

SERVICE BULLETIN

Part No.: MCP01-XXX

Description: Master Caution Panel

Service Manual: **N/A**

ECO No.: **ECO1070**

Service Bulletin No.: **MCP01-603-0004**

Subject: **GOV MANUAL Diodes & CPF Voltage Adj. (MOD 4)**

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1. Planning Information

1.1 Applicability

This modification is applicable to all MCP01 units.

1.2 Reason

Field evaluation of the MCP01-000 has revealed that functionality present in the original Grimes Caution Panel is missing in the MCP01-000 and its derivatives:

- In the event of System Power loss, the original Grimes Caution Panel may provide limited power functionality through Pin G of J1 and Pin G of J2 (both GOV MANUAL annunciators).
- Caution Panel Fail trigger voltage for the original Grimes Caution Panel is approximately 21 Vdc versus the MCP01-000 trigger voltage of 14 Vdc. Although the MCP01-000 can function at 14 Vdc, circuitry relating to the MCP01-000 throughout the aircraft may be inoperable at this voltage level.

1.3 Description

To provide the MCP01 with the ability to be totally powered from either or both GOV MANUAL Legend Positions (or Alternative Power Legend Positions for the MCP01-120), two diodes must be added with each anode connected to Pin G of J1 and Pin G of J2 and the cathodes both connected to Pin Z of J2.

To adjust the Caution Panel Fail trigger voltage from 14 Vdc to 21 Vdc, the internal voltage divider circuitry needs to have one resistor value changed. In addition, the hysteresis will be removed to better emulate the original panel.

1.4 Compliance

Customer Option. AEM recommends this change be accomplished on all effected units.

1.5 Approval

No change to existing approval.

1.6 Costing

This modification is subject to warranty consideration.

1.6.1 Parts and Labour

One (1) hour estimated. Includes required test time.

1.7 Special Equipment Required

None.

1.8 Weight and Balance

Not effected.

1.9 Electrical Load Data

Not effected.

1.10 References

N/A

1.11 Affect On Other Publications

N/A

2. Procedure Instructions

Factory-only update.

The modification status tag will be updated with a permanent marking to indicate MOD 4 has been incorporated.

2.1 Modification Procedure

For the following steps, reference the applicable Faceplate Drawing, Assembly Drawing, Derivative Change Summary, Parts List, or Schematic.

- 2.1.1 Remove eight (8) Flathead Screws (Item No. 25) securing the Chassis (Item No. 14) to the Power Supply and Trigger Subassembly (Item No. 21) circular connectors.
- 2.1.2 Remove two (2) Panhead Screws (Item No. 3) securing the Locking Hardware (Item No. 1).
- 2.1.3 Remove eight (8) Flathead Screws (Item No. 7) securing the Chassis (Item No. 14) to the Mounting Plate (Item No. 15) and separate the Chassis from the Mounting Plate.
- 2.1.4 Remove three (3) Panhead Screws (Item No. 4) securing the Front Panel (Item No. 16) and the Front Panel Gasket (Item No. 13) to the Legend Housing (Item No. 18). Separate the Front Panel and Front Panel Gasket from the Legend Housing.
- 2.1.5 Remove two (2) Sealing Boot Nuts (Item No. 6) from the Power Supply and Trigger Subassembly (Item No. 21) switches.



- 2.1.6 Reference the MCP01-1 Power Supply and Trigger Subassembly Drawing:
- Replace R1052 with 70-58-1504 and remove R1067.
 - Add diodes D1260 & D1259 (175-30-001)
- 2.1.7 Reference the applicable Faceplate Drawing or Derivative Change Summary for reassembly.

2.2 Acceptance Test Procedure

- 2.2.1 Reference the latest Acceptance Test Procedure for complete test procedure.

2.3 Modification Status Marking

Locate the modification status tag on the product and apply a permanent marking on the 4 to indicate MOD 4 has been incorporated.

3. Material Information

MOD 4 requires the addition of the following parts to be completed:

- 175-30-001 QTY 2
- 70-58-1504 QTY 1

4. Reference Documents

The following documents are required to complete the modification.

DOCUMENT	REV.	DESCRIPTION	TYPE
MCP01-000-913-0	1.21	Bell 212 Master Caution Panel Assembly	Assembly Drawing
MCP01-1-910-0	1.30	Power Supply & Trigger Subassembly Assembly Drawing	Assembly Drawing

End of Service Bulletin
