

REFLEX^(R) MODEL 223 CROSSOVER ASSEMBLY

PART NUMBER 12M03-00119-01
APPLICATION NOTES

1. If an armature voltage higher than 250 volts is required, a 50K divider consisting of two 25K, 5 watt resistors (or one 50K, 10 watt wirewound resistor with center-tap slider) should be connected across the armature. A maximum 250 volt signal from the divider is then applied to terminals 5 and 6.
2. If full isolation from the armature loop is required, use the REFLEX Model 213 Signal Isolator or Model 224 or 242 Current Isolator.
3. The Model 223 Crossover Assembly is connected to the Model 201 Field Firing Assembly and Power Converter as shown in Figure 2.

The Drive Armature Regulator must be configured for Tachometer Feedback. An alternate scheme using the Model 209 Multiplier is available if a tachometer generator can not be used (See Tachless Crossover - Data Sheet DS6200-0101).

4. To facilitate troubleshooting it is desirable to tie in the common terminals to the Main Drive common.

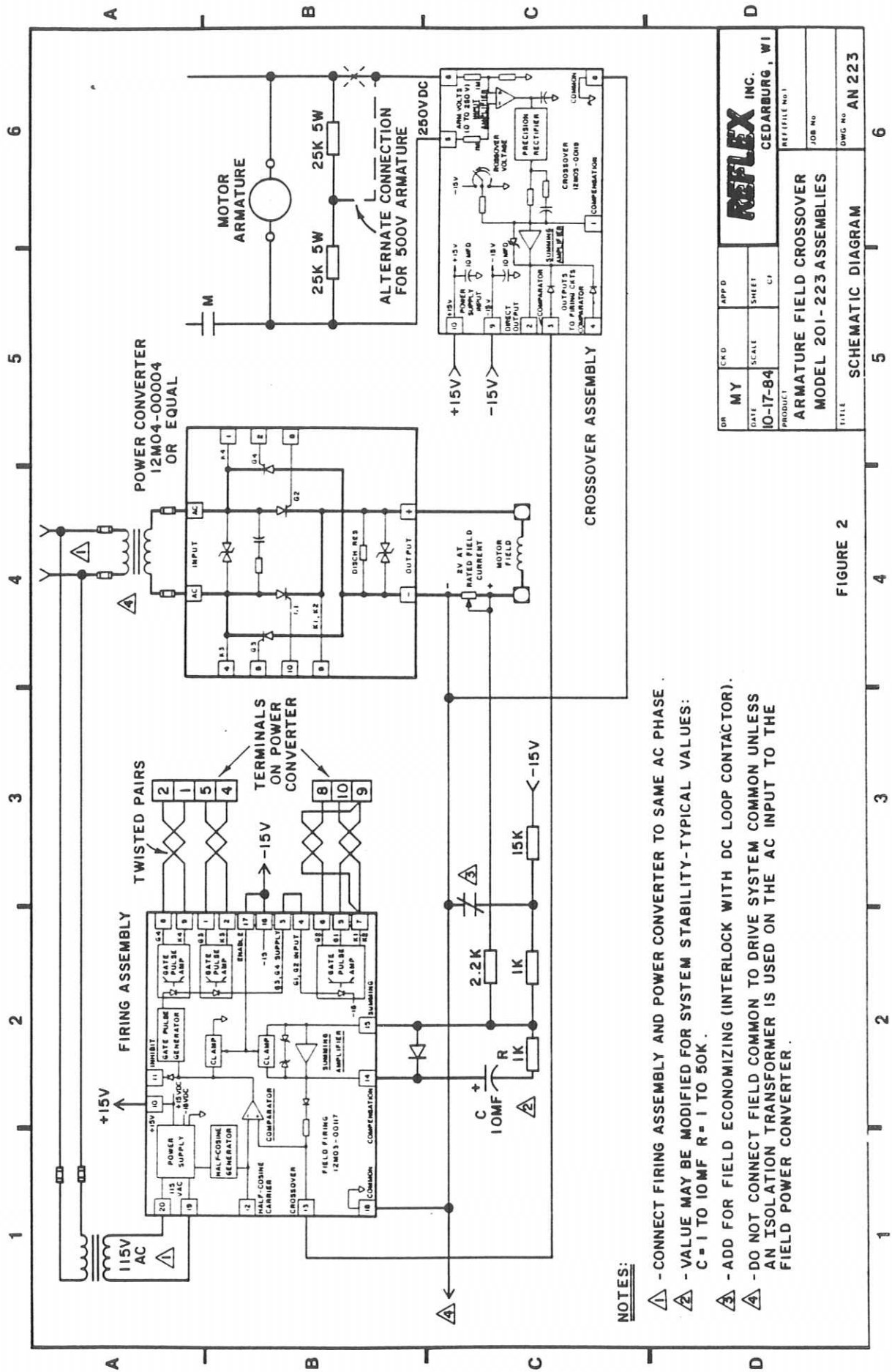
This must be tied in if the Model 227 Test Meter is used.

AN ISOLATION TRANSFORMER MUST BE USED ON THE AC INPUT OF THE POWER CONVERTER IF ANY PART OF ITS CIRCUITRY IS CONNECTED TO ANY PART OF THE MAIN DRIVE CIRCUITRY.

DO NOT CONNECT COMMON TO EARTH GROUND UNLESS AN ISOLATION TRANSFORMER IS USED!

5. The 115V AC Supply to the Firing Assembly must be from the same AC phase as the AC Supply to the Power Converter.
6. The basic control as shown can operate in a "Tachless Mode," but it is usually necessary to reduce the gain of the crossover assembly by connecting a resistor (typically 10K) between terminals 1 and 2.

The disadvantage of this approach is that speed will not change in a linear relation to the position of the speed setting potentiometer when above base speed, and it takes a greater change in armature voltage to cause the required field change.



NOTES:

- ⚠ - CONNECT FIRING ASSEMBLY AND POWER CONVERTER TO SAME AC PHASE.
- ⚠ - VALUE MAY BE MODIFIED FOR SYSTEM STABILITY-TYPICAL VALUES:
C = 1 TO 10MF R = 1 TO 50K.
- ⚠ - ADD FOR FIELD ECONOMIZING (INTERLOCK WITH DC LOOP CONTACTOR).
- ⚠ - DO NOT CONNECT FIELD COMMON TO DRIVE SYSTEM COMMON UNLESS AN ISOLATION TRANSFORMER IS USED ON THE AC INPUT TO THE FIELD POWER CONVERTER.

DR	MY	APPD	REFLEX INC. CEDARBURG, WI	
DATE	SCALE	SHEET	REF FILE NO. 1	JOB NO.
10-17-84		CF		
PRODUCT		ARMATURE FIELD CROSSOVER		
MODEL		MODEL 201-223 ASSEMBLIES		
TITLE		SCHEMATIC DIAGRAM		
DWG NO.		AN 223		

FIGURE 2

6

5

4

3

2

1

6

5

4

3

2

1

7. If used with a single phase armature supply, additional filtering is required. Connect two 10K 1/2 watt resistors and a 5MF 450V NP capacitor as shown below:

