



# BlackBox VT-101 Handheld Operational Testing Device Instruction Manual

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**VT-101 Handheld Operational Testing Device**



The VT-101 is a verification tool designed for use with EVEMS240-100 and EVEMS240-200. It is important to follow the usage instructions and cautions to prevent damage to the device and ensure proper usage.

## Usage Instructions

Before plugging the device into EVEMS240-100 or EVEMS240-200, ensure that it is turned on and the cable is plugged in. The following table displays the reading percentage of amps for each device:

EVEMS240-100	READING % AMPS
100	100
90	90
8	80
70	70
60	60
50	50
40	40
30	30
10	10
0	0

EVEMS240-200	READING % AMPS
100	200
90	180
80	160
70	140
60	120
50	100
40	80
30	60
10	20
0	0

## Notes

- The installer is responsible for ensuring the device is charged with the appropriate power source.
- Do not use solvents to clean the device.
- Do not paint or apply exterior finishing to the device.

## Cautions

- Do not use the device with other products.
- Do not connect the device to power sources other than what is described in the document.

**Warnings:** Improper use of the device could result in serious injuries, death, or damage to property.

- Improper use of the device can cause damage that will void the warranty.
- The device must always be kept free of frost and water vapor.

## Feedback

We value your feedback on our products and this manual. Please email all comments to [customerservice@blackbox-in.com](mailto:customerservice@blackbox-in.com) or contact us by clicking on the message us button on our website at [www.blackbox-in.com](http://www.blackbox-in.com).

## Limited Warranty

1. Black Box Innovations Inc. warrants this device against any defects for a period of one year from the date of shipping. The warranty is limited to the components and equipment supplied by Black Box Innovations Inc.
2. Black Box Innovations Inc. may undertake repair or replacement, at the site or the manufacturing location, at

its option, of the defective material only after an evaluation has been made by its representative.

3. If, in the opinion of Black Box Innovations Inc., installation has been done incorrectly, or the device is used inappropriately, or repairs have been done by unauthorized personnel other than representatives of Black Box Innovations Inc., the warranty will be automatically void.
4. Black Box Innovations Inc. will not be held liable for damages or delays and will not be required to pay the transport cost of the charge controller claimed to be defective.
5. Prior written consent must be made by Black Box Innovations Inc. before repairs, replacement, or modifications for compensation to be made.
6. Black Box Innovations Inc. shall not be liable for any charging equipment used to charge this device or direct or indirect damage that results from the charging of this device.
7. Any repairs made at the Black Box Innovations Inc. factory are warrantied for 30 days from the date of repairs.
8. Any components supplied for repairs are warrantied for the remaining of the warranty on the original product or 90 days whichever is longer.

## Usage Instructions

The device must be turned on and the cable plugged into it before plugging it into to the energy manager. To start testing unplug one of the current monitoring devices from the energy manager's control board and plug in the tool to that location. The display will read the percentage of load the tool is simulating for the control device. Rotating the adjustment nob clockwise will simulate more current and counter-clockwise for less current. If you want the energy manager to respond quickly to your adjustment nob movements, you must put the energy manager into test mode by rotating the time adjustment dial on the energy manager control board all the way counter-clockwise. This must be adjusted back to its original position after testing to restore the normal operation of the energy manager. The device is autosensing between an EVEMS240-100 device and an EVEMS240-200 model so no adjustments are needed to change between devices. See the chart below for the corresponding display percentage current and actual current simulated respective to each device. This tool is for verification purposes only as calibration is done in the factory before energy managers are shipped.

### EVEMS240-100

READING %	AMPS
100	100
90	90
80	80
70	70
60	60
50	50
40	40
30	30
10	10
0	0

### EVEMS240-200

READING %	AMPS
100	200
90	180
80	160
70	140
60	120
50	100
40	80
30	60
10	20
0	0

### **Please read & save these instructions**

**Charging:** Always keep the device in a state of charge, especially when stored at a cold temperature. Charge it by plugging the micro-USB cable into the appropriate connection point on the device and the other end into a USB charger while the battery switch is in the ON position. Switch it to the OFF position when storing the device in a safe place while not in use. The LED on the front labeled battery will be green when the switch is ON and the battery is fully charged. This color will change progressively to red when the battery is getting low and is needed to recharge

### **INFORMATION**

This document contains important instructions which must be followed during the use of this device.

#### **Notes**

- It is the installer's responsibility to verify that this device is charged in a responsible manor with the appropriate power source.
- Do not use any solvents to clean this device.
- Do not paint or apply exterior finishing to this device.

**Cautions:** Do not use this device with other products. Do not connect it to power sources other than what is described in this document.

### **Warning**

- Read all documentation provided by the device manufacturer before using this product and follow the installation and setup procedures. Always disconnect any and all sources of power before starting work in a device that uses electricity.
- Do not modify, repair, or dismantle the device.
- Never introduce water or any other liquids to the area around or on this device.
- Do not install or charge the device near flammable materials, explosives or fuels, chemical products, and vapors.
- Do not install this device in a hazardous or wet environment or location
- Disconnect this device immediately if defective or damaged in any way and contact the manufacturer.

Any improper use of the device could result in serious injuries, death, or damage to property.

Any improper use of the device can cause damage which will void the warranty.

The devices must be always kept free of frost and water vapor.

### **Feedback**

We are always happy to hear your feedback on our products of this manual. We look forward to hearing from you. Please email all comments to

[customerservice@blackbox-in.com](mailto:customerservice@blackbox-in.com).

You can also contact us by clicking on the message us button on our website at [www.blackbox-in.com](http://www.blackbox-in.com).

### **Limited warranty**

1. Black Box Innovations Inc. warrants this device against any defects for a period of one year from the date of shipping. The warranty is limited to the components and equipment supplied by Black Box Innovations Inc.
2. Black Box Innovations Inc. may undertake repair or replacement, at the site or the manufacturing location, at its option, of the defective material only after an evaluation has been made by its representative.
3. If, in the opinion of Black Box Innovations Inc. installation has been done incorrectly, or the device is used inappropriately, or repairs have been done by unauthorized personnel other than representatives of Black Box Innovations Inc., the warranty will be automatically void.
4. Black Box Innovations Inc. will not be held liable for damages or delays and will not be required to pay the transport cost of the charge controller claimed to be defective.
5. Prior written consent must be made by Black Box Innovations Inc. before repairs, replacement, or modifications for compensation to be made.
6. Black Box Innovations Inc. shall not be liable for any charging equipment used to charge this device or direct or indirect damage that results from the charging of this device.
7. Black Box Innovations Inc. shall not be liable for any indirect damages or delays caused by inadequate workmanship, or materials with device usage. This also applies if not used in accordance with the manufacturer's instruction, local electrical codes, as well as specifications of devices connected to this device.
8. Black Box Innovations Inc. shall not be liable for any direct or indirect damages or delays for any devices that are connected to this device that can not tolerate having supplied power switched off for any time period specified by the device or when the device is in need of repair or maintenance.
9. Any repairs made at the Black Box Innovations Inc. factory are warranted for 30 days from the date of repairs.
10. Any components supplied for repairs are warranted for the remaining of the warranty on the original product or 90 days whichever is longer.

## Documents / Resources



[BlackBox VT-101 Handheld Operational Testing Device](#) [pdf] Instruction Manual  
VT-101, EVEMS240-100, EVEMS240-200, VT-101 Handheld Operational Testing Device, Hand  
held Operational Testing Device, Operational Testing Device, Testing Device

## References

-  [EVEMS - Electric Vehicle Energy Management Systems – Black Box Innovations](#)
-  [EVEMS - Electric Vehicle Energy Management Systems – Black Box Innovations](#)