

EAM106 EFC INTERFACE MODULE

DESCRIPTION

The Governors America Corporation EAM106 is an electronic device that allows GAC Load Sharing Modules and Auto Synchronizers to operate with the Cummins EFC electronic speed control P/N 3081313.

Sophisticated generator paralleling systems can be assembled with GAC high performance accessories to control EFC equipped Cummins engines.

The EAM106 module requires four connections to the EFC speed control—the positive lead from the battery supply, signal ground from Terminal 15 (not battery ground), the reference sensing (4 VDC) and an output to the speed control to adjust its speed setting (ILS input). The EAM106 draws less than one microamp from the speed control, assuring no adverse effects on the system.

The other terminal block on the EAM106 accepts connections from an external speed trim pot, GAC P/N TP501 or TP503, and from the GAC Load Sharing Module and Auto Synchronizer.

OPERATION

Instructions on the operation of the GAC LSM100, LSM201 or LSM672 Load Sharing Modules, and the SYC6714 Synchronizer are found in publications PTI4110, PTI4100, PTI4000, and PTI4030 respectively.

Terminal D of the EAM106 has the same sensitivity as Terminal R of the ESC63C Series speed control units, 104 hz/volt. Terminal B of the EAM106 has approximately the same sensitivity as Terminal J of the ESC63C Series speed control units.

WIRING

The wiring for typical generator paralleling systems is shown in Figures 2, 3 or 4. Attention should be given to the signal ground reference, which is Terminal 15 of the EAM106. All ground connections must be made at this terminal. Shielded cables to Terminal 12 require connection of the cable shield to the "SHIELD terminals" on EFC control.

TESTING and TROUBLESHOOTING

(WHILE INSTALLED)

1. Apply 24 VDC to Terminals 1 (+) and 15 (-).
2. The voltage measured between Terminals E and 15 should be 10.0 ± 0.5 VDC.
3. Connect a 5K ohm speed trim pot to Terminals A, B and E as shown in Diagram 1.
4. The voltage measured between Terminals 11 and 12 should be equal to the 0 VDC.
NOTE: Must use a 10 Meg+ impedance meter.
5. Measure the voltage between Terminals 12 (+) and 15 (-) while adjusting the frequency trim pot from end to end. The voltage should change 0.13 VDC from 4.06 to 3.94 (± 0.1 VDC).
6. If the above measurements are correct, the EAM106 meets its specifications.

**Figure 1.
OUTLINE DIAGRAM**

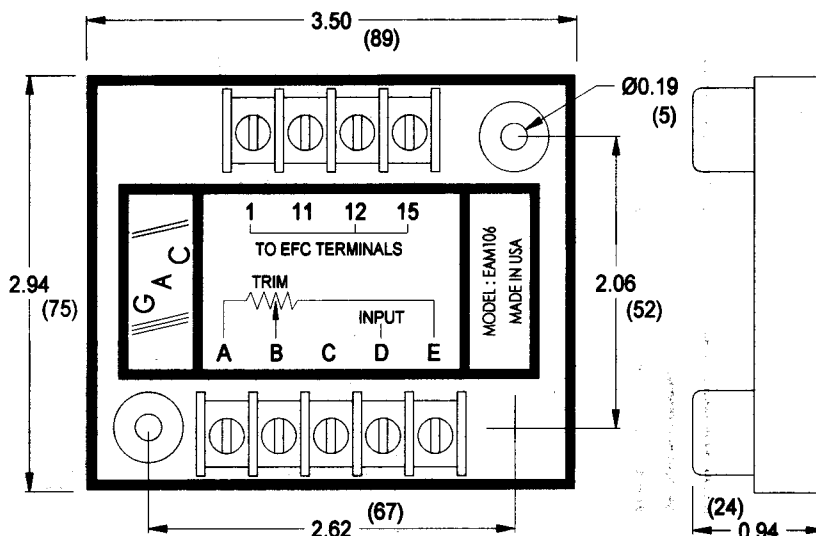


Figure 2.
WIRING DIAGRAM WD156

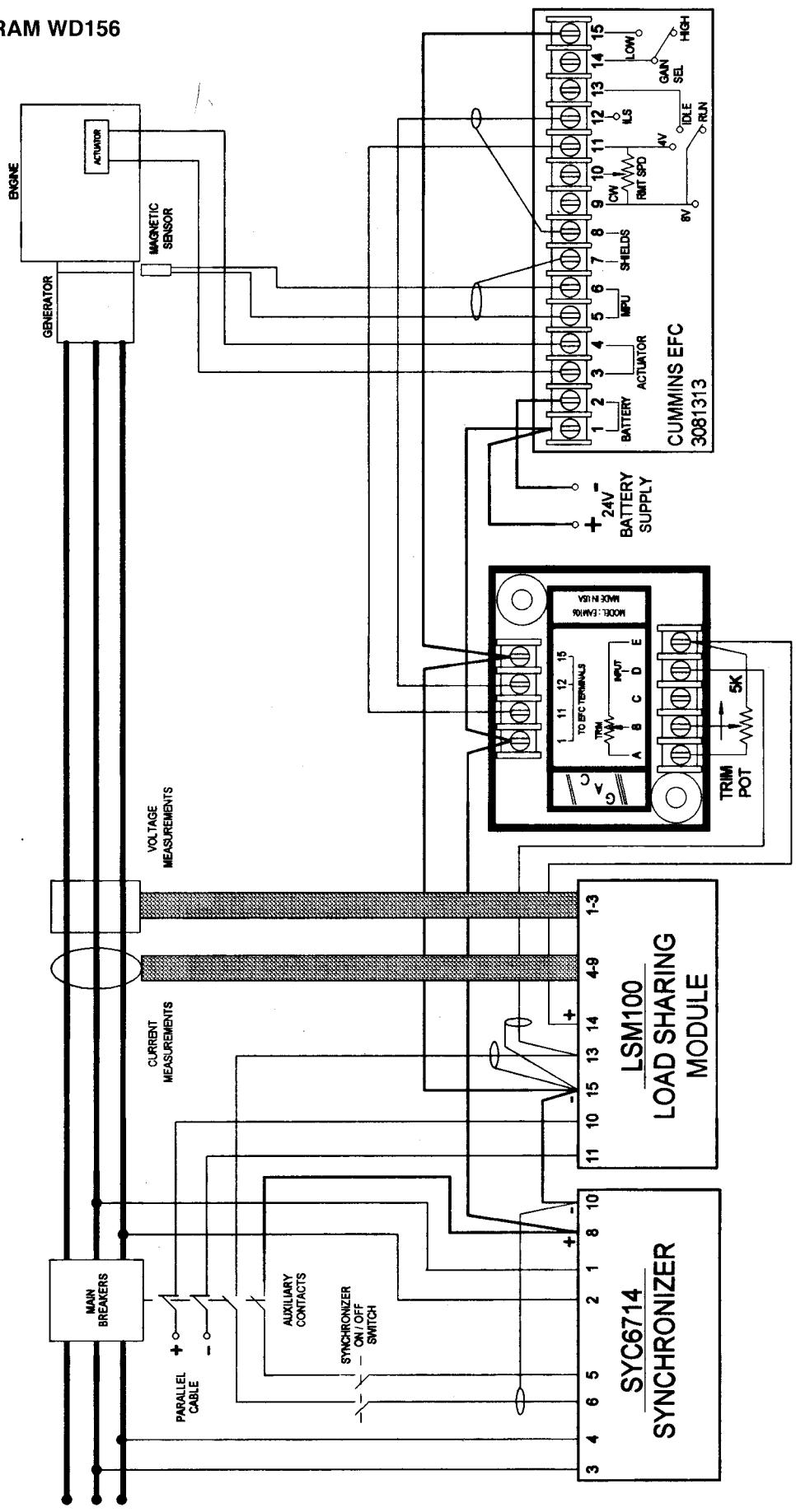


Figure 3.
WIRING DIAGRAM WD157

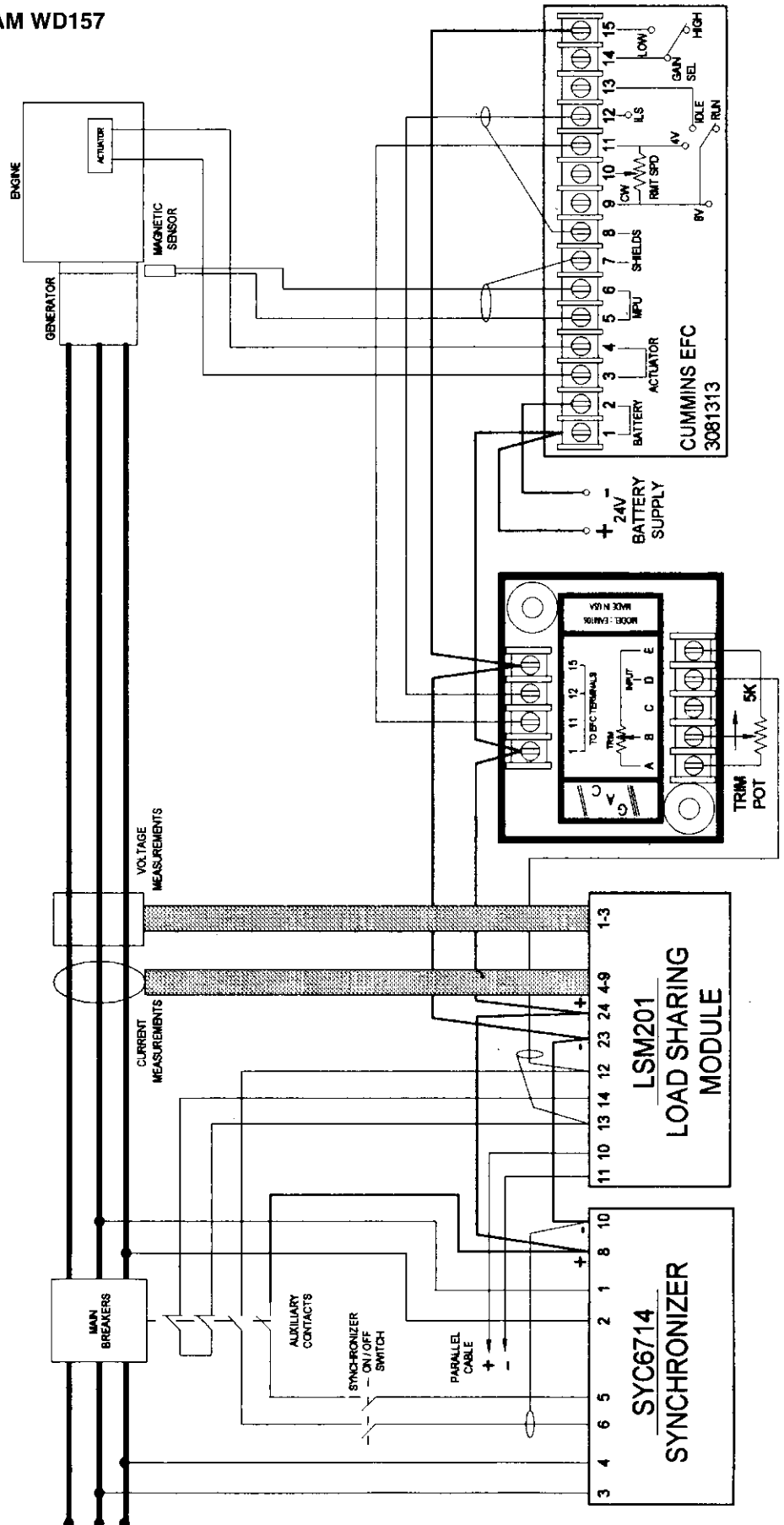
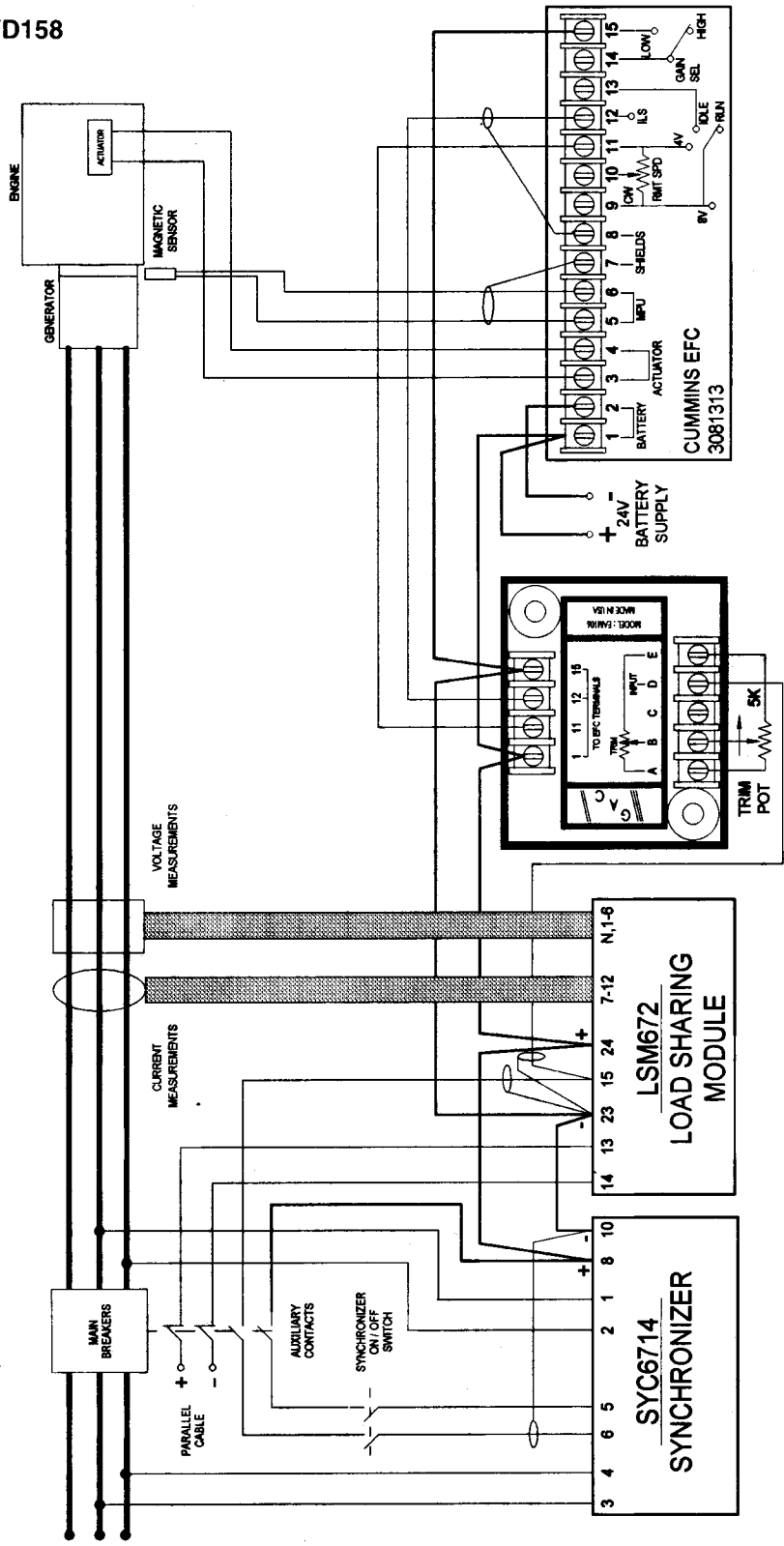


Figure 4.
WIRING DIAGRAM WD158



720 Silver Street • Agawam, MA 01001-2907, USA • TEL (413) 786-5600

FAX (413) 786-5666