

IFT2-RC450

IntelliFire Touch® 2.0 Remote Control

Installation Instructions



Leave this manual with party responsible for use and operation.

1. Introduction

The IntelliFire Touch Remote Control (IFT2-RC450) is a hand-held wireless remote that is designed to control the functions of Hearth & Home Technologies (HHT) products equipped with IntelliFire Touch® technology. It can be used to control the flame ON/OFF, flame height, cold climate and programmable timer functions of an appliance. The RC450 is also equipped with a temperature sensor which allows its use as a thermostat to set the desired room temperature.

2. Installation

A. Precautions

The IFT2-RC450 is tested and safe when installed in accordance with this installation manual.

- **DO NOT** modify, disassemble, or substitute any of the components included with this remote.
- Installation of this remote **MUST BE DONE** by a qualified service technician.
- The remote control must be placed within 30 feet (9.14 m) of the appliance, but should not be exposed to extreme heat. The RC450 is approved for interior installation and should not be used in exterior applications.

NOTICE! Keep remote control out of reach of children.

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. Kit Contents

- IFT2-RC450 Remote Control
- IFT2-RFM Radio Frequency Module
- AAA Alkaline Batteries (4)
- Wall Mount
- 1 inch #6 Screws (2)
- Drywall Anchors (2)

C. Installation Steps

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

1. Remove the contents from the packaging.
2. Locate the IntelliFire Touch electronic control module (IFT2-ECM) in the control cavity of the appliance and move the three-position switch to the OFF position. See Figure 1.
3. Connect the RFM to the ECM by aligning the pins and tabs and pushing the RFM into the ECM until both tabs snap into position. Ensure the two components are fastened securely to one another. Be sure to power down the ECM before inserting the RFM. See Figure 1.

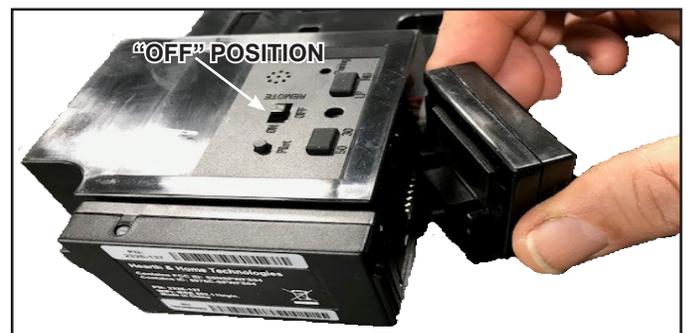


Figure 1 Connect IFT2-RFM to IFT2-ECM

4. Move the three-position switch on the IFT2-ECM 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.
5. Set the IFT2-RC450 face down on flat surface when installing batteries.
6. Remove the battery cover from the back of the RC450 and install the four AAA batteries in the proper orientation marked in the battery cavity. Ensure the child lock switch adjacent to the battery cavity is in the UN-LOCKED position. See Figure 2.
7. Program the RC450 for the correct brand of appliance using the “Brand Programming” instructions in Section E of this instruction.
8. Follow the pairing procedure, as described in Section D to pair the RC450 to the ECM.

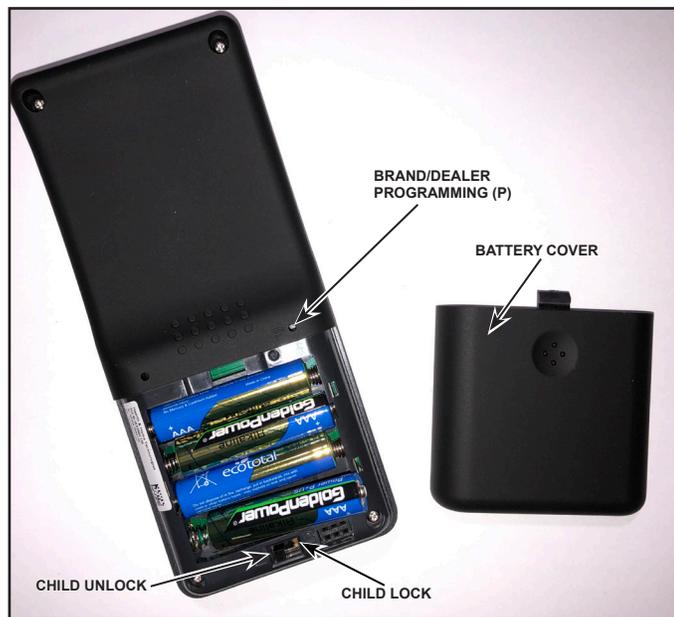


Figure 2 Install Batteries, Child Safety Switch, and Brand / Dealer Programming

D. Pairing the IFT2-RC450 to the Electronic Control Module (IFT2-ECM)

CAUTION! Risk of Burns! DO NOT program the IFT Remote Controls to the IFT2-ECM when flame or cold climate function is on, or when appliance is hot.

If adding a new IFT2-RC450 to the appliance, follow the steps in Section D.a below.

NOTICE! There is no need to re-pair if additional components are added such as blowers, lights or power vent after initial pairing.

a. Pairing new IFT2-RC450 to Electronic Control Module (IFT2-ECM)

1. On the IFT2-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.

NOTICE! If the green LED continues to blink slowly (system is searching for a clear channel), wait until it stops before proceeding to step 2.

2. Locate the pairing hole on the ECM. See Figure 4. Using a paper clip or similar item, press and release the pairing button. The ECM will “beep” once and the green LED will blink for 14 seconds. During the 14 seconds, it is normal for accessories such as lights or fan to energize momentarily.

While the green LED on the ECM is blinking, tap anywhere on the gray indicator bar located at the top of the RC450 screen. Tap on the pairing icon as shown in Figure 5. If the RC450 has been paired successfully to the ECM, a double audible “beep” will be heard from the ECM.

3. If the pairing is unsuccessful, repeat steps 1 and 2.

NOTICE! The IFT2-ECM can only be paired with a combination of one RC150U and two IFT2-RC450's up to a maximum of three remote controls at any one time. To program all remote controls to IFT2-ECM repeat the same steps separately for each RC150U and each IFT2-RC450.

b. Re-Pairing existing IFT2-RC450 after adding IFT2-PACM, blower kit, light kit or power vent

NOTICE! Pairing the IFT2-RC450 to the IFT2-ECM is NOT REQUIRED when adding an IFT2-PACM. Connect the AC input power and peripheral accessories to the IFT2-PACM, then move the IFT2-ECM slider switch to the REMOTE position. The IFT2-RC450 will automatically detect connected peripheral accessories.

NOTICE! During re-pairing, some versions of the IFT2-RC450 may display “Now pairing remote to product” before being able to reach the diagnostic menu on remote. This message will impair the ability to access the pairing ICON button. See Figure 3.

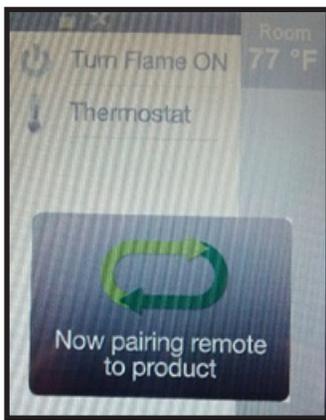


Figure 3 Pairing Remote

If the “Now pairing remote to product” icon occurs:

1. Verify that all the wire connections are complete, and verify that the IFT2-PACM is powered by 120 VAC.
2. On the IFT2-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.

3. Locate reset button on back of the RC450 (opposite from “P” hole). Press and release the reset button with a paper clip (or similar object).
4. Locate the pairing hole on the ECM. See Figure 4. Using a paper clip or similar item, press and release the pairing button. The ECM will “beep” once and the green LED blink for 14 seconds. During the 14 seconds, it is normal for accessories such as lights or fan to energize momentarily.
5. While the green LED on the ECM is blinking, tap anywhere on the gray indicator bar located at the top of the RC450 screen. Tap on the Pairing icon as shown in Figure 5. Successful pairing will be indicated by a double beep from the ECM.

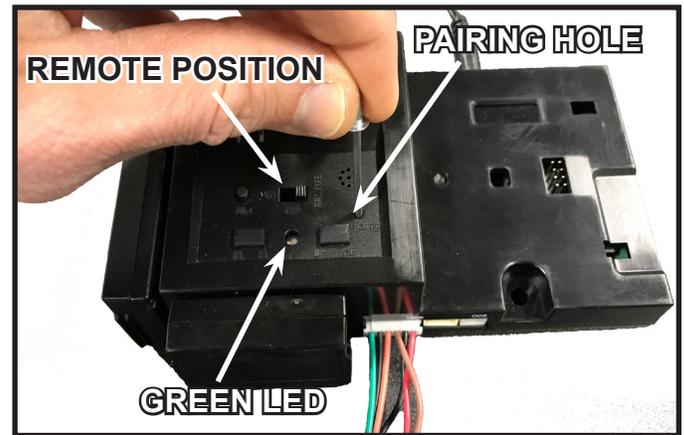


Figure 4 Pairing IFT2-ECM

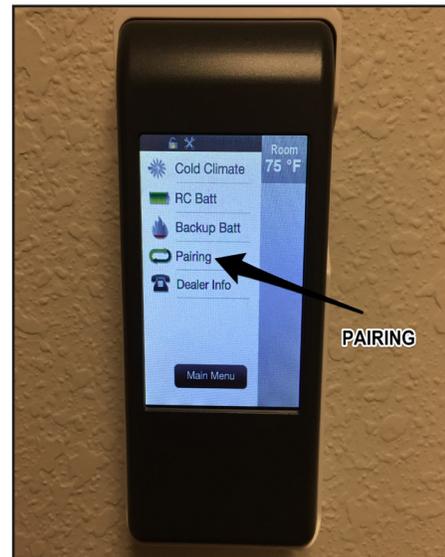


Figure 5 IFT2-RC450 Wall Mount / Pairing Screen

E. Brand/Dealer Programming Procedure

This procedure allows the dealer to select the brand input and dealer information for the consumer's use.

The contact information will be accessible to the consumer through the "Dealer Info" screen on the secondary menu. It is also displayed automatically in the event of an issue with the appliance or as a maintenance reminder.

To access these selections and program your contact information, please follow these steps.

1. Insert batteries into the IFT2-RC450. Wait for a beep to confirm the remote is on.
2. Locate the programming hole on the back side of the remote. It is marked as "P" on the right side above the battery cover as shown in Figure 2.
3. Using a paper clip or similar item, press and release the programming button. This sequence must be done while the screen is illuminated.
4. Select your choice of product brand from the list on the RC450 screen as shown in Figure 6.
5. Enter the name of the dealer or service company that will service this customer by entering the name on the screen.
6. Enter the telephone number that the customer will use to contact the service company or dealer.
7. Enter the appliance serial number.
8. A "splash" screen will appear showing the brand you selected. "MAIN MENU" will appear next, indicating that the programming process is complete.

NOTICE! The screen will time out after 9 seconds if a selection is not made. If this occurs, return to step 2 to access the selections and continue the programming process.

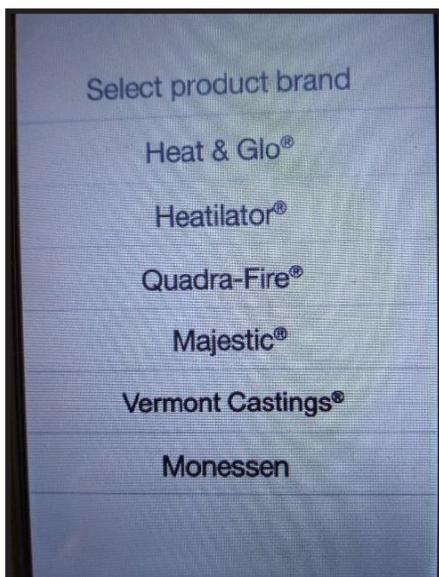


Figure 6 IFT2-RC450 Branding Screen

F. Wall Mount Installation (Optional)

1. Detach the IFT2-RC450 from the wall mount.
2. Secure the wall mount on a flat wall surface using the two #6 screws and wall anchors provided. See Figure 7.
3. Place the RC450 inside the wall mount. See Figure 7.



Figure 7 Install the Wall Mount

G. LCD Screen Calibration Procedure

This procedure allows the dealer to calibrate the touch screen in the event that the screen becomes unresponsive to touch commands.

1. Insert the batteries and within one second press and hold the LCD screen. Continue pressing on the LCD screen for 6-8 seconds. The following screen will display.

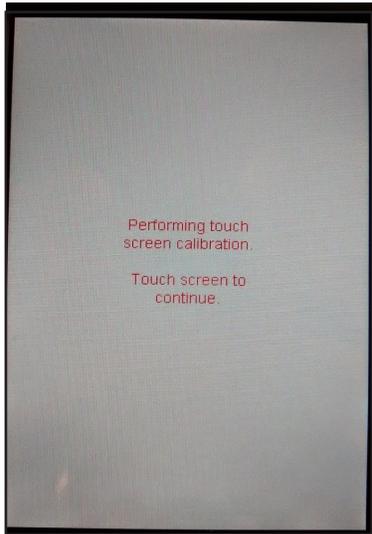


Figure 8 Performing Touch Screen Calibration

2. Touch screen to continue. See Figure 9.

Follow the screen instructions, and touch and release on the filled circles. For best results, use a stylus. You will be prompted to repeat this clockwise around the four corners of the screen.

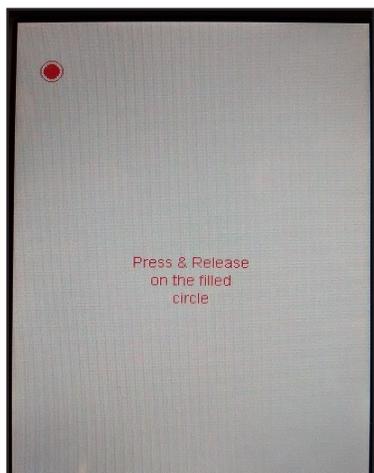


Figure 9 Touch and Release

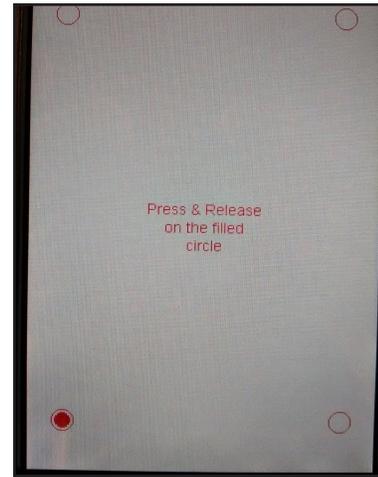


Figure 10 Touch and Release

3. After touching and releasing all the prompted circles, the following screen appears. See Figure 11.

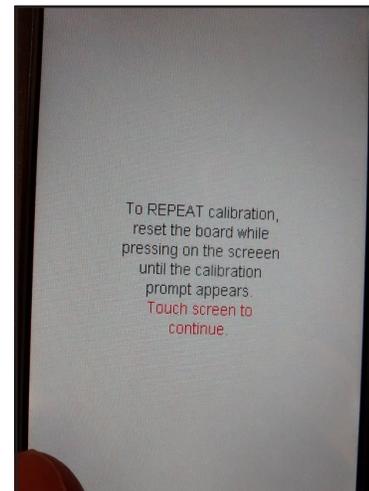


Figure 11 Touch anywhere on the Screen

4. Touch screen anywhere to return RC450 to normal screen display.

H. Indicators

Temperature Display



You can toggle the temperature display between °F and °C by tapping on the Room Temperature display.

HOT



This indicates that the appliance is still hot for 20 minutes after the appliance is turned off.

Diagnostics Menu



Tap anywhere in the gray indicator bar area to display all functions below. When red, it indicates an error has been detected.

Cold Climate



This function turns on a small pilot flame and keeps the air inside your appliance warm while not in use. It is a useful feature in colder weather to minimize condensation on the appliance glass.

NOTICE! This feature is disabled when a Power Vent is installed on the appliance.

NOTICE! The continuous pilot will automatically turn OFF after 166 hours if appliance is not actively used. If Flame ON is activated before 166 hours, the automatic timer will re-start.

Remote Control Battery



Remote control battery life indicator. If the batteries on your remote are low, a notification will display on the screen asking you to “Replace Remote Batteries” or “Must Replace Remote Batteries to Operate Appliance”.

Refer to Replace Remote Batteries Section.

NOTICE! To extend the time between replacing batteries, Lithium Ion and rechargeable NiMH AAA batteries can be used.

Pairing



When the pairing icon is green, it indicates that the remote is paired to your appliance and can operate it. If the pairing icon is gray, the IFT2-RC450 is not paired to an IFT2-ECM. Please contact your dealer and report this issue.

Backup Battery



The battery life indicator is for a backup power source for the IFT2-ECM located inside your appliance. It is intended to operate the appliance in the event of a power failure. Consult your owner’s manual for your appliance on how to utilize this feature.

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.

NOTICE! Battery backup is not available if a Power Vent is installed.

Call Dealer - Pilot Flame Error



Your appliance has been disabled. Please contact your dealer and report this issue. Refer to troubleshooting guide.

Call Dealer - Appliance Safely disabled



Your appliance has been disabled. Please contact your dealer and report this issue.

Call Dealer - Power Vent Error



Your appliance has detected that a power vent is not functional. Please contact your dealer to report this issue.

Call Dealer - Heat Management Error



Your appliance has detected that a heat management blower or fan is not functional. Please contact your dealer and report this issue.

Indicators *(continued)*

Sorry your appliance did not start. Try again by pressing Flame On. 

Your appliance did not start during the last Flame On command. Verify that you have power and gas to your appliance. Press the Turn Flame ON icon again, verify that the appliance accepts command with an audible beep, and turns on the flame within 90 seconds.

Fan will turn on within 3 minutes 

Your appliance has a built-in delay that prevents the fan from operating within the first 3 minutes of operating the appliance. This allows the air to be heated to a comfortable temperature before the fan circulates it.

Remote Control Communication Error 

Your remote control is not able to communicate with your appliance. Verify that you have power to your appliance. If there is a power outage, verify that appliance battery backup is fitted with new batteries. After taking these actions, communication can be re-established by pressing the screen to activate the remote control. It may take several minutes for remote control to re-establish pairing.

Replace Remote Batteries 

OR

Must Replace Remote Batteries to Operate Appliance

Your remote batteries are low. Recommend immediate replacement before using remote to control appliance.

1. Set the IFT2-RC450 face down on flat surface when installing batteries.
2. Remove the battery cover from the back of the RC450 and install the four AAA batteries in the proper orientation marked in the battery cavity. Ensure the child lock switch adjacent to the battery cavity is in the UN-LOCKED position. See Figure 12.

NOTICE! If one or more of the batteries lacks a full charge or one of the battery prongs is misaligned, the IFT2-RC450 may emit a continuous beeping noise.



Figure 12 Install Batteries & Child Safety

Maintenance 

Your appliance will remind you to schedule routine service after 300 hours of Flame ON time is accumulated. Please contact your dealer for a 300 hour inspection to ensure your appliance is operating at peak performance.

1. Wake-up your remote control display by touching anywhere on the touch screen.
2. Tap the “Dismiss” Icon. The system will reset the maintenance reminder. Tap “Main Menu” to return to the main menu.

3. Troubleshooting

NOTICE! Please contact your Heart & Home Technologies dealer if the Corrective Actions do not resolve the issues with your appliance.

Symptom	Possible Cause	Corrective Action
The appliance does not respond to commands from the IFT2-RC450 or display does not light up when screen is touched.	Batteries are depleted.	Install NEW batteries.
	Batteries are incorrectly oriented.	Verify batteries are installed in correct orientation as shown on batteries receptacle.
The display on IFT2-RC450 lights up when screen is touched but it does not respond to commands.	Touchscreen has lost calibration.	Touchscreen needs to be re-calibrated. Follow step from Section G to recalibrate the screen.
	Child Lock is ON.	Check child lock icon located at the top of the IFT2-RC450 display. If ON, it will show as a “locked” symbol. To unlock, remove battery compartment door, locate child lock switch and move to “unlock” position. Verify child lock icon on screen is now displayed in “unlock” position.
The IFT2-RC450 emits a constant beep when batteries are inserted	One (or more) of the 4 inserted batteries has a very low charge.	Replace all 4 batteries with new, brand name quality batteries.
	One of the battery terminals is misaligned.	Visually inspect the battery terminals for misalignment or damage. If damaged beyond basic repair, replace the IFT2-RC450.
The IFT2-RC450 displays the following message on-screen: No dealer info available	Dealer information is not programmed into the IFT-RC450.	The IFT2-RC450 will still provide all available functions, and appliance is fully available for use. Call dealer to have them program the IFT2-RC450.
The IFT2-RC450 displays the following message on-screen: Call “Dealer Name & Number” to schedule maintenance.	The appliance maintenance reminder after a 300 hour of operation.	The appliance is still functional but is due for a 300 hour regular maintenance check. Call your dealer to schedule the maintenance check for the appliance or press “dismiss” and the 300 hour maintenance check will reset.
Thermostat function does not appear to be controlling room temperature properly.	The IFT-RC450 is placed at a very short distance or too far away from the appliance.	Try to keep the IFT2-RC450 close to the appliance but not directly in front of it. The IFT2-RC450 acts as the room temperature sensor when in thermostat mode.
	IFT-RC450 is placed in the path of an air draft or vent.	Move the IFT2-RC450 away from the direct path of air flow. The IFT2-RC450 acts as the thermostat room temperature sensor.
	Flame Modulation	The IFT system is designed to automatically adjust the flame intensity based on the difference between the desired room temperature, and actual temperature. In thermostat mode, the hearth appliance will start in HIGH flame, but as the actual temperature approaches the desired set temperature on the remote, the flame intensity will automatically decrease. Automatic flame modulation will result in more control of the temperature, but will cause the appliance to cycle OFF/ON less.
The IFT2-RC450 displays the following message on-screen: “Fan will turn on within 3 minutes”.	Functioning as intended.	The appliance has a three minute delay timer before the fan is turned ON. This allows the air surrounding the appliance to be heated before being pushed into the room.

Troubleshooting (continued)

Symptom	Possible Cause	Corrective Action
The IFT2-RC450 displays the following message on-screen: "Replace Remote Batteries" or "Must Replace Remote Batteries to Operate Appliance".	Low batteries in the IFT2-RC450.	Install new batteries in the IFT2-RC450.
The IFT2-RC450 is displaying an incorrect brand.	The IFT2-RC450 was programmed incorrectly.	Call dealer to have them program the IFT2-RC450 with correct branding. The IFT2-RC450 is still fully functional and the appliance is unaffected.
After turning flame ON using the IFT2-RC450, the flame does not turn ON immediately and instead a two minute timer is displayed.	Power vent or convection blower is installed on the appliance.	This is expected behavior and the two minute timer is called a pre-purge timer. The flame will turn ON at the expiration of the timer.
The IFT2-RC450 displays the following message on-screen: "Appliance safely disabled. Call dealer for service". In addition the LED indicator on the IFT2-ECM will flash twice red and once green indefinitely.	Ignitor wires (orange) or flame sense wire (white) is shorted to chassis ground.	Verify that pilot sense and ignitor leads are not shorted to chassis ground and the protective covering has not melted or is cut. Replace pilot if necessary.
	The IFT2-ECM is unable to sense flame due to Contamination on flame sensing rod.	Measure pilot sense lead resistance. If more than 1 Ohm, clean flame sensor rod with fine steel wool and measure resistance again. If resistance still > 1 ohm, replace pilot.
	Ignitor and sense wires are incorrectly wired.	Verify that the sense lead (white) is securely terminated to the "S" terminal on the IFT2-ECM, and that the ignitor lead (orange) is terminated to the "I" terminal on the IFT2-ECM.
	Pilot appears to be "missing" sparks from the ignitor.	Verify that pilot sparks 8 seconds ON, 2 seconds OFF, and discharges consistently between the hood and the ignitor electrode. Verify spark gap is 0.095 to 0.135 inches, and adjust if necessary.
The IFT2-RC450 does not pair or unpair from the IFT2-ECM.	The IFT2-ECM is not connected to its power source.	Verify the IFT2-ECM is connected to power and the three position switch is set to REMOTE. If operating from the battery backup, ensure that all four batteries are NEW.
	Noisy radio environment is preventing the IFT2-ECM and IFT2-RC450 from communicating.	The IFT2-ECM and IFT2-RC450 operate on the 915MHz radio band. Allow up to 10 minutes for the IFT2-ECM and IFT2-RC450 to establish contact. If the problem does not get resolved try powering OFF and ON both the IFT2-ECM and IFT2-RC450 and repeat the pairing process.
The IFT2-RC450 displays the following message on-screen: "Remote Control Communication Error".	No power to Appliance.	Verify home circuit breaker is on and master reset is on (if equipped).
	Power Outage	Check power to appliance or if the IFT2-ECM battery backup is being used, install four (4) new AA batteries in backup.
	IFT2-ECM Mode	Verify selector switch in "Remote" mode.
	IFT2-ECM Power	Verify the IFT2-ECM connected to AC adapter and AC adapter is plugged into the Junction Box.
	IFT2-ECM no longer paired to IFT2-RC450.	Follow instructions on pairing IFT2-RC450 to the Electronic Control Module (IFT2-ECM).

Troubleshooting (continued)

Symptom	Possible Cause	Corrective Action
The IFT2-PACM does not respond to commands from the IFT2-RC450.	IFT2-PACM was newly installed and not paired.	Make sure that the pairing procedure has been followed especially if the IFT2-PACM was newly installed.
	The power cord between IFT2-PACM and junction box is disconnected.	Make sure the power cable is properly inserted into the IFT2-PACM and the junction box.
	IFT2-PACM and IFT2-ECM are not latched.	Check the connection between the IFT2-PACM and IFT2-ECM by making sure they are latched together.
IFT2-RC450 display the following message on-screen: "Call Dealer Error: Fan".	Convection blower malfunction.	Using an RMS voltage meter, check the voltage coming out of the FAN output on the IFT2-PACM when the fan is set to highest level on the IFT2-RC450. If the voltage measured is close to 120VAC then power down the appliance and install a new fan and verify if the issue has been resolved.
	Fuse in IFT2-PACM is blown.	Using an RMS voltage meter, check the voltage coming out of the FAN output on the IFT2-PACM when the fan is set to highest level on the IFT2-RC450. If voltage measured is closer to zero, then replace the IFT2-PACM.
	IFT2-PACM is not responding to IFT2-RC450.	If used with an IFT2-PACM, ensure the IFT2-PACM has 120 VAC power. If required, re-pair the IFT2-RC450 to the IFT2-ECM. If used with a IFT2-PACM, ensure the IFT2-PACM has 120 VAC power. Then power cycle the IFT2-ECM to OFF and back to REMOTE.
	Fan is not plugged into IFT2-PACM.	Check wiring and connections.
	Spade connectors are miswired.	Some fans may be connected to the IFT2-PACM using spade connectors. For safety, turn off the power to the appliance and check to see if the wires on either end of the spade connector do not match in color as they might be miswired.
The flame height setting on the IFT2-RC450 does not function properly.	Stepper motor is not connected or is malfunctioning.	Check if the 4 pin wiring harness from the stepper motor is connected to the IFT2-ECM.
IFT2-RC450 displays the following message on screen: "Sorry your appliance did not start. Try again by pressing Flame On".	No gas to appliance. Accumulation of air in gas line from extended period of appliance inactivity. Gas control system failure.	Verify that appliance has power and gas. Verify that the appliance accepts flame ON commands with an audible beep, and successfully turns flame on within 90 seconds. If this failure persists, contact dealer for service
Hard Lockout Error	Verify hard code lockout (RC450 error condition described, and red/green LED flash condition on the IFT2-ECM).	Your appliance has been safely disabled. Please contact your dealer for service.

Regulatory Certification

The IFT2-RC450 wireless remote control is certified for operation in the following countries:

- United States
- Canada

United States

The IFT2-RC450 complies with all applicable FCC equipment authorization, regulations, requirements, and device functions.

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.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

The IFT2-RC450 is labelled with a unique FCC ID number. The label is placed underneath the left side of battery cover of the IFT2-RC450 remote control housing.

FCC ID: ULE2564-110

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.

Canada

The IFT2-RC450 is certified for use in Canada under Industry Canada (IC) Radio Standards Specification (RSS).

This device complies with Industry Canada license exempt RSS standard(s). 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.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes: (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

The IFT2-RC450 label displays the Industry Canada certification number as follows:

IC: 6732A-2564110

Please contact your Hearth & Home Technologies dealer with any questions or concerns.

For the location of your nearest
Hearth & Home Technologies dealer,
please visit www.hearthnhome.com.