

D152 AND D153 Trouble shooting procedure

1. CHECK FOR 120 VOLTS AC AT TERMINALS 1 AND 2 OF THE CONTROLLER.
IF NOT PRESENT CHECK FUSES OR CIRCUIT BREAKERS UP STREAM OF THE CONTROLLER.
2. CHECK THE FUSE ON THE CONTROLLER.
IF THE FUSE IS DAMAGED CHECK ALL CONNECTIONS TO THE CONTROLLER FOR IMPROPER HOOKUP OR SHORTS. REPLACE THE FUSE AND APPLY POWER TO THE CONTROLLER. IF THE FUSE BLOWS AGAIN AND NO EXTERNAL FAULTS ARE VISIBLE RETURN THE CONTROLLER FOR EVALUATION AND REPAIR.
3. CHECK PLUS VOLTAGE OUT AT TERMINAL 12 OF THE CONTROLLER REFERENCED TO TERMINAL 13 COMMON, IT SHOULD BE 12 TO 13.8 VOLTS DC NOMINALLY, IF THE VOLTAGE IS NOT THERE AND NO EXTERNAL SHORTS OR MISCONNECTIONS ARE SEEN RETURN THE CONTROLLER FOR EVALUATION AND REPAIR.
4. CHECK THE EXCITATION VOLTAGE ON TERMINAL 15 (REFERENCED TO TERMINAL 16 SIGNAL COMMON). THIS SHOULD BE 8 VOLTS DC ON THE (-01, -02 AND -04 MODELS) AND 6 VOLTS DC ON THE (-11, -12, -14 MODELS).
IF THIS VOLTAGE IS NOT PRESENT OR IS REDUCED REMOVE THE RED WIRE FROM TERMINAL 15 AND MEASURE THE VOLTAGE ON TERMINAL 15 AGAIN IF THE VOLTAGE IS NOT RESTORED RETURN THE CONTROLLER FOR EVALUATION AND REPAIR.
5. IF THE BAR GRAPH DISPLAY IS NOT LIGHTING ANY OF THE RED LED SEGMENTS AND THERE IS A SUFFICIENT WATER LEVEL PRESENT FOR IT TO DO SO, HOLD THE MANUAL MODE SWITCH IN THE UP POSITION FOR 20 SECONDS. IF THE DISPLAY LEVEL DOES NOT GO UP UNHOOK THE WIRES FROM THE TRANSDUCER AND REPEAT THE TEST. IF THE INDICATION STILL DOES NOT CHANGE RETURN THE CONTROLLER FOR EVALUATION AND REPAIR. IF THE INDICATION DOES CHANGE REMOVE THE WHITE WIRE FROM TERMINAL 14 AND USE A JUMPER WIRE TO JUMPER FROM TERMINAL 15 TO 14. WAIT 20 SECONDS. IF THE DISPLAY GOES UP THE TRANSDUCER OUTPUT VOLTAGE SHOULD BE CHECKED. DO THIS BY MEASURING FROM TERMINAL 16 TO THE WHITE WIRE REMOVED FROM TERMINAL 14. ON (-01, -02 AND -04 MODELS) THIS VOLTAGE WILL BE 1.8 VOLTS DC WITH NO WATER LEVEL AND BE APPROXIMATELY 3 TO 4.5 VOLTS DC AT FULL SCALE DEPENDING ON THE MODEL. ON THE (-11, -12 AND -14 MODELS) THIS VOLTAGE WILL BE .8 VOLTS DC WITH NO WATER LEVEL AND APPROXIMATELY 3 TO 4 VOLTS DC AT FULL SCALE DEPENDING ON THE MODEL. IF THE VOLTAGES DO NOT FALL INTO THESE RANGES THE TRANSDUCER SHOULD BE RETURNED FOR REPAIR.
6. IF THE BAR GRAPH DISPLAY IS LIGHTING ALL OF THE DISPLAY SEGMENTS OR IS AT PARTIAL DISPLAY AND THIS INDICATION IS NOT CHANGING, REMOVE THE WHITE WIRE FROM TERMINAL 14. THE DISPLAY SHOULD GO TO ZERO LEVEL WITHOUT ANY RED LED SEGMENTS BEING LIT. IF THE DISPLAY REMAINS "UP SCALE", RETURN THE CONTROLLER FOR REPAIR. IF IT GOES TO ZERO, DO THE TRANSDUCER OUTPUT CHECKS DESCRIBED IN STEP 5. IF THE VOLTAGES ARE OUT OF THESE RANGES OR DO NOT RESPOND TO CHANGING LEVEL, THE TRANSDUCER SHOULD BE RETURNED FOR REPAIR.
7. IF PUMPS 1 AND 2 DO NOT ALTERNATE CORRECTLY, CHECK THE MANUAL SELECTOR SWITCH FOR PROPER SWITCH PLACEMENT. IF THE CONTROLLER DOES NOT RESPOND TO THE SWITCH POSITIONS AND THE PUMPS WORK CORRECTLY IN HAND OPERATION RETURN THE CONTROLLER FOR REPAIR.

CONTACT THE CONSOLIDATED ELECTRIC SERVICE DEPARTMENT AT 612-224-9474
WITH ANY QUESTIONS OR FOR HELP IN EVALUATING TEST RESULTS.