



## Surveyor Testing Instruction On Board A Vessel

Quality Monitoring Instruments Ltd recommends the following test procedures to test if the equipment is functioning correctly.

### Warning:

**This testing must be done when in port or in a safe navigational situation. The engines being monitored should be running as the test is going to simulate an oil mist alarm using actual oil mist in the engine.**

The first test will be to check that the Monitor is functioning correctly. Please use the magnetic pen to operate the test program and follow the instructions below.

**Before beginning the Monitor test sequence, inform all relevant personnel.**

To activate the test procedure:

Place the Magnetic Pen over the circle marked 'TEST'

The sequential testing will commence as follows:

1. Testing indicators will illuminate Software Version - 1.03 followed by all operational LEDs illuminating in the order below:  
Operating (GREEN),  
Warning (AMBER),  
Alarm (RED)
2. All Digital readouts will indicate '8' followed by '111' showing that all segments of the numerical display are working without fading.
3. Each detector channel will then indicated thus:  
,  
Cd' Clean detector – indicates clean lens,  
or :  
'dd' Dirty detector – indicates lens meaning that the lens are less than 80% clean and 'F2' will appear on the display; if ignored, the display will show 'F3'.
4. All external relays, with the exception of the functional relay will operate for 10 seconds. The test includes a test of the fault monitoring circuit when 'F9' will appear momentarily. 'F9' permanently displayed indicates a Monitor failure and the Power Supply Board will need replacing.
5. Final part to the test is the 'No CPU' Light which will flash once or twice depending on what part of the data cycle it is in. Both once or twice are normal to show the CPU is functioning.
6. After the Test Sequence is completed the Monitor will automatically return to display the channel with the highest oil mist reading.

7. After 'Power On' or 'Reset' procedures are implemented and completed, the relay outputs are inhibited for 2 minutes, this also applies in the event of an alarm.

Therefore two full minutes must pass to enable the system to reset.

This is to allow the software to latch back into the correct running mode, otherwise erroneous signals may be displayed. During this sequence, the isolated Head may be displayed 'Cd'.

During the Test Sequence should any function fail to operate as specified, refer to the fault finding section.

If all functions operate as described, we can move on to the actual oil mist test. To run this test, the monitored engine must be running. You will notice the highest concentration of oil mist is displayed on the main reading. This is the channel we suggest to use to perform the test.

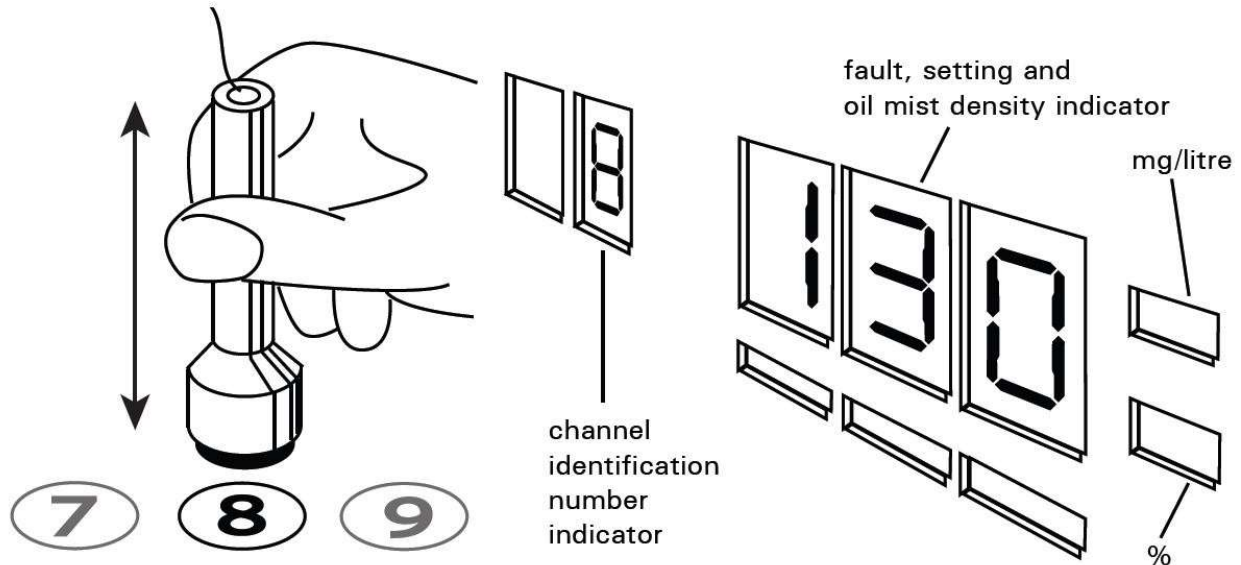
**Before beginning the detector test, inform all relevant personnel as in some cases this will shut down main engine if shut down alarm is wired.**

To perform this test you will need to lower the alarm setting to the lowest setting, please take note of current setting on the channel you are going to test. Once test has been completed please reset the alarm level back to its original setting.

To adjust channel setting please follow the instructions below you will need the master key to perform this test

## TO CHANGE ALARM LEVELS

1. With the key supplied, release the security switch which is fitted to prevent unauthorised adjustment of the system.
2. Turn the key clockwise  $\frac{1}{4}$  turn. The setting light will illuminate.
3. Place the magnetic pen flat against the circle marked 'ALARM SETTING SWITCH'.
4. Place the magnetic pen flat against the circle marked 'LOWER ALARM LEVEL' Raise and remove the pen away from the circle once for each increment until the required level is reached. The level will be indicated on the digital reading.
5. Place the magnetic pen flat against the circle marked 'CHANNEL NUMBER' to set that channel to the level indicated at the digital reading.
6. When setting is complete turn the key anti-clockwise back  $\frac{1}{4}$  turn, this locks the system, then remove the key.



Once the key has been turned, the channel adjusted should go straight into main alarm. Please then reset the alarm level and then reset monitor using the magnetic pen on the reset button. The engine shut down will also need to be reset, if used and the engine restarted and checked for correct operation.

This document has been authorised by QMI for vessel type approval inspection to be carried out on QMI Equipment.



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