


# BMV-501 1:5 VOLTAGE PRESCALER KIT

## This kit contains:

- 1) 1:5 Voltage prescaler
- 2) 3x 'female bullet' crimp terminal
- 3) one strip double sided adhesive foam tape for prescaler mounting this sheet
- 4) this sheet




**WARNING**

**This Voltage prescaler can be used for battery systems involving potentially lethal voltages. Make sure that installation of this unit is in accordance with local regulations.**

**Never work alone on installations involving lethal voltages!**

**Make sure the HV battery system is completely disconnected when installing this unit. Always disconnect the negative battery terminal first!**



**CAUTION**

1. Working in vicinity of a lead acid battery is dangerous. Batteries can generate explosive gases during operation. Never smoke or allow a spark or flame in the vicinity of a battery. Provide sufficient ventilation around the battery.
2. Wear eye and clothing protection. Avoid touching eyes while working near batteries. Wash your hands when done.
3. If battery acid contacts skin or clothing, wash immediately with soap and water. If acid enters eye, immediately flood eye with running cold water for at least 15 minutes and get medical attention immediately.
4. Be careful when using metal tools in vicinity of batteries. Dropping a metal tool onto a battery might cause a short-circuit battery and, possibly an explosion.
5. Remove personal metal items such as rings, bracelets, necklaces, and watches when working with a battery. A battery can produce a short-circuit current high enough to melt a ring or the like to metal, causing severe burns.

## Kit usage :

This prescaler kit is intended for use in battery systems where the terminal voltage exceeds the maximum BMV-501 input voltage of 35VDC. The prescaler has an input voltage range of 27VDC up to 175VDC, enabling BMV-501 implementation in 36VDC up to 110VDC battery systems. The voltage prescaler can also be used for batteries up to 140VDC. However when BMV-501 function F16 is set to the required 1-5 mode, the under- and overvoltage alarm settings range is limited to 133V and 135V respectively. Therefore these alarms should be disabled (function F07 and F08 set to OFF), when using battery systems higher than 110VDC.

It is recommended to use the 1:5 Voltage prescaler kit in combination with one of the Victron Energy BMV-501 connection kits. The prescaler kit must be installed according to the wiring diagram below. Some points :

- 1) The battery must be completely disconnected before installing the prescaler.
- 2) Make sure the input and output of the prescaler are not transposed. Do not extend the prescaler output wires.
- 3) Make sure you read the BMV-501 installation guide (included with the BMV-501) very carefully for further general installation details.
- 4) Make absolutely sure that before connecting the battery to the prescaler, all prescaler output wires are correctly connected with the BMV-501. The Brown output wire voltage is approx. 15..20VDC and the White output wire is directly connected to the battery positive terminal via approx. 134kOhms. The prescaler is not galvanically isolated.
- 5) The absolute maximum prescaler input voltage is 175VDC. Higher input voltages may damage the prescaler. The absolute minimum prescaler input voltage is 27VDC. A lower input voltage may cause the BMV-501 to reset, and loose the current state-of-charge status.

