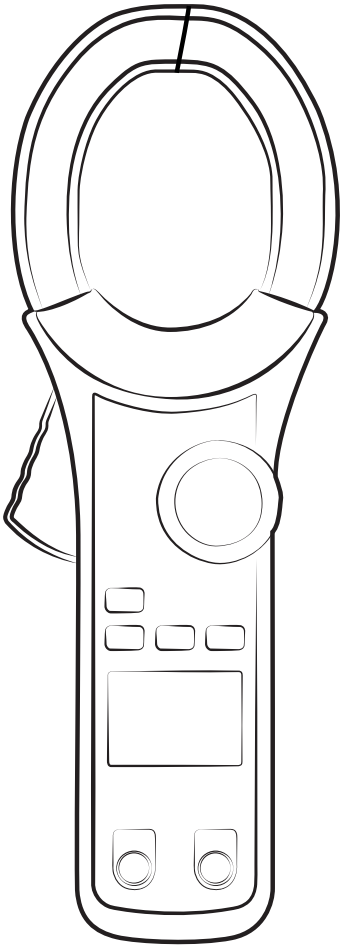
AUTO RANGING CLAMP METER 2000A AC



- Auto ranging
- AC current to 2000A
- DC voltage to 1000V
- AC voltage to 750V
- Audible continuity
- Resistance
- Diode testing
- 63mm jaw opening
- LCD backlight
- Maximum value hold
- Data hold
- Auto power off
- Hand strap
- Carrying case
- Test leads

OPERATOR'S MANUAL
ORDER CODE: OXD-516-1725D

CZ HU PL SK TH **cromwell.co.uk**

OXFORD PRECISION

SAFETY INFORMATION

Never apply more than the rated voltage, as marked on the Clamp Meter, between the terminals or between any terminal and grounding. If the value to be measured is unknown, use the maximum measurement position and reduce the range step by step until a satisfactory reading is obtained.

Never attempt to use the Clamp Meter if you think it is not working properly.

Never use the Clamp Meter if the battery cover or rear casing is not in place.

Never turn the dial function switch whilst the Clamp Meter is performing tests.

Never alter the internal wiring of the Clamp Meter.

Never use the Clamp Meter near explosive gases, vapours or dust.

Always hold the test leads with your fingers behind the test lead protector.

Always inspect the Clamp Meter for damage before use. Do not use if there are signs of damage.

Always inspect the test leads for damage and continuity before use. Do not use if there are signs of damage.

Always be careful when measuring voltages higher than DC 70V or AC 33V due to risk of electric shock.

Always use approved test leads.

Always disconnect the power and discharge all the capacitors before testing resistance, continuity and diodes.

Always select the maximum range position if the possible current value is not known.

Always replace the battery if the "🔋" is displayed. When the battery power is low, the Clamp Meter may produce an incorrect reading.

Always clean the Clamp Meter with a soft cloth using a neutral detergent.

Always disconnect the Clamp Meter from the circuit under test when the measurement has been completed.

Always connect the common test lead first and the live test lead last when taking readings. Reverse the process when disconnecting the test leads.

Always replace the end caps on the banana plugs after using the test leads.
This will prevent debris from causing a false reading.

SYMBOLS USED

⧈	Dual insulation	⊣◁	Diode
⏚	Grounding	H	Data hold
⚠	Warning prompt	⎓	AC or DC (Alternating current or direct current)
~	AC (Alternating current)	ϟ	Danger! High voltage!
⎓	DC (Direct current)	CE	Comply with EU standard
•))	Continuity	Ω	Resistance
CAT IV	Equipment is designed to protect against transients from the primary supply level (e.g. an electricity meter, primary overcurrent protection devices).		
CAT III	Equipment is designed to protect against transients in equipment in fixed installations (e.g. switches in fixed installation, industrial used equipments with permanent connection to fixed installations).		

PRODUCT FEATURES (FIGURE 1)

1. Clamp body
2. Clamp head trigger
3. Function keys
4. Input port
5. LCD
6. Dial function switch
7. Clamp head
8. Wire positioning indicators

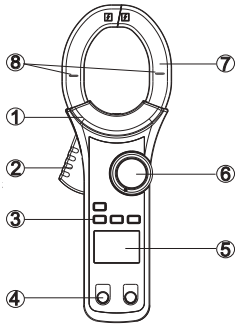


Figure1

DISPLAY SYMBOLS (FIGURE 2)

1. Low battery indicator
2. DC signal measurement indicator
3. Negative polarity indicator
4. AC signal measurement indicator
5. Resistance measurement unit (Ω, kΩ, MΩ)
6. Measured value display
7. Voltage measurement unit (V, mV)
8. Current measurement unit (A)
9. Conduction measurement indicator
10. Diode testing indicator
11. Data hold indicator
12. Auto range indicator
13. Maximum value measurement indicator

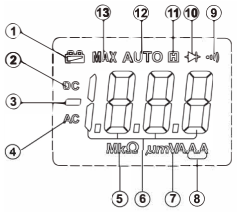


Figure2

FUNCTION KEYS

SELECT Function selection key.
Used for switching between resistance, diode and continuity testing at the Ω setting.

MAX Maximum value hold key
The highest measurement is retained (the actual value is not the peak value but the maximum one).

HOLD Reading hold key
Displayed value is locked and held.

☼ Backlight key
Hold the key for two seconds to turn the display light on or off.

VALIDITY OF KEYS

The function keys will only work for certain selected measurements. The corresponding operation function can be selected or instrument under sleep state be awakened only by valid key operations, as shown below:

	☼	SELECT	MAX	HOLD
2000Ã	√	×	√	√
200Ã	√	×	√	√
Ṽ	√	×	√	√
V̿	√	×	√	√
Ω	√	√	×	√
⊳|	√	√	×	√
•))	√	√	×	√

BUZZER

When pressing any function key during any measurement, if valid, the buzzer will beep or remain silent. When measuring AC voltage > 750V or DC voltage > 1000V, the buzzer will make a sound to indicate an over range alarm.

TECHNICAL INFORMATION

General specification

Liquid crystal display:	Maximum display 1999.
Polarity display:	Auto positive and negative polarity display.
Over range indication:	"OL" or "-OL".
Low battery indication	"🔋" battery needs replacing.
Sampling rate:	3 times per second
Type of sensor:	AC measurement current coil sensor.
Test position error:	An additional reading error of ± 1.0% may be resulted when the power to be measured is not clamped at the centre of clamp head.
Impact resistance:	1m fall.
Maximum opening of the clamp head:	63mm diameter.
Maximum dimension of conductor to be measured:	60mm diameter.
Electromagnetic field impact:	Using the Clamp Meter near an electromagnetic field may Result in an unstable display or an inaccurate reading.
Power:	6F22 9V alkaline battery.
Dimension:	298mm x 107mm x47mm.
Weight:	390g (inclusive of battery).

Environmental constraint

Working height:	Indoor.
Maximum height:	2000m.
Safety codes:	IEC61010-1; 1EC61010-2-032; CAT III 1000V CAT IV600V.
Pollution degree:	2.
Operating temperature and humidity:	0°C ~ 30°C (not higher than 80% RH), 30°C ~ 40°C (not higher than 75% RH), 40°C ~ 50°C (not higher than 45% RH).
Storage temperature and humidity:	-20°C ~+ 60°C (not higher than 80% RH).

Electrical specification

Accuracy:	± (%+word number), one year calibration period.
Ambient temperature:	23°C ±5°C.
Ambient humidity:	≤80% RH.
Temperature coefficient:	0.1 x(accuracy) /°C.

DC VOLTAGE (⎓)

Range	Resolution	Accuracy	Overload protection
2.000V	0.001V	±(0.8%+3)	1000V DC/AC
20.00V	0.01V	±(0.8%+1)	
200.0V	0.1V		
1000V	1V	±(1.0%+3)	

Input impedance ≥10MΩ

AC VOLTAGE (⎓)

Range	Resolution	Accuracy	Overload protection
2.000V	0.001V	±(1.2%+5)	1000V DC/AC
20.00V	0.01V		
200.0V	0.1V		
750V	1V	±(1.5%+5)	

Mean value response
Input impedance ≥10MΩ
Frequency response: 40~400Hz(≤400mV; 50~100Hz)

RESISTANCE (Ω)

Range	Resolution	Accuracy	Overload protection
200.0Ω	0.1Ω	±(1.2%+2)	1000V DC/AC
2.000kΩ	0.001kΩ	±(1.0%+2)	
20.00kΩ	0.01kΩ		
200.0kΩ	0.1kΩ		
2.000MΩ	0.001MΩ	±(1.2%+2)	
20.00MΩ	0.01MΩ	±(1.5%+2)	

CONTINUITY TEST ( )

Range	Resolution	Accuracy	Overload protection
	0.1Ω	Buzzer will make sound when ≤10Ω	1000V DC/AC
		Open-circuit voltage is about 0.4V	

DIODE TEST ( )

Range	Resolution	Accuracy	Overload protection
	0.001V	0.5V ~ 0.8V	1000V DC/AC
		Open-circuit voltage is about1.5V	

AC CURRENT ( )

Range	Resolution	Accuracy	Overload protection
200.0A	0.1A	±(2.5%+5)	2500A
2000A	1A		

Mean value response
Frequency response: 50Hz~60Hz

OPERATING THE CLAMP METER

DC voltage measurement $\overline{\overline{\mathrm{V}}}$ (See Figure 3)

⚠ ***DC voltage measurement range must not exceed DC 1000V.***

1. Insert the black test lead into the COM input port and the red test lead into the "V" input port.
2. Turn the dial function switch to "$\overline{\overline{\mathrm{V}}}$".
3. Place the red and black test leads to the circuit under test. The clamp meter will automatically select the correct range and the LCD will display the voltage value.

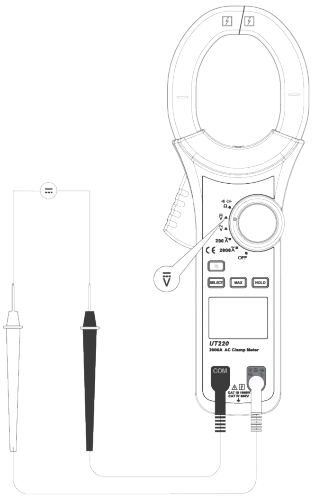


Figure 3

AC voltage measurement $\widetilde{\mathrm{V}}$ (See Figure 4)

⚠ **AC voltage measurement range must not exceed AC 750V.**

1. Insert the black test lead into the COM input port and the red test lead into the "V" input port.
2. Turn the dial function switch to "$\widetilde{\mathrm{V}}$".
3. Place the red and black test leads to the circuit under test. The clamp meter will automatically select the correct range and the LCD will display the voltage value (mean value response).

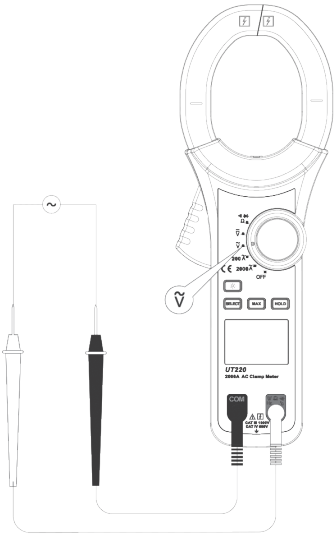


Figure 4

Resistance measurement Ω (See Figure 5)

⚠ Always make sure the power is off and all capacitors are fully discharged before measuring resistance.

A more accurate measurement result will be achieved by separating the component from the circuit.

1. Insert the black test lead into the COM input port and the red test lead into the "Ω" input port.
2. Turn the dial function switch to "Ω".
3. Connect tip of the test leads to the points where the value of the resistance is needed.
4. Read the result from the LCD panel.

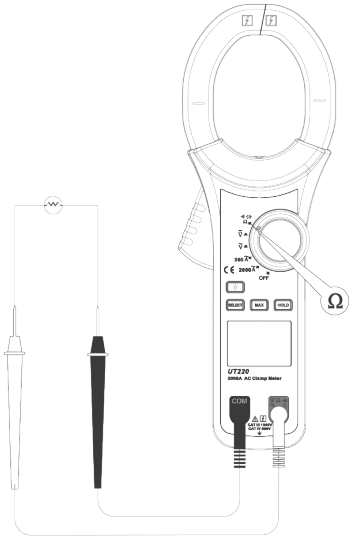


Figure 5

Diode measurement (See Figure 6)

⚠ Always make sure the power is off and all capacitors are fully discharged before measuring resistance.

A more accurate measurement result will be achieved by separating the component from the circuit.

1. Insert the black test lead into the COM input port and the red test lead into the "Ω" input port.
2. Turn the dial function switch to " ⊣◀ ", press the "SELECT" button once and " ⊣◀ " will appear on the LCD.
3. Place the red and black test lead to the positive and negative terminals of the diode.
4. The forward conduction voltage value will be indicated on the LCD.
5. When the red and black test lead is inadvertently connected, the over range symbol "OL" is displayed.

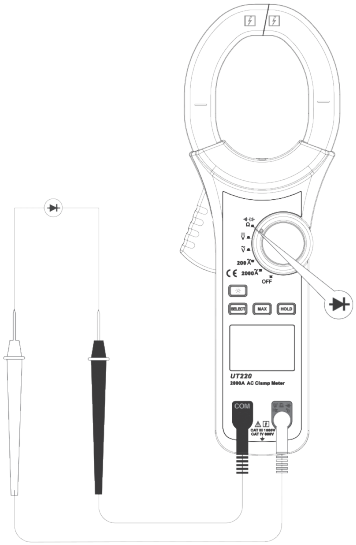


Figure 6

Continuity test •))) (See Figure 7)

⚠ ***Always turn the power off and discharge fully all capacitors before measuring continuity.***

1. Insert the black test lead into the COM input port and the red test lead into the "•)))" input port.
2. Turn the dial function switch to "•)))", press the "SELECT" button twice and "•)))" will appear on the LCD.
3. Short the tips of the test leads together and confirm the LCD screen shows near zero and the Clamp Meter will emit a tone.
4. Place the red and black test leads at both the positive and negative points to be measured. The buzzer will sound when the resistance is less than 10W, between 10W and 100W there will either be a tone or silence and above 100W there will be silence.

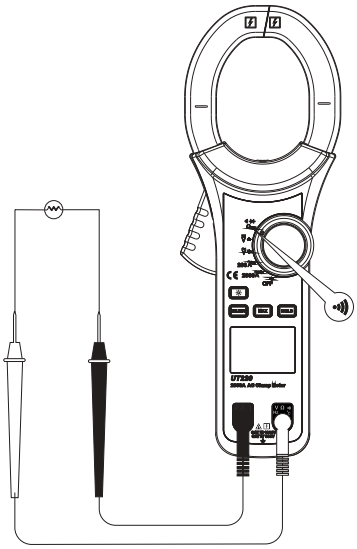


Figure 7

2000A AC Current measurement 2000 $\tilde{A}$ (See Figure 8)

⚠ ***Never exceed AC 2000A when measuring AC current.***

Never measure current using the test probes.

Never attempt to measure a large current continuously for a long time as it may cause over heating to the magnetic circuits and therefore affect accuracy.

1. Turn the dial selection switch to 2000$\tilde{A}$
2. Open the clamp head, insert the wire to be measured and close the clamp head.
3. Keeping the wire in the centre position of the clamp head, read the measurement in the display (mean value response).

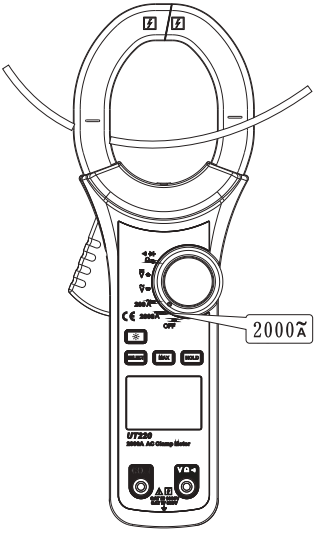


Figure 8

200A AC Current measurement 200 Ã
(See Figure 9)

⚠ ***Never exceed AC 2000A when measuring AC current.***

Never measure current using the test probes.

Never attempt to measure a large current continuously for a long time as it may cause over heating to the magnetic circuits and therefore affect accuracy.

1. Turn the dial selection switch to 200 Ã
2. Open the clamp head, insert the wire to be measured and close the clamp head.
3. Keeping the wire in the centre position of the clamp head, read the measurement in the display (mean value response),either be a tone or silence and above 100W there will be silence.

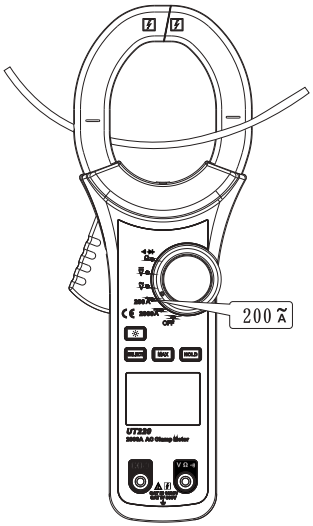


Figure 9

MAINTENANCE

The Clamp Meter should be maintained and serviced by a qualified electrician.
Clean the outer casing with a soft cloth using a neutral detergent.

INSTALLING AND REPLACING THE BATTERY
(See Figure 10)

⚠ ***Always disconnect the test leads from the Clamp Meter prior to opening the battery cover.***

1. Switch off the Clamp Meter.
2. Put the Clamp Meter face down.
3. Unscrew the battery cover.
4. Take out battery or install a new 6F22 9V battery as per the indicated polarity.
5. Replace the battery cover and tighten the screw.

Remove the battery from the Clamp Meter during long periods of non use.

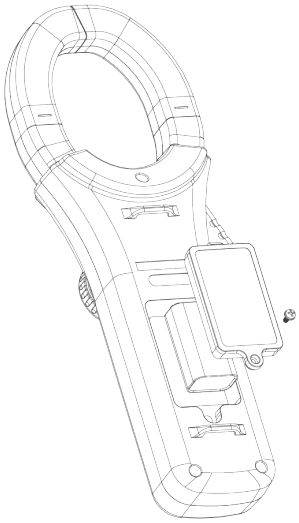


Figure 10

Attaching The Hand Strap (See Figure 11)

1. Open the hand strap.
2. Slide the two tabs through the tether points.
3. Fold the tabs back over themselves and press them down firmly.
4. Close the strap by pressing it firmly in place.

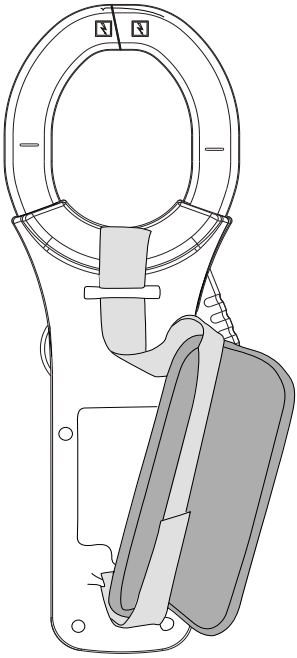


Figure 11

NOTES

THE ENVIRONMENT



Always dispose of unwanted tools, accessories and packaging materials in an environmentally friendly manner.

In observance of European Directive on Waste Electrical and Electronic Equipment (WEEE) and its implementation in accordance with national law, electrical goods that have reached the end of their life must be collected separately and returned to an environmentally compatible recycling facility.

Do not dispose of electrical goods with domestic waste materials as inappropriate disposal may cause potential hazards to the environment and human health.

For further information, please contact your local authority or the retailer from whom you purchased the product.

QUALITY GUARANTEE & WARRANTY

OXFORD PRECISION products carry a one year manufacturer's warranty.

OXFORD PRECISION products are designed & manufactured to the highest standards & specifications.

Assuring the quality and performance required by all sectors of industry.

OXFORD PRECISION products are fully guaranteed against faulty materials & workmanship.

Should they be found to be defective, they will either be repaired or replaced free of charge (fair wear and tear and/or misuse excepted).

Please retain supplier invoice as proof of purchase.

DECLARATION OF CONFORMITY

We hereby certify that the OXFORD AUTO RANGING CLAMP METER 2000A AC (ORDER CODE: OXD-516-1725D)

Complies with all the relevant provisions of the

EMC Electromagnetic Compatibility Directive 2014/30/EU

Standards Applied: EN61326-1:2013, EN61326-2-2:2013

LVD Low Voltage Directive 2014/35/EU

Standards Applied: EN61010-1:2010, EN61010-2-032:2012 EN61010-2-033:2012, EN61010-031:2015, IEC61010 031:2015

RoHS2 Restriction of Hazardous Substances Directive 2011/65/EU

Signed:

Date: September 2019

Name: Toni Johnson

Position: Compliance Director.

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