# 1

⚠️ Battery safety warnings ⚠️

- Working in the 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.

- Wear eye and clothing protection. Avoid touching eyes while working near batteries. Wash your hands when done.

- If battery acid contacts skin or clothing, wash them immediately with soap and water. If acid enters an eye, immediately flood the eye with running cold water for at least 15 minutes and get medical attention immediately.

- Be careful when using metal tools in the vicinity of batteries. Dropping a metal tool onto a battery might cause a short circuit and possibly an explosion.

- 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 objects such as rings, causing severe burns.

- Disconnect the negative pole of the battery before installation.

2

Battery monitor BMV contents
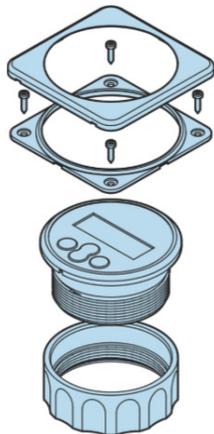
Front plate
4 screws
Attachment flange

BMV head unit

Attachment sleeve
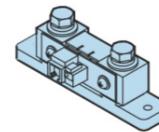
BMV shunt

RJ12 cable (10m)

Power cable (2m)

3

Full manual available online
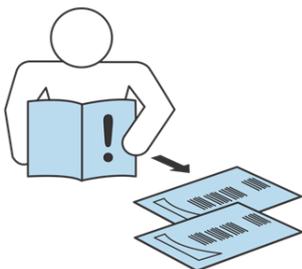
BMV700 product page

https://ve3.nl/3r

4

BMV and mounting dimensions

62.4 mm
52 mm
Ø 52-53 mm
31 mm

5A

Mounting option A

1

Orientation A

Orientation B

A: 0.5-8 mm
B: 7-18 mm

2
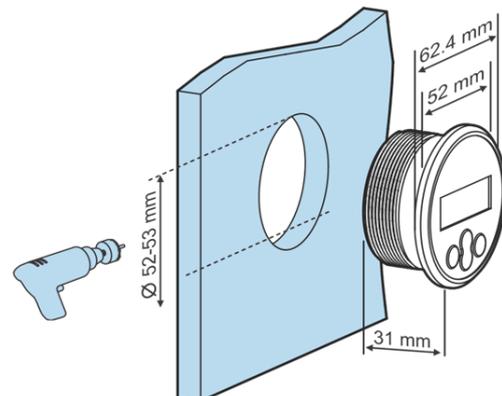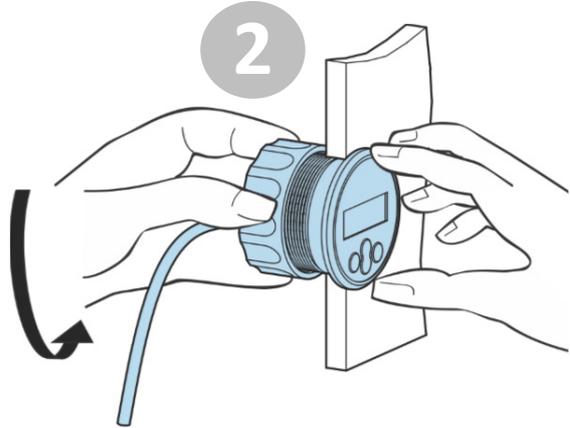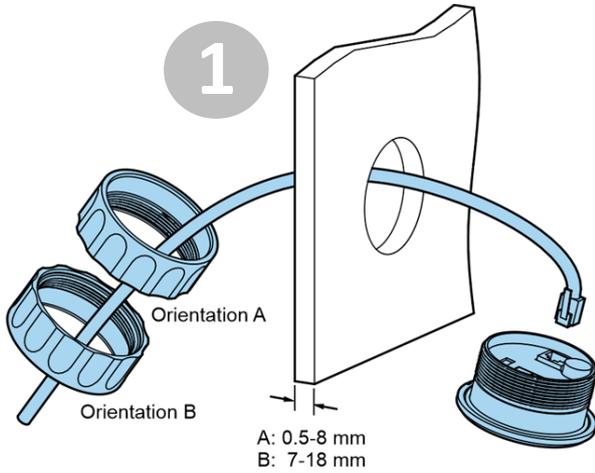
Option A

5B

Mounting option B

1

Click!

2

3

⌀ 1.5 mm

4

5

PZ 1

4x
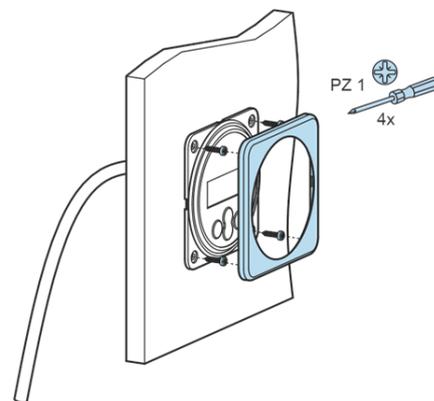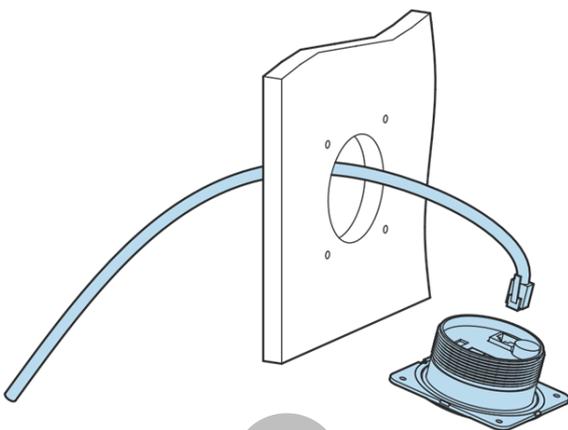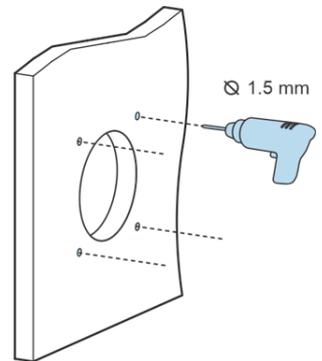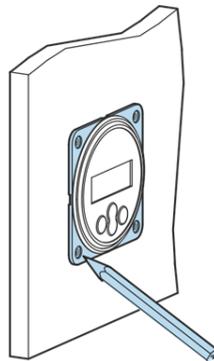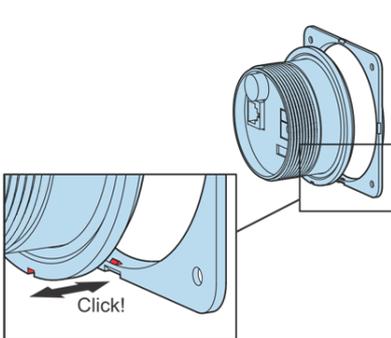
Option B

6

BMV connections

RJ12   Buzzer

Relay

VE.Direct

Head unit top view   Head unit rear view

BATTERY ONLY   RJ12   B1   LOAD AND CHARGER

Shunt side view

Shunt top view

BATTERY ONLY   RJ12   B1   LOAD AND CHARGER
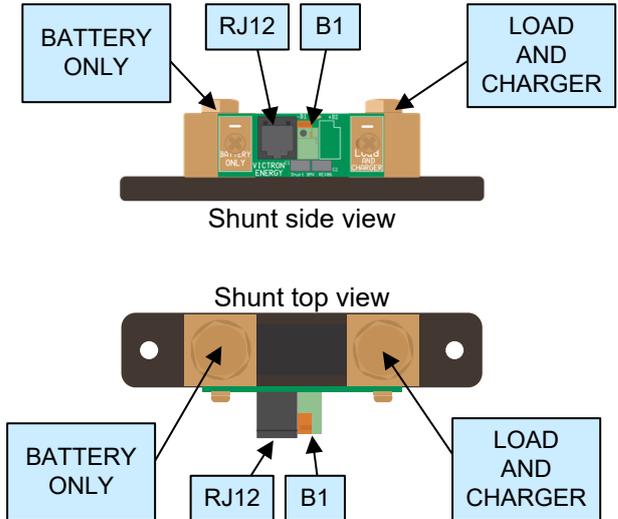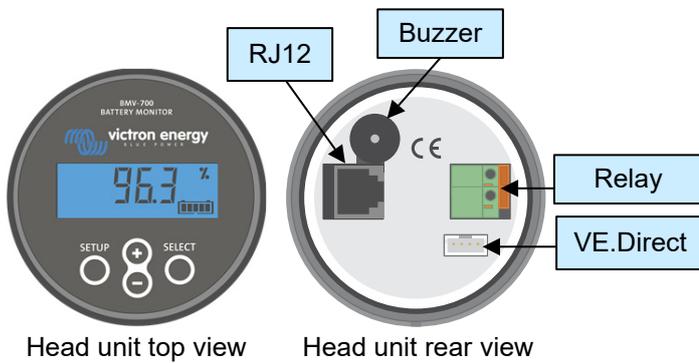
7

Battery negative connection

- Connect the negative battery terminal to the BATTERY ONLY side of the shunt
- The shunt is the first and only thing that should be connected to the battery negative

M10

Loads & Chargers

+
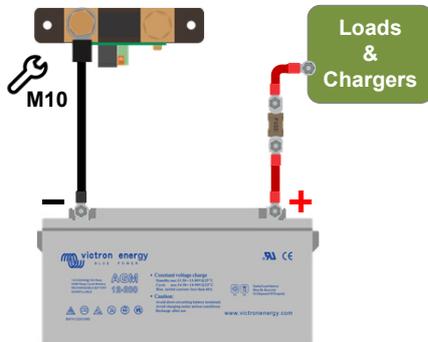
8

System negative connection

- Connect the negative DC electrical system terminal to the LOAD AND CHARGER side of the shunt

M10

Loads & Chargers

+
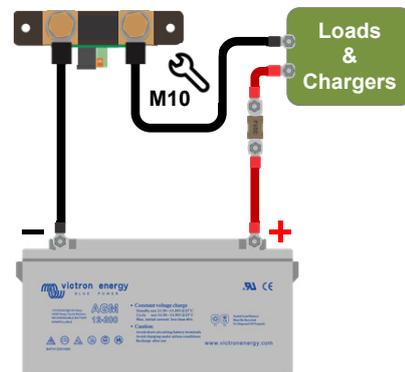
9

Power cable connection

- Connect the power cable to the battery positive
- Push the other side of the cable into the B1 terminal on the shunt

Loads & Chargers

+
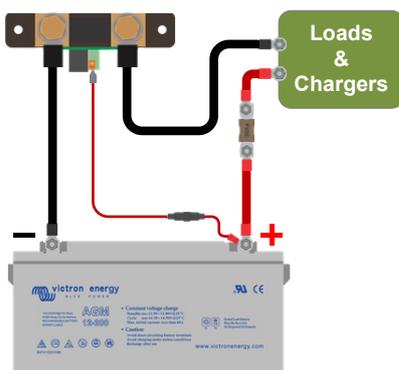
10

Head unit connection

- Connect the RJ12 UTP cable between the shunt RJ12 terminal and the head unit RJ12 terminal

Loads & Chargers

+
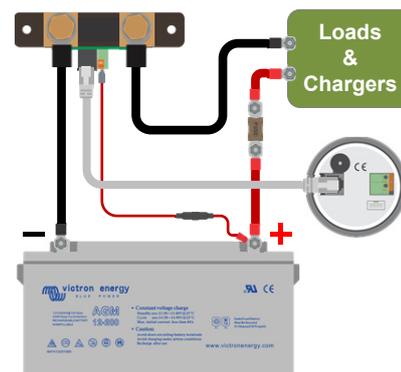
11

Make essential settings

Set the battery capacity

- Press any button
- Use + and – to enter value of first digit
- press select to go to next digit
- Repeat until all 4 digits have been entered
- Press select to store setting, you will hear beep
- Press setup to next setting

12

Make lithium settings

Additional settings if lithium batteries are used

- Set the charge efficiency at 99%
- Set the Peukert exponent at 1.05

13

Connecting to a GX monitoring device

- Connect the (not included) VE.Direct cable ASS03053xxxx between the VE.Direct terminal of the BMV and the GX device
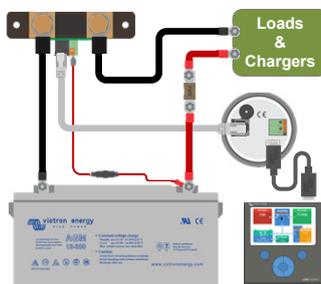
Victron GX product range

https://ve3.nl/Venus-OS:start

Optional

14

VictronConnect

- The VictronConnect App can be used for monitoring or for changing settings
- For more information on VictronConnect see the VictronConnect manual

VictronConnect manual

https://ve3.nl/VictronConnect-manual

Optional

15

VictronConnect via Bluetooth

- Connect the (not included) VE.Direct to USB interface ASS030530010 to the VE.Direct terminal of the BMV

Loads & Chargers
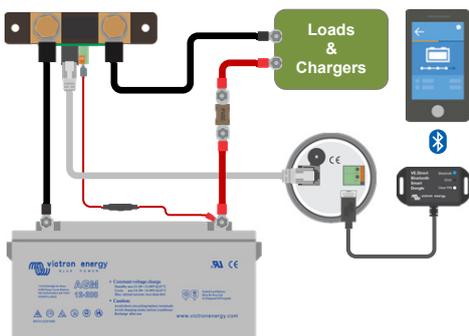
Optional

16

VictronConnect via USB

- Connect the (not included) VE.Direct Bluetooth Smart dongle ASS030536011 between the VE.Direct terminal of the BMV and the USB port of a computer

Loads & Chargers

Optional