

Installation Guide

Model

BF33STP/DXP

BF39STP/DXP

BF45DXP

IMPORTANT SAFETY INFORMATION: Always read this manual first before attempting to install or use this fireplace. For your safety, always comply with all warnings and safety instructions contained in this manual to prevent personal injury or property damage.

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! NOTE: Procedures and techniques that are considered important enough to emphasize.

⚠ CAUTION: Procedures and techniques which, if not carefully followed, will result in damage to the equipment.

⚠ WARNING: Procedures and techniques which, if not carefully followed, will expose the user to the risk of fire, serious injury, or death.

LISTING AND CODE APPROVALS

The BF series fireplaces have been tested in accordance with the UL 2021 and CSA C22.2 No. 46 standards for fixed and location-dedicated electric room heaters.

MODEL SPECIFICATIONS

Model Number	Description	Voltage	Rated Power (Watts)	Remote Control	Wall Thermostat	Refractory Brick Look	Current Draw (Amps)			
							No Heat 120V	120V	208V	240V
BF45DXP	45" Deluxe	120/120/ 208/240	245/1440/ 2100/2700	Optional	Optional	Included	2.0	12.0	10.10	11.25
BF39DXP	39" Deluxe					Included	2.0	12.0	10.10	11.25
BF39STP	39" Standard					N/A	2.0	12.0	10.10	11.25
BF33DXP	33" Deluxe					Included	2.0	12.0	10.10	11.25
BF33STP	33" Standard					N/A	2.0	12.0	10.10	11.25

! **NOTE:** Power ratings shown include the light bulbs and motors (275 watts)

The installation of the fireplace unit must comply with the applicable Local and/or National Electrical Codes and utility requirements. This installation should be entrusted to duly qualified personnel where required by law.

STEP-BY-STEP INSTALLATION

! **NOTE:** Please read all instructions before installing.

1. Rough in framing opening following the recommended dimensions located in Section A: Framing Dimensions.
2. Allow 8" (20.3 cm) of service cable for connecting power supply wire to junction box on fireplace when installing before finishing wall. Allow up to 4' (121.9 cm) of service cable for connecting power supply wire to junction box on fireplace when installing after finishing wall. Remove the outer jacket and strip the individual conductors ½" (1.3 cm) from the end.
3. Loosen the screw securing the junction box cover and remove the cover.
4. Remove knockouts, if necessary, or use the provided cable clamp.
5. Place unit in position in the framed opening, level with shims if necessary and attach unit to frame using mounting flanges provided (Figure 2).

6. Unit is factory wired for 208/240V power supply. If 120V operation is required, slide the switch and reconfigure the wiring (Section C). Wires L1, L2, N & G are attached to the rear of the junction box cable clamp for easy access.

! **NOTE:** If wiring unit to operate with **NO** heat a dedicated circuit may not be required.

7. Wire a dedicated, properly fused circuit with a 15amp rating for the appropriate voltage (120V, 208/240V). See Section C for factory setting wiring.
8. Make wall switch and or wall mounted thermostat connections as outlined in Section D.
9. Place all connectors inside the unit and secure the junction box cover to unit. Ensure that the cable clamp grips only the jacket of service cable, thermostat and if applicable wall switch lines.

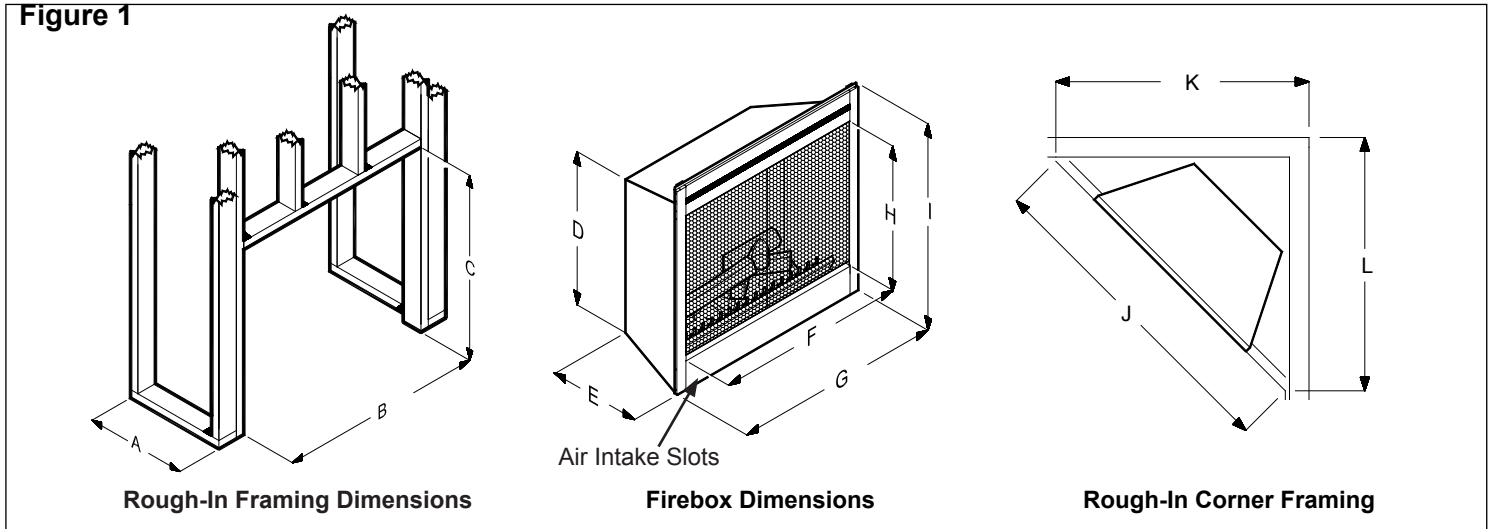
⚠ WARNING: Ensure method of installation does NOT obscure the air intake slots on bottom front of unit in any manner. (See diagram in Section A)

SECTION A: INSTALLATION INFORMATION

FRAMING DIMENSIONS

Model	A	B	C	D	E	F	G	H	I	J	K	L
BF45DXP	16.0" (40.5cm)	45.5" (115.6cm)	33.5" (85.1cm)	30.1" (76.5cm)	15.3" (38.9cm)	42.0" (106.7cm)	44.7" (113.5cm)	22.8" (57.9cm)	32.7" (83.1cm)	60.0" (152.4cm)	42.0" (106.7cm)	42.0" (106.7cm)
BF39STP/DXP	16.0" (40.5cm)	39.5" (100.3cm)	33.5" (85.1cm)	30.1" (76.5cm)	15.3" (38.9cm)	36.0" (91.4cm)	38.7" (98.3cm)	22.8" (57.9cm)	32.7" (83.1cm)	54.0" (137.2cm)	38.0" (96.5cm)	38.0" (96.5cm)
BF33STP/DXP	15.0" (38.1cm)	33.5" (85.1cm)	29.5" (75.0cm)	25.7" (65.3cm)	14.3" (36.3cm)	29.6" (75.2cm)	32.8" (83.3cm)	18.8" (47.8cm)	28.5" (72.4cm)	48.0" (121.9cm)	34.0" (86.4cm)	34.0" (86.4cm)

Figure 1



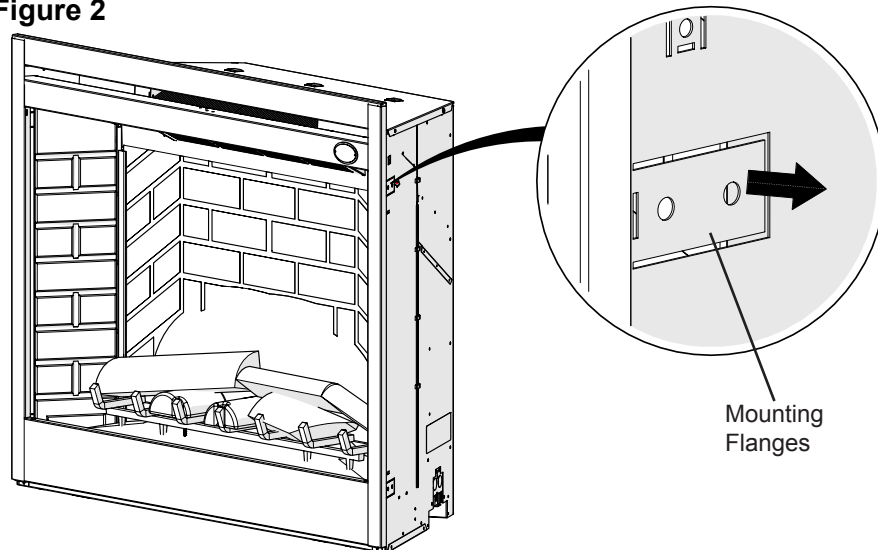
This fireplace is a zero clearance design, with the exception of the top of the unit, where any insulation and vapor barrier should be placed a minimum of 2" (5.1 cm) from the unit. No combustibles can be placed on the top surface of the fireplace.

CAUTION: Ensure installation does not allow fireplace to be in direct contact with building vapor barrier or insulation and meets all local building code.

Four mounting flanges on the sides of the unit are provided to facilitate installation.

MOUNTING FLANGES

Figure 2



There are two mounting flanges located on each side of the fireplace insert.

From the inside of the unit, bend tabs outward and mount to the inside of the framing using suitable hardware.

SECTION B: GENERAL ELECTRICAL INFORMATION

RECOMMENDED POWER SUPPLY WIRE SPECIFICATIONS

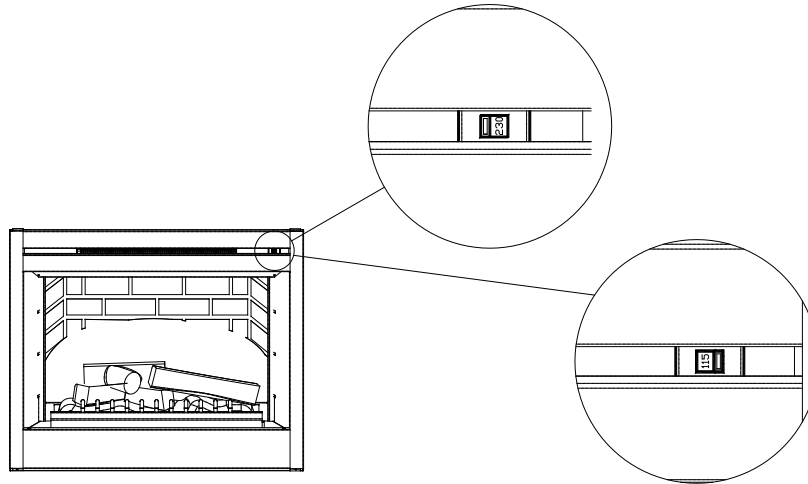
For 120V installations use two conductor, non-metallic sheath cable with ground wire (3 wires total) for the incoming power supply on fireplace inserts. Use the appropriate wire to meet local and national electrical codes for rated power consumption.

For 208V / 240V installations use three conductor, non-metallic sheath cable with ground wire (4 wires total) for the incoming power supply on fireplace inserts. Use the appropriate wire to meet local and national electrical codes for rated power consumption.

Two conductor, non-metallic sheath cable with ground wire (3 wires total) is recommended for installation of a wall mounted thermostat and/or wall switch for use on fireplace inserts. Use appropriate wire to meet local and national electrical codes for rated power consumption. All wire gauges should match the recommended wire sizes shown below.

Voltage	Wire Gauge	Fuse Rating
120 Volts	12 Gauge	15 Amp
208 Volts	12 Gauge	15 Amp
240 Volts	12 Gauge	15 Amp

VOLTAGE SELECTOR SWITCH LOCATION



! IMPORTANT: Ensure that the incoming power supply voltage matches the setting of the voltage selector switch.

! NOTE: The voltage selector switch is located inside the exhaust panel on the top right hand corner.

⚠ CAUTION: When changing the voltage selector switch from 240V to 120V ensure that the power supply is turned off.

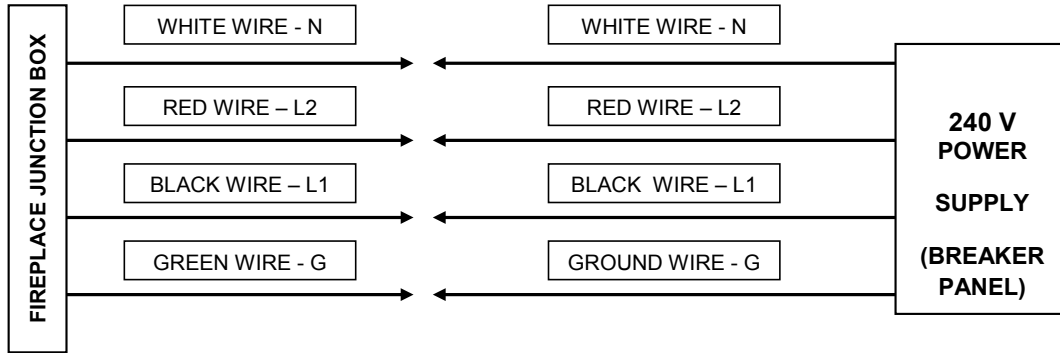
! NOTE: Carefully insert a flat headed screwdriver inside the exhaust panel to change the switch from 240V (230 position) to 120V (115 position).

When wiring the unit for 208V / 240V the voltage selector switch should be in the 230V position.

When wiring the unit for 120V the voltage selector switch should be in the 115V position.

SECTION C: DIRECT POWER WIRING

240V INSTALLATION



! **IMPORTANT:** The unit is factory configured for 208/240V operation.

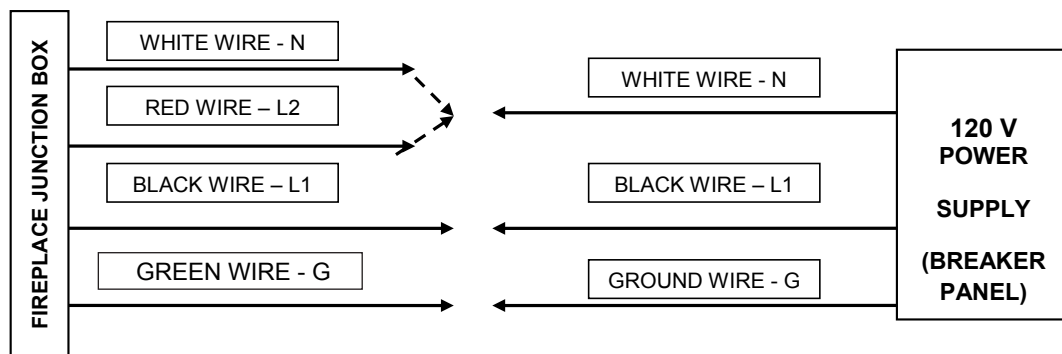
! **NOTE:** Use 3 conductor wires with ground (4 wires total) from the power supply (breaker panel) to the junction box on the unit.

! **NOTE:** All wiring must be completed prior to installing the unit.

! **NOTE:** Ensure that the voltage selector switch is in the proper position for the required supply voltage prior to connecting the unit to the power supply.

1. Locate the voltage selector switch inside the exhaust panel on the top right hand corner of the unit. **Ensure that the switch is in the 240V position. (230 is printed on switch)**
2. Loosen the screw securing the junction box cover and remove the cover.
3. Remove the knockouts (if necessary) or use the provided cable clamp.
4. Pull out the four wires marked L1, L2, N, and G.
5. Connect L1 (black) from the unit to the L1 (black) from the power supply.
6. Connect L2 (red) from the unit to the L2 (red) from the power supply.
7. Connect N (white) from the unit to the to the Neutral (white) from the power supply.
8. Connect the ground wire (green) from the unit to the ground from the power supply.
9. Ensure that all connections are tight.
10. Insert all the wiring back into the unit and secure with a cable clamp.

120V INSTALLATION



! **IMPORTANT:** The unit is factory configured for 208/240V operation.

! **NOTE:** Use 2 conductor wires with ground (3 wires total) from the power supply (breaker panel) to the junction box on the unit.

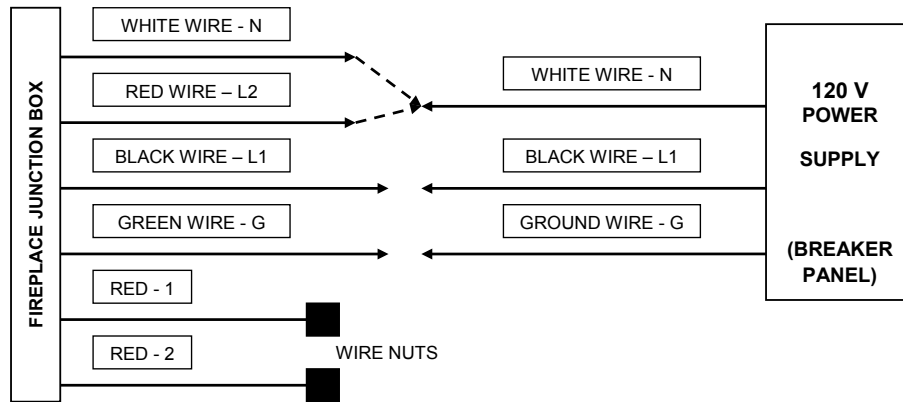
! **NOTE:** All wiring must be completed prior to installing the unit.

! **NOTE:** Ensure that the voltage selector switch is in the proper position for the required supply voltage prior to connecting the unit to the power supply.

1. Locate the voltage selector switch inside the exhaust panel on the top right hand corner of the unit. **Flip the switch from 240V to 120V configuration. (230 and 115 is printed on switch)**
2. Loosen the screw securing the junction box cover and remove the cover.

3. Remove the knockouts (if necessary) or use the provided cable clamp.
4. Pull out the four wires marked L1, L2, N, and G.
5. Connect L1 (black) wire from the unit to the L1 (black) from the power supply.
6. Connect L2 (red) and N (white) from the unit to the Neutral (white) from the power supply.
7. Connect the ground wire (green) from the unit to the ground from the power supply.
8. When the unit has been configured for the appropriate power supply voltage, ensure that all connections are tight.
9. Insert all the wiring back into the unit and secure with a cable clamp.

120V INSTALLATION - NO HEAT INSTALLATION



! **IMPORTANT:** The unit is factory configured for 208/240V operation.

! **NOTE:** Use 2 conductor wires with ground (3 wires total) from the power supply (breaker panel) to the junction box on the unit.

! **NOTE:** All wiring must be completed prior to installing the unit.

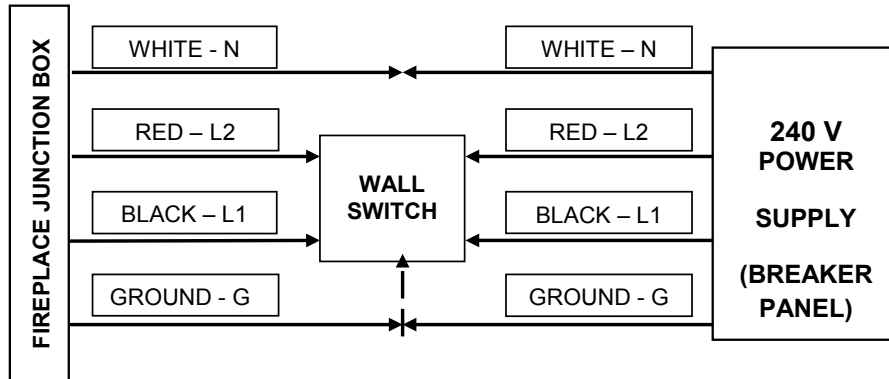
! **NOTE:** Ensure that the voltage selector switch is in the proper position for the required supply voltage prior to connecting the unit to the power supply.

! **NOTE:** Purifire™ will operate without heat in this application.

1. Locate the voltage selector switch inside the exhaust panel on the top right hand corner of the unit. **Flip the switch from 240V to 120V configuration. (230 and 115 is printed on switch)**
2. Loosen the screw securing the junction box cover and remove the cover.
3. Remove the knockouts (if necessary) or use the provided cable clamp.
4. Pull out the four wires marked L1, L2, N, and G.
5. Connect L1 (black) wire from the unit to the L1 (black) from the power supply.
6. Connect L2 (red) and N (white) from the unit to the Neutral (white) from the power supply.
7. Connect the ground wire (green) from the unit to the ground from the power supply.
8. Locate and separate, by installing a wire nut on the 1 (red) and 2 (red).
9. When the unit has been configured for the appropriate power supply voltage, ensure that all connections are tight.
10. Insert all the wiring back into the unit and secure with a cable clamp.

SECTION D: ALTERNATE CONTROL OPTIONS

240V MAIN POWER WALL SWITCH



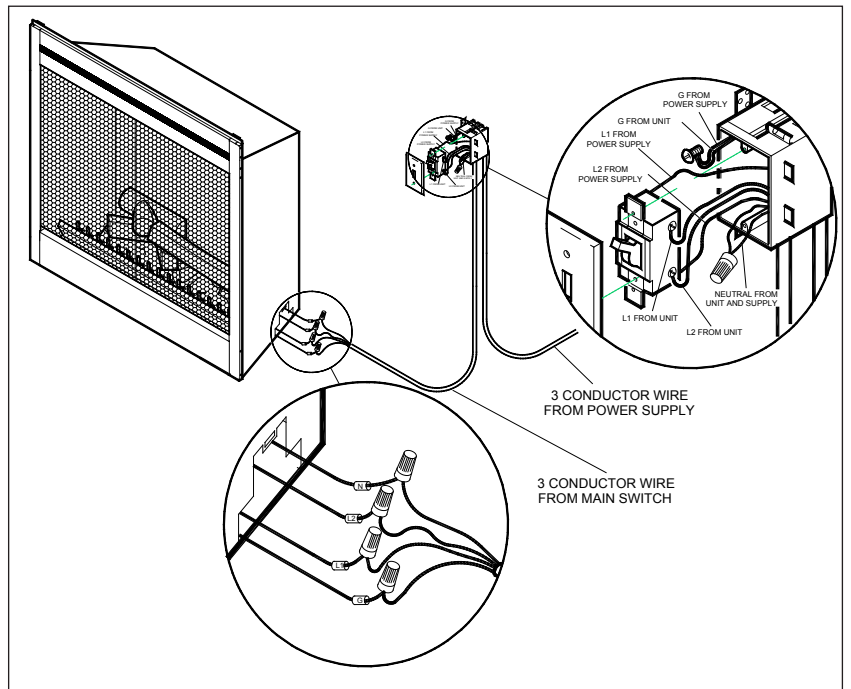
! **NOTE:** This option should **not** be used with the remote control kit.

! **NOTE:** Before installing the unit have the following wires installed:

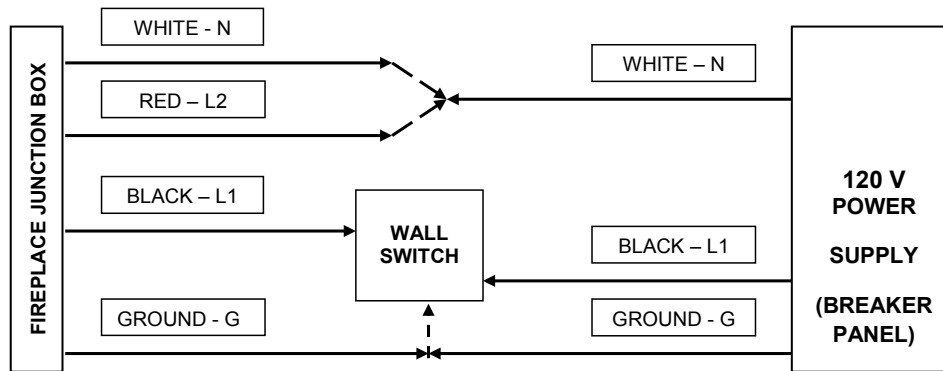
1. A 3 conductor wire with ground (4 wires total) from the power supply panel to the main switch wall box.
2. A 3 conductor wire with ground (4 wires total) from the main switch wall box to the junction box on the unit.

! **NOTE:** Use a double pole, single throw (On/Off) wall switch that is rated for a minimum of 15 amps.

1. Locate the voltage selector switch inside the exhaust panel on the top right hand corner of the unit. **Ensure that the switch is in the 240V position. (230 is printed on switch)**
2. Loosen the screw securing the junction box cover and remove the cover.
3. Remove the knockouts (if necessary) or use the provided cable clamp.
4. Pull out the four wires marked L1, L2, N, and G. (black, red, white and green)
5. Connect the L1 (black) wire from the unit to the L1 (black) wire from the main power wall switch by using a wire connector (not supplied).
6. Connect other end of L1 (black) wire from the main power wall switch to the L1 terminal of the main power wall switch.
7. Connect the L2 (red) wire from the unit to the L2 (red) wire from the main power wall switch by using a wire connector (not supplied).
8. Connect the other end of the L2 (red) wire from the main power wall switch to the L2 terminal of the main power wall switch.
9. Connect the N (white) wire from the unit to the N (white) wire from the main power wall switch by using a wire connector (not supplied).
10. Connect the G (green) wire from the unit to the G (green) wire from the main power wall switch by using a wire connector (not supplied).
11. Connect the L1 wire from the power supply to the L1 terminal of the main power wall switch.
12. Connect the L2 (black) wire from the power supply to the L2 terminal of the main power wall switch.
13. Connect the N (white) wire from the power supply to the remaining N (white) wire from the unit by using a wire connector.
14. Secure the 2 remaining G (green) wires with a ground screw in the main switch wall box.
15. Ensure that all connections are tight.
16. Insert all the wiring of the main power wall switch into the main switch wall box.
17. Insert all the wiring back into the unit and secure with a cable clamp.



120V MAIN POWER WALL SWITCH



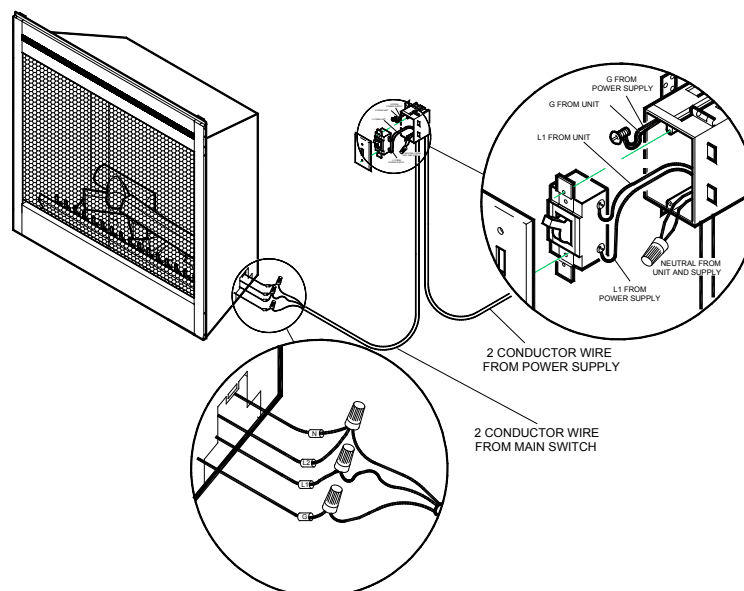
! **NOTE:** This option should **not** be used with the remote control kit.

! **NOTE:** Before installing the unit have the following wires installed:

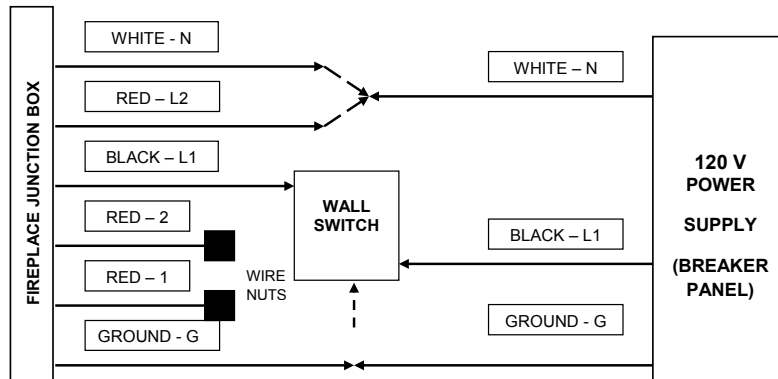
1. A 2 conductor wire with ground (3 wires total) from the power supply panel to the main switch wall box.
2. A 2 conductor wire with ground (3 wires total) from the main switch wall box to the junction box on the unit.

! **NOTE:** Use a single pole, single throw (On/Off) wall switch that is rated for a minimum of 15 amps.

1. Locate the voltage selector switch inside the exhaust panel on the top right hand corner of the unit. **Ensure that the switch is in the 120V position. (115 is printed on switch)**
2. Loosen the screw securing the junction box cover and remove the cover.
3. Remove the knockouts (if necessary) or use the provided cable clamp.
4. Pull out the four wires marked L1, L2, N, and G (black, red, white and green).
5. Connect L1 (black) from the unit to the L1 (black) from the main power wall switch using a wire connector (not supplied).
6. Connect the other end of L1 (black) to the L1 terminal of the main power wall switch.
7. Connect L2 (red) from the unit and N (white) from the unit to the Neutral wire (white) of the main power wall switch by using a wire connector (not supplied).
8. Connect the other end of the N (white) to the Neutral wire (white) from the power supply panel by using a wire connector (not supplied).
9. Connect Ground (green) from the unit to the Ground (green) wire of the main power wall switch by using a wire connector (not supplied).
10. Connect L1 (black) wire from the power supply to the L1 terminal of the main power wall switch.
11. Secure the 2 remaining Ground wires (green) with a ground screw in the main switch wall box.
12. Ensure that all connections are tight.
13. Insert all the wiring of the main power wall switch into the main switch wall box.
14. Insert all the wiring back into the unit and secure with a cable clamp.



120V MAIN POWER WALL SWITCH - NO HEAT



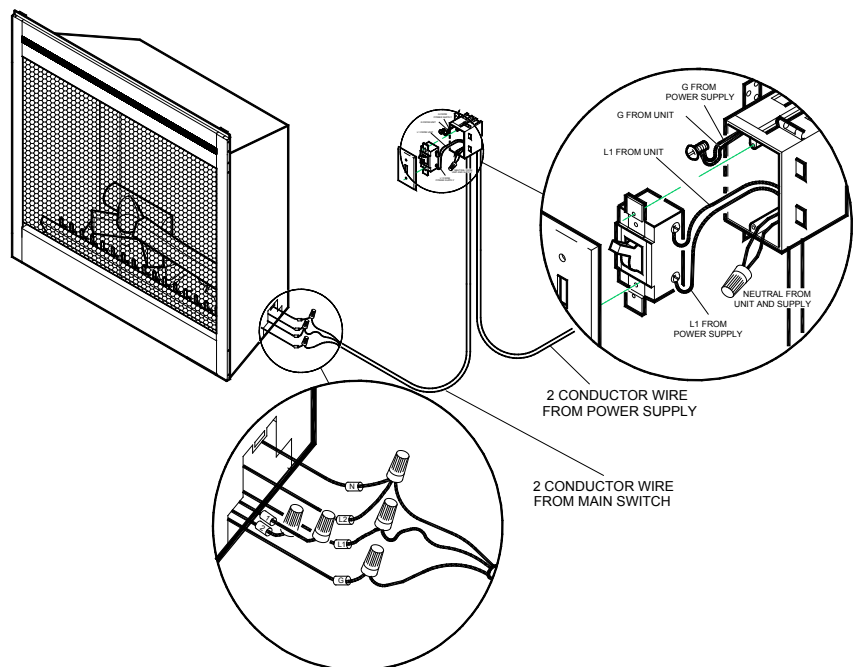
! **NOTE:** This option should not be used with the remote control kit.

! **NOTE:** Before installing the unit have the following wires installed:

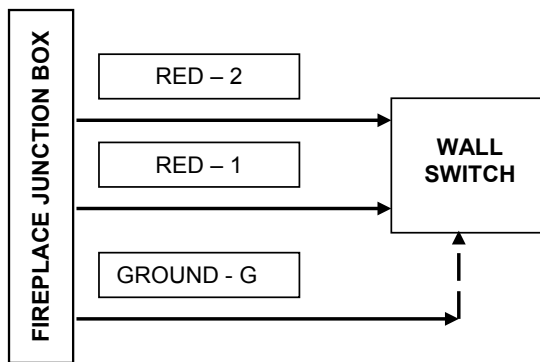
1. A 2 conductor wire with ground (3 wires total) from the power supply panel to the main switch wall box.
2. A 2 conductor wire with ground (3 wires total) from the main switch wall box to the junction box on the unit.

! **NOTE:** Use a single pole, single throw (On/Off) wall switch that is rated for a minimum of 15 amps.

1. Locate the voltage selector switch inside the exhaust panel on the top right hand corner of the unit. **Ensure that the switch is in the 120V position. (115 is printed on switch)**
2. Loosen the screw securing the junction box cover and remove the cover.
3. Remove the knockouts (if necessary) or use the provided cable clamp.
4. Pull out the four wires marked L1, L2, N, and G (black, red, white and green).
5. Connect L1 (black) from the unit to the L1 wire (black) from the main power wall switch using a wire connector (not supplied).
6. Connect the other end of the L1 wire (black) to the L1 terminal of the main power wall switch.
7. Connect L2 (red) from the unit and the N (white) from the unit to the Neutral wire (white) of the main power wall switch by using a wire connector (not supplied).
8. Connect the other end of the Neutral wire (white) to the Neutral wire (white) from the power supply panel by using a wire connector (not supplied).
9. Connect the Ground wire (green) from the unit to the Ground wire (green) of the main power wall switch by using a wire connector (not supplied).
10. Connect L1 (black) from the power supply to the L1 terminal of the main power wall switch.
11. Locate and separate by wire nut the 1 (red) and 2 (red).
12. Secure the 2 remaining Ground wires (green) with a ground screw in the main switch wall box.
13. Ensure that all connections are tight.
14. Insert all the wiring of the main power wall switch into the main switch wall box.
15. Insert all the wiring back into the unit and secure with a cable clamp.



120V/240V HEATER WALL SWITCH CONTROL

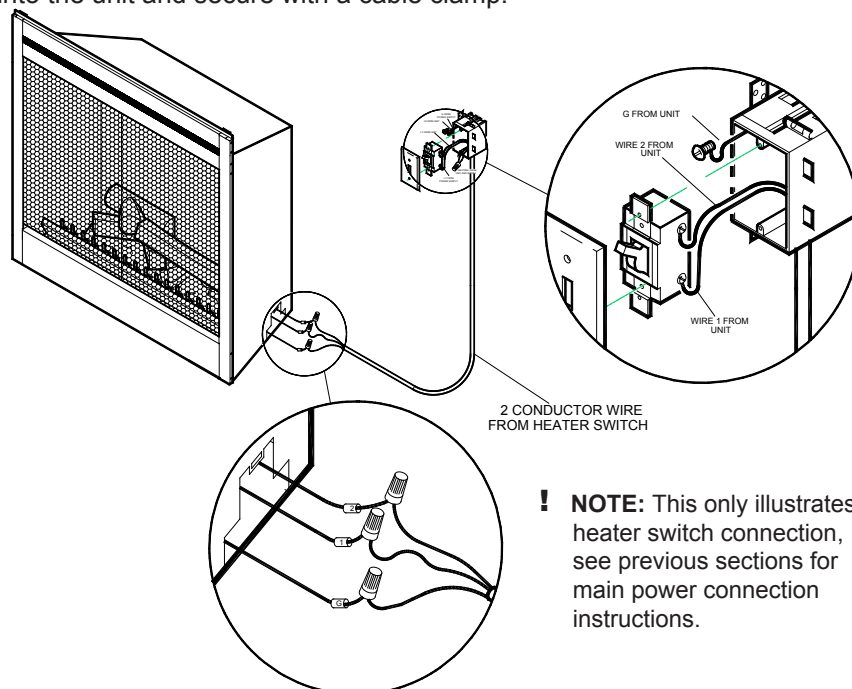


! NOTE: Before installing the unit complete the following:

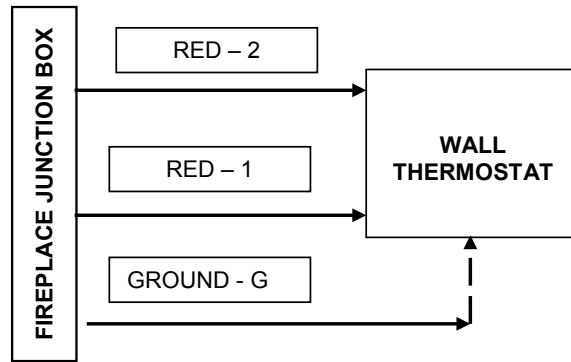
1. Install main power connection with appropriate wiring - directly to the main power or through a wall switch.
2. Install a 2 conductor wire with ground (3 wires total) from the heater switch wall box to the junction box on the unit.

! NOTE: Use a heater wall switch (On/Off) that is rated for a minimum of 15 amps.

1. Loosen the screw securing the junction box cover and remove the cover.
2. Remove the knockouts (if necessary) or use the provided cable clamp.
3. Pull out the three wires marked 1, 2, and G (red, red, and green).
4. Remove the wire connector and separate the wires marked 1 and 2.
5. Connect the 1 wire (red) from the unit to the L1 wire (black) from the heater wall switch by using a wire connector (not supplied).
6. Connect the other end of L1 wire (black) from the heater wall switch to the L1 terminal of the heater wall switch.
7. Connect the 2 wire (red) from the unit to the Neutral wire (white) from the heater wall switch using a wire connector (not supplied).
8. Connect the other end of the Neutral wire (white) from the heater wall switch to the L2 terminal of the heater wall switch.
9. Connect the Ground wire (green) from the unit to the Ground wire (green) from the heater wall switch using a wire connector (not supplied).
10. Secure the remaining Ground wire (green) with a ground screw in the heater switch wall box.
11. Ensure that all connections are tight.
12. Insert all the wiring of the heater wall switch into the heater switch wall box.
13. Insert all the wiring back into the unit and secure with a cable clamp.



120V/240V WALL MOUNTED THERMOSTAT



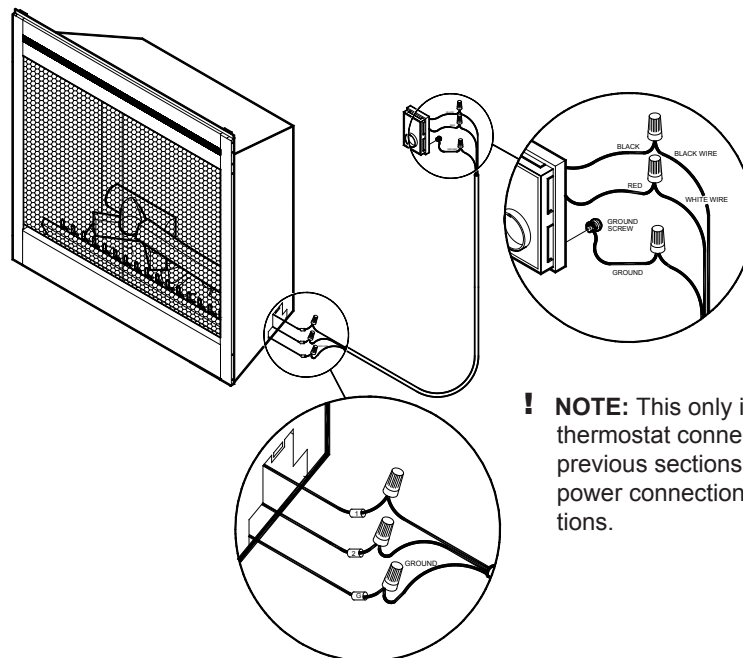
! **NOTE:** Before installing the unit complete the following:

1. Install main power connection with appropriate wiring - directly to the main power or through a wall switch.
2. Install a 2 conductor wire with ground (3 wires total) from the thermostat wall box to the junction box on the unit.

! **NOTE:** Wiring of the thermostat must be completed prior to installing the unit.

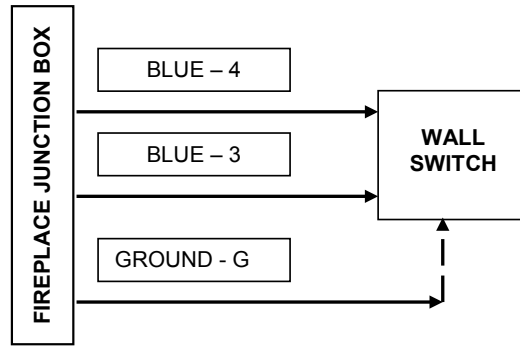
! **NOTE:** The following installation instructions are for a single pole thermostat.

1. Loosen the screw securing the junction box and remove the cover.
2. Remove the knockouts (if necessary) or use the provided cable clamp.
3. Pull out the three wires marked 1, 2, and G (red, red, and green).
4. Remove the wire connector and separate the wires marked 1 & 2.
5. Connect the 1 wire (red) from the unit to the Neutral (white) wire from the wall thermostat box by using a wire connector (not supplied).
6. Connect the other end of the Neutral (white) wire from the thermostat wall box to the red wire from the wall thermostat.
7. Connect the 2 wire (red) from the unit to the black wire from the thermostat wall box by using a wire connector (not supplied).
8. Connect the other end of the black wire from the thermostat wall box to the black wire from the wall thermostat.
9. Connect the Ground wire (green) from the unit to the Ground (green) wire from the thermostat wall box by using a wire connector (not supplied).
10. Connect the other end of the Ground wire (green) to the thermostat wall box ground screw.
11. Ensure that all connections are tight.
12. Insert all the wiring of the wall mounted thermostat into the wall box.
13. Insert all the wiring back into the unit and secure with a cable clamp.



! **NOTE:** This only illustrates thermostat connection, see previous sections for main power connection instructions.

120V/240V WALL MOUNTED FLAME OVERRIDE SWITCH



DO NOT USE WITH NO HEAT INSTALLATIONS

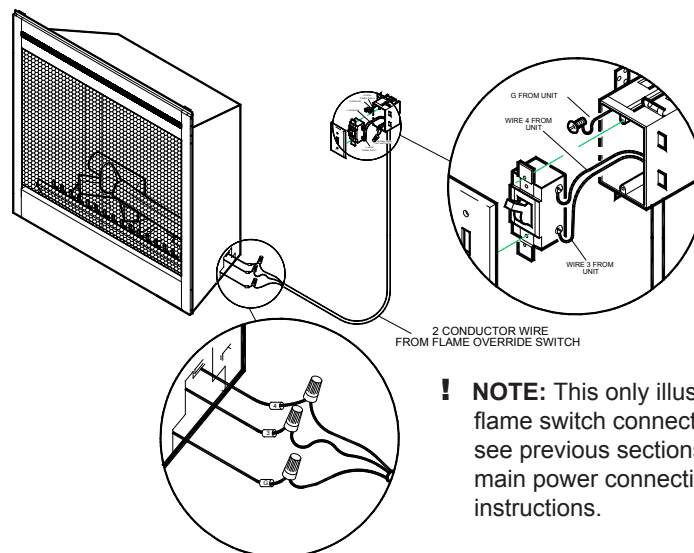
! **NOTE:** The fireplace can be wired to have a wall switch operate the flame independent of the heater.

! **NOTE:** Before installing the unit complete the following:

1. Install main power connection with appropriate wiring - directly to the main power or through a wall switch.
2. Install a 2 conductor wire with ground (3 wires total) from the flame override switch wall box to the junction box on the unit.

! **NOTE:** Use a wall switch (On/Off) that is rated for a minimum of 15 amps.

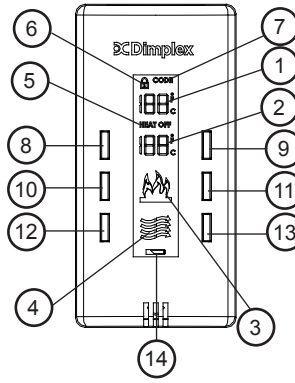
1. Loosen the screw securing the junction box cover and remove the cover.
2. Remove the knockouts (if necessary) or use the provided cable clamp.
3. Pull out the three wires marked 3, 4, and G (blue, blue, and green).
4. Remove the wire connector and separate the wires marked 3 and 4.
5. Connect 3 wire (blue) from the unit to the L1 wire (black) from the flame override wall switch by using a wire connector (not supplied).
6. Connect the other end of the L1 wire (black) from the flame override wall switch to the L1 terminal of the flame override wall switch.
7. Connect 4 wire (blue) from the unit to the Neutral wire (white) from the flame override wall switch using a wire connector (not supplied).
8. Connect the other end of the Neutral wire (white) from the flame override wall switch to the L2 terminal of the flame override wall switch.
9. Connect the Ground wire (green) from the unit to the Ground wire (green) from the flame override wall switch using a wire connector (not supplied).
10. Secure the remaining Ground wire (green) with a ground screw in the flame override switch wall box.
11. Ensure that all connections are tight.
12. Insert all the wiring of the heater wall switch into the heater switch wall box.
13. Insert all the wiring back into the unit and secure with a cable clamp.



! **NOTE:** This only illustrates flame switch connection, see previous sections for main power connection instructions.

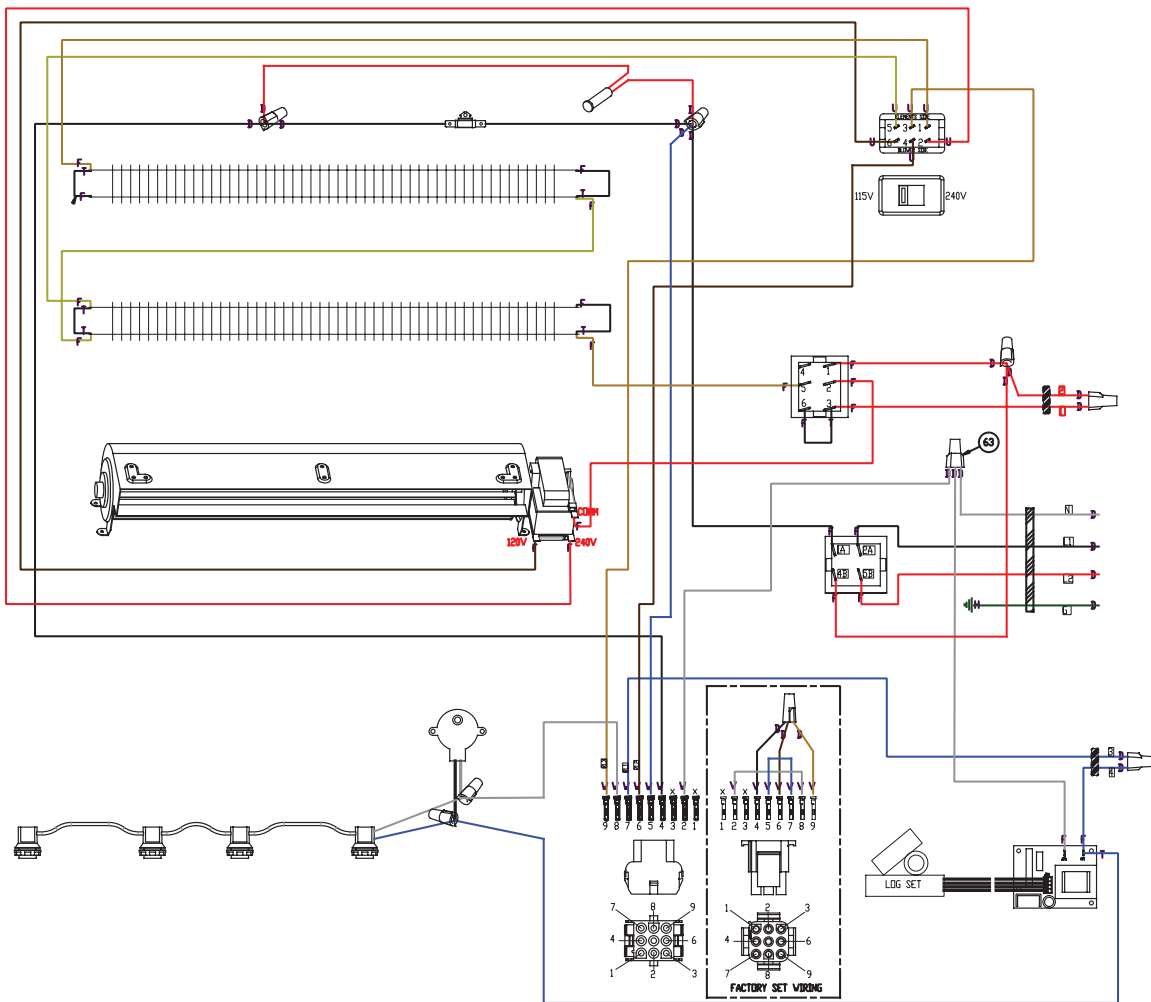
WALL REMOTE - WRCPF-KIT

- Can be used for 120V or 240V installations
- Battery or 24V powered
- 50' (15m) control range
- Built in Thermostat
- Flame On/Off Control
- Heat On/Off Control



1. Room Temperature
2. Set Temperature
3. Flame Effect
4. Purifire™
5. Heat Off Indicator
6. Function Lock Indicator
7. RF Code Function Indicator
8. Set Temperature Down
9. Set Temperature Up
10. Flame Off
11. Flame On
12. Purifire™ Off
13. Purifire™ On
14. Low Battery Indicator

UNIT INTERNAL WIRING DIAGRAM



! NOTE: Standard models do not have a log driver



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