OMD Technical Note TN62401

Graviner Mk6 OMD Replace EEPROM warning message and corrective actions.

Introduction

The EEPROM is the flash memory which stores the system configuration data and the Event Log data in the Graviner Mk6 OMD system.

The EEPROM is device IC17 on the Main Control Processor Board (part number 1-44782-K071-02).

The “Replace EEPROM” is a warning message to indicate that the EEPROM flash memory device (IC 17) has reached the maximum number of write cycles recommended by the chip manufacturer and should now be replaced. The EEPROM device manufacturer guarantees a minimum of 10,000 write cycles.

NOTE:- This message is advisory only**,** all other features and functions of the OMD Mk6 will continue to operate normally and the ability to detect oil mist is not affected.

A read/write failure could mean that recent Event Log data is not stored, and any changes made to the configurable engine parameters may not be saved.

Action Required

To remove this warning the Main Control Processor Board must be replaced.

Before starting any replacement work you **MUST** first record the following system configuration details**.**

Number of engines

- Can be seen on the main display screen.

Number of detectors per engine

- Can be seen on the engine display screen.

Average alarm setting for each engine.

- Default value 0.7mg/l
- From the Engineer Menu
  Select option > 1. Configure System
  Select option > 3. Alarm Levels
  Select option > 1. Set Average Alarm

Select > (Lists engine average alarm settings)

Deviation alarm for each detector.

- Default value 0.3mg/l
- From the Engineer Menu
  Select option > 1. Configure System
  Select option > 3. Alarm Levels
  Select Option > 2. Set Deviation Alarm
  Select option > (Select engine)
  Select > (Lists detector deviation alarms for selected engine)

Event Log.

Examine the event log to identify any additional on-going issues with the system, these should be noted and corrected.

Refer to SYSTEM CONFIGURATION AND COMMISSIONING in the Mk6 IOM manual for more details. The IOM manual can be downloaded from https://edc.firesecurityproducts.com/en/page/graviner

Warning:

Do not work on the system unless the power is switched off or isolated.



ATTENTION
OBSERVE
PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
SENSITIVE

Caution:

Ensure that anti-static handling procedures are observed applied when working on the system, i.e. Anti- Static Wrist Straps.

Replacing the Main Control Processor Board.

Please also note that the LCD Backlight inverter circuitry (labelled as 'Inverter 1') in the image below is not supported on Revision 6 and above of the Main Control Processor Board.



The original Control Panel display used a CCFL backlight that contained small amounts of mercury now prohibited by the RoHS directive.

To comply with this directive Carrier have re-engineered the Display PCB and the display driver electronics on the Main Control Processor Board.

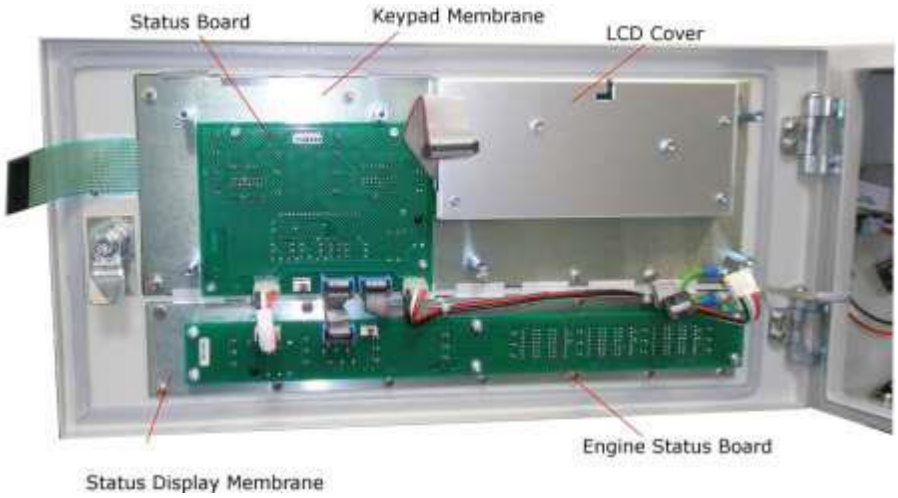
Revision 6 and above of the Main Control Processor Board are now unable to drive the older CCFL backlit display. The display will remain black and so to remove the Replace EEPROM message the vessel will need to install a new Main Control Processor Board and a new LCD display module.

Please order the kit part number 1-43782-K178 for the Main Control Processor Board and LCD Assembly.

Removal & Replacement of the Main Control Processor Board and LCD Display module

- Switch off the power to the system.
- Unplug the cables from the Main Control Processor Board.
- Remove the PCB fixing screws, 8 screws in total.
- Remove the Main Control Processor Board.
- The LCD must also be replaced if an old version is fitted.

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Kingston, Milton Keynes, MK10 0AQ



Remove the LCD Cover, this will require the removal of 4 fixing screws



Remove the LCD, this will involve unscrewing and removing the 4 metal pillars holding the PCB.

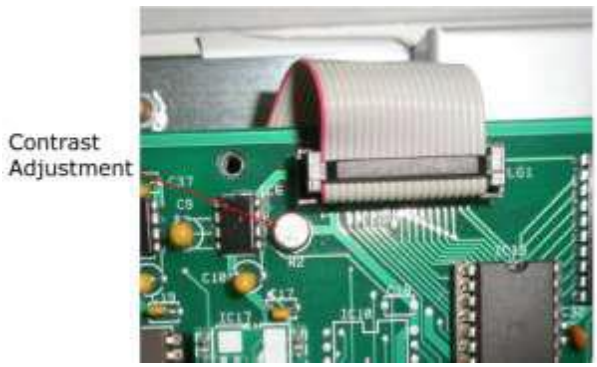
Reverse the procedure to fit the replacement LCD, LCD cover and the replacement Main Control Processor Board.

Ensure ALL connections are correct BEFORE powering on the system.

If the LCD appears blank as shown in the image.



Adjust the contrast on the Main Control Processor Board to produce a readable display.



Re-program the original parameters for the system configuration and alarm levels. Refer to SYSTEM CONFIGURATION AND COMMISSIONING in the Mk6 IOM manual for more details. The IOM manual can be downloaded from https://edc.firesecurityproducts.com/en/page/graviner

For any further information please contact technical@emsgroup.co.uk

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