

## GFK-160VF Fan Kit

This fan kit has been tested for use with specific Hearth & Home Technologies products. Check with your local building code agency before you begin installation to ensure compliance with local codes, including the need for permits and follow-up inspections. If you encounter any problems regarding code approvals, or if you need clarification of any of the instructions contained here, contact your Hearth & Home Technologies dealer. For the dealer nearest you, please visit [www.hearthnhome.com](http://www.hearthnhome.com).

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

### Introduction

The GFK-160VF fan has been designed to circulate room air through the firebox or appliance or appliance to enhance heat output. The GFK-160VF fan system operates on 120 VAC, 60 Hz power. This is available through a receptacle in the factory installed junction box. The junction box is located in the controls compartment of the firebox or appliance.

A variable speed control is provided with the fan system to provide quiet forced air flow at the desired speeds. A temperature sensor switch, which automatically turns the fan ON/OFF is also provided with this kit.

**NOTE:** The variable speed control and temperature sensor switch are not used with some remote control systems.

### Kit Contents:

Compare system components in Figure 1 with the actual parts received. If any parts are missing or damaged, contact your dealer before starting installation. Do not install a damaged light kit.

**CAUTION! Do not install damaged components.**

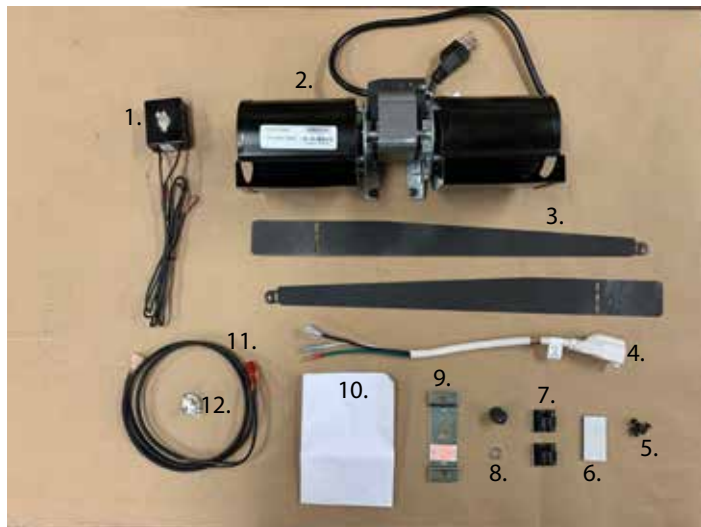


Figure 1. System Contents

- |                      |                             |
|----------------------|-----------------------------|
| 1. Speed Control     | 7. Wire Clips (2)           |
| 2. Fan               | 8. Control Knob & Nut       |
| 3. Air Deflector (2) | 9. Wall Box Plate           |
| 4. Power Cord        | 10. Instructions            |
| 5. Screws (4)        | 11. Wire Harness            |
| 6. Magnets (2)       | 12. Temperature Sensor      |
|                      | 13. Foam Tape (2) Not Shown |

Service Parts	
Part Number	Description
SRV4137-306	Power Cord
SRV4137-304	Wire Harness
SRV4137-128	Air Deflector
SRV4121-119	Wall Box Plate
SRV100-510A	Speed Control
SRV230-0060	Temperature Sensor

### Installation Precautions

The GFK-160VF Fan Kit is tested and safe when installed in accordance with this installation manual. It is your responsibility to read all instructions before starting installation and to follow these instructions carefully during installation to assure maximum benefit from, and safe operation of the fan.

This fan is carefully engineered and must be installed only as specified. If you modify it or any of its components, you may cause a fire hazard and will void the WARRANTY. In addition, such action may void the coverage provided by the owner's home insurance.

**CAUTION! All wiring should be done by a qualified electrician and shall be in compliance with local codes and with the National Electric Code ANSI/NFPA NO. 70-current (in the United States), or with the current CSA C22.1 Canadian Electric Code (in Canada).**

### Installation Instructions

**WARNING: Risk of Shock! Turn electrical power off at the circuit breaker before beginning this installation.**

**NOTE:** The factory installed junction box in the firebox or appliance must be wired with 110 VAC before installing this kit. See firebox or appliance Installation Instructions.

### Preparing the Firebox (BUF/ACUF/LCUF Models):

1. Remove (2) screws securing Lower Access Panel. See Figure 2.



Figure 2

2. Using a flat screwdriver, lift gently on Lower Access Panel. See Figure 3.

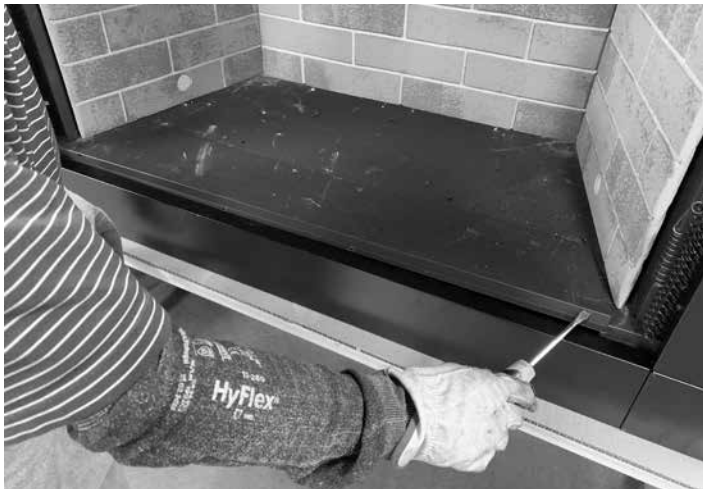


Figure 3

3. Pull Lower Access Panel forward to disengage from firebox bottom, set aside. See Figure 4.



Figure 4

### Preparing the Firebox (IDOL Models):

1. Remove Screen Assembly and Lower Access Panel by lifting and pulling away from the appliance and set aside. See Figure 5.

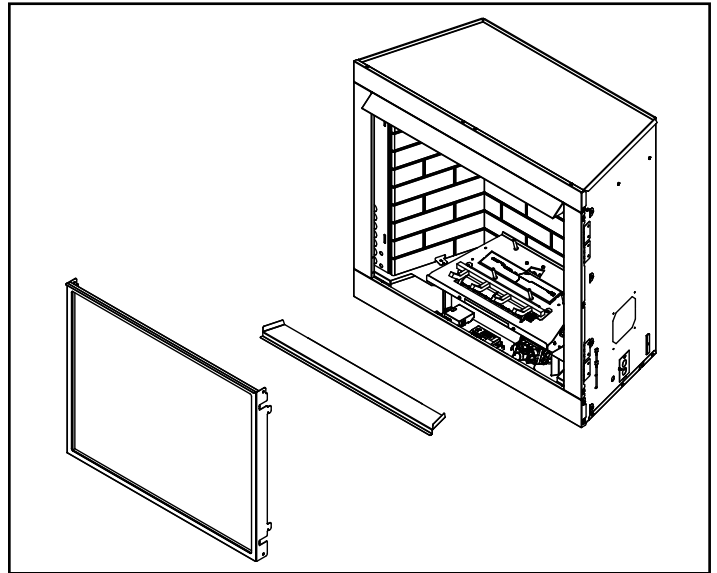


Figure 5

2. Remove logs if previously installed and set aside.
3. Remove (4) perimeter screws securing the Burner Assembly to the appliance firebox bottom. See Figure 6.



Figure 6

4. Pull Burner Assembly forward slightly and lift, removing it from the appliance, set aside. See Figure 7.



Figure 7

## Removing Hood

1. Remove (2) screws securing the Hood to Columns, one at each end. See Figure 8.



Figure 8

2. Remove (4) screws securing the Hood to Upper Face. Set Hood aside. See Figure 9.



Figure 9

## Removing Rear and Side Access Covers (LCUF models)

1. Remove (5) screws securing Rear Access Cover to firebox. Lift Rear Access Cover to disengage from firebox bottom. Set cover aside. See Figure 10.



Figure 10

2. Remove (1) screw securing Side Access Cover to firebox or appliance. Lift Side Access Cover to disengage from Firebox Bottom. Set cover aside. See Figure 11.



Figure 11

## Fan Kit Installation (BUF/ACUF/LCUF/IDOL Models):

### Installing Temperature Sensor

1. Connect (2) 1/4" Female Connectors from supplied Wire Harness to 1/4" terminals on back of the Temperature Sensor.

Refer to wiring diagram (Figure 19) for proper connections.

2. Feed the Wire Harness through mounting hole, located in the upper right corner of the firebox or appliance. See Figure 12.



Figure 12

3. Locate the leading end of the wires through lower access hole and pull to center of access area.
4. Secure Temperature Sensor using (2) screws provided. See Figure 13.



Figure 13

## Installing Air Deflectors

1. Air Deflector orientation is critical to proper installation. With Air Deflector positioned properly, attach magnet as shown. See Figure 14.
2. Bend mounting tab as show in Figure 14.

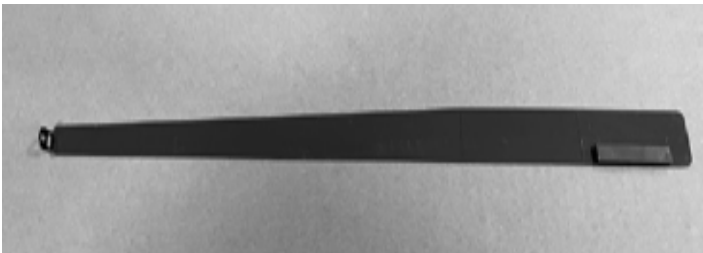


Figure 14

Note: When installed on the Idol series appliance, the Air Deflectors need to be shortened. Break-off tabs are supplied to aide in the process. The magnet is then placed at the end of the remaining deflector. See Figure 15.

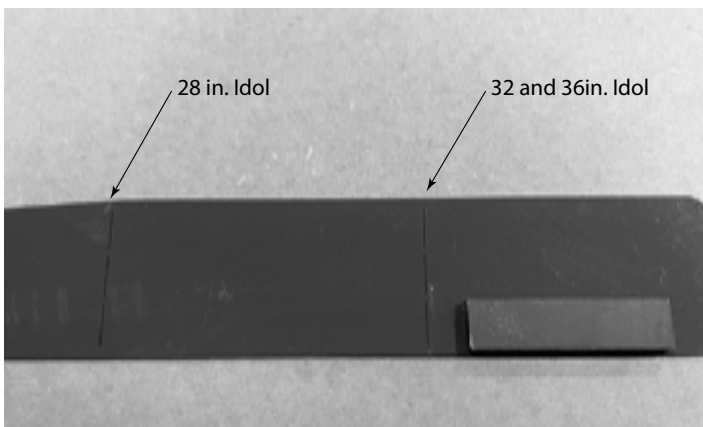


Figure 15

3. Position the wide end of the Air Deflector into the third slot of Firebox Top, magnet should be facing up. See Figure 16.



Figure 16

4. Slide Air Deflector to the first slot and rotate up 90°. Secure with (1) screw provided. See Figures 17 & 18.



Figure 17



Figure 18

5. Repeat steps 1 thru 4 for installation of the left Air Deflector.

## Installing Speed Control

1. Install the Speed Control in the lower right corner of the firebox or appliance, behind pull screen (if applicable). See Figure 19 and 20.
2. Install Control Nut and Control Knob.



Figure 19 - (BUF/ACUF/IDOL)



Figure 20 - (LCUF)

#### Installing Fan (BUF/ACUF)

1. Position Fan in lower access compartment, as shown in Figure 21. Slide fan to the rear of the firebox.

*NOTE: It may be necessary to rotate Firebox Supports outward to gain the space needed for Fan installation.*

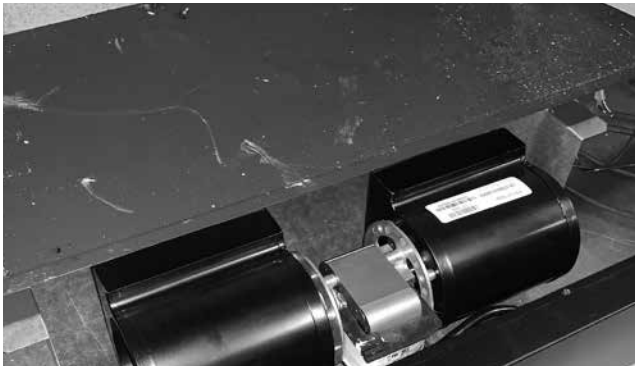


Figure 21

#### Installing Fan (LCUF)

1. Position Fan between firebox and outer wrap, through rear access as shown in Figure 22.



Figure 22 - (LCUF)

#### Installing Fan (IDOL)

1. Position Fan in lower access compartment, as shown in Figure 23. Slide fan to the rear of the firebox.



Figure 23 - (IDOL)

#### Electrical Connections (BUF/ACUF/LCUF/IDOL Standing Pilot models)

1. Connect the Speed Control and Temperature Sensor to Junction Box with the wire harness provided, as shown on Standard Wiring Diagram. See Figure 24.
2. Turn the 110-120 VAC service "ON" at the circuit breaker.

*NOTE: Alternate Wiring Diagrams are shown if locating the Fan and/or Light Speed Control in a remote wall box is desired. See Figures 25, 26 & 27.*

#### Electrical Connections (IDOL IPI models)

1. Connect the Blower and AUX Module to Junction Box with the wire harness provided, as shown on Standard IPI Wiring Diagram. See Figure 28.
2. Turn the 110-120 VAC service "ON" at the circuit breaker.

## Recommended Operating Procedures When Variable Speed Control and Temperature Switch Are Used

Ignite the fire in the firebox or appliance with the variable speed control switch in an "ON" position. The fan will automatically turn on when the temperature sensor switch closes at approximately 145°F. Heated air should be delivered at the outlet. The fan will continue to operate after the firebox or appliance is turned OFF until the sensor switch opens.

Various conditions (such as firebox or appliance model, type of firebox or appliance installation, outside air temperature vs. inside air temperature) can contribute to the length of the time the fan remains on after the firebox or appliance is turned OFF. The fan can be turned off manually with the speed control switch.

### Maintenance

Periodically check the firebox or appliance and controls compartment. Remove any dust, dirt or obstructions as directed in the firebox or appliance Owner's Manual.

### Replacement Parts and Customer Service

Replacement parts and service may be obtained through your dealer.

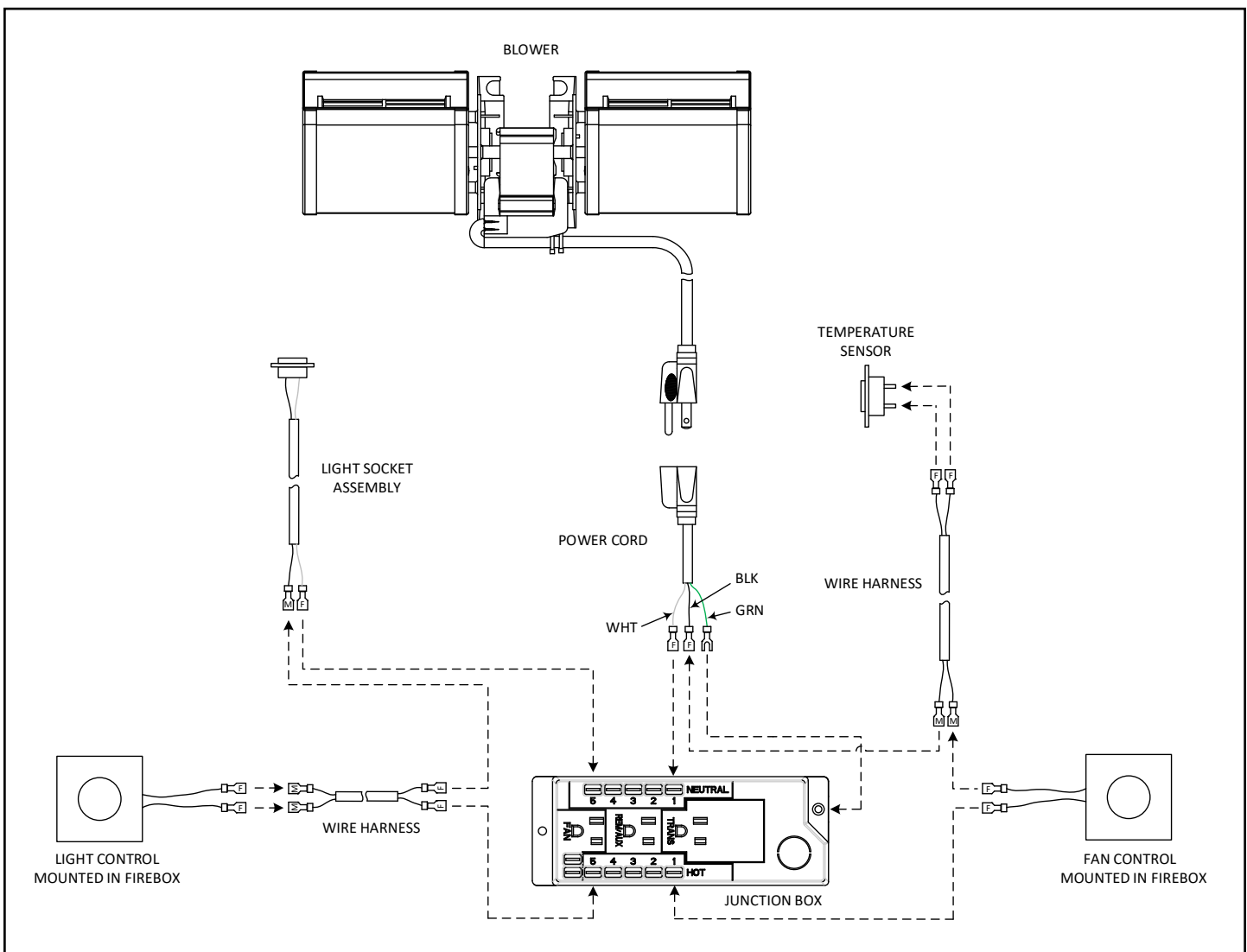


Figure 24 - Standard Wiring Diagram - (BUFA/ACUF/LCUF AND IDOL Standing Pilot models)

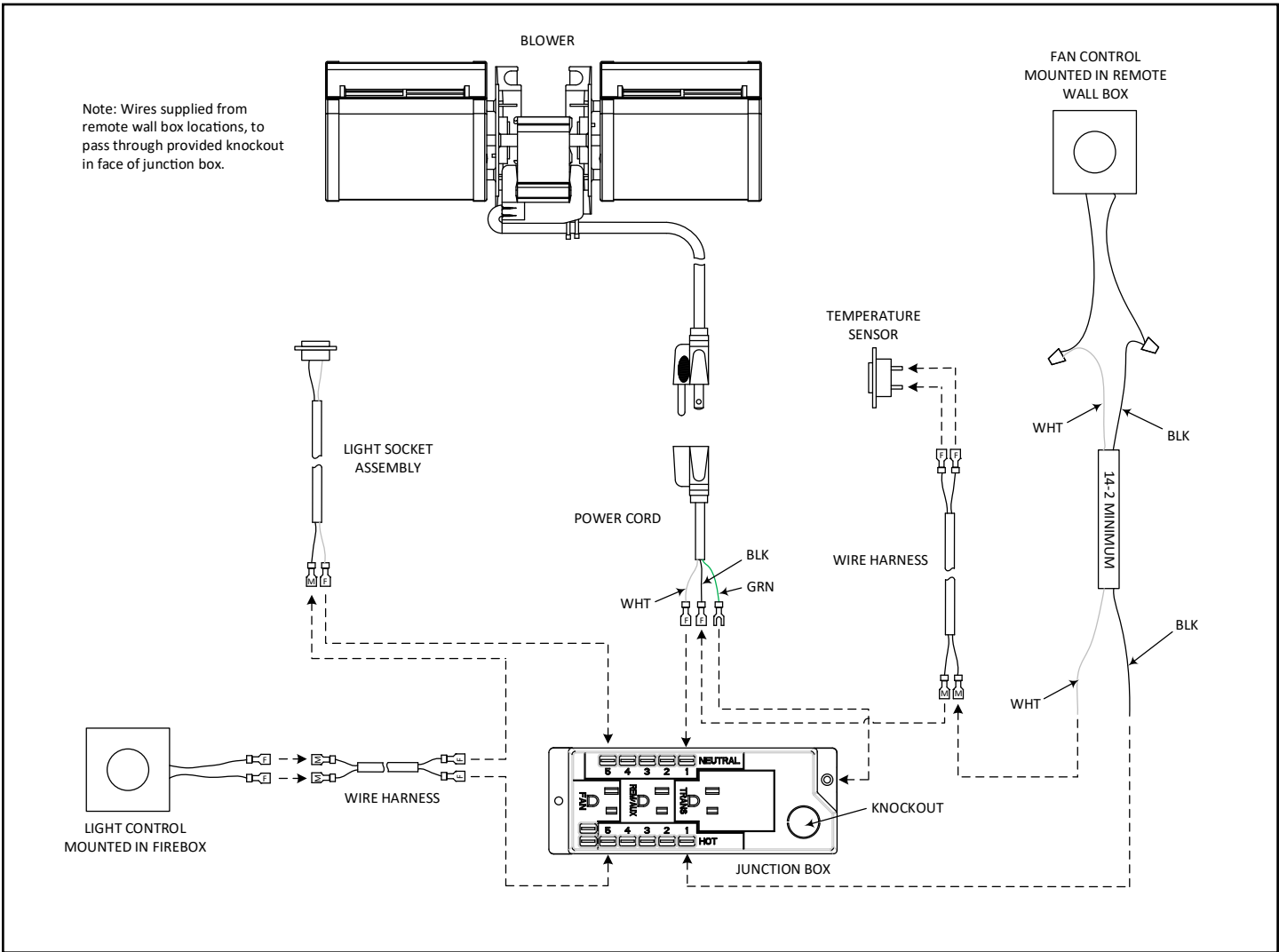


Figure 25 - Wiring Diagram - Remote Fan Control (BUF/ACUF/LCUF and IDOL Standing Pilot models)

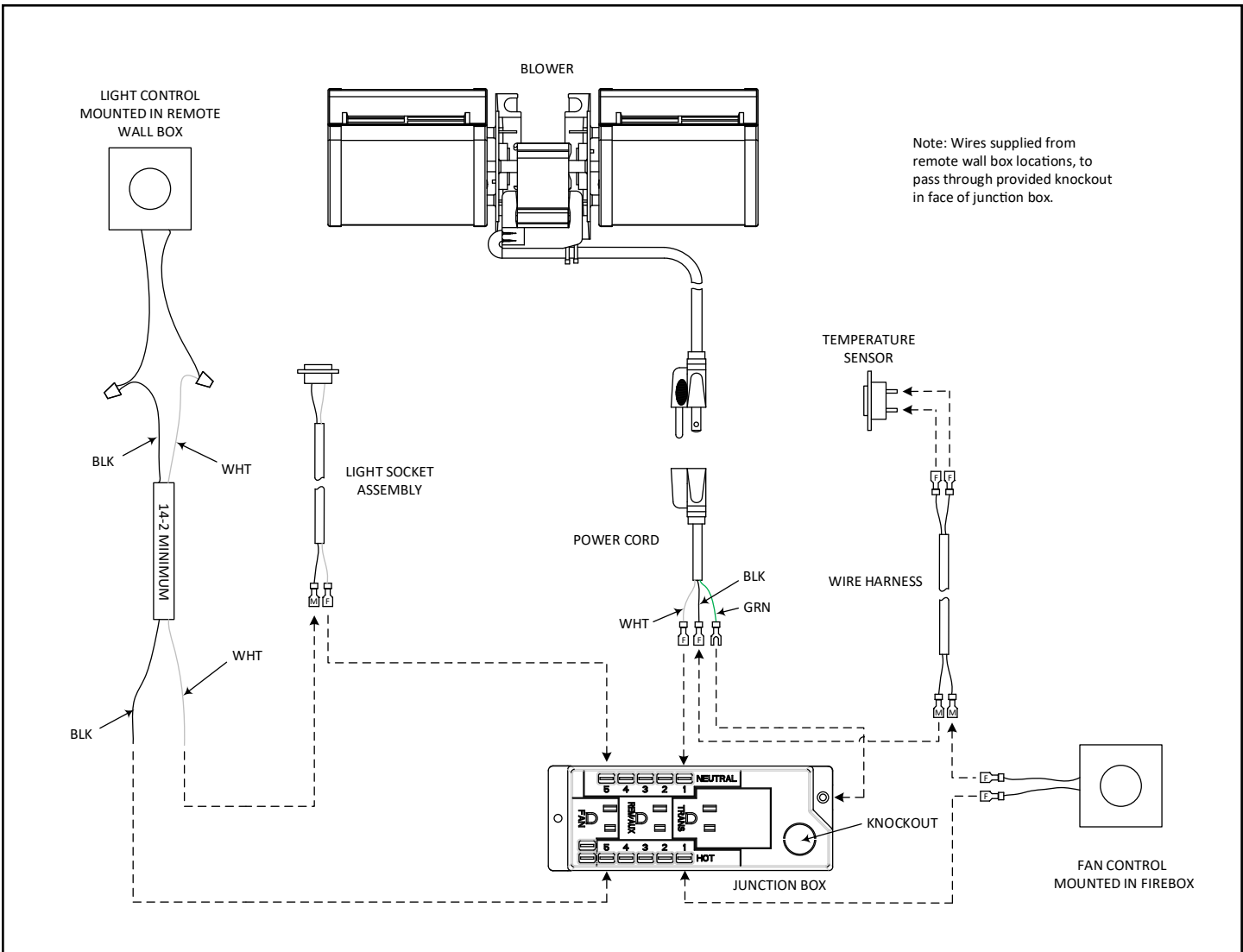


Figure 26 - Wiring Diagram - Remote Light Control (BUF/ACUF/LCUF and IDOL Standing Pilot models)



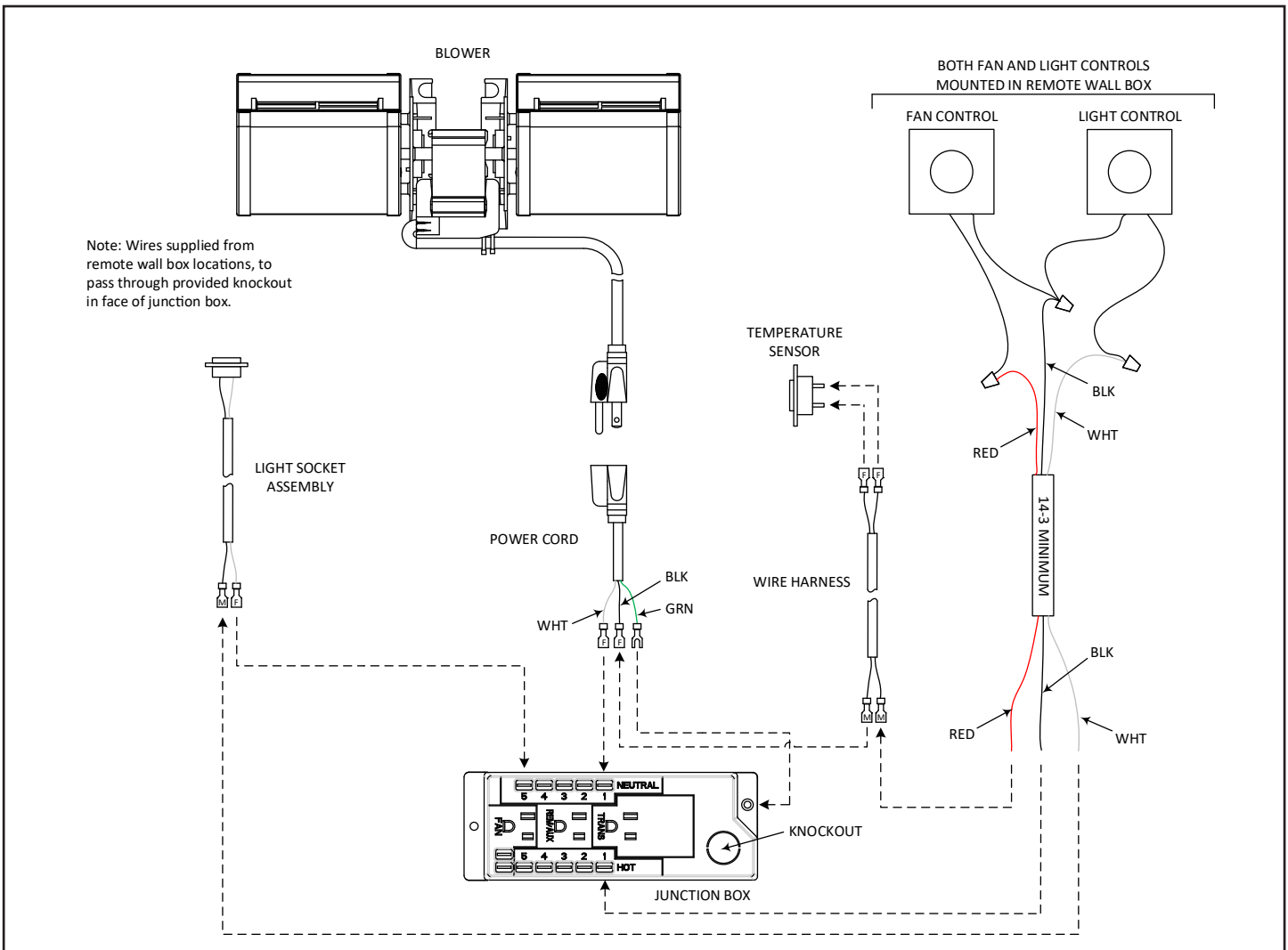


Figure 27 Wiring Diagram - Remote Fan and Light Controls (BUF/ACUF/LCUF and IDOL Standing Pilot models)

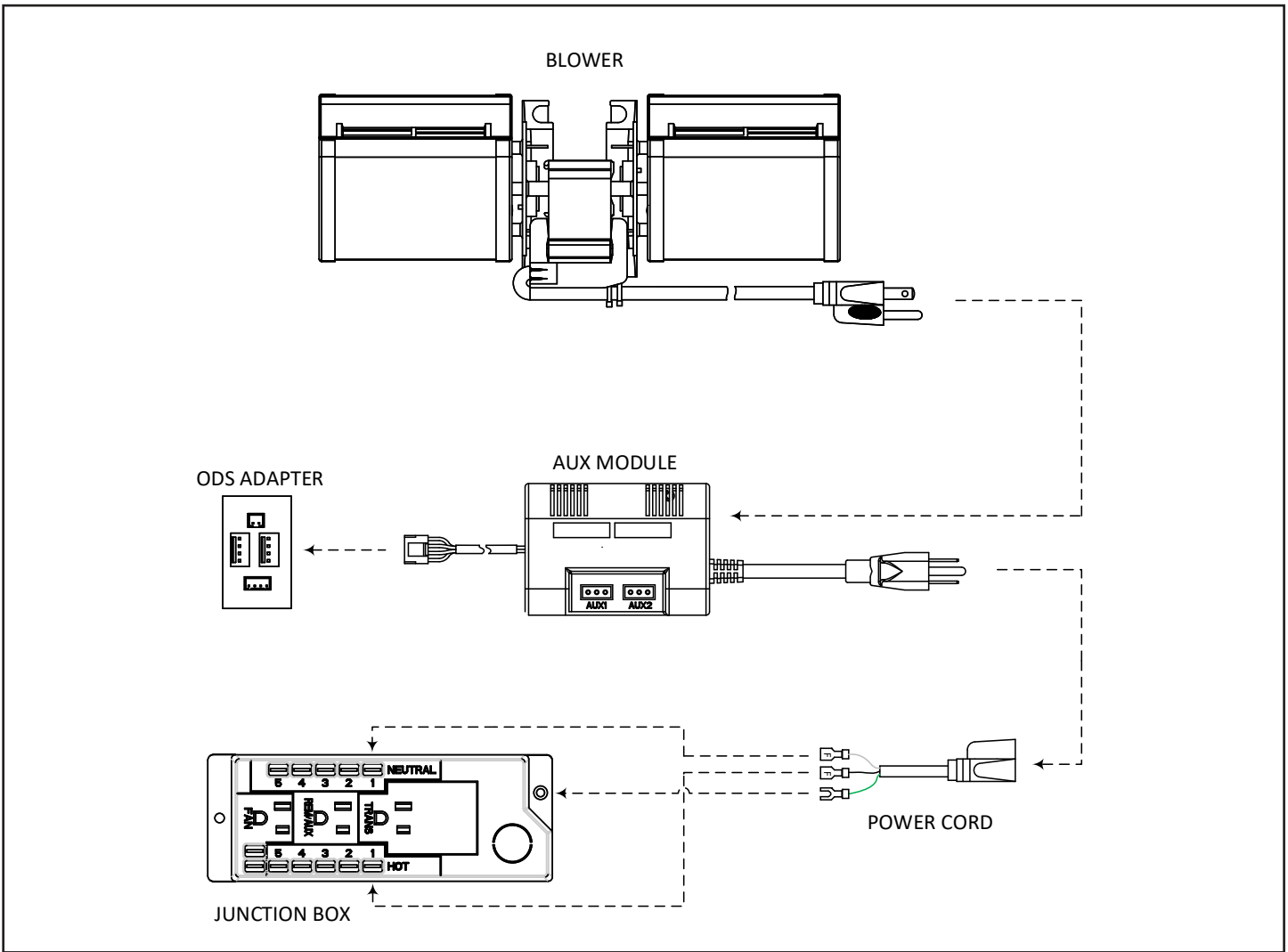


Figure 28 Wiring Diagram - Standard IPI Wiring Diagram (IDOL IPI models)

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](http://www.hearthnhome.com).