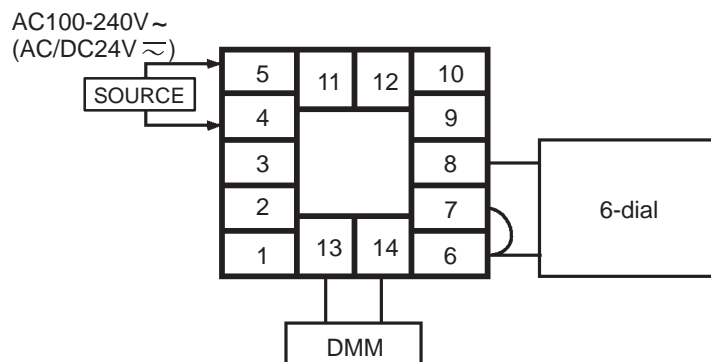


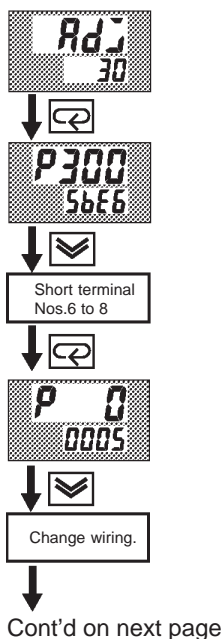
# Calibrating Platinum Resistance Thermometers

## Preparation



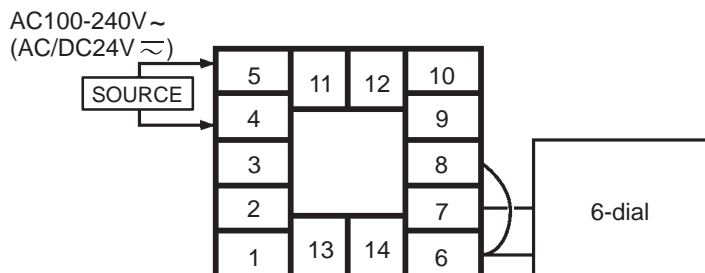
- Use leads of the same thickness when connecting to the platinum resistance thermometer.
- In the above figure, 6-dial refers to a precision resistance box, and DMM stands for a digital multimeter. However, note that the DMM is required only when the transfer output function is supported.
- Connect (short) the leads from terminal Nos.6 and 7.

## Calibration



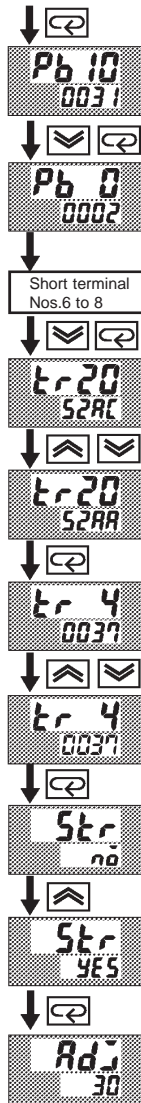
This example describes how to calibrate a platinum resistance thermometer when the transfer output function is supported. If the transfer output function is not supported, skips steps (7) to (10).

- (1) When [ **RdJ** ] is displayed, the 30-minute timer is displayed on the No.2 display and counts down. This timer serves as a guide for the aging time when aging is required.
- (2) First, calibrate the main input. Press the **CAL** key to display [ **P300** ] (300Ω calibration display). Set the 6-dial to 300Ω when the value on the No.2 display has stabilized (changes of several digits max.), press the **ENTER** key to temporarily store the calibration data.
- (3) Press the **CAL** key to display [ **P 0** ] (0Ω calibration display). Short terminal Nos.6 to 8. When the value on the No.2 display has stabilized (changes of several digits max.), press the **ENTER** key to temporarily store the calibration data.
- (4) Next, calibrate the B-B' input. Change the wiring as follows:



Make the connection across terminal Nos.6 and 7 and the 6-dial as short as possible. Short terminal Nos.6 and 8.

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- (5) Press the key to display [Pb 10] (10Ω calibration display). Set the 6-dial to 10Ω. When the value on the No.2 display has stabilized (changes of several digits max.), press the key to temporarily store the calibration data.
- (6) Press the key to display [Pb 0] (0Ω calibration display). Short terminal Nos.6 to 8. When the value on the No.2 display has stabilized (changes of several digits max.), press the key to temporarily store the calibration data.
- (7) Next, calibrate the transfer output function. If the transfer output function is not supported, skip to step (11). Press the key. The display changes to [tr 20] (20 mA calibration display).
- (8) Set the output to 20 mA by the or keys while monitoring the voltage on the digital multimeter. In the example on the left, the display indicates that the value two digits smaller than before calibration is “20 mA”.
- (9) Press the key. The display changes to [tr 4] (4 mA calibration display).
- (10) Set the output to 4 mA by the or keys while monitoring the voltage on the digital multimeter. In the example on the left, the display indicates that the value two digits smaller than before calibration is “4 mA”.
- (11) Press the key until the display changes to the data store display. Press the key. The No.2 display changes to [ 4E5], and two seconds later the calibration data is stored to internal memory. If you press the key when the No.2 display reads [ na], the calibration data is disabled.
- (12) This completes calibration of the platinum resistance thermometer. Press the key to return the display to [ Ad].