Δ General Power tool safety warnings



WARNING! Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury. term "power tool" in the warnings refers to your mains-operated (corded) Save all warnings and instructions for future reference. The

power tool or battery-operated (cordless) power tool. 1. Work area safety

a. Keep work area clean and well lit. Cluttered or dark areas invite accidents.

- in the presence of flammable liquids, gases or dust. Power tools create sparks which may ignite the dust or fumes. b. Do not operate power tools in explosive atmospheres, such as
- c. Keep children and bystanders away while operating a power tool Distractions can cause you to lose control.
 - Electrical safety
- power tools. Unmodified plugs and matching outlets will reduce risk of a. Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded electric shock.
- pipes, radiators, ranges and refrigerators. There is an increased risk b. Avoid body contact with earthed or grounded surfaces, such as of electric shock if your body is earthed or grounded.
- . Do not expose power tools to rain or wet conditions. Water entering d. Do not abuse the cord. Never use the cord for carrying, pulling or a power tool will increase the risk of electric shock.
- edges or moving parts. Damaged or entangled cords increase the risk unplugging the power tool. Keep cord away from heat, oil, sharp of electric shock.
 - e. When operating a power tool outdoors, use an extension cord suitable for outdoor use. Use of a cord suitable for outdoor use reduces the risk of electric shock.
- . Stay alert, watch what you are doing and use common sense wher Personal safety
- operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.

D.Use personal protective equipment. Always wear eye protection. Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries

position before connecting to power source and/or battery pack, picking up or carrying the tool. Carrying power tools with your finger on the switch or energising power tools that have the switch on invitor . Prevent unintentional starting. Ensure the switch is in the offaccidents.

- Remove any adjusting key or wrench before turning the power tool on. A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
 - This enables better control of the power tool in unexpected situations. Do not overreach. Keep proper footing and balance at all times.
- f. Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewellery or long hair can be caught in moving parts.
- collection facilities, ensure these are connected and properly used g. If devices are provided for the connection of dust extraction and Use of dust collection can reduce dust-related hazards.
 - to become complacent and ignore tool safety principles. A careless h. Do not let familiarity gained from frequent use of tools allow you
 - action can cause severe injury within a fraction of a second. 4. Power tool use and care
- application. The correct power tool will do the job better and safer at a. Do not force the power tool. Use the correct power tool for your
- Do not use the power tool if the switch does not turn it on and off. Any power tool that cannot be controlled with the switch is dangerous and must be repaired. the rate for which it was designed.
- c. Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing
- d. Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to measures reduce the risk of starting the power tool accidentally. accessories, or storing power tools. Such preventive safety
- Maintain power tools. Check for misalignment or binding of moving operate the power tool. Power tools are dangerous in the hands of untrained users.
 - power tool's operation. If damaged, have the power tool repaired before parts, breakage of parts and any other condition that may affect the use. Many accidents are caused by poorly maintained power tools.
- f. Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
 - with these instructions, taking into account the working conditions and the work to be performed. Use of the power tool for operations g. Use the power tool, accessories and tool bits etc. in accordance
 - . Keep handles and grasping surfaces dry, clean and free from oil and grease. Slippery handles and grasping surfaces do not allow for different from those intended could result in a hazardous situation. safe handling and control of the tool in unexpected situations.
- a. Have your power tool serviced by a qualified repair person using Service
- only identical replacement parts. This will ensure that the safety of the power tool is maintained.







200 - 300V (AC) 0.2 - 300V (DC) 20µ - 10A (DC) 200 - 2MΩ **9V DC Battery** Current: Voltage: Power:

2.2V (Open Circuit Voltage) Operating Temperature: 0 to 40°C, <75%RH <20Ω Continuity Check: Diode Check: Resistance:

0.23kg ozito.com.au Weight:

YEAR REPLACEMENT WARRANTY



ODMM-300

WARRANTY

TO YOUR NEAREST BUNNINGS WAREHOUSE WITH YOUR BUNNINGS REGISTER RECEIPT. PRIOR TO WARRANTY YOU MUST RETURN THE PRODUCT PLEASE TELEPHONE OUR CUSTOMER SERVICE RETURNING YOUR PRODUCT FOR WARRANTY IN ORDER TO MAKE A CLAIM UNDER THIS HELPLINE:

New Zealand 0508 069 486 Australia 1800 069 486

PURCHASE AVAILABLE. A CUSTOMER SERVICE **REPRESENTATIVE WILL TAKE YOUR CALL AND** TO ENSURE A SPEEDY RESPONSE PLEASE ANSWER ANY QUESTIONS YOU MAY HAVE RELATING TO THE WARRANTY POLICY OR HAVE THE MODEL NUMBER AND DATE OF PROCEDURE

The benefits provided under this warranty are in addition to other rights and remedies which are available to you at law.

goods fail to be of acceptable quality and the failure does not amount Our goods come with guarantees that cannot be excluded at law. You compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the are entitled to a replacement or refund for a major failure and for

under this warranty, however, where you have suffered any additional direct loss as a result of a defective product you may be able to claim Generally you will be responsible for all costs associated with a claim such expenses by contacting our customer service helpline above.

to a major failure.

3 YEAR REPLACEMENT WARRANTY

original date of purchase. If a product is defective it will be replaced in accordance with the terms of this warranty. Warranty excludes Your product is guaranteed for a period of **36 months from the** consumable parts, for example: valve adapters and accessories.

WARNING! The following actions will result in the warranty being void.

- If the tool has been operated on a supply voltage other than that specified on the tool.
- If the tool shows signs of damage or defects caused by or resulting from abuse, accidents or alterations.
 - Failure to perform maintenance as set out within the instruction manual.
- If the tool is disassembled or tampered with in any way. Professional, industrial or high frequency use.

KNOW YOUR PRODUCT

DIGITAL MULTIMETER

- 1. 1/2 Digit
- 2. 3¹/₂ Digit Display
- 3. Voltage (AC) Range
- 4. Mode Dial
- 5. Current (DC) Range
- 6. Diode/Continuity Check
- 7. Red Test Probe
- 8. Black Test Probe
- 9. '10A' Port

11. 'COM' Port 12.Black Test Lead 13.Red Test Lead 14.Resistance Range 15.Voltage (DC) Range

10.'VmAΩ' Port

- 16.Low Battery Icon
- 17.Negative '-' Reading 18.High Voltage Icon



ONLINE MANUAL

Scan this QR Code with your mobile device to take you to the online manual.



SETUP & PREPARATION

1. ASSEMBLY

WARNING: ENSURE THE UNIT IS IN THE OFF POSITION AND THE TEST LEADS HAVE BEEN REMOVED BEFORE OPENING THE BACK COVER.

Installing Batteries

The multimeter requires a 9V DC battery to operate.

1. Unscrew the two screws on the back of the unit with a PH00 Phillips head screwdriver.



- 2. Remove the back cover of the unit and attach a 9V battery to the battery flap.
- 3. Tuck the battery into the compartment, replace the back cover of the unit and the 2 screws.

Low Battery Indicator

When the low battery icon appears, the batteries are at low charge and need to be replaced.





WARNINGI TO AVOID FALSE READINGS, WHICH COULD LEAD TO ELECTRIC SHOCK OR PERSONAL INJURY, REPLACE THE BATTERY AS SOON AS THE LOW BATTERY ICON APPEARS.

YEAR REPLACEMENT WARRANTY

OPERATION

Connecting The Test Leads

Remove the caps on the end of the test leads before plugging them into the unit.

The black test lead should be plugged into the black 'COM' port and is the reference ground that the meter calculates readings off.



The unit has 2 fuses rated for different current loads protecting each respective port. For most applications, the red test lead should be plugged into the red 'VmA Ω ' port.

However when measuring circuits with a current close to or more than 200mA, the red test lead should be plugged into the blue '10A' port.



Note: The red and black test leads are identical and can be interchanged. It will just be more difficult to determine current flow direction and which is the 'common' probe during use.

2. CONTROLS

Understanding The Display

The multimeter has a $3\frac{1}{2}$ digit display, which means that the first 3 digits are full digits and can display any number between 0 and 9. The 4th digit from the right is the ' $\frac{1}{2}$ ' digit and has 2 states, '0' or '1'.



In practice, this means that when the mode dial is set to measure in the 2V range the maximum value it can display is 1.999, or in the $200k\Omega$ range, the maximum value is $199.9k\Omega$.

This also means that in the 300 VDC and 300 VAC mode, the display will only show measurements between 1 and 300V. A measurement of 0.9V or less will show up as a '000' onscreen.

Finding The Measuring Range

The multimeter needs to be set to the lowest possible range in order to reduce the amount of inaccuracy in the readings. If you are unsure of the range to start off with, it is best to set the mode dial to the highest range setting, take a measurement to obtain a ballpark figure, and then use that figure to adjust the mode dial accordingly.

For example, if you are unsure of the voltage you are about to measure, set the mode dial to 300 VDC. If the measurement shows up as a '000' onscreen, set the mode dial to '200 VDC' and repeat the measurement. If the display then shows a value such as '04.2' you can adjust the mode dial to the 20 VDC setting and redo the measurement. You could then obtain a more accurate reading such as '4.26' VDC.

If the display had shown '00.2' in the 200 VDC setting, then you would adjust the mode dial to the 2 VDC setting and perhaps even the 200m VDC setting for increased accuracy.

A measurement with the mode dial in a range setting that is too low will result in 'OL' being displayed onscreen.

3. VOLTAGE

WARNINGI POWER SUPPLIES IN CIRCUITS THAT HAVE BEEN 'SWITCHED OFF' CAN STILL OUTPUT A VOLTAGE WHEN MEASURED WITH THE MULTIMETER.

WARNINGI TO AVOID ELECTRIC SHOCK OR DAMAGE TO THE METER, DO NOT ATTEMPT TO MEASURE CIRCUITS OR POWER SUPPLIES THAT OUTPUT MORE THAN 300V (AC OR DC).

Measuring DC Voltage

Most portable electronics are powered by direct current (DC) voltage sources. Batteries are a prime example of this, and the multimeter can be used to measure how many volts are being output.

For example, you've found some AA batteries lying in the bottom of a drawer, and you're unsure if they're new or used. Before you dispose of them (responsibly of course), follow the instructions below to see if they're still usable.

 Connect the black test lead to the black 'COM' port and the red test lead to the red 'VmAΩ' port on the multimeter.



ozíto

300 V~

1

2. As we are checking for the voltage in a 1.5V AA battery, set the mode dial to the 2 VDC setting.

Note: The '200m' setting would result in an overrange indicator or 'OL' to display on screen if the battery is new and still outputting 1.5V.

The rule of thumb is to round the measurement up to the next available mode setting. So for a 2.3V power source, set the mode dial to '20' and so on.

Note: If you are unsure of the voltage you are about to measure, set the mode dial to 200 or 300 VDC. Refer to the 'Finding The Measuring Range' in '2. CONTROLS' section for more detail.

- Press the black test probe to the negative terminal of the battery (marked '-') and the red test probe to the positive terminal (marked '+').
- 4. If the battery is new, a reading of around ±1.500V will display on screen. If a negative '-' sign shows up onscreen you have just pressed the probes to the opposite ends of the battery.



Measuring AC Voltage

The electricity supplied to homes is in the form of alternating current (AC). This multimeter could be used to check wall outlets with the right accessories and knowledge.



Connect the test leads across the source or circuit to obtain a measurement.

4. RESISTANCE

Measuring Resistance

Most resistors have colour codes on them to help you work out their values, however an easier method is just to use the multimeter to measure them.

 Connect the black test lead to the black 'COM' port and the red test lead to the red 'VmAΩ' port on the multimeter.



2. Set the mode dial to the 2M Ω setting.



 Press a probe to each lead on the resistor. It doesn't matter which direction, as resistors do not have polarity ('+' or '-' sides).



- 4. The meter will display one of three things: 'OL', '0' or the resistor value.
 - If 'OL' appears, the resistor is larger than $2M\Omega$ and out of the multimeter range.
 - If '0' appears you need to lower the mode dial setting before repeating the measurement.
 - If the display shows some value such as 0.06, that means the resistor is 0.06M Ω or about 60k Ω . You can adjust the mode dial to the 200k Ω setting for better resolution.

Note: For measurements >1M Ω , the meter may take a few seconds to stabilise.

5. CURRENT

Measuring DC Current

Unlike measuring voltage and resistance, you will have to physically interrupt the circuit and connect the multimeter in series with the components. A pair of alligator clip test probes (not supplied) are recommended to make this operation easier.

- 1. Connect the black test lead to the black 'COM' port.
- 2. Connect the red test lead to the blue '10A' port and set the mode dial to the 10A ADC setting.



WARNINGI WHEN THE RED TEST LEAD IS PLUGGED INTO THE '10A' PORT, THE MODE DIAL MUST BE SET TO '10A' OR LEFT IN THE 'OFF' POSITION.

Note: When measuring circuits with small currents under 200mA, the red test lead may be plugged into the red 'VmA Ω ' port instead. In which case do not set the mode dial to '10A', rather follow the procedure for finding the measuring range mentioned previously.



- 3. Switch off the power in the circuit under scrutiny and discharge all capacitors if there are any.
- 4. Disconnect the negative lead of the last item in the circuit from the negative terminal of the battery and secure it to the red test probe of the multimeter. Here is where the alligator clips come in handy.
- 5. Connect the black test probe of the multimeter to the negative terminal of the battery.



- WARNING CONNECT THE METER ON THE GROUND SIDE OF THE CIRCUIT TO AVOID ACCIDENTALLY CREATING AN ELECTRICAL SHORT WHICH CAN BLOW THE FUSES IN YOUR MULTIMETER.
- 6. Switch the circuit on and read the display for the current.

Note: The current measurement may fluctuate over time. It is recommended to take an average of the readings.

7. When finished with the measurement, power down the circuit, switch off the multimeter and disconnect the leads.

WARNINGI DO NOT LEAVE THE MODE DIAL IN ANY OF THE ADC SETTINGS. TAKING A VOLTAGE READING OVER A POWER SOURCE IN THIS STATE WILL CREATE A SHORT CIRCUIT IN YOUR MULTIMETER AND BLOW THE FUSE IN THE UNIT.

6. COMPONENT CHECKING

Continuity Test

This function helps to check if two points in a circuit that should be connected aren't. This may be due to a broken wire somewhere in the system or a loose connection. It can also help to determine if there is an improper connection somewhere in the circuit.

When the probes are touched to two points that are properly connected, the resistance should be low enough that current is able to flow between them. This causes the multimeter to emit a beep.

If the two points are not connected electrically, the resistance is very high and the multimeter will not emit any noise. 'OL' will appear on the multimeter display instead.



WARNING: SWITCH OFF POWER IN THE CIRCUIT AND DISCHARGE ALL CAPACITORS (IF ANY) BEFORE CONDUCTING A CONTINUITY TEST.

- 1. Switch off power to the circuit being tested and discharge all capacitors.
- 2. Connect the black test lead to the black 'COM' port and the red test lead to the red 'VmA Ω ' port on the multimeter.



3. Set the mode dial to the diode/ continuity check function.



 Press the probes to each end or section of the circuit being tested. Work from each end of the circuit and narrow down until you identify the faulty component or connection.

Diode Check

The diode check function helps to determine if a diode is blown or is functioning as it should. It can also be used to measure how much forward voltage is dropped across it.

Diodes are always polarised, which means they only allow current to flow in one direction across them. An LED is a common example of a diode.

Note: This multimeter displays the forward voltage reading in mV.

 Connect the black test lead to the black 'COM' port and the red test lead to the red 'VmAΩ' port on the multimeter.



2. Set the mode dial to the diode/ contunuity check function.



- Press the red test probe to the anode (+) and the black test probe to the cathode (-) lead of the diode.
- If a value appears on screen, you have determined the approximate forward voltage (in mV) of the diode and it is functioning as it should.
- If 'OL' appears the diode may be blown or you have pressed the probes to the wrong leads on the diode. Swap the probes around.





5. If 'OL' appears again the diode is blown and no longer functioning as it should.

5. SPECIFICATIONS

Mode	Range	Resolution	Accuracy			
DC Voltage*	200mV	100µV	± (0.5% + 5)			
	2V	1mV				
	20V	10mV	± (0.8% + 5)			
	200V	100mV				
	300V	1V	± (1.0% + 5)			
	Input Impedanc	Input Impedance: 1MΩ				
AC Voltage*	200V	100mV)mV			
	300V	1V	± (1.2% + 10)			
	Frequency Range: 40 to 400Hz Response: Average, calibrated in rms of sine wave					
DC Current*	20µA	0.01µA	± (1.2% + 5)			
	200µA	0.1µA				
	2000µA	1μA	± (1.0% + 5)			
	20mA	10µA				
	200mA	100µA	± (1.2% + 5)			
	10A	10mA	A ± (2.0% + 5)			
	Overload Protection: 250mA, 300V Fast Fuse (VmAΩ port) 10A, 300V Fast Fuse (10A port) For measurements more than 2A, measurement duration is <10s and the interval is >15mins					
Resistance	200Ω	0.1Ω	-			
	2kΩ	1Ω				
	20kΩ	10Ω	± (1.2% + 5)			
	200kΩ	100Ω				
	2ΜΩ	1kΩ				
	Max. Open Circuit Voltage: 1V					
Continuity •))	The unit will emi	The unit will emit a beep if the resistance is less than 20Ω				
	Open Circuit Voltage: 2.2V					

* If the voltage being measured is >300V, the display may show a value, but the measurement is dangerous.

* If the current being measured is >10A, the display may show a value, but the measurement is dangerous.

MAINTENANCE



WARNINGI BEFORE CLEANING YOUR TOOL OR CARRYING OUT ANY MAINTENANCE PROCEDURE, MAKE SURE THAT THE POWER SUPPLY HAS BEEN REMOVED OR DISCONNECTED TO PREVENT ACCIDENTAL STARTING.

Cleaning

Clean the appliance regularly with a soft, dry cloth. Do not use cleaning agents or solvents; these may be aggressive to the plastic parts in the appliance. Ensure that no water can get into the interior of the appliance.

Dirt or moisture in ther ports can affect readings. Periodically clean them out with the following directions:

- 1. Ensure the mode dial is in the 'OFF' position and the test leads are removed.
- 2. Shake out any loose dirt which may be caught in the terminals.
- 3. Soak a swab in cleaning alcohol.
- 4. Work the swab around the interior of each terminal.

Storage

Switch off the tool and store it in a dry location which is not accessible to unauthorised persons.

Do not store it in an environment with intense electromagnetic fields.

Remove the batteries before storage if the tool will not be in use for a long time.

DESCRIPTION OF SYMBOLS

_				
v	Volts; unit of voltage	Hz	Hertz; unit of frequency	
~	Alternating Current		Direct Current	
μ	Micro (10 ⁻⁶)	m	Milli (10 ⁻³)	
A	Amperes; unit of Current	М	Mega (10º)	
Ω	Ohms; unit of resistance	k	Kilo (10³)	
<u> </u>	Earth (Ground) Terminal	%RH	Percent Relative Humidity	
-+	Low Battery Indication	Â	Caution, risk of electric shock	
	Regulatory Compliance Mark (RCM)	Ŵ	Warning	
Read Instruction Manual				

CARING FOR THE ENVIRONMENT



Power tools that are no longer usable should not be disposed of with household waste but in an environmentally friendly way. Please recycle where facilities exist. Check with your local council authority for recycling advice.

Recycling packaging reduces the need for landfill and raw materials. Reuse of recycled material decreases pollution in the environment. Please recycle packaging where facilities exist. Check with your local council authority for recycling advice.

SPARE PARTS

Spare parts can be ordered from the Special Orders Desk at your local Bunnings Warehouse.

For further information, or any parts not listed here, visit

www.ozito.com.au or contact Ozito Customer Service:

Australia 1800 069 486

New Zealand 0508 069 486

E-mail: enquiries@ozito.com.au

\Lambda BATTERY & MULTIMETER WARNINGS



1. Do not store or use the tool and battery pack in locations where the temperature may reach or exceed 40°C (such as inside sheds or metal buildings in summer).

2. Do not incinerate the battery pack even if it is seriously damaged or is completely worn out. The battery can explode in a fire



WARNING: To avoid risk of personal injury and/or possible damage to the meter or to the equipment under test, follow these guidelines: If these guidelines are not followed there is risk of shock. Read and understand all instructions before using product.

- CAT III This measurement Category III multimeter is for use on permanently installed loads. Examples are measurements on distribution boards, circuit breakers, wiring and equipment like fixed installation motors.
- Do not use the meter for measurements higher than Category III 300V 10A.
- DO NOT use the meter if it is damaged. Before using the meter, inspect the case. Pay particular attention to the insulation surrounding the connectors.
- ALWAYS Inspect the test leads for damaged insulation or exposed metal. Check the test leads for continuity. Replace damaged test leads before you use the mete
- DO NOT use the meter if it operates abnormally. Protection may be impaired.
- DO NOT operate the meter where explosive gas, vapor, or dust is present. DO NOT apply more than the rated voltage, as marked on the meter, between terminals or between any terminal and earth ground.
- ALWAYS verify the meter's operation by measuring a known voltage before use.
- ALWAYS turn off circuit power before connecting the meter in the circuit to measure current. Remember to place the meter in series with the circuit.
- ALWAYS turn off circuit power before connecting the meter to the circuit to measure resistance
- ALWAYS Use caution when working with voltage above 30V AC rms, 42V peak, or 60V DC, These voltages pose an increased shock hazard.
- ALWAYS keep your fingers behind the finger guards on the probes when in use ALWAYS connect the common test lead before you connect the live test lead. When you disconnect test leads, disconnect the live test lead first.
- ALWAYS Remove the test leads from the meter before you open the battery cover or the case
- DO NOT operate the meter with the battery cover or portions of the case removed or loosened.
- ALWAYS replace the battery as soon as the low battery indicator (-+) appears. Failure to do so could lead to possible electric shock or personal injury due to false readings. DO NOT touch any conductor with hand or skin, and do not ground yourself.
- DO NOT use the meter in a manner not specified by this manual or the safety features provided by the meter may be impaired.
- DO NOT operate this instrument if your hand, a test lead or the instrument is wet.
- ALWAYS Adhere to local and national safety codes. Personal protective equipment must be used to prevent shock and arc blast injury where hazardous live conductors are exposed.
- ALWAYS be aware that when an input terminal is connected to a hazardous live voltage, this potential can occur at all other terminals ALWAYS use only 9 V batteries specified for use with this product. Use of any other
- batteries may create a risk of fire.
- DO NOT disassemble, service or repair this product. Repairs performed by unqualified personnel could result in serious injury.
- DO NOT splash or immerse the unit in water. ALWAYS turn off the product when not in use.
- ALWAYS ensure battery is inserted in the correct manner, with the correct polarity.
- NEVER intentionally short any battery terminals.
- DO NOT attempt to charge alkaline batteries.
- DO NOT dispose of batteries in fire.
- ALWAYS remove the battery if storing the unit for over a month
- DO NOT dispose of this product with household waste
- ALWAYS check local codes and properly dispose of used batteries.
- PLEASE RECYCLE in line with local provisions for the collection and disposal of electrical and electronic waste.
- Disconnect circuit power and discharge all capacitors before testing resistance, diode, continuity and temperature.
- Use the properly rated terminals (function and range) for your measurements. The terminals included with this multimeter are CAT III rated for 300V 10A Max
- Before turning the rotary switch to change functions, disconnect test leads from the circuit under test