INSTRUCTION MANUAL

DIGITAL VOLTMETER/AMMETER

MODEL DOM-IIB

KIKUSUI ELECTRONICS CORPORATION

1. GENERAL

1.1 Description

The DOM Digital Voltmeter/Ammeter has two voltage ranges and one current range, which can be selected with a selector switch. The measured value is displayed with 3-1/2 digits.

1.2 Specifications

Instrument name:	Digital Voltmeter/Ammeter
Model No.:	DOM-ⅡB

Full scales of voltmeter:
(check mark)

☐ HIGH 199.9 V   LOW 19.99 V

☐ HIGH 1999 V   LOW 199.9 V

* The maximum allowable input voltage is 300 V.

Full scales of ammeter:
(check mark)

☐ 1.999 A

☐ 19.99 A

☐ 199.9 A

☐ 1999 A

Accuracy:	Voltmeter: ±0.1% of rdg ±1 digit
(20°C ±10°C)	Ammeter: ±0.5% of rdg ±1 digit

Measuring system:	Integrating measuring system
Sampling rate:	3 samples/sec
Display:	LCD
Range selection:	Manual.
Overrange indication:	Lower 3 digits goes off.
Polarity indication:	"-" alone is indicated.
Ambient temperature:	0 to 40°C
Ambient humidity:	10 to 90% RH
Others:	Compatible with Type KI-6A Meter

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2.   OPERATION METHOD

2.1   Panel Switches and Controls
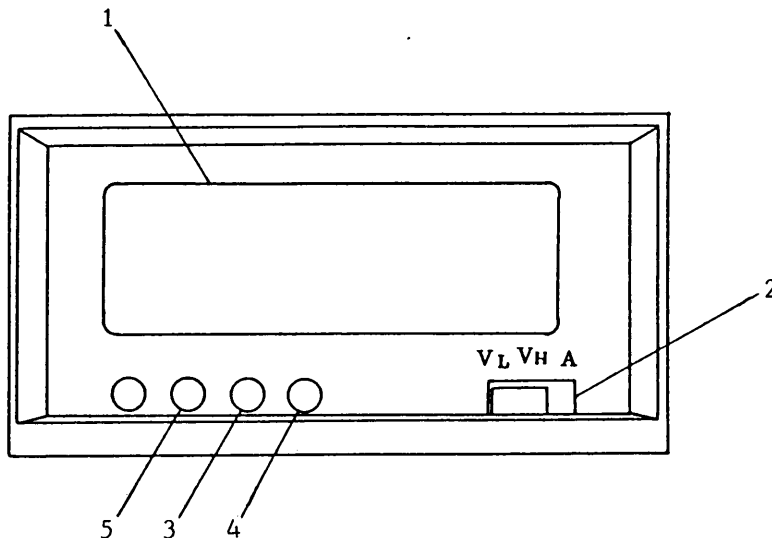
(1)   Digital readout (The viewing angles of the LCD are as illastrated below.)

(2)   Selector switch: V_L (LOW range of voltmeter)

                                   V_H (HIGH range of voltmeter)

                                   A   (AMMETER range)

(3) V_L ADJ: V_L range calibration potentiometer

(4) V_H ADJ: V_H range cdlibration potentiometer

(5)   A ADJ: A range calibration potentiometer
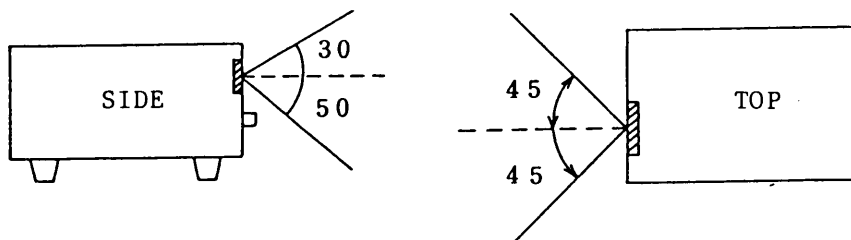
2.2   Notes

When voltage to be measured is not predictable, set the instrument in the V_H range before turning on its power. If the voltage is lower than the maximum measurable value of the V_L range, the lower three digits will go off (to indicate the overrange state).

In such case, change the range to the V_H range.

3. CALIBRATION

3.1 Calibration of V_L Range

Connect to the output terminal of a power supply a DC voltmeter
of an accuracy of 0.01% or better, set the output voltage at E_1 (see
Table 1), and adjust the V_L ADJ potentiometer so that the digital
display reads the value of D_1.

3.2 Calibration of V_H Range

(1) In case of maximum rated output voltage is higher than 20 V
or lower than 70 V

Adjust the V_H ADJ potentiometer as follows:

When set at E_2 (Table 1) in range V_L, reading is D_2 with V_H

When set at E_3 (Table 2) in range V_L, reading is D_3 with V_H

(2) In case of maximum rated output voltage is higher than 110 V
or lower than 16 V

Connect to the output terminal of the power supply a DC
voltmeter of an accuracy of 0.01% or better, set the output
voltage at E_4, and adjust the V_H ADJ potentiometer so that
the digital display reads the value of D_4.

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Table 1

Maximum rated voltage of power supply [V]	E_1 [V]	D_1	E_2 [V]	D_2
8	1.990	1.990	-	-
16	1.990	1.990	-	-
20 35 40 55 70	19.90	19.90	19.94	19.9
110	19.90	19.90	-	-
160	19.90	19.90	-	-
250	199.0	199.0	-	-

Table 2

Maximum rated voltage of power supply [V]	E_3 [V]	D_3	E_4 [V]	D_4
8	-	-	8.00	8.00
16	-	-	16.00	16.00
20 35 40 55 70	19.95	20.0	-	-
110	-	-	110.0	110.0
160	-	-	160.0	160.0
250	-	-	250.0	250

3.3 Calibration of A (Ammeter) Range

Connect to the output terminal an ammeter of an accuracy of
0.2% or better, feed the maximum rated current of the power
supply, and calibrate the indication (displayed value) with
the A ADJ potentiometer.