



ProInstall-75-UK Multifunction Installation Tester

The installation testing solution for demanding environments

The Beha-Amprobe ProInstall-75-UK, with new advanced features, is the perfect installation testing tool for verifying the safety of electrical installations in domestic, commercial, and industrial applications.

Ensure that fixed wiring is correctly installed and compliant with IEC 60364, HD 384 requirements and BS7671 18th Edition wiring regulation meeting local requirements. The ProInstall-75-UK is efficient to use by allowing the user to measure loop impedance

without tripping RCDs, eliminating the need to bypass them. Slim reach probes allow you to keep your eyes on the panel while probing hard to reach areas.

With easy-to-operate controls, a large display with a wide viewing angle, padded neck strap, and a compact, ergonomic design, this tester is comfortable enough to use for all day testing.

Features

- **Compact**, lightweight and comfortable to wear
- **Simple operation** for fast, easy testing
- **Select voltage measurement quickly** and easily between L-N, L-PE, and N-PE
- **Dual display** gives simultaneous readout of mains voltage and frequency
- **Time saving auto-null feature** subtracts lead resistance from measurements, and stores it in memory even after powering down
- **High resolution measurements** down to 0.01 ohm for a high level of accuracy
- **Detachable leads** for easy replacement

Settings & Operation

- **Fast high current loop test** (high current mode)
- **Advanced loop testing** prevents RCDs from tripping
- **Variable RCD current mode** for customized settings
- **Zero adapter** for easy test lead compensation
- **PASS/FAIL indicator** takes the guesswork out of RCD testing
- **Insulation test voltages** for a variety of applications

Safety and Compliance

- **Auto discharge** allows fast and safe discharge of electrical energy in capacitive circuits
- **Added safety** through live circuit detection, to check and inhibit test if circuit under test is live
- **Wiring connection check indication** and live circuit detection for added safety
- **User selectable safety voltage level** of 50V or 25V for varied environments
- **EN61557 and BS7671 18th Edition compliant**



ProInstall-75-UK
Multifunction Installation Tester



Safety Certification



All Beha-Amprobe tools, including the Beha-Amprobe ProInstall-75-UK, are rigorously tested for safety, accuracy, reliability, and ruggedness in our state-of-the-art test lab. In addition, Beha-Amprobe products that measure electricity are listed by a 3rd party safety lab, either UL or CSA. This system assures that Beha-Amprobe products meet or exceed safety regulations and will perform in a tough, professional environment for many years to come.

Electrical Measurement Specifications

The accuracy specification is defined as $\pm(\% \text{ reading} + \text{digit counts})$ at $23 \text{ }^\circ\text{C} \pm 5 \text{ }^\circ\text{C}$, $\leq 80 \text{ } \%$ RH. Between $-10 \text{ }^\circ\text{C}$ and $18 \text{ }^\circ\text{C}$ and between $28 \text{ }^\circ\text{C}$ and $40 \text{ }^\circ\text{C}$, accuracy specifications may degrade by $0,1 \times$ (accuracy specification) per $^\circ\text{C}$. The following tables can be used for the determination of maximum or minimum display values considering maximum instrument operating uncertainty per EN61557-1, 5.2.4.



Features

Measurement Function	
Voltage & Frequency	•
Wiring polarity checker	•
Insulation Resistance	•
Continuity & Resistance	•
Loop & Line Resistance	•
Prospective Earth Fault Current (PEFC/IK)	•
Prospective Short-Circuit current (PSC/IK)	•
RCD switching time	•
RCD tripping level	ramp test
RCD variable current	•
Automatic RCD test sequence	•
Test pulse current sensitive RCDs (Type A)	•
Phase Sequence Indicator	•
Other Features	
Self-test	•
Illuminated Display	•
Illuminated Display	•

General Specifications

Specification	Characteristic
Size	10 cm (L) x 25 cm (W) x 12.5 cm (H)
Weight (with batteries)	1.3 kg
Battery	Type AA, 6 ea., Alkaline supplied. Usable with 1.2 V NiCd or NiMH batteries (not supplied)
Battery life (typical)	200 hours idling
Fuse	T3.15 A, 500 V, 1.5 kA 6.3 x 32 mm (PN 2030852)
Operating Temperature	$-10 \text{ }^\circ\text{C}$ to $40 \text{ }^\circ\text{C}$
Storage Temperature	$-10 \text{ }^\circ\text{C}$ to $60 \text{ }^\circ\text{C}$ indefinitely (to $-40 \text{ }^\circ\text{C}$ for 100 hrs)
Relative Humidity	Noncondensing 80 % 10 to $35 \text{ }^\circ\text{C}$; 70 % 35 to $40 \text{ }^\circ\text{C}$
Operating Altitude	0 to 2000 meters
Shock, Vibration	Vibration to Class 3 per Mil-Prf-28800F 1 meter drop test, six sides, oak floor
Sealing	IP 40
EMC	Complies with EN61326-1: 2006
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 Category III (CAT III), 500 V Measurement Category III is for measurements performed in the building installation. CAT IV, 300V. Examples are distribution panels, circuit breakers, wiring and cabling. Performance EN61557-1, EN61557-2, EN61557-3, EN61557-4, EN61557-5, EN61557-6, EN61557-7 Second edition. EN61557-10 First edition.
Maximum voltage between any terminal and earth ground	500 V
Surge Protection	6 kV peak per EN 61010-1 Ed. 2.0 (2001-02)

Prolnstaal-75 included accessories

- Test lead set
- Prolnstaal-TL-UK LC38 AMP-MFT, mains test cord
- Alligator clips
- Test probe
- Prolnstaal-TL-KIT Remote test probe and probe tips
- Prolnstaal-CC Soft case with carrying strap
- Carry strap for neck/waist
- TL-75 Fused test probe, red/blue/green with lantern spring, cap and tip cover
- Zero-Adapter
- Statement of calibration
- Batteries
- Manual/quick reference guide

AC Voltage Measurement (V)				
Display range	Resolution	Accuracy 50Hz – 60hz	Input impedance	Overload protection
0 - 500V	0,1V	0,8 % + 3	3,3M Ω	600 V rms

Continuity Testing (R _{Lo})				Range R _{Lo}	Test Current
Display range (auto-ranging)	Resolution	Open circuit voltage	Accuracy	7.5	210 mA
0 - 20 Ω	0,01 Ω	>4 V	$\pm(1.5 \% + 3 \text{ digits})$	35	100 mA
200 Ω	0,1 Ω	>4 V	$\pm(1.5 \% + 3 \text{ digits})$	240	20 mA
2000 Ω	1 Ω	>4 V	$\pm(1.5 \% + 3 \text{ digits})$	2000	2 mA

Test Probe Zeroing	Press the (zero) button to zero the test probe. Can subtract up to 2 Ω of lead resistance. Error message for >2 Ω .
Live Circuit Detection	Inhibits test if terminal voltage >10 V ac detected prior to initiation of test.

Insulation Resistance Measurement (R _{iso})	
Test Voltages	Accuracy of Test Voltage (at rated test current)
250-500-1000 V	+10 %, -0 %

Test voltage	Insulation Resistance Range	Resolution	Test current	Accuracy
50 V	10 k Ω to 50 M Ω	0.01 M Ω	1 mA @ 50 k Ω	$\pm(3 \% + 3 \text{ digits})$
100 V	100 k Ω to 20 M Ω	0.01 M Ω	1 mA @ 100 k Ω	$\pm(3 \% + 3 \text{ digits})$
	20 M Ω to 100 M Ω	0.1 M Ω		$\pm(3 \% + 3 \text{ digits})$
250 V	10 k Ω to 20 M Ω	0.01 M Ω	1 mA @ 250 k Ω	$\pm(1.5 \% + 3 \text{ digits})$
	20 M Ω to 200 M Ω	0.1 M Ω		$\pm(1.5 \% + 3 \text{ digits})$
500 V	10 k Ω to 20 M Ω	0.01 M Ω	1 mA @ 500 k Ω	$\pm(1.5 \% + 3 \text{ digits})$
	20 M Ω to 200 M Ω	0.1 M Ω		$\pm(1.5 \% + 3 \text{ digits})$
	200 M Ω to 500 M Ω	1 M Ω		$\pm 10 \%$
1000 V	100 k Ω to 200 M Ω	0.01 M Ω	1 mA @ 1 M Ω	$\pm(1.5 \% + 3 \text{ digits})$
	200 M Ω to 1000 M Ω	1 M Ω		$\pm 10 \%$

Note The number of possible insulation tests with a fresh set of batteries is 2000.

Auto Discharge	Discharge time constant <0.5 second for C = 1 μ F or less.
Live Circuit Detection	Inhibits test if terminal voltage >30 V prior to initiation of test.
Maximum Capacitive Load:	Operable with up the 5 μ F load.

Loop and Line Impedance (Z _l), No Trip and Hi Current Modes RCD/FI	
Mains Input Voltage Range	100 - 500 V ac (50/60 Hz)
Input Connection (soft key selection)	Loop Impedance: phase to earth Line impedance: phase to neutral
Limit on Consecutive Tests	Automatic shutdown when internal components are too hot. There is also a thermal shutdown for RCD tests.
Maximum Test Current @ 400 V	20 A sinusoidal for 10 ms
Maximum Test Current @ 230 V	12 A sinusoidal for 10 ms

Range	Resolution	Accuracy*
10 Ω	0.001 Ω	Hi Current Ω : $\pm(2\% + 15 \text{ digits})$ No Trip mode: $\pm(3 \% + 6 \text{ digits})$
20 Ω	0.01 Ω	Hi Current mode: $\pm(2 \% 4 \text{ digits})$ No Trip mode: $\pm(3 \%)$
200 Ω	0.1 Ω	Hi Current mode: $\pm(2 \%)$
2000 Ω	1 Ω	$\pm 6 \% **$

Notes * Valid for resistance of neutral circuit <20 Ω and up to a system phase angle of 30°. Test leads must be zeroed before testing.
** Valid for mains voltage >200 V.

Prospective Earth Fault Current Test (PSC/I _K)		
Computation	Prospective Earth Fault Current (PEFC/I _K) or Prospective Short Circuit Current (PSC/I _K) determined by dividing measured mains voltage by measured loop (L-PE) resistance or line (L-N) resistance, respectively.	
Range	0 to 10 kA or 0 to 50 kA (See Power-On Options earlier in this manual)	
Resolution and Units	Resolution	Units
	IK <1000 A	1 A
	IK >1000 A	0.1 kA
Accuracy	Determined by accuracy of loop resistance and mains voltage measurements.	

RCD Testing, RCD Types Tested	
RCD Type ⁶	
AC1	G2
AC	S3
A4	G
A	S

Notes:
¹ AC – Responds to ac
² G – General, no delay
³ S – Time delay
⁴ A – Responds to pulsed signal
⁶ RCD test inhibited for V >265 ac
 RCD tests permitted only if the selected current, multiplied by earthing resistance, is <50 V.

Test Signals	
RCD Type	Test Signal Description
AC	The waveform is a sinewave starting at zero crossing, polarity determined by phase selection (0° phase starts with low to high zero crossing, 180° phase starts with high to low zero crossing). The magnitude of the test current is $I_{\Delta n}$ x Multiplier for all tests.
A	The waveform is a half wave rectified sinewave starting at zero, polarity determined by phase selection (0° phase starts with low to high zero crossing, 180° phase starts with high to low zero crossing). The magnitude of the test current is $2.0 \times I_{\Delta n}$ (rms) x Multiplier for all tests for $I_{\Delta n} = 0.01A$. The magnitude of the test current is $1.4 \times I_{\Delta n}$ (rms) x Multiplier for all tests for all other $I_{\Delta n}$ ratings.
B	Smooth DC current according to EN61557-6 Annex A

Tripping Speed Test (T)		
Current settings**	Multiplier	Current Accuracy
10–30–100–300–500–1000 mA -VAR	x 1/2	+0 %, -10 % of test current
10–30–100–300–500–1000 mA -VAR	x 1	+10 %, -0 %
10–30–100 mA	x 5	+10 %, -0 %

Note, ¹ 1000 mA type AC only. 700 mA maximum type A in VAR mode, not available for type B.

Current Multiplier	*RCD type	Measurement range		Trip Time Accuracy
		Europe	UK	
x 1/2	G	310 ms	2000 ms	±(1 % Reading + 1 ms)
x 1/2	S	510 ms	2000 ms	±(1 % Reading + 1 ms)
x 1	G	310 ms	310 ms	±(1 % Reading + 1 ms)
x 1	S	510 ms	510 ms	±(1 % Reading + 1 ms)
x 5	G	50 ms	50 ms	±(1 % Reading + 1 ms)
x 5	S	160 ms	160 ms	±(1 % Reading + 1 ms)

Notes *G – General, no delay
*S – Time delay

Maximum Trip Time		
The RCD √ symbol switches on when testing the RCD trip time if the trip time meets the following conditions.		
RCD	I Δ N	Trip Time Limits
AC G, A, B	x 1	Less than 300 ms
AC, G - S type, A - S type, B - type	x 1	Between 130 ms and 500 ms
AC G, A, B	x 5	Less than 40 ms
AC, G - S type, A - S type, B - type	x 5	Between 50 ms and 150 ms

RCD/FI-Tripping Current Measurement/Ramp Test (I _{Δn})				
Current Range	Step Size	Dwell Time		Measurement Accuracy
		Type G	Type S	
30 % to 110 % of RCD rated current ¹	10 % of I _{Δn} ²	300 ms/step	500 ms/step	±5 %

Notes:
¹ 30 % to 150 % for Type A I_{Δn} > 10 mA
 30 % to 210 % for Type A I_{Δn} = 10 mA
 20 % to 210 % for Type B
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
 2 5% for Type B

Phase Sequence Indication	
Icon	icon Phase Sequence indicator is active.
Display of Phase Sequence	Displays "1-2-3" in digital display field for correct sequence. Displays "3-2-1" for incorrect phase. Dashes in place of a number indicate a valid determination could not be made.
Mains Input Voltage Range (phase-to-phase)	100 to 500 V

Optional accessories

- Proinstall-TL-UK, LC38 AMP-MFT, mains test cord, British
- Proinstall-TL-KIT, remote test probe, installation tester lead set w/probe tips
- Proinstall-CC, soft case, carrying strap
- TL-USB, usb download cable for Proinstall series, with usb driver CD
- Zero-adapter, zero adapter for Proinstall



Light-Check Adapters

- Optimal and safe contact to light points
- Additional safety barrier (finger guard)
- Designed in a small housing
- Ease of use, one-hand operation
- Maintenance free

ideal in combination with e.g.:

- Installation testers
- Insulation testers
- Wire tracers
- Voltage monitoring and measurement



Socket-Check-Adapters

- Allow fast connection and measurement
- Highest safety
- Designed in a small housing
- Ease of use, one-hand operation
- Maintenance free

ADPTR-SCT-UK 4854820

ADPTR-B15-EUR	4854873
ADPTR-B22-EUR	4854858
ADPTR-E14-EUR	4854864
ADPTR-E27-EUR	4854847
ADPTR-GU-10-EUR	4854886
ADPTR-KIT1-EUR	4854835

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