Breakout-Box HD – Installation and Operating Instructions
For Harley Davidson® V-ROD model series

Thank you very much for choosing a high quality product of motogadget.

The mo.can and connected instruments might be damaged when installed improperly. Please read the following information carefully and follow instructions during installation. Please note the correct order of the steps performed in these installation and operating instructions.

THE CASING MUST NOT BE OPENED. IN CASE OF NON-COMPLIANCE, ALL WARRANTY CLAIMS WILL BECOME VOID. THE <u>ONLY</u> INTENDED USE OF THIS DEVICE IS THE COMBINATION WITH MOTOGADGET INSTRUMENTS. IN CASE OF IMPROPER USE WITH THIRD-PARTY INSTRUMENTS, ALL WARRANTY CLAIMS WILL BECOME VOID. IN CASE OF NON-INTENDED USE, THE DEVICE MAY BE DAMAGED. IN CASE OF MALFUNCTIONS, THE DEVICE HAS TO BE RETURNED TO MOTOGADGET FOR INSPECTION, TOGETHER WITH THE USED MOTOGADGET INSTRUMENT. MOTOGADGET WILL ACCEPT NO LIABILITY FOR ANY DIRECT, INDIRECT OR SUBSEQUENT DAMAGE OF ANY KIND RESULTING FROM USE, INSTALLATION OR CONNECTION OF THE DEVICE OR OTHER DELIVERED EQUIPMENT. THIS EXCLUSION OF LIABILITY APPLIES TO, INCLUDING BUT NOT LIMITED TO, PERSONAL, MATERIAL AND FINANCIAL DAMAGES. PARTICULARLY, THE USE IN PUBLIC TRAFFIC IS AT THE USER'S OWN RISK.

Scope of Application

Using the Breakout-Box HD, the motoscope Pro can be connected directly to the wiring harness of the Harley Davidson® V-ROD series (models built from 2004 to 2012) (not compatible with special edition models like Screaming Eagle).

There is no need for modifications to the original vehicle wiring harness.

Important!

It is not possible to display the fuel warning light if VRSC models with ultrasonic fuel sender (i.e. 2007) are used with the Breakout-Box HD.

Instrument installation

According to the respective manual, remove the tank and the original speedometer. Disconnect the connector on the instrument. Subsequently, the instrument connector will be routed beneath the tank. Mount the motoscope Pro on the vehicle. Please use the extensive mounting hardware provided for Harley Davidson® vehicles. Now also route the instrument cable to the position of the original connector beneath the tank. Carefully remove 50 mm (2 in.) of the motoscope Pro cable jacket. Next, remove 10 mm (approx. 1/2 in.) of the strand insulation and slide the end ferrules onto the exposed strand ends. Cut off any excess cable material using wire-cutting pliers.

Connecting the motoscope Pro to the Breakout-Box

To protect the components, <u>**make sure**</u> to apply contact grease to all metal parts of the screw-type terminals. Insert the instrument cables into the corresponding terminals (see table below) and tighten the screws.

Terminal	motoscope PRO
25	red
26	brown
24	black
10	green
8	yellow
7	white
9	orange
-	blue
-	purple

Connecting the supplied motogadget V-ROD type vehicle connector to the Breakout-Box

Insert the cable of the model-specific connector (included) with the attached end ferrules into the screw-type terminals (shown in table on right side) and tighten the screws.

ATTENTION ! Please make sure to note the proper polarity when inserting the connector attached to the vehicle!

The connector is equipped with a large and a small tab on the left side and the right side respectively. Please make sure they fit into the corresponding seat.
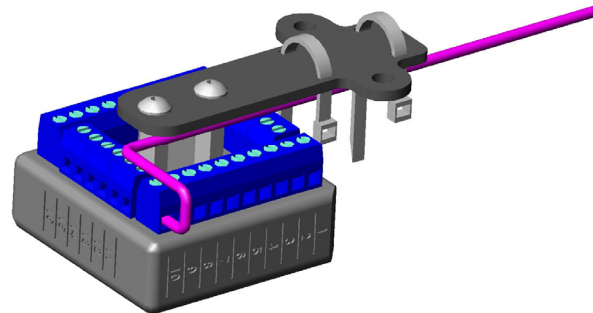
Terminal	Connector cable – Color code
28	red
12	blue
13	yellow
14	white
29	black
27	brown
30	green
15	purple
16	grey
6	orange

Connecting the menu push-button

The menu push-button is connected to the terminals No. 17 and 18. The polarity is irrelevant.

Mounting the cables to the Breakout-Box

Screw the provided black mounting plate to the two mounting bolts on the Breakout-Box. To ensure optimum strain relief, combine all connecting cables (see right figure) and mount them to the mounting plate using both tie-bands. The Breakout-Box is mounted to vehicle parts or the vehicle wiring harness by screws or tie-bands respectively, with both bores of the mounting plate.

Notes

No additional mounting of cables required.
Short-circuits of terminal block outputs or contact to ground or +12V respectively may damage the device.

Instrument settings

Please access the instrument setup to adjust the following parameters: ImpE=1, ImpW=4 and Circ=2000mm.
Teach the tank sensor according to the descriptions provided in the installation and operating instructions.

The motogadget team wishes you a pleasant and safe trip and a lot of fun with your new motogadget instrument.

Declaration of Conformity

Hereby, motogadget GmbH declares the product is in compliance to EU directives.
The full text of the EU Declaration of Conformity is available at the following internet address:

https://manuals.motogadget.com/