

### SERVICE MANUAL Model: SF-INS30-BK - Instructions -

**NOTICE! DO NOT discard any hardware while servicing.** It must be reused.

This manual will assist a qualified service technician in the replacement of parts. Contact your dealer to arrange a service call by a qualified service technician.

Replacement parts include:		
Description	Part Number(s)	
Front	FRONT-INS30	
Glass	GLA-INS30	
Log/Grate Assembly	LOGS-IN30	
Flame Screen	FLAME-INS30	
Remote	REMOTE-INS30	
LED Lighting	LED-INS30	
Heater/Control Board Assembly	HEATER-INS30	
Rotisserie Motor and Rod	ROTISS-INS30	
Remote Receiver	RECEIVER -ELECT	
Hardware	HRDW-BI	

WARNING: If the information in these instructions is not followed exactly it may result in personal injury and/or property damage.

**CAUTION!** Risk of Cuts, Abrasions or Flying Debris. Wear protective gloves and safety glasses during installation and service. Sheet metal edges are sharp.

#### **Tools and Supplies Needed**

Before beginning the installation be sure that the following tools and building supplies are available.

- Pliers
- Phillips screwdriver
- Safety glasses
- Flat blade screwdriver

#### **Replacement Instructions**

WARNING! Risk of Shock! Always disconnect power before disassembly or servicing.

#### Front Replacement (FRONT-INS30)

- 1. If necessary, place a drop cloth or other material on the hearth or flooring to prevent scratching.
- 2. Grasp front with two hands. Pull straight back to disengage front from appliance.
- 3. Install replacement front by aligning the tabs on its back side with the glass C-channel located on the top face of the appliance. Press evenly with two hands to fully engage the front to the appliance.

#### **Glass Front Replacement (GLA-INS30)**

- 1. If necessary, place a drop cloth or other material on the hearth or flooring to prevent scratching.
- 2. Remove front. Refer to Front Replacement section for details.
- 3. Locate C-channel that retains top edge of glass panel. While supporting the glass, remove the screw located in the C-channel at the top two corners of the glass panel. See Figure 1.
- 4. Pivot glass away from appliance and lift out of bottom retainer channel.
- 5. Install replacement glass into bottom retainer channel. Take care to properly align the glass with the rubber seal inside the top and bottom retainers.
- 6. Install C-channel on top edge of replacement glass.
- 7. Align C-channel with screw holes in appliance. See Figure 1.
- 8. While supporting glass, install both screws through top C-channel retainer into appliance. Do not over tighten screws.
- 9. Re-install front.

# Log/Grate Assembly Replacement (LOGS-INS30)

- 1. If necessary, place a drop cloth or other material on the hearth or flooring to prevent scratching.
- 2. Remove front. Refer to Front Replacement section for details.
- 3. Remove glass. Refer to Glass Replacement section for details.
- Locate rubber plugs in each end of the grate. Remove plugs with a small flat screwdriver. Save for later use. See Figure 2.
- 5. Remove Phillips screw from each end of grate. Lift grate from faux ember bed. Take care to retain screws for grate. See Figure 2.
- Grasp log ember bed and gently lift up and out of opening; do not pull too far as to damage the wiring. Rotate ember bed to expose electrical wiring.
- 7. Disconnect lighting LED power source pin connector from back side of ember bed. See Figure 3.
- Position the log assembly and reconnect lighting LED power source pin connector to back side of replacement ember bed. See Figure 3.
- Rotate log ember bed and align with floor of opening. Engage back side of ember bed into the opening. Pivot the front of the ember bed into position flat on the floor of the opening. Take care not to pinch wiring under log ember bed.
- 10. Align the grate over the steel brackets under the ember bed. Ensure that wiring is not pinched between log ember bed and steel bracket. See Figure 2.
- 11. Install and tighten the screw in each end of the grate. See Figure 2.
- 12. Install rubber plugs into holes in each end of grate. See Figure 2.
- 13. Re-install glass.
- 14. Re-install front.

# Flame Screen Replacement (FLAME-INS30)

- 1. If necessary, place a drop cloth or other material on the hearth or flooring to prevent scratching.
- 2. Remove front. Refer to Front Replacement section for details.
- 3. Remove glass. Refer to Glass Replacement section for details.
- 4. Remove log/grate assembly. Refer to Log/Grate Assembly Replacement section for details.
- 5. Remove 5 screws holding the plastic diffuser brackets and panel in place. See Figure 4
- 6. Remove the flame screen bracket and panel by removing five screws that attach it to the appliance chassis. See Figure 5.
- Install the replacement flame screen panel, smooth side facing out, and attach with five screws. See Figure 5.
- 8. Re-install plastic diffuser panel and panel brackets. See Figure 4.
- 9. Re-install log/grate assembly.
- 10. Re-install glass.
- 11. Re-install front.

#### **LED Lighting Replacement**

#### (LED-INS30)

Note: Kit includes all three LED light strip assemblies.

- 1. If necessary, place a drop cloth or other material on the hearth or flooring to prevent scratching.
- 2. Remove front. Refer to Front Replacement section for details.
- 3. Remove glass. Refer to Glass Replacement section for details.
- 4. Remove log/grate assembly. Refer to Log/Grate Assembly Replacement section for details.
- 5. Remove Flame Screen. Refer to Flame Screen Replacement section for details.
- Remove the two metal brackets in front of rear LED strip. Remove four screws to remove metal parts. See Figure 6.
- Locate Lighting LED circuit input power source connectors in rear of opening. Unplug the two connectors and jumper wire from the three circuit boards. See Figure 7. If epoxy will not allow separation of the two connectors, slide the pair of connectors off the pins of the LED circuit board.
- Using a pliers, compress each barbed clip along the two base LED circuit boards while lifting the boards evenly to disengage them from the clips. See Figure 7. Use pliers to open clips along rear LED strip while lifting to disengage it from the clips. See Figure 8.
- 8. Remove all three lighting LED circuit boards.
- Install replacement lighting LED circuit boards into the appliance. Fully engage all clips. See Figure 7 and 8.
- 11. Connect the two lighting LED power source connectors and the jumper wire to the three LED circuit boards. See Figure 7.
- 12. Install metal brackets by attaching with four screws. See Figure 6.
- 13. Re-install Flame Screen.
- 14. Re-install log/grate assembly.
- 15. Re-install glass.
- 16. Re-install front.

#### Heater/Control Board Assembly

#### (HEATER-INS30)

- 1. If necessary, place a drop cloth or other material on the hearth or flooring to prevent scratching.
- 2. Remove front. Refer to Front Replacement section for details.
- 3. Remove glass. Refer to Glass Replacement section for details.
- 4. Remove two thumb screws from upper rear of appliance cavity. See Figure 9.
- 5. Remove four screws from upper face of appliance. Take care to support the Blower/Heater Module while the screws are removed. See Figure 9.
- 6. Remove the Blower/Heater Module by lifting back edge slightly then pulling it straight back from the appliance opening.
- 7. Locate the seven electrical connectors on the right side of the appliance cavity. Disconnect each of the seven connectors. See Figure 10.
- Reconnect the seven connectors from the replacement Blower/Heater module to the appliance. See Figure 10.
- Carefully align the replacement Blower/Heater module horizontally with the opening of the appliance. Install it straight into the opening so that the back edge interlocks with the back wall of the appliance.
- 10. While supporting the Blower/Heater Module, install the four screws across the upper face of the appliance. See Figure 9.
- 11. Install the two thumb screws in the upper rear of the appliance cavity. See Figure 9.
- 12. Re-install glass.
- 13. Re-install front.

#### **Rotisserie Motor and Rod**

#### (ROTISS-INS30

- 1. If necessary, place a drop cloth or other material on the hearth or flooring to prevent scratching.
- 2. Remove front. Refer to Front Replacement section for details.
- 3. Remove glass. Refer to Glass Replacement section for details.
- 4. Remove log/grate assembly. Refer to Log/Grate Assembly Replacement section for details.
- 5. Remove Flame Screen. Refer to Flame Screen Replacement section for details.
- 6. Disengage rotisserie rod from motor located in right rear of cavity. Use hand to shift the reflector rod to the left until the rubber coupler on the right end disengages from the motor shaft. See Figure 11.
- Remove metal panel on right side of cavity to allow access to the rotisserie motor and wiring connections. Remove two screws to remove panel. See Figure 12.
- Remove three screws that attach motor mount bracket to the appliance chassis and cut the wire tie. See Figure 13.
- 9. Remove the motor and bracket from the chassis until the electrical connector is visible. See Figure 13.
- 10. Disconnect the electrical connector to the motor. See Figure 13.
- 11. Install the replacement motor on the bracket.
- 12. Reconnect the electrical connector between the motor and the appliance. See Figure 13.
- 13. Install the motor mount bracket to the chassis with three screws. See Figure 13.
- 14. Install the replacement reflector rod. Install the left end of the rod into the bushing in the left rear of the cavity. Align the rubber coupler with the motor shaft. Shift the rod to the right until the rubber coupler fully engages the motor shift. See Figure 11.
- 15. Reinstall metal bracket in front of faux motor. Install two screws to fasten the panel. See Figure 12.
- 16. Re-install flame screen.
- 17. Re-install log/grate assembly.
- 18. Re-install glass.
- 19. Re-install front.

#### **Remote Receiver Replacement**

#### (RECEIVER-ELECT)

- 1. If necessary, place a drop cloth or other material on the hearth or flooring to prevent scratching.
- 2. Remove front. Refer to Front Replacement section for details.
- 3. Remove glass. Refer to Glass Replacement section for details.
- 4. Remove log/grate assembly. Refer to Log/Grate Assembly Replacement section for details.
- 5. Remove 5 screws holding the plastic diffuser brackets and panel in place. See Figure 4.
- The remote receiver is positioned in the center of the appliance behind the plastic diffuser panel. Using a pliers, compress each barbed clip while lifting the remote receiver board evenly to disengage it from the clip. See Figure 14.
- 7. Disconnect the wiring harness from the top of the receiver. See Figure 14.
- 8. Securely reconnect the wiring harness to the new remote receiver. See Figure 14
- 9. Carefully align the new remote receiver board to the barbed clips and push in place. See Figure 14.
- 10. Re-install the plastic diffuser brackets and panel.
- 11. Re-install log/grate assembly.
- 12. Re-install glass.
- 13. Re-install front.



Figure 1 Top Glass Retainer Screw Location

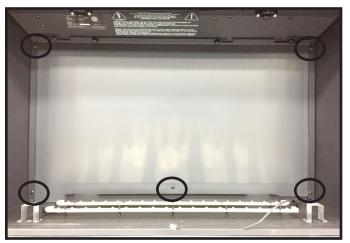


Figure 4 Removal installation of Plastic Diffuser Panel



Figure 2 Grate and Log Screw Location



Figure 5 Flame Screen Replacement

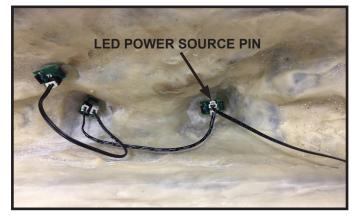


Figure 3 Light LED Connection on Bottom of Log Ember Bed



Figure 6 Bracket Removal

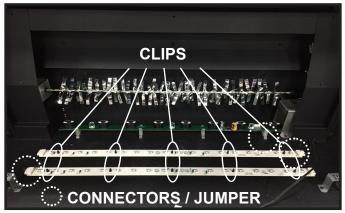


Figure 7 Light LED Replacement

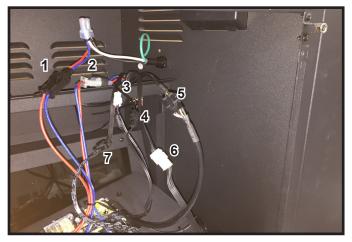


Figure 10 Seven Electrical Connections required for Heater/ Blower Module Removal and Installation



Figure 8 Light LED Replacement

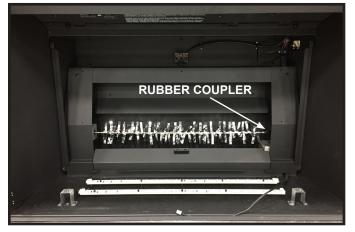


Figure 11 Rotisserie Rod Removal



Figure 9 Four Screws and two thumb screws that attach Blower/Heater Module to the Appliance

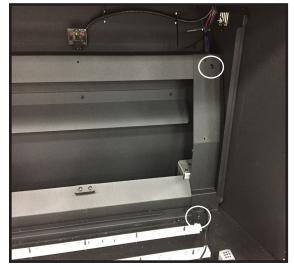


Figure 12 Remove Panel

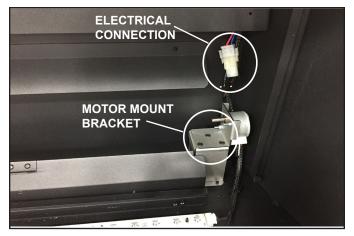


Figure 13 Motor Replacement



Figure 14 Remote Receiver Replacement

## SimpliFire Troubleshooting Guide

Symptom	Possible Cause	Corrective Action
Circuit breaker trips or fuse blows when unit is turned on	Exceeding current rating of the circuit breaker or fuse, perhaps from operating other appliances on the same circuit as the fireplace	Install unit onto a dedicated 15 amp circuit.
Lights in room dim while the unit is on	Unit is drawing close to circuit current rating	Install unit onto a dedicated 15 amp circuit.
Fireplace will not come on when using the manual controls on the unit	Appliance is not plugged into an electrical outlet	Ensure plug is connected to a working outlet.
	Hard-wire connections not correct (if applicable)	Review wiring instructions to ensure correct connection.
	No incoming power from the electrical outlet or electrical box	Check fuse/breaker panel.
	Defect in control board (PCB)	Replace the control board (PCB).
	Low/dead batteries	Replace batteries in the remote.
Remote control does not work	Remote receiver is blocked, or remote is not pointed directly at the receiver.	Ensure receiver is not blocked. Move closer to the appliance.
	Appliance power switch is in the off "O" position (if equipped)	Turn the power switch on, to the "I" position (if equipped).
	Control board (PCB) malfunction?	Replace control board (PCB).
Heater will not turn on, but flame is functioning	Remote is in thermostat mode and room temperature (temperature at appliance thermistor) is higher than the set point on the remote	Increase thermostat set point on the remote, or exit thermostat mode (press the thermostat button until no temperature set point is displayed on the remote). See "Room Temperature and Thermostat Function" section of the manual.
	Appliance has overheated and safety thermal switch has tripped	Unplug or turn off power at circuit breaker and allow it to cool for 15 minutes. Then plug in the unit or turn power back on at circuit breaker and turn unit back on.
	Defective main control board	Replace control board (PCB).
	Defective heater assembly	Replace heater assembly.
Heater shuts off automatically or won't stay on	Room temperature (temperature at the appliance thermistor) is higher than the set point on the remote	Increase thermostat set point on the remote, or exit thermostat mode (press the thermostat button until no temperature set point is displayed on the remote). See "Room Temperature and Thermostat Function" section of the manual.
	Appliance has overheated and safety thermal switch has tripped	Unplug or turn off power at circuit breaker and allow it to cool for 15 minutes. Then plug in the unit or turn power back on at circuit breaker and turn unit back on.
Heater emits an odor	Normal operation	It is normal for the heater to emit an odor for a brief amount of time after turning on. It is burning off dust that has accumulated on the heater.
Flame does not move at all	Flame rotisserie motor is stalled or malfunctioning	Cycle unit on or off. If problem persists inspect rotisserie and motor for blockage or interference. If no interference, replace the control board (PCB) and rotisserie motor.
Portion of the flame not moving or deformed flame effect	Flame LEDs out of place or dislodged from the LED mounting bracket	Properly reposition flame LEDs into their mounting bracket. See service manual for how to access flame LEDs.
Visible ghosting on the flame screen that does not move with the flame	Downward LED accent lighting (if equipped) is shining on the flame screen instead of directly down on the ember bed	Inspect downward accent lighting and reposition so no light is projecting back onto the flame screen.
Flame shudder	Flame rotisserie contacting other internal components when spinning	Ensure rod is straight and mounted properly and is spinning freely without spindles hitting other components.
	Defective flame rotisserie motor	Replace rotisserie motor.

### SimpliFire Troubleshooting Guide (continued)

Symptom	Possible Cause	Corrective Action
Ember bed does not light up	Ember bed is turned off	Refer to operation section of the user manual.
	Loose wiring	Check wiring to ember bed LEDs.
	Defective control board (PCB)	Replace control board (PCB).
	Defective LED lights	Replace ember bed LED lights.
Fireplace turns on by itself	Defective control board (PCB)	Replace control board (PCB.)
	Similar infrared signal from another remote causing unit to turn on (pre-2019 manufactured units only)	Some TV remotes may cause the fireplace to turn on for appliances manufactured before 2019. Replace control board (PCB).
Excessive noise with heater on	Interference with fan blade	Inspect heater assembly and fan for obstructions or interference.
	Defective blower motor	Replace heater assembly.
Grinding or rubbing noise (when heater is off)	Rotisserie hitting or rubbing against internal components	Ensure rotisserie rod is straight and mounted properly and is spinning freely without spindles hitting other components. If sound is coming from friction with the rotisserie bracket, apply grease to contact point

SimpliFire, a brand of Hearth & Home Technologies 7571 215<sup>th</sup> Street West, Lakeville, MN 55044 www.hearthnhome.com