

INSTRUCTION MANUAL ADDENDUM
for
MODEL 830
AUTORANGING
CAPACITANCE METER

BK PRECISION
DYNASCAN
CORPORATION
6460 West Cortland Street
Chicago, Illinois 60635

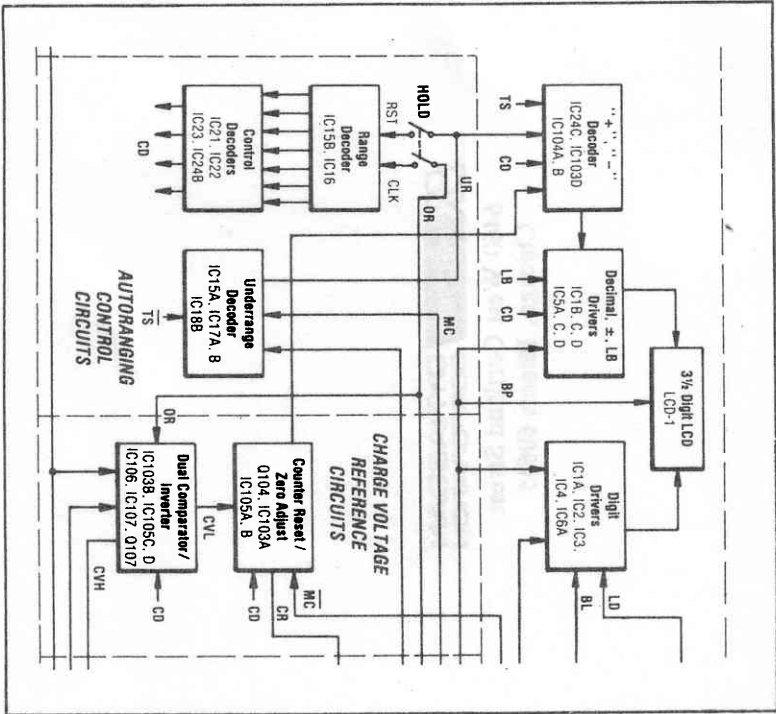


The latest Model 830 Capacitance Meter includes a circuit modification which changes the operation of the unit when the RANGE AUTO-HOLD switch is in the HOLD position. On earlier models the HOLD function prevented downranging but allowed the unit to uprange when a larger capacitor was connected. The new circuit holds the unit in the selected range and prevents either upranging or downranging. Thus, if the AUTO-HOLD switch is set to HOLD and a capacitor is connected that has a higher capacitance value than the range can measure, the unit will overrange. In an overrange condition, the display is blanked except for the decimal point. If overranged on the 200mF range, a (+) sign is also displayed. The LED indicator and decimal point will show you which range you are locked into. If a capacitor is connected which has a lower value than the range normally measures, the meter will read less than maximum resolution (reading under 180, may be as low as zero).

The difference between the partial block diagram in this addendum and the block diagram in the basic manual is in the connection of the AUTO-HOLD switch in the decoder circuit. In the earlier version the switch is connected into the UR (underrange) line only. In the new circuit configuration the switch has separate poles in both the UR and the OR (overrange) lines. By opening the OR line, decoder IC16 cannot be clocked to the next higher range in an overrange situation. In this condition an overrange measurement results in a blanked display and an underrange measurement results in a zero or low resolution reading. To check a capacitor that is out of the HOLD range the AUTO-HOLD switch must be returned to the AUTO position. In this position circuit operation is identical to the older models.

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When servicing the Model 830, all units with printed circuit board no. 507-005 will operate as described in this addendum. Circuit board no. 451-005 is the earlier design. It is not practical to modify earlier units to the later configuration, as the complete circuit board assembly is required. To quickly determine which version you are using without accessing the circuit board, simply set the RANGE switch to the HOLD position before connecting a capacitor. This locks the unit on the 200pF range. Now connect any capacitor value greater than 200pF. If the unit overranges, it is the later version. If it reads the capacitance value, it is the earlier version.



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For the later units (circuit board 507-005), Switches S1 and S2 are dpdt; replacement part no 084-091-9-001. For the earlier units (circuit board 451-005), use spdt switch, part no 084-040-9-001 as replacement.

As the result of an earlier change, the replacement part no. for the lower front panel inlay is now 260-260-9-001.

Also the basic manual has a misprint on page 11 under CAPACITOR CHARGE CYCLE. In the first sentence "MC" should be "MC".

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