BC159 ON/OFF AC LINE SWITCH
FOR MODEL BC154 & BCWD140

May 7, 1993

INSTALLATION INSTRUCTIONS

WARNING! Be sure to read safety warning before proceeding. Electrocution may result if you do not read safety warning.

SAFETY WARNING - PLEASE READ CAREFULLY

This product should 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 wiring, mounting in proper enclosure, fusing or other overcurrent protection and grounding, can reduce the chance of electric shock, fire or explosion in this product or products used with this product, such as electric motors, switches, coils, solenoids and/or relays. Eye protection must be worn and insulated adjustment tools must be used when working with control 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. If information is required on this product, contact our factory. It is the responsibility of the equipment manufacturer and individual installer to supply this safety warning to the ultimate user of this product. (SW effective 11/92)

This control contains Start/Stop and Inhibit circuits which can be used to start and stop the control. However, these circuits are never to be used as safety disconnects since they are not fail-safe. Use only the AC line for this purpose.

The input circuits of this control (potentiometer, Start/Stop, Inhibit) are not isolated from AC line. Be sure to follow all instructions carefully. Fire and/or electrocution may result due to improper use of this product.

The ON/OFF accessory switch provides a positive AC power disconnect. It can be installed in lieu of or in addition to the factory installed START/STOP switch which switches the DC power to the motor's armature. The AC switch is double pole which can be used to disconnect both AC lines. If only one AC line is to be switched, a single pole can be wired. [Refer to local electrical codes that may apply.]

MOUNTING LOCATIONS

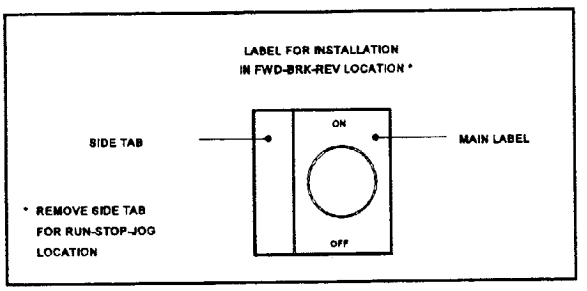
Depending on the application, the ON/OFF switch can be installed in one of three (3) locations on the front cover.

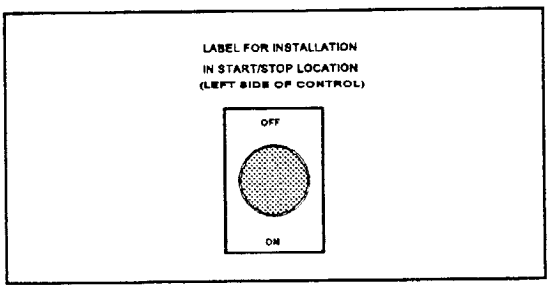
1. **START/STOP Switch Location:**
   If the factory installed START/STOP Switch is not required and is to be replaced with the ON/OFF switch, mount switch in this location. The START/STOP Switch is removed by first removing the rubber switch boot. Using long nose pliers remove the three (3) wires with quick-disconnect terminals from the main PC board terminals marked "START," "COM" and "STOP." (Rock terminal back and forth to facilitate removal.) The START/STOP Switch can now be removed from the control.

   IMPORTANT:
   When the original START/STOP Switch is removed, the control cannot be started unless the START circuit is activated. Therefore, a jumper must be installed between terminals "START" and "COM" on the main PC board.* (Note: Jumper J9A must be removed in order to install the ON/OFF AC Line Switch. Therefore, it can be used as a jumper for the "START" and "COM" terminals.) Control will not run unless the "START"/"COM" jumper is installed.

   ***Note: If the START/STOP Switch is defeated by jumpering the "START" - "COM" terminals, the Timed Current Limit overload protection must be reset by disconnecting and reconnecting the AC line.**

2. The two other possible ON/OFF AC line switch locations are the Run-Stop-Jog and Forward-Brake-Reverse. Either of these can be used so long as they are not being used for their respective options. After the location is chosen, the rubber hole plug must be removed by unscrewing the rear retaining nut.





MOUNTING

1. Attach the proper adhesive backed "ON/OFF" label over the respective mounting hole. Remove the adhesive backing and be sure to center the label over the mounting hole which will allow for proper seating of the rubber boot.

2. Insert the ON/OFF Switch in the desired hole. Make sure the hex nut is installed on the switch bushing leaving approximately 1/4" of clear thread. (Note: Some switch assemblies contain a nylon spacer that places the hex nut in the exact position.) Be sure the key in the mounting hole lines up with the keyway in the switch bushing. The bushing should protrude approximately .150" (3.8mm) through the front cover.

3. Install the rubber boot switch seal over the switch lever and onto the bushing. Tighten, but do not overtighten the rubber boot hex nut against the front cover.

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WIRING (Check local electrical codes before wiring.)

1. The supplied switch is a double pole. If both AC lines are to be switched, place (2) white and (2) blue wires onto switch as shown. (Some switch assemblies have the wires already attached.)

2. Remove jumpers J9A (from L1A and L1B) and J9B (from L2A and L2B). Note: Jumper J9A may have already been removed if switch is to be installed in the START/STOP mounting hole. (Rock terminal back and forth to facilitate removal.)

3. Insert the (2) quick-disconnect terminals from the blue ON/OFF switch leads onto the mating terminals marked L1A and L1B on the main PC board. Insert the (2) quick-disconnect terminals from the white ON/OFF switch leads onto the mating terminals marked L2A and L2B.

4. **Single Pole Wiring**: If the application requires that only one side of the AC line is to be disconnected, do not remove jumper J9B (L2A and L2B) from the main PC board. The white unused ON/OFF switch leads should be removed or cut off from the switch.

INSTALLATION IS NOW COMPLETE