

CALIBRATING PROCEDURE of CD-4301

1. Used a scope to monitor the signal of PIN 1/U4, adjust the VR 1 until the signal reach 100 Hz, 3.8V p-p.
2. Used a scope to monitor the signal of PIN 7/U4, adjust the VR 2 until the signal reach 1000 Hz, 3.8V p-p.
3. Used one DMM(setting to 200 mV range) to measure the DC voltage between REF(+)/PIN 36 & COM OF IC 7116/U1, adjust VR5 until the DMM voltage reading values same as 100.0 mV exactly.
4. Simulating calibration : prepare the following precision resistor-
1K ohms x 1 PCS
10K ohms x 2 PCS
100 ohms x 1 PCS
10 ohms x 1 PCS

* Disconnect the probe from the instrument, used above 10K ohms resistor to instead of thermistor (for temp. compensation purpose).

* Electrode connect terminal is A,E(JP1), thermistor connect terminal is B,D(JP1), please refer circuit diagram.

A. Setting the meter range to "2 mS" range, used above 1K ohms resistor to instead of electrode. Adjust VR3 until the display reading values same as 1,000ms exactly.

B. Setting the meter range to "200 uS" range, used above 10K ohms resistor to instead of electrode. Adjust VR1 until the display reading values same as 100.0 uS exactly.

C. Setting the meter range to "20 mS" range, used above 100 ohms resistor to instead of electrode. Adjust R18 until the display reading values same as 10.00 mS exactly.

D. Setting the meter range to "200 mS" range, used above 10 ohms resistor to instead of electrode. Adjust R17 until the display reading values same as 100.0 mS exactly.

5. CALIBRATION AGAIN BY STANDARD SOLUTION :

A. Connect the probe to the instrument again.

B. Prepare A standard solution, its values is near the 2 mS.

C. Setting the meter to "2 mS" range. Insert the probe into the above standard solution. Adjust VR3 until the display reading values same as the values of above standard solution.