

# Installation Instructions – Forward-Brake-Reverse Switch Part No. 9339 for Model KBPC-240D

 **Safety Warning!** Please read carefully before proceeding.

This product must be installed and serviced by a qualified technician, electrician, or electrical maintenance person familiar with its operation and the hazards involved. Proper installation, which includes electrical connections, fusing or other current protection, and grounding, can reduce the chance of electrical shocks, and/or fires, in this product, or products used with this product, such as electric motors, switches, coils, solenoids, and/or relays. Do not use this drive in an explosion-proof application. Eye protection must be worn and insulated adjustment tools must be used when working with drive under power. This product is constructed of materials (plastics, metals, carbon, silicon, etc.) which may be a potential hazard. Proper shielding, grounding, and filtering of this product can reduce the emission of radio frequency interference (RFI) which may adversely affect sensitive electronic equipment. It is the responsibility of the equipment manufacturer and individual installer to supply this Safety Warning to the ultimate end user of this product. (SW 8/2012)

**Be sure to follow all instructions carefully. Fire and/or electrocution can result due to improper use of this product.**

**Tools required: hex wrench (supplied) and pliers.**


## Description

The FWD-BRK-REV switch assembly is designed to provide reversing and dynamic braking. The switch contains a special hesitation action which prevents the operator from switching instantaneously from forward to reverse (or reverse to forward). This eliminates the possibility of "instant reversing" which could damage the motor and control. After switching from forward to brake, the switch lever must be released by the operator before it can be switched into reverse. In the brake position the output of the control is extinguished via an inhibit circuit and a dynamic brake resistor is applied across the armature.

**CAUTION! The FWD-BRK-REV switch is designed for occasional switching up to three operations per minute.**

**WARNING! Do not install Forward-Brake-Reverse Switch into Model KBPC-225D or catastrophic failure will occur.**

## Mounting

 **Warning!** Make sure the AC line is disconnected before installing the switch.

1. Remove the hole plug that covers the "FWD-BRK-REV" position. Use the Hole Plug Removal Instructions that are provided.
2. On the FWD-BRK-REV switch, remove and discard the hex nut located on top of the brake resistor bracket (See Figure 1).
3. Mount the FWD-BRK-REV switch assembly with the rubber boot. Use the hex wrench that is provided to tighten the rubber boot hex nut. Tighten, but do not overtighten. Note: The switch bushing should protrude approximately .15" (3.8 mm) through the front cover. See Figure 2.

Figure 1 – FWD-BRK-REV Switch Before Installation

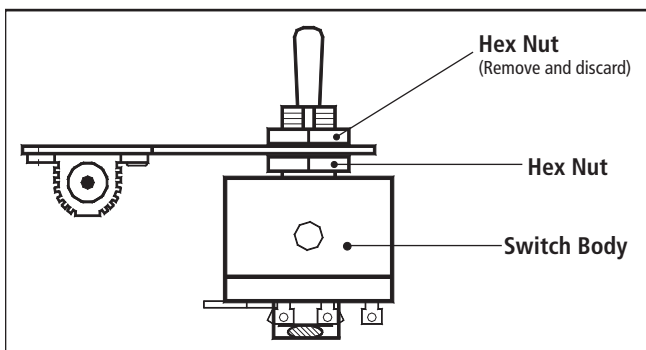
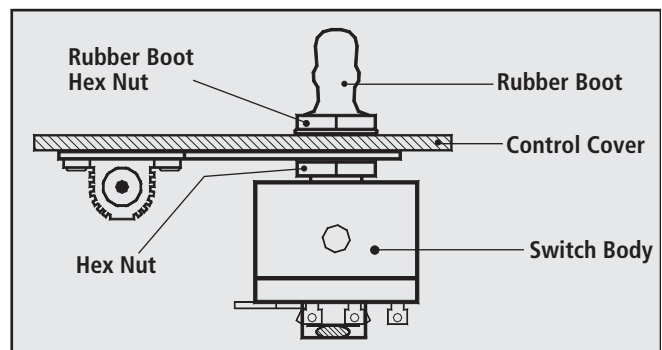


Figure 2 – FWD-BRK-REV Switch After Installation



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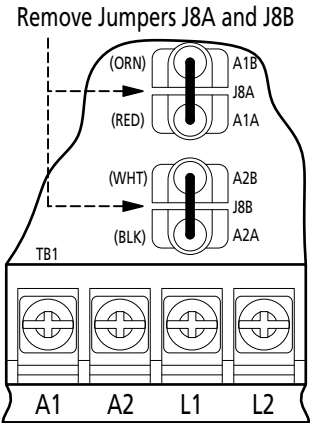
## Electrical Connections

1. Remove the two Jumpers J8A (connects A1A and A1B) and J8B (connects A2A and A2B) using long-nose pliers. Rock terminal back and forth to facilitate removal. See Figure 3.
2. Install the leads from the forward-brake-reverse switch assembly onto the following terminals on the main PC board. See Figure 4.

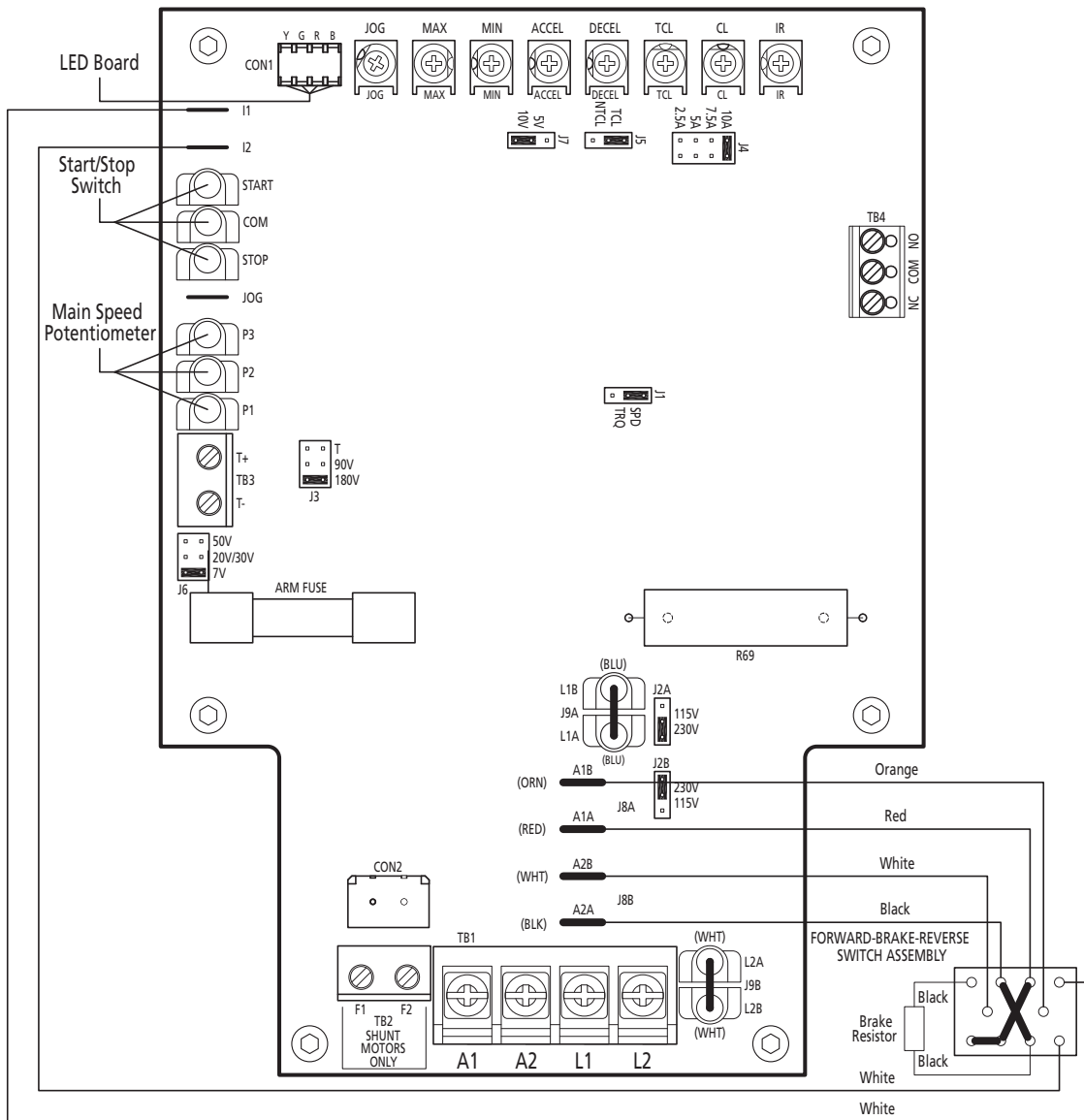
Wire Color from Switch	Terminal Position on Main Board
Black	A2A
White	A2B
Red	A1A
Orange	A1B
Gray*	I1
Gray*	I2

\*Either gray lead can go to I1, I2.

### Figure 3



### Figure 4 – Connection Diagram



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