ}\text{E}$ , if you want the temperature readings to be in  $^{\circ}\text{F}$ .

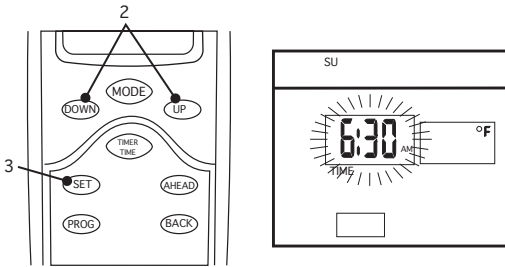
### SETTING THE CURRENT DAY OF THE WEEK

Following Step 3 above, the symbol SU will begin flashing on the LCD screen.

1. To change to the current day of the week Press the AHEAD or BACK button on the front of the transmitter.
2. After setting/confirming the current Day of the week, press the SET button on the front of the transmitter.  
NOTE: You will need to press the SET button, confirming SU, if that is the current day.



## SETTING THE CURRENT HOUR AND MINUTES



1. Following Step 3 on the previous page, the HOUR digits will begin flashing in the TIME frame on the LCD screen.
2. To set the current HOUR, press the UP or DOWN button setting the HOUR for the corresponding AM/PM time period.
3. After setting the current HOUR, press the SET button on the front of the transmitter, and the MINUTE digits will begin flashing on the LCD screen.
4. To set the current MINUTES, press the UP or DOWN button setting to the correct MINUTES.
5. After setting the HOURS and MINUTES, press the SET button on the front of the transmitter.

The initial set-up/programming of the transmitter is now complete. Be sure the slide-on battery cover is reinstalled and proceed to the next step. The LCD screen will now display in its normal state.

## PROGRAM OPERATION OF REMOTE CONTROL

### BUILT-IN PROGRAM

DAY	PERIOD	TIME/TEMP
All 7 Days	MORN	6:00 AM 70 °
Factory- Programmed	DAY	8:30 AM 60 °
	EVE	3:00 PM 70 °
	NIGHT	11:00 PM 63 °

### BUILT -IN PROGRAM

The transmitter has a factory program built in. Each day has been broken into four periods and each period has its own starting time and temperature. A chart of the built- in programs is at the left.

You may change any of the factory settings by following the procedures below. Should you wish to return to the factory program, follow the procedures under heading PROGRAM REVIEW or PROGRAM CANCELLATION depending on which process you select.

### PROGRAMMING DAYS/PERIOD OF DAY/SET TEMPERATURES

## PROGRAMMING THE TRANSMITTER

The user may change the built-in time and temperature programs to suit their personal schedule. Each day is divided into four periods: MORNING, DAY, EVENING, AND NIGHT. A blank programming chart is provided to the left to record your customized time and temperature settings.

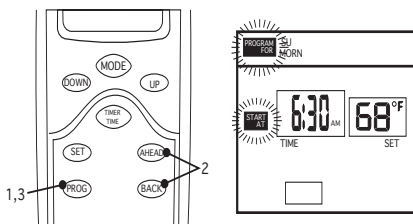
If desired, you may change a single day or all seven days that have the built-in factory program. To change one or all seven days, complete the following steps:

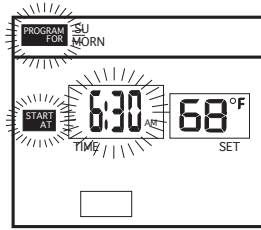
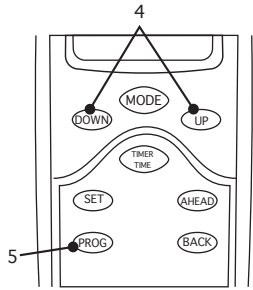
	PERIOD				
DAY	MORN	DAY	EVE	NITE	TIME/TEMP
SU					
MO					
TU					
WE					
TH					
FR					
SAT					

- 1 Press the PROG button for 4 seconds. The shaded boxes on the LCD screen with the words PROGRAM FOR and START AT will begin to flash. The current DAY, PERIOD, TIME and SET temperature of the BUILT-IN FACTORY PROGRAM will also be displayed.

**NOTE:** If the above settings were not previously completed during the initial SET-UP and PROGRAMMING procedure, then the LCD screen will display SU, MORN, TIME and SET temperature digits. You must go back and perform the initial set-up procedure or the remote will not operate properly in the PROGRAM mode. SEE PAGE 2.

- 2 To program the DAY and PERIOD OF DAY, press the AHEAD or BACK buttons to display the DAY and PERIOD you wish to program.
- 3 When the DAY and PERIOD being programmed displays, then press the PROG button and the TIME will flash on the LCD screen.





4 To program the START TIME, press the UP or DOWN button. Programmed start time settings are in 15 minute segments. The new set time will display on the LCD screen.

5 When the desired START TIME displays, press the PROG button and the SET TEMPERATURE will flash on the LCD screen.

6 To program the SET TEMPERATURE, press the UP or DOWN button.

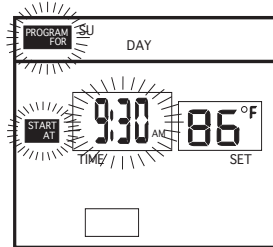
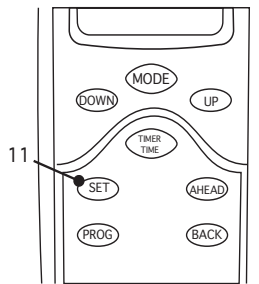
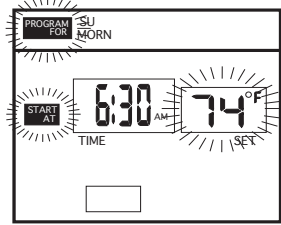
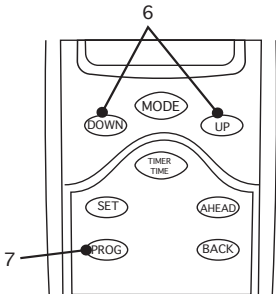
7 When the desired SET TEMPERATURE displays, then press the PROG button.

8 After pressing the PROG button in step 7, the next PERIOD of the same or next day will display on the LCD screen.

9 To program the next PERIOD follow steps 3, 4, 5, 6 and 7.

10 Continue to follow steps 3, 4, 5, 6 and 7 until all 7 days and the 4 time periods in each day are programmed.

11 Once ALL the programming has been completed, then press the SET button. The programming data that has been entered will now over-ride the factory built-in program and operate your remote control system.



### PROGRAMMING NOTE:

Once in the programming process and you want to advance the programming procedure, you may bypass some of the DAYS or PERIODS OF DAY, by pushing the AHEAD or BACK buttons. This allows you to eliminate the need to enter the TIME and TEMPERATURE for each DAY/PERIOD speeding up the programming process by skipping some of the "software prompts". Once the LCD screen displays a DAY/PERIOD you want to reprogram, press the PROG button and follow the programming steps outlined above.

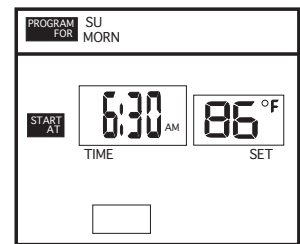
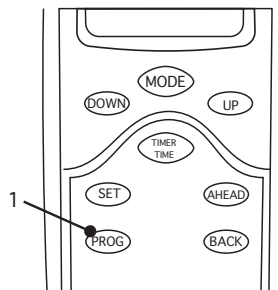
### PROGRAM REVIEW

If you want to review the settings for either the FACTORY program and/or your CUSTOMIZED program, you may do so by pressing the PROG button for one second. To review other settings, press the PROG button allowing one second between each press of the PROG button. If you press the PROG button for 4 seconds, then you go into the programming process. Press the SET button should you hold the PROG button too long.

### PROGRAM CANCELLATION

Should you want to cancel the CUSTOMIZED program that you have entered and return to the FACTORY program, you may do so. To cancel a CUSTOMIZED program:

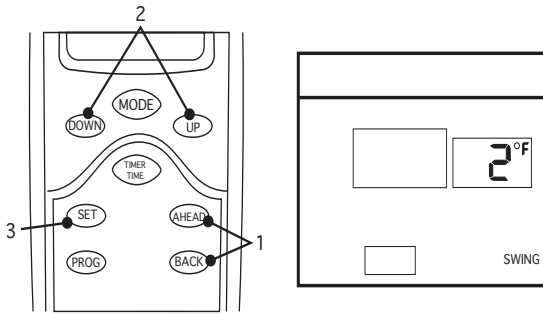
1. Press the SET button to make sure the LCD screen is in normal state.
2. Then press and hold the PROG button and, at the same time, press the SET button for a period of 10 seconds.
3. The customized programs will be cancelled when the display icons/numbers flash with some icons disappearing. The LCD screen will begin flashing PROGRAM FOR, START AT, and the digits in the TIME and SET frames will begin flashing. This confirms CUSTOMIZED programs have been cancelled.
4. Push the SET button to return LCD screen to normal state or wait 10 seconds and LCD screen will return to normal state automatically.



## **ADDITIONAL PROGRAMMING OPTIONS SWING TEMPERATURE DIFFERENTIAL**

The thermo-transmitter operates the fireplace system 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 a fireplace system may be 2-4 times per hour depending on how well the room or home is insulated from the cold or drafts. A smaller "swing number" increases the number of cycles so the room temperature is more constant. A larger "swing number" decreases the number of cycles, which saves energy, in most cases. The factory setting for the "swing number" is 2. This represents a temperature variation of +/- 2 °F (1 °C) between SET temperature and ROOM temperature which determines when the fireplace will be activate. The "SWING" number values are:

**1 = +/- 1 °F (.5 °C), 2 = +/- 2 °F (1 °C), 3 = +/- 3 °F (1.6 °C).**



- 1 To change the temperature "SWING" setting (1-3), press the AHEAD + BACK buttons simultaneously to display the current "SWING" setting in the SET TEMP frame. The word SWING will display on the LCD screen.
- 2 Press the UP or DOWN button to change the temperature differential or "SWING" (1-3). See above for 1-3 "SWING" temperature values.
- 3 To store the "swing number", press the SET button or allow 15 seconds to lapse, and the new "swing number" will be automatically programmed.

### **MANUAL CHECK OF "SWING" OR TEMPERATURE DIFFERENTIAL**

The operation of the factory set "THERMO SWING" can be checked by adjusting the SET TEMP 2 °F above or below the room temperature. This will cause the system to turn ON or OFF. Normally the system will only respond to temperature changes every two minutes. Manually changing the SET temperature will activate the system in less than 10 seconds. If the "SWING" is changed, then a new room temperature differential will respond. Factory setting of SWING temperature is 2 °F.

**OPERATIONAL NOTE:** TO CONSERVE BATTERY POWER, CHANGES IN TEMPERATURE ARE ONLY RECORDED EVERY TWO MINUTES. Additionally, to prevent repeated thermo-cycling of the gas appliance, the sensing unit in the transmitter will only activate the remote receiver when the temperature change exceeds 2 °F (1 °C) above or below the SET (desired) temperature. However, if the "SWING" setting has been changed from the factory setting (2 °F / 1 °C), then thermo-cycling will activate at the new setting of the "SWING" number.

### **MANUAL CHECK OF THERMO OPERATION**

The operation of the Thermo setting can be checked on demand by adjusting the SET temperature 2 °F above or below the room temperature, which will cause the system to turn ON or OFF, respectively. Normally, however, the system will only respond to temperature changes every two minutes. NOTE: if "SWING" number has been changed, then activation will occur at the new "SWING" setting. When the gas fireplace system is activated, a FLAME icon will display on the LCD screen indicating a signal has been sent from the transmitter.

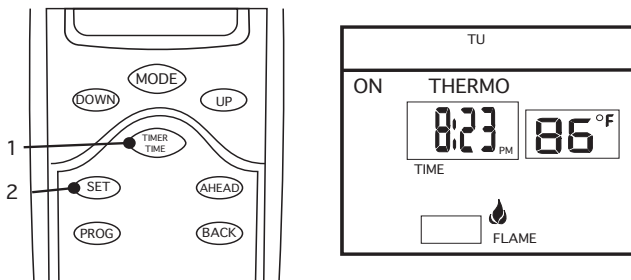
## **OPERATING INSTRUCTIONS**

**THERMO OPERATION** – (Systems operates thermostatically based on SET TEMP setting, ONLY)

### **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).

1. To set the DESIRED room temperature, press the MODE button to place the transmitter into THERMO mode. THERMO ON or OFF will display.
2. Then press the UP or DOWN button to select the DESIRED room temperature. The highest SET temperature is 99 °F (32 °C). The lowest SET temperature is 45 °F (6 °C).
3. The TRANSMITTER will "sense" the room temperature every two minutes automatically turning the fireplace ON or OFF thermostatically.





### TEMPERATURE OVERRIDE – (Operates only in PROGRAM mode)

The user may change the current SET temperature without changing the programs stored in the transmitter's memory. The **OVERRIDE** feature will be automatically cancelled at the start of the next PROGRAM PERIOD.

1. To change current SET TEMP, press the **UP** or **DOWN** button (Setting will be cancelled automatically when next program period begins.) The word **OVERRIDE** will appear over the SET frame on the LCD.
2. To cancel temperature **OVERRIDE**, press **SET** button.

### TEMPERATURE HOLD – (Operates only in PROGRAM mode.)

The user may override the SET temperature during any period, adjusting the SET temperature to a **CONSTANT** new SET/HOLD temperature.

1. Press the **UP** or **DOWN** button to change the SET temperature to the level desired. The word **OVERRIDE** will appear in SET frame on the LCD.
2. To **HOLD** the new temperature at a **CONSTANT** setting, push the **UP** and **DOWN** buttons **TOGETHER** to activate the **HOLD** function. The word **HOLD** will appear over the SET frame and the word **OVERRIDE** will disappear.
3. To cancel **OVERRIDE** or **HOLD**, press the **SET** button.

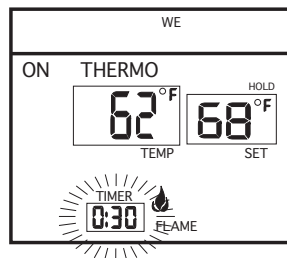
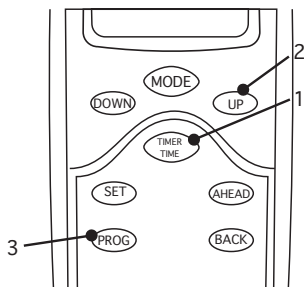
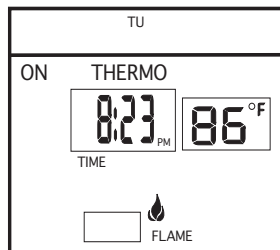
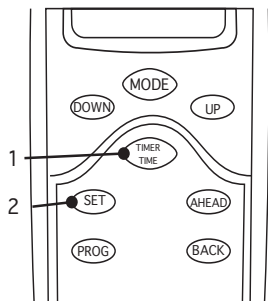
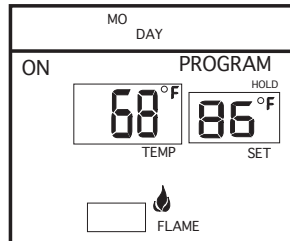
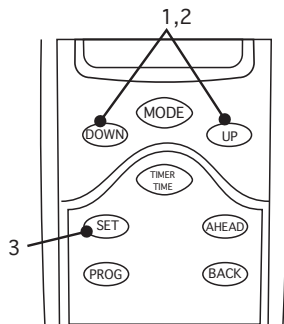
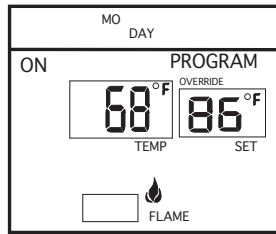
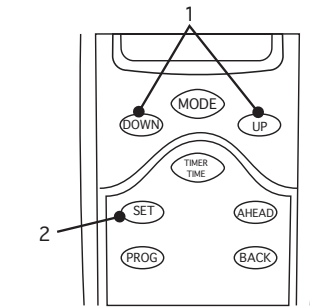
### TIME OF DAY DISPLAY

1. To check the current **TIME** of day, press the **TIMER/TIME** button on the transmitter for less than 1 second. The current **TIME** of day will appear in the **TIME/TEMP** frame replacing the temperature reading.
2. The **TEMPERATURE** will reappear in 15 seconds, or you can press the **SET** button to cancel the display of the time.

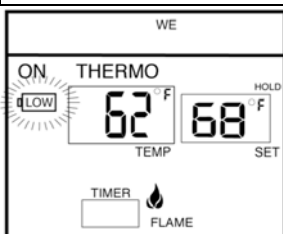
### SETTING THE COUNTDOWN TIMER

This remote control can operate with a built-in, countdown timer when the transmitter is in the **ON** or **THERMO** mode (**THERMO** or **ON** must be displayed on the LCD screen). **DO NOT** operate in **PROGRAM MODE** as times are pre-programmed into the transmitter.

1. Press the **TIMER/TIME** button on the transmitter for more than 2 seconds. The word **TIMER** and 0:15 flash on the LCD screen.
2. Press the **UP** or **DOWN** button on the transmitter to begin advancing through each of the countdown time options. Available countdown times are 15 min., 30 min, 45 min, 1 hr, 1 hr 30 min, 2 hr, 2 hr 30 min, and each additional half hour up to nine hours.
3. To set the **TIMER** press the **SET** button on the transmitter. If the system is **ON**, it will remain on until the "timer" has expired. If the system is in the **THERMO** mode, it will cancel **ON** and **OFF** as the room temperature requires until the "timer time" has expired.
4. To cancel the **TIMER** operation, press the **TIME/RTIME** button for more than 2 seconds.



**OPERATIONAL NOTE:** When the **TIMER** is used in the **THERMO** mode, the **THERMO** operation will discontinue only when the "countdown time" has expired.



### LOW/BATTERY INDICATOR

The word **LOW** outlined by a battery on the left side of the LCD screen will appear when battery power has dropped significantly. At this time, approximately two weeks of battery power remains until the transmitter may experience partial or complete loss of functions.

**NOTE:** A reversed battery will activate the **LOW** battery icon.

## TRANSMITTER

### OPERATING SAFETY MONITORS: SYSTEMS SHUTDOWN

The SKYTECH 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 20 foot operating range, preferably in the same room in which the appliance is located.

### THERMO UPDATING FEATURE –TRANSMITTER – (T/S –TX)

This SKYTECH remote control has a THERMO UPDATING Feature built into its software. The THERMO UPDATING Feature operates in the following manner, but only in the THERMO and PROGRAM MODES:

The transmitter normally reads the ROOM temperature every 2 minutes checking the ROOM temperature against the SET temperature it sends a signal to the receiver.

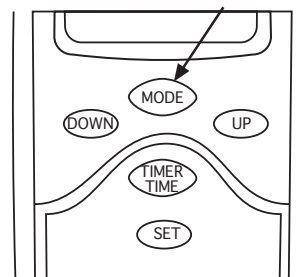
### COMMUNICATION – SAFETY – TRANSMITTER – (C/S – TX)

This SKYTECH 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 THERMO/ 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 MODE Button is pressed to reset the receiver. The intermittent 4 second beeping will go on for as long As there is power from the thermopile.

To “reset” the RECEIVER and operate the appliance, you must press the MODE button on the transmitter. The word ON must display on the LCD screen. 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.

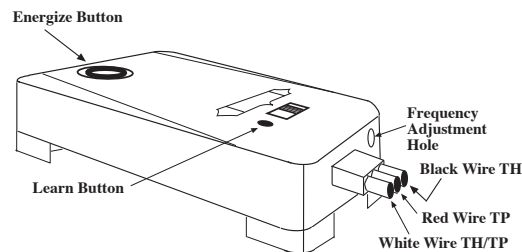


## REMOTE RECEIVER

The remote receiver operates on power from the thermopile. It is recommended that the thermopile voltage with the main burner OFF be no less than 450 millivolts for proper microprocessor performance. **IMPORTANT:** It is essential that proper voltage from the thermopile be maintained 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.**



## **THERMO- SAFETY FEATURE – RECEIVER (T/S –RX)**

This SKYTECH remote control has a THERMO- SAFETY feature that is built into the system's RECEIVER. This feature is temperature-activated and provides an extra margin of safety when the RECEIVER is operating where ambient temperatures exceed 160<sup>0</sup> F degrees inside the receiver case.

The THERMO-SAFETY feature, in the RECEIVER, operates in the following manner, when the appliance is in operation.

The receiver is thermally protected from extreme heat conditions. Heat can have negative effect on the operation of the receiver's microprocessors.

When the ambient temperature at the THERMISTOR, *inside the receiver case*, reaches 160<sup>0</sup> F, the THERMISTOR will automatically shut the appliance down and the RECEIVER will begin emitting a series of 2 "beeps", every 4 seconds. When the ambient temperature, at the RECEIVER, drops between 150<sup>0</sup> F and 160<sup>0</sup> F, the user can reactivate the appliance by pushing the MODE button on the transmitter. The word ON must display on the LCD screen. When the MODE button is pressed to ON, the THERMISTOR "resets" itself and the fireplace will begin operating again. However, the "beeping" will continue, if the ambient temperature remains between 150<sup>0</sup> F and 160<sup>0</sup> F. This "beeping" alerts the user that the RECEIVER should be repositioned so the ambient temperature drops below 150<sup>0</sup> F.

When the temperature drops below 150<sup>0</sup> F, the "beeping" will cease, providing the user has "reset" the THERMISTOR by pushing the MODE button to ON to operate the appliance, either manually or thermally. Allow sufficient time for the receiver to cool below 150<sup>0</sup> F, and then press MODE button to stop beeping.

## **INSTALLATION INSTRUCTIONS**

### **WARNING**

This remote control system must be installed exactly as outlined in these instructions. Read all instructions completely before attempting installation. Follow instructions carefully during installation. Any modifications of the SKYTECH remote control or any of its components will void the warranty and may be pose a fire hazard.

Do not connect any gas valve to 110-120VAC power. Consult gas appliance manufacturer's instructions and wiring schematics for proper placement of all wires.

The following wiring diagrams are for illustration purpose only. Follow instructions from manufacturer of gas valve and/or electronic module for correct wiring procedures. Improper installation of electric components can cause damage to electronic gas valve and remote receiver.

## **HEARTH MOUNT INSTALLATION**

The remote receiver is be placed on the fireplace hearth or under the fireplace, behind the control access panel due to the connections to the TH, TP, & TH/TP terminals on the gas valve. PROTECTION FROM EXTREME HEAT IS VERY IMPORTANT. Position where the ambient temperature inside the receiver case does not exceed 160<sup>0</sup> F.

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 MATCHING SECURITY CODES

## **WIRING INSTRUCTIONS**

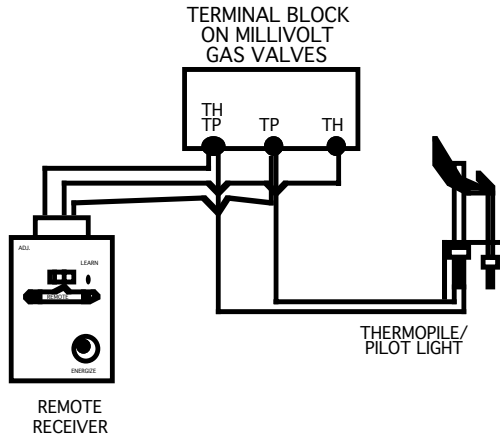
A qualified electrician or a gas technician who is familiar with the gas appliance and gas valves that will be operated by this remote should install the remote control system. Incorrect wiring connections **WILL** cause damage to the gas valve and may also damage the remote receiver.



## WIRING MILLIVOLT VALVES ONLY (WILL NOT OPERATE ON ELECTRONIC SPARK IGNITION SYSTEMS)

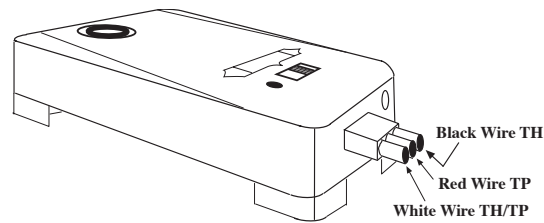
The remote receiver is connected to the TH, TP, & TH/TP terminals on the millivolt gas valve. Connect the (3) 18" gauge stranded wires from the remote receiver to the gas valve. These (3) wires are marked TH, (Black Wire) TP, (Red Wire) and TH/TP (White Wire)

Note: The RED wire from the thermopile must match up with the RED wire from the 3301PBE on the (TP) terminal of the gas valve. The WHITE/YELLOW wire from the thermopile must match up with the WHITE wire from the 3301BE on the (TH/TP) terminal of the gas valve. The reason for this is the 3301PBE is polarity based. These changes will make the gas valve and the thermopile match the 3301BE.



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 three (3) wires leading from the receiver to the TH, TP, and TH/TP terminals on the millivolt gas. These (3) wires are marked TH, (Black Wire) TP, (Red Wire) and TH/TP (White Wire)



## SYSTEM CHECK

### MILLIVOLT VALVES

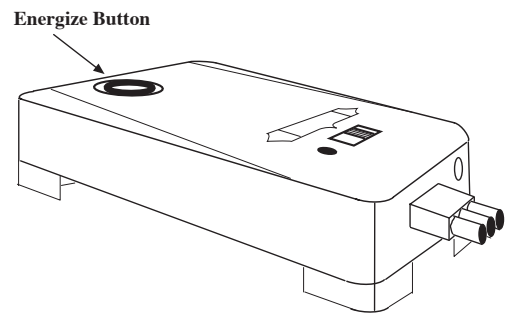
Light your gas appliance following the lighting instructions that came with the appliance. Confirm that the pilot flame is on; it must be in operation for the main gas valve to operate.

Note: Always check for any gas leaks and follow all the instructions from the manufacturer of the appliance on the start up procedures of the appliance.

1. Allow the thermopile to completely heat up, for at least 5 minutes. (Note: If you have a Ventfree product, you may want to allow a longer heat up time, up to 10 minutes).
2. Once the thermopile has heated up, turn the main valve knob from the **PILOT** position to the **ON** position.
3. To activate the power going to the remote control receiver from the thermopile you will need to PUSH and HOLD the **System Energize** button on the receiver for a minimum of 60 seconds before releasing the button. This will start the process of converting millivolts from the thermopile into DC volts required to operate the receiver. This will continue for as long as the thermopile is in operation.
4. Use the transmitter of the remote control to activate the main burner of the appliance.
5. Slide the 3-position button on the remote receiver to the ON position. The main gas flame (i.e., the fire) should ignite.
6. Slide the button to OFF. The flame should extinguish (the pilot flame will remain on).
7. Slide the button to REMOTE (the center position), then press the MODE button on the transmitter to change the system to ON. The main gas flame should ignite.
8. Press the MODE button on the transmitter to change the system to OFF. The flame should extinguish (the pilot flame will remain on).
9. 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.

**Note: 3301 PBE system will need to be re-energized if the remote receiver has been turned to the manual ON or OFF position. This is done by depressing and holding the SYSTEM ENERGIZER BUTTON for minimum of 60 seconds.**

**Note: 3301 PBE system will need to be re-energized every time the pilot light is turned to the OFF position or the pilot light goes out for any reason. This is done by depressing and holding the SYSTEM ENERGIZER BUTTON for minimum of 60 seconds.**



**Note: The Energizer Button must be held in for minimum of 60 seconds**

### **TIMER**

The countdown timer will operate in either the manual ON or THERMO mode. Once the appliance is in an operating mode, set the countdown timer to turn off in 15 minutes. The timer function will allow operation to continue until the countdown "time" on the LCD screen expires. After 15 minutes elapses, the system should turn OFF.

If you have any problems with operation, recheck your connections and ensure transmitter batteries are fully charged. If no problem is found, contact the dealer where you purchased your appliance/remote control.

## **GENERAL INFORMATION**

### **MATCHING SECURITY CODES**

Each transmitter can use one of 1,048,576 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 ON or 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 the MODE 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 override 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.

### **THERMO FUNCTION**

When the transmitter is in the THERMO mode, it should be kept away from direct sources of heat such as fireplaces, incandescent lighting, and direct sunlight. Leaving the transmitter in direct sunlight, for example, will cause its heat-sensing diode to read the room temperature higher than it actually is; if in THERMO mode, it may not turn on the appliance even if the ambient ROOM temperature is below the SET temperature.

### **TROUBLE SHOOTING**

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

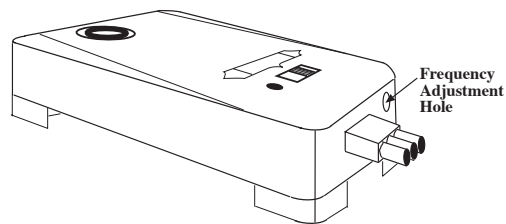
1. Check connections from the receiver to the control valve for good positive connections. (Move the slide switch on the receiver to the ON position if the appliance operates this will confirm that the wiring connections should be good).
2. Check for power from the thermopile to the receiver the voltage with the main burner OFF be no less than 450 millivolts. (Press the learn button on the receiver if there is a beep sound from the receiver this will confirm there is power to the receiver from the thermopile).
3. Be sure the transmitter's batteries are properly installed and that the battery output is 2.5 V or more.
4. Check to make sure the transmitter is communicating with the receiver.
  - If the receiver beeps when the MODE button is depressed on the transmitter they are communicating.

- If the receiver does not beep when the MODE button is depressed on the transmitter, you will need to teach the receiver the code of the transmitter. This is done by holding the LEARN button down on the receiver and at the same time depress the MODE button on the transmitter. A change in the beeping pattern, at the receiver indicates the transmitter's code has been programmed into the receiver.
5. Make sure the transmitter is within the 15'-20' range of the receiver.
  6. Positioning of the receiver is important. If the receiver is "enclosed" in a metal surround, the operation of the receiver may be affected as noted below. Reposition the receiver to improve operating range. If the receiver is "enclosed" in a metal surround, this can:
    - Cause the RF signal to get lost and not communicate with the receiver.
    - Cause the working distance to be shorter than normal.

NOTE: A receiver located in an area, where the ambient temperature inside the case exceeds 160 °F, will cause THERMO-SAFETY feature to cut in, requiring you to reposition the receiver to stop the warning beeps, and to "reset" the receiver's operation.
  7. Due to handling and shipping of the unit, handling or dropping of the transmitter by the customer, and heat conditions to the receiver, some units may need an occasional frequency adjustment. This adjustment is made to improve the communication and operating distance between the transmitter and the receiver. See RECEIVER ADJUSTMENT.

### **RECEIVER ADJUSTMENT & RECOMMENDED ADJUSTMENT**

- A. To adjust at the receiver, use a small slotted screwdriver. Turn the adjustment screw counter-clockwise about 5 degrees or a maximum of 1/8 turn. This should correct the distance problem.
- B. 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).

### **BATTERY LIFE**

Life expectancy of alkaline batteries in the SKYTECH 3301P BE should be at least 12 months. Replace all batteries annually. When the Transmitter no longer operates the 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 in the transmitter. The Transmitter should operate with as little as 2.5 volts of battery power, measuring at the (2) 1.5 volt batteries.

### **SPECIFICATIONS**

BATTERIES: Transmitter 3V- 2 ea. AAA 1.5V, Alkaline  
Remote Receiver (NO BATTERIES)

FCC ID No.'s: transmitter –(K9L3301TX); receiver – (K9L3301TX)

Operating Frequency: 303.8MHZ

Canadian IC ID No.'s: transmitter – 2439-3301TX; receiver – 2439-102-760A

#### **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

CANADIAN INQUIRIES  
877-472-3923

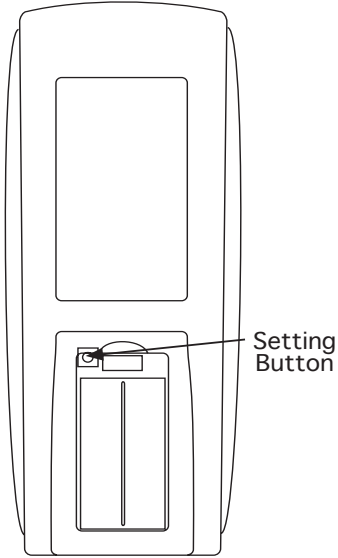
Website: skytechsystem.com

**MANUFACTURED EXCLUSIVELY FOR SKYTECH II, INC**

## QUICK SET-UP GUIDE FOR SKYTECH 3301P PROGRAMMABLE TRANSMITTER

This guide is a “short cut” method to **SETUP** and **OPERATE** the SKYTECH programmable transmitter. For detailed instructions for each feature and function, see **OWNER’S MANUAL**.

### INITIAL SET-UPSET FUNCTIONS USING BUTTONS ON FRONT OF TRANSMITTER

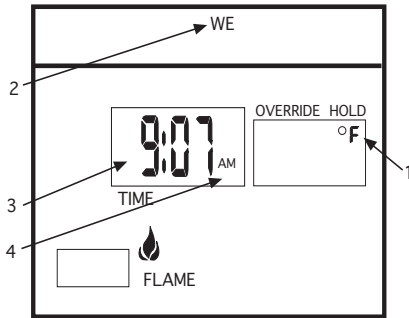


1. Remove battery cover.
2. Insert 2AAA batteries.
3. Press **SETTING** button.
4. Replace battery cover.

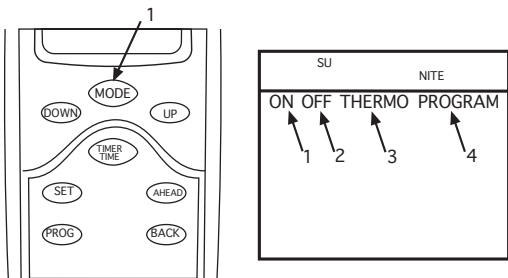
All further programming to be made on front of transmitter.

1. **SCALE (DEGREE F/ DEGREE C)** – Press UP or DOWN button. Press SET button.
2. **DAY OF WEEK** – Press AHEAD or BACK button. Press SET button.
3. **HOUR OF DAY** – Press UP or DOWN button. Press SET button. NOTE: AM or PM on LCD.
4. **MIN. OF DAY** – Press UP or DOWN button. Press SET button.

**NOTE:** Each **SETTING** will flash, separately, on LCD screen. After each **SETTING** you must push SET button. You may not have to change factory setting, but you must push SET button.

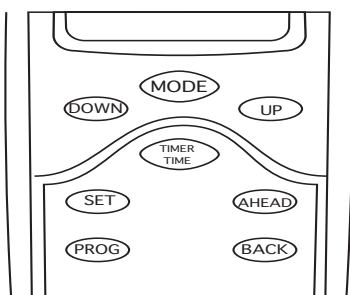


**OPERATION** – Press **MODE** button on **TRANSMITTER** to change operating functions.



- 1 **ON** indicates the system is on, either manually or thermostatically.
- 2 **OFF** indicates the entire system is turned off.
- 3 **THERMO** indicates the system will automatically cycle ON/OFF, depending on programmed **SET** temperature.
- 4 **PROGRAM** indicates the system is operating with **PROGRAMME** settings.

**OTHER OPERATIONS** – Press corresponding buttons on **TRANSMITTER** to activate functions.



**TIME OF DAY** – Press TIMER/TIME button for less than **ONE** second.  
**TIME OPERATION** – Press and hold TIMER/TIME button for two seconds.  
**COUNTDOWN TIME** -- pressing UP or DOWN buttons.

**NOTE:** Press SET button to stop LCD Digits from flashing.

## **QUICK PROGRAMMABLE GUIDE**

### FOR SKYTECH 3301P PROGRAMMABLE TRANSMITTER

This guide is a “short cut” method to PROGRAM the operation of the SKYTECH programmable transmitter. For detailed instructions for each feature and function, see OWNER’S MANUAL.

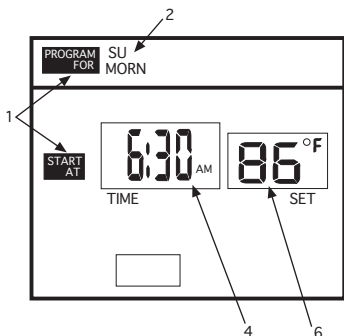
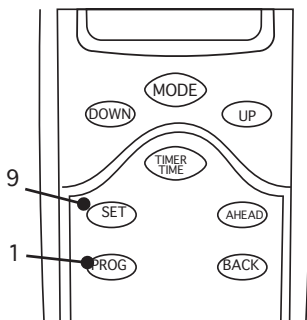
### **PROGRAMMING DAILY OPERATION**

**NOTE:** A FACTORY PROGRAM is already installed in the transmitter’s software.

You may change the daily “SET TIMES” and “SET TEMPERATURES” by following the instructions below.

DAY	PERIOD	TIME/TEMP
All 7 Days	MORN	6:00 AM 70°
Factory- Programmed	DAY	8:30 AM 60°
	EVE	3:00 PM 70°
	NIGHT	11:00 PM 63°

### **SHORT CUT PROGRAMMING**



1. Press PROG button for more than 4 seconds. The PROGRAM FOR a START AT boxes on the LCD will begin blinking.
2. Program DAY OF WEEK and PERIOD OF DAY by pressing AHEAD and BACK buttons.
3. Again, press PROG button. START TIME will begin flashing.
4. Program START TIME by pressing UP or DOWN button.
5. Again, press PROG button. SET TIME will begin to flash.
6. Program SET TEMP by pressing UP or DOWN button.
7. Again, press PROG button. The next PERIOD and DAY will begin to flash.
8. Repeat steps 2 through 7 for all 7 DAYS until each PERIOD OF DAY is programmed.
9. When all programmed settings are complete, then press the SET to lock in new programming.
10. To REVIEW, either FACTORY or USER programs, push the PROG button for ONE SECOND; then scroll through each DAY and PERIOD OF DAY by pressing PROG button, allowing ONE SECOND between each press of this button. Press the SET button when through reviewing the programmed times and temperatures.
11. To CANCEL user-customized programming, press and hold PROG and SET buttons together, for 10 seconds; all USER programs will be cancelled and the FACTORY program will return

**NOTE:** Push AHEAD or BACK buttons to advance day and period should you not want to change each SET time or SET temperature.