GOVERNORS AMERICA CORP.

ENGINE GOVERNING SYSTEMS

PRODUCT INFORMATION BULLETIN

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MPC

RSC672
SPEED RAMPING CONTROL

INTRODUCTION

The RSC672 Speed Ramping Control is designed to smoothly increase and decrease the speed setting of an electronic governor speed control unit from idle speed to rated speed with the opening and closing of a switch contact.

The acceleration and deceleration rates are independently adjustable.

Ramping of speed is useful in minimizing the smoke and noise generally associated with a step change in engine speed.

Adjustments are provided for acceleration rate, deceleration rate, and idle speed. The RSC672 is compatible with GAC ESD5100 and ESD5200 SERIES speed control unit.

The RSC672 is intended to set the idle speed and ramp to the operating speed set at the governor speed control unit. Once the operating speed is reached, the RSC672 has no further influence on the speed control until switch S1 is closed again.

INSTALLATION

The RSC672 is built ruggedly and should be installed near its matching speed control unit. If water, mist, or condensation can come in contact with the unit, it should be mounted vertically to allow moisture to drain away.

WIRING

The 10 VDC supply required to operate the RSC672 is obtained from the speed control unit.

ESD5100 and ESD5200 Series

Terminals P (+) and G (-) on the ESD are connected to Terminals 2 (+) and 1 (-) on the RSC672 respectively. The output from the RSC672, Terminal 11, is connected to Terminal L on the ESD speed control unit.

If a broader speed range is required, use Terminal 10 of the RSC672.

Place a jumper wire between Terminals 2 and 3 of the RSC672.

ESD Series ADJUSTMENTS

After wiring the RSC672 per Diagram 1, start the engine with switch S1 open. Set the rated engine speed with the SPEED adjustment on the speed control unit.

Set the engine idle speed by closing switch S1 and adjusting the IDLE on the RSC672.

S1 can be a normally closed oil pressure switch on the engine. When the engine starts, it will remain at idle speed until oil pressure is sensed, then be accelerated to the operating speed. An orifice in the oil pressure switch can act as a simple time delay.

Ramp time is controlled by the ACCELERATION and DECELERATION adjustments of the RSC672. Adjust each for the desired ramp times. A clockwise adjustment decreases the ramp time.

If a longer ramp time is required, a 30K resistor may be connected between posts E1 and E2 of the RSC672 to double the ramp time. Remove the screws that hold the circuit board in the case to access posts E1 and E2. See Diagram 1 for post locations.

APPLICATIONS with ESD SPEED CONTROL UNITS

Idle Speed Range Setting

The range of the idle speed with the standard RSC672 may be lower than desired. To alter the idle range, modify the unit as follows:

1.) Remove the four screws that hold the RSC672 circuit board into its case.

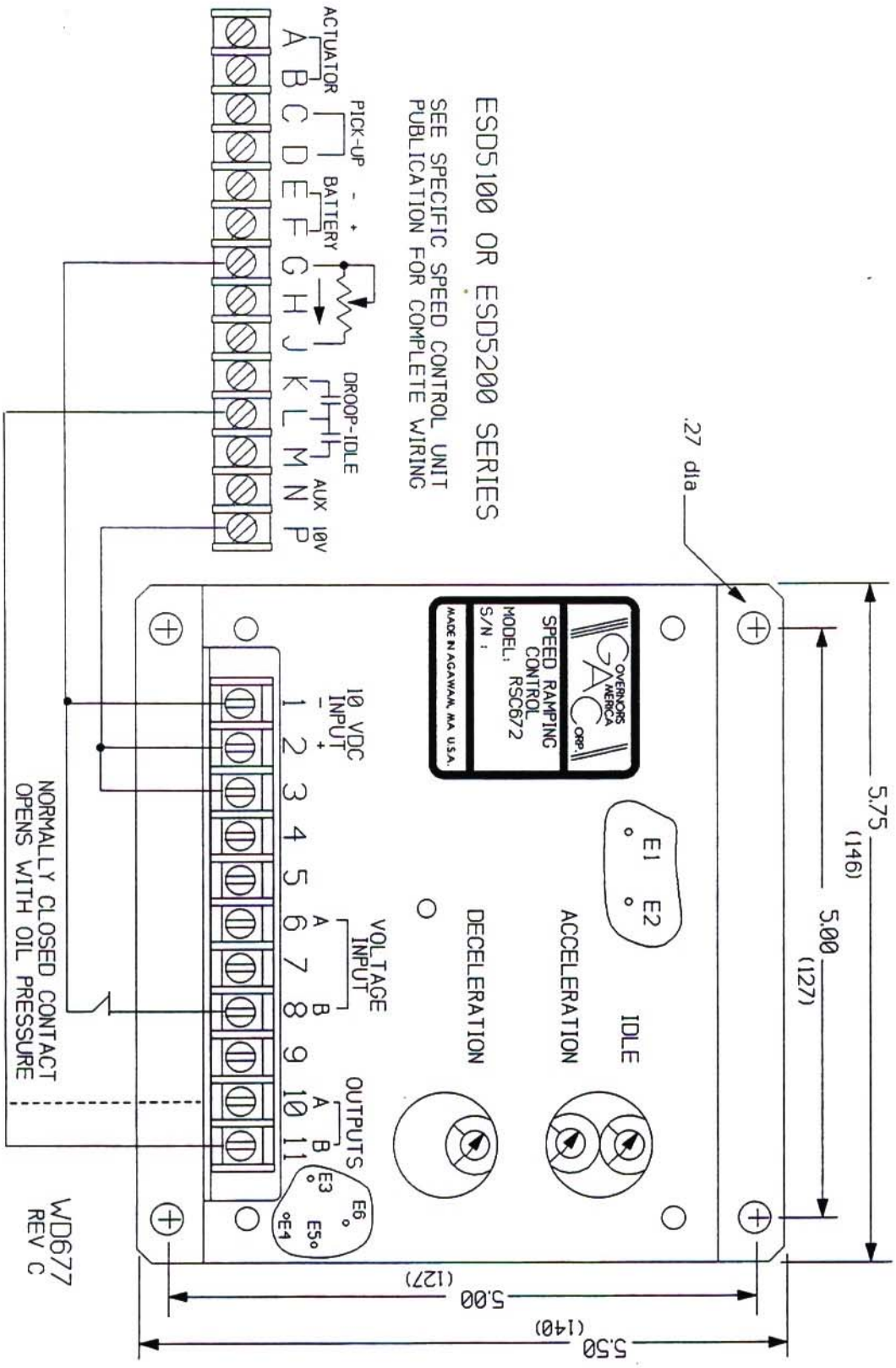
2.) Locate posts E3, E4, E5 and E6 in the corner of the board next to Terminal 11.

3.) The jumper wire between posts E3 and E4 is installed at the factory.

4.) To increase the idle, remove the factory installed jumper and install a jumper between posts E3 and E5.

5.) To increase the idle further, remove the jumper installed in Step 4 and install a jumper between posts E3 and E6.

DIAGRAM 1 OUTLINE and WIRING



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