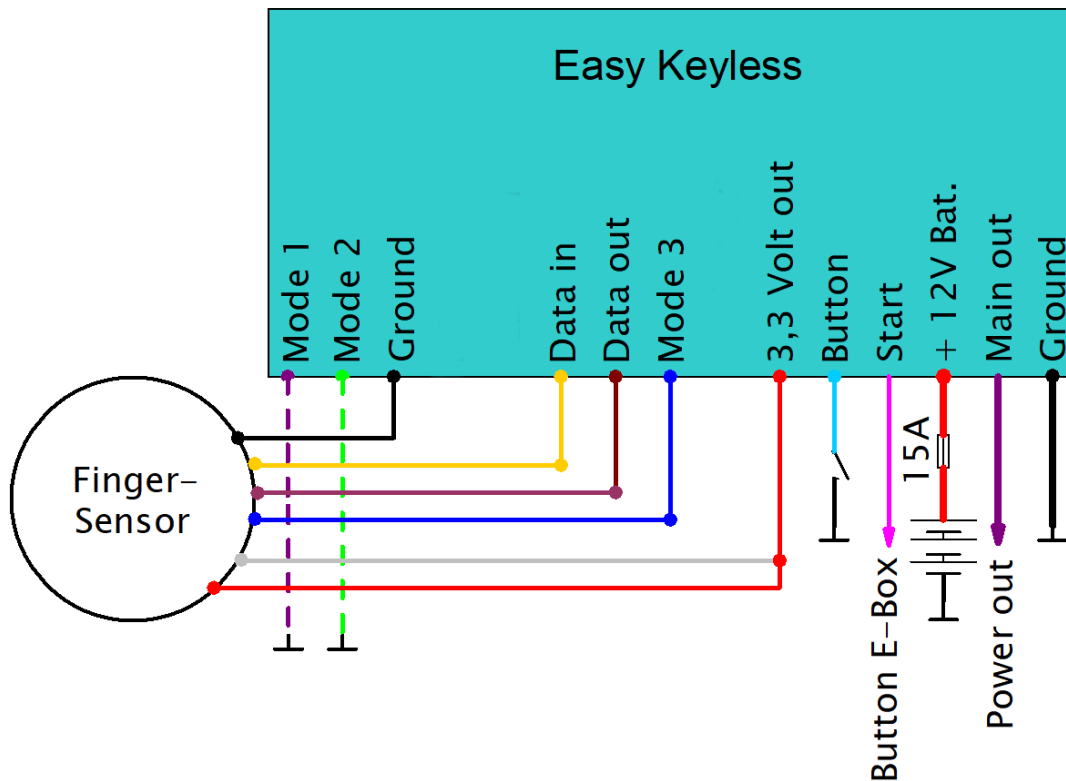


Installation of the Easy Keyless FP

Don't want instruction manuals? We know that too! Therefore, you only need 3 minutes to read and then about 30 - 40 minutes to install the cables. Promised :-)

In contrast to other solutions on the market, the Easy Keyless does not consume any significant power in standby mode, so that the motorcycle battery is not deeply discharged even after a few months without use. The module is only activated when you press a button. The new Easy Keyless consists of a control module that can be installed "invisibly" and a Fingerprint-Sensor that can be placed visible or accessible. Both components are connected to each other via a few cables. This makes installation much easier and ensures functional reliability with minimal disruption" to the overall appearance of the bike.

Connections:



The cables at the module:

Mode 1 (purple thin) and Mode 2 (green thin): The description is below.

Ground (Black): This cable is connected to the frame or to the negative terminal of the battery.

Data In (Yellow): This is the data input from the fingerprint sensor or the RFID antenna.

Data Out (Brown): This output is connected to the dark red cable from the fingerprint sensor.

Mode 3 (Dark blue): This cable is clamped to blue by the fingerprint sensor or it is needed for teaching an RFID tag. The description is below.

3.3 volts out (Red, thin): The red cable and the white cable from the fingerprint sensor are connected here.

Button (Light blue): Here you can connect a button to activate it. If you use a control box from us that is not set to 2-button mode, then you can use the existing start button on the handlebar to activate the module.

The **Start (Pink) Output** can then be used for the start input of a control box if one is present. The output then simulates the start button for the control box and it is switched to ground if the button at the light blue cable is pressed.

12V battery (Red): This is the 12 Volt main supply from the battery to the Easy Keyless FP.

Main out (Purple): This output supplies the bike with 12 volts for the ignition/light/turn signals, horn, etc.

Ground (Black): This cable is connected to the frame or to the negative terminal of the battery.

Installation and operation:

The Fingerprint-Sensor has a 22 mm thread. This means the part can be screwed to the bike.

After you have connected the cables of the control module (please pay attention to good grounding here), you only have to lengthen the 6 wires of the gray cable that comes from the antenna module and reconnect them to the control module:

- Black to black (ground)
- Yellow to white (data from antenna to module)
- Dark red to dark green (data from module to sensor)
- Blue to orange (binary input to trigger the module)
- Red and white together with red (3.3 volt power supply from module to sensor)

You can then shrink the heat shrink tubing provided over the solder joints.

To **teach** the module, the **thin green cable is clamped to ground and the thin purple cable is left open**. Now up to 10 fingers can be trained. Now the start button is pressed and the module is activated. Now the corresponding finger is placed on the sensor. If it was placed correctly, it will be saved. The finger have to be place on the sensor again before it's finally saved. If the finger has been saved correctly, the sensor ring lights up blue and the module switches off. If there is an error, the ring lights up red before the module switches off. The next finger is trained in the same way. After 10 fingers have been trained, the module would attempt to teach another finger, delete the 10th finger again and save the last finger to memory location 10. The saved fingers 1 - 9 are then retained. This means that when a mechanic visits the workshop, he or she can get a storage space without having to retrain all of the other fingers. The fingerprints remain saved even after a power failure or the battery is disconnected.

To **delete all fingers**, the **purple cable is clamped to ground and the thin green cable is left open**. After the button has been pressed, a finger can be placed on the sensor to confirm deletion. After deleting the fingers, the module goes back to sleep so as not to consume any power.

For **“normal” operation**, the **thin purple cable and the thin green cable are clamped tightly to ground**. Now the module switches on for 15 seconds after pressing a button and waits for a finger. If this has been connected correctly, the module switches the main power to the bike. If a wrong finger is detected, the module goes back to sleep. If a finger has been detected and the power has been switched on, the same button can also be used in conjunction with a control box to start the moped. To do this, the “Start” output is connected to the respective input of the control box and the button is pressed for longer than 1/4 second. This switches the start button input of the control box to ground. However, this only works if the control box is not set in 2-button mode. If you press briefing for less than 1/4 second, the power supply to the bike switches off again and the module goes to sleep so as not to consume any electricity.

Please note that the Easy Keyless FP may only be installed by appropriately trained service technicians. The manufacturer's liability for any damage or disadvantages suffered by the user due to improper use or installation of the Easy Keyless FP is hereby expressly excluded.

Please observe the relevant traffic regulations. The Joost company further declares that the Easy Keyless FP will be compliant with 2014/53/EU, EN50364, EN00330 from the end of February 2024. If you have any further questions, please do not hesitate to contact us at info@elektronikbox.de.

We wish you a lot of fun with the Easy Keyless FP and always a safe journey!

Technical data:

- Dimension module:** 50 mm x 42 mm x 12 mm
- Antenna:** D. 31 x 22 mm, finger sensor 24 x 15 mm
- Power consumption in standby mode:** Maximum 30 uA
- Housing:** Black ABS, cast with 2-component casting compound
- Input voltage:** 9 - 18 volts
- Connections:** control cable 0.14 mm², power cable 1.5 mm²
- Maximum ambient temperature:** 60 degrees Celsius
- Maximum output current:** 15 Ampere