

# REED

## Model DW-6060

Digital Watt Meter

### Instruction Manual



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# Safety

## *Caution*

- Risk of electric shock
- Do not apply the overload voltage/current to the input terminal
- Remove test leads before opening the battery cover

## *Cleaning*

- Only use a clean and dry cloth to clean the plastic case

# Features

- Digital multimeter & watt meter in a single compact unit
- Measures AC/DC volts, current, & watts
- Measures true power up to 6000 watts
- Manual zero adjust in watt meter mode; automatic zero adjust in multimeter mode
- Sampling time of less than one second
- Designed for one-handed operation
- Front panel has easily accessible & clearly labeled sockets for power & load
- Large (0.5"), easy-to-read LCD readout
- Built-in, fold out stand

## Specifications

Display:	0.5" LCD with max indication of 1999
Polarity:	Bi-polar auto switching
Zero Adjust:	Watt: External adjustment, limited to +30/-30 digits; ACV/DCV, ACA/DCA: Automatic adjustment
Over-input:	Indication of "1" or "-1"
Operating Temp.:	0 to 50°C(32 to 122°F)
Operating Humidity:	Less than 80% RH
Power Supply:	One 9V battery
Weight:	500g (including battery)
Includes:	One TL-88-1 test lead & one 6AM6X 9V battery
Optional Accessories:	Soft carrying case (CA-05A)

### **AC WATT**

Range:	2000W & 6000W
Resolution:	2000W: 1W; 6000W: 10W
Overload Circuit Protection:	600ACV / 10ACA
Accuracy:	$\pm(1\% + d)$
Input Voltage:	0 to 600 ACV
Input Current:	0 to 10 ACA
Frequency Characteristic:	45 Hz-65 Hz

### **AC/DC VOLTAGE**

Range:	200V & 600V
Resolution:	200V: 0.1V; 600V: 1V
Overload Circuit Protection:	600ACV / 600DCV
Accuracy:	$\pm(0.8\% + d)$
Frequency Characteristic:	45 Hz - 65 Hz
Input Impedance:	1 Mega ohm

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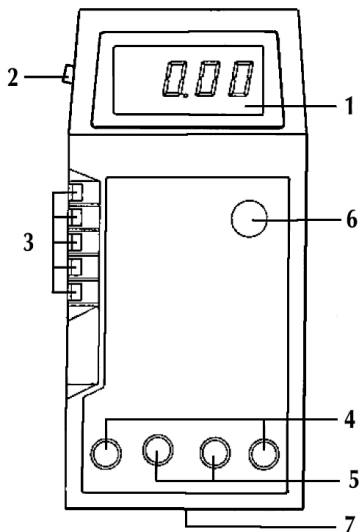
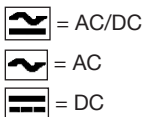
## AC/DC CURRENT

Range:	10A
Resolution:	10mA
Max Input Current:	10A
Accuracy:	$\pm(1\% + d)$
Voltage drop (in case of full scale):	200 AC mV
Frequency Characteristic:	45 Hz -65 Hz

## Instrument Description

1. Display
2. Power Switch
3. Function Switches
4. Power Input Terminals
5. LOAD Input Terminals
6. Watt Zero Adjust Knob
7. Battery Cover/Compartment

### Marks



## Operating Instructions

1. Ensure that the DC 9V battery is connected correctly
2. Select the correct function and range before taking measurements
3. Select the proper measurement range by starting at the highest anticipated value
4. Place the test lead into the proper input terminal before taking measurements
5. Remove the test leads from the circuit under test when changing the measurement range
6. Operate the instrument only in the ambient temperature range of 32 to 122°F (0 to 50°C) and less than 80% Relative humidity
7. Do not exceed the maximum rated voltage of each range and input terminal
8. Always turn the instrument off when not in use
9. Remove the battery if the instrument will not be used for a long period of time

### *AC Watt Measurement*

1. While the LOAD is OFF, turn the meter ON
2. Determine the highest anticipated WATT (2000W or 6000W) on the function scale and press the corresponding button
3. Connect the test leads into their appropriate terminals (see Instrument Description)
4. Connect the LOAD to the LOAD test leads
5. Adjust the Watt Zero Adjust Knob until the display shows "0"
6. Power on the LOAD and the meter will display the true watt value
7. Press the Function Switches to change between ACV (AC Voltage) or ACA (AC current) measurements

## *AC/DC Voltage Measurement*

1. While the meter is OFF, connect the BLACK test lead into the COM terminal
2. Connect the RED test lead into the V terminal
3. Press the “ACV/DCV” Function Switch
4. Determine the highest anticipated voltage (200V or 600V) and press the corresponding Function Switch
5. Slide Power Switch to the ON position
6. Connect test leads into circuit under test

## *AC/DC Current Measurement*

1. While the meter is off, connect the BLACK test lead into the COM terminal
2. Connect the RED test lead into the 10A terminal
3. Press the “ACA/DCA” Function Switch
4. Slide Power Switch to the ON position
5. Series the test lead probes into the circuit under test

# Calibration

## AC/DC Voltage

1. Press the “ACA/DCA 200V” Function Switch
2. Adjust VR3 until the display shows a value of “0” (See Fig 1)
3. Connect a standard DC voltage value near full scale (199.9 DCV) and is known to within 0.5% accuracy
4. Adjust VR1 until the display shows the proper DC voltage
5. Remove the standard DC voltage
6. Connect a standard AC voltage whose value is near full scale (199.9 ACV) and is known to within 0.5% accuracy
7. Adjust VR4 until the display shows the proper AC voltage

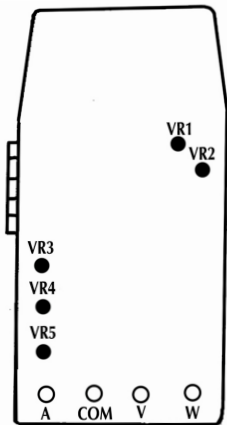


Fig 1

## AC/DC Current

1. Press the “ACA/DCA 10A” Function Switch
2. Connect a standard DC or AC current whose value is near full scale (9.99 A) and is known to within 0.5% accuracy
3. Adjust VR5 until the display shows the proper AC or DC current
4. Remove the standard AC or DC current



## WATT

1. Press the “WATT II 6000W” Function Switch
2. Adjust the Watt Zero Adjust Knob until the display shows a value of “0”
3. Connect a standard power source and add a LOAD (as depicted in AC Watt Measurement) whose value is near full scale (600V, 10A) and is known to within 0.5% accuracy
4. Adjust VR2 until the display shows the proper WATT
5. Remove the standard power source and LOAD

## Battery Replacement

1. When “LOW BAT” appears on the left corner of LCD screen you will need to replace the battery
2. Loosen the battery compartment screw and slide off the battery cover off to remove the battery
3. Replace with a new 9V battery (006V DC 9V) and reinstall the cover





