Quality, Price & Service

that make a world of difference...

Measuring/Testing Equipment (Analog & Digital)

- **Watt Motors**
- **Transformers**
- **Relays**
- **Thermometers (Bi-metal & Glass)**
- **Remote Reading Thermometers (Analog & Digital)**

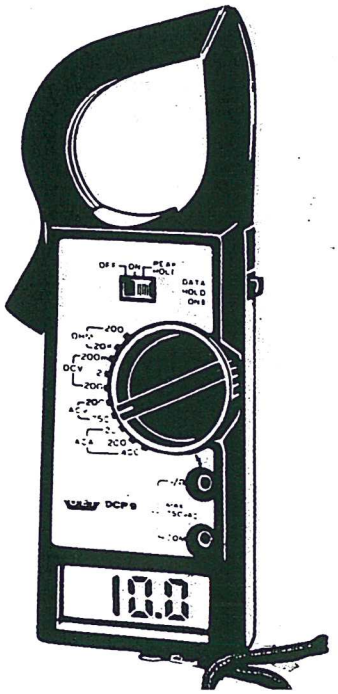
Caution

To eliminate possibility of injury to operator and damage to the instrument and equipment, the following procedure is recommended. Exercise care and caution on all ranges, particularly the voltage ranges, and follow all standard published safety rules. Misuse, abuse and carelessness cannot be prevented by any written word and is fully the operator's responsibility.

8030 SW Nimbus • Beaverton, OR 97008
(503) 644-8723 • Fax: (503) 643-6322
Effective 7/6/01

Printed in Korea

DCP9



OPERATING INSTRUCTIONS

8030 SW Nimbus • Beaverton, OR 97008
(503) 644-8723 • Fax: (503) 643-6322
Effective 7/6/01

DCP9
OPERATING
INSTRUCTIONS

WARNING: OBSERVE ALL SAFETY PRECAUTIONS WHEN MEASURING HIGH CURRENTS AND VOLTAGES. TURN OFF POWER TO THE CIRCUIT UNDER TEST, SET THE DCP9 CONTROLS, CONNECT THE TEST LEADS TO THE DCP9 AND THEN TO THE CIRCUIT UNDER TEST. REAPPLY POWER.

The DCP9 is a precision electrical test instrument. Take this opportunity to read these instructions and familiarize yourself with the DCP9, its features, and operations.

Features

- Easy to read 3 1/2 digit LCD display
- Low battery indication: "LO BAT" on LCD display
- Data hold: "DATA HOLD" displayed on LCD when activated
- Ruggedized construction
- Tear drop jaw design
- Slide away battery compartment cover
- 19mm standardized input jack spacing to accommodate the TA1K temperature adaptor
- Measures up to 400 AC amps
- Overload protection on all functions and ranges
- Peak hold for all three AC amp ranges

Specifications

Ranges:
AC Amps: 0-20, 200, 400A
DC Volts: 0-200mV, 2V, 200V
AC Volts: 0-200, 750V
Ohms: 0-200, 20K

Accuracy:
AC Amps: ± 1.5% of reading, ±3 digits
DC Volts: ±0.8% of reading, ±1 digit
AC Volts: ±1.2% of reading, ±4 digits
Ohms: ±1% of reading, ±2 digits

General:
Jaw Opening: 1 1/2 inches
Display: 3 1/2 digit LCD
Sampling Time: 0.4 seconds
Operating Temperature: 0° to 50°C (32° to 122°F)
Operating Humidity: 80% max RH
Power Supply:· 9 volt battery (NEDA 1604)
Battery Life: Approx. 200 hours of continuous use
Dimensions: HWD 7..13 x 2.63 x 1.25 inches
(181 x 69 x 32 mm)

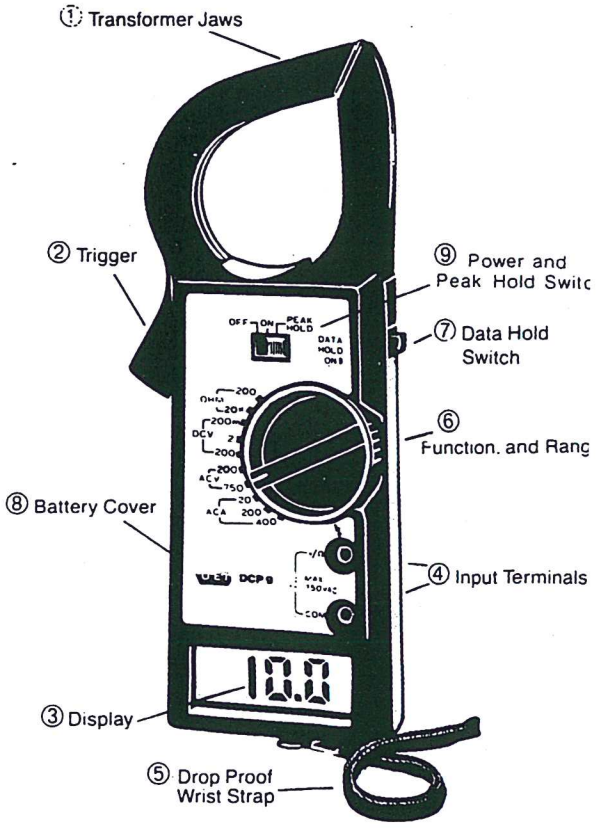


Fig. 1

1. **Transformer Jaws:**
   Designed to pick up the AC current flowing through the conductor.
2. **Trigger:**
   Press the lever to open the transformer jaws. When the pressure on the lever is released the jaws will close again.
3. **Display:**
   3 1/2 digits, decimal points, "LO BAT" and "-" marks are displayed on the LCD display.
4. **Input Terminal:**
   The black test lead is always connected to the "COM" input jack and the red test lead is always connected to the "V" input jack when measuring ACV, DCV, and OHMS.
5. **Dropproof Wrist Strap:**
   Prevents the instrument from slipping off the hand while in use.
6. **Function, and Range:**
   Rotary switch is used to select the measurement range and function of the signal under test.
7. **Data Hold:**
   Hold display reading for all functions and ranges.
8. **Battery Compartment:**
   Slide cover off for battery replacement.
9. **Peak Hold:**
   Test the start up current of motors and relays on the three amp ranges only.

Precautions and Preparations for Measurements

1. Ensure that the 9 volt battery is connected correctly to its snap terminal and placed in the battery compartment.
2. Ensure that the PEAK HOLD switch is in the "OFF" position.
3. Ensure that the DATA HOLD switch is in the "OFF" position.
4. Select the correct Function and Range.
5. Install the test leads in the proper input jacks.
6. Select the proper measurement range by starting at the largest anticipated value (for instance, 1000 V) and progressively selecting lower ranges until the measurement falls within the proper range.
7. Remove either of the test leads from the circuit under test when changing the measurement range.
8. Operate the instrument only in the ambient temperature range of 0-50°C (32-122°F) and less than 80% relative humidity.
9. Do not exceed the maximum rated voltage of each range and input terminal.
10. Always switch the power to its "OFF" position when the instrument is not in use. Remove the battery if the instrument is not to be used for a long period of time.

Measuring Procedure

DC Voltage Measurement

WARNING: To avoid the risk of electrical shock, instrument damage and/or equipment damage input voltages must not exceed 200 volts DC. Do not attempt to take any unknown voltage measurements.

1. Connect Black test lead into "COM" input jack.
2. Connect RED test lead into V/Ω input jack.
3. Set the rotary switch to the desired position.
4. Connect test lead probes into circuit under test. The maximum DC voltage the DCP9 can measure is 200 volts.

AC Voltage Measurement

WARNING: To avoid the risk of electrical shock, instrument damage and/or equipment damage input voltages must not exceed 750 volts Peak AC. Do not attempt to take any unknown voltage measurements.

1. Connect Black test lead into "COM" input jack.
2. Connect RED test lead into V/Ω input jack.
3. Set the rotary switch to the desired position.
4. Connect test lead probes into circuit under test.

Resistance Measurement

CAUTION: Turn test circuit power off and discharge all capacitors before attempting in-circuit resistance measurements.

1. Connect Black test lead into "COM" input jack.
2. Connect red test lead into V/Ω input jack.
3. Set the rotary switch to the desired position.
4. Connect test lead probes into circuit under test or across unknown resistor. The maximum resistance the DCP9 can measure is 20K ohms.

AC Current Measurement

CAUTION: The instrument is overload protected up to 400 ACA for up to one minute. Do not attempt to make any unknown current measurements. Do not exceed the maximum current that can be measured on each range.

1. Make sure that the "DATA HOLD" switch is not on.
2. Be sure the "PEAK HOLD" switch is not on.
3. Determine the highest anticipated ampere(20A, 400A) on the range scale and position the rotary switch.
4. Press the trigger to open the transformer jaws and clamp one conductor only. It is impossible to make measurements when two or three conductors are clamped at the same time.

Data Hold Measurement

1. When the "DATA HOLD" switch is on it will hold the readings on all functions and ranges.

Peak Measurement

1. Be sure the "DATA HOLD" switch is not on.
2. Turn the equipment to be measured off.
3. With the "PEAK HOLD" switch in the "OFF" position, set the rotary switch on the DCP9 to the desired ACA range.
4. Clamp the DCP9 around the single wire to be measured.
5. Set the "PEAK HOLD" switch to the "ON" position.
6. Apply power to the equipment being measured.
7. Record the peak value indicated on the LCD.

Battery Replacement

WARNING: Before attempting to replace the battery, first disconnect the test leads from the circuit, then disconnect the test leads from the instrument.

1. When the left corner of the LCD display shows "LOBAT", approximately 20% of the battery life remains. It is necessary to replace the battery. Accurate measurements may still be made for several hours after the "LOBAT" appears.
2. Remove test leads.
3. Slide the battery cover (10) Fig. 1, away from the instrument and remove the battery.
4. Replace with 9V battery and reinstall the cover.

Accessories	Stock No
Alligator clips	AAC
Battery 9V (NEDA #1604)	AB9
Carrying Case	AC65
Line Splitter	ALS1
Test Leads	ATL50
Temperature Adaptor	TA1K

Returning for Repair

Before returning your instrument for repair, please make a quick check to insure the failure is not due to one of the following:

1. Low or dead batteries
2. Open test lead(s) or temperature probe.

Five year Limited Warranty

This product is warranted to the purchaser against defects in material and workmanship for five year from the date of purchase.

What is covered: Repair parts and labor, or replacement at the company's option. Transportation charges to the purchaser.

What is not covered: Transportation charges to the company. Damages from abuse or improper maintenance, see operation instructions. Any other expense, consequential damages, incidental damages, or incidental expenses, including damages to property. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

How to Obtain Warranty Performance: Attach to the product your name, address, description of problem, phone number and proof of date of purchase. Package and return to:

8030 SW Nimbus • Beaverton, OR 97008

Implied Warranties: Any implied warranties including implied warranties of merchantability and fitness for a particular purpose. are limited in duration to five year from the date of purchase. To the extent any provision of this warranty is prohibited by federal or state law and cannot be preempted, it shall not be applicable. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.