

# 460 to 230 Volt Conversion Kit for FlexPak 3000 Drives

Model Numbers: 916FK0100 and 916FK0200

## Instruction Manual D2-3329-1

### DANGER

**ONLY QUALIFIED PERSONNEL FAMILIAR WITH THE CONSTRUCTION AND OPERATION OF THIS EQUIPMENT AND THE HAZARDS INVOLVED SHOULD INSTALL, ADJUST, OPERATE, AND/OR SERVICE THIS EQUIPMENT. READ AND UNDERSTAND THIS INSTRUCTION MANUAL IN ITS ENTIRETY BEFORE PROCEEDING. FAILURE TO OBSERVE THIS PRECAUTION COULD RESULT IN SEVERE BODILY INJURY OR LOSS OF LIFE.**

**CAUTION:** The user is responsible for conforming with all applicable local, national, and international codes. Failure to observe this precaution could result in damage to, or destruction of, the equipment.

## Product Description

The products described in this instruction manual are manufactured or distributed by Reliance Electric Industrial Company.

This instruction manual provides installation procedures for optional kits used to convert a FlexPak® 3000 drive from 460 VAC input to 230 VAC input.

Table 1 - Verifying that the Kit Model Matches the Drive

Base 460 VAC Drive Model Number	+	Conversion Kit Model Number	=	Equivalent 230 VAC Drive Model Number
3FN40x1		916FK0100		1FN20x1
3FR40x1		916FK0100		1FR20x1
5FN40x1		916FK0100		2FN20x1
5FR40x1		916FK0100		2FR20x1
7FN40x1		916FK0100		3FN20x1
7FR40x1		916FK0100		3FR20x1
10FN40x1		916FK0100		5FN20x1
10FR40x1		916FK0100		5FR20x1
15FN40x1		916FK0100		7FN20x1
15FR40x1		916FK0100		7FR20x1
20FN40x1		916FK0100		10FN20x1
20FR40x1		916FK0100		10FR20x1
30FN40x1		916FK0100		15FN20x1
30FR40x1		916FK0100		15FR20x1
40FN40x1		916FK0100		20FN20x1
40FR40x1		916FK0100		20FR20x1
50FN40x1		916FK0100		25FN20x1
50FR40x1		916FK0100		25FR20x1
60FN40x1		916FK0100		30FN20x1
60FR40x1		916FK0100		30FR20x1

Table 1 - Verifying that the Kit Model Matches the Drive (continued)

Base 460 VAC Drive Model Number	+	Conversion Kit Model Number	=	Equivalent 230 VAC Drive Model Number
75FN40x1		916FK0200		40FN20x1
75FR40x1		916FK0200		40FR20x1
100FN40x1		916FK0200		50FN20x1
100FR40x1		916FK0200		50FR20x1
125FN40x1		916FK0200		60FN20x1
125FR40x1		916FK0200		60FR20x1
150FN40x1		916FK0200		75FN20x1
150FR40x1		916FK0200		75FR20x1

NOTE: The "x" in all model numbers represents the drive's software version.

Table 2 - Contents of the 460 to 230 Volt Conversion Kit

Conversion Kit Model Number	Part Number	Description	Quantity
916FK0100	64676-64F	Fuse (1.5 A, 600 V)	2
	417195-50B	230 VAC Label	1
	D2-3329-1	Instruction Manual	1
916FK0200	64678-64AC	Fuse (4.5 A, 600 V)	2
	417195-50B	230 VAC Label	1
	D2-3329-1	Instruction Manual	1

### Converting The Drive

Use the following procedure to convert a 460 VAC FlexPak 300 drive to its corresponding 230 VAC model.

#### DANGER

**DO NOT INSTALL MODIFICATION KITS WITH POWER APPLIED TO THE DRIVE. DISCONNECT, TAG, AND LOCKOUT INCOMING POWER BEFORE ATTEMPTING SUCH INSTALLATION. FAILURE TO OBSERVE THIS PRECAUTION COULD RESULT IN SEVERE BODILY INJURY OR LOSS OF LIFE.**

- Step 1. Disconnect, tag, and lock out all incoming power to the drive.
- Step 2. **NEMA 1 Drives Only:** Loosen the four retaining screws and remove the drive's cover.
- Step 3. Remove fuses 4FU and 5FU from the fuse block. For 3-60 HP drives, the fuse block is mounted at the top left of the drive. For 75-150 HP drives, the block is at the top right. Figure 1 shows the locations of fuses 4FU and 5FU within the fuse block.
- Step 4. Install the two fuses supplied with the conversion kit into locations 4FU and 5FU.

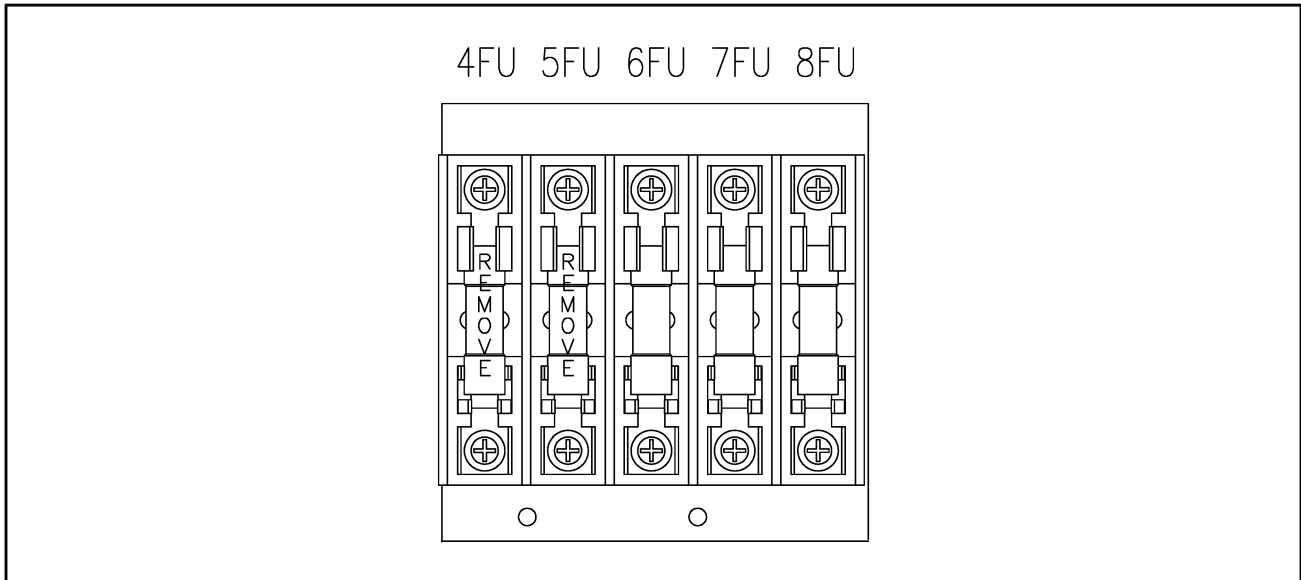


Figure 1 - FlexPak 3000 CCT Transformer Input Fuse Locations

Step 5. Disconnect the jumpers on the control transformer (CCT) primary terminal connections, H2 and H3. For 3-60 HP drives, access to the CCT is on the left side of the drive chassis, near the top. For 75-150 HP drives, access is on the right side of the auxiliary chassis, near the middle. Use the jumpers you just removed to connect terminal H1 to terminal H3 and terminal H2 to terminal H4. Refer to Figure 2, which shows the control transformer primary terminal connections before and after moving the existing jumpers.

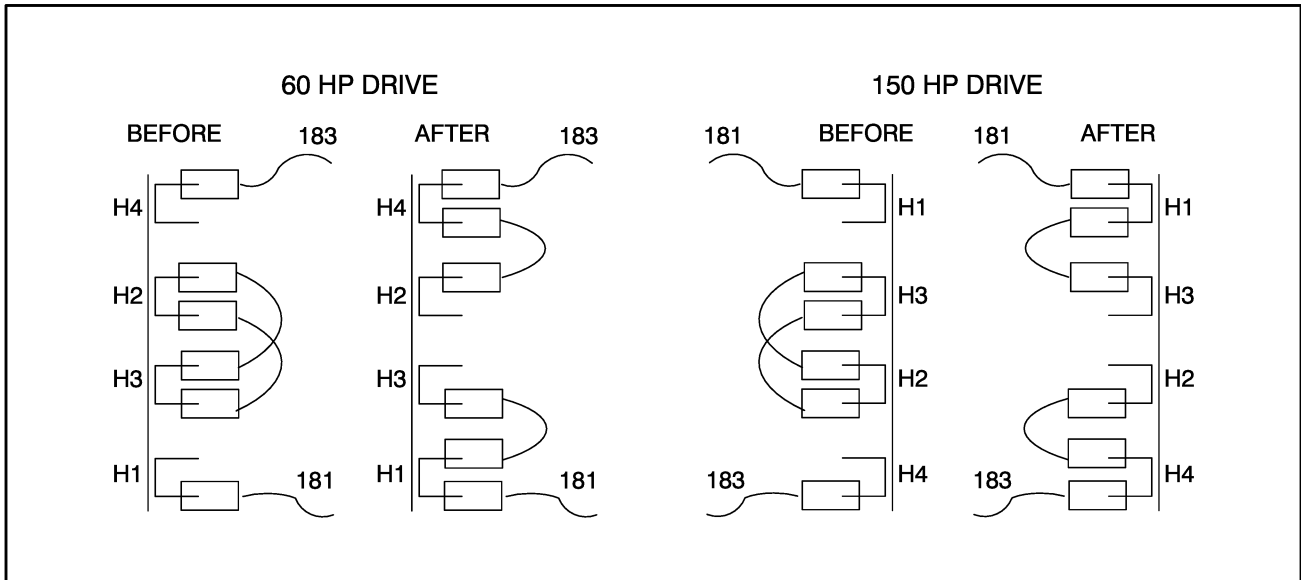


Figure 2 - Control Transformer (CCT) Primary Terminal Connections.

Step 6. Place the "230 VAC" label to the left of the drive nameplate as shown in Figure 3. The nameplate is located either at the top of the regulator carrier or on the left side panel of the drive chassis.

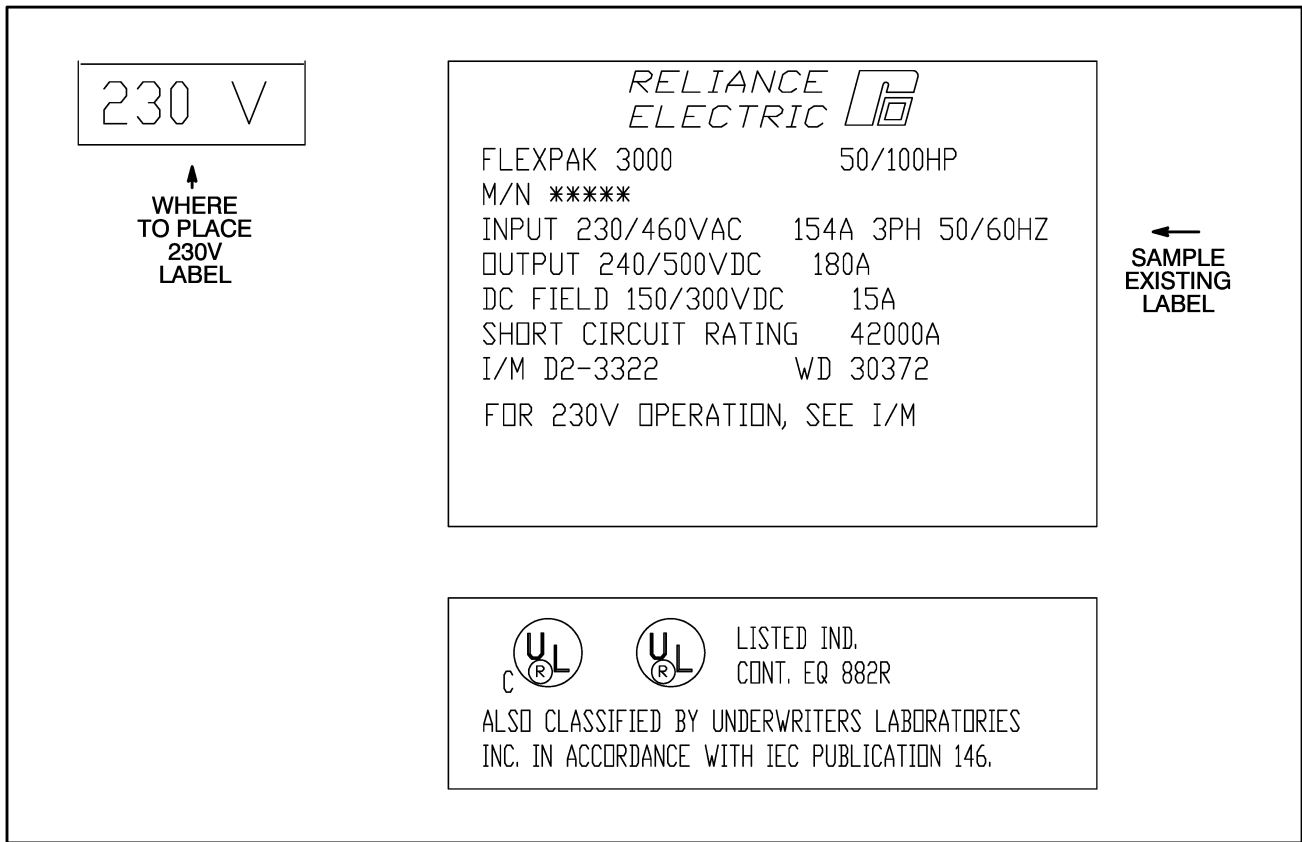


Figure 3- Nameplate and 230V Label Locations

- Step 7. **NEMA 1 Drives Only:** Replace the cover on the FlexPak 3000 drive and tighten the screws.
- Step 8. Reconnect incoming power and remove the lockout and tag.
- Step 9. Turn on power to the drive.
- Step 10. Use the drive keypad/display to access the Nominal AC Line Volts parameter (P037). Refer to the current FlexPak instruction manual for information on accessing this variable. Set the value to 230.
- Step 11. Perform the Quickstart/Self Tuning procedures as described in the appropriate drive instruction manual to set up the drive.

*NOTE: If you are converting a drive that has never been configured or one that has been operated at 460 volts, other parameters must also be configured.*

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