Blower Motor Starter Kit
for FlexPak 3000 and WebPak 3000 Digital DC Drives

Model Number 902FKxxxx

Instruction Manual D2-3295-4

ATTENTION: 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 manual in its entirety before proceeding. Failure to observe this precaution could result in severe bodily injury or loss of life.

ATTENTION: All interconnecting wiring must be sized and installed in conformance with applicable local, national, and international codes. Failure to observe this precaution could result in damage to, or destruction of, the equipment.

Product Description

This instruction manual describes the installation procedure for the blower motor starter kit used with FlexPak™ 3000 and WebPak™ 3000 drives. The kit includes a fused three-phase motor starter with an adjustable overload and interlock, wire harness, and in-line fuses.

Verifying That the Kit Rating Matches the Blower Motor

Before installation, make sure the kit you are installing is rated for the blower motor being connected. Also make sure that the blower motor rated voltage matches the drive AC line voltage. See table 1 for ratings and kit model numbers.

Table 1 – Blower Motor Starter Kit Model Numbers[1]

Blower Motor Starter Full Load Amp Range	Model Number
0.4 - 0.63 Amps	902FK0101
0.63 - 1.0 Amps	902FK0201
1.0 - 1.4 Amps	902FK0301
1.4 - 1.8 Amps	902FK0401
1.7 - 2.4 Amps	902FK0501
2.2 - 3.1 Amps	902FK0601
2.8 - 4.0 Amps	902FK0701
3.5 - 5.0 Amps	902FK0801
4.5 - 6.5 Amps	902FK0901
6.0 - 8.5 Amps	902FK0111
7.5 - 11.0 Amps	902FK0121

1. Model numbers apply to 1.5 HP through 150 HP @ 230 VAC and 3 HP through 600 HP @ 460 VAC.

Rockwell Automation

Checking the Contents of the Kit

Verify the contents of the kit. Each kit consists of the following:

Description	Qty
Prewired starter assembly on a mounting bracket (blower motor starter, controls, fuse block, installed fuses, short wire harness)	1
Long wire harness	1
Wire ties	2

Important: Drives rated at 400 HP to 600 HP @ 460 VAC may require 2 identical blower motor starter kits.

Important: Replacement in-line fuses are not supplied with the kit. See table 2 for the correct replacement fuse rating and part number.

Table 2 – Blower Motor Starter Kit Replacement Fuses

For Kit Model Number:	Order Reliance Fuse Part Number:	Fuse Amperage
902FK0101	64676-72C	0.8
902FK0201	64676-72E	1.25
902FK0301	64676-72H	2.0
902FK0401	64676-73J	2.5
902FK0501	64676-73L	3.5
902FK0601	64676-73N	4.5
902FK0701	64676-73R	6.0
902FK0801	64676-73U	7.5
902FK0901	64676-73W	9.0
902FK0111	64676-73Y	12.0
902FK0121	64676-73Z	15.0

Installation

ATTENTION: Do not install modification kits with power applied to the drive. Disconnect and lock out incoming power before attempting such installation. Failure to observe this precaution could result in severe bodily injury or loss of life.

Important: The following procedures assume the drive is wired and operational. See your FlexPak 3000 or WebPak 3000 hardware instruction manual for more information.

Mounting the Blower Motor Starter on the Drive Chassis

Make sure you are referring to the correct figures when installing your blower motor starter kit.

Drive	See figures
1.5 HP to 30 HP @ 230 VAC / 3 HP to 60 HP @ 460 VAC	1 and 2
40 HP to 75 HP @ 230 VAC / 75 HP to 150 HP @ 460 VAC	1 and 3
100 HP to 150 HP @ 230 VAC / 200 HP to 300 HP @ 460 VAC	1 and 4
400 HP to 600 HP @ 460 VAC	5 and 6

Step 1. Turn off, lockout, and tag power to the drive.

Step 2. Remove the cover from the drive or drive's line fuse panel, if necessary.

Step 3. Remove the jumper plug from drive connector P8. Connector P8 is accessed through the opening in the fuse/terminal panel. **For 460 VAC drives rated 400 HP to 600 HP:** If you are using two blower motor starter kits, remove the jumper plugs from connectors P8A and P8B. If you are using only one blower motor starter kit, remove the jumper plug from connector P8A only.

Step 4. Loosen the two screws securing the left side of the line fuse/terminal panel to the drive. See figure 2, 3, 4, or 6.

Step 5. Slide the keyhole slots on the left side of the blower motor starter's mounting bracket over the loosened screws.

Step 6. Slide the mounting bracket down until the narrow ends of the keyhole slots are under the screw heads.

Step 7. Tighten the screws (torque to 55 in-lb/6.21 Nm) to secure the starter to the drive. See figure 2, 3, 4, or 6.

Wiring the Blower Motor Starter

Step 1. Plug connector P8 into the drive's mating plug (P8). See figure 2, 3, 4, or 6. For drives with two starters, plug connectors P8A and P8B into their respective mating plugs.

Step 2. **For 230 VAC drives rated through 30 HP and 460 VAC drives rated through 60 HP:** Connect the spade receptacles attached to the blower motor starter's 181, 182, and 183 fuses to the spade tabs on A-C input fuses 181, 182, and 183, respectively. See figure 2.

Step 3. **For 230 VAC drives rated 40 HP through 150 HP and 460 VAC drives rated 75 HP through 300 HP:**

a. Disconnect wires 181, 182, and 183 from the blower motor starter's fuse block and discard them. These wires are connected to the back of the fuse block (the end closest to the drive chassis).

b. Attach the 181, 182, and 183 connectors on the long wire harness to the 13FU, 14FU, and 15FU spade terminals at the rear of the blower motor starter's fuse block.

c. Route the wire harness to the 181, 182, and 183 spade connectors on the drive's line fuse panel. These connectors are on the underside of the top end of the line fuse connectors.

d. Secure the wire harness to the drive chassis with the wire ties as illustrated in figure 3 or 4.

Step 4. **For 460 VAC drives rated 400 HP through 600 HP, perform steps 4a - 4d for both starter kits:**

a. Disconnect wires 181, 182, and 183 from the blower motor starter's fuse block and discard them. These wires are connected to the back of the fuse block (the end closest to the drive chassis).

b. Attach the 181, 182, and 183 connectors on the long wire harness to the 13FU, 14FU, and 15FU spade terminals at the rear of the blower motor starter's fuse block.

c. Route the wire harness to the 181, 182, and 183 spade connectors on the drive's line fuse panel. These connectors are directly above the rear set of line fuses.

d. Secure the wire harness to the drive chassis with the wire ties as illustrated in figure 6.

Step 5. Turn the overload relay potentiometer to the blower motor's rated full load current. Set the overload relay to A (Auto). See figure 1 or figure 5.

Step 6. Connect the blower motor leads to the blower motor starter's T1, T2, and T3 terminals.

Step 7. Turn on power to the drive.

Step 8. Check for proper blower motor rotation. If the blower motor is rotating in the wrong direction;

a. Turn off, lockout, and tag power to the drive.

b. Swap the blower motor leads connected to the blower motor starter's T1 and T2 terminals.

c. Turn on power to the drive.

d. Repeat the check for proper blower motor rotation.

Step 9. Turn off and lockout power to the drive.

Step 10. Install the cover on the drive or drive's line fuse panel, if necessary.

Step 11. Turn on power to the drive.

Kit installation is now complete.

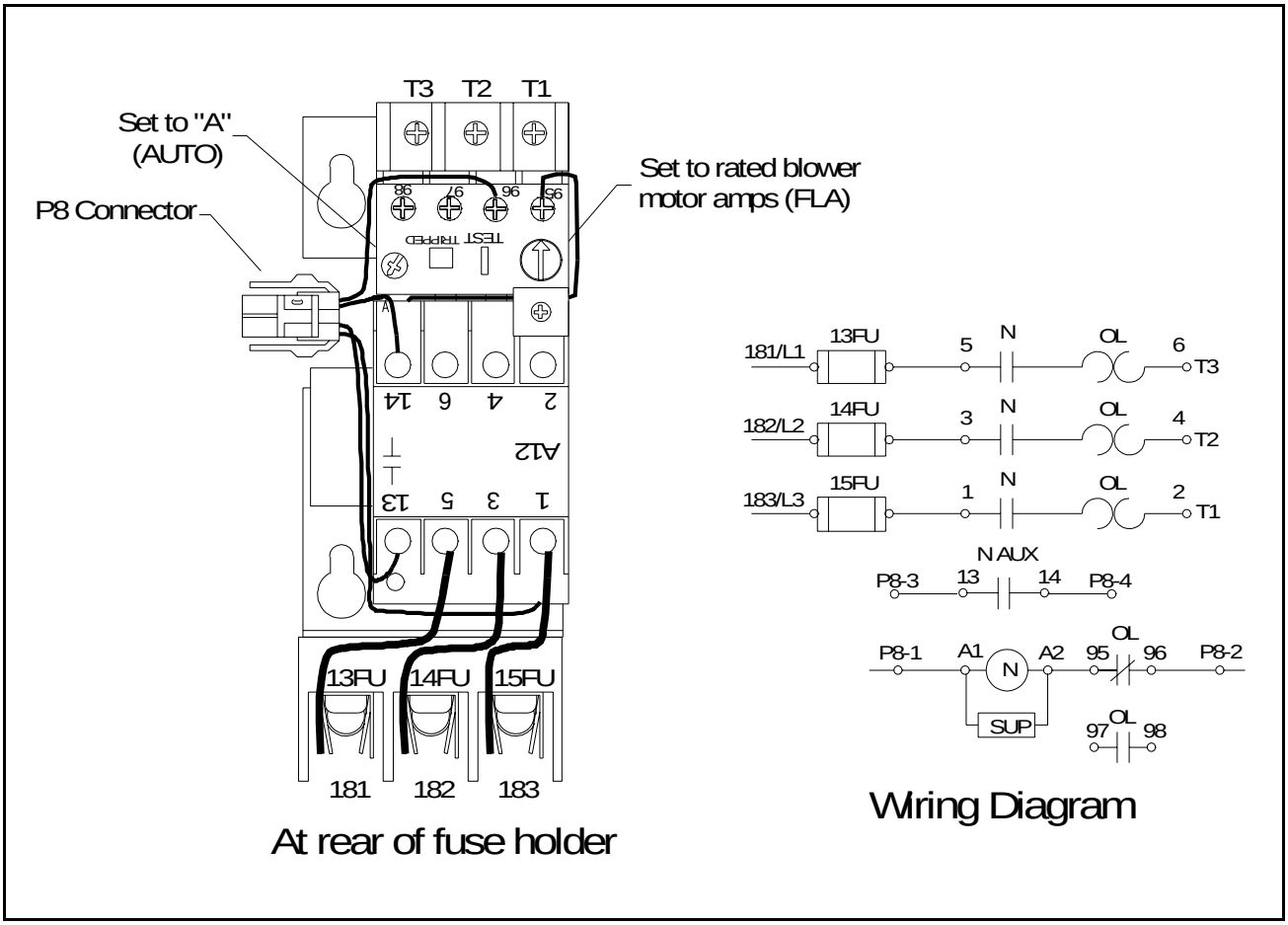

Figure 1 – Typical Blower Motor Starter (1.5 HP to 300 HP Drives)

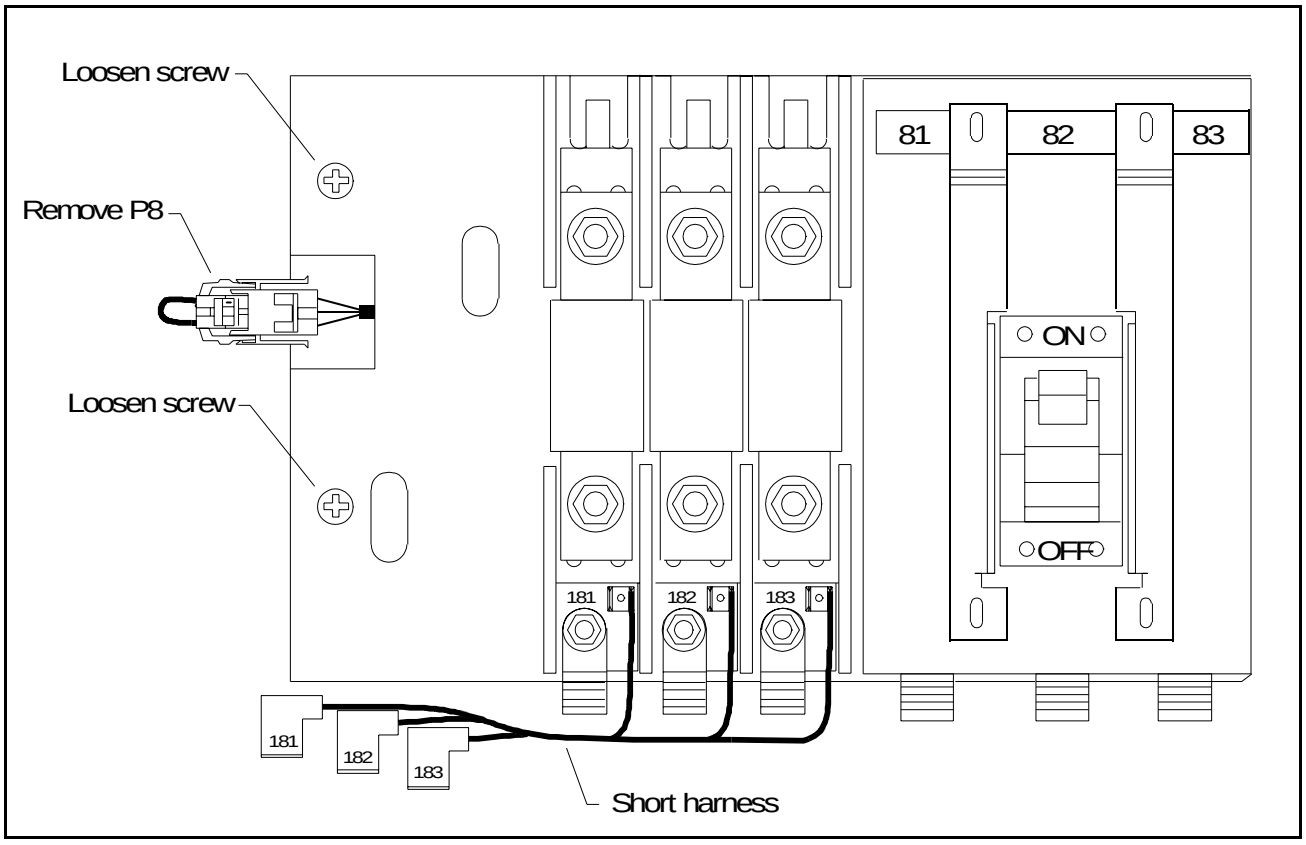

Figure 2 – Mounting the Starter on the Drive Line-Fuse Panel (1.5 HP to 30 HP @ 230 VAC / 3 HP to 60 HP @ 460 VAC)

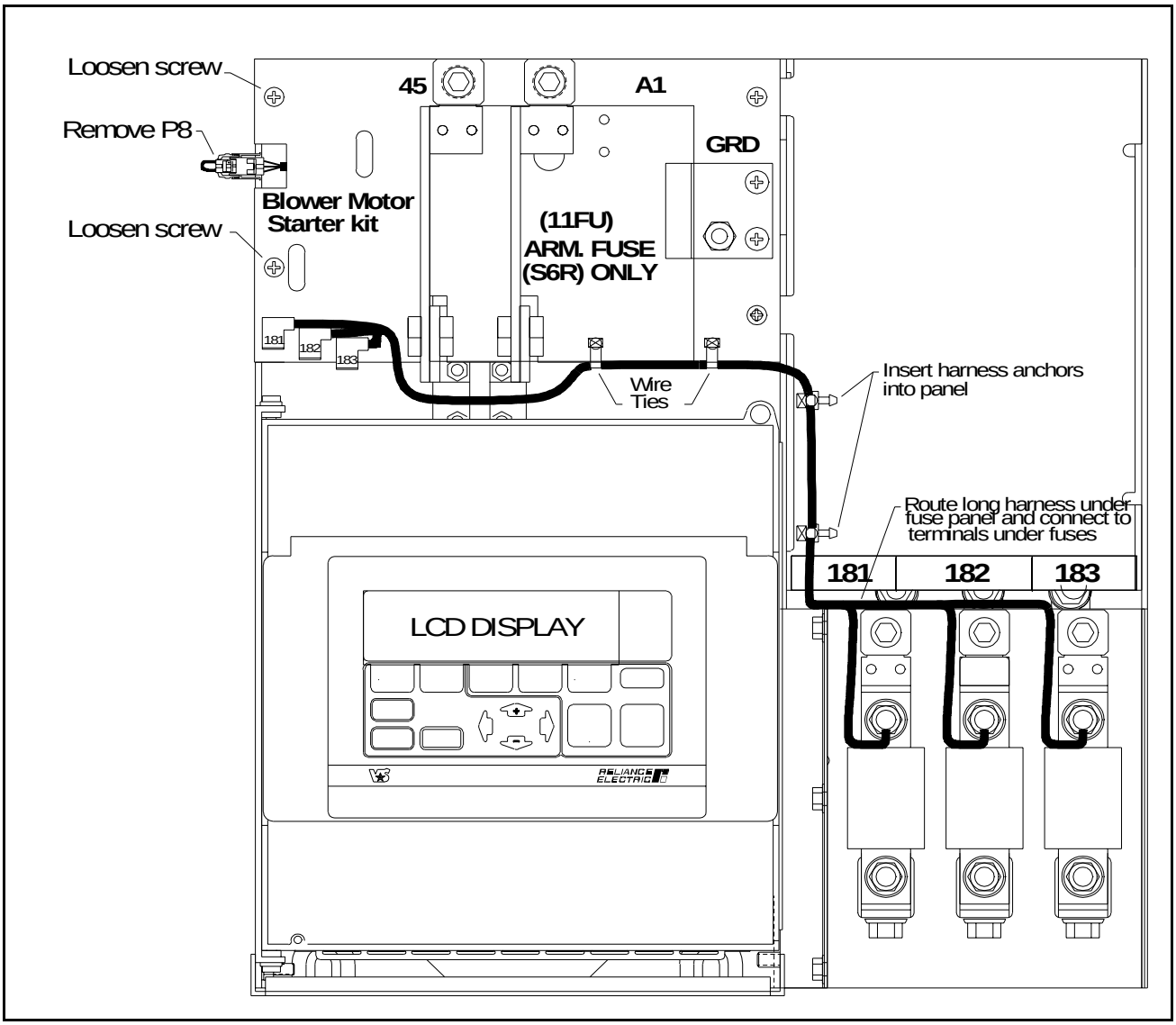

Figure 3 – Mounting the Starter on the Drive Line-Fuse Panel (40 HP to 75 HP @ 230 VAC / 75 HP to 150 HP @ 460 VAC)

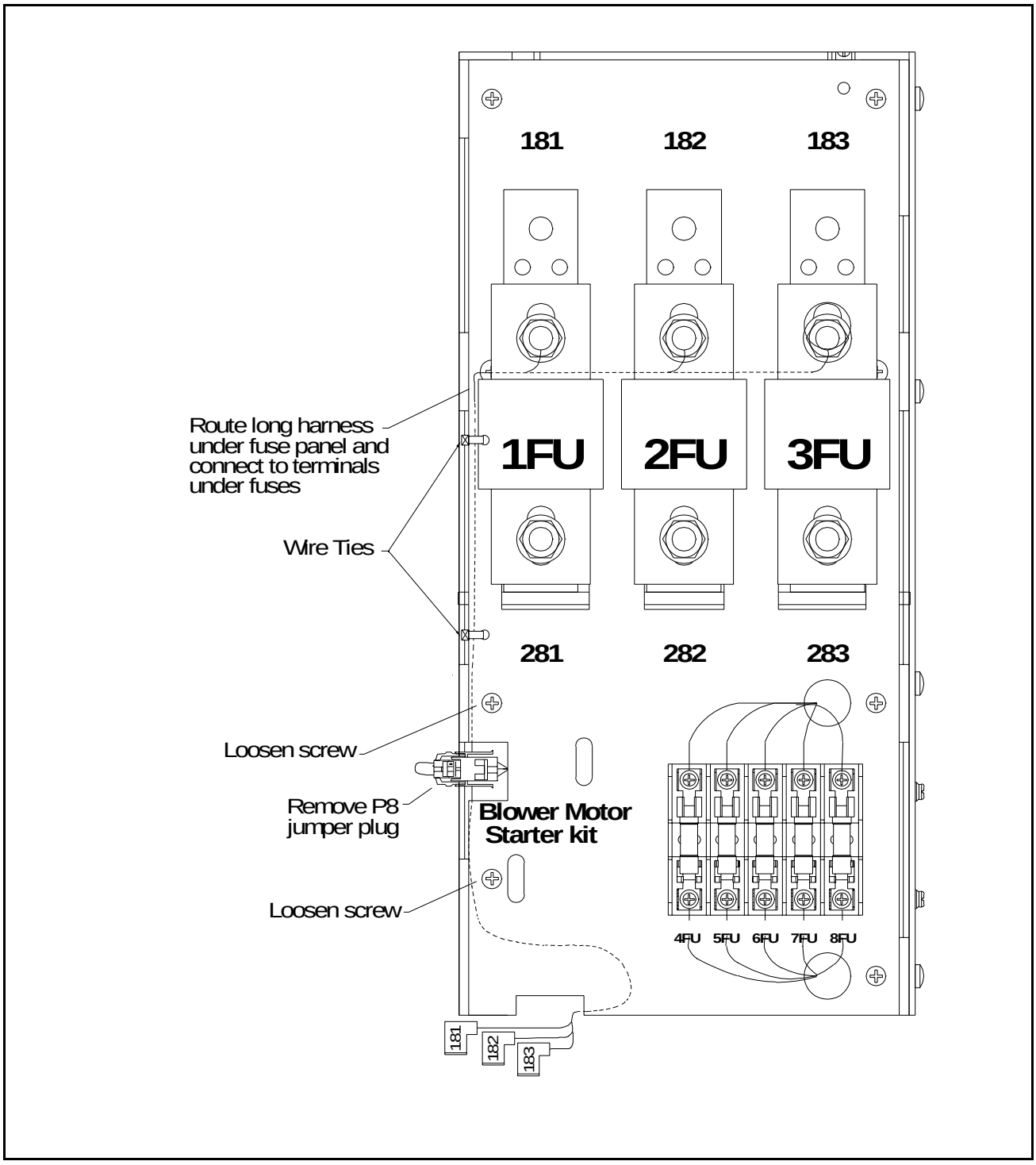

Figure 4 – Mounting the Starter to the Drive Line-Fuse Panel (100 HP to 150 HP @ 230 VAC / 200 HP to 300 HP @ 460 VAC)

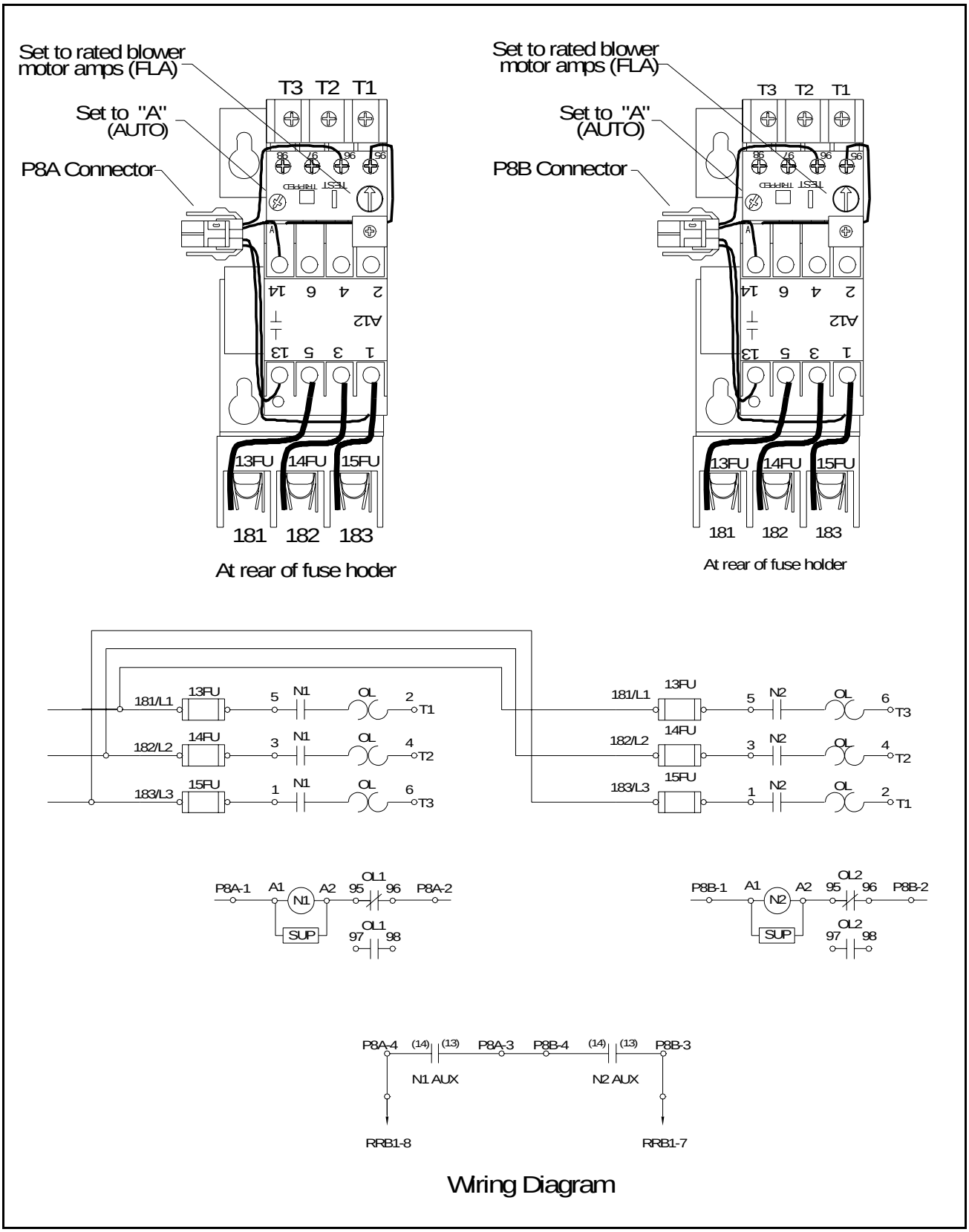

Figure 5 – Typical Blower Motor Starter (400 HP to 600 HP @ 460 VAC Drives)

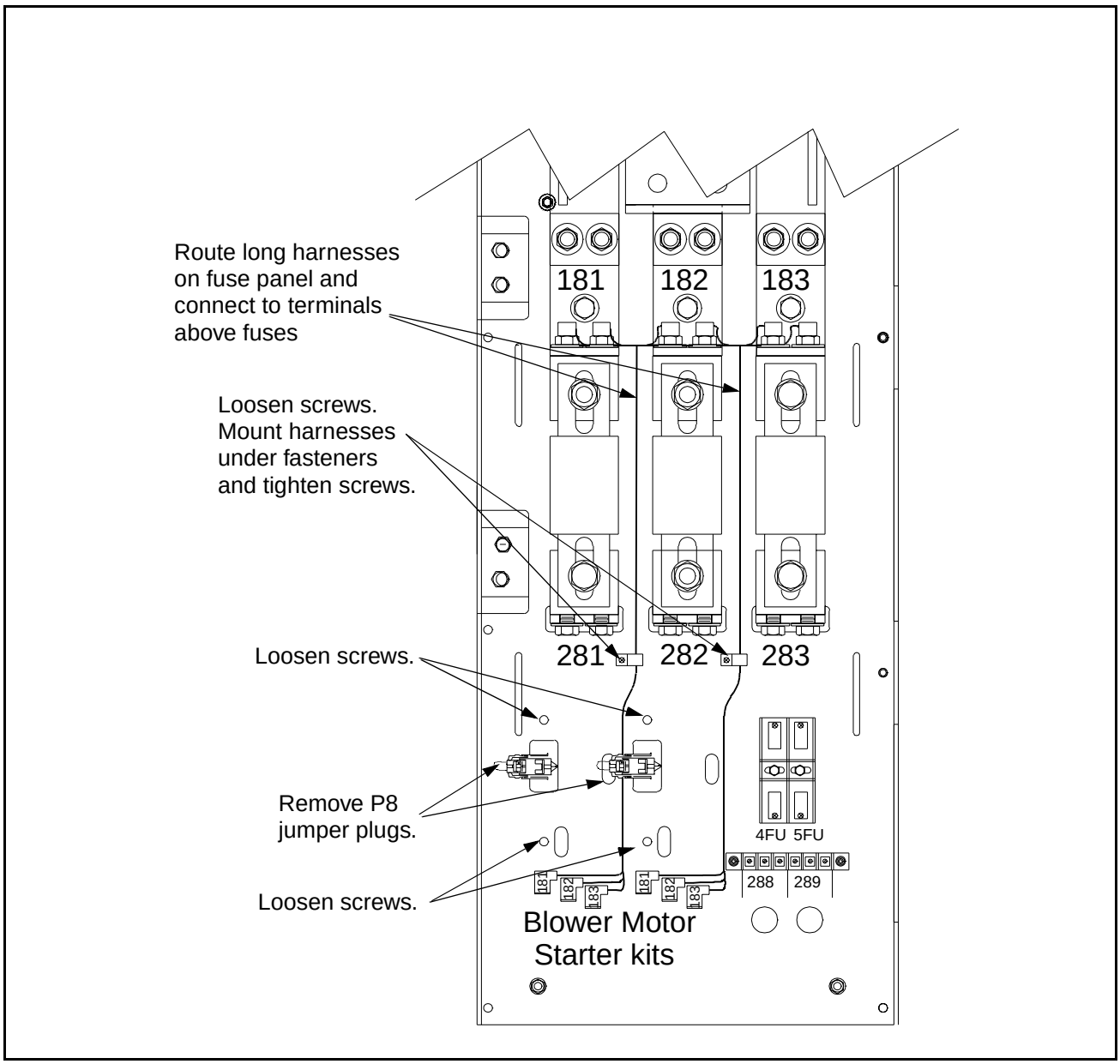

Figure 6 – Mounting the Starters on the Drive Line-Fuse Panel (400 HP to 600 HP @ 460 VAC)

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