## **PRODUCT INFORMATION**

Replacement for Onan® P/N 300-0681, 300-0682 Engine Control Monitor I2/24V FS P/N 56-0681-82



## FEATURES and INSTRUCTIONS

- 1. This product is designed to replace Onan part numbers 300-0681 (12-volt systems) and 300-0682 (24-volt systems). *It will adapt to either voltage automatically*.
- 2. Older Onan boards allow reset of the alarm functions and a lamp test by pressing the pushbutton on the circuit board. Later Onan boards provide a lamp test only, without a reset. This style board must be reset by turning off the RUN/STOP switch. Either mode of operation is possible with the Flight Systems product. Before installing the board, determine the desired mode of operation and set the position of switch JP1 accordingly. This switch is located directly behind the pushbutton switch (S1) and has its positions clearly marked. NOTE: When the mode is set to LAMP TEST ONLY, pressing the pushbutton will *also test the alarm* and cause it to latch on, along with OS and HET. Cycle the RUN/STOP switch to reset the alarm. On generators without pre-alarm, J1-21 MUST be grounded for unit to shut down on LOP and HET faults.
- 3. The keying slots in the circuit board allow it to be plugged into 12-volt or 24-volt systems and also prevent improper insertion into the connector. Take care to align the slots and then press the board down until it is fully seated into the connector.
- 4. Older Onan boards allow adjustment of the OVERCRANK alarm time delay while later ones do not. An adjustment range of 20 to 75 seconds is possible with the Flight Systems product. Adjust the OVERCRANK DELAY (R1) as needed, turning clockwise to increase the delay. The adjustment is clearly marked.
- 5. Older Onan boards allow adjustment of the LOW OIL PRESSURE alarm time delay while later ones do not. An adjustment range of 8 to 30 seconds is possible with the Flight Systems product. Adjust the LO OIL P. DELAY (R5) as needed, turning clockwise to increase the delay. The adjustment is clearly marked. Keeping the delay as short as possible without false tripping will result in maximum engine protection.
- 6. The IGN/FUEL output (pin 19) is rated at 3 Amps and the ALARM output (pin 20) is rated at 2 Amps regardless of system voltage. Overloads on these circuits can cause damage to the relay contacts and circuit board traces on original Onan boards. Severe damage to traces renders the circuit board non-repairable. The Flight Systems product has a special fusible link that acts as a fuse in case of an overload. This feature helps to prevent damage and allows the board to be repaired instead of discarded.
- 7. All sensor inputs have filters to improve noise immunity and help prevent false alarms.
- 8. Older Onan boards have tin-plated contact fingers on one side only. Later Onan boards have gold plated contacts on both sides of the board which ensures a more reliable connection. The Flight Systems product also has gold plated contacts on both sides.

(See reverse for Warranty and other details)



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Technical Support: