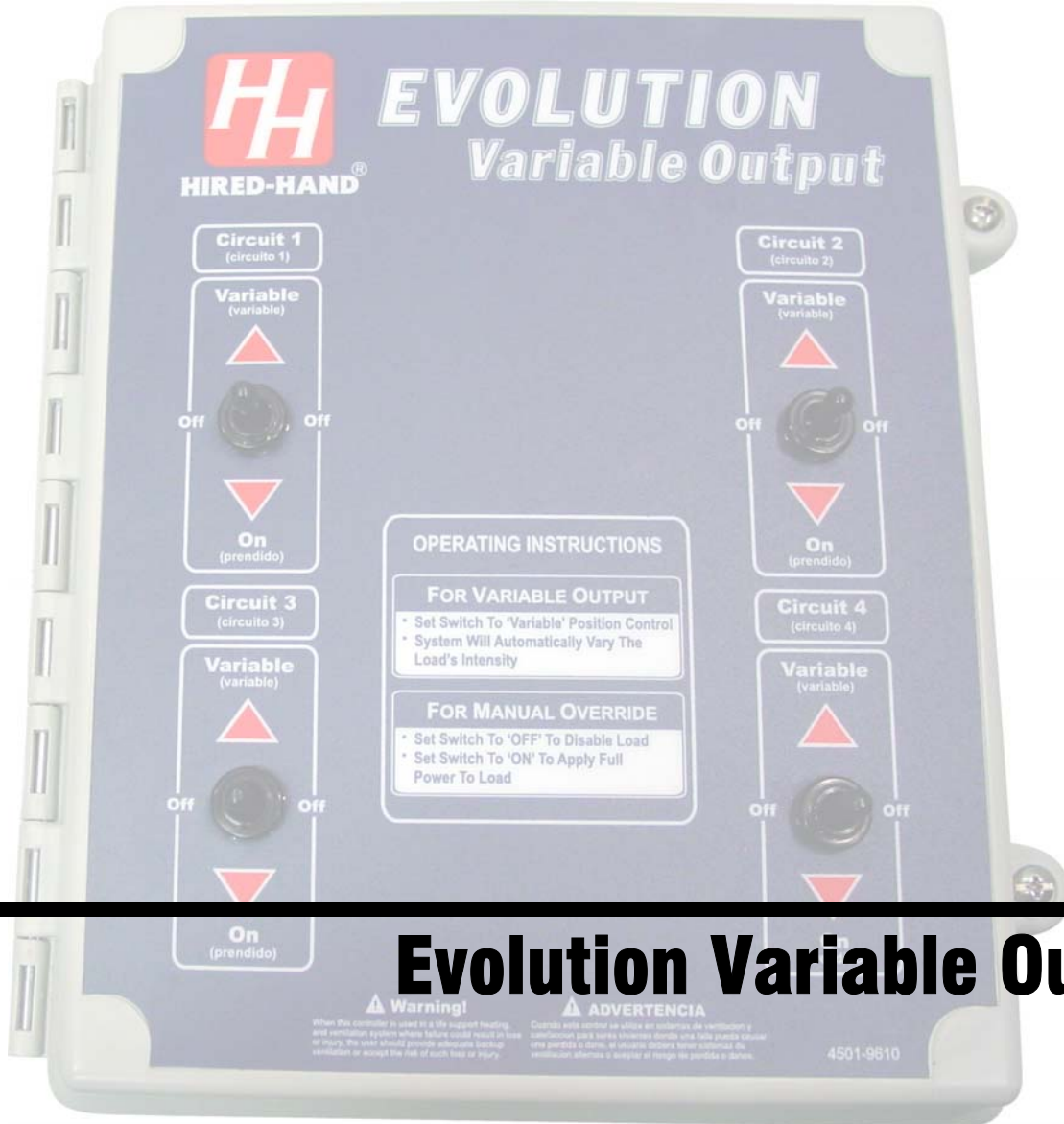




HIRED-HAND®



Evolution Variable Output

Hired Hand, Inc.
1733 Co Rd 68
PO Box 99
Bremen, AL 35033

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1. Warranty

All products are warranted to be free from defects in material and workmanship for a period of one year from the date of purchase if installed and used in strict accordance with the installation instructions. Liability is limited to the sale price of any products proved to be defective or, at manufacturers option, to the replacement of such products upon their return. No products are to be returned to the manufacturer, until there is an inspection and/or a return-goods authorization (RGA) number is issued.

All complaints should be directed first to the authorized distributor who sold the product. If satisfaction is not obtained or the name of the distributor is not known, write the manufacturer that appears below, directed to the attention of Customer Service Manager.

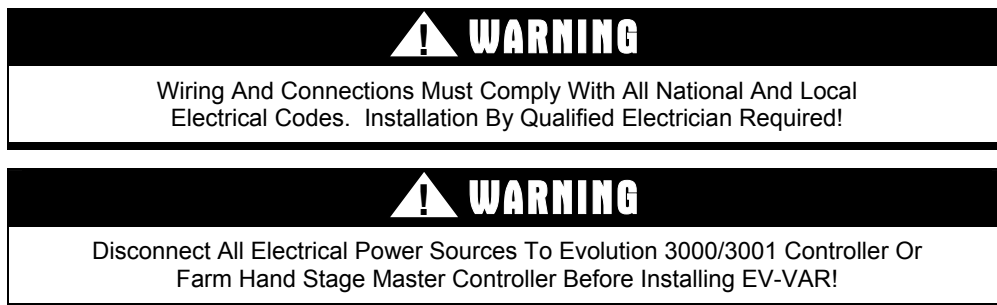
This limited warranty is expressly in lieu of any and all representations and warranties expressed or implied, including any implied warranty of merchantability or fitness for a particular purpose. The remedy set forth in this limited warranty shall be the exclusive remedy available to any person. No person has authority to bind the manufacturer to any representation or warranty other than this limited warranty. The manufacturer shall not be liable for any consequential damages resulting from the use of our products or caused by any defect, failure or malfunction of our products. (Some areas do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.)

This warranty gives you specific legal rights and you may also have other rights that vary from area to area.

Warrantor:

Hired-Hand, Inc.
1733 Co. Rd. 68
PO Box 99
Bremen, AL 35033

2. Warnings



3. Introduction

The Evolution Variable Output is one of Hired-Hand's latest addition to the electronic controller product line. Evolution Variable Output (EV-VAR) is used to vary the speed of fans or to vary light luminosity. The Off or On switch setting overrides the main control system. To allow variable control of the EV-VAR output, connect EV-VAR to a Hired Hand Evolution 3000/3001 controller or to a Farm Hand Stage Master Controller with the EV-VAR switch set on VARIABLE. See wiring diagrams for proper connections.

The Evolution Variable Output is available in two versions: The 4KW/4HP model and the 8KW/8HP model.

The Evolution Variable Output models can be used in conjunction with Evolution 3000/3001 Control Systems or Farm Hand Control Systems (Stage Master, etc.) for variable operation of lights or fans.

For information regarding the Variable Output models with the Override Pot, refer to manual number 4801-5318.

4. Specifications

4.1 Part Numbers and Electrical Ratings

Part No.	Model	No. Outputs
6607-8031	EV-VAR 4KW / 4HP	2
6607-8032	EV-VAR 8KW / 8HP	4

DEVICE RATINGS

Outputs for Each Circuit		Max Current (A)
Lights	2 KW @ 120 VAC	Fused @ 20 A
Fans	2 h.p. @ 240 VAC	Fused @ 20 A

4.2 Features

EV-VAR 4KW / 4HP	EV-VAR 8KW / 8HP
2 Manual Override Switches (3 positions: Variable – Off – On)	4 Manual Override Switches (3 positions: Variable – Off – On)

EV-VAR
4 KW
4 HP



Two Manual Override Switches

EV-VAR
8 KW
8 HP



Four Manual Override Switches

5. Front Panel Features

Evolution Variable Output (EV-VAR) is used to vary the speed of fans or to vary light luminosity. To control the EV-VAR output, connect EV-VAR to a Hired Hand Evolution 3000/3001 controller or to a Farm Hand Stage Master Controller. See wiring diagrams for proper connections.

Manual Override Switch

Variable allows light dimming or fan speed control.

Off completely disables item operation.

ON manually connects full AC power to equipment.



NOTE: Operation is the same for the 4 KW / HP model.

EV-VAR 8 KW / 8 HP Model Shown

6. Initial Setup of Variable Output Control Board (PCB 172)

The following sub-sections describe the usage and settings of each connection and jumper included on the EV-VAR PCB #172. The board layout with wire connector references are shown in **Section 6.8**.

WARNING

Disconnect All Electrical Power Sources To Evolution 3000/3001 Controller, Farm Hand Stage Master Controller, and EV-VAR Prior To Wiring Or Maintenance!

6.1 **AC IN Connections**

Always connect to the breaker-box side of the electrical circuit. Refer to the Wiring Connection Figures in **Section 7**.

DANGER: Line Voltage is present when power is applied. DISCONNECT POWER prior to wiring or maintenance.

6.2 **AC OUT Connections**

Connect to the fans or lights. Refer to the Wiring Connection Figures in **Section 7**.

DANGER: Line Voltage is present when power is applied. DISCONNECT POWER prior to wiring or maintenance.

6.3 **Evolution Connections**

The Evolution connections must be wired to the electronic controller (Evolution 3000/3001).

Observe polarity connections (+ to +; - to -).

This connection is not used if a Farm Hand Stage Master is connected to the Farm Hand connections.

See wiring diagrams for more specific information.

6.4 **Farm Hand Connections**

The Farm Hand connections must be wired to the electronic controller (Stage Master).

Observe polarity connections (+ to +; - to -).

This connection is not used if a Evolution 3000/3001 is connected to the Evolution connections.

See wiring diagrams for more specific information.

6.5 **Control Jumper Connections**

The Control Jumpers are FACTORY WIRED from Circuit #1 to Circuit #3 and from Circuit #2 to Circuit #4. This allows two separate circuits for operating different equipment as shown in **Section 7.3**.

If one circuit is desired for operating the same equipment, wires are provided for connecting a jumper from Circuit #1 to Circuit #2 as shown in **Section 7.4**.

6.6 **Front Panel Switch Connector**

The PCB Switch Connector is FACTORY WIRED to the specific circuit's Front Panel Switch.

6.7 **20 Amp Fuse**

The 20 Amp Fuse is easily accessible when replacement is required.

WARNING

Disconnect All Electrical Power Sources To Evolution 3000/3001 Controller Or Farm Hand Stage Master Controller Before Replacing Fuse!

6.8 EV-VAR PCB 172 Board Layout and Connection Locations

Evolution Variable Output PCB 172

Control Jumper Connections
See Section 6.5.

**Front Panel
Switch Connector**
See Section 6.6.

Farm Hand Connections
See Section 6.4.

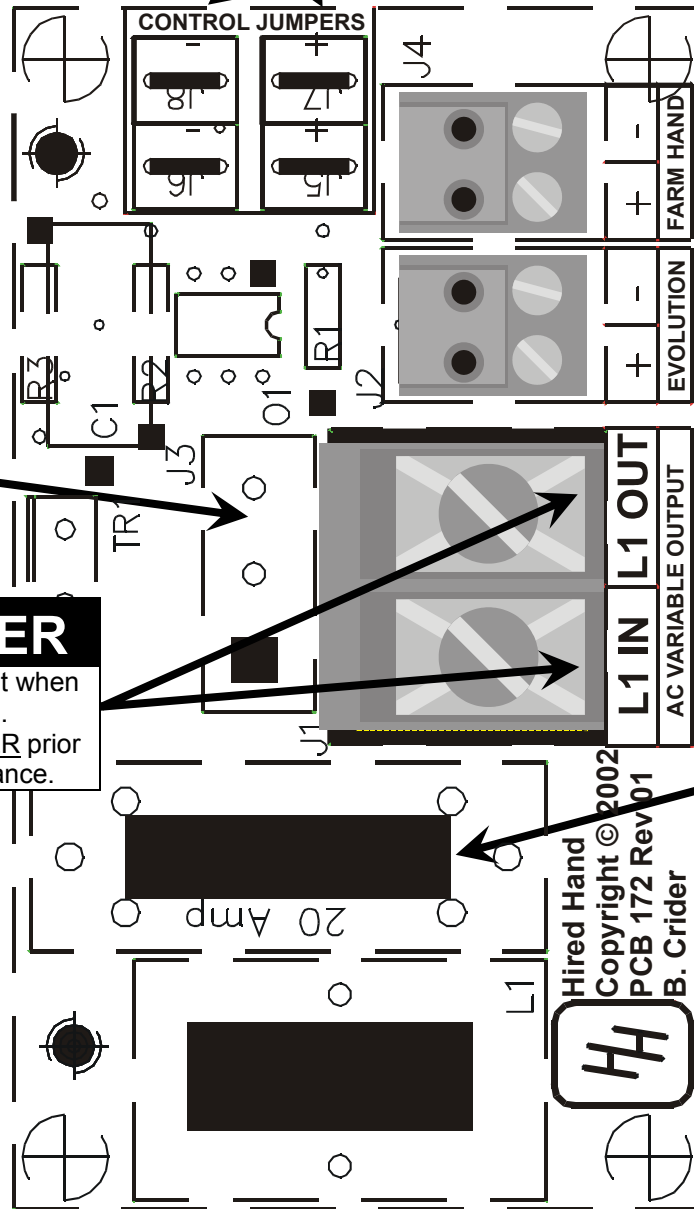
Evolution Connections
See Section 6.3.

AC OUT Connections
See Section 6.2.

AC IN Connections
See Section 6.1.

20 Amp Fuse
See Section 6.7.

⚠ DANGER
Line Voltage is present when power is applied.
DISCONNECT POWER prior to setup or maintenance.

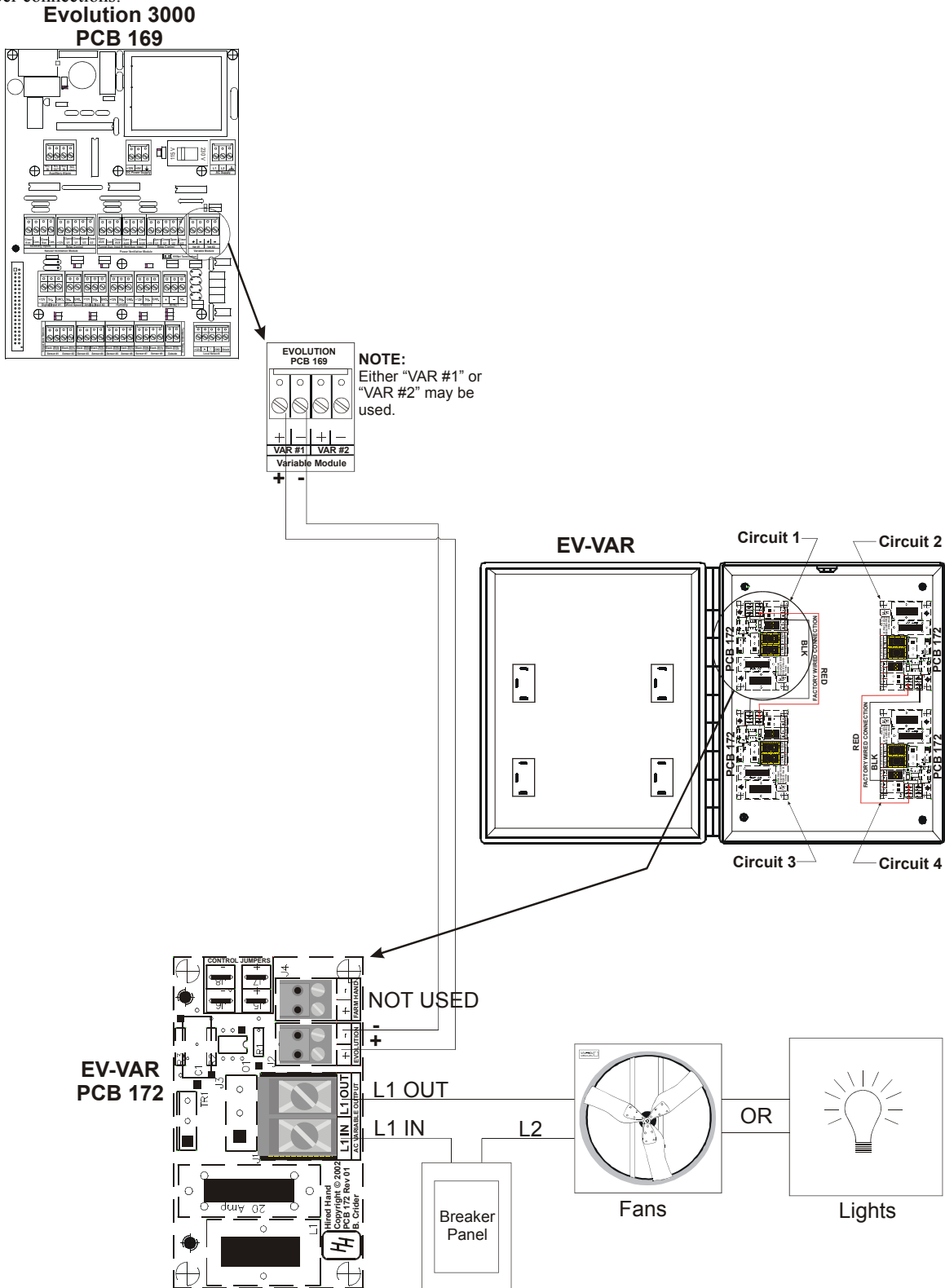


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PCB 172 Rev 01
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7. Wiring Connections

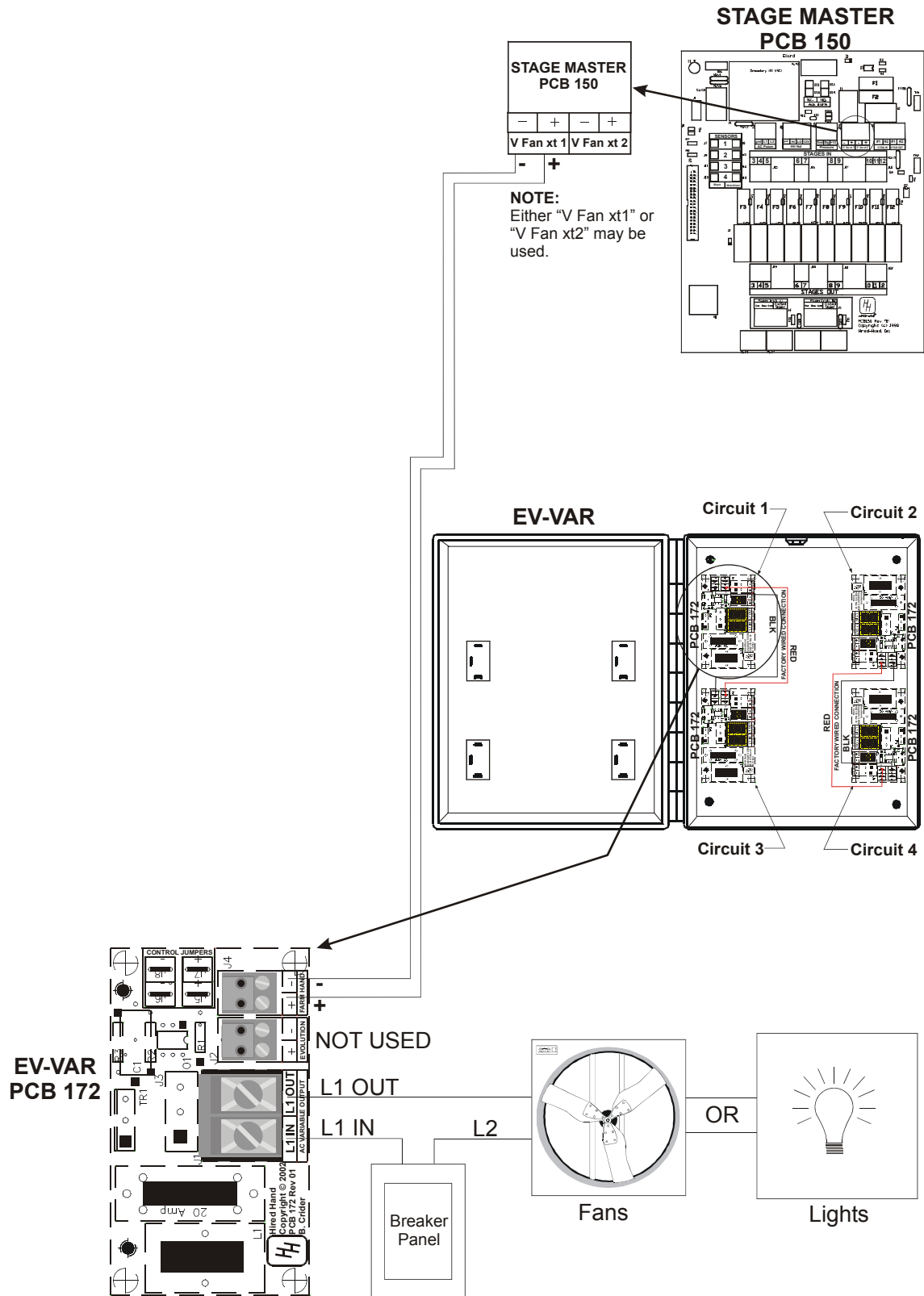
7.1 EV-VAR To Evolution 3000/3001 Wiring Connections

To control the EV-VAR output using an Evolution 3000/3001 controller, connect EV-VAR using the wiring diagrams below for proper connections.



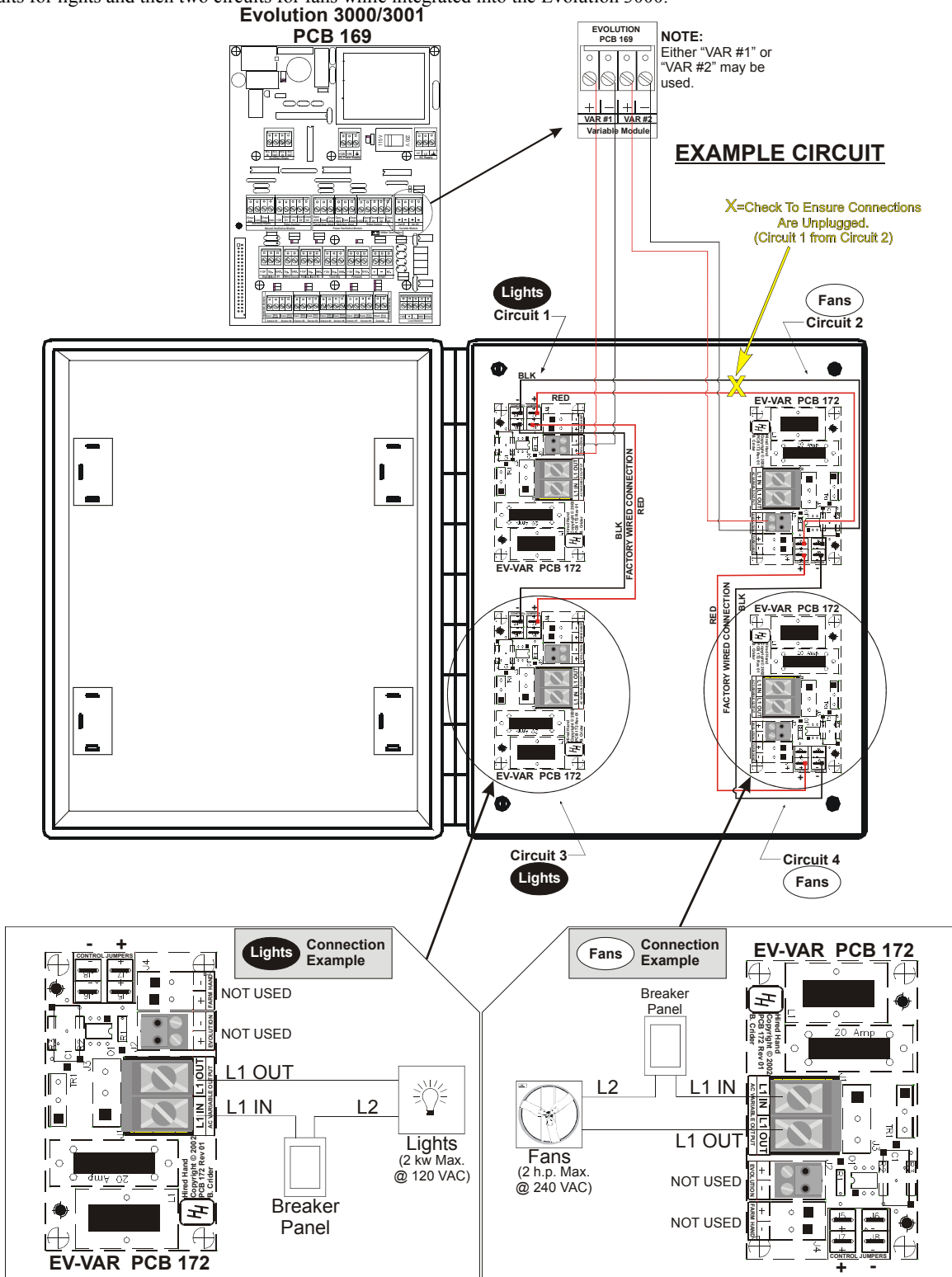
7.2 EV-VAR To Farm Hand Stage Master Wiring Connections

To control the EV-VAR output using a Farm Hand Stage Master controller, connect EV-VAR using the wiring diagrams below for proper connections.



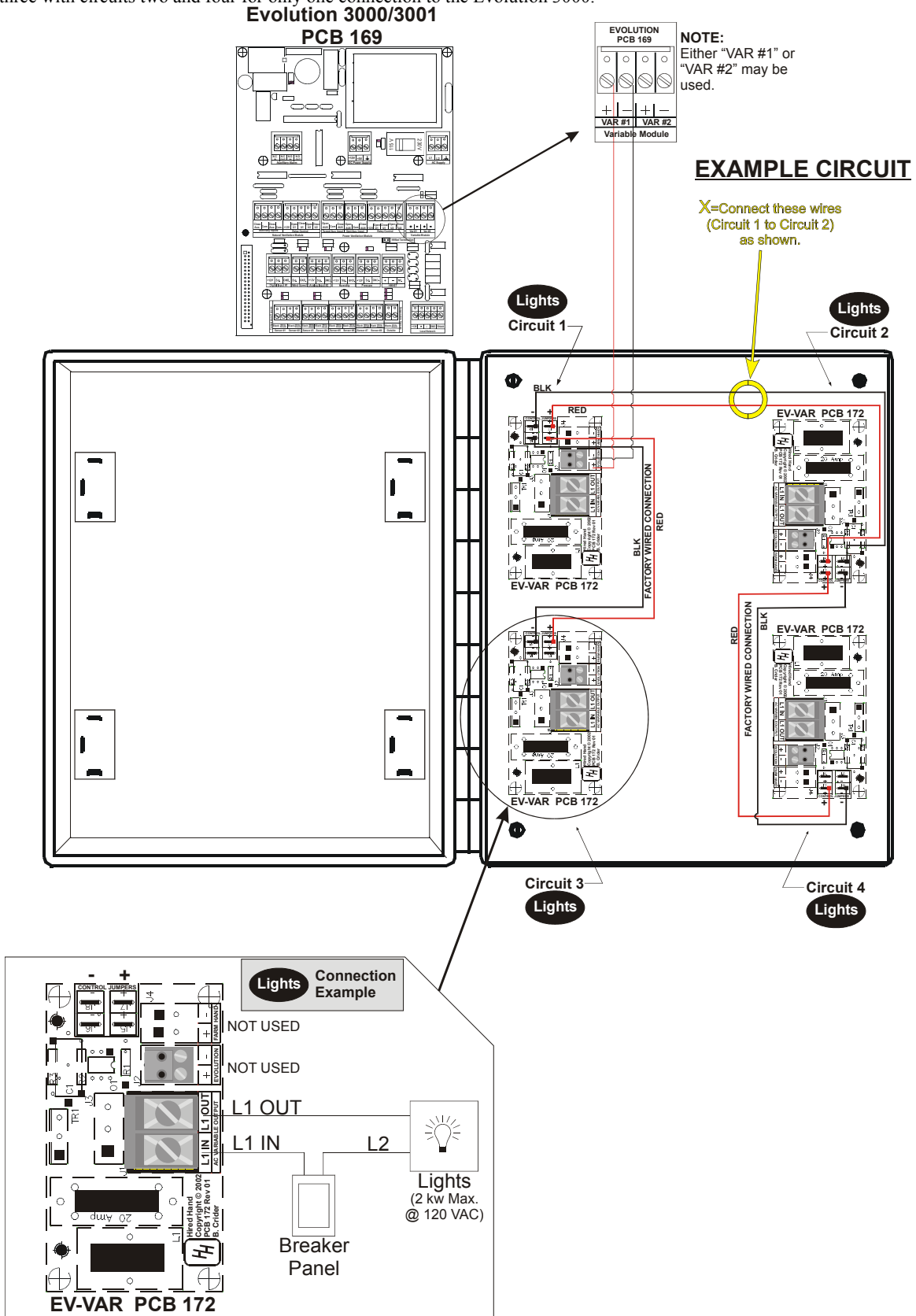
7.3 Separating Circuits to Operate Different Equipment

In some cases, you may want to operate a combination of lights and fans. The following is an example of how one would wire two circuits for lights and then two circuits for fans while integrated into the Evolution 3000.



7.4 Combining Circuits to Operate the Same Type of Equipment

In some cases, you may want to operate all lights or all fans. The following is an example of how one would combine circuits one and three with circuits two and four for only one connection to the Evolution 3000.



8. Replacement Parts

Part No.	Description
6407-1536	/PCB 172 EV-VAR w/QA
3010-2540	Fuse 20A Time Delay
3001-2869	Switch SPDT 2 HP w/tabs



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