



**BUTTON LOCK**  
**TO LOCK OR UNLOCK, PRESS AND HOLD BOTH "ESC" AND "A" FOR AT LEAST 5 SECONDS.**  
**WHEN LOCKED, ONLY "ESC" AND "OK" WILL FUNCTION.**

TESTED BY \_\_\_\_\_  
 DATE \_\_\_\_\_

**OPERATION**

CISTERN FILLING IS VIA 2 NORMALLY CLOSED SOLENOID VALVES CONTROLLED BY "SOL 1" AND "SOL 2" LEVEL CONTROLLERS. THE LED ILLUMINATES WHEN SOLENOID POWERED. SOL 1 OPENS ONCE THE WATER HAS DROPPED BELOW THE "SOL 1 ON" ELECTRODE AND CLOSES ONCE THE "SOL 1 OFF" ELECTRODE IS SUBMERGED. IF SOLENOID 1 CANNOT MEET THE DEMAND SOLENOID 2 OPENS (AND SOLENOID 3 IF FITTED) ONCE THE WATER HAS DROPPED TO "SOL 2 ON" LEVEL.

PUMPS ARE CONTROLLED BY DIGITAL CONTROLLER AND PRESSURE TRANSDUCER. THE "PUMP" CONTROLLER CUTS POWER TO THE PUMP IF THE CISTERN IS LOW. THE LED IS ILLUMINATED UNTIL THE "PUMP STOP" ELECTRODE IS EXPOSED. PUMPS RESTARTS ONCE THE "PUMP RESTART" ELECTRODE IS SUBMERGED. ONCE THE PRESSURE VESSEL IS RECHARGED AND NO FLOW IS DETECTED, THE PUMPS RUNS SLOW FOR A PERIOD THEN STOPS. "DUTY ASSIST", SECOND RUNS IN ADDITION TO FIRST PUMP IF REQUIRED. AUTOMATIC - ALTERNATE PUMP STARTING AFTER BOTH RUN AND DAILY. SOFT START MODE AFTER POWER RESTORE OR LOW WATER. DAILY ANTI SEIZE PULSE. GO TO [arrowvalves.co.uk](http://arrowvalves.co.uk) FOR FAULT FINDING CHART.

**Arrow Valves**  
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 AM185C 11/06/14

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TITLE: **BT WIRING DIAGRAM DUTY ASSIST**

DRN: **RM** CHECKED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

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MATERIAL: **CARD 160 g/sqm**

FINISH: **LAMINATED** SCALE: **100%**

DRG No: **AM185D** DATE: **11/06/14**