TECHNICAL NOTE

October 9, 2006

SUBJECT: **MPIII Header Corruption and Repair.**

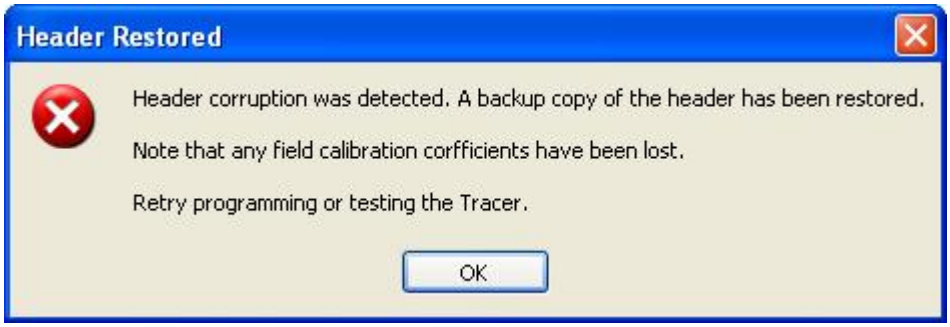
PROBLEM: Early versions of MPIII Tracers occasionally experienced a corruption of Tracer header information that would render the Tracer unusable. Header information includes important permanent information such as the Tracer Serial Number, Factory Calibration Dates, and Factory Calibration Coefficients, and it also contains temporary information like Field Calibration Coefficients, Battery Change Dates, and Tracer Status Data. If these items become corrupt the Tracer can become unusable.

CURE: MPIII header repair capabilities have been implemented as header corruption modes have been identified. The original repair was performed with DTW 4.02 and MPIII Firmware Rev P where a header corruption was identified and some solutions were suggested. DTW 4.04 and MPIII Rev Q address additional header corruption issues more robustly and, allow the entire header to be repaired under most circumstances.

PROCEDURE:

The DTW 4.04 and MPIII Rev Q combined addresses header corruptions in an automatic approach that is generally transparent to the customer. The procedure not only identifies a header corruption but will repair it from a duplicate header copy that is stored in the Tracer. The copy is normally installed at the factory, but can be installed in the field by performing a Test Tracer. Both firmware P and Q have the ability to store the header copy.

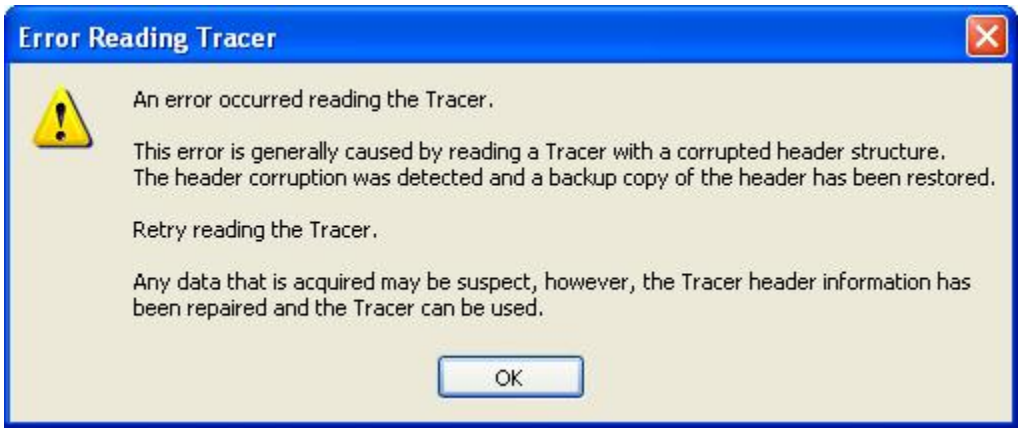
If DTW 4.04 identifies a corrupt header during a Program or Test Tracer procedure, the following message appears:



When this message appears during a Test Tracer or Program Tracer

procedure the header was determined to be corrupt and has been restored. Clear the message and retry the procedure.

The following message appears during a Tracer Read when the header is corrupt.



When this message appears during a Read Tracer the header was identified as corrupt and has been restored. Clear the message and retry the procedure. However, the data should be considered suspect, the “End of File” information has been lost so there are 16,000 data points to be reviewed, and unless you have very precise data on this particular process, we recommend against using the data.

The restoration replaces the corrupt header with the good copy. This should correct any header corruption from any cause. However, any Field Calibration will be lost.

All MPIII Tracers that have a firmware revision Q will have the header copy installed when built. MPIII Tracers that have a firmware revision P will have the Q firmware installed with the header copy when serviced if component replacement occurs at the factory. If the Tracer has firmware version P the header copy can be installed in the field by performing a Test Tracer.