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We test, You fly.

– Calibration Kit for Battery Testers
– USER MANUAL

REFERENCE: RML-CALIBRATIONKIT-A-478-R00-03-ENG-20241018

INTERACTIVE NAVIGATION



COMPLETE TABLE OF CONTENT

Revision Of The Manual 3
Contact 4
Safety Advisory 5

DESCRIPTION 6
General Overview 6
Kit Contents 7
Detailed description 8
External Power Supply 8
Measurement Box 9
Battery Simulator 10
Power Cables 10
Calibrated Multimeter 11
Measuring a DC Voltage 12
Measuring Temperature 12
Measuring Current 13
Accessories 13

TYPICAL CONNECTIONS 14
Voltage Calibration in Charge Mode 14
Current Calibration in Charge Mode 14
Current Calibration in Discharge Mode 15
External Voltage Calibration 15

Complete Table Of Contents
Revision Of The Manual
Contact
Safety Advisory

DESCRIPTION

General Overview
Kit Contents
Detailed description
- External Power Supply
- Measurement Box
- Battery Simulator
- Power Cables
- Calibrated Multimeter
  . Measuring a DC Voltage
  . Measuring Temperature
  . Measuring Current
- Accessories

TYPICAL CONNECTIONS

Voltage Calibration
in Charge Mode
Current Calibration
in Charge Mode
Current Calibration
in Discharge Mode
External Voltage Calibration

REVISION OF THE MANUAL

We continuously work on improving our products. This is why the information contained in this manual, the device and the technical specifications may be modified without prior notification.

OBJECT	DATE	EDITION	REFERENCE
First Issue	May 2023	01	RML-CalibrationKit-A-478-R00-00-ENG-20230502
Front panel modification	February 2024	02	RML-CalibrationKit-A-478-R00-01-ENG-20240213
Modification	October 2024	03	RML-CalibrationKit-A-478-R00-02-ENG-20241018

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Complete Table Of Contents

Revision Of The Manual

Contact

Safety Advisory

DESCRIPTION

General Overview

Kit Contents

Detailed description
- External Power Supply
- Measurement Box
- Battery Simulator
- Power Cables
- Calibrated Multimeter
  . Measuring a DC Voltage
  . Measuring Temperature
  . Measuring Current
- Accessories

TYPICAL CONNECTIONS

Voltage Calibration
in Charge Mode

Current Calibration
in Charge Mode

Current Calibration
in Discharge Mode

External Voltage Calibration

CONTACT

With presence in 40 countries, ATEQ teams are knowledgable, professional and ready to provide efficient service and support to customers worldwide.

A single procedure to get in touch with your ATEQ representative:

ateq-aviation.com
SUPPORT & SERVICES

Contact ATEQ Aviation Support & Services for calibration, follow-up, revision, trouble-shooting and maintenance of your tester and get results in near real time. You can track the progress of your service request, view the status of a quote and easily stay in touch with your dedicated support contact.

'For urgent support, please provide your company name, contact name, phone number, city and state. One of our technicians will call you back as quickly as possible.

Our business starts with satisfied customers; we'll provide appropriate solutions each time.

Thanks for your trust in ATEQ.

Complete Table Of Contents

Revision Of The Manual

Contact

Safety Advisory

DESCRIPTION

General Overview

Kit Contents

Detailed description
- External Power Supply
- Measurement Box
- Battery Simulator
- Power Cables
- Calibrated Multimeter
  . Measuring a DC Voltage
  . Measuring Temperature
  . Measuring Current
- Accessories

TYPICAL CONNECTIONS

Voltage Calibration
in Charge Mode

Current Calibration
in Charge Mode

Current Calibration
in Discharge Mode

External Voltage Calibration

SAFETY ADVISORY

Our business starts with satisfied customers; we'll provide appropriate solutions each time.

Recommendations for the test environment

Keep the test area as clean as possible.

Recommendations for operators

ATEQ recommends each user be properly trained on the use of our testers, corresponding to the level and job requirements necessary for the use of our tools.

General Recommendations

- Please read this user manual completely prior to starting the tester.

- For maximum efficiency, ensure that the ambient temperature where this tester is to be used doesn't exceed 104 degrees Fahrenheit (40 degrees Celsius). As well, ensure that the humidity doesn't exceed 95% and keep the unit away from sources of water.

- The tester is equipped with an air vent on the front of the unit, creating circulation of air inside the unit - do not cover or block this vent.

All electrical connections to the tester must be equipped with safety systems (fuses, circuit breakers, etc.) according to your local codes and standards; this includes a grounded outlet for the power supply.

- When performing maintenance on the tester be sure to disconnect the power source.

- If this tester is connected to power - or to additional testers - do not open the unit. Disconnect from the power source, then from additional testers prior to performing any troubleshooting or maintenance.

ATEQ is at your disposal for any information concerning the use of the device under maximum safety conditions.

We draw your attention to the fact that ATEQ cannot be held responsible for any accident related to a misuse of the measuring instrument, the workstation or non-compliance of the installation with safety rules.

In addition, ATEQ declines any responsibility for the calibration or the fitting of its instruments that is not done by ATEQ.

ATEQ also declines any responsibility for any modification (program, mechanical or electrical) of the device done without its written consent.

"We are at your disposal for any information concerning the use of the device under maximum safety conditions".

ATEQ Team

Complete Table Of Contents
Revision Of The Manual
Contact
Safety Advisory

DESCRIPTION

General Overview
Kit Contents
Detailed description
- External Power Supply
- Measurement Box
- Battery Simulator
- Power Cables
- Calibrated Multimeter
  . Measuring a DC Voltage
  . Measuring Temperature
  . Measuring Current
- Accessories

TYPICAL CONNECTIONS

Voltage Calibration
in Charge Mode
Current Calibration
in Charge Mode
Current Calibration
in Discharge Mode
External Voltage Calibration

DESCRIPTION

GENERAL OVERVIEW

The ATEQ Calibration Kit for our Battery Charger/Analyzer line is a tool specifically designed to calibrate our BCA line. This includes the BCA, BC and BA devices.

When an adjustment is required, above the calibration abilities of this kit, the relevant SCSS software from ATEQ will be used in conjunction with this kit



Complete Table Of Contents
Revision Of The Manual
Contact
Safety Advisory

DESCRIPTION

General Overview
Kit Contents
Detailed description
- External Power Supply
- Measurement Box
- Battery Simulator
- Power Cables
- Calibrated Multimeter
  . Measuring a DC Voltage
  . Measuring Temperature
  . Measuring Current
- Accessories

TYPICAL CONNECTIONS

Voltage Calibration
in Charge Mode
Current Calibration
in Charge Mode
Current Calibration
in Discharge Mode
External Voltage Calibration

KIT CONTENT

Calibration Kit for Battery Testers – Ref. 00478. Includes:

Item	Ref	Quantity per Kit
External Power Supply	6440288	1
Measurement Box	00483	1
Battery Simulator	00484	1
Power Cable	T1-0220	2
Calibrated Multimeter	6570244	1
Temp. probe ('Type K) DMM	6570245	1
Com. Cable USB/RS485 – 5m	T1-0106	1
Test Cable – black – 1m	6270150	2
Test Cable – red – 1m	6270151	2
Cells voltage measurement cable - DB25 to Banana plugs - 2m	5010270	1
Cells voltage measurement cable - Souriau to Banana plugs - 2m	T1-0390	1
Accessories Zipper Bag	MB-0504-A	1
USB key	F6-0033	1
Ground cable M6 eyelet - 3m	T1-0395	1



Premium Protector™ case.

Dim: 67.6 x 52.5 x 37.8 cm

Weight : 18 kg



Complete Table Of Contents
Revision Of The Manual
Contact
Safety Advisory

DESCRIPTION

General Overview
Kit Contents
Detailed description
- External Power Supply
- Measurement Box
- Battery Simulator
- Power Cables
- Calibrated Multimeter
  . Measuring a DC Voltage
  . Measuring Temperature
  . Measuring Current
- Accessories

TYPICAL CONNECTIONS

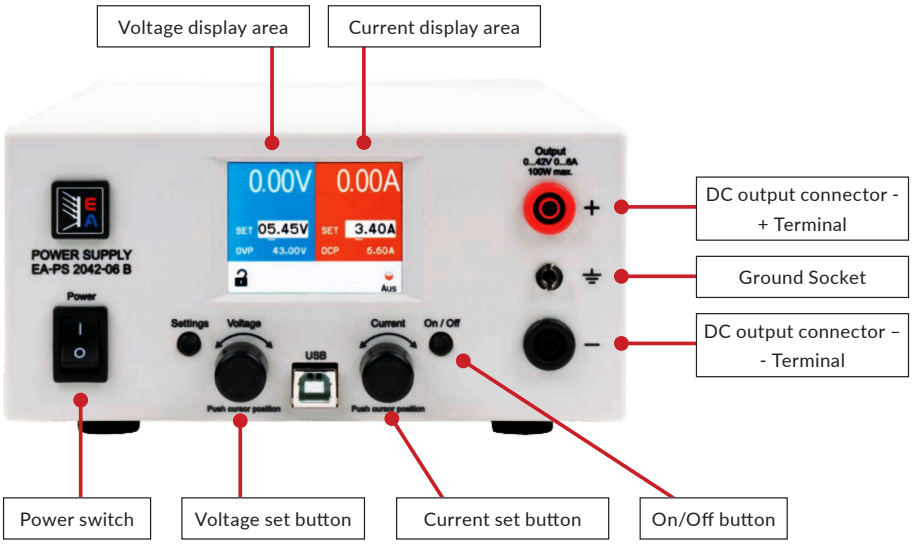
Voltage Calibration
in Charge Mode
Current Calibration
in Charge Mode
Current Calibration
in Discharge Mode
External Voltage Calibration

DETAILED DESCRIPTION

External Power Supply - Ref. 6440288

The External Power Supply is used as part of the process for calibration and measurement of the external voltage ; the calibrated Multimeter is used in conjunction with the External Power Supply.

The user manual is available on the USB key supplied with the kit ; User manual must be read before use.



Power switch: used to power the device on and off.

Voltage set button:
Turn: adjustment of the voltage set value or selection of parameters in the menu
Push: selection of the decimal position (cursor) of the currently assigned value.

Current set button:
Turn: adjustment of the current set value or selection of parameters in the menu
Push: selection of the decimal position (cursor) of the currently assigned value.

On/Off Button: used to switch the DC output on or off

DC Output connectors: red and black safely sockets which allow for the use of specific 4mm safety banana plugs.

Ground Socket: can be used to ground any of the output poles and/or external hardware.

Complete Table Of Contents
Revision Of The Manual
Contact
Safety Advisory

DESCRIPTION

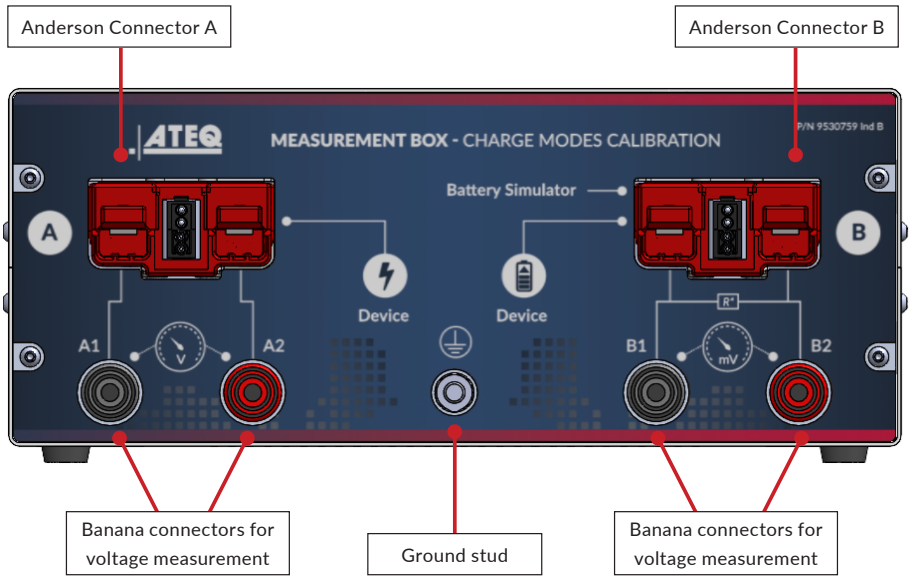
General Overview
Kit Contents
Detailed description
- External Power Supply
- Measurement Box
- Battery Simulator
- Power Cables
- Calibrated Multimeter
  . Measuring a DC Voltage
  . Measuring Temperature
  . Measuring Current
- Accessories

TYPICAL CONNECTIONS

Voltage Calibration
in Charge Mode
Current Calibration
in Charge Mode
Current Calibration
in Discharge Mode
External Voltage Calibration

Measurement Box - Ref. 00483

The measurement box includes a calibrated shunt, which is used as a “master reference” during the calibration process.



Anderson Connectors A & B: these are used to connect the unit to be calibrated with the different elements of the calibration kit.

Banana connectors for voltage measurement : these are used to connect the calibrated multimeter for measurement during the calibration process.

Ground Stud: it is used to connect the box to the ground network of the device to be calibrated.

Complete Table Of Contents
Revision Of The Manual
Contact
Safety Advisory

DESCRIPTION

General Overview
Kit Contents
Detailed description
- External Power Supply
- Measurement Box
- Battery Simulator
- Power Cables
- Calibrated Multimeter
  . Measuring a DC Voltage
  . Measuring Temperature
  . Measuring Current
- Accessories

TYPICAL CONNECTIONS

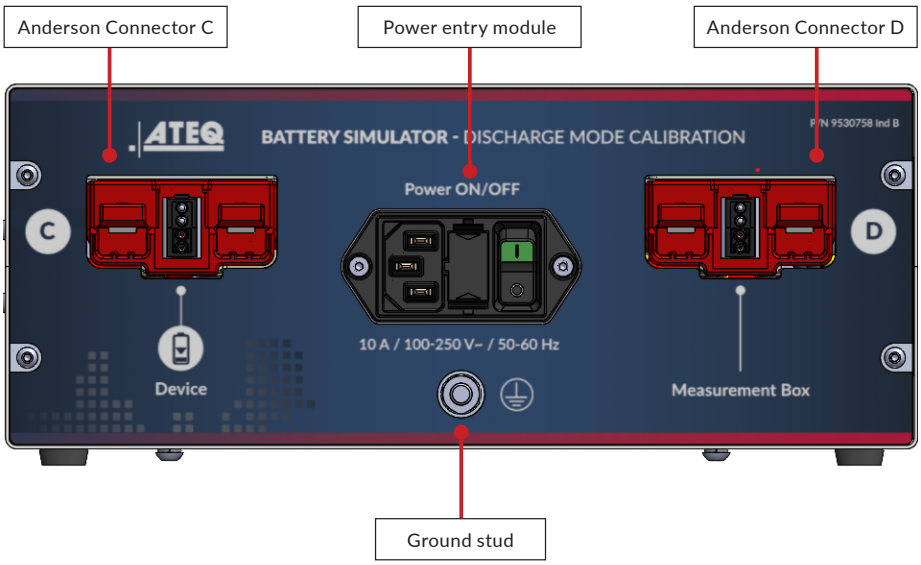
Voltage Calibration
in Charge Mode
Current Calibration
in Charge Mode
Current Calibration
in Discharge Mode
External Voltage Calibration

Battery Simulator - Ref. 00484

The battery simulator includes a power supply unit. This is used to simulate the presence of a battery when the discharge phases are active.

Electrical specification: 10A | 100-250V~ | 50-60 Hz

Fuse specification: Cartridge, Fast Acting, 5A, 250V, 5mm x 20mm, 0.2” x 0.79”, SP



Anderson Connectors C & D: these are used to connect the unit to be calibrated with the different elements of the calibration kit.

Ground Stud: this is used to connect the box to the ground network of the device being calibrated.

Power Entry module: this allows the internal power supply to be turned on, and its built-in fuse protects against power surges.

Power Cables - Ref. T1-0220

These power cables are fitted with Anderson connectors ; these cables are used to connect the unit to be calibrated with the different elements of the calibration kit.

Complete Table Of Contents
Revision Of The Manual
Contact
Safety Advisory

DESCRIPTION

General Overview
Kit Contents
Detailed description
- External Power Supply
- Measurement Box
- Battery Simulator
- Power Cables
- Calibrated Multimeter
  . Measuring a DC Voltage
  . Measuring Temperature
  . Measuring Current
- Accessories

TYPICAL CONNECTIONS

Voltage Calibration
in Charge Mode
Current Calibration
in Charge Mode
Current Calibration
in Discharge Mode
External Voltage Calibration

Calibrated Multimeter - Ref. 6570244

A calibrated multimeter is used for monitoring current and voltage values during the calibration process.



The instructions below are details from the user manual provided by the manufacturer of the multimeter. The manual is available on the USB key provided by ATEQ with this calibration kit ; please read the manufacturer's instructions for use before using the mutlimeter.

Complete Table Of Contents

Revision Of The Manual

Contact

Safety Advisory

DESCRIPTION

General Overview

Kit Contents

Detailed description
- External Power Supply
- Measurement Box
- Battery Simulator
- Power Cables
- Calibrated Multimeter
  . Measuring a DC Voltage
  . Measuring Temperature
  . Measuring Current
- Accessories

TYPICAL CONNECTIONS

Voltage Calibration
in Charge Mode

Current Calibration
in Charge Mode

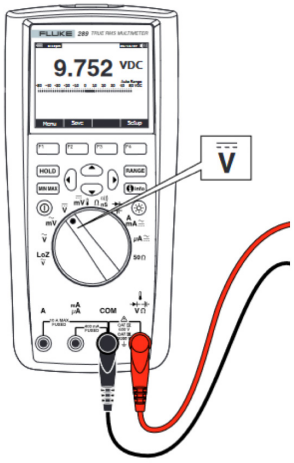
Current Calibration
in Discharge Mode

External Voltage Calibration

> Measuring a DC Voltage

The Meter displays dc volts values as well as their polarity. The bar graph for dc voltage measurements is a zero-centered bar graph. Positive dc voltages cause the bar graph to fill to the right of center while negative dc voltages fill left of center.

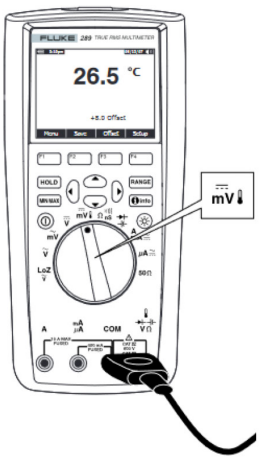
To measure a dc voltage with the Meter, set the rotary switch to the $\overline{\overline{V}}$ position as shown in below Figure.

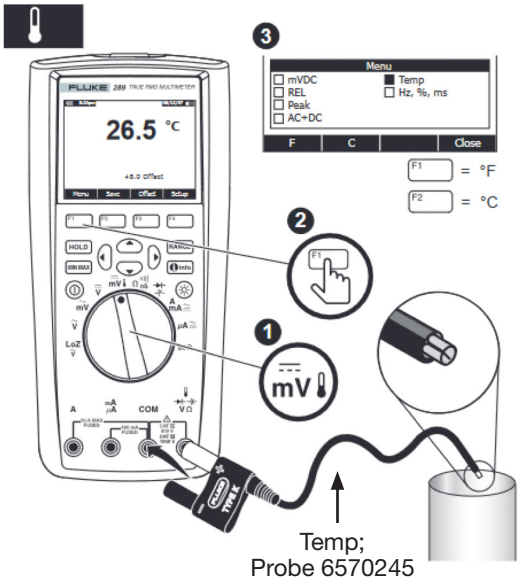


> Measuring Temperature

The Meter uses an 80BK-A Integrated DMM Temperature Probe or other type-K temperature probe for measuring temperature. To measure temperature, set up the Meter as shown in

Figure 14. Press the softkey labeled Menu and move the menu selector to the menu item labeled Temp. Press the softkey labeled F1 for temperature in Fahrenheit or C for Celsius.





Complete Table Of Contents
Revision Of The Manual
Contact
Safety Advisory

DESCRIPTION

General Overview
Kit Contents
Detailed description
- External Power Supply
- Measurement Box
- Battery Simulator
- Power Cables
- Calibrated Multimeter
  . Measuring a DC Voltage
  . Measuring Temperature
  . Measuring Current
- Accessories

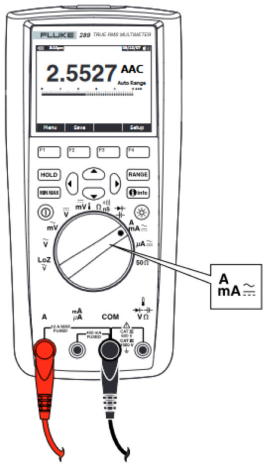
TYPICAL CONNECTIONS

Voltage Calibration
in Charge Mode
Current Calibration
in Charge Mode
Current Calibration
in Discharge Mode
External Voltage Calibration

> Measuring current

When measuring current, the display will flash when the input current exceeds 10 amps for the A terminal and 400mA for the mA/µA terminal. This is a warning that current is approaching the fuse's current limit.

To measure a current, set the rotary switch to A mA ≃ and connect the wire to the terminals as shown in below figure. Reversing the leads will produce a negative reading but will not damage the meter.



The Accessory Bag [Ref. MB-0504-A] Includes the following

- Test cable – Black – 1m - To be used with the multimeter
- Test cable – Red – 1m - To be used with the multimeter
- Temperature probe (type K) with cable – To be used with the multimeter
- Cable DB25 to Banana plugs - 1m – Cells voltage measurement cable
- Cable Souriau to Banana plugs - 1m – Cells voltage measurement cable
- Communication cable – USB to RS485 – 5m
- Power cord for the External Power Supply
- USB key with softwares, and user manual for the external power supply
- Ground cable – for connexion of the measurement box to the ground network

The provided documentation includes the following

- The Power Supply User Manual
- The Calibrated Multimeter User Manual
- The Calibrated Multimeter Calibration Certificate
- The required Software on a USB key
- The Measurement Box Calibration Certificate
- The Calibration Kit Quickstart
- The calibration kit user manual (this document)

Complete Table Of Contents
Revision Of The Manual
Contact
Safety Advisory

DESCRIPTION

General Overview
Kit Contents
Detailed description
- External Power Supply
- Measurement Box
- Battery Simulator
- Power Cables
- Calibrated Multimeter
  . Measuring a DC Voltage
  . Measuring Temperature
  . Measuring Current
- Accessories

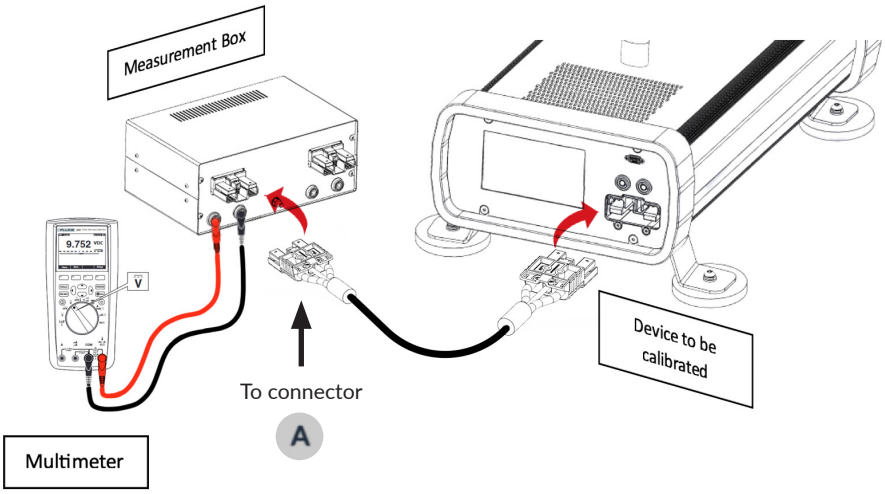
TYPICAL CONNECTIONS

Voltage Calibration
in Charge Mode
Current Calibration
in Charge Mode
Current Calibration
in Discharge Mode
External Voltage Calibration

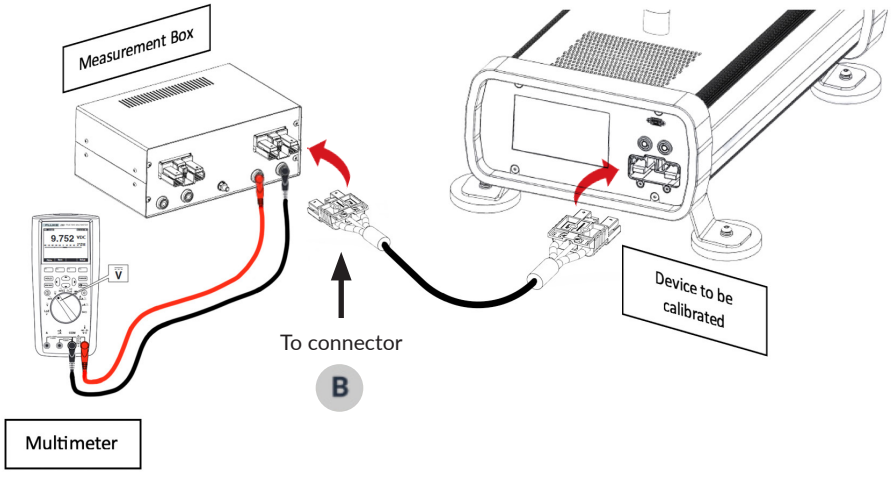
TYPICAL CONNECTIONS

Please use the most recent instructions available when testing a specific device. Below you'll see a typical connection for calibrating ATEQ devices (for informational use only).

VOLTAGE CALIBRATION IN CHARGE MODE



CURRENT CALIBRATION IN CHARGE MODE



Complete Table Of Contents
Revision Of The Manual
Contact
Safety Advisory

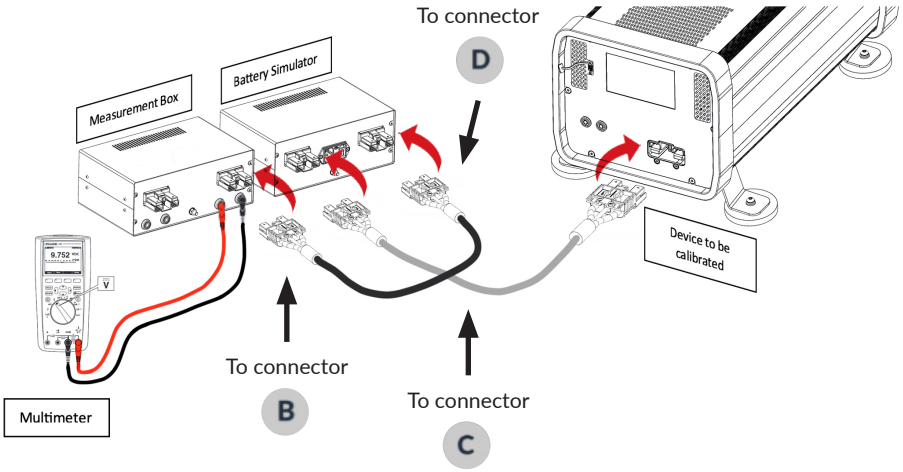
DESCRIPTION

General Overview
Kit Contents
Detailed description
- External Power Supply
- Measurement Box
- Battery Simulator
- Power Cables
- Calibrated Multimeter
  . Measuring a DC Voltage
  . Measuring Temperature
  . Measuring Current
- Accessories

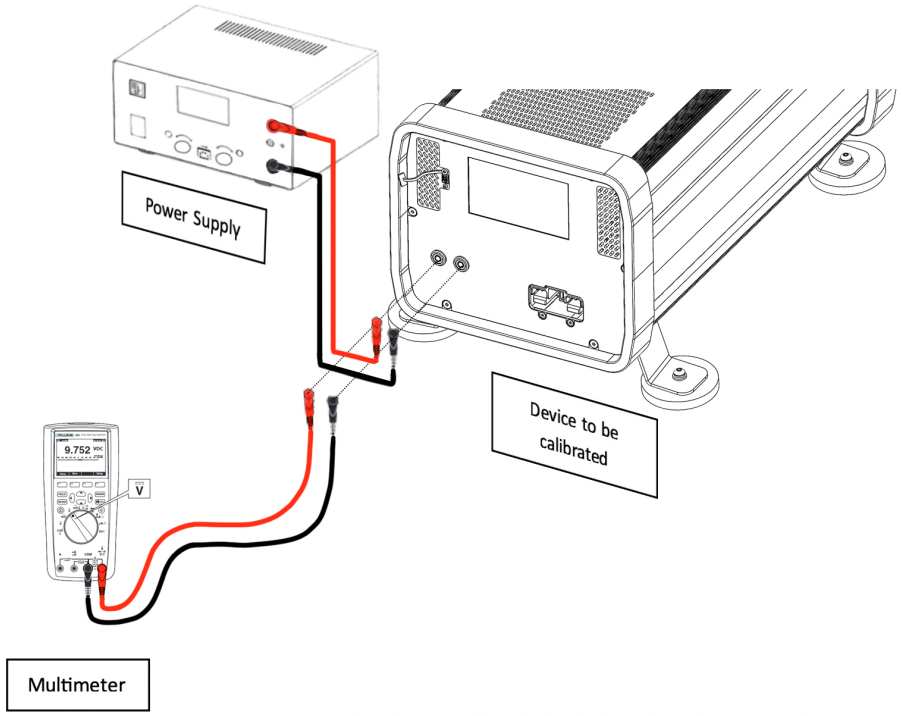
TYPICAL CONNECTIONS

Voltage Calibration
in Charge Mode
Current Calibration
in Charge Mode
Current Calibration
in Discharge Mode
External Voltage Calibration

CURRENT CALIBRATION IN DISCHARGE MODE



EXTERNAL VOLTAGE CALIBRATION



Complete Table Of Contents

Revision Of The Manual

Contact

Safety Advisory

DESCRIPTION

General Overview

Kit Contents

Detailed description
- External Power Supply
- Measurement Box
- Battery Simulator
- Power Cables
- Calibrated Multimeter
  . Measuring a DC Voltage
  . Measuring Temperature
  . Measuring Current
- Accessories

TYPICAL CONNECTIONS

Voltage Calibration
in Charge Mode

Current Calibration
in Charge Mode

Current Calibration
in Discharge Mode

External Voltage Calibration

RECYCLING



The crossed-out wheeled dustbin means that within the EU the product must be taken to separate collection at the product end-of life. This applies to your tool but also to any enhancements marked with this symbol. Do not dispose of these products as unsorted municipal waste.



For further information, please contact ATEQ.

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> Auto forwarding to your local contact



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