IFT-RC150
IntelliFire™ Touch Remote Control
Installation Instructions

Leave this manual with party responsible for use and operation.

1. Introduction

The IFT-RC150 is a wall mounted device that is designed to control the functions of Hearth & Home Technologies products equipped with IntelliFire™ Touch Technology (IFT). It can be used to control the ON/OFF functions of the flame and cold climate modes of the appliance.

2. IFT-RC150 Installation

A. Precautions

This device is tested and safe when installed in accordance with this installation manual. Do not install any components that may be damaged.

Do not modify, disassemble, or substitute any of the components included with this kit. Installation of this unit must be done by a qualified service technician.

The location of this device may affect performance. An assessment of the location should be done prior to installation for optimum performance.

Hearth & Home Technologies disclaims any responsibility for, and the warranty will be voided by, the following actions:

- Installation and use of any damaged system component.
- Modification of the system component.
- Installation other than as instructed by Hearth & Home Technologies.
- Installation and/or use of any component part not approved by Hearth & Home Technologies.

Any such action may cause a fire hazard.

- Read, understand and follow these instructions for safe installation and operation.

B. Determine Location

Determine the location for the IFT-RC150. The selected location should be in the same space as the gas appliance with visual sight of the appliance. The device must be placed within 30 feet (9.14m) of the appliance but should not be exposed to extreme heat.

The IFT-RC150 is approved for interior installation and should not be used in exterior applications.

- Keep remote control out of reach of children.

C. Wall Mount Kit Contents

- IFT-RC150 Wireless Wall Switch
- Radio Frequency Module (IFT-RFM)
- 1 inch #6 Screws (2)
- Drywall Anchors (2)
- AA Batteries (2)

D. Installation Steps

CAUTION! Do not install damaged components. *If you received components that are damaged, contact your dealer for assistance.*

CAUTION! Risk of burns! *DO NOT program the wireless wall switch to the IFT-ECM when appliance is hot.*

1. Remove the contents from packaging.
2. Locate the IntelliFire™Touch electronic control module (IFT-ECM) in the control cavity of the appliance and move the three-position switch to the OFF position. See Figure 1.
3. Connect the IFT-RFM to the IFT-ECM by aligning the pins and tabs and pushing the IFT-RFM into the IFT-ECM until both tabs latch into position. Ensure the two components are fastened securely to one another. See Figure 1.

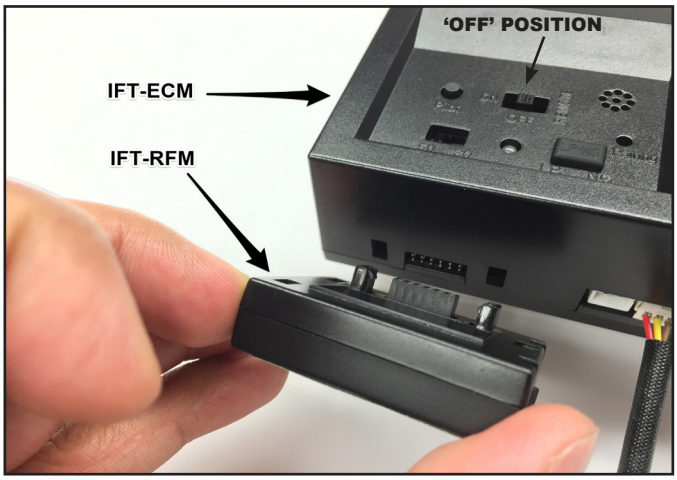

Figure 1. Connect IFT-RFM to IFT-ECM

4. Insert small flat screwdriver in the tab located in the bottom of the wall switch and twist the screwdriver to disassemble the wall switch. See Figure 2.

Figure 2. Wall Switch Disassembly

5. Secure the wall switch on a flat wall surface using the two screws and drywall anchors provided. See Figure 3.
6. Insert the two AA batteries (supplied) in the correct orientation as marked in the battery receptacle. See Figure 3.

Figure 3. Mounting IFT-RC150 Wireless Wall Switch

E. Pairing the IFT-RC150 to the Electronic Control Module (IFT-ECM)

CAUTION! Risk of burns! *DO NOT program the IFT Remote Controls to the IFT-ECM when flame or cold climate function is on or when appliance is hot.*

1. ON the IFT-RC150, remove the cover as shown in Figure 2 to access the pairing hole as shown in Figure 3.
2. On the IFT-ECM, move the ON/OFF/REMOTE switch to the REMOTE position. The green LED will blink three times. A few seconds later, an audible "beep" will occur to indicate that the system is ready.

   Note: If the green LED continues to blink slowly (system is searching for a clear channel), wait until it stops before proceeding to step 3.
3. Locate the pairing hole on the IFT-ECM. See Figure 4. Using a paper clip or similar item, press and release the pairing button. The IFT-ECM will "beep" once and a green LED will blink for 14 seconds.

   While the green LED on the IFT-ECM is blinking, press and release the pairing button on the IFT-RC150 with a paper clip or similar item. The device will indicate it is in pairing mode by blinking red LED. If the device has been paired successfully to the IFT-ECM, an audible double "beep" will be heard from the IFT-ECM.
4. If pairing is unsuccessful, repeat step 3.
5. Replace IFT-RC150 cover removed in step 1.

NOTICE: *To program both an IFT-RC400 and an IFT-RC150 to an IFT-ECM, repeat the same steps separately for the IFT-RC400 and the IFT-RC150. Only one IFT-RC400 remote control and one IFT-RC150 wireless wall switch can be programmed into an IFT-ECM.*

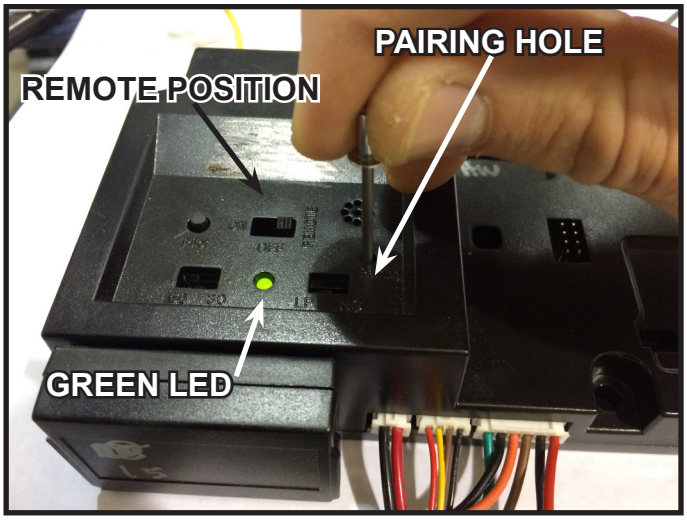

Figure 4. Pairing IFT-ECM and IFT-RC150

F. Wiring Diagram

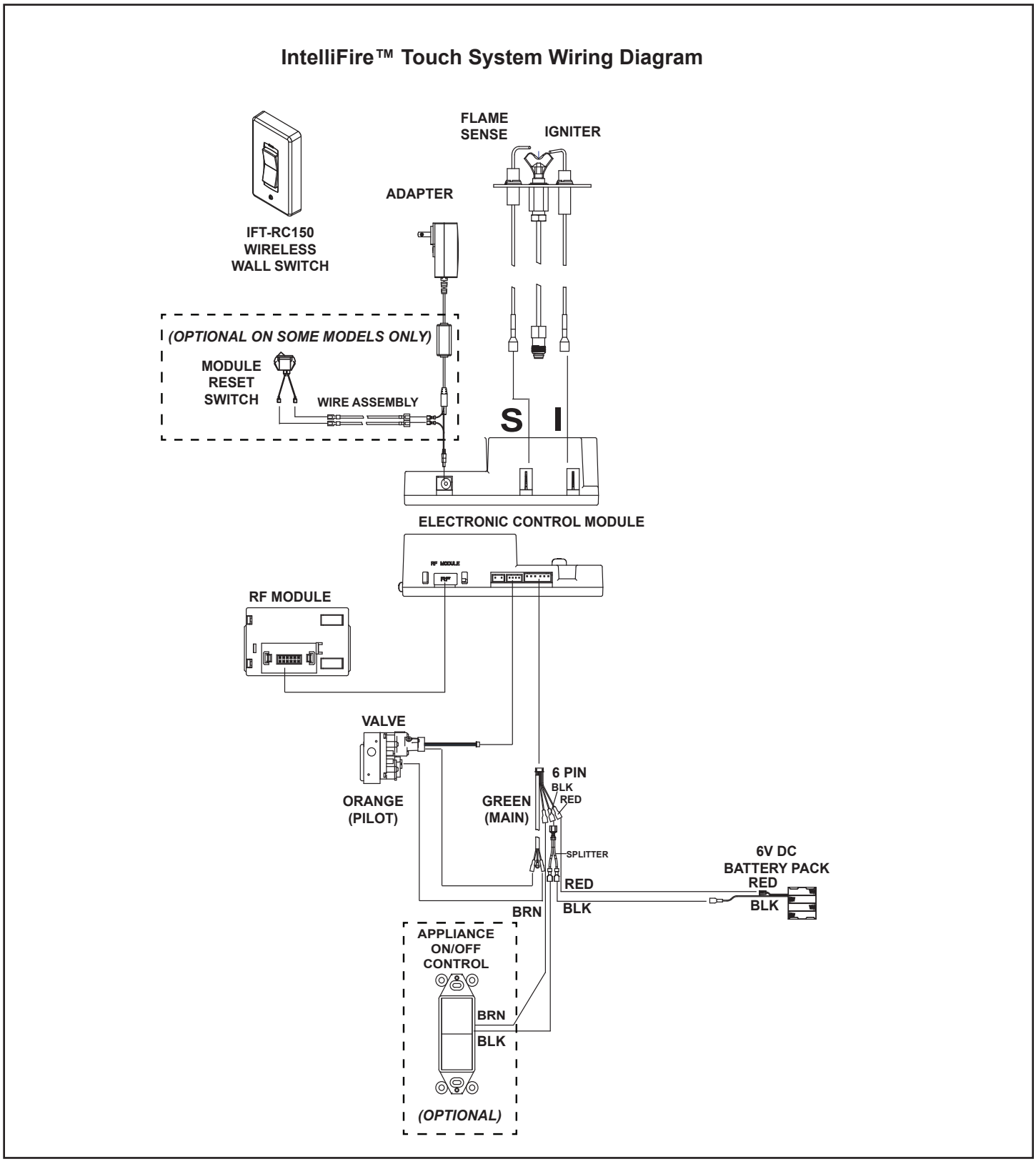

Figure 5. IFT-RC150 Wiring Diagram

3. Operation

A. Turn Flame ON/OFF

- To turn the flame ON, press the top of the rocker switch.
- To turn the flame OFF, press the bottom of the rocker switch.

The IFT-ECM on the appliance has a safety feature that automatically shuts down the appliance after 9 hours of continuous operation without receiving a command from any of its paired devices.

B. COLD CLIMATE

This function turns on a continuous pilot and keeps the air inside the hearth appliance warm while not in use. It is a useful feature in cold weather to minimize condensation on the appliance glass.

- To turn the cold climate mode ON/OFF, press the small momentary push button below the rocker switch.

C. LED INDICATOR

- The LED indicator is located above the rocker switch. It blinks every time it transmits a function and also during pairing.
- The LED also functions as a IFT-RC150 low battery indicator. Replace batteries if the red LED blinks once every 3 seconds continuously for longer than 5 minutes.

Note: If the LED blinks once every 2 seconds for 2 minutes, every 12 minutes, this indicates that the IFT-RC150 has lost communication with IFT-ECM.

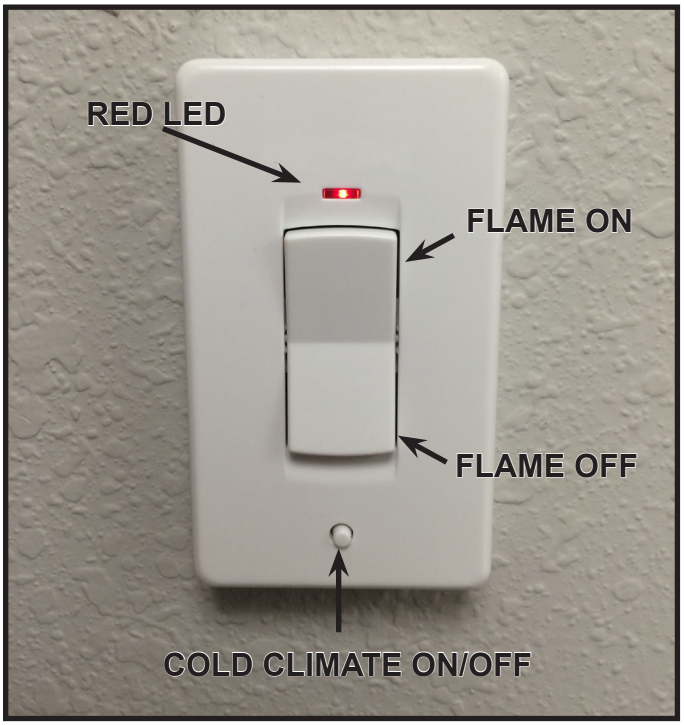

Figure 6. IFT-RC150 Functions

D. Power Outage

In the event of a power outage, the IFT-RC150 can continue to operate the hearth appliance if batteries are installed in the appliance's battery backup system. Refer to the appliance Owner's Manual for instructions for operation during a power outage.

NOTICE: *Batteries should only be used as an appliance power source in the event of a power outage. Batteries should not be used as a primary long-term power source.*

E. Manual Appliance Shutoff

In the unlikely event that the IFT-RC150 malfunctions and will not turn off the appliance, call your dealer for service assistance. In the meantime, you may choose one of the following actions to turn off the appliance:

CAUTION! Risk of burns! *Appliance surfaces are hot when operating and during cool down. Use care and wear gloves when opening the front and accessing components inside the appliance.*

Turn off power to the appliance (if back-up batteries are not installed):

- If the appliance comes equipped with a wired-wall switch, use that to turn it off.
- Alternately, you can also locate the house circuit breaker for appliance and turn it off.

4. Frequently Asked Questions/Troubleshooting

Symptom	Possible Cause	Corrective Action
The appliance does not respond to commands from the IFT-RC150 and the LED does not blink.	Batteries are depleted.	Verify batteries are new.
	Batteries are incorrectly installed.	Verify batteries are installed in correct orientation as shown on battery receptacle.
The appliance does not respond to commands from the IFT-RC150 but the LED blinks. **Note:** In this state, the LED may blink once every 2 seconds for a duration of 2 minutes, for a every 12 minutes.	The IFT-ECM is not in "REMOTE" position or is not powered.	Verify the IFT-ECM has the three-way position switch set to REMOTE and is connected to power.
	The IFT-RC150 is not paired to the IFT-ECM.	To pair the IFT-RC150 to a IFT-ECM, follow the instructions as listed under section 2E.
	There is a power outage and the appliance is operating with the emergency backup batteries.	Verify that the backup batteries in the appliance are installed in the correct orientation.
	Defective IFT-ECM or RF module.	Manually turn OFF the appliance following steps listed under 3E and contact your dealer.
The IFT-RC150 LED blinks randomly even though no command is given.	Communicating with IFT-ECM.	This is normal operation. The IFT-RC150 communicates periodically with the IFT-ECM to send or receive information.
The IFT-RC150 LED blinks in a pattern of every 3 seconds continuously for longer than 5 minutes.	Low battery indicator.	Replace the batteries in the IFT-RC150 with new batteries.
The appliance turns OFF the flame after extended periods of operation.	9 hours safety shutdown timer.	This is normal operation. The appliance will automatically turn the flame OFF after 9 hours of uninterrupted operation See Section 3A.
IFT-RC150 does not pair with the IFT-ECM.	IFT-ECM is not connected to its power source.	Verify IFT-ECM is connected to power and the three position switch is set to REMOTE. Follow pairing process listed in Section 2E.
	Noisy radio environment is preventing IFT-ECM and IFT-RC150 from communicating.	The IFT-ECM and IFT-RC150 operate on the 915MHz radio band. Allow up to 10 minutes for the IFT-ECM and IFT-RC150 to establish contact. If the problem does not get resolved, try powering OFF and ON both the IFT-ECM and IFT-RC150 and perform pairing function listed in Section 2E.

5. IntelliFire™ Touch Electronic Control Module (IFT-ECM)

IFT-ECM Detailed Operating Instruction

1. The Electronic Control Module (IFT-ECM) has a three-position ON/OFF/REMOTE selector switch that must be set for proper operation. See figure 7. When changing switch positions,it is important to pause in each position for 1-2 seconds.

   OFF Position:

   The appliance will not respond to any commands from a wired wall switch, IFT-RC150 or IFT-RC400 remote controls. The unit should be in the OFF position during installation, service, backup battery installation, fuel conversion and to reset the IFT-ECM in the event the system goes into a LOCK-OUT mode as the result of a system error. When switched to the OFF position while the appliance is operating, the system will shut down.

   ON Position:

   The appliance will ignite and run continuously at the HI flame setting. No adjustment in flame height is possible. The IFT-ECM has a safety feature that will automatically shut down the fireplace after 9 hours of continuous operation in the ON position.

   Remote Position:

   The remote position allows operation of the appliance from a wired wall switch, IFT-RC400 or IFT-RC150 remote controls. The IFT-ECM switch must be in this position to pair the IFT-ECM with the IFT-ACM (if installed), and/or IFT-RC400 and IFT-RC150 remote controls. See the IFT-RC400 or IFT-RC150 installation manual for detailed instructions on pairing the IFT-ECM with the remote controls. After successfully pairing a IFT-RC400, all installed accessories can be controlled by the IFT-RC400 (see IFT-RC400 user manual). The RC150 allows the user to turn ON/OFF the flame in the appliance and activate the Cold Climate mode if desired. The IFT-ECM has a safety feature that will automatically shut down the fireplace after 9 hours of continuous operation without receiving a command from the IFT-RC400 or IFT-RC150.
2. If multiple control options are installed, the IFT-ECM will respond to the last command from the wired wall switch, IFT-RC400 or IFT-RC150. The wired wall switch is NOT available if a Power Vent is used.
3. The Pilot button on the IFT-ECM activates the Cold Climate function of the fireplace. This function lights the pilot flame ONLY to provide enough heat in the firebox to reduce condensation in cool, high humidity ambient conditions. To activate the Cold Climate function, press and hold the Pilot button for one second and release. The IFT-ECM will flash two green LED
1. beep twice and light and rectify the pilot flame when pressed to activate. To turn off Cold Climate, press and hold the Pilot button for one second and release. The IFT-ECM will flash one green LED blink, beep once and shut down the pilot flame. If remote controls are paired with the IFT-ECM, this feature can also be activated with the IFT-RC400 and/or IFT-RC150.

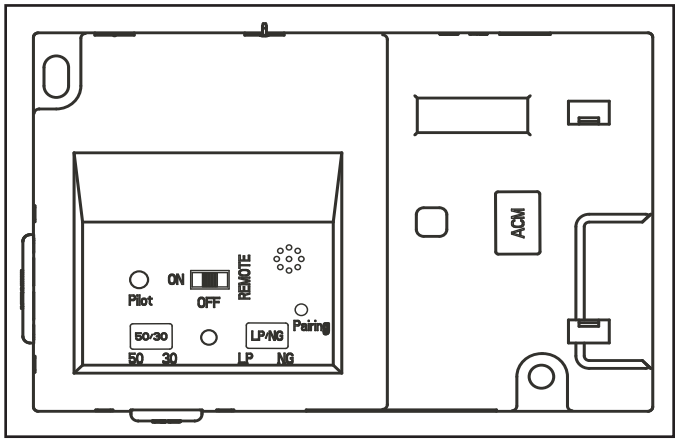

Figure 7. IFT-ECM

2. An IFT-ECM reset is required if the module is in a lock-out condition. When this occurs, the appliance is shut down and the IFT-ECM status indicator LED will be blinking a RED/GREEN error code along with a one-time audible double- beep. If the IFT-ECM is in a lock-out condition, refer to the troubleshooting chart to interpret the error code and take corrective action as required. To reset the IFT-ECM after a lock-out error:

CAUTION! Risk of burns! *Appliance surfaces are hot when operating and during cool down. Use care and wear gloves when opening the front and accessing components inside the appliance.*

- Be aware the appliance may be HOT, use care in accessing the IFT-ECM.
- Set the IFT-ECM 3-position selector switch to OFF position.
- Wait five (5) minutes to allow possible accumulated gas to clear.
- Set the IFT-ECM 3-position selector switch to ON or IFT-REM position. Module will beep once and flash a three GREEN LED code on successful startup.
- If placed in ON position, the appliance will ignite normally if the error condition was corrected.
- If placed in IFT-REM position, use the paired IFT-RC400, IFT-RC150 or wired wall switch to start the appliance; appliance will ignite normally if the error condition was corrected.
- If the IFT-ECM re-enters the lock-out condition after these steps, call your dealer for service.

DANGER

Risk of Explosion

DO NOT cycle the ON/OFF/REM selector switch more than one time within a five minute period. Gas may accumulate in firebox. Call a qualified service technician.

Troubleshooting

With proper installation, operation and maintenance your gas appliance will provide years of trouble-free service. If you do experience a problem, this troubleshooting guide will assist a qualified service technician in the diagnosis of a problem and the corrective action to be taken. This troubleshooting guide can only be used by a qualified service technician.

IntelliFire™ Touch Ignition System

Error Codes:

ECM LED Error Codes	Description
3 Red: 1 Green	IFT-RC400 error message: 'Appliance Safely Disabled', pilot sparks for 60 sec, no flame rectification.
2 Red: 1 Green	IFT-RC400 display: 'Error Pilot Flame', pilot valve solenoid not detected.
2 Red: 2 Green	Sparking feedback signal error, spark coil failure.
5 Red: 1 Green	IFT-RC400 display: 'Error Power Vent' (if installed).

See Troubleshooting matrix for more detail on Lock-out Error Codes, Possible Causes and Corrective Actions.

Troubleshooting:

Symptom	Possible Cause	Corrective Action
Pilot won't light, module clicks but no spark 60 sec, 3 Red/1 Green Lock out.	Incorrect wiring.	Verify 'S' (White) sense wire and 'I' (orange) ignitor wire are connected to correct terminals on IFT-ECM.
	Loose connections or electrical shorts in wiring.	Verify no loose connections or electrical shorts in wiring from module to pilot assembly. Verify wire insulation is not damaged. Verify wires are not grounding out to chassis, pilot burner, or any other metal object. Replace any damaged wires.
	Ignitor gap is too large.	Verify spark gap is approximately 0.095" (2.41 mm) to 0.135" (3.43 mm).
Pilot won't light, there is no noise or spark.	No AC power, AC/DC adaptor faulty, backup batteries (if being used) depleted, IFT-ECM slider switch in OFF position.	Verify IFT-ECM slider switch is in ON or IFT-REM position. Verify AC power available to junction box. Verify AC/DC adaptor is plugged into junction box and IFT-ECM. Verify AC/DC adaptor output voltage is between 5.7-6.3 Vdc. If battery pack is used, check battery pack voltage is >4.2 V (if not, replace batteries).
	Shorted or loose connection in system wiring or wiring harness.	Verify system wiring configuration. Remove and reinstall wiring harness that plugs into module. Check contnuity of wires in valve wiring harness. Replace any damaged components.
	Poor or no system ground.	Verify black gound wire in valve harness is connected to metal chassis of fireplace.
Pilot won't light, there is no noise or spark, 2 Red/1 Green Lockout.	Pilot solenoid not detected.	Check if valve harness orange wire is connected to pilot solenoid valve. Check pilot solenoid resistance, nominal is 40 ohms. If open or shorted, replace valve. Check valve harness wire continuity, if open replace 6-pin harness.
Pilot won't light, there is no noise or spark, 2 Red/2 Green Lockout.	Spark coil failure.	Replace IFT-ECM.

Troubleshooting *(continued)*

Symptom	Possible Cause	Corrective Action
Pilot sparks for 60 sec, but will not light, 3 Red/1 Green Lockout.	No gas supply.	Verify incoming as line ball valve is 'Open'. Verify inlet pressure is within requirement for gas type used. Contact gas supplier.
	ECM has poor ground.	Verify wiring, check valve harness black wire is securely grounded to metal chassis.
	Gas valve defective.	Check pilot valve solenoid kick and hold voltages during ignition cycle. Kick V should be >1 V, hold V minimum 0.26 V. If voltages are OK, replace gas valve.
Pliot lights but main burner does not light. Pilot continues to spark for 60 sec then goes into 3 Red/1 Green Lockout.	No flame detected. Flame rectification issue.	Check if white sense lead is securely connected to 'S' terminal of IFT-ECM. Check resistance of sense lead between sense rod tip and connector to IFT-ECM, should be less than 1 ohm - if not, replace pilot assembly. Check system ground, ensure black valve harness wire is securely attached to metal chassis. Check wiring for damage. With system OFF, check resistance between tip of sense rod and pilot hood, should be resistance (>1 M-ohm).
	No flame detected or sense rod contamination.	With glass assembly installed, verify pilot flame is engulfing flame sense rod on pilot assembly. Verify inlet gas pressure is correct for gas type. Polish flame sense rod with fine steel wool to remove any contaminants that may have accumulated.
Pilot lights and rectifies, but main burner does not light.	Main valve solenoid.	Check if green wire in valve harness is connected to green main valve solenoid. Check main valve solenoid resistance, nominal is 60 ohms. If open or shorted, replace valve. Verify valve inlet pressure is correct for gas type.
Pilot and main do not light, ECM goes into 5 Red/1 Green Lockout.	Power Vent (PV) Failure.	Power Vent blower defective - check wiring to IFT-ACM, check if blower is working. Check if PV pressure switch is connected to brown and black wire in 6-pin valve wire harness. Check if pressure switch is closed (shorted) when PV blower is running. Refer to PV troubleshooting instructions.
Appliance lights and runs for a few minutes then shuts down and/or appliance cycle ON and OFF with less than 60 sec of ON time.	Shorted or loose connection in flame detection circuit.	Check if white sense lead is securely connected to 'S' terminal of IFT-ECM. Check resistance of sense lead between sense rod tip and connector to IFT-ECM, should be less than 1 ohm - if not, replace pilot assembly. Check system ground, ensure black valve harness wire is securely attached to metal chassis. Check wiring for damage. With system OFF, check resistance between tip of sense rod and pilot hood, should be resistance (>1 M-ohm).
	Poor flame rectification or contaminated sense rod.	With glass assembly installed, verify pilot flame is engulfing flame sense rod on pilot assembly. Verify inlet gas pressure is correct for gas type. Polish flame sense rod with fine steel wool to remove any contaminants that may have accumulated. Verify no soot deposits are in sense rod to pilot hood gap.
	Logs are set up wrong.	Remove and re-install logs per the log placement instructions.
	Damaged pilot assembly.	Verify the pilot assembly ceramic insulators around the flame sensing rod is not cracked, damaged or loose. Check resistance between tip of sense rod and IFT-ECM connector, should be less than 1 ohm. Replace pilot assembly if damage is detected.

FCC Compliance Statement:

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

(2) This device must accept any interference received, including interference that may cause undesired operation of the device.

FCC Warning

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Caution: The Federal Communications Commission warns that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Canadian DOC Notice

This digital apparatus does not exceed the (Class A/ Class B) limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Canadian IC Notice

This device complies with RSS-210 of Industry and Science Canada. Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Service Parts List

Description	Part Number
RC150 HNG	SRV2326-100
RC150 HTL	SRV2326-101
RC150	SRV2326-104
RC150	SRV2326-104

Hearth & Home Technologies
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