

**Product: MMU-8, MMU-1600-0, MMU-1600-1 (DSP) and, 2018**

Release Date: May 21, 2007

Scope: This bulletin applies to the following Reno A&E Monitors:

- MMU-8
- MMU-1600-0
- MMU-1600-1 (DSP)
- 2018

**Diagnostic Failure Codes**

The following tables list the possible Diagnostic Failure codes. The codes are displayed in four bit, hexadecimal notation.

**MMU-8 and MMU-1600-0 Diagnostic Failure Codes**

Diagnostic Failure Code	Meaning
0001	PROM Checksum
0002	EEPROM Checksum
0004	EEPROM Write
0008	RAM
0010	AC Overflow
0020	AC Processor In Timeout
0040	AC Calibration
0080	DC Processor In Timeout
0100	PC Shift Error
0200	Task WD Timeout
0400	Program Card Reader
0800	PC Memory Checksum
1000	PC Memory Timeout
2000	Temperature Timeout
4000	DSP Diagnostics
8000	Failure Occurred During Boot

NOTE: One or more diagnostic failure conditions may exist at any given time. If multiple diagnostic failure conditions exist, the failure code displayed will be the sum of the individual failure codes.

Examples:

An AC Processor In Timeout Failure that Occurred During Boot will be displayed as 8020.

An AC Overflow Failure and an AC Processor in Timeout Failure that Occurred During Boot will be displayed as 8030.

**MMU-1600-1 (DSP) Diagnostic Failure Codes**

<b>Diagnostic Failure Code</b>	<b>Meaning</b>
0001	Code Checksum
0002	Data Checksum
0004	Data Write
0008	RAM
0010	Boot Load 2 Checksum
0020	AC Processor In Timeout
0040	Boot Load 1 Checksum
0080	DC Processor In Timeout
0100	PC Shift Error
0200	Task WD Timeout
0400	Program Card Reader
0800	PC Memory Checksum
1000	PC Memory Timeout
2000	Temperature Timeout
4000	DSP Diagnostics
8000	Failure Occurred During Boot

NOTE: One or more diagnostic failure conditions may exist at any given time. If multiple diagnostic failure conditions exist, the failure code displayed will be the sum of the individual failure codes.

**Examples:**

An AC Processor In Timeout Failure that Occurred During Boot will be displayed as 8020.

An AC Processor in Timeout Failure and a Boot Load 1 Checksum Failure that Occurred During Boot will be displayed as 8060.

**2018 Diagnostic Failure Codes**

<b>Diagnostic Failure Code</b>	<b>Meaning</b>
0001	PROM Checksum
0002	Data Checksum
0004	Data Write
0008	RAM
0010	AC Processor In Timeout
0020	DC Processor In Timeout
0040	Temperature Timeout
0080	RTC Timeout
0100	Task WD Timeout
0200	LED Shift Error
0400	Button Shift Error
0800	DIP Switch Shift Error
1000	PC Shift Error
2000	Program Card Reader
4000	DSP Diagnostics
8000	Failure Occurred During Boot

NOTE: One or more diagnostic failure conditions may exist at any given time. If multiple diagnostic failure conditions exist, the failure code displayed will be the sum of the individual failure codes.

Examples:

A DC Processor In Timeout Failure that Occurred During Boot will be displayed as 8020.

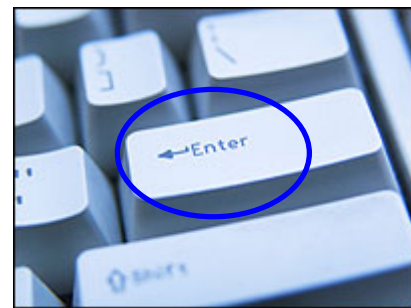
A DC Processor in Timeout Failure and a Temperature Timeout Failure that Occurred During Boot will be displayed as 8060.



### Diagnostic Failure Code Retrieval

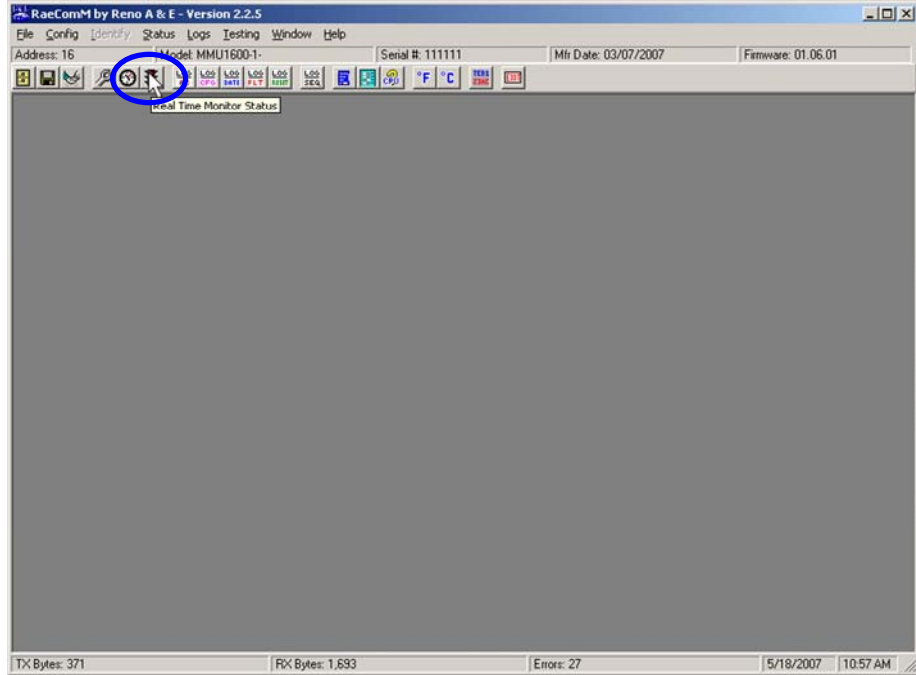
Diagnostic Failure codes can be retrieved with Reno A&E's RaeCommM software.

1. Connect the monitor to a computer that has Reno A&E's RaeCommM software installed. Use a DB-9 extension (interface) cable to connect the female, 9 pin COMM PORT on the front of the monitor to a serial port on the computer. If the computer being used to perform the upgrade does not have a DB-9 serial port, a USB adapter may be required to connect the monitor to the computer.
2. Apply power to the monitor.
3. Start the RaeComM software. When the **LOGIN** screen appears, click on the **OK** button in the **LOGIN** screen or press the keyboard **ENTER** key.





4. Click on the **Real Time Monitor Status** button.



5. The current status of the monitor will be displayed as shown below. Current Diagnostic Failures are displayed in the display box labeled **Fault Codes**. The example below shows a Diagnostic Code of 8080, indicating a DC Processor In Timeout Failure that Occurred During Boot.

