

MARTINDALE
ELECTRIC

ET4000 ET4500 Multifunction tester



BUILT-IN
Amendment 3: 2015
17TH
EDITION
BS7671: 2008

Features ET4000 / ET4500

- Red and green LED indicators for instant pass/fail results
- Built-in new third amendment Zs loop impedance tables and help screens
- Automatic polarity and wiring check on connection
- Test and Go soft carry case, no need to unpack and repack
- Auto RCD and ramp test with all results on one screen
- TRMS voltage measurements and phase rotation on all models
- Fast, reliable high current and non-trip loop testing
- Low discharge rechargeable batteries and mains charger

Additional features ET4500

- On-board storage and download for documenting results
- Three wire earth resistance testing

The new ET4000 and ET4500 multifunction testers simplify 17th edition testing by having the latest amendment 3 fuse tables for Zs values built-in together with red and green LED indicators for instant pass/fail confirmation.



Easy selection of tests and on-screen help



Pass/fail testing to the latest third amendment values



4mm sockets for standard Martindale lead sets. USB for downloading.



ET4000 ET4500

Multifunction tester



The new testers carry out all the tests needed to verify the safety of electrical installations in domestic, commercial and industrial wiring installations in accordance with the very latest Amendment 3 to the BS7671 17th Edition Wiring Regulations.

Everything about the new ET Series has been designed to save time and make testing easier, from the capability to display all results from an RCD autotest on one screen to the inclusion of useful Help menus at the press of a button. Even the soft carry case has been designed to enable testing without having to unpack and repack the instrument every time.

On connection the testers carry out an automatic polarity and wiring check identifying potentially dangerous wiring faults in advance of any testing.

Fast, reliable high current and non-trip loop testing comes as standard together with a high level of input protection and a CAT IV safety rating. Both models include phase sequence indication and True RMS voltage measurement, so you are well prepared to take on any job, be it industrial or working on a site where it's difficult to make reliable voltage measurements due to harmonics and distorted mains supplies.

	ET4000	ET4500
Insulation Resistance at 50/100/250/500/1000V	✓	✓
Continuity Testing at 200mA and 8.5mA	✓	✓
Loop Resistance and PFC dual display	✓	✓
Auto RCD and Ramp Test 10/30/100/300/500/1000mA (AC, A, F, S)	✓	✓
TRMS Voltage, Frequency and Phase Sequence	✓	✓
Slimline remote start probe	✓	✓
Graphical display for multiple readings and help	✓	✓
300V CAT IV, 600V CAT III safety rating	✓	✓
Three wire Earth Resistance Testing ¹		✓
Mains Rechargeable with in-car option ²	✓	✓
Memory and download for documenting results		✓

¹ Requires optional ER2KIT/S earth testing accessories

² Requires optional in-car charger PSUHPAT12

In addition the ET4500 can be used to carry out 3 wire earth testing and has on board memory to store and download all installation test results for documentation.

The ET4500 comes with ET-Link Windows software for easy uploading of client, location, distribution board and circuit information from a PC to the tester and downloading the results for printing reports or exporting for use in other applications. The optional ET-Link PRO enables auto filling, managing and printing of the latest 17th Edition Amendment 3 test certificates included in the software.

The new ET Series testers are supplied with low loss AA rechargeable batteries which can be easily recharged in the tester with the mains adaptor or using the optional in-car charger.

Both models are supplied with a full range of accessories including Martindale test leads with clips and prods all terminated with industry standard 4mm plugs. The slimline Martindale remote start probe with test button is included as standard allowing one handed measurement in those areas that are hard to reach.



ET4000 ET4500

Multifunction tester

FUNCTION		Measuring range	Resolution	Accuracy
CONTINUITY RESISTANCE	Test current 200 mA 2-wire	0.00Ω – 19.99Ω 20.0Ω – 199.9Ω 200.0Ω – 1999Ω	0.01Ω	±(3% of rdg + 3 digits) ±(5% of rdg) ±(5% of rdg)
			0.1Ω	
			1Ω	
INSULATION RESISTANCE	Test voltage 50/100/250 V	0.00MΩ – 19.99MΩ 20.0MΩ – 99.9MΩ 100.0MΩ – 199.9MΩ	0.01MΩ 0.1MΩ	±(5% of rdg + 3 digits) ±(10% of rdg) ±(20% of rdg)
	Test voltage 500/1000 V	0.00MΩ – 19.99MΩ 20.0MΩ – 199.9MΩ 200MΩ – 999MΩ	0.01MΩ 0.1MΩ 1MΩ	±(5% of rdg + 3 digits) ±(5% of rdg) ±(10% of rdg)
RCD testing	RCD U _c	0.00V – 19.9V 20.0V – 99.9V	0.1V	(-0%/+15%) of rdg ± 10 digits (-0%/+15% of rdg)
	RCD t	0.00 ms – 40.0 ms 0.0 ms – max.time	0.1ms	±1 ms ±3 ms
	RCD I ramp	0.2xI _{ΔN} – 1.1xI _{ΔN} (AC type) 0.2xI _{ΔN} – 1.5xI _{ΔN} (A type, I _{ΔN} ≥ 30 mA) 0.2xI _{ΔN} – 2.2xI _{ΔN} (A type, I _{ΔN} < 30 mA)	0.05xI _{ΔN}	±0.1xI _{ΔN}
LINE / LOOP IMPEDANCE	Zline L-L, L-N Ip _{sc}	0.00Ω – 9.99Ω 10.0Ω – 99.9Ω 100Ω – 999Ω 1.00kΩ – 9.99kΩ	0.01Ω	±(5% of rdg + 5 digits)
			0.1Ω	
			1Ω	±(10% of rdg)
			10Ω	
	Zloop L-PE, Ip _{fc}	0.00Ω – 9.99Ω 10.0Ω – 99.9Ω 100Ω – 999Ω 1.00kΩ – 9.99kΩ	0.01Ω	±(5% of rdg + 5 digits)
			0.1Ω	
			1Ω	±(10% of rdg)
			10Ω	
VOLTAGE	TRMS	0 – 550V	1V	±(2% of rdg + 2 digits)
	Frequency	0.00Hz – 9.99Hz 10.0Hz – 499.9Hz	0.01Hz 0.1Hz	±(0.2% of rdg + 1 digits)
EARTH RESISTANCE (ET4500 only)	3 wire	0.00Ω – 19.99Ω 20.0Ω – 199.9Ω 200.0Ω – 9999Ω	0.01Ω	±(5% of rdg + 5 digits)
			0.1Ω	
			1Ω	
GENERAL DATA	Power supply	9 VDC (6 x 1.5 V alkaline or rechargeable, size AA)		
	Measurement category	CAT III 600V CAT IV 300V		
	Protection classification	double insulation		
	COM ports	RS 232 USB		
	Weight	approx. 1.3 kg		
	Size (l x h x w)	230 x 103 x 115 mm		

TECHNICAL STANDARDS

Functionality
BS EN 61557

Other reference standards for testing
IEC/EN 60364-4-41
EN 61008
EN 61009
BS 7671: 2008 Amendment 3: 2015
AS/NZ 3017

Electromagnetic compatibility (EMC)
EN 61326

Safety (LVD)
EN 61010-1;
EN 61010-031
EN 61010-2-030



ET4000 ET4500 Multifunction tester

ET4000



Ordering information

ET4000 MARET4000
ET4500 MARET4500
ET4500 PRO MARET4500PRO

Included Accessories (ET4000 / ET4500)

MFT 3 lead set RBG – MARTL36
MFT mains lead set RBG – MARTL207
Remote start probe – MARTL180
Soft carry case and strap
Quick start plus full user guide on CD
Calibration verification certificate
Low discharge rechargeable batteries
Mains charger

ET4500



Additional accessories ET4500 & ET4500 PRO

ET-Link Software
USB Cable

ET4500 PRO also includes

ET-Link PRO Amendment 3 certification software
In-car 12V charger - PSUHPAT12
Safebreak mains socket adaptor – SB13
Three wire earth test set with case - ER2KIT
50m R2 continuity lead - TL78
Socket tester – BZ101

Other Optional Accessories

3 wire earth test kit – ER2KIT/S
50m R2 continuity lead – TL78
Safebreak mains socket adaptor – SB13
Safe break light fitting kit – SBL-KIT1
Fused test leads – TL52
In-car 12V charger – PSUHPAT12



SB13



TL78



TL52



PSUHPAT12



ER2KIT/S

Due to policy of continuous development, Martindale Electric reserves the right to alter equipment specification and description outlined in this document without prior notice. No part of this document shall be deemed to be part of any contract for the equipment unless specifically referred to as an inclusion within such contract. © Martindale Electric Co. Ltd. 2017

Martindale Electric Company Ltd.

Metrohm House, Imperial Park, Imperial Way, Watford, Hertfordshire, WD24 4PP, UK

Tel: 01923 441717 Fax: 01923 446900 E-mail: sales@martindale-electric.co.uk Web: www.martindale-electric.co.uk rev3