

# Wide Range Ohmmeter PAS-853B

## Data Sheet

### Wide Range Resistance Meter Designed to Support ANSI/ESD S20.20 Program Standard.

The PAS-853B is a wide range ohmmeter designed specifically for ESD Plant Auditors who must make many measurements quickly while supporting ANSI/ESD S20.20 Program Standard and periodic verification requirements. The PAS-853B performs in accordance with standard resistance measurement practices outlined in ANSI/ESD 541 Packaging and meets all audit requirements of ESD TR53.



## CONTROLS

### ON/OFF Battery Bus Cut-off

Slide Switch ON SIDE OF CASE

**ON:** Energizes instrument and LCD displays Software Version then **GO A** with **AUTO** indication (Default)

**OFF:** Isolates battery and DC voltage from instrument controls and circuit. Use for transport and storage

### TEST Pad

With Test Leads installed: Press once & Release. Measurements performed automatically

In conjunction with **MODE** changes from Auto operation to Continuous

### MODE Pad

Steps through Auto/Voltage ranges with each press of **MODE** Pad:


- **AUTO:** Default automatic resistance range & Voltage control
- **<10V:** Manual Operation 0.01 to  $\leq 10V$  Test Voltage;  
- Resistance Range: 0.01E-1 to 9.99E9  $\Omega$
- **10V:** Manual Operation at 10V (Nominal, Semi-Constant)  
- Resistance Range: 0.98E4 to 9.99E10  $\Omega$
- **100V:** Manual Operation at 100V ( $\pm <5V$ ) Constant Voltage  
- Resistance Range: 0.98E6 to 9.99E12  $\Omega$

When data in **HOLD**, press **MODE** to terminate **HOLD** without changing operational mode  
- Press **MODE** with **TEST** to change from Auto to Continuous  
- Used to measure lead resistance (**NULL**)  
- Used by Prostat Authorized Technicians for Voltage Calibration

## CONNECTIONS

**Positive (+):** Test Voltage (RED) – Supplies test voltage to electrodes/fixtures

**Negative (-):** Current sensing (BLACK) – Conducts current from electrode, fixtures or Ground to instrument

**Chassis (  ): Shielding connection to chassis (WHITE) – Reduces transmitted energy and effect on current measurement**

**Note:**  $\frac{3}{4}$  inch spacing between RED and BLACK accommodates dual banana BNC adapters

## INDICATION

Colored LED's indicate instrument operational **MODE** and Test Voltage (**YELLOW**) used for the current measurement, as well as measurement completion (**GREEN** LED).

- **AUTO:** ON during automatic operations; OFF in Manual mode
- **<10V:**
- **10V**
- **100V**
- **GREEN LED:** Measurement hold

## TYPICAL TOLERANCES

<sup>1</sup>Nominal performance by range:

0.01E-1 -- 1.0E0 $\Omega$	$< \pm 10\%$ , $\pm 2$ Counts
1.0E0 – 9.99E10 $\Omega$	$< \pm 2\%$ , $\pm 2$ Counts
1.0E11 -- 9.99E12 $\Omega$	$< \pm 10\%$ , $\pm 4$ Counts

## TEST VOLTAGES

Automatically selected and controlled in **AUTO** mode. May be manually selected by pressing **MODE** pad in the following order:

**<10V** Variable based on resistance load

- Provides 0.001 to  $\leq 10V$
- Functional in **AUTO** within range  
0.01  $\Omega$  -  $< 1.0E+4 \Omega$
- Manual Operation Resistance  
Range: 0.01E-1 to 9.99E+9  $\Omega$

**10V** Constant Voltage (Under Load)

- Test Voltage Varies  $\pm <5\%$  in **AUTO** or Manual Operations
- Functional in **AUTO** within range  
1.0E+4  $\Omega$  -  $< 1.0E+6 \Omega$
- Manual Operation Resistance Range: 0.9E+4 to 9.99E+10  $\Omega$

**100V** Constant Voltage (Under Load)

- Test Voltage Varies  $\pm <2\%$  in **AUTO** or Manual Operations
- Functional in **AUTO** within range  
1.0E+6  $\Omega$  -  $< 1.0E+13 \Omega$
- Manual Operation Resistance Range: 0.90E6 to 9.99E12  $\Omega$

Returns to Auto Mode

## MODES OF OPERATIONS

**GO A:** Performs all automatic and manual voltage select functions, stops and displays measurements after Electrification Period (EP) is complete, then displays data with Green LED ON for 10 seconds.

**GO C:** Performs all automatic and manual voltage select functions, continuously displays measurements until the operator presses **MODE** or **TEST** pads. **GO C** disables electrification period controls.

## POWER

One 9V alkaline transistor battery; battery life > 50 hours

## DIMENSIONS

7.25 in. (184 mm) x 4.3 in, (109 mm) x 1.4 in. (36 mm)

## WEIGHT

13.2 oz. (375 gram) with battery installed

## NOTES

<sup>1</sup>Tolerance and accuracy measurements were conducted under controlled conditions with close tolerance reference resistors.

Do not attempt to open instrument case

- No internal operational parts or adjustments
- Provides access to 100DCV power supply
- Damage to instrument and environmental seals may occur
- Will void warranty
- Store instrument in case and dry environment

Phone +1 (630) 238-8883 Fax +1 (630) 238-9717

[www.prostatcorp.com](http://www.prostatcorp.com)

©2016 Prostat Corporation. All rights reserved. Prostat, Prostat Corporation and the Prostat logo are trademarks or registered trademarks of Prostat Corporation or one of its affiliated companies in the United States and/or other countries. All other trademarks or registered trademarks are the property of their respective owners. Complying with all applicable copyright laws is the responsibility of the user. Prostat reserves the right to change, without notice, product offerings or specifications. Printed in U.S.A. REV2: 12/09/19