

# EAM100 EFC INTERFACE MODULE

## DESCRIPTION

The Governors America Corporation EAM100 is an electronic device that allows GAC Load Sharing Modules and Auto Synchronizers to operate with the Cummins EFC electronic speed controls P/N 3044196 and P/N 3037359.

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

The EAM100 module requires four connections to the EFC speed control. The positive lead from the battery supply, signal ground from Terminal 11 (not battery ground), the reference sensing, and an output to the speed control to adjust its speed setting. The EAM100 draws less than one microamp from the speed control, assuring no adverse effects on the system.

The other terminal block on the EAM100 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 EAM100 has the same sensitivity as Terminal R of the ESC63C Series speed control units, 104 hz/volt. Terminal B of the EAM100 has the same sensitivity as Terminal J of the ESC63C Series speed control units, 40 hz/volt.

## WIRING

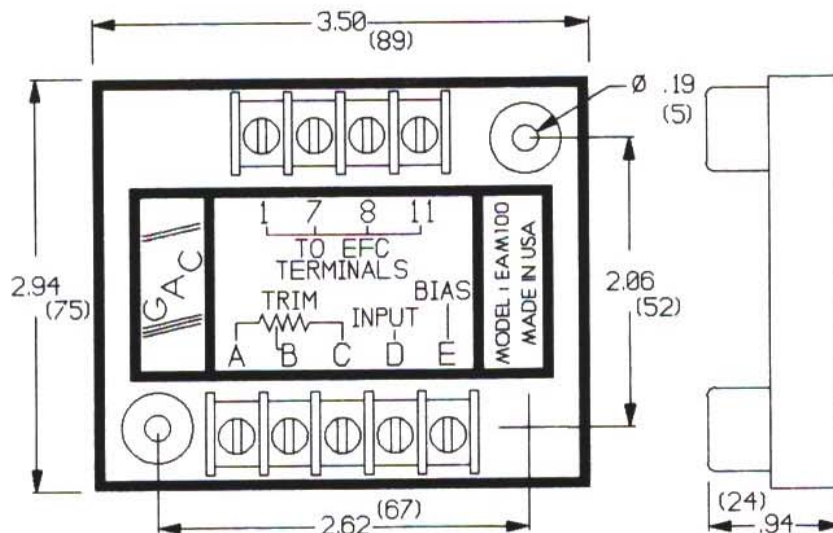
The wiring for typical generator paralleling systems is shown in Figures 2, 3 or 4. Attention should be given to the signal ground reference, which is Terminal 11 of the EAM100. All ground connections must be made at this terminal.

## TESTING and TROUBLESHOOTING

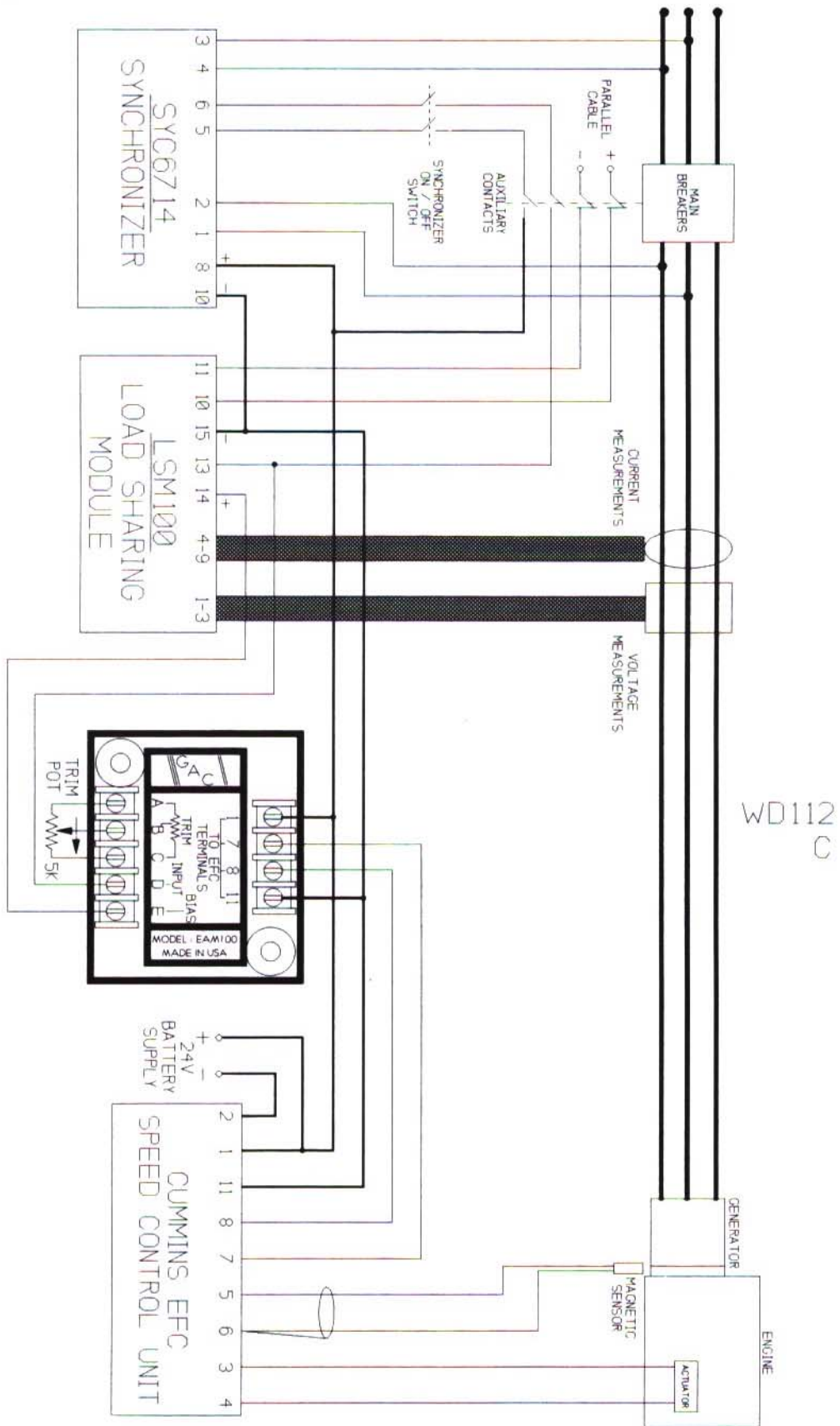
(WHILE INSTALLED)

1. Apply 24 V DC to Terminals 1 (+) and 11 (-).
2. The voltage measured between Terminals E and 11 should be  $10.0 \pm 0.5$  V DC.
3. Connect a 25K ohm resistor between Terminals 7 and E. Connect a speed trim pot to Terminals A, B and C as shown in Diagram 1.
4. The voltage measured between Terminals C and 11 should be  $7.5 \pm 0.35$  V DC.
5. Measure the voltage between Terminals 8 (+) and 11 (-) while adjusting the frequency trim pot from end to end. The voltage should change 0.2 V DC from 3.7 to  $3.9 \pm 0.1$  V DC.
6. If the above measurements are correct, the EAM100 meets its specifications.

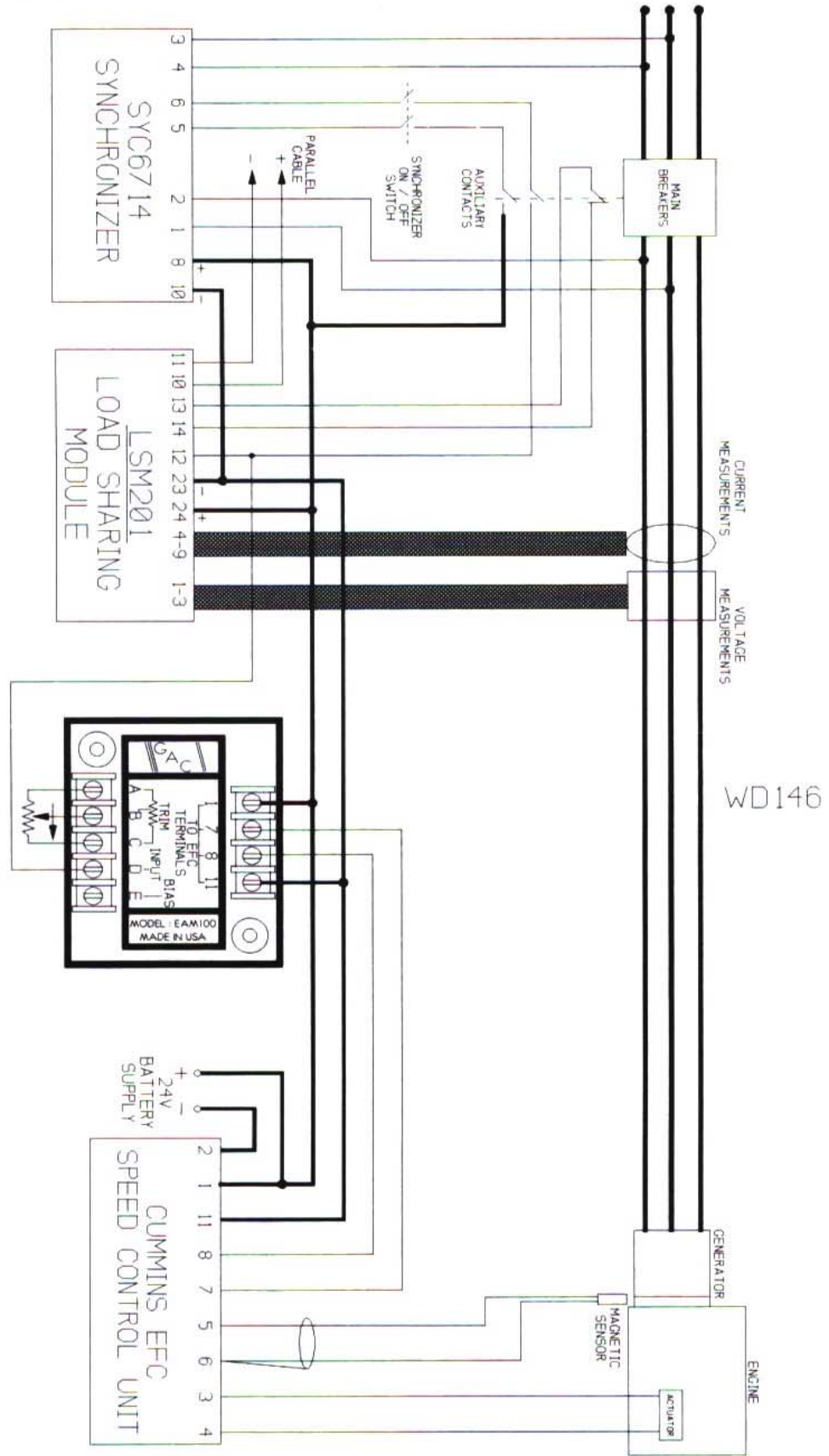
**Figure 1.**  
**OUTLINE DIAGRAM**



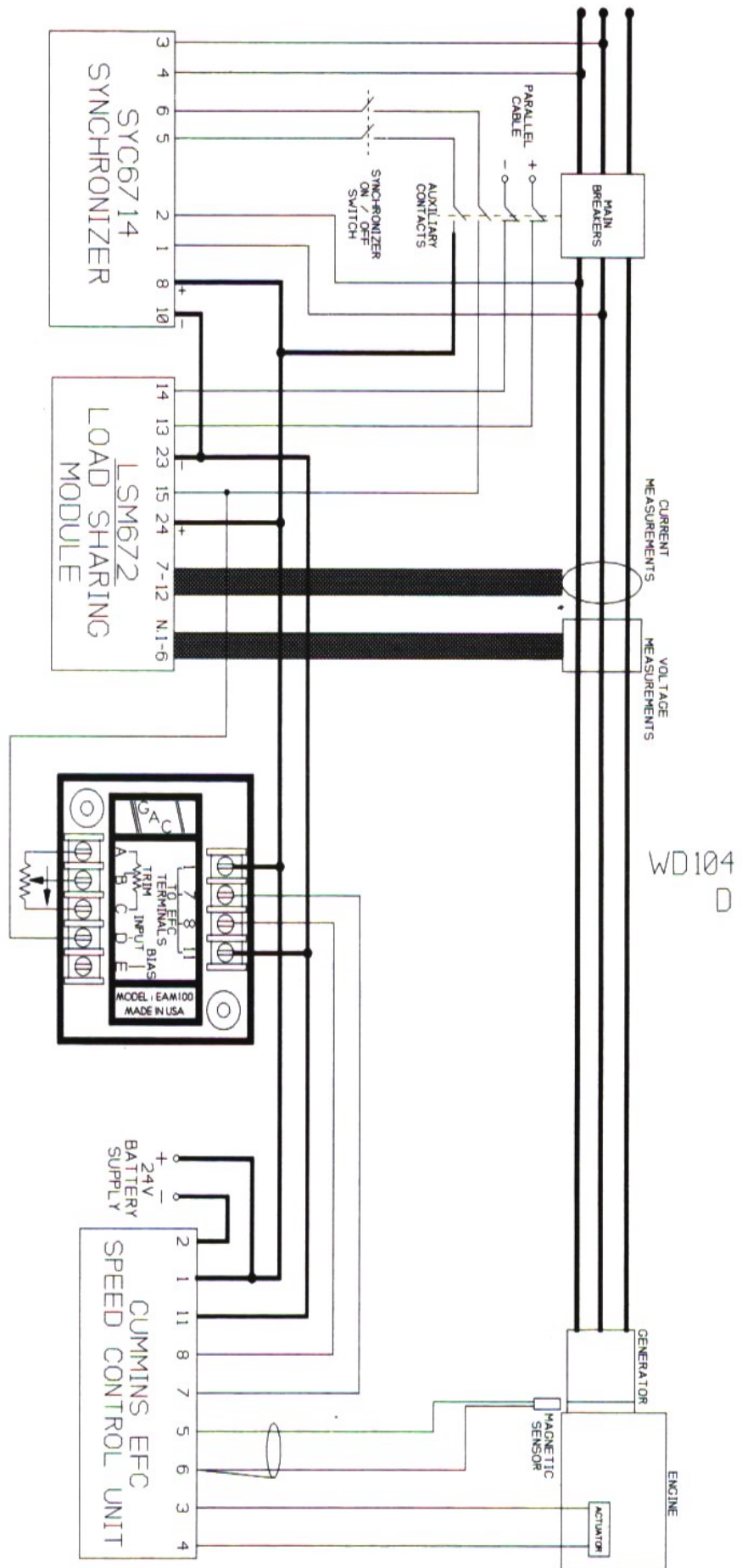
**Figure 2.**  
**WIRING DIAGRAM WD112 C**



**Figure 3.**  
**WIRING DIAGRAM WD146**



**Figure 4.**  
**WIRING DIAGRAM WD104 D**



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