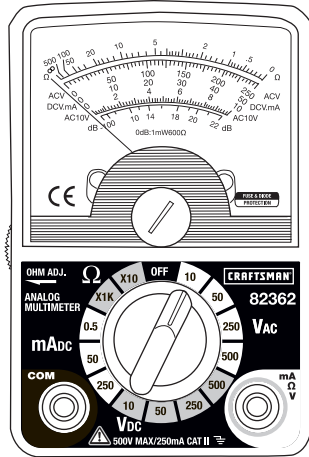




Analog Multimeter

Model: 82362



- Safety
- Operation
- Maintenance
- Español

CAUTION: Read, understand and follow Safety Rules and Operating Instructions in this manual before using this product.

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www.craftsman.com 080206

ONE YEAR FULL WARRANTY

ONE YEAR FULL WARRANTY ON CRAFTSMAN MULTIMETER
If this CRAFTSMAN Multimeter fails to give complete satisfaction within one year from the date of purchase, RETURN IT TO THE NEAREST SEARS STORE OR OTHER CRAFTSMAN OUTLET IN THE UNITED STATES, and Sears will replace it, free of charge.
This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.
Sears, Roebuck and Co., Dept. 817WA, Hoffman Estates, IL 60179

For Customer Assistance Call 9am - 5pm (ET)
Monday through Friday 1-888-326-1006

WARNING: USE EXTREME CAUTION IN THE USE OF THIS DEVICE.
Improper use of this device can result in injury or death. Follow all safeguards suggested in this manual in addition to the normal safety precautions used in working with electrical circuits. DO NOT service this device if you are not qualified to do so.

SAFETY INSTRUCTIONS

This meter has been designed for safe use, but must be operated with caution. The rules listed below must be carefully followed for safe operation.

- NEVER** apply voltage or current to the meter that exceeds the specified maximum:
- | Input Protection Limits | |
|-------------------------|----------------|
| Function | Maximum Input |
| V DC or V AC | 500V AC and DC |
| mA DC | 500mA DC |
| Resistance | 50V DC/AC |
- USE EXTREME CAUTION** when working with high voltages.
 - DO NOT** measure voltage if the voltage on the "COM" input jack exceeds 600V above earth ground.
 - NEVER** connect the meter leads across a voltage source while the function switch is in the current or resistance mode. Doing so can damage the meter.
 - ALWAYS** discharge filter capacitors in power supplies and disconnect the power when making resistance tests.
 - ALWAYS** turn off power and disconnect test leads before opening the covers to replace the fuse or battery.
 - NEVER** operate the meter unless the back cover and the battery and fuse covers are in place and fastened securely.
 - If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

SAFETY SYMBOLS



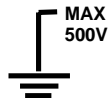
This symbol adjacent to another symbol, terminal or operating device indicates that the operator must refer to an explanation in the Operating Instructions to avoid personal injury or damage to the meter.



This **WARNING** symbol indicates a potentially hazardous situation, which if not avoided, could result in death or serious injury.



This **CAUTION** symbol indicates a potentially hazardous situation, which if not avoided, may result damage to the product.



This symbol advises the user that the terminal(s) so marked must not be connected to a circuit point at which the voltage with respect to earth ground exceeds 500V.



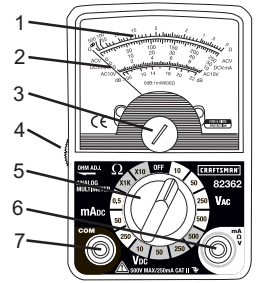
This symbol adjacent to one or more terminals identifies them as being associated with ranges that may, in normal use, be subjected to particularly hazardous voltages. For maximum safety, the meter and its test leads should not be handled when these terminals are energized.



This symbol indicates that a device is protected throughout by double insulation or reinforced insulation.

CONTROLS AND JACKS

- Scale
- Pointer
- Scale zero adjust
- Ohms zero adjust
- Rotary function switch
- Positive V, mA and Ω input jack
- COM input jack



SPECIFICATIONS

Function	Range	Accuracy
DC Voltage	500V	± 4% of full scale
	250V	
	50V	
	10V	
AC Voltage (50/60Hz)	500V	± 5% of full scale
	250V	
	50V	
	10V	
DC Current	250mA	± 4% of full scale
	50mA	
	0.5mA	
Resistance	Rx10 (10,000Ω)	± 5% of full scale
	Rx1k (1,000,000Ω)	
Decibels	-10 to +56 dB (4 ranges)	0dB=1mW in 600Ω

- Max input voltage** 500V AC/DC
- Input Sensitivity, (Frequency Ranges)** 2kΩ/V
- Battery** 50/60Hz
- Fuse** One (1) 1.5V AA battery (not provided)
- Operating Temperature** 500mA/250 fast blow (5mmx20mm)
- Storage Temperature** 41°F to 104°F (5°C to 40°C)
- Operating Humidity** 14°F to 122°F (-10°C to 50°C)
- Storage Humidity** Max 80% up to 87°F (31°C) decreasing linearly to <80% at 104°F (40°C)
- Operating Altitude** 7000ft. (2000meters) maximum.
- Weight** 3.88oz (110g)
- Size** 3.82x3.34x1.3" (97x65x33mm)
- Safety** For indoor use and in accordance with the requirements for double insulation to IEC1010-1 (1995): EN61010-1 (1995) Overvoltage Category II 600V, Pollution Degree 2. UL, CE Approved

BATTERY INSTALLATION

WARNING: To avoid electric shock, disconnect the test leads from any source of voltage before removing the back cover or the battery or fuse covers. Disconnect the test leads from the meter.

1. Remove the screws securing the rear cover using a Phillips head screwdriver.
2. Lift the cover off and replace the battery observing the correct polarity.
3. Insert the new battery into the battery holder.

Replace the rear cover and secure with the screws. **WARNING:** To avoid electric shock, do not operate the meter until the battery cover is in place and fastened securely.

NOTE: If your meter does not work properly, check the fuses and battery to make sure that they are still good and that they are properly inserted.

OPERATING INSTRUCTIONS

WARNING: Risk of electrocution. High-voltage circuits, both AC and DC, are very dangerous and should be measured with great care.

1. ALWAYS turn the function switch to the OFF position when the meter is not in use.

DC VOLTAGE MEASUREMENTS

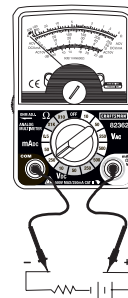
CAUTION: Do not measure DC voltages if a motor on the circuit is being switched ON or OFF. Large voltage surges may occur that can damage the meter.

1. Set the function switch to the highest V DC position.
2. Insert the black test lead banana plug into the negative (COM) jack. Insert the red test lead banana plug into the positive (V) jack.
3. Touch the black test probe tip to the negative side of the circuit. Touch the red test probe tip to the positive side of the circuit.
4. Read the voltage in the display. Reset the function switch to successively lower V DC positions to obtain a higher scale reading.



DC CURRENT MEASUREMENTS

1. Insert the black test lead banana plug into the negative (COM) jack.
2. Set the function switch to the 250mA DC position and insert the red test lead banana plug into the (mA) jack.
3. Remove power from the circuit under test, then open up the circuit at the point where you wish to measure current.
4. Touch the black test probe tip to the negative side of the circuit. Touch the red test probe tip to the positive side of the circuit.
5. Apply power to the circuit.
6. Read the current in the display. Reset the function switch to successively lower mA positions to obtain a higher scale reading.

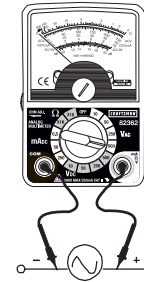


AC VOLTAGE MEASUREMENT

WARNING: Risk of Electrocution. The probe tips may not be long enough to contact the live parts inside some 240V outlets for appliances because the contacts are recessed deep in the outlets. As a result, the reading may show 0 volts when the outlet actually has voltage on it. Make sure the probe tips are touching the metal contacts inside the outlet before assuming that no voltage is present.

CAUTION: Do not measure AC voltages if a motor on the circuit is being switched ON or OFF. Large voltage surges may occur that can damage the meter.

1. Set the function switch to the highest V AC position.
2. Insert the black test lead banana plug into the negative (COM) jack. Insert red test lead banana plug into the positive (V) jack.
3. Touch the black test probe tip to the negative side of the circuit. Touch the red test probe tip to the positive side of the circuit.
4. Read the voltage in the display. Reset the function switch to successively lower V AC positions to obtain a higher scale reading.



RESISTANCE MEASUREMENTS

WARNING: To avoid electric shock, disconnect power to the unit under test and discharge all capacitors before taking any resistance measurements. Remove the batteries and unplug the line cords.

1. Set the function switch to the X10 or X1K position.
2. Insert the black test lead banana plug into the negative (COM) jack. Insert the red test lead banana plug into the positive Ω jack.
3. Touch the test probe tips together and adjust the OHM Zero Adjust knob for a "0" reading.
4. Touch the test probe tips across the circuit or part under test. It is best to disconnect one side of the part under test so the rest of the circuit will not interfere with the resistance reading.
5. Read the resistance on the scale.



dB MEASUREMENTS

The dB scale can be used to measure the milliwatt power dissipation on a 600 Ω load by measuring the voltage across a 600 Ω load. An AC voltage of 0.775Vrms across 600 Ω is equal to 1mW or "0"dB. When converting an AC Voltage measurement to dB take the dB reading from the lowest arc on the scale plate and then add the appropriate dB correction found in the table below.

ACV	ADD	dB
10	0	-10 ~ 22
50	14	4 ~ 36
250	28	18 ~ 50
500	34	24 ~ 56

MAINTENANCE

WARNING: To avoid electric shock, disconnect the test leads from any source of voltage before removing the back cover or the battery or fuse covers.

WARNING: To avoid electric shock, do not operate your meter until the battery and fuse covers are in place and fastened securely.

This MultiMeter is designed to provide years of dependable service, if the following care instructions are performed:

1. **KEEP THE METER DRY.** If it gets wet, dry it immediately.
2. **USE AND STORE THE METER IN NORMAL TEMPERATURES.** Temperature extremes can shorten the life of the electronic parts and distort or melt plastic parts.
3. **HANDLE THE METER GENTLY AND CAREFULLY.** Dropping it can damage the electronic parts or the case.
4. **KEEP THE METER CLEAN.** Wipe the case occasionally with a damp cloth. DO NOT use chemicals, cleaning solvents, or detergents.
5. **USE ONLY FRESH BATTERIES OF THE RECOMMENDED SIZE AND TYPE.** Remove old or weak batteries so they do not leak and damage the unit.
6. **IF THE METER IS TO BE STORED FOR A LONG PERIOD OF TIME,** the batteries should be removed to prevent damage to the unit.

UL LISTED

The UL mark does not indicate that this product has been evaluated for the accuracy of its readings.

TROUBLESHOOTING

There may be times when your meter does not operate properly. Here are some common problems that you may have and some easy solutions to them.

Meter Does Not Operate:

1. Always read all the instructions in this manual before use.
2. Check to be sure the battery is properly installed.
3. Check to be sure the battery is good.
4. If the battery is good and the meter still doesn't operate, check to be sure that both ends of the fuse are properly installed.

If You Do Not Understand How the Meter Works:

1. Purchase "Multitesters and Their Use for Electrical Testing", (Item No. 82303).
2. Call our Customer Service Line 1-888-326-1006.

SERVICE AND PARTS

Item Number	Description
82374	Fuse kit
95462	AA batteries
82398	Set of black and red Test Leads
82362-CS	Rear cover screws