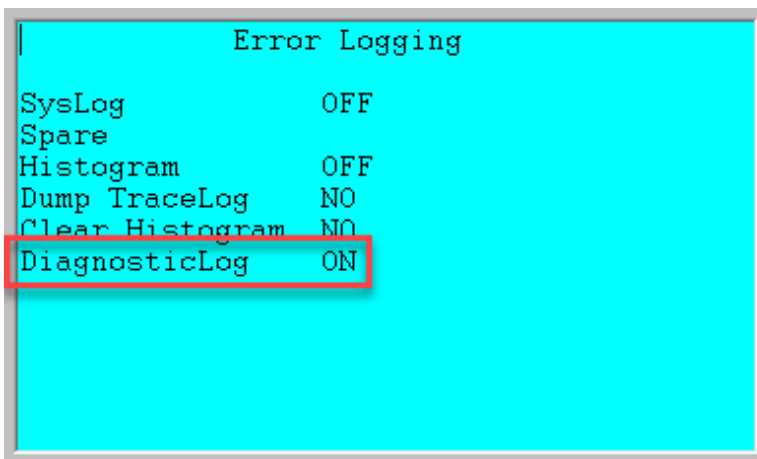# Tech Note 1020 - Recording Diagnostic Logging
Scout 85.2 and above

- **Description:**

This feature is designed to enable the controller to capture logs 20 seconds prior to MMU flash activation. These logs can then be transferred to CUBIC Support for a diagnosis of the fault.
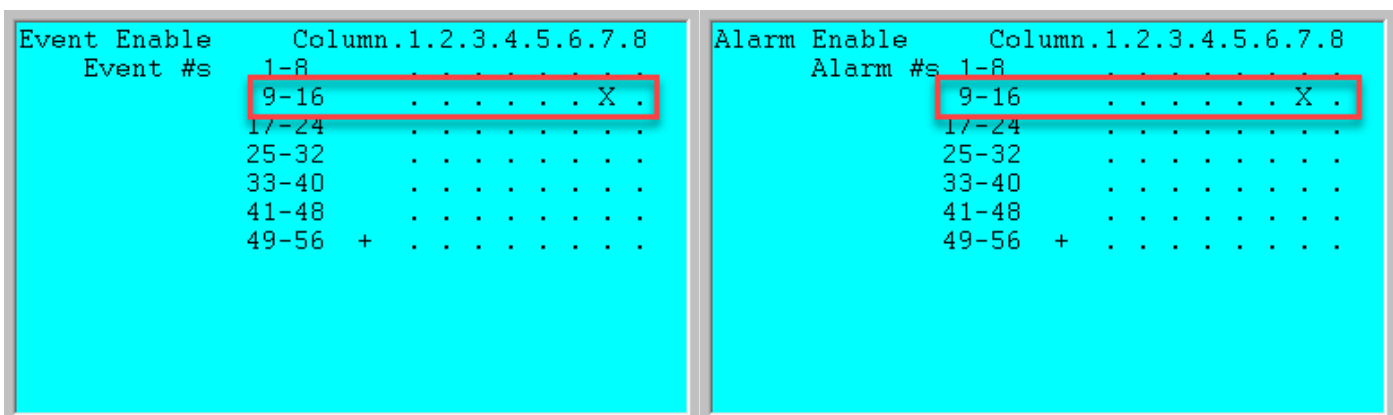
- **Implementation:**

To enable this feature, go to MM-8-8-5. Toggle "DiagnosticLog" to "ON."

```
|               Error Logging

SysLog             OFF
Spare
Histogram          OFF
Dump TraceLog      NO
Clear Histogram    NO
DiagnosticLog      ON
```

Once "DiagnosticLog" is enabled, the controller will maintain a current 20 second log triggered to write to memory upon MMU flash activation (Alarm 15).

NOTE: <mark>These logs will be overwritten every time the MMU flash is activated!</mark>

Alarm/Event #15 must be enabled via MM-1-6-1 and 1-6-4

```
Event Enable     Column.1.2.3.4.5.6.7.8        Alarm Enable     Column.1.2.3.4.5.6.7.8
   Event #s   1-8      . . . . . . . .             Alarm #s  1-8      . . . . . . . .
             9-16      . . . . . . X .                       9-16      . . . . . . X .
            17-24      . . . . . . . .                      17-24      . . . . . . . .
            25-32      . . . . . . . .                      25-32      . . . . . . . .
            33-40      . . . . . . . .                      33-40      . . . . . . . .
            41-48      . . . . . . . .                      41-48      . . . . . . . .
            49-56  +   . . . . . . . .                      49-56  +   . . . . . . . .
```

With recorded log on controller, insert a USB and go to MM-8-8-8. Press enter and the logs will then be copied onto the USB.

Extract the file named "diag_log.dat" and send it to CUBIC Support for decoding.

Name	Date modified	Type	Size
diag_log.dat	5/17/2023 7:43 PM	DAT File	2,034 KB
install.log	12/13/2022 6:21 AM	Text Document	1 KB
sysmem_log.dat	5/17/2023 7:43 PM	DAT File	965 KB
TRAF_00000_2022_12_27_0100.dat	12/27/2022 1:54 AM	DAT File	1 KB

- **TS1/Caltrans Implementation:**

To enable this feature when an MMU is not present you must redirect alarm #15 to Input Function #206-Cab Flash. (Other Input functions could be used, just an Input that goes active when monitor latches a fault.)

NOTE: Input can be seen in MM-1-9-7-1.

To do this go to MM-1-6-7-2 and set Alarm #15 to be equal to Input #206.

```
Idx Alm#   Function
 1   15 =   I 206
 2    0 =   I    0
 3    0 =   I    0
 4    0 =   I    0
 5    0 =   I    0
 6    # =   I    0
 7+   0 =   I    0
```

NOTE: This must be done for diagnostic logs to be capture on a TS1 or Caltrans cabinet.