EN

m.gadget **moto**

Instruction Manual
mo.hub

V1.0

Thank you very much for purchasing a high quality *motogadget* product - Made in Germany.

Please read the following information and recommendations **<u>thoroughly</u>** and follow these instructions during installation and use of the instrument. No liability shall be assumed by motogadget for damage or defects resulting from negligence or failure to follow the operating and

1 Review of Delivery

All products from *motogadget* are thoroughly checked to ensure they are completely fault-free when dispatched. Please check the received goods immediately for possible transport damage. If you find any damage or other deficiencies, please contact us immediately.

In this regard, we refer to our General Terms of Business and Delivery, which are published at www.motogadget.com. Should a return of the received delivery be agreed, please note that we only take back goods in their original packaging. The mo.unit and its accessories must be returned within the legal period of time and without any traces of use. We shall not assume any liability for returns which are insufficiently insured or packed.

2 Exclusion of Liability

THE DEVICE AND ITS ACCESSORIES MUST BE INSTALLED BY A CERTIFIED MOTOR-CYCLE TECHNICAN AND IN AN AUTHORIZED SERVICE CENTER. REVERSE POLARITY OR VOLTAGE ABOVE 25V MAY RESULT IN DAMAGE TO THE *MO.HUB*. THE DEVICE THEN HAS TO BE REPLACED AND ALL CLAIMS OF WARRANTY ARE DELETED.
MOTOGADGET ACCEPTS NO LIABILITY FOR DIRECT OR INDIRECT DAMAGE OR SUBSEQUENT DAMAGE OF ANY KIND RESULTING FROM THE USE, INSTALLA-TION OR CONNECTION OF THE DEVICE OR OTHER DELIVERED EQUIPMENT. THIS EXCLUSION OF LIABILITY PARTICULARLY INCLUDES DAMAGE TO PERSONS, MATERIAL LOSSES AND FINANCIAL DAMAGES. THE USE IN AREAS OF PUBLIC TRAF-FIC ENSUES AT THE USER'S OWN RISK.

DEVICE HOUSINGS AND ALL OTHER DELIVERED PARTS MUST NOT BE OPENED OR DISMANTLED. IN CASE OF NON-COMPLIANCE, ALL WARRANTY CLAIMS BECOMES INVALID. THE USE OF THE DELIVERED DEVICE AND ITS ACCESSORIES FOR RACING OR OTHER COMPETITIONS AS WELL AS FOR ANY USE NOT CORRESPONDING TO THE RECOMMENDED APPLICATION ALL WARRANTY CLAIMS SHALL BE INVALID.

3 Safety Instructions

- **THE VEHICLE BATTERY MUST BE COMPLETELY DISCONNECTED PRIOR TO ANY WORK ON THE VEHICLE'S ELECTRICAL SYSTEM. FIRST, DISCONNECT THE NEGATIVE TERMINAL AND THEN THE POSITIVE TERMINAL. FOR RECONNECTION PROCEED IN THE REVERSE ORDER.**
- **USING THE *MO.HUB* WITH PLUS POLE CONNECTED TO VEHICLE FRAME (OLDER ENGLISH MOTORCYCLES) IS NOT POSSIBLE.**
- **INSTALLATION AND ELECTRICAL CONNECTION OF THE *MO.HUB* MAY ONLY BE CARRIED OUT BY A CERTIFIED MOTORCYCLE TECHNICIAN.**
- **ALL CABLE DIAMETERS MUST BE DIMENSIONED ACCORDING TO THE CURRENT FLOW (REFER TO CHAPTER 8.5).**

4 Application

The mo.hub is a universal data interface between vehicle and motogadget instrument or smartphone.

Compatible vehicles with BUS or OBD interface are connected to the mo.hub by a supplied vehicle-mounted plug (Plug & Ride).
For vehicles without interfaces, the required signals (tachometer, speed, control lights, etc.) must be tapped individually and connected to the mo.hub.
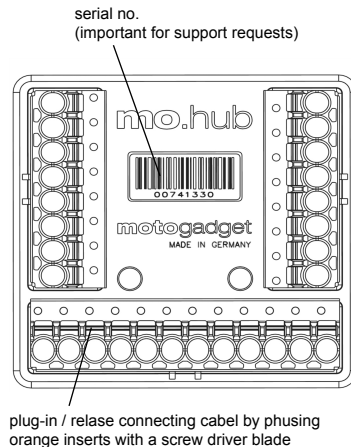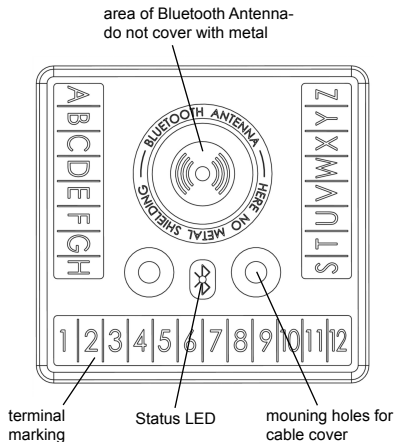
The configuration of the mo.hubs is done by our app m.ride.
For this, the vehicle and the connected instrument are selected.
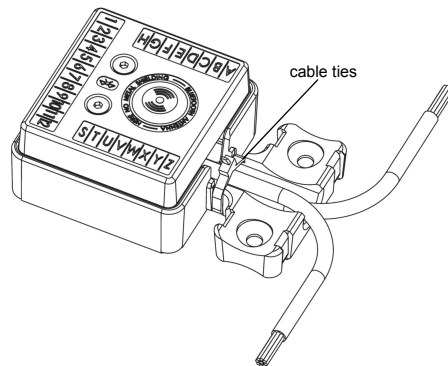In addition, m.ride offers comprehensive vehicle management with a logbook and a linked vehicle database.

We are continually expanding the list of mo.hub compatible vehicles.

5 Overview

area of Bluetooth Antenna- do not cover with metal

serial no. (important for support requests)

ang

BLUETOOTH ANTENNA

HERE NO METAL SHIELDING

A B C D E F G H

S T U V W X Y Z

1 2 3 4 5 6 7 8 9 10 11 12

terminal marking

Status LED

mouning holes for cable cover

mo.hub

00741330

motogadget
MADE IN GERMANY

plug-in / relase connecting cabel by phusing orange inserts with a screw driver blade

6 Mounting the cable cover & cable guide

M3x16 countersunk
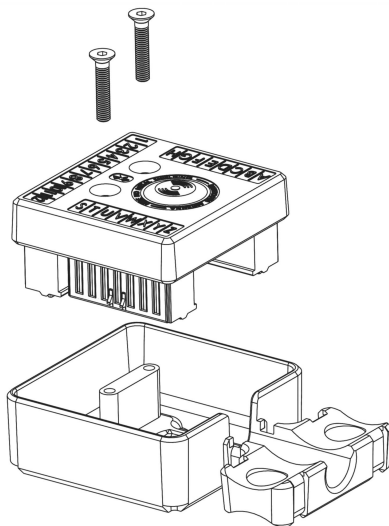
cable ties
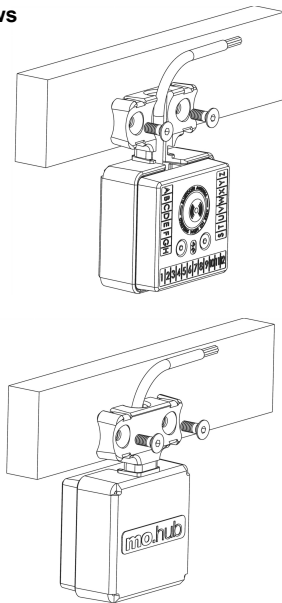
7 Mounting options

cable ties
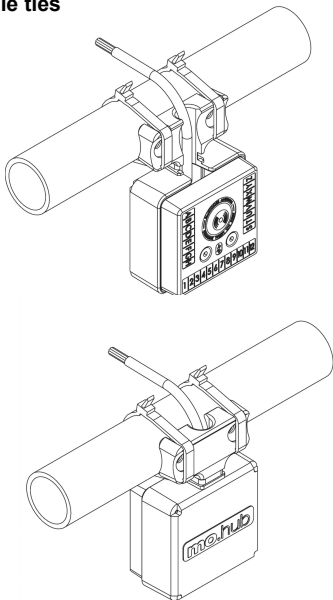
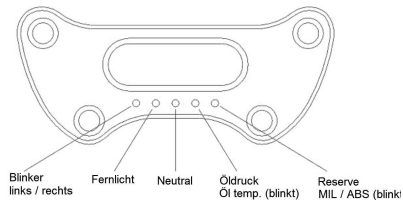**M4 screws**

8. Connecting motogadget instruments to the mo.hub

8.1 motoscope mini and combi-frame or handle bar clamp

Blinker links / rechts   Fernlicht   Neutral   Öldruck (leuchtet) Übertemperatur (blinkt)   Reserve (leuchtet) MIL / ABS (blinkt)

Blinker links / rechts   Fernlicht   Neutral   Öldruck Öl temp. (blinkt)   Reserve MIL / ABS (blinkt)
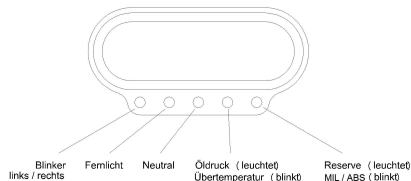
mo.hub	motoscope mini	combi-frame	Lenkerklemme
Port Nr.	Kabelfarbe	Kabelfarbe	Kabelfarbe
3	schwarz	orange | gelb | violett	orange | blau
H	rot	weiß	rot
S	gelb		
T	weiß		
U	grün		
V		schwarz	gelb
W		braun	grün
X		rot	violett
Y		blau	schwarz
Z		grün	weiß

8.2 motoscope tiny und motoscope classic

motoscope tiny / speedster / vintage
motoscope Classic / Chronoclassic
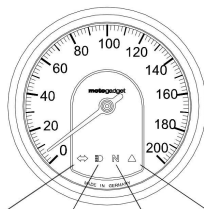
Blinker   Fernlicht   Neutral   Öldruck
links/rechts
Reserve (leuchtet)   Öl temp. (blinkt)
                                         MIL   (blinkt)
                                         ABS   (blinkt)

mo.hub Port Nr.	motoscope tiny Kabelfarbe	motoscope classic Kabelfarbe
1	rot	
2		
3	schwarz	schwarz | weiß-grün
H	braun	rot
S	lila	gelb
T	orange	weiß
U	grün	grün
V	weiß	grau
W	gelb	weiß-orange
X	blau	blau
Y		weiß-gelb

9 Connecting the vehicle to the mo.hub

9.1 vehicles without data BUS

mo.hub Port Nr.	Fahrzeug
1	Batterie +12V (über 1A Kabelsicherung)
2	Zündungsplus
3	Fahrzeugmasse (GND)
6	Menütaster (GND)
7	Fernlicht (+12V)
8	Error / MIL (GND)
9	Blinker L (+12V)
10	Blinker R (+12V)
11	Neutral (GND)
12	ABS (+12V)
A	Öltemperatur Sensor (motogadget Artikel 9001005 / 9001007 / 9001002)
B	Öldruckschalter (GND)
C	Lufttemperatur Sensor (motogadget Artikel 1005090)
D	Wassertemperatur Sensor (motogadget Artikel 9001005 / 9001007 / 9001002)
E	Fahrzeug-Tanksensor (0-500 Ohm - GND)
S	Drehzahlsignal (Primärkreis Zündspule)
T	Tachosignal (alle Typen)

9.2 BMW modells with LIN Bus

9.2.1 Fahrzeugtyp Identifizierung

BMW models from 2015 with a 6 pin instrument plug with dimensions of
approx. 9x10x22mm, are equipped with a LIN bus for communication between control unit and
instrument.

9.2.2 Connecting the vehicle-specific plug and the battery cable to the mo.hub

mo.hub Port Nr.	motogadget BMW LIN Fahrzeugstecker
1	motogadget Batterieanschlusskabel (4005102) von Batterie Plus
3	motogadget Stecker (4005100) Kabel schwarz
4	motogadget Stecker (4005100) Kabel rot

9.2.3 Installation

1) Jack up vehicle, remove seat and tank, disconnect battery (first minus, then plus)
2) Unscrew OEM instrument, unplug connector, unscrew OEM instrument carrier.
3) attach the motogadget instrument to the vehicle-specific motogadget retaining plate and
   connect the tail cable of the motogadget instrument to mo.hub
4) Connect motogadget vehicle-specific plug and battery cable to mo.hub
5) Screw the motogadget retaining plate with instrument to the fork bridge with the OEM screws.
6) Attach mo.hub to the upper frame tube with cable ties, avoiding collision
   pay attention to mo.hub housing and tank.
7) motogadget battery connection cable, OEM instruments connector plug and motogadget
   Instuments Lay the cable free of kinking and abrasion to the mo.hub and cable with cable ties
   attach to the frame. Allow enough play for steering movements.

8) Insert the plug of the OEM speedometer (not tachometer!) In the with motogadget
    Insert vehicle plug. The second OEM instrument plug (if available) with
    Protect heat shrink tubing from splash water.
9) The eyelet of the motogadget battery connection cable with the battery-plus connection terminal
    connect
10) Connect the battery (first plus, then minus)
11) Install the tank and seat

9.3 BMW Modells with CAN Bus

9.3.1 Vehicletype identification

BMW models from 2010 - 2014 a 6 pin instrument plug with the dimensions of
approx. 14.5x23.5x40mm, are equipped with a CAN bus for communication between control unit
and instrument.

9.3.2 Connection of the vehicle-specific plug to the mo.hub

mo.hub Port Nr.	motogadget BMW CAN Fahrzeugstecker (4005101)
1	rot
2	braun
3	schwarz
F	blau
G	lila

1) Jack up the vehicle, remove seat and tank
2) Unscrew OEM instrument, unplug connector, unscrew OEM instrument carrier.
3) attach the motogadget instrument to the vehicle-specific motogadget retaining plate and
   connect the tail cable of the motogadget instrument to mo.hub
4) Connect motogadget vehicle-specific plug and battery cable to mo.hub
5) Screw the motogadget retaining plate with instrument to the fork bridge with the OEM screws.
6) Attach mo.hub to the upper frame tube with cable ties, avoiding collision
   pay attention to mo.hub housing and tank.
7) OEM instrument connector and motogadget instrument cable kink and scuff-free
   Lay to the mo.hub and secure the cables to the frame with cable ties. Sufficient
   Allow game for steering movements.
8) Insert the plug of the OEM speedometer into the vehicle with motogadget plug.
9) Install the tank and seat

10 settings for motogadget instruments

motoscope tiny and motoscope mini
Circ = 2000 / ImpW=1 / ImpE=1

motoscope classic
Circ=200 / ImpW=4 / ImpW=1

11 Return and Complaint

Before sending your mo.hub to us for technical review, please contact Technical Support. Visit our website and follow the instructions under "Support". For support requests, we always need the serial number (sticker top mo.hub, your smartphone model used, the app version (see main menu under "About").) To return the item, please follow the instructions under "Service" on our website.

CE marking

The unit described in this document is in accordance with the official European directives. A copy of the declaration of conformity can be provided on request. This equipment complies with the essential requirements of EU Directive 1999/5/EC. The vehicle body control module integrated in this product has been pre-certified separately and is marked with CE0168 R&TTE directive.

Hereby, *motogadget* declares that *motogadget* products and accessories are in compliance with the essential requirements and other relevant provisions of the EU Directive 1999/5/EC.

WEEE directive

The wheelie bin symbol on the product or its packaging indicates that this product shall not be treated as household waste. In line with EU Directive 2002/96/EC for waste electrical and electronic equipment (WEEE), this electrical product must not be disposed of as unsorted municipal waste. Please dispose of this product by returning it to the point of sale or to your local municipal collection point for recycling. By doing this you will help conserve the environment.

Regulations
PRODUCT INFORMATION:

Manufacturer: motogadget GmbH
Model: mo.unit blue
FCC ID: 2AIF8-4005000
IC: 21495-4005000

FCC COMPLIANCE STATEMENT:
This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1)This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
INFORMATION TO USER:
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy.

If not installed and used in accordance with the instructions, it may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try and correct the interference by one or more of the following measures:

• Reorient or relocate the receiving antenna
• Increase the distance between the equipment and the receiver
• Connect the equipment to outlet on a circuit different from that to which the receiver is connected
• Consult the dealer or an experienced radio/TV technician for help.

Canada – Industry Canada (IC)

This device complies with Industry Canada license-exempt RSS Standard(s). Operation is subject to the following two conditions:

(1) This device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Cet appareil est conforme avec Industrie Canada exempts de licence standard RSS (s). Son fonctionnement est soumis aux deux conditions suivantes:

(1) Cet appareil ne doit pas provoquer d'interférences et (2) cet appareil doit accepter toute interference, y compris celles pouvant causer un mauvais fonctionnement de l'appareil.

Das motogadget Team wünscht Ihnen eine angenehme und sichere Fahrt sowie viel Spaß mit Ihrem neuen mo.hub.