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# 1334-MOD-W1

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## Control/Signal Card

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**Description** The 1334-MOD-W1 Control/Signal Card is designed for use in all Bulletin 1334 AC Drives and replaces the 1334-MOD W. It is needed whenever a Drive application requires any or all of the following functions.

- **Remote Reversing Capability**
- **Thread Speed — Local or Remote Operation**
- **Fault Trip Contacts for Remote Fault Annunciation**
- **Bus Up Contact for Remote Power On Annunciation**

### **Remote Reversing**

This function is used when the forward/reverse selector switch is located away from the Drive. The selector switch is connected between the Control/Signal Card and either the Drive internal 90V AC supply or a separate 120V AC grounded source. The open position of the switch selects the forward direction of motor rotation, the closed position selects the reverse direction.

### **Thread Speed**

This function allows the operator to select a second analog speed reference — Thread Speed — without having to change the setting of the Drive manual speed pot. Thread speed is adjustable for 0 to 100% of the maximum frequency setting.

For **Local Operation**, both the Control/Signal Card and the 1334-MOD-F2 Thread Speed Option Kit are required for the run or thread speed operation to be selected from the Drive door mounted control panel.

For **Remote Operation**, the Control/Signal Card, a customer supplied run/thread selector switch or other contact, and a 1k $\Omega$ , 2W linear taper speed pot are required. A closed switch or contact activates the thread mode.

### **Possible thread speed combinations are:**

Local Selector Switch and Remote Potentiometer

Remote Selector Switch and Local Potentiometer

Remote Selector Switch and Remote Potentiometer

Local Selector Switch and Local 1334-MOD-F2 Potentiometer — (A Small, PC Board Mounted, Thread Speed Pot is Provided Only in The 1334-MOD-F2 Thread Speed Option Kit.)

**Description**      **Fault Trip Contacts**

(continued)

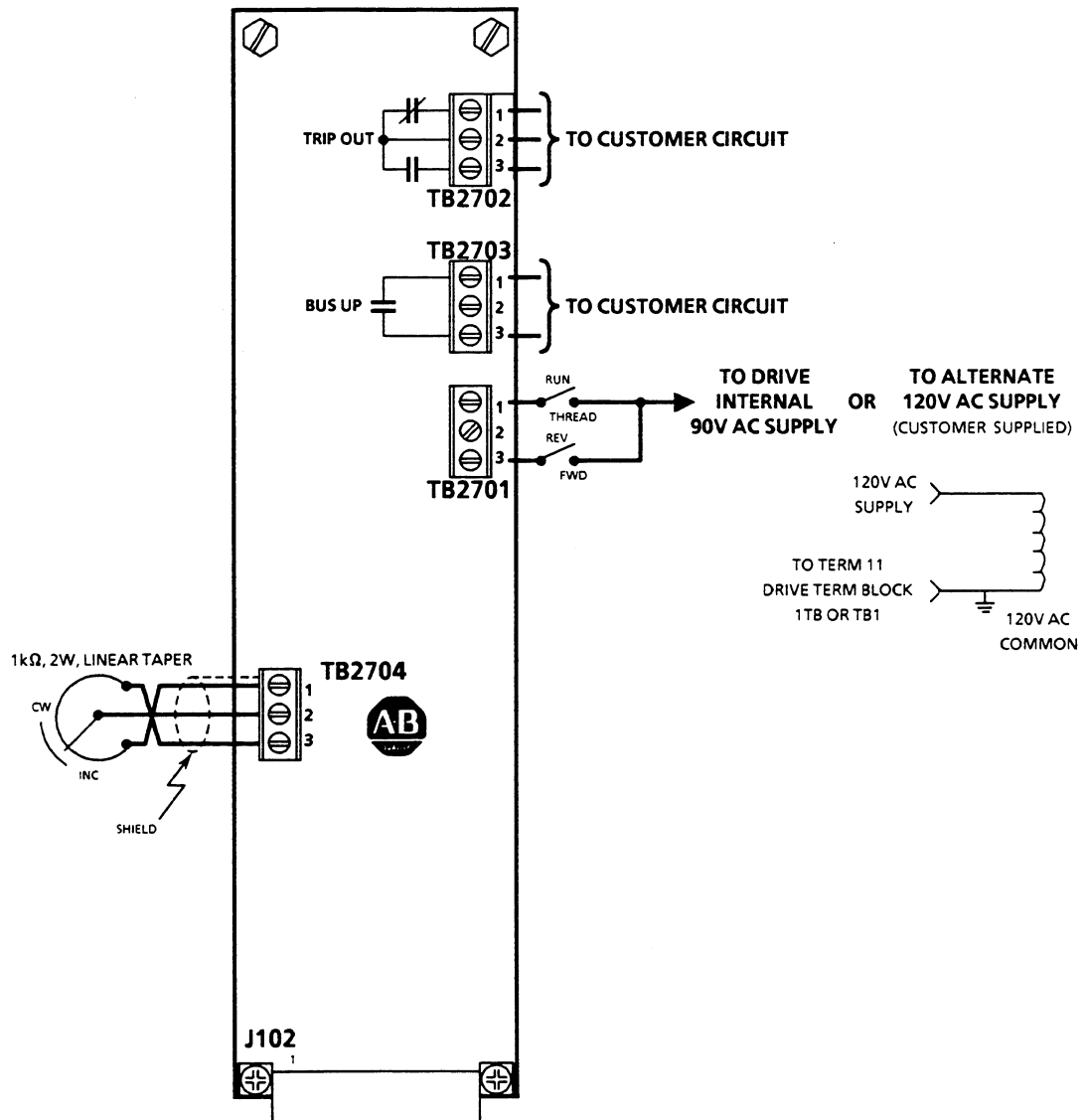
One set of fault trip form C relay contacts are provided to annunciate a Drive fault trip and are connected to **TB2702** on the Control/Signal Card. The contact between terminals 1 & 2 closes upon a Drive fault trip, or the removal of Drive input power, and opens upon a Drive reset in which a stop/start sequence is initiated. The contact between terminals 2 & 3 opens upon a Drive fault trip or removal of input power and closes upon a Drive reset.

**Bus Up Contact**

The bus up up contact is (1) normally open relay contact that remains open when input AC line power is first applied to the Drive, and closes when the DC bus is charged up. The contact is connected between terminals 1 & 3 of terminal block **TB2703** on the Control/Signal Card.

**Wiring**

Wiring to the card is not provided with the kit. Wiring should be made as outlined in the diagram below and the text on the following page. All relay contacts are shown in their de-energized state. The maximum wire size the Control/Signal Card will accept is 18 AWG stranded copper wire.



**Wiring**  
(continued)

**Fault Trip Contacts — TB2702**

The N.O. relay contact between terminals **2 & 3** closes upon a Drive reset and opens upon a fault trip. The N.C. relay between terminals **1 & 2** opens upon a Drive reset and closes upon a fault trip.

To replace an existing 1334-MOD-W option kit, use terminals **2 & 3** to duplicate the operation of the control signal fault trip contact. If a bleeder or pull-down resistor was previously used, it may be removed.

If only one contact is required, for best results interconnection wiring should be 2-conductor twisted-pair — 7-10 turns per inch, 22 AWG minimum — with a maximum distance of 1,000 feet. If both fault trip contacts are required, interconnection wiring should be 3-conductor twisted cable — 7-10 turns per inch, 22 AWG minimum — with a maximum distance of 1,000 feet.

**CONTACT RATING — INDUCTIVE AND RESISTIVE LOADS**

0.33 A continuous, 2A inrush, 120V AC  
0.33 A continuous, 2A inrush at 250V AC  
5A continuous at 30V DC

**Bus Up Contacts — TB2703**

The N.O. relay contact closes when the DC bus is charged up after AC input power has been applied to the Drive.

For best results, interconnection wiring should be twisted-pair — 7-10 turns per inch, 22 AWG minimum — with a maximum distance of 1,000 feet.

**CONTACT RATING — INDUCTIVE AND RESISTIVE LOADS**

0.33 A continuous, 2A inrush, 120V AC  
0.33 A continuous, 2A inrush at 250V AC  
5A continuous at 30V DC

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**IMPORTANT**

Both the fault trip and bus up contacts are electrically isolated from Drive high voltage potential. No reference to Drive voltages or logic common exists at the user connection points.

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**RUN/THREAD & FWD/REV Switches — TB2701**

If the Drive internal 90V AC is used, connections should be made only to terminals 1, 2, 3 or 4 of 1TB for 15-50 HP Drives, or TB1 for 3-10HP Drives.

If an alternate 120V AC grounded source is used, no connections are made to terminals 1, 2, 3 or 4. The ground must be connected to terminal 11 of terminal block 1TB or TB1.

**Thread Speed Pot — TB2704**

If a remote thread speed pot is to be used, for best results interconnection wiring should be 3-conductor shielded cable — 7-10 turns per inch, 22 AWG minimum — with a maximum distance of 50 feet. Connect one end of the shield to terminal **1** of **TB 2704**. The other end must be tied back, insulated, and left floating.

If a local thread speed pot is required, the thread speed pot supplied with the 1334-MOD-F2 must be used. Refer to the 1334-MOD-F2 Option Kit Instructions for installation information.



**WARNING**

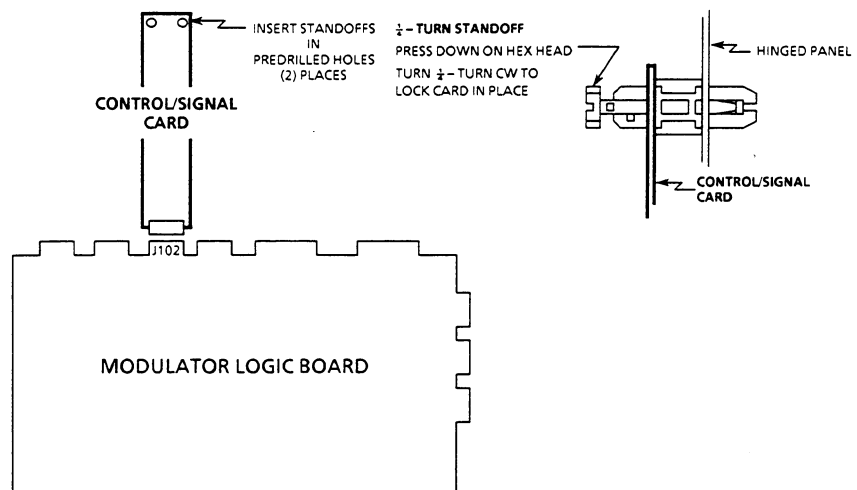
Only personnel familiar with the Drive and its associated machinery should plan or implement the installation, startup, and adjustment of MOD kits. Failure to comply may result in personal injury and/or equipment damage.

To guard against personal injury, always remove & lock-out power to the Drive at the main supply disconnect and all other power source disconnects. Ensure that DS1 is not lit when boards or wires are being installed or connected. Refer to the instruction manual for your Drive for LED location.

**Each 1334-MOD-W1 Option Kit Includes:**

- (1) Control/Signal Card, P/N 50904
- (2) ¼ Inch, ¼ - Turn Standoffs, P/N 201104

As shown in the installation drawing below, two predrilled holes have been provided above Modulator Logic Board connector **J102**. Installation requires removing power to the Drive and installing (2) ¼ - turn standoffs into the predrilled holes. The card is then plugged onto the edge connector while pressing the top of the card onto the (2) installed standoffs. To secure the card in place, press down on each hex head screw and turn ¼ - turn CW.



**Adjustments**

There are no field adjustments on the Control/Signal Card, however, when the thread speed feature is used, the **STD/THRD** jumper on the Modulator Logic Board must be in the **THRD** position. When the reversing feature is used, the **REV/NO REV** jumper on the Modulator Logic Board must be in the **REV** position for the reversing function to be operative. Refer to the Drive instruction manual for jumper location.



Motion Control Division