

TECHNICAL DATA

# Fluke 1663 Multifunction Tester with TruTest Data Management Software Kit



## Key features

- 1663 Multifunction Tester
- TruTest Data Management Software"

## Product overview: Fluke 1663 Multifunction Tester with TruTest Data Management Software Kit

### [Fluke 1663 Multifunction Tester](#)

The 1663 installation tester delivers the full-featured functionality and advanced measurement capabilities that professional installers need. It is compact and lightweight (less than 1.3 kg) and comes with a padded carrying and waist strap for convenient handling. Operation is intuitive and easily mastered by all levels of workers so you can put it to work immediately for quick and efficient testing to all local regulations. Additional helpful features like On/Off switchable auto-start for RCD and loop test, and self-test save time and give you more confidence in your results.

### [Fluke TruTest Data Management Software](#)


Fluke TruTest Software is designed to eliminate the hassle associated with traditional electrical system data management and reporting. Whether you are testing fixed wire installations, or appliances in an office, verifying repairs in a workshop, or performing annual inspections proper data management is critical for producing easy-to-understand reports for clients. Compatible with a growing list of Fluke and Beha-Amprobe test and measurement devices TruTest Software allows you to quickly and easily import measurement results directly from your test instruments, manage files transferred from

instruments, or manually enter data as needed.

## Specifications: Fluke 1663 Multifunction Tester with TruTest Data Management Software Kit

AC voltage measurement	
Range	500 V
Resolution	0.1 V
Accuracy 45 Hz – 66 Hz	0.8% + 3
Input impedance	360 k $\Omega$
Overload protection	660 V rms
Continuity testing (RLO)	
Range (autoranging)	20 $\Omega$ / 200 $\Omega$ / 2000 $\Omega$
Resolution	0.01 $\Omega$ / 0.1 $\Omega$ / 1 $\Omega$
Open Circuit Voltage	>4 V
Insulation resistance measurement (RISO)	
Test voltages	50-100-250-500-1000 V
Accuracy of tTest voltage (at rated test current)	+10%, -0%
Test voltage	50 V 100 V 250 V 500 V 1000 V
Insulation resistance range	20 M $\Omega$ / 50 M $\Omega$ 20 M $\Omega$ / 100 M $\Omega$ 20 M $\Omega$ / 200 M $\Omega$ 20 M $\Omega$ / 200 M $\Omega$ / 500 M $\Omega$ 20 M $\Omega$ / 200 M $\Omega$ / 1000 M $\Omega$
Resolution	0.01 M $\Omega$ / 0.1 M $\Omega$ 0.01 M $\Omega$ / 0.1 M $\Omega$ 0.01 M $\Omega$ / 0.1 M $\Omega$ 0.01 M $\Omega$ / 0.1 M $\Omega$ / 1 M $\Omega$ 0.01 M $\Omega$ / 0.1 M $\Omega$ / 1 M $\Omega$
Test current	1 mA @ 50 k $\Omega$ 1 mA @ 100 k $\Omega$ 1 mA @ 250 k $\Omega$ 1 mA @ 500 k $\Omega$ 1 mA @ 1 M $\Omega$
Loop and line impedance (ZI)	
Range	10 $\Omega$ / 0.001 $\Omega$ / High current m $\Omega$ mode
Resolution	0.01 $\Omega$ / 0.1 $\Omega$ / 1 $\Omega$
Prospective earth fault current, PSC test	

Range	1000 A / 10 kA (50 kA)	
Resolution	1 A / 0.1 kA	
Computation	Prospective earth fault current (PEFC) or Prospective short circuit current (PSC) determined by dividing measured mains voltage by measured loop (L-PE) resistance or line (L-N) resistance, respectively.	
RCD testing, RCD types tested		
RCD Type	AC <sup>1</sup> G <sup>2</sup> ,S <sup>3</sup>	
Model 1663	A <sup>4</sup> , AC <sup>1</sup> , G <sup>2</sup> ,S <sup>3</sup>	
Notes	<sup>1</sup> Responds to AC <sup>2</sup> General, no delay <sup>3</sup> Time delay <sup>4</sup> Responds to pulsed signal <sup>5</sup> Responds to smooth DC signal	
Tripping speed test ( $\Delta T$ )		
Current settings <sup>1</sup>	10-30-100-300-500-1000 mA – VAR 10-30-100 mA	
Multiplier	x ½, x 1 x 5	
Measurement range	RCD Type G	310 ms 50 ms
	RCD Type S	510 ms 160 ms
Notes	<sup>1</sup> 1000 mA type AC only 700 mA maximum type A in VAR mode VAR mode not available for type B.	
RCD/FI-Tripping Current Measurement/Ramp Test ( $I_{\Delta N}$ )		
Current range	30% to 110% of RCD rated current <sup>1</sup>	
Step size	10% of $I_{\Delta N}$ <sup>2</sup>	
Dwell time	Type G	300 ms/step
	Type S	500 ms/step
Measurement accuracy	±5%	
Specified trip current ranges (EN 61008-1)	50% to 100% for Type AC 35% to 140% for Type A (>10 mA) 35% to 200% for Type A (≤10 mA) 50% to 200% for Type B <sup>2</sup> 5% for Type B	
Notes	<sup>1</sup> 30% to 150% for Type A $I_{\Delta N} > 10$ mA 30% to 210% for Type A $I_{\Delta N} = 10$ mA 20% to 210% for Type B	
Earth Resistance Test (RE)		
Range	200 $\Omega$ / 2000 $\Omega$	
Resolution	0.1 $\Omega$ / 1 $\Omega$	

Frequency	128 Hz		
Output Voltage	25 V		
Phase Sequence Indication			
Icon	 Phase Sequence indicator is active.		
General Specifications			
Size (L x W x H)	10 x 25 x 12.5 cm		
Weight (incl. batteries)	1.3 Kg		
Battery size, quantity	Type AA, 6 ea.		
Sealing	IP-40		
Safety	Complies with EN61010-1 Ed 2.0 (2001-02), UL61010, ANSI/ISA –s82.02.01 2000 and CAN/CSA c22.2 No. 1010 2nd edition		
Overvoltage	CAT III / 500V; CAT IV 300V		
Performance	EN61557-1 to EN61557-7 Second Edition and EN61557-10 Second Edition		
Function	Demo	Lite	Advanced
Database structure (Local standalone or server based)	Local	Local	Local
Portable Appliance Tester (PAT) module	•	•	•
Portable Appliance Testers supported	Fluke 6500, Fluke 6500-2, Beha-Amprobe GT-600, Beha-Amprobe GT-650, Beha-Amprobe GT-800, Beha-Amprobe GT-900		
Maximum addable clients	1	2	Unlimited
Maximum addable sites/client	2	5	Unlimited
Maximum addable locations/client	5	50	Unlimited
Maximum addable appliances/client	20	1000	Unlimited
Installation Testers (INST) module	•	•	•
Installation Testers supported	Fluke 1653, Fluke 1653B, Fluke 1654B, Fluke 1662, Fluke 1663, Fluke 1664 FC, Beha-Amprobe ProInstall-100, Beha-Amprobe ProInstall-200		
Maximum addable clients	1	2	Unlimited
Maximum addable sites/client	2	5	Unlimited
Maximum addable locations/client	5	25	Unlimited
Maximum addable appliances/client	50	200	Unlimited
Include demo database	•	•	•
Create clients	•	•	•
Rename clients		•	•



Delete clients	•	•	•
Create nodes	•	•	•
Move nodes	•	•	•
Rename nodes		•	•
Delete nodes	•	•	•
Edit client information		•	•
Edit site information		•	•
Edit location information		•	•
Edit appliance information		•	•
Edit test information		•	•
Add test step		•	•
Delete test step		•	•
Edit test step		•	•
Add remarks		•	•
Add attachment (file) to remark			•
Edit remark		•	•
Delete remark		•	•
Read data from instrument	•	•	•
Read data from file	•	•	•
Read data conflict management	•	•	•
Read data assign tree structure	•	•	•
Load data to instrument			*Compatible tool required
Use search	•	•	•
Show reports	With watermark	•	•
Show certificates	With watermark	•	•
Save (PDF, XML,...) /Print reports		•	•
Save (PDF, XML,...)/Print certificates		•	•



Add engineers	Demo engineer	•	•
Edit engineers		•	•
Delete engineers		•	•
Print engineers		•	•
Add test instruments	Demo instrument	•	•
Edit test instruments		•	•
Delete test instruments		•	•
Print test instruments		•	•
Edit my company info	Demo company	•	•
Edit company logo	Demo logo		•
Edit certification logo	Demo logo		•
View Auto Test Codes	•	•	•
Select favorites Auto Test Codes		•	•
Print favorites Auto Test Codes		•	•
Print All Auto Test Codes		•	•
Create customized Auto Test Codes			•
Edit customized Auto Test Codes			•
Copy customized Auto Test Codes			•
Delete customized Auto Test Codes			•
Print Customized Auto Test Codes			•
Create backup		•	•
Restore backup		•	•
Maximum users	1 Demo user	2	Unlimited
Add users		•	•
Edit users		•	•
User roles		•	•
Edit user roles		•	•
Print users list		•	•
Edit limits		•	•
Available languages	EN, DE, FR, IT, NL		

Supported Installation certificates	DIN VDE 0701-0702, ÖVE/ÖNORM E 8701, SNR 462638, NEN3140, International template		
Change language	•	•	•
Change country	•	•	•
Change report language			•
Expire duration	60 days (calculated from installation date)	Unlimited	
Free updates		5 years (calculated from enter serial code date)	
Expiration popup notice	Daily	Every 30 days after 5 year free update period	
Activation date with days left until expiration	•	•	•

## System requirements

Type	Requirement
Operating System	<ul style="list-style-type: none"> <li>• Microsoft Windows 10, 64-bit and 32-bit (recommended)</li> <li>• Microsoft Windows 8/8.1, 64-bit and 32-bit</li> <li>• Microsoft Windows 7 with Service Pack 1, 64-bit and 32-bit</li> </ul>
System Memory	Minimum 4 GB RAM (64-bit) or 2 GB RAM (32-bit)
Hard disk space	Minimum 2 GB available hard disk space
Display resolution	Minimum screen resolution 1366 x 768
Communication interfaces	USB

## Ordering information



### Fluke 1663 FTT Kit

Fluke 1663 Multifunction Tester with TruTest Software Kit

Includes:

- 1663 Multifunction Installation Tester
- 6x AA (IEC LR6) cell batteries
- C1600 hard carrying case
- Zero adapter
- Heavy duty mains cord
- STD standard test lead set
- Padded carrying and waist strap
- Quick reference guide
- TP165X remote control probe and lead
- IR189USB cable
- TruTest Data Management Software

### Fluke 1663 SCH FTT Kit

Fluke 1663 Multifunction Tester with TruTest Software Kit

Includes:

- 1663 Multifunction Installation Tester
- 6x AA (IEC LR6) cell batteries
- C1600 hard carrying case
- Zero adapter
- Heavy duty mains cord
- STD standard test lead set



- Padded carrying and waist strap
  - Quick reference guide
  - TP165X remote control probe and lead
  - IR189USB cable
  - TruTest Data Management Software
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### **Fluke 1663 ITDK FTT Kit**

Fluke 1663 Multifunction Tester with TruTest Software Kit

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Includes:

- 1663 Multifunction Installation Tester
  - 6x AA (IEC LR6) cell batteries
  - C1600 hard carrying case
  - Zero adapter
  - Heavy duty mains cord
  - STD standard test lead set
  - Padded carrying and waist strap
  - Quick reference guide
  - TP165X remote control probe and lead
  - IR189USB cable
  - TruTest Data Management Software
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### **Fluke 1663 CH FTT Kit**

Fluke 1663 Multifunction Tester with TruTest Software Kit

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Includes:

- 1663 Multifunction Installation Tester
  - 6x AA (IEC LR6) cell batteries
  - C1600 hard carrying case
  - Zero adapter
  - Heavy duty mains cord
  - STD standard test lead set
  - Padded carrying and waist strap
  - Quick reference guide
  - TP165X remote control probe and lead
  - IR189USB cable
  - TruTest Data Management Software
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TECHNICAL DATA

# Fluke T110 Two-pole Voltage and Continuity Electrical Tester



## Key features

The tool you need for your tool belt, best combination of safety, ease-of-use and fast answers available anywhere.

- Designed according to IEC EN 61243-3:2014 to verify the absence of voltage – even with discharged batteries
- CAT IV 600 V, CAT III 690 V safety rating
- Voltage tester with a clear audible and vibrating voltage indicator
- Redesigned cable assembly for superb reliability on the job

## Product overview: Fluke T110 Two-pole Voltage and Continuity Electrical Tester

### Fluke T110 Voltage, Continuity Tester with switchable load

Fluke T110 is the electrical tester you miss in your tool belt. It is a voltage tester and a continuity tester in one tool.

This electrical tester gives you fast answers and let you work in a safer way. Thanks to this electrical tester you can check the presence of voltage before working on any circuit. A clear audible and vibrating voltage indicator let you work with confidence. The Fluke T110 electrical tester features also an electric torch, a backlit LED indicator to get test results the way you want them.

**Redesigned cable assembly for superb reliability on the job.**

## How do we test our new and improved Two-Pole Voltage and Continuity Testers?

Two-pole voltage and continuity testers measure voltage, but just as important is when a voltage tester tells you that there is NOT voltage present before working on any circuit. For you to rely on your two-pole tester, it has to be the most rugged and reliable tester you can find. That's what Fluke's redesigned Fluke T110 gives you.

Fluke knows the cable assembly is often where failures occur. The cable on any Two-Pole voltage and continuity tester is its weakest point- it is repeatedly bent, twisted, wrapped and put under constant strain. If the cable were to break, it could place you at an increased safety risk. Industry standards call for the cable to be tested to withstand a forty-five-degree bend, and still work after 5000 bend cycles. Fluke puts our testers through three times what the standard demands, flexing the cable over 150 degrees in each direction. This is why we can offer you our strongest voltage and continuity testers warranty ever.

### Other useful features

- Dual insulated cable tested to 3x the required bend angle provides increased reliability and durability
- Switchable load: avoid display of ghost voltages allowing you to draw more current from the circuit under test and avoid trip residual-current devices (RCDs)
- Backlit graduated scale and backlit indicators
- Built in electric torch for use in dark areas (T110, T130, T150)
- Audio on/off for testing in quiet areas (T110, T130, T150)
- Improved probe docking for secure storage.
- Phase rotation indicator for 3-phase systems (T110, T130, T150)
- Single-pole phase test offers fast identification of live conductors
- Push-on probe tips, probe tip protector and storage accessory
- Tip protector serves as an extra hand when opening UK electrical safety outlets
- Low battery indicator

## Specifications: Fluke T110 Two-pole Voltage and Continuity

## Electrical Tester

The complete family of Fluke Two-Pole Voltage and Continuity testers lets you choose the features, functions, and price/performance to fit your applications and preferences.

### Fluke voltage and continuity tester selection guide

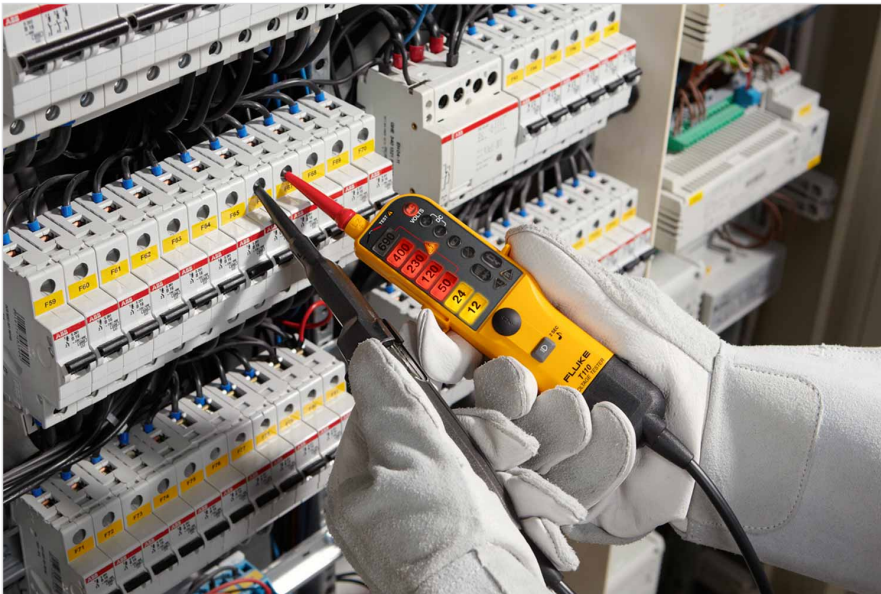
Features	T150	T130	T110	T90
Backlit LED indicator	•	•	•	•
Backlit LCD digital display	LCD	LCD		
Continuity test—visual results	•	•	•	•
Continuity test—audible results	• with on/off	• with on/off	• with on/off	•
Vibratory indicator under load	•	•	•	
Display hold	•	•		
Voltage test	•	•	•	•
Indication of polarity	•	•	•	
Resistance measurement	•			
Switchable load	•	•	•	
Single pole test for phase detection	•	•	•	•
Rotary field indicator	•	•	•	
Probe tip protection	•	•	•	•
Voltage detection with discharged batteries	•	•	•	•
Electrical torch function	•	•	•	
Wear indicator test lead wire	•	•	•	•

### Product specifications

Specifications	T90	T110	T130	T150
Voltage AC/DC	12V - 690V	12V - 690V	6V - 690V	6V - 690V
Continuity	0 - 400 k $\Omega$	0 - 400 k $\Omega$	0 - 400 k $\Omega$	0 - 400 k $\Omega$
Frequency	0 / 40 - 400 Hz	0 / 40 - 400 Hz	0 / 40 - 400 Hz	0 / 40 - 400 Hz
Phase rotation	-	100 V - 690 V	100 V - 690 V	100 V - 690 V
Resistance measurement	-	-	-	Up to 1999 $\Omega$
Response Time (LED indicator)	< 0.5 s	< 0.5 s	< 0.5 s	< 0.5 s
200 k $\Omega$ input impedance	Current draw 3,5 mA @ 690 V Current draw 1,15 mA @ 230 V	Current draw 3,5 mA @ 690 V Current draw 1,15 mA @ 230 V	Current draw 3,5 mA @ 690 V Current draw 1,15 mA @ 230 V	Current draw 3,5 mA @ 690 V Current draw 1,15 mA @ 230 V

7k $\Omega$ input impedance (with load buttons pressed)	-	Current draw 30 mA @ 230 V	Current draw 30 mA @ 230 V	Current draw 30 mA @ 230 V
Safety rating	CAT II 690V CAT III 600V	CAT III 690V CAT IV 600V	CAT III 690V CAT IV 600V	CAT III 690V CAT IV 600V
IP rating	IP54	IP64	IP64	IP64
Power requirement	2-AAA batteries	2-AAA batteries	2-AAA batteries	2-AAA batteries
Net weight	280 g (9.9 oz)	280 g (9.9 oz)	280 g (9.9 oz)	180 g (6.4 oz)
Size (LxWxH)	26 cm x 7 cm x 3.8 cm	26 cm x 7 cm x 3.8 cm	26 cm x 7 cm x 3.8 cm	23 cm x 6.5 cm x 3.8 cm
Warranty	2 years	2 years	2 years	2 years
Country of origin	Great Britain	Great Britain	Great Britain	Great Britain

## Ordering information



### **Fluke T110**

Fluke T110 Voltage/Continuity Tester with electric torch, vibrating voltage indicator

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