



## **Allen-Bradley Bulletin 1341 Base Driver Board Update**

### **Kit Instructions**

#### **Scope of This Update**

The Bulletin 1341–BAB 3HP Drive is being updated with a new Base Driver Board to help minimize possible capacitor problems on the Base Driver Board. This publication is intended to provide qualified service personnel with the information necessary to correctly mount the new Base Driver board in 1341–BAB Drives.

#### **What This Kit Contains**

Each update kit contains:

- (1) Base Driver Printed Circuit Board
- (4) .375", 6–32 board mounting screws
- (2) .625", 8–32 heatsink mounting zinc plated locking screws
- (2) #8 zinc plated flat washers
- 1 gram non–conductive silicone oil based white heatsink compound



**ATTENTION:** Severe injury or death can result from electrical shock, burn, or unintended actuation of controlled equipment. Hazardous voltages may exist in the cabinet even with the circuit breaker in the off position. Multiple sources of power may be connected to the 1341–BAB. Recommended practice is to disconnect and lock out control equipment from all power sources and discharge stored energy in capacitors, if present. If it is necessary to work in the vicinity of energized equipment, the safety related work practices of NFPA 70E, Electrical Safety Requirements for Employee Workplaces, must be followed. **DO NOT** work alone on energized equipment!

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**ATTENTION:** This Drive contains ESD (Electrostatic Discharge) sensitive parts and assemblies. Static Control precautions are required when installing, testing, servicing or repairing this assembly. These precautions should be applied when working with the logic boards AND any components in the power section. Component damage may result if ESD control procedures are not followed. If you are familiar with static control procedures, reference A-B publication 8000-4.5.2, *Guarding Against Electrostatic Damage* or any other applicable ESD Protection Handbook.

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### Necessary Tools & Equipment

The following tools & equipment must be available before starting a Base Driver Board Kit Installation:

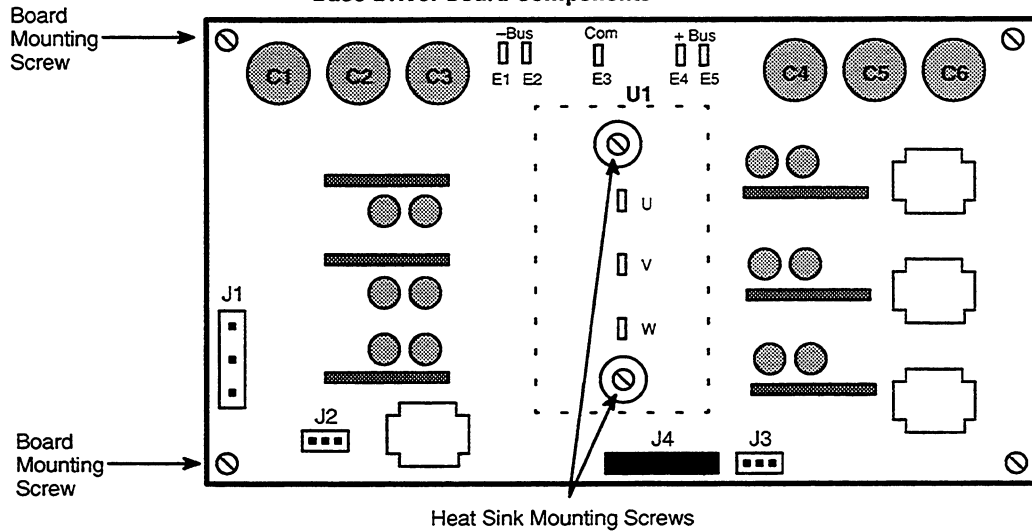
1. Assorted screwdrivers (Phillips and Straight).
2. 3M® Scotchbrite and a clean non-linting cloth.
3. Wrist grounding strap.
4. Torque Wrench calibrated in inch-lbs or Newton meters and adaptable for both phillips and straight screw head use.
5. ALCOA No. 2 compound or equivalent.

### Removal Procedure

The Base Driver Board is located beneath the Main Control board assembly in the 1341-BAB Drive. It will be necessary to swing the Main Control Board down on its hinged panel to gain access to the Base Driver Board.

1. Remove the four screws above the Main Control Board holding the hinged back panel to the rail. Swing the Main Control Board down to gain access to the Base Driver Board.
2. Remove the two screws fastening the heatsink in place. These screws are accessible through the two cutouts in the center of the Base Driver Board (Fig. 1).
3. Disconnect the connections J1, J2, J3 and J4 on the Base Driver Board. Disconnect the -Bus (E1, E2), Com (E3) and the +Bus (E4 and E5). It will also be necessary to disconnect the 90° terminal lugs at U, V, and W on the 6 Pack Transistor U1 (Fig. 1).
4. Remove the four screws holding the board in place and remove the Base Driver Board from the Drive.

**Figure 1**  
**Base Driver Board Components**



### Pre-Installation Steps

Important: The new Base Driver Board will be delivered in static proof wrapping or an ESD protective bag, DO NOT remove the board from the wrapping or bag until you are appropriately grounded.

1. Apply a few drops of Alcoa No. 2 compound to the heatsink mating surface of the 6 Pack Transistor U1 (located behind the base driver assembly and soldered to the board) and abrade with a 3M Scotchbrite. LEAVE THE ABRASIVE COMPOUND ON THE HEATSINK TEMPORARILY TO PREVENT OXIDATION.
2. Carefully abrade the heatsink plate mating surface on the Drive with a 3M Scotchbrite and Alcoa #2 compound. Clean the surface with a lint free cloth and immediately apply a thin layer of silicone heatsink compound (approximately 1/2 of the supplied 1 gram tube) to the mating area.

### Installation

1. Wipe off the abrasive compound and any other impurities from the 6 Pack Transistor U1 heat sink mating surface on the back of the new Base Driver Board Assembly. Apply the remaining silicone heatsink compound to the mating surface of U1 in a thin layer. Immediately install the board in the Drive fastening it in place with the two zinc plated heatsink mounting screws (8-32) and washers.
2. Install the four 6-32 screws that hold the Base Driver Board in place.
3. Use the Torque Wrench to torque the two heat sink mounting screws to 2.8 Nm (25 inch lbs).
4. Install the connections J1, J2, J3, J4, E1 thru E5 and U, V, W on the Base Driver Board.
5. Swing the Main Control Board back into position and fasten the back plate with the four screws previously removed.
6. Reapply power to the Drive and test operation with the new Base Driver Board installed.



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