

## **Technical Bulletin**

### **M505 Hardware and Firmware Updates 2014**

From July 2014 all M505 Controllers have been shipped with twin thermocouples as standard. These were shipped under the Mowden Part No.s M505CE-2T and M505CE-B-2T (Blue Box version). The relevant Serial Numbers are 2849 onwards.

For details of the functionality and operation of the second thermocouple refer to Appendix H of Instruction Manual IM1016.

Positioning of the second thermocouple is dependent on individual customer requirements and is beyond the scope of the Controller Instruction Manual. Please refer to TW for queries and advice.

From Serial Number 2853 onwards V3.3 Firmware is installed as standard and there are some changes to the fill logic.

The firmware changes from V3.0 are as follows:-

If 'Remote Alarm for No LN2' is set to 'Off' there is now an override which reactivates it after 12 hours.

Password Reset function corrected. This did not function correctly on V3.0.

Default Calibration settings are loaded for the second thermocouple if updating from V2.0 or earlier.

For previous versions, when polling the controller via the PC Interface, the Level Reading (cm) defaulted to zero on power up. For V3.3 the last known level is reported after power up.

An extra command has been added to the PC Interface to allow reporting of the temperature of the second thermocouple.

This is detailed in Technical Specification TS1001. (Rev 3 onwards).

Filling does not automatically re-start at Extra Low if switched off by the Fill timer. It only Alarms. This prevents fill cycling if alarms are left unattended.