



**SIT**Group

## PROFLAME 2 Basic, Standard, Complete



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### ADVANCED REMOTE CONTROL SYSTEMS



The Proflame 2 is a modular remote control system that directs the functions of a hearth appliance. It was designed in Basic, Standard or Complete configurations for ATMO or FAN assisted appliances and now available in Basic ATMO, Complete ATMO or Complete FAN/ATMO versions.

- The Basic Proflame 2 is an automatic gas ignition control system that includes a selectable intermittent or standing pilot setting. Features include: twin safety system with true flame rectification current detection for enhanced safety and reliability, On/Off, Manual Hi/Low operation from a wall switch, a low power consumption design provides a choice for AC power or AC power with battery back up.

The 880 Proflame gas valve provides basic ON/OFF operation of gas flow to the pilot and main burner of the heating appliance.

The 886 Proflame gas valve has the same functions as the 880 gas valve with the added feature of manual flame adjustment by a Hi/Low knob.

The Proflame valves have been designed for use with either LPG or Natural Gas and can be converted by use of OEM supplied conversion kits.

The 880 Proflame valves can also be upgraded to 886 configurations by installing OEM supplied conversion kits.

- The Standard Proflame 2 is a remote control system that directs multiple functions of modern hearth appliances. The Standard Proflame 2 adds to the Basic Proflame 2 system the control of On/Off and flame height adjustment operation of the main burner, allows to operate a Split Flow dual burner control.

The Standard Proflame 2 system is specifically developed to be used together with the Proflame 885 valve and provides for battery back up in the event of line power loss.

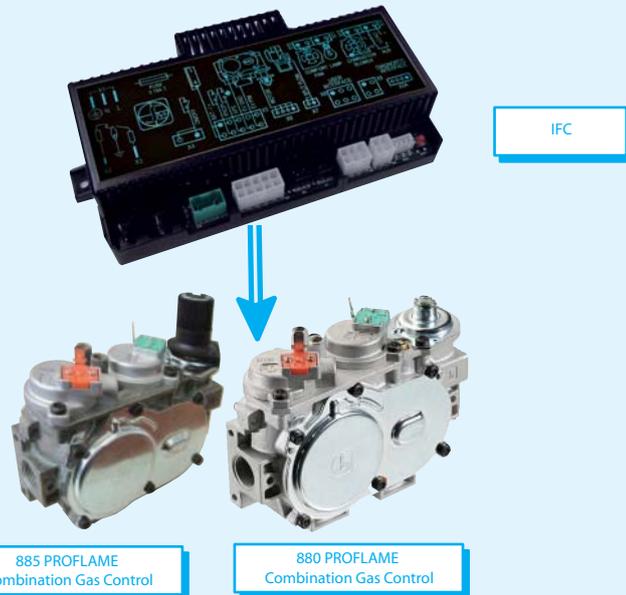
- The Complete Proflame 2 is a remote controls system that directs multiple functions of modern hearth appliances. The Complete Proflame 2 adds to the Standard the comfort fan speed control through off to 6 levels, a remotely actuated 120/60Hz power outlet and optional combustion fan control. Comfort control is advanced by the Smart thermostat feature which automatically modulates the flame height optimizing the temperature management and the room ambience.

The Complete Proflame 2 system is specifically developed to be used together with the Proflame 885 valve and provides for battery back up in the event of line power loss.

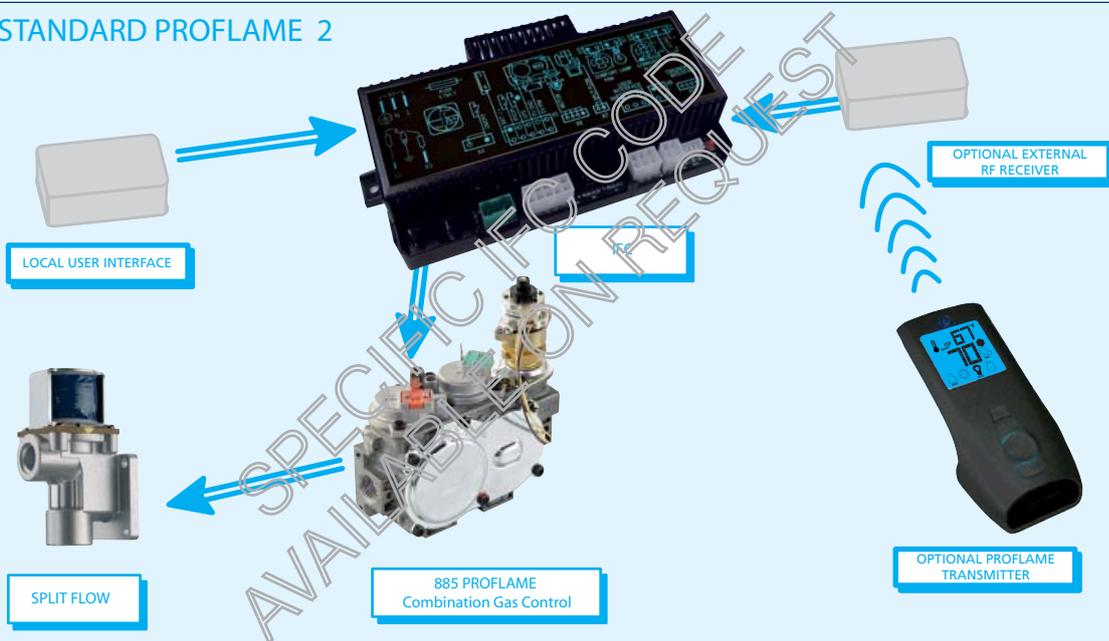
Note: if an optional combustion fan is used, the appliance can not be operational in battery back up mode.

- For operation with a less sensitive response time to movement of the flame with relationship to the sensing electrode, the IFC unit can be ordered with extended "FFRT" option (CSA certified only). With this option a "Flame Failure Response Time" (5s) with extended "Recycle Time" (30s) are adopted. In case of flame failure detection, the system will not react immediately, but will wait for FFRT expiration before entering lockout (in ATMO configurations) or re-igniting (in FAN configurations).

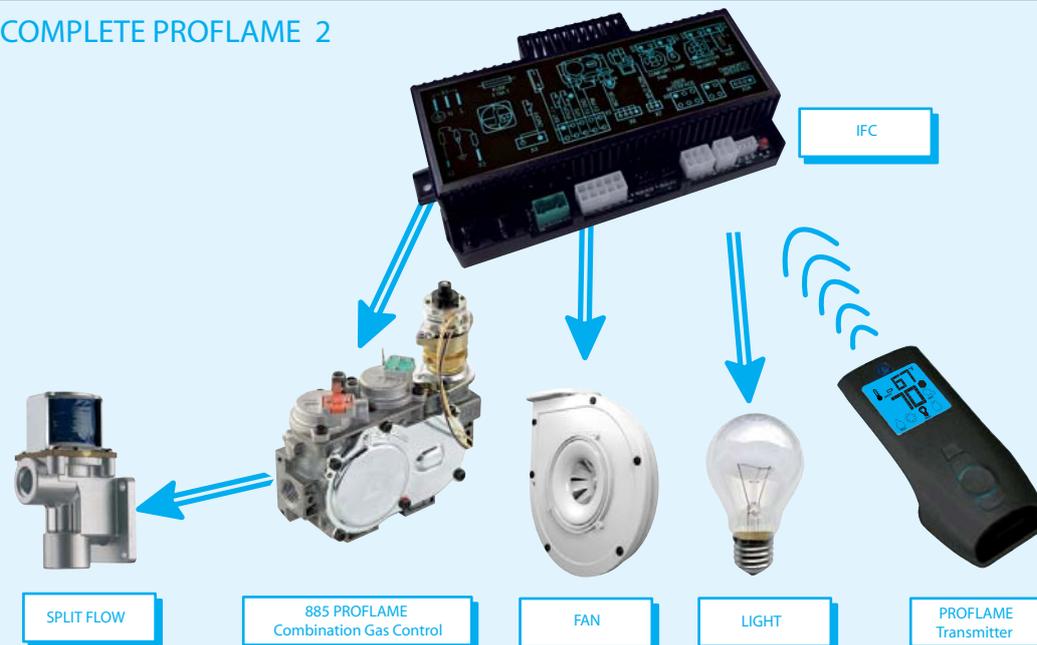
### BASIC PROFLAME 2



### STANDARD PROFLAME 2



### COMPLETE PROFLAME 2





# MAIN CHARACTERISTICS

The table below shows the configurations currently available.

Feature	Transmitter Icon	PROFLAME 2		
		TMFSLA <sup>(1)</sup>	TMFSL <sup>(2)</sup>	TMFL <sup>(3)</sup>
Room Temperature Display		●	●	●
Child Lock		●	●	●
Low Battery indicator		●	●	●
On/Off Thermostat		●	●	●
Flame On/Off & Modulation (6 Levels)		●	●	●
Smart Thermostat		●	●	●
Fan Speed Control (6 Levels)		●	●	●
On/Off Auxiliary Outlet (120V)		●		
Split flow (dual flame)		●	●	
IPI/CPI <sup>(4)</sup>		●	●	●
Light modulation (6 levels)		●	●	●

Referring to the remote control:

**(1)** TMFSLA indicates enabled function: Thermostat, Modulator flame, Fan, Split flow, Lights modulation, Auxiliary output

**(2)** TMFSL indicates enabled function: Thermostat, Modulator flame, Fan, Split flow, Lights modulation

**(3)** TMFL indicates enabled function: Thermostat, Modulator flame, Fan, Lights modulation

**(4)** CPI indicates Continuous Pilot Ignition; IPI indicates Intermittent Pilot Ignition

**(●)** Indicates included Features

## SYSTEM COMPONENTS

The **BASIC** System consists of four main elements:

1. Proflame 2 Integrated Fireplace Control (IFC) Basic model
2. Proflame 880, or 886 families of gas valves
3. Pilot assembly
4. Wiring harness to connect the IFC to the gas valve, pilot burner and control switches.

The **STANDARD** System consists of seven main elements:

1. Proflame 2 Integrated Fireplace Control (IFC) Standard model
2. Proflame Gas Valve 885 family (also the 880, 886 families are compatible)
3. Wiring harness to connect the IFC to the gas valve stepper motor, control switches and to the Split Flow Control
4. Proflame 2 Transmitter and receiver (optionals)
5. Pilot assembly
6. Split Flow valve (optional)
7. Local user interface.

The **COMPLETE** System consists of seven elements (ATMO configuration), eight elements (FAN configuration):

1. Proflame 2 Integrated Fireplace Control (IFC) Complete model
2. Proflame Gas Valve 885 family (also the 880, 886 families are compatible)
3. Wiring harness to connect the IFC to the control switches, and -depending on the FAN/ ATMO configuration- to the APS
4. Proflame 2 Transmitter
5. Pilot assembly
6. Split Flow valve (optional)
7. Comfort fan, dimmable lights, auxiliary device (optional)
8. In Fan configuration, the combustion Fan with Air Pressure Switch (APS) safety device.

## TECHNICAL DATA

### REMOTE CONTROL TRANSMITTER

Supply voltage	4.5 V (three AAA LR03 1.5 V batteries)
Ambient operating temperature	0 to 50 °C (32 to 122 °F)
Radio frequency	315 MHz (FCC version) 433.92 MHz available (CE version)

### INTEGRATED FIREPLACE CONTROL (IFC) MODULE

AC supply voltage and frequency	120 V ~ 60 Hz - 2.5 A max
BB supply voltage	6 Vdc - 200 mA max (four 1.5V AA batteries)
Ambient operating temperature	-10 to 80 °C (14 to 176 °F)
Radio frequency	315 MHz
Aux switched output	120 V / 60 Hz / 5 A
Fan speed output	120 V / 60 Hz / 2
Light dimming output	120 V / 60 Hz / 0.5 A
Spark voltage	>15 kV
Spark energy	>0,7 mJ
Spark frequency	1Hz
Tested gas types	the system has been tested both for NG, and LPG gas types/mixtures
Pilot ignition source	Intermittent/Continuous



## TRANSMITTER (Remote Control with LCD Display)

The Proflame Transmitter uses a streamline design with a simple button layout and informative LCD display (Fig. 1). A Mode Key is provided to index between the features and a Thermostat Key is used to turn on/off or index through Thermostat functions (Fig. 1A & 1B & 2).



Fig. 1A: Proflame 2 Transmitter.

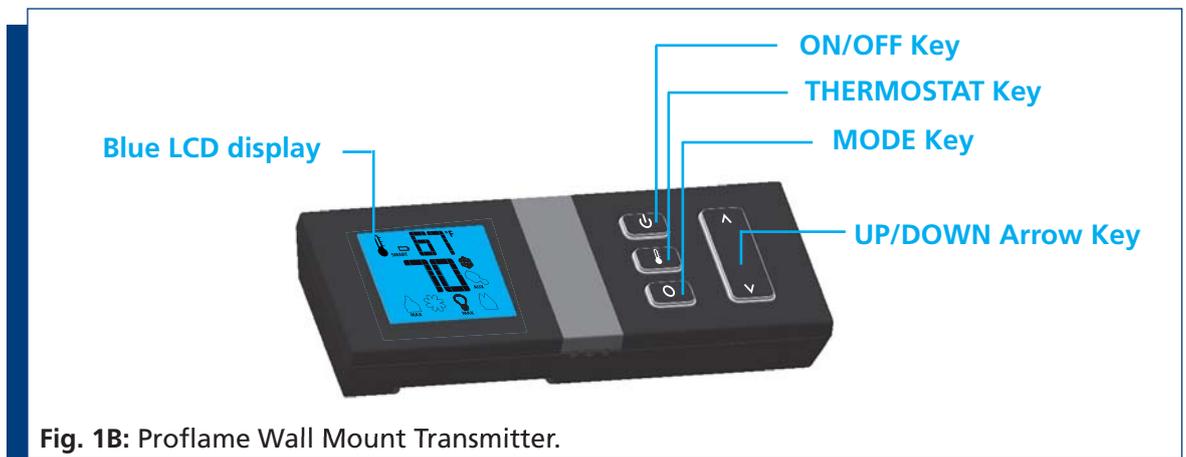


Fig. 1B: Proflame Wall Mount Transmitter.

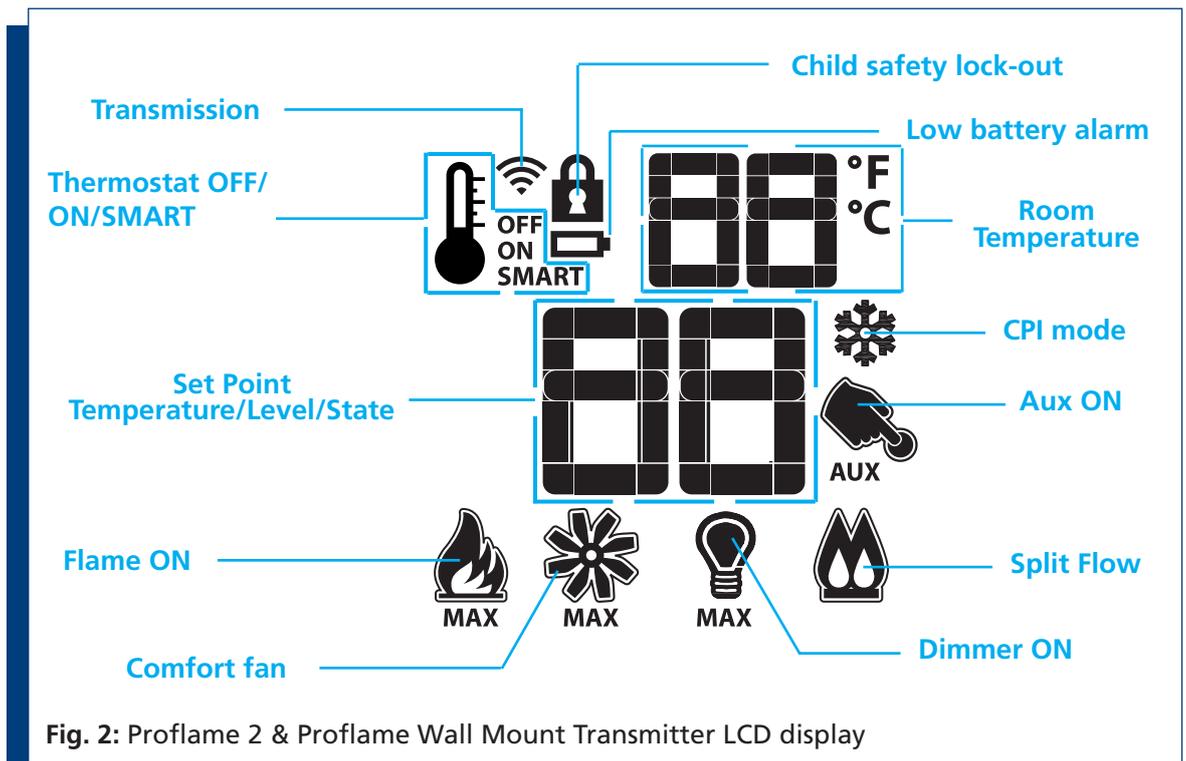


Fig. 2: Proflame 2 & Proflame Wall Mount Transmitter LCD display

## IFC MODULE

The Proflame 2 Integrated Fireplace Control (IFC) board is a device that allows the automatic ignition and pilot flame supervision, to command the functions of a hearth appliance, see fig.3.

It's configured to control the ON/OFF main burner operation, giving the choice of both IPI (intermittent pilot ignition), and CPI (continuous pilot ignition) modes.

The Proflame 2 IFC board controls and connects directly to the pilot assembly and an automatic valve of the Proflame 880, 886 and 885 families using low electric power.

The IFC Board can be powered by an AC and battery pack for back up (ATMO Systems only).

The Proflame 2 offers the added ability to control the comfort fan speed from OFF through six (6) speeds, a remotely actuated auxiliary outlet and a dimmable light outlet. The external batteries can provide DC power to the IFC allowing the batteries to be used only when line power is interrupted or lost, and if the appliance does not use a combustion fan.

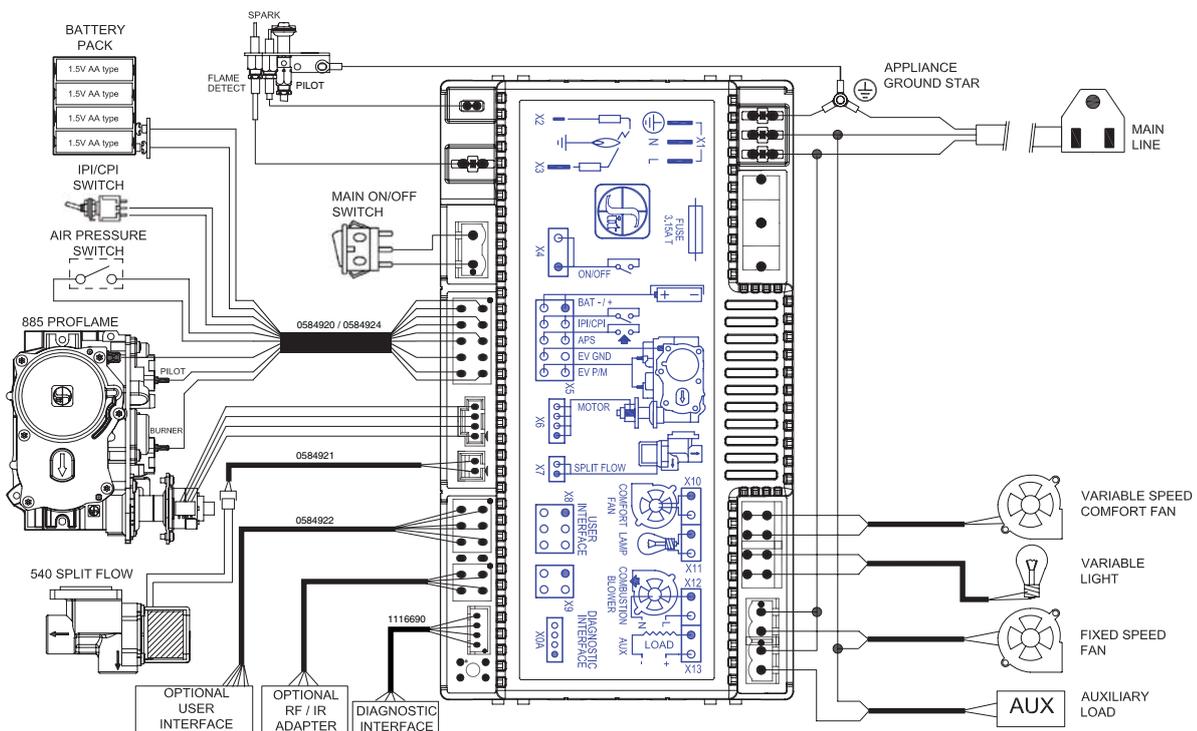


Fig. 3: Proflame 2 IFC Board.



## INSTALLATION

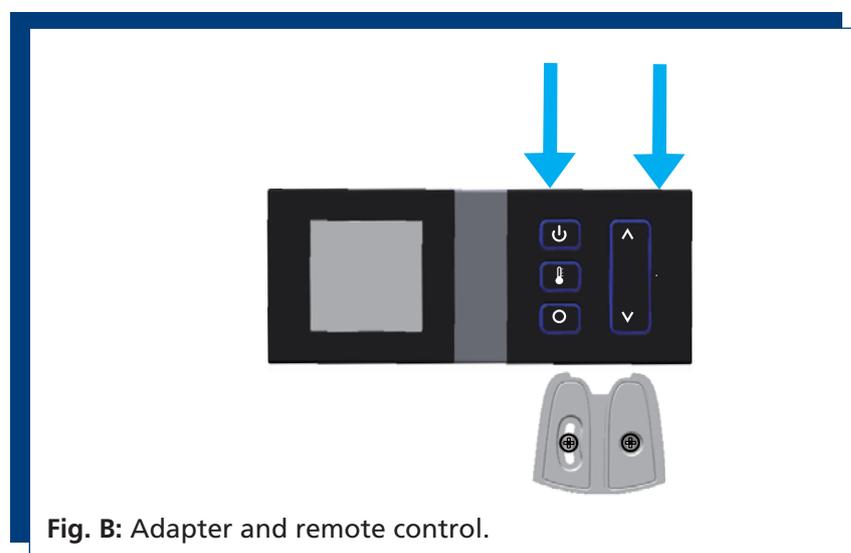
### Proflame Wall Mount Transmitter

The Proflame remote control is supplied with an adapter for wall mounting. Install the controller 1.5 m above floor level, well away from heat sources, kitchens, doors or windows.

Metallic structures or radio interferences can reduce the operative distance of the device. Make sure to attach the adapter in a level plane without any distortion. Proceed as follow:

#### Wall mounting

1. Detach the adapter from the body of the remote control; see Fig. A.
2. Position the adapter on the wall, mark the points for the fixing holes and drill the wall.
3. Fix the adapter on the wall using the mounting hardware supplied with the remote control.
4. Insert the remote control onto the adapter as shown in Fig. B.



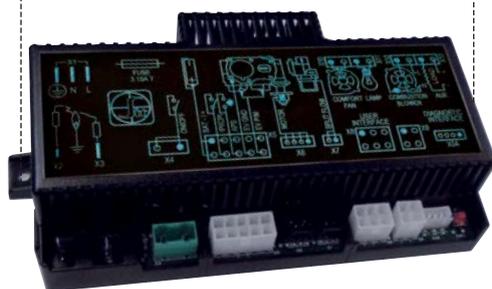
## IFC module

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The IFC can be placed inside a low temperature area of the appliance.

### Mounting into the appliance

1. Connect the wiring harnesses to the IFC.
2. Install the IFC in the appliance using the screws. (Fig. 4)
3. Insert the 4 AA type batteries in the battery holder with the correct polarity.
4. Connect the switches.
5. Put the main switch in the "OFF" position (open) and the IPI/CPI switch on IPI position (open).
6. Connect the wiring harnesses to the loads.



**Fig. 4:** Proflame 2 IFC Board installation.



# INSTALLATION

## Connecting to the 880/886 Gas Valve and IFC control board in BASIC configuration

The electrical connections must be in accordance to Fig. 5.

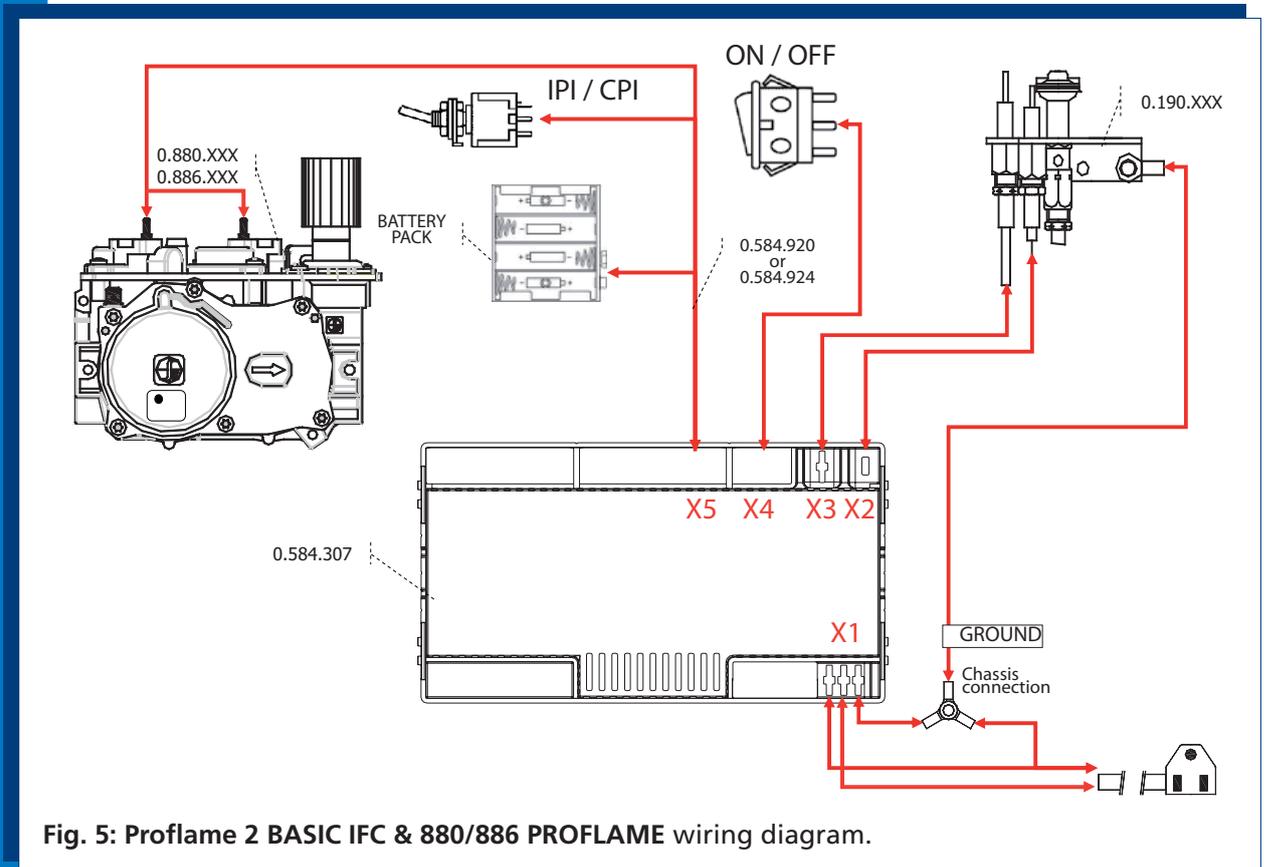


Fig. 5: Proflame 2 BASIC IFC & 880/886 PROFLAME wiring diagram.

### Connecting to the 885 Gas Valve and IFC control board in STANDARD configuration (MFLSA)

The electrical connections must be in accordance to Fig. 6.

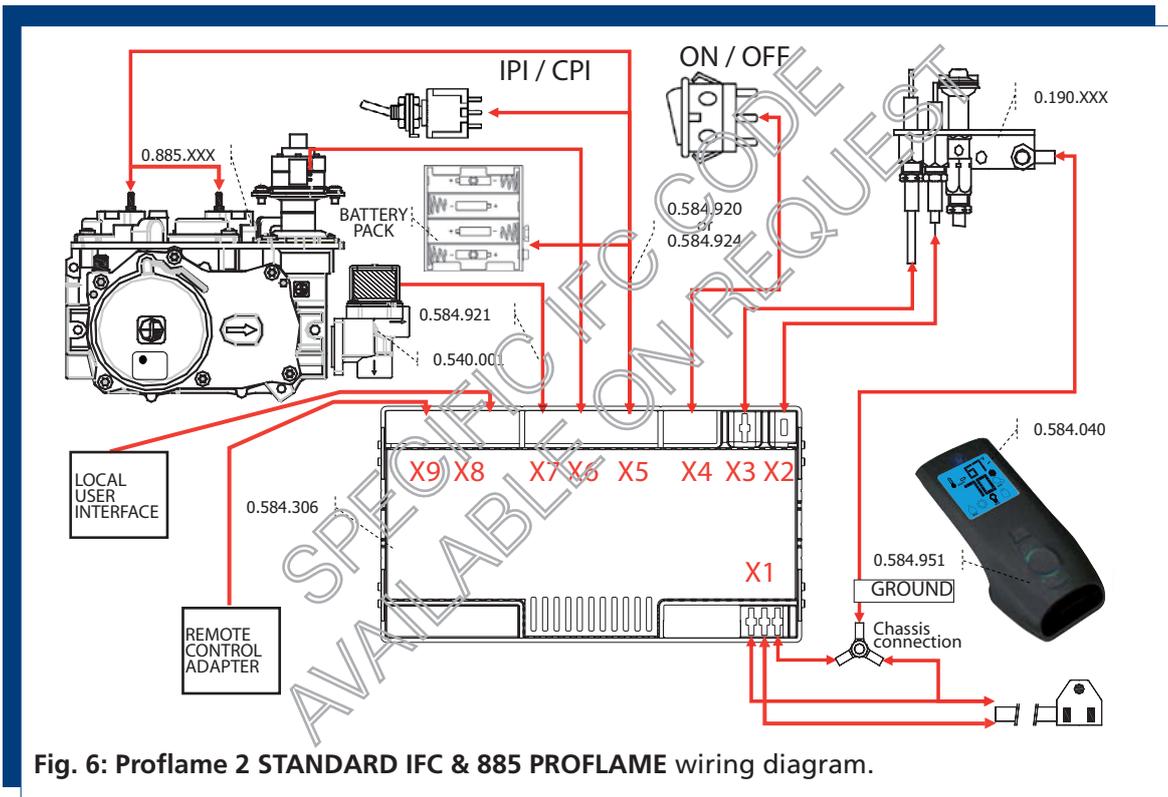


Fig. 6: Proflame 2 STANDARD IFC & 885 PROFLAME wiring diagram.

### Connecting to the 885 Gas Valve and IFC control board in COMPLETE configuration (ATMO)

The electrical connections must be in accordance to Fig. 7.

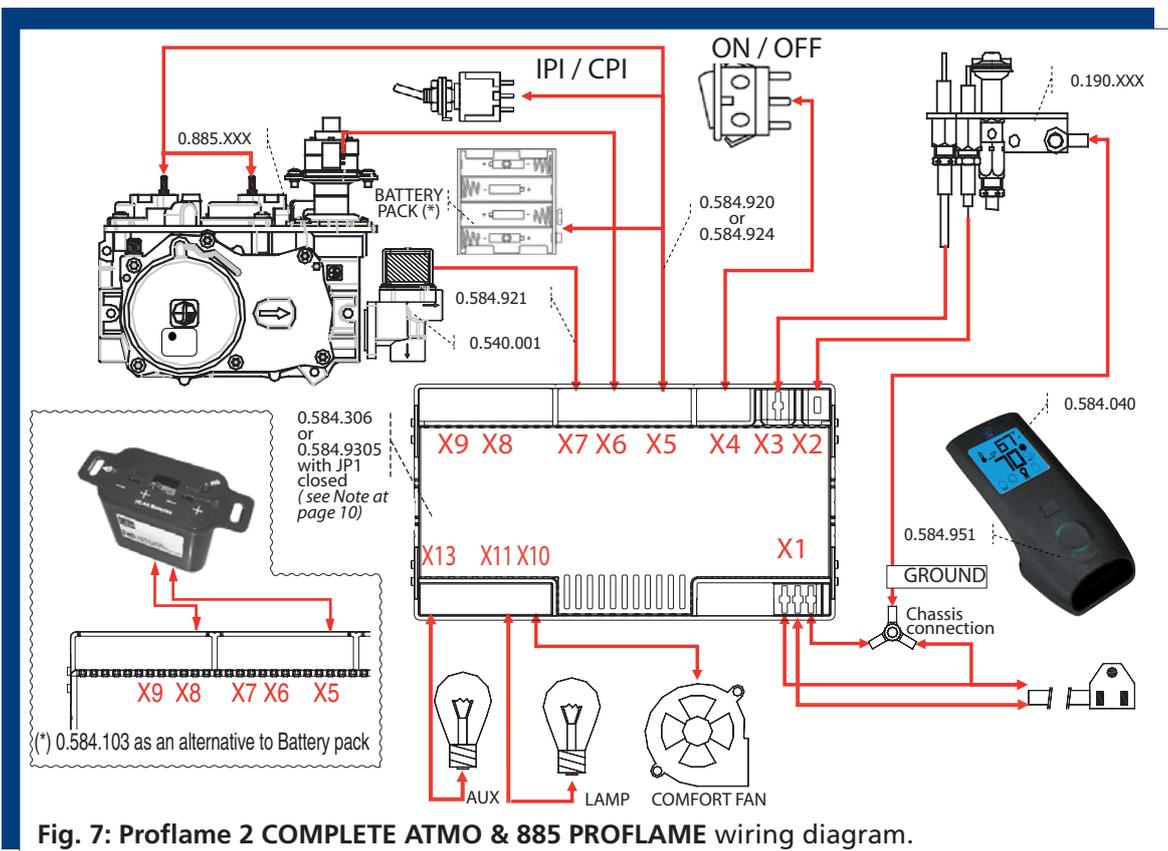
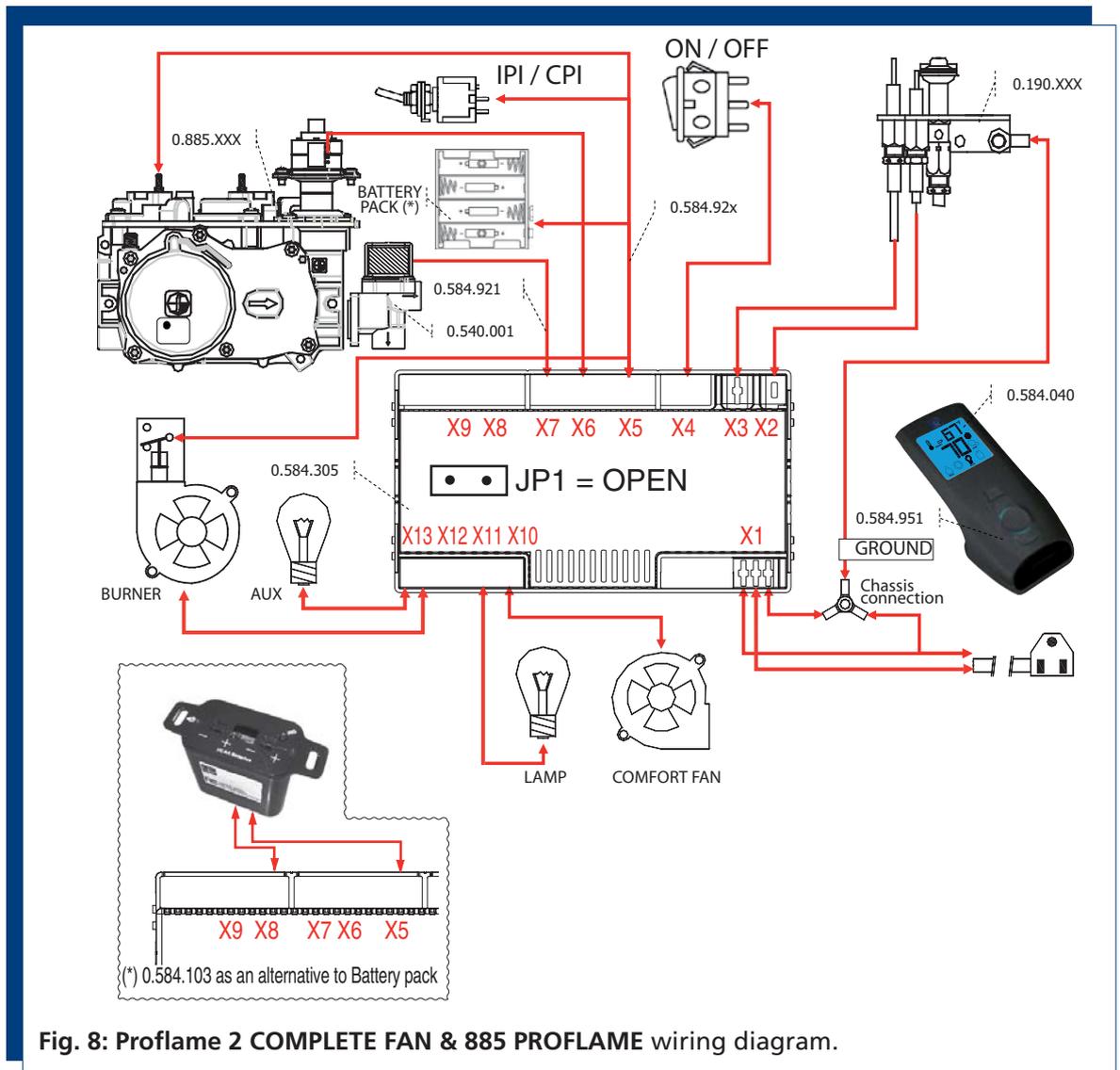


Fig. 7: Proflame 2 COMPLETE ATMO & 885 PROFLAME wiring diagram.



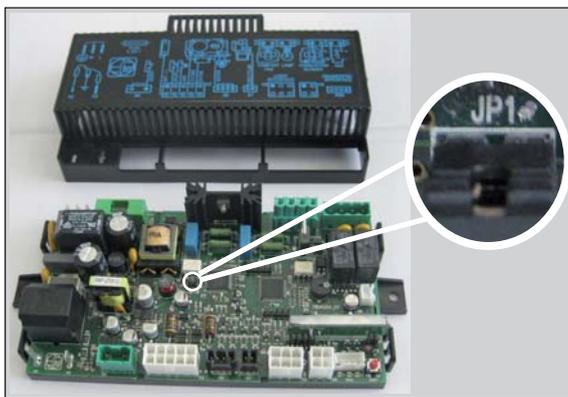
## Connecting to the 885 Gas Valve and IFC control board in COMPLETE configuration (FAN)

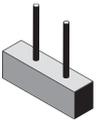
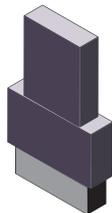
The electrical connections must be in accordance to Fig. 8.



**Fig. 8: Proflame 2 COMPLETE FAN & 885 PROFLAME wiring diagram.**

Note: the models of IFC boards that can operate in either ATMO or in FAN mode, are configured in the factory in ATMO mode (Jumper JP1 closed). To enable the FAN mode, it is necessary to open the IFC removing the cover and then remove the jumper JP1 (JP1 open), see Picture and Table below.



JP1 STATUS	IFC board enabled mode
OPEN 	FAN
CLOSED 	ATMO (DEFAULT)



# OPERATING PROCEDURE FOR A BASIC CONTROL SYSTEM

Before applying any power supply to the IFC board please verify that the electrical connections are in accordance to Fig. 5.

## Initializing the System for the first time

Set the main burner ON/OFF command switch to the OFF position.  
If installed, set the pilot flame mode selector switch to the IPI position.  
Install 4 AA batteries into the battery holder, and respect the polarity indicated on the battery holder silkscreen. Connect the battery holder to the IFC main wiring harness.  
Connect the AC power supply to the IFC.

## Setting the Appliance into Continuous Pilot ignition mode

If installed on the wirings, set the IPI/CPI Pilot Mode Switch to the CPI position (switch closed). At that point the IFC ignition board will immediately complete the ignition sequence for the Pilot Flame, and then will remain with the Pilot Flame ON, waiting for a command to ignite the Main Burner Flame.

## Turning ON the Appliance

Close the ON/OFF command contact on the ON/OFF wires, and this will command the IFC ignition board to Turn-ON the appliance main burner.

## Turning OFF the Appliance

Open the ON/OFF command contact on the ON/OFF wires, and this will command the IFC ignition board to Turn-OFF the appliance main burner.

NOTE: if the Continuous Pilot ignition mode is selected, the Pilot Flame will remain ON. To also turn it completely OFF, switch the appliance into Intermittent Pilot ignition mode, so set the IPI/CPI Pilot Mode Switch to the IPI position (switch opened).

## Command definitions

Pilot IPI / CPI switch	Main Turn ON switch	Command reference name	Commanded Fireplace State
Opened, IPI	Opened	Turn-OFF	Flames OFF
Opened, IPI	Closed	Turn-ON	Pilot + Main burner flames ON
Closed, CPI	Opened	Pilot-ON	Pilot flame ON
Closed, CPI	Closed	Turn-ON	Pilot + Main burner flames ON



# OPERATING PROCEDURE FOR A STANDARD OR COMPLETE CONTROL SYSTEM

Before applying any power supply to the IFC board, verify that the electrical connections are in accordance to either Fig. 6, 7, or 8.

## Initializing the System for the first time

Install the 4 AA batteries into the battery bay. Note the polarity of the battery and insert into the battery holder as indicated on the Battery cover (+/-). Set the main ON/OFF and the CPI/IPI switch in the closed position. Press the SW1 button on the IFC module. The IFC will “beep” three (3) times to indicate that it is ready to synchronize with a Transmitter. Install the 3 AAA type batteries in the battery bay, located on the base of the Transmitter. With the batteries already installed in the Transmitter, push the ON button. The Receiver will “beep” four times to indicate the Transmitter’s command is accepted.

If a second Transmitter must be registered it can be turned ON. The receiver will beep again four (4) times and exit the synchronization phase. If only one transmitter is used, then press again the the button SW1 to exit the synchronization phase.

The system is now initialized.

## Temperature indication Display

With the system in the “OFF” position, press the Thermostat Key and the Mode Key at the same time. Look at the LCD screen on the Transmitter to verify that a °C or °F is visible to the right of the Room Temperature display. (Fig. 9)

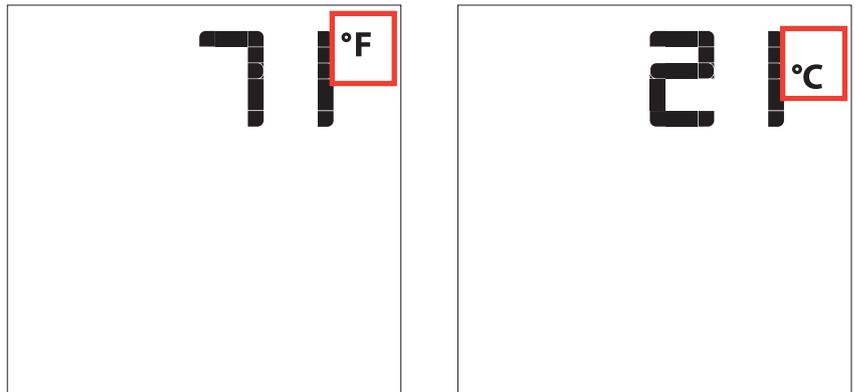


Fig. 9: Setting the Remote Control display in Farenheit or Celsius.

## Setting the Appliance into Continuous Pilot ignition mode

If the appliance has a IPI/CPI switch installed, set the IPI/CPI Pilot Mode Switch to the CPI position (switch closed). At that point the IFC ignition board will be enabled to complete the ignition sequence for the Pilot Flame, and then will remain with the Pilot Flame ON, waiting for a command to ignite the Main Burner Flame.

## Turning ON the Appliance

First close the main ON/OFF switch on the wirings. With the system OFF, press the ON/OFF Key on the Transmitter. The Transmitter display will show all active Icons on the screen. At the same time IFC will be commanded to start the ignition process. Once the pilot flame is proven the IFC board will open the main valve outlet and the appliance main burner will also ignite. A single “beep” from the IFC module will confirm reception of the command.

### Turning OFF the Appliance

With the system ON, press the ON/OFF Key on the Transmitter. The Transmitter LCD display will only show the room temperature (Fig. 8). At the same time the IFC will be commanded to turn off the burner. Depending on the system mode (IPI or CPI) the pilot may shut off (IPI) or remain lit (CPI) and the appliance burner turns OFF. A single “beep” from the Receiver confirms reception of the command.

NOTE: see Continuous Pilot/Intermittent Pilot (CPI/IPI) selection paragraph.

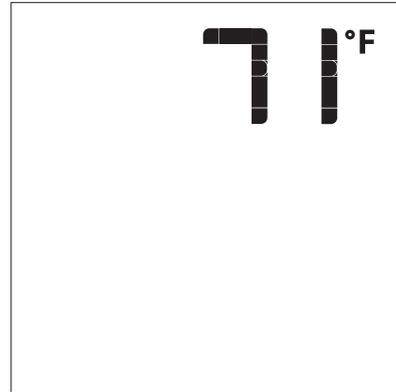


Fig. 8: Remote Control display.

### Remote-Flame Control

The proflame has six (6) flame levels. With the system on, and the flame level at the maximum in the appliance, pressing the Down Arrow Key once will reduce the flame height by one step until the flame is turned off.

The Up Arrow Key will increase the flame height each time it is pressed. If the Up Arrow Key is pressed while the system is on but the flame is off, the flame will come on in the high position. ( Fig. 8 & 9 ) A single “beep” will confirm reception of the command.

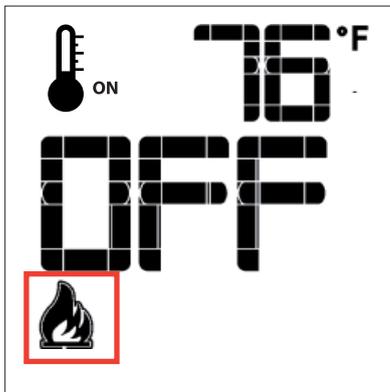
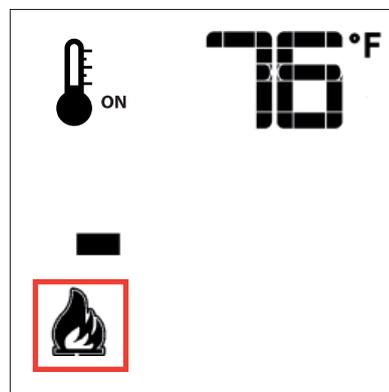


Fig. 8: Flame Off



Flame Level 1

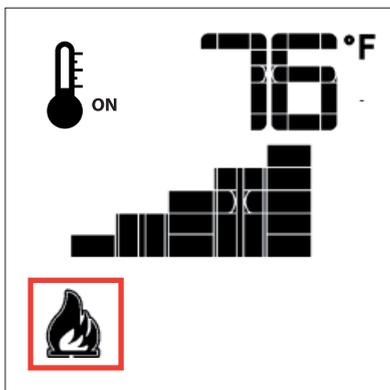
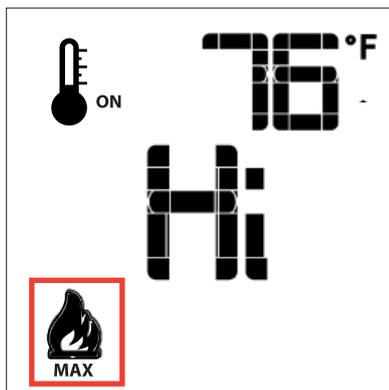


Fig. 9: Flame level 5



Flame Level Maximum



### Room Thermostat ( Transmitter Operation)

The Remote Control can operate as a room thermostat. The thermostat can be set to a desired temperature to control the comfort level in a room.

To activate this function, press the Thermostat Key (Fig. 1). The LCD display on the Transmitter will change to show that the room thermostat is "ON" and the set temperature is now displayed (Fig. 10). To adjust the set temperature, press the Up or Down Arrow Keys until the desired set temperature is displayed on the LCD screen of the Transmitter (Fig. 11).

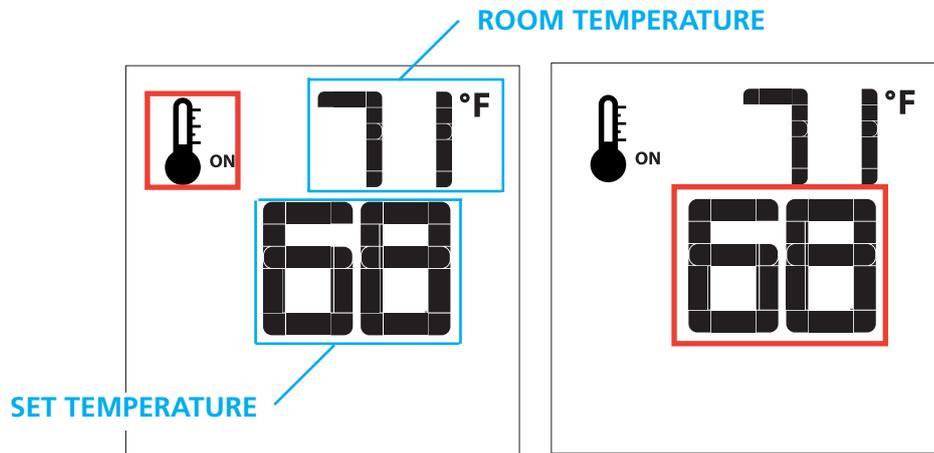


Fig. 10

Fig. 11

### Smart Thermostat (Transmitter Operation)

The Smart Thermostat function adjusts the flame height in accordance to the difference between the set point temperature and the actual room temperatures. As the room temperature gets closer to the set point the Smart Function will modulate the flame down. To activate this function, press the Thermostat Key (Fig. 1) until the word "SMART" appears to the right of the temperature bulb graphic (Fig. 12). To adjust the set temperature, press the Up or Down Arrow Keys until the desired set temperature is displayed on the LCD screen of the Transmitter (Fig. 13).

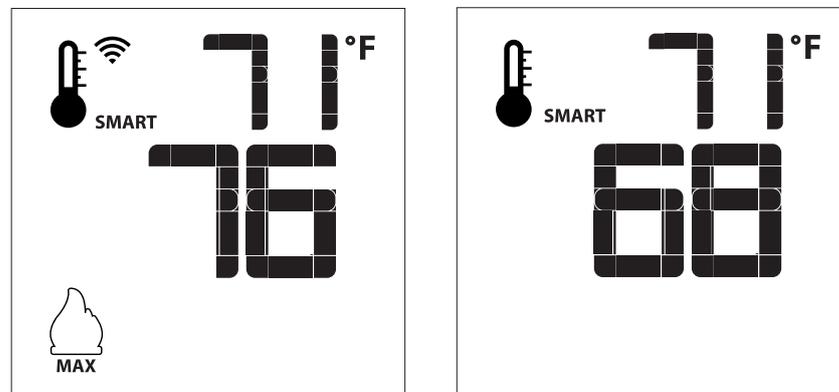


Fig. 12: Smart flame function

Fig. 13

### Comfort Fan Speed Control (PROFLAME 2 MFSLA only)

If the appliance is equipped with a hot air circulating fan, the speed of the fan can be controlled by the Proflame system. The fan speed can be adjusted through six (6) speeds. To activate this function use the Mode Key (fig.1) to index to the fan control icon (Fig. 14). Use the Up/Down Arrow Keys (Fig.1) to turn on, off or adjust the fan speed (fig. 15). A single "beep" will confirm reception of the command.

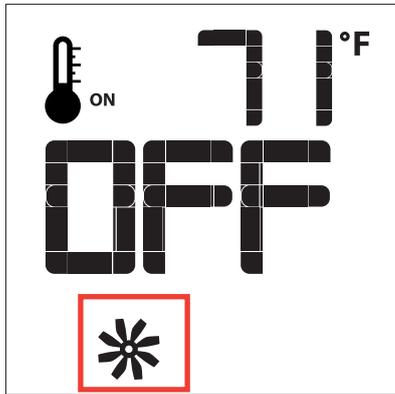


Fig. 14

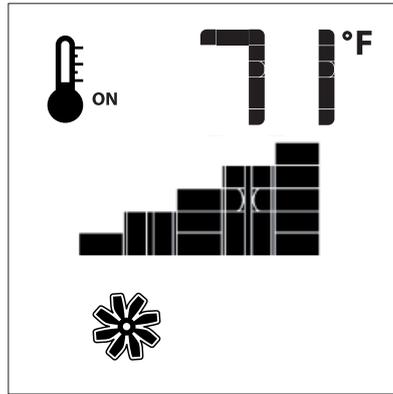


Fig. 15

### Remote dimmer control Light (PROFLAME 2 COMPLETE only)

The function controls the power outlet by the dimmable light control. To activate this function use the Mode Key (fig. 1) to index to the LIGHT icon (fig. 16 & 17).

The intensity of the output can be adjusted through six (6) levels. Use the Up/Down Arrow Keys (Fig.1) adjust the output level (fig. 17). A single "beep" will confirm reception of the command.



Fig. 16

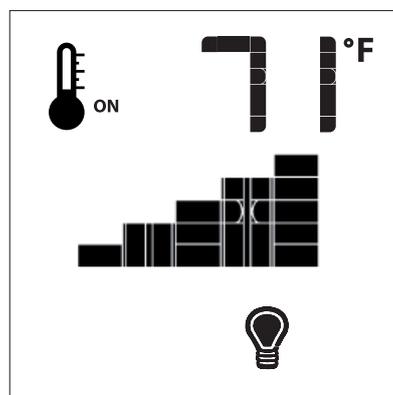


Fig. 17



### Split Flow control

The secondary burner is controlled by the split Flow. To activate this function use the Mode Key (fig. 1) to index to the SPLIT FLOW mode icon (fig. 18 & 19).

Pressing the Up Arrow Key will activate the secondary burner. Pressing the Down Arrow Key will turn the secondary burner off. A single "beep" will confirm the reception of the command.

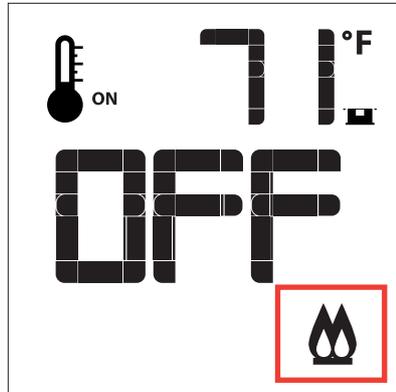


Fig. 18

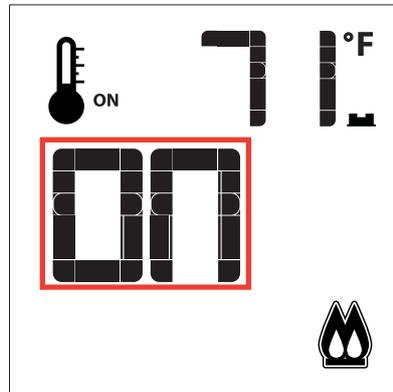


Fig. 19

### Remote auxiliary relay control (PROFLAME 2 MFSLA only)

The auxiliary function controls the AUX relay outlet. To activate this function use the Mode Key (fig. 1) to index to the AUX icon (fig. 20 & 21).

Pressing the Up Arrow Key will activate the outlet. Pressing the Down Arrow Key will turn the outlet off. A single "beep" will confirm the reception of the command.

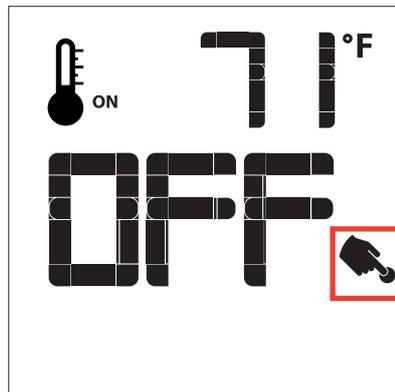


Fig. 20

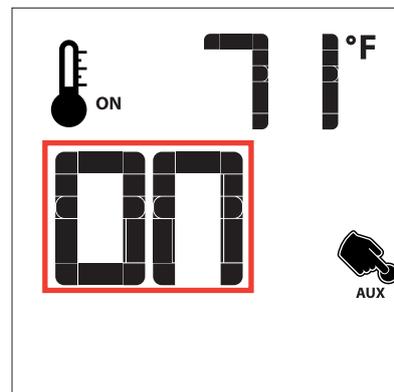


Fig. 21

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

With the system in "OFF" position press the Mode Key (fig. 1) to index to the CPI mode icon (fig. 22 & 23).

Pressing the Up Arrow Key will activate the Continuous Pilot Ignition mode (CPI). Pressing the Down Arrow Key will return to IPI. A single "beep" will confirm the reception of the command.

**NOTE:** If the system is equipped with a CPI/IPI toggle switch:

- Set the CPI/IPI switch to CPI position (switch closed) to enable remote CPI selection.
- Set the CPI/IPI switch to IPI position (switch open) to disable remote CPI selection. The system will now work in IPI mode only regardless of the selection on the remote control hand set.

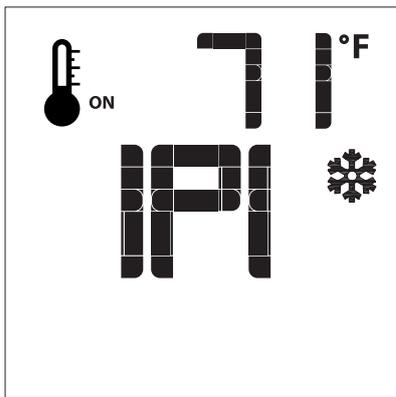


Fig. 22

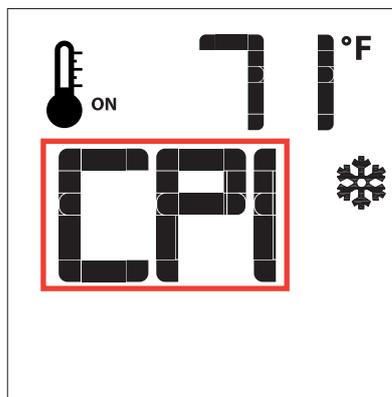


Fig. 23

### Key lock

This function will lock the keys to avoid unsupervised operation.

To activate this function, press the MODE and UP keys at the same time (Fig. 24).

To de-activate this function, press the MODE and UP keys at the same time.

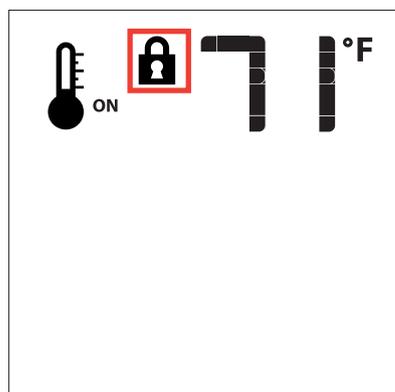


Fig. 24



## Low Battery Power indicator

### Transmitter

The life span of the remote control batteries depends on various factors: quality of the batteries used, the number of ignitions of the appliance, the number of changes to the room thermostat set point, etc.

When the transmitter batteries are low, an Icon will appear on the LCD display of the transmitter (Fig. 25) before all battery power is lost. When the batteries are replaced this Icon will disappear.

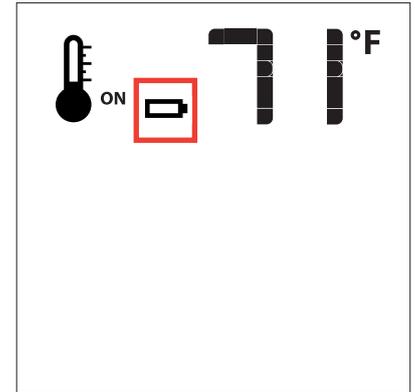


Fig. 25

### IFC Board (back up batteries)

The life span of the IFC batteries depends on various factors: quality of the batteries used, the number of ignitions of the appliance, the number of changes to the room thermostat set point, etc.

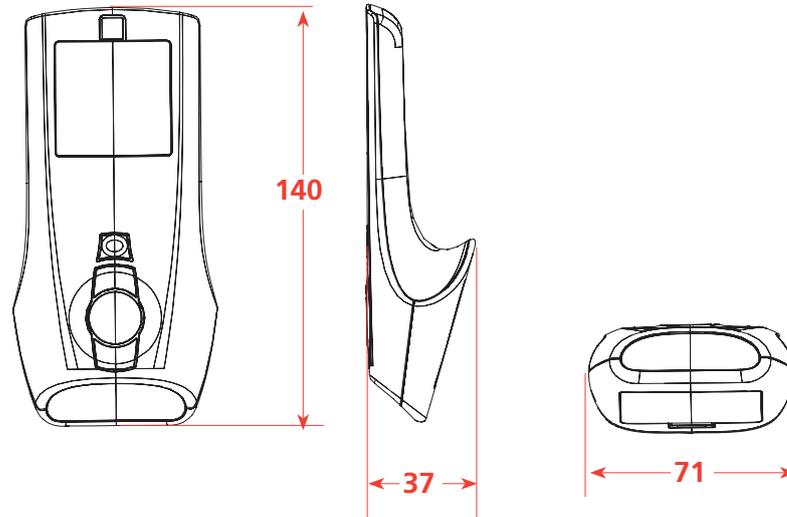
When the IFC batteries are low, a "double-beep" will be emitted from the IFC board when it receives a command from the transmitter. This is an alert for a low battery condition for the IFC board. When the batteries are replaced the "beep" will be emitted from the IFC board when a key is pressed (See Initialization of The System).

## APPENDIX

### Command definitions

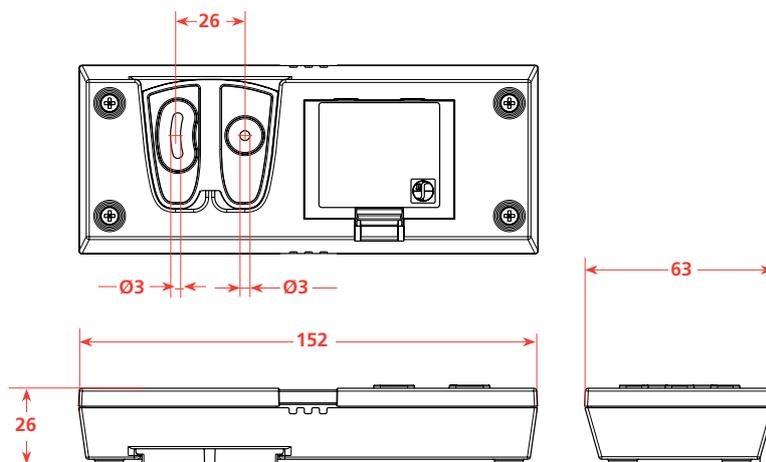
Main ON/OFF switch	Pilot IPI / CPI switch	Transmitted command	Command reference name	Commanded Fireplace State
Any position	Opened, IPI	"OFF" + "IPI"	Turn-OFF	Flames OFF
Closed, Main ON enable	Opened, IPI	"ON" + "IPI" or "ON" + "CPI"	Turn-ON	Pilot + Main burner flames ON
Any position	Closed, CPI	"OFF" + "CPI"	Pilot-ON	Pilot flame ON
Closed, Main ON enable	Closed, CPI	"ON" + "IPI" or "ON" + "CPI"	Turn-ON	Pilot + Main burner flames ON
Opened, Main ON disable	Closed, CPI	"CPI" "IPI"	Pilot-ON Turn-OFF	Pilot flame ON Flames OFF
Opened, Main ON disable	Opened, IPI	Any command & Mode	Turn-OFF	Flames OFF

## DIMENSIONAL DRAWINGS



**PROFLAME Transmitter**

Dimensions are in millimeters

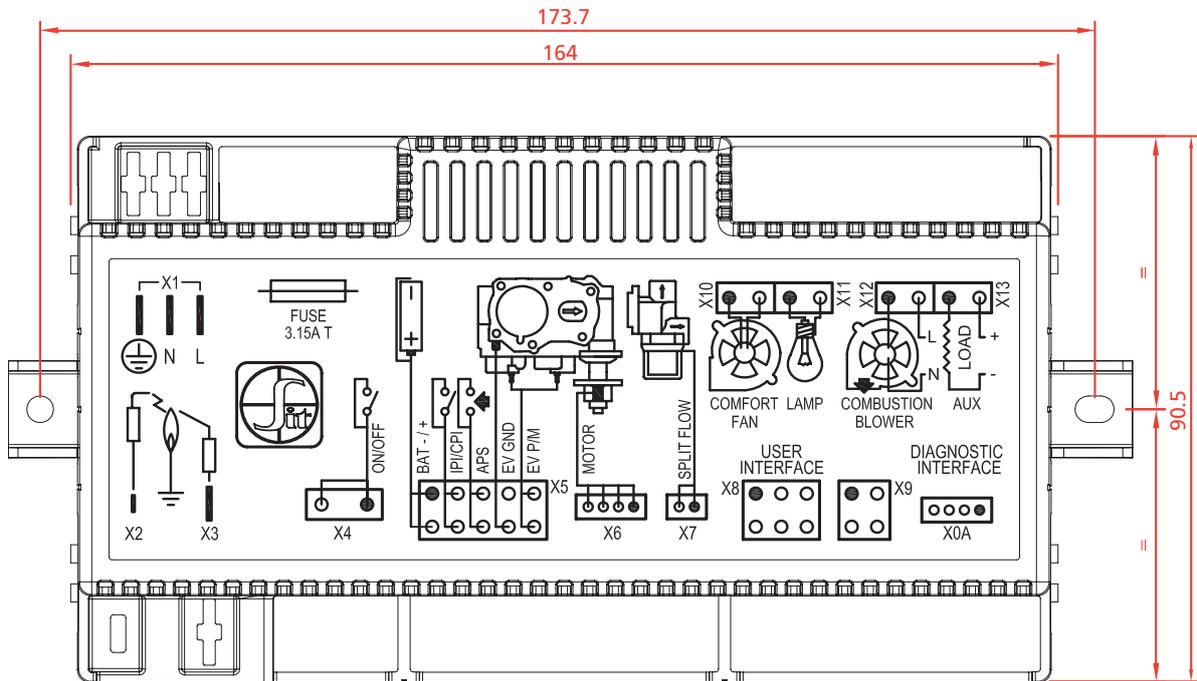


**PROFLAME Wall Mount Transmitter**

Dimensions are in millimeters



# DIMENSIONAL DRAWINGS



Height: 42mm

## IFC Control Board

Dimensions are in millimeters





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