# CONTROL SYSTEM

## 11.1 Control System Components

*Figure 11.1,Gas Valve*

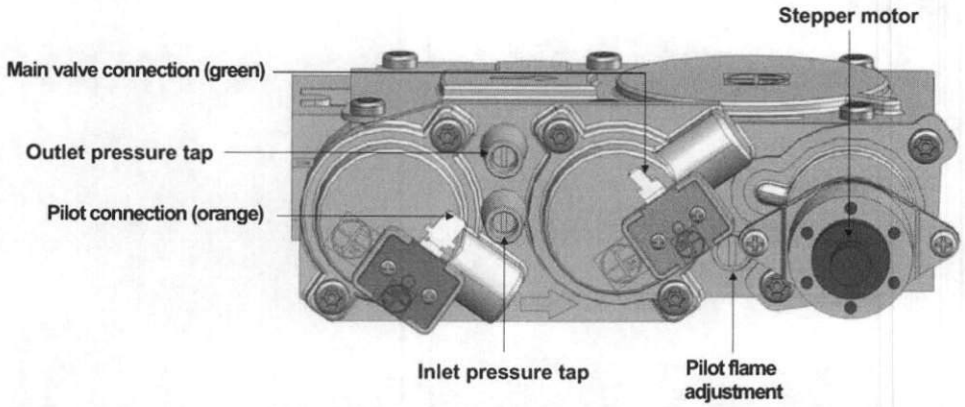



*Figure 11.2, Pilot Assembly Components*

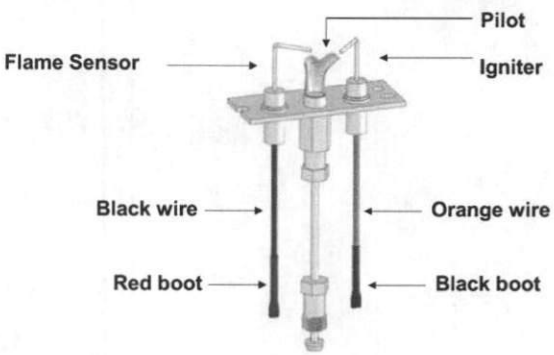
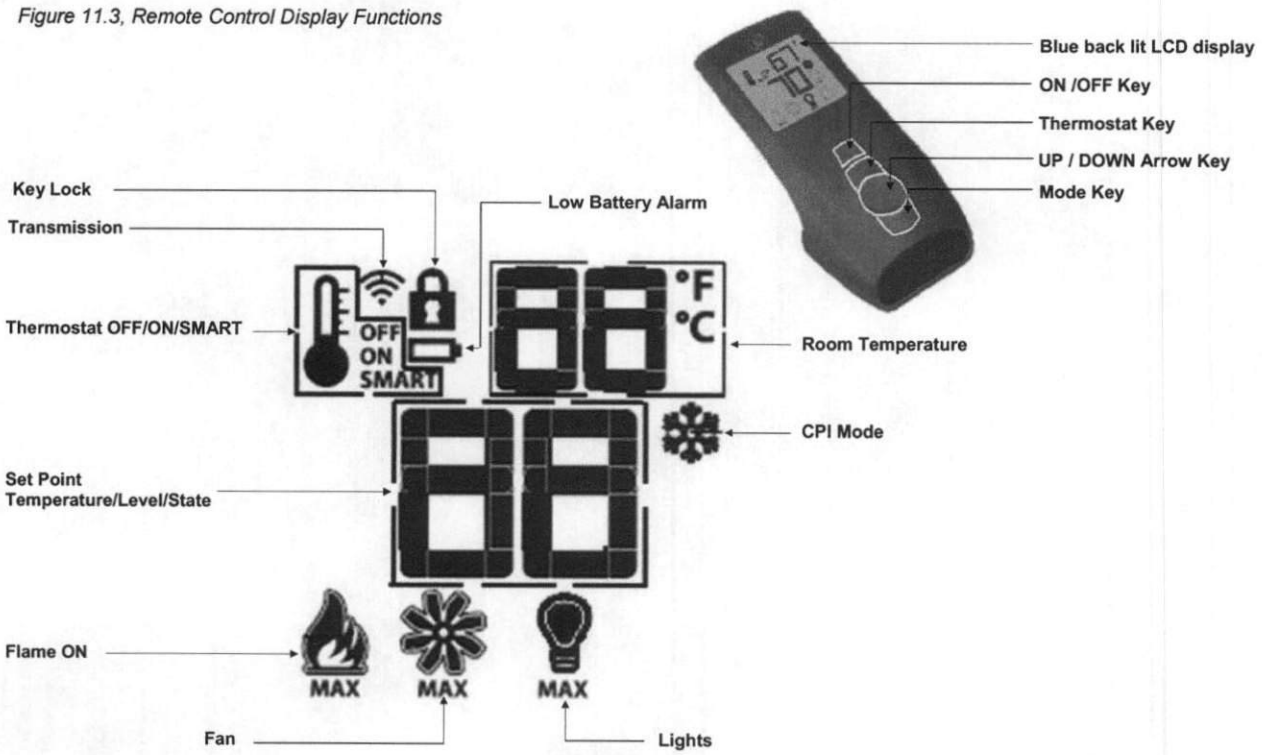



*Figure 11.3, Remote Control Display Functions*



## 11.2 Control System Operation

### 11.2.1 Prepare Components

1. Set ON/OFF rocker switch to OFF position on the IFC Control Module.
2. Install 4 AA batteries (included in components packet) into battery backup holder on the control module.
3. Connect the IFC Control Module to an AC power supply.
4. Install 3 AAA batteries (included in components packet) into the remote control battery bay, located at the base of remote control.

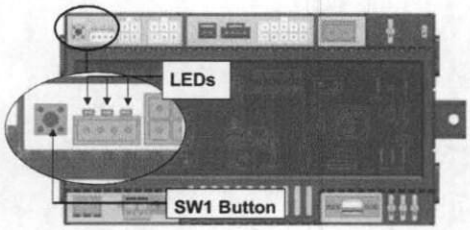
**Remove all packaging / combustible material from fireplace before initializing the control system.**

### 11.2.2 Initialize the Control System for the First Time

**NOTE:** Performing the next step will initiate pilot start-up in manual mode, where the pilot igniter will spark repeatedly. The pilot will ignite if gas is supplied to the fireplace.

1. Press the red SW1 button on IFC control module until the module beeps three (3) times, and/or an amber LED is illuminated, indicating the IFC control module is ready to synchronize with the remote control. See Figure 11.4.
2. Within five (5) seconds, push the remote control **ON/OFF** button. The IFC control module will beep four (4) times to indicate the remote control's command is accepted, and is set to the particular code of that remote control.
3. Press the remote control **ON/OFF** button again. The pilot will shut down indicating the remote has taken over. The system is now initialized.
4. Set the ON/OFF rocker switch to ON position to operate fireplace with the remote control.

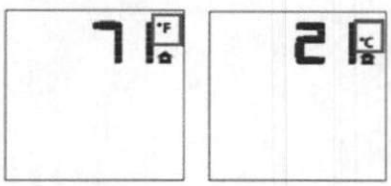
*Figure 11.4, IFC Control Module*




### 11.2.3 Adjust Temperature Display

1. With the system in **OFF** position, press **thermostat key** and **mode key** at the same time to change from degrees °F to degrees °C.
2. Look at the remote control LCD screen to verify that °C or °F is visible on right side of Room Temperature display.

*Figure 11.5, Temperature Locations*




### 11.2.4 Turn ON the Appliance

1. Starting from OFF, press the remote control **ON/OFF** key to turn ON the appliance.
2. The remote control will show all active icons on the LCD screen display, and the IFC control module will be commanded to start the ignition sequence. Refer to 11.2.15, Control Module Ignition Sequence, on page 42.

A single 'beep' from the IFC control module will confirm reception of the command.

### 11.2.5 Turn OFF the Appliance

1. With the system ON, press the remote control **ON/OFF** key to turn OFF the appliance.
2. The remote control will only show room temperature and its icon on the LCD screen display, and the IFC control module will be commanded to turn off the burner.

A single 'beep' from the IFC control module will confirm reception of the command.

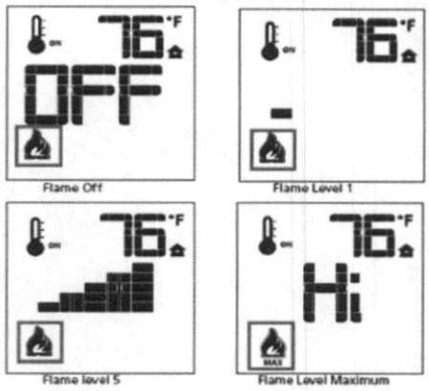
### 11.2.6 Control Flame Manually with Remote Control

The remote control has six (6) flame levels, displayed by steps as shown in Figure 11.16. Each press of the UP / DOWN Arrow Key will increase or decrease the flame level by one step. A single 'beep' will confirm reception of the command.

1. With system **ON** and the flame level at maximum, press the **down arrow key** once to reduce flame height by one step until flame is turned off.
2. Press the **up arrow key** once to increase flame height by one step. If the up arrow key is pressed while the control system is on but the flame is off, the flame will come on in 'HI' position.

When SMART Thermostat is activated, manual flame height adjustment is disabled.

*Figure 11.6, Flame Levels*



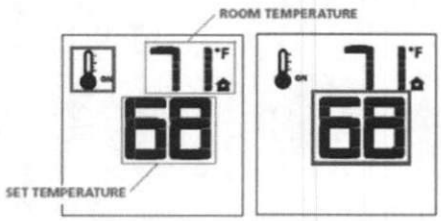

### 11.2.7 Remote Control Thermostat Operation

#### Room Thermostat

The remote control can operate as a room thermostat. The thermostat can be set to a desired temperature to control a room's comfort level. To activate this function,

1. Press the **thermostat key**. The LCD display will change to show the room thermostat is **ON**, and will display the set temperature.
2. To adjust the set temperature, press the **up** or **down arrow keys** until the desired set temperature is displayed on the LCD screen.

*Figure 11.7a Room Thermostat Operation*




#### Smart Thermostat

The SMART Thermostat function adjusts the flame height based on the set temperature and the actual room temperature. As the room temperature gets closer to the set point, the smart function will automatically adjust the flame down. To activate this function,

1. Press the **thermostat key** until the word 'SMART' appears on the right side of the temperature bulb graphic.
2. To adjust set temperature, press the **up** or **down arrow keys** until THE desired set temperature is displayed on the LCD screen.

*Figure 11.7b, Smart Thermostat Operation*


#### Deactivate Thermostat Operation

The remote control thermostat options (room and smart functions) can be disabled by deactivating thermostat operation. When the thermostat operation is deactivated, the remote control will still be able to operate the burner ON/OFF, and be able to function flame, fan, and light modulation. To deactivate this function,

1. Verify all (3) AAA type batteries are installed in the remote control.
2. Remove one AAA battery.
3. While re-inserting the AAA battery, push and hold down the **thermostat key**. The thermostat icon will not appear on the remote control LCD screen.

To re-activate thermostat operation, follow the same button sequence procedure described above. The thermostat icon will reappear on the remote control LCD screen.

*Figure 11.7c, Deactivated / Activated Thermostat*

### 11.2.8 Fan Speed Control

Fan speed can be adjusted through six (6) speeds. A single 'beep' will confirm reception of the command. To activate this function,

1. Press the **mode key** to index to the fan control icon.
2. Press the **up** or **down arrow keys** to turn on, off, or to adjust fan speed.

**Thermostat Mode:** Fan(s) have a five (5) minute delay time when fireplace is lit, allowing time for heat to build in fireplace before operating. The fan will continue to operate for approximately twelve (12) minutes after fireplace has been turned off.

**Manual Mode:** Fan(s) will operate at previous setting. There is no delay in start up or stop time.

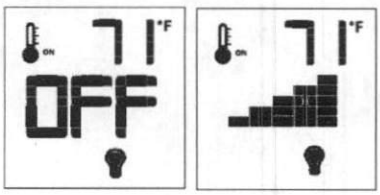
*Figure 11.8, Fan Remote Operation*


### 11.2.9 Accent Light Kit

The light intensity can be adjusted through six (6) levels. A single beep will confirm reception of the command.

1. Press the **mode key** to index to **light** icon.
2. Press the **up** or **down arrow keys** to adjust the intensity level.

*Figure 11.9, Accent Light Remote Operation*



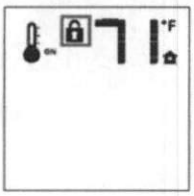

### 11.2.10 Key Lock

This function locks the keys to avoid unsupervised operation. A lock icon will appear on the LCD display screen once activated.

**To Activate:** Press the **mode key** and **up key** at same time.

**To De-activate:** Press the **mode key** and **up key** at same time.

*Figure 11.10, Key Lock Indicator*



### 11.2.11 Low Battery Detection

**Remote Control**

Remote control battery lifespan depends on various factors including battery quality, number of ignitions, changes to room thermostat set point, etc.

- When the remote control batteries are low, a battery icon will appear on the LCD display before all battery power is lost.
- When batteries are replaced, this icon will disappear.

*Figure 11.11, Low Battery Indicator*

**Backup Battery Pack**

The backup battery pack is ued when the electrical power to the appliance is interrupted. The lifespan of backup batteries depends on various factors including battery quality, number of ignitions, changes to room thermostat set point, etc.

- When backup batteries are low, a double-beep will be emitted from the IFC control module when it receives an ON/OFF command from the remote control. This is an alert for a low battery condition of the backup batteries and after this double-beep warning, no commands will be accepted until batteries are replaced.
- When batteries are replaced, a beep will be emitted from IFC control module as soon as powered.

### 11.2.12 Continuous Pilot / Intermittent Pilot (CPI / IPI)

This system has the option of a continuous (standing) pilot feature. This allows you to change from a spark-to-pilot system to a standing pilot system during cold weather conditions. By having the pilot on continuously, the firebox will remain warm and a draft is established in the vent, allowing the main burner to turn on with less air-flow disruption.

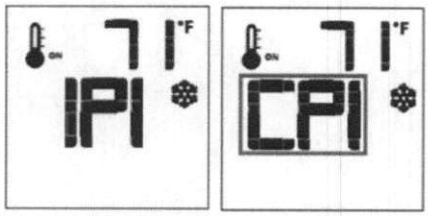
To activate Continuous Pilot Ignition mode,

1. With system in **OFF** position, press the **mode key** to index to CPI mode icon.
2. Press the **up arrow key** to activate CPI.
3. Press the **down arrow key** to return to IPI. A single beep will confirm the reception of the command.

A snowflake icon will be visible during setup of either IPI or CPI modes.

- In IPI mode, the snowflake is not visible on LCD screen.
- In CPI mode, the snowflake is visible on LCD screen.

*Figure 11.12, Pilot Mode Indicator*

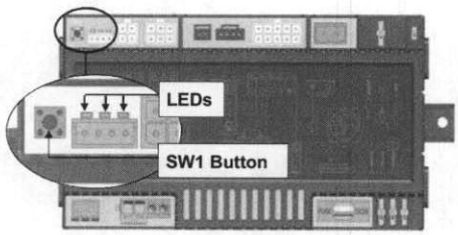



### 11.2.13 Reset the System for Manual Operation

Manual operation of the control system will only operate the burner on 'HI.'

1. Put the **ON/OFF switch** in OFF position.
2. Press the **red SW1 button** on IFC control module until the module emits three (3) beeps and an amber LED is illuminated. This indicates the IFC control module is ready to synchronize with the remote control.
3. Within five (5) seconds, press the **red SW1 button** on IFC control module again. The pilot will automatically light.
4. Turn main burner on by pressing **ON/OFF switch** to ON position, turn off by pressing ON/OFF switch to OFF position. Pilot will remain lit even if burner is turned off.

*Figure 11.13, IFC Control Module*




### 11.2.14 Automatic Safety Restart

This system will execute an automatic turn OFF command within (24) hours of a continued pilot flame ignition. This allows the system to verify correct safety functions. After turn OFF sequence is completed, the IFC control module will re-execute the latest command.

### 11.2.15 Control Module Ignition Sequence Information

**IFC Control Module Ignition Sequence**

**First Attempt**

- Starting from OFF, press remote control **ON button**.
- Approximately (4) seconds after ON/OFF button is pushed, the IFC control module will start the spark.
- First ignition try will last approximately (60) seconds.

**Second Attempt**

- If there is no flame ignition (rectification) during the first try for ignition, the IFC control module will stop sparking for approximately (35) seconds.
- After this wait time, the IFC control module will start the second try for ignition by sparking for approximately (60) seconds.
- If ignition is successful on third ignition attempt, there will be a (60) second delay before the main burner lights.

**Third Attempt**

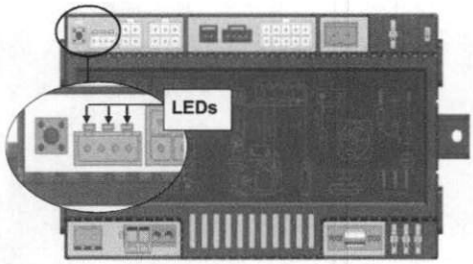
- If after this third attempt there is still no positive ignition, the IFC control module will go into **LOCK OUT** and the red LED will blink (3) times in intervals until the system is reset.

## IFC Control Module Lock Out

After the IFC control module attempts positive ignition for the third time, the control system will go into **LOCK OUT.** The red LED will blink (3) times until the system is reset.

The location of the LED indicator on the IFC control module is determined by fireplace model and design. The red LED indicator also may be located in the component housing behind the lower grill, or behind the access panel on the left side.

*Figure 11.14, IFC Control Module LED Lights Location*




**In Summary:**

1. **The IFC control module will try (2) times for ignition.**
2. **Each try for ignition will last approximately (60) seconds.**
3. **The wait time between the two tries is approximately (35) seconds.**

## Reset IFC Control Module—Lock Out

**Reset Using ON/OFF Switch on Control Module:**

- Set ON/OFF switch to OFF position.
- Wait approximately (2) seconds and move switch to the ON position. The ignition sequence will start again.

**Reset Using Remote Control ON/OFF Button:**

- Turn the system off by pressing the remote control ON/OFF button.
- After approximately (2) seconds press the remote control ON/OFF button again. The IFC control module will reset and the ignition sequence will start again.

**Reset By Cycling Flame:**

- In the Manual Flame Control Mode, use the Down Arrow Button to reduce flame to off (indicated by OFF displayed on Remote Control Display Screen).
- Wait approximately (2) seconds and press the Up Arrow Button. The ignition sequence will start.

*Figure 11.15, Remote Control Functions for System Lockout*


### 11.2.16 Additional Diagnostic Indications Information

**Low Battery Condition (<4V) Remote Control:**

- Battery Icon will appear on LCD remote control display.
- Replace batteries.

**Low Battery Condition (<4V) Battery Backup:**

- The red LED Indicator will blink (1) time in intervals.
- A low double-beep emits from the IFC control module when it receives an ON/OFF command from the remote control..
- Replace Batteries.

**Pilot Flame Error Condition:**

- Red LED Indicator will blink (2) times in intervals.
- Contact your dealer if this occurs.

**System Lock Out Condition:**

- Red LED Indicator will blink (3) times in intervals.
- Verify gas is turned on.
- Verify flame sensor is not shorted.
- Follow **Reset IFC Control Module—Lock Out** instructions above.