

NO.: 12

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APPLICATION  SERVICE

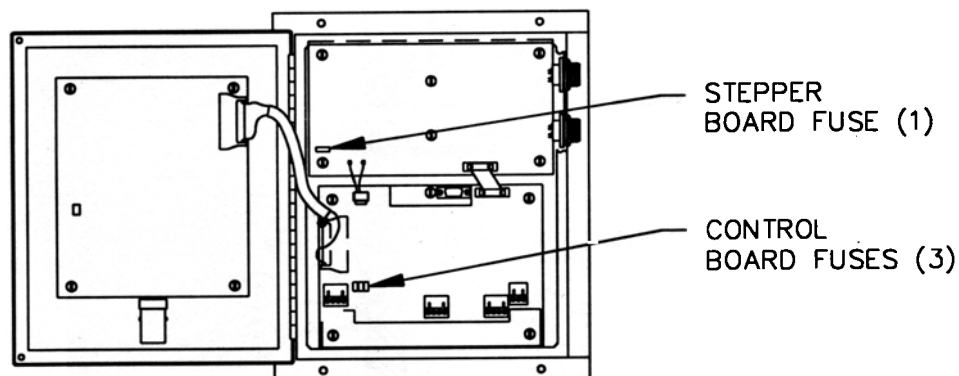
SUBJECT: UPDATE ON EPC-100 AND PROPER INSTALLATION

### PROPER GROUNDING OF THE EPC-100

Proper grounding of the EPC-100 to the engine block and earth ground is essential for proper operation of the EPC-100. Without this ground it is possible to create a ground loop fault through the oxygen sensor ground wire. If this occurs, it is likely that the oxygen sensor and thermocouple inputs will be damaged. This necessitates the removal and replacement of the 681 051 Control Board Assembly, as well as adding the proper grounds to the field wiring before replacing this board.

### FUSING

Recent improvements to the 681 051 board include the replacement of all 3 amp fuses by the new 6.3 amp slo-blow type fuses. This new fuse should help to eliminate damage to the board when miswired and still provide protection from short circuits and major miswiring errors of the 24 VDC power circuit. The old fuse part number was 601 460 and was yellow in color. The new fuse is black. It is the same part number as the stepper drive board fuse (601 653) and is shown in the 1-95 edition of the EPC-100 Operating Manual.



Existing installations need **not** upgrade the fuses to the 6.3 amp versions unless grounding problems have been experienced. **Always replace all three fuses as a set with the 6.3 amp versions if any of the 3 amp fuses should blow.** The drawing above shows the fuse locations.

(Continued on reverse side)

## VALVES

Control Valves (690 154-1,-2) that are of the new "cast" design have been shipped for some time now. An improvement to these valves that was incorporated at the time of their release has been the addition of a retainer plate and potting on the top side of the stepper motor. This modification addresses the failure mode related to the motor bearing cap coming loose. Please remember that if the motor, piston, connector, or wiring is damaged, it **must be replaced as an assembly**. The manual shows this assembly as a 680 003-1 or 680 003-2. Pistons, connectors, or motors are **NOT** sold separately.

Fig. 12 CONTROL VALVE PARTS IDENTIFICATION

REF.NO.	QTY.	PART NO.	DESCRIPTION
1	1	610 651	Valve Body, Machined
2	1	680 003-1	Motor/Connector/Piston Assy. (690 154-1)
		680 003-2	Motor/Connector/Piston Assy. (690 154-2)
3	8	901 004	Lockwasher, #10
4	2	902 628	Screw, 8-24 x 1/2" Socket Hd.
5	1	501 335	Gasket, Connector
6	1	610 609	Cover Plate
7	4	902 632	Screw, 8-24 x 3/8", Seal, Pan Hd.
8	1	610 610	Gasket, Cover Plate
9	6	902 472	Screw, 10-24 x 5/8", Hex Hd.

NOTE: Reference numbers can be used to identify parts on Fig. 11

