

⚠ WARNING

Warns of hazards that can cause serious personal injury, death or major property damage.

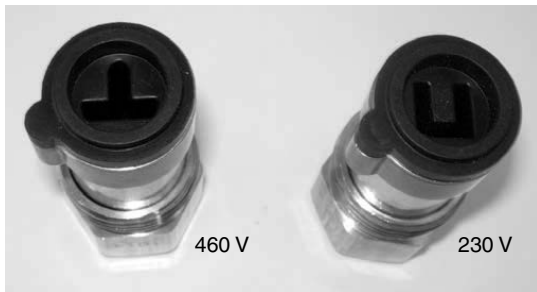


Franklin Electric

Changing Motor Voltage

Voltage changeable motors are shipped from the factory configured for a 460 V operation. Motor voltage can be changed from 460 V to 230 V or from 230 V to 460 V by changing the voltage plug and seal as follows:

⚠ WARNING Always disconnect line voltage from the motor before servicing. Examples of the parts used in this procedure are shown below.



Seal Plug Assemblies



Voltage Change Plugs

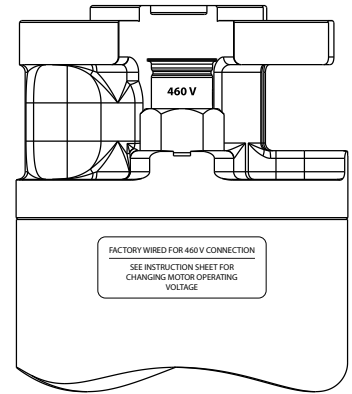


Fig. 1

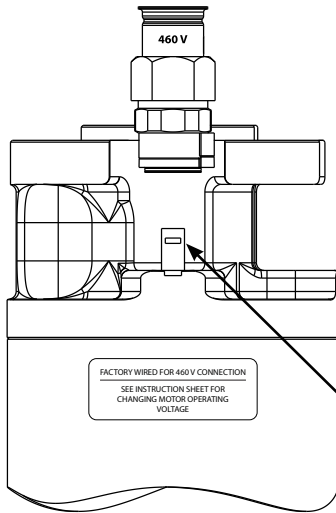


Fig. 2

1. Locate the voltage change seal assembly and remove the jam nut (see Fig. 1).
2. Remove the seal assembly to expose the voltage change plug (see Fig. 2).

3. Remove the installed plug as shown in Fig. 2 and 3 (a pry slot is provided in the plug handle if needed).

Verify that the new plug being installed is not damaged, and that it is the correct required voltage. Confirm that the plug and socket in the motor housing are clean and dry.

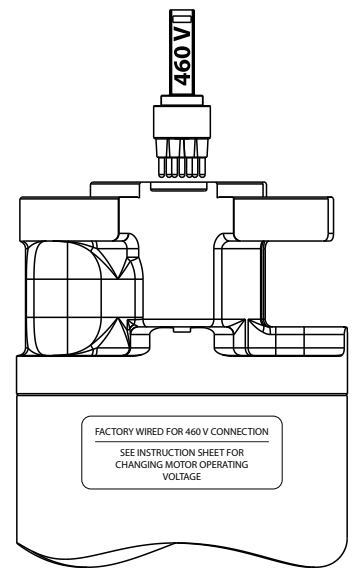


Fig. 3

- Insert the new voltage plug as shown in Fig. 4. Note that the plug voltage rating must be oriented as shown.

Inspect the new seal plug to make sure the rubber sealing flange is clean and not deformed. **Seal plugs should not be reused.**

- Insert the matching seal plug as shown in Fig. 5. Seals, plugs and the motor end bell are keyed to insure that all parts are correctly oriented. Parts should be firmly seated by hand prior to tightening the seal jam nut.

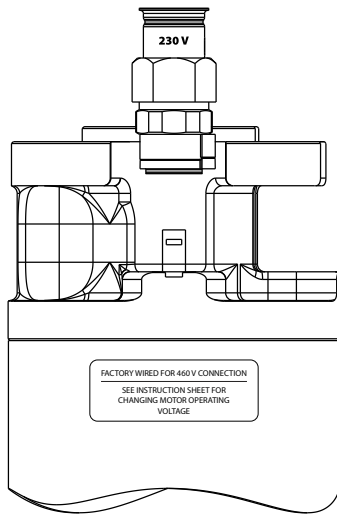


Fig. 5

- Tighten the seal plug assembly jam nut to 40-50 ft.-lb. (54-68 N-m). If a torque wrench is unavailable, confirm that the face of the tightened jam nut is in contact with the metal face of the motor top end bell. A gap between these two parts indicates an improperly tightened jam nut (see example below).



Correct installation with no gap.

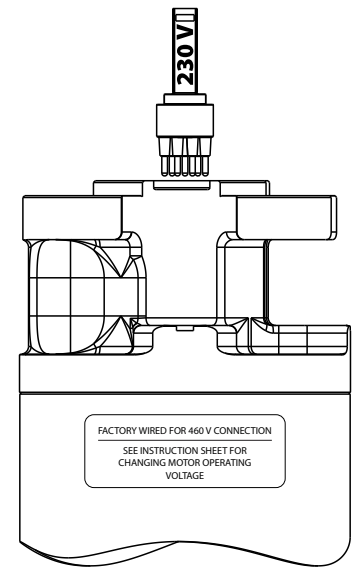


Fig. 4



Incorrect installation with gap.

- Perform a test of the motor insulation resistance to confirm that the seal and plug are not contaminated prior to putting the motor in service. Resistance readings should be in accordance with the published values given in the Franklin Electric Application, Installation, and Maintenance (AIM) Manual.

CAUTION Always verify that the voltage of the plug installed in the motor is the correct required voltage, even if no change was made, by comparing line-to-line resistance with the values in Table 2 for the applicable horsepower and voltage. Improper installation of the voltage plug will void all warranties.

Refer to the handling and installation instructions packaged with each motor for more general information about Franklin submersible motors.

Volts	Part Description	Kit Order No.
230 V	Voltage Change Plug and Seal Assembly	305574901
460 V	Voltage Change Plug and Seal Assembly	305574902

Table 1 Part Numbers

HP	PHASE	HZ	Connection Line-to-Line Resistance	
			460 V	230 V
5	3	60	3.60 - 4.40	0.90 - 1.10
7.5			2.40 - 3.00	0.60 - 0.75
10			1.80 - 2.30	0.45 - 0.55
15			1.10 - 1.40	0.28 - 0.35
20			0.90 - 1.10	0.23 - 0.28
25			0.63 - 0.77	0.15 - 0.19
30			0.52 - 0.64	0.13 - 0.16

Table 2 Resistance Values