

**INSTRUCTION SHEET**

**NOTE**

The instructions which follow cover both the *MELLTRUM* and the *MELL2300RG* Drives. Use pages 1-4 for *MELLTRUM* applications and pages 5-6 for *MELL2300RG* applications.

(USE FOR *MELLTRUM* DRIVES)

**Speed Meter Interface Board Kit**

This board is used with the speed meter option. Its purpose is to interface either the armature voltage or the tachometer voltage to the speed meter. When armature voltage is used as a speed sensing signal, this board provides a filtered, resistively isolated signal to the speed meter. If a tachometer is used as the speed sensing signal, this board provides a filtered, full wave rectified signal to the speed meter.

**Procedure:**

1. The *MELLTRUM Drive Control* must be mounted to the modification panel before proceeding.
2. Fasten the speed meter interface board to the panel at the position shown on panel layout diagram Figures 1A and 1B. Use four (4) 3-32 x 1 3/8 screws and four (4) Belleville washers. The washers are installed directly underneath the screw heads.
3. If the Armature Contactor Kit is used (kit number 222-9121,-9028, or -9029), kit must be mounted to the modification panel before proceeding. (The *MELLTRUM 1* Armature Contactor is supplied as part of the drive.)
4. If the Reversing Kit is used (*MELLTRUM 1* and *2* only) kit number 222-9100 or 9101 must be mounted to the modification panel before proceeding.
5. If neither the Contactor Kit nor Reversing Kit is used the A+ and A- leads are connected from TB1-1 and TB1-2 on the Speed Meter Interface Board to the A+ and A- terminals on the drive. The drive is then wired to the motor as follows:
  - a.) Refer to Figure 1.

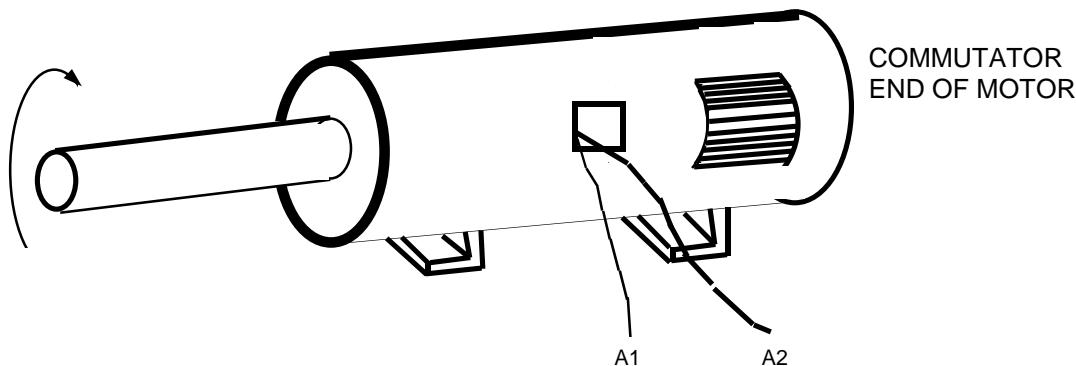


FIGURE 1

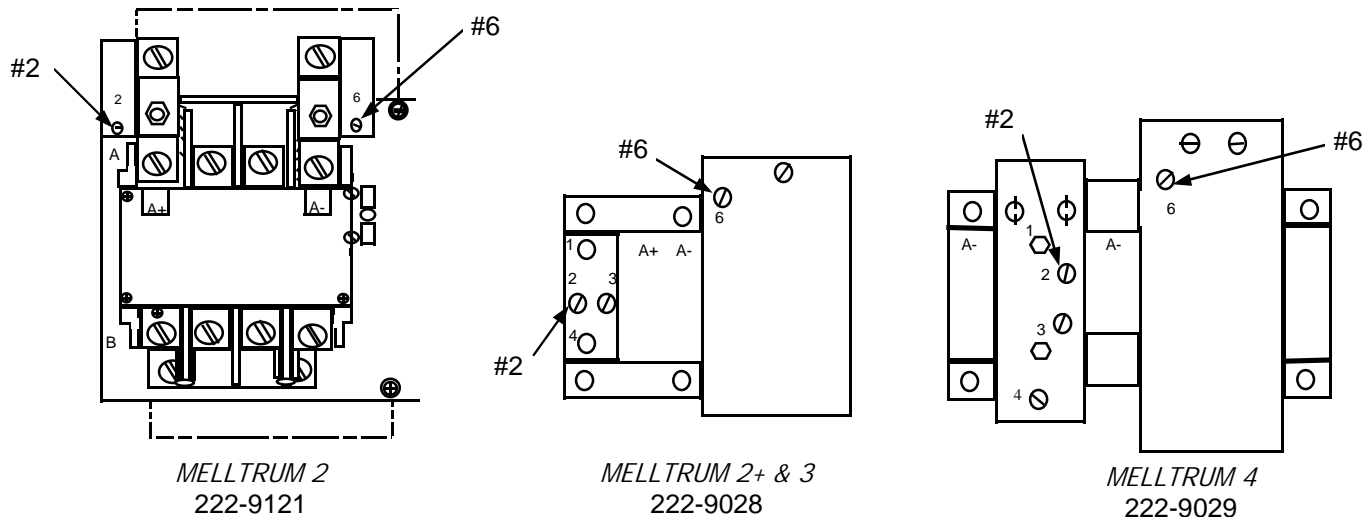
- b.) For counterclockwise rotation as viewed facing the commutator end of the motor, connect lead from A1 on motor to A+ on drive and A2 on motor to A- on drive.
  - c.) For clockwise rotation, reverse A1 and A2 connection at motor.
6. If one has either an Armature Contactor or a Reversing Kit, determine whether armature or tachometer voltage is being used as a meter driving signal and follow the appropriate instructions which follow:

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 (USE FOR *MELLTRUM* DRIVES)

 7. Armature voltage (*MELLTRUM* 2, 3, 4):

- a.) Connect wire marked "A+" from TB1-1 on Speed Meter Interface Board to power bus #2 as shown in Figure 2.


**FIGURE 2**

- b.) Connect wire marked "A-" from TB1-2 on Speed Meter Interface Board to power bus #6 (pictured in Figure 2.)

 8. Armature voltage (*MELLTRUM* 1):

- a.) Connect wire marked "A+" from TB1-1 on Speed Meter Interface Board to terminal A+ in the upper left hand corner of the drive.
- b.) Connect wire marked "A-" from TB1-2 on Speed meter Interface Board to terminal A- in the upper right hand corner of the drive.

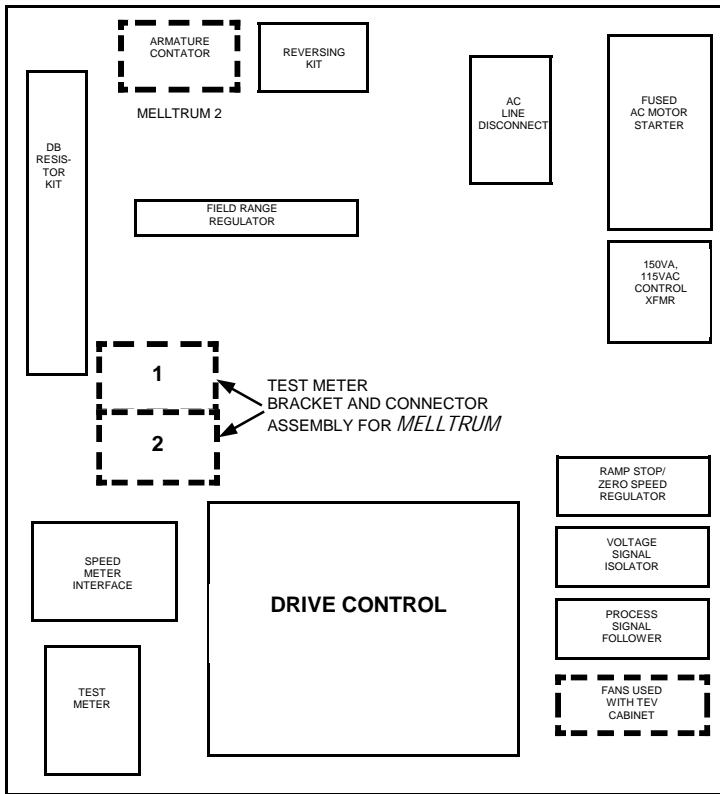
 9. Armature voltage with Reversing Kit option installed (*MELLTRUM* 1 and 2 only):

- a.) Connect wire marked "A+" from TB1-1 on Speed Meter Interface Board to the A+ terminal on the lower right section of the Reversing Kit as shown in Figure 3.
- b.) Connect wire marked "A-" from TB1-2 on Speed Meter Interface Board to the A- terminal on the lower right section of the Reversing Kit as shown in Figure 3.

## 10. Tachometer voltage (all models): Connect a twisted pair of wires from drive control terminal strip TB1-21 and TB1-22 to TB2-3 and TB2-4 on Speed Meter Interface Board.

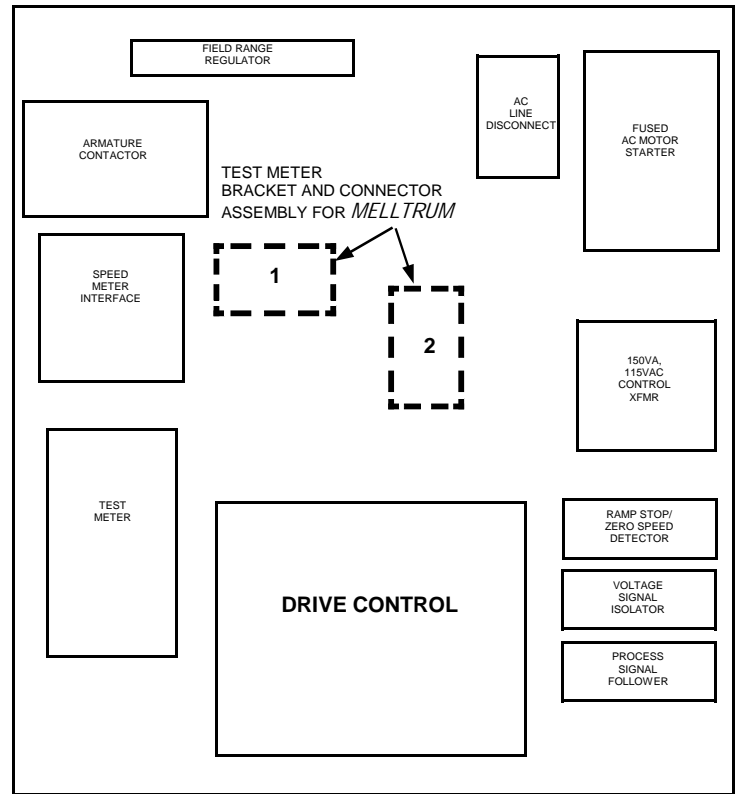
**INSTRUCTION SHEET**

(USE FOR *MELLTRUM* DRIVES)



*MELLTRUM*  
1 & 2  
MODIFICATIONS  
KIT LOCATIONS

FIGURE 1A

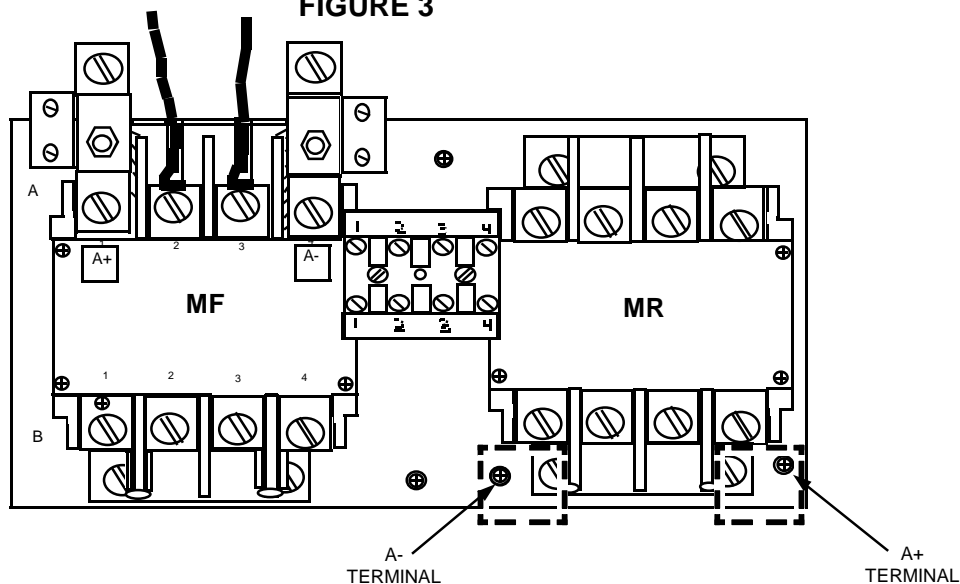


*MELLTRUM*  
2+, 3 & 4  
MODIFICATIONS  
KIT LOCATIONS

FIGURE 1B

**INSTRUCTION SHEET**  
 (USE FOR *MELLTRUM* DRIVES)

**FIGURE 3**



Interconnect diagrams for all option kits can be found in the instruction manual supplied with the drive.

For further information and assistance, contact the *MELLTRUM* Service Department at:

MELLTRONICS INDUSTRIAL, INC.  
 P.O. Box 2368  
 Indian Trail, NC 28079  
 Phone 704-821-6651

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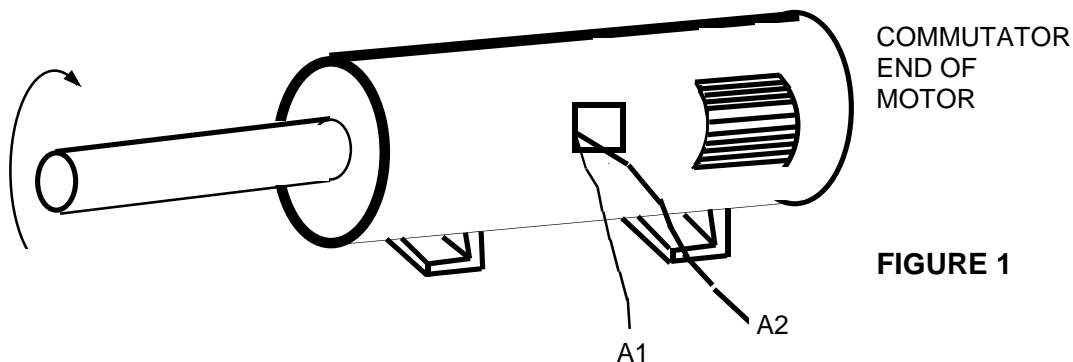
(USE FOR *MELL2300RG* DRIVES)

**Speed Meter Interface Board Kit**

This board is used with the speed meter option. Its purpose is to interface either the armature voltage or the tachometer voltage to the speed meter. When armature voltage is used as a speed sensing signal, this board provides a filtered, resistively isolated signal to the speed meter. If a tachometer is used as the speed sensing signal, this board provides a filtered, full wave rectified signal to the speed meter.

**Procedure:**

1. The *MELL2300RG Drive Control* must be mounted to the modification panel before proceeding.
2. Fasten the speed meter interface board to the panel at the position shown on panel layout diagram Figure 1A. Use four (4) 3-32 x 13/8 screws and four (4) Belleville washers. The washers are installed directly underneath the screw heads.
3. Determine whether armature or tachometer voltage is being used as a meter driving signal and follow the appropriate instructions below.
4. Armature voltage:
  - a.) Connect a wire from TB1-1 on Speed Meter Interface Board to terminal A+ in the upper left hand corner of the drive.
  - b.) Connect a wire from TB1-2 on Speed meter Interface Board to terminal A- midway between the upper left and right corners of the drive.
  - c.) Wire the drive to the motor as follows:
    - 1.) Refer to Figure 1.
    - 2.) For counterclockwise rotation as viewed facing the commutator end of the motor, connect lead from A1 on motor to A+ on drive and A2 on motor to A1 on drive.
    - 3.) For clockwise rotation, reverse A1 and A2 connection at motor.



**FIGURE 1**

5. Tachometer voltage  
Connect a twisted pair of wires from drive control terminal strip TB1-29 and TB1-30 to TB2-3 and TB2-4 on speed meter interface board.

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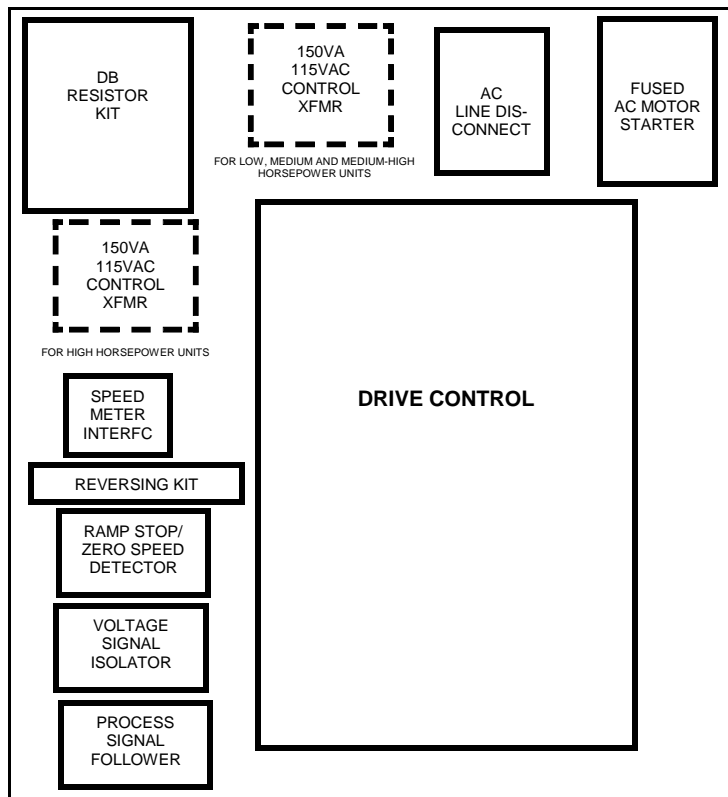


FIGURE 1C

*MELL2300RG* ALL MODELS  
MODIFICATION KIT LOCATIONS

Interconnect diagrams for all option kits can be found in the instruction manual supplied with the drive.

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Indian Trail, NC 28079  
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