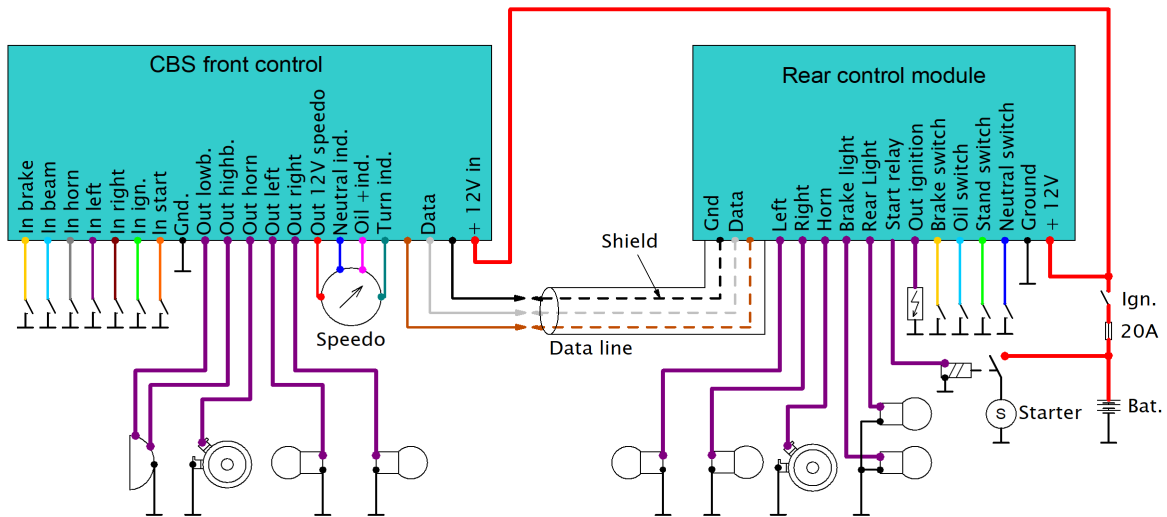


# Installation of the C-BS Harness from 1.2024



Connect all ground cables to the minus pole of the battery !

## Wiring of handlebar box:

**Front brake light switch input (yellow):** When switched to ground, the brake light is activated.

**Button or switch input for light switching (light blue):** The switch or button for the high beam is connected to this cable. The box switches the light when this pin is switched to ground. If the light switch is pressed for longer than 2 seconds in button mode, the light is switched off.

**Button input horn (grey):** The horn output is on when the button switches the pin to ground.

**Button or switch input indicator left (violet):** The indicator starts when the contact is closed to ground. This input is also used for the 2 - button mode.

**Button or switch input indicator right (dark brown):** The indicator starts when the contact is closed to ground. This input is also used for the 2 - button mode.

The warning light function is switched on in button mode by pressing the two flashing buttons simultaneously.

**Button or switch input engine stop (green):** When switching to ground, the ignition output is switched. In switch mode, the ignition is switched on when this input is switched to ground.

**Button input start relay (orange):** When switching to ground, 12V are switched for the start relay. In 5 button mode is the button also for switching on or off the ignition. A short press of below 0,3 seconds will change the ignition status. A longer press above 0,3 seconds will switch the starter as long as the button is pressed.

**Ground (black):** This cable is connected to the negative pole of the battery. Please do not clamp the cable to the handlebar ground. The usual steering head bearings often have a poor earth connection due to grease, rust, etc.. This can otherwise lead to "funny" errors.

**Output low beam:** This connection supplies the 12V voltage for the low beam. When starting, the light is automatically switched off to have enough current for the starter.

**High beam output:** This connector provides the 12V supply for the high beam.

**Horn output:** This is the 12V switching output for the horn. Depending on the available space, the front box or the rear box can be used to connect a horn.

**Indicator left and right outputs:** These are the 12V switching outputs for the turn signals.

**Speedo outputs:** The thin red cable is used for the power supply of the speedo and, if necessary, the parking light. The darker cable goes to the neutral indicator, the pink cable goes to the oil control and the olive green cable goes to the indicator control.

**Data lines (light brown, white, black):** These are be connected to the shielded cable of the rear box. The black cable of the handlebar box is wired to the shield of the data line. The other two lines are connected 1:1.

**Power supply (red):** This line is connected via a fuse behind the ignition switch.

## Wiring frame box:

**Indicator left and right outputs:** These are the 12V switching outputs for the turn signals.

**Horn output:** This is the 12V switching output for the horn. Depending on the available space, the front box or the rear box can be used for connecting a horn.

**Brake light output:** The brake light is connected here.

**Output start relay:** The relay for the starter motor is connected here. Please do not connect the starter directly to the electronics box, but always via a relay.

**Output for ignition:** This output supplies the +12 volts for the ignition from the D-box. This output is switched on or off by pressing the engine stop button or by switching the engine stop switch.

**12V input (red thick):** The 12 V from the ignition lock to the box are connected here.

**Data line (Com.):** This line is connected to the COM lines of the front box. The shielding braid is connected to the black wire.

**Yellow:** Input for the rear brake light switch. The other end of the switch goes to ground.

**Light blue:** Input for the oil pressure switch. The other end of the switch is connected to earth.

**Green:** Input for the side stand switch. The other end of the switch is connected to earth.

**Dark blue:** Input for the neutral switch. The other end of the neutral switch is connected to ground.

The C-BS Harness can work in 3 configurations:

With the original switch and button fittings.

All functions can be controlled with only 2 push buttons

As a pure push-button control with the optionally available handlebar adapter

By the way, control via 2 buttons is very intuitive and no button combinations need to be learned:

Press left 1 x briefly: Switch left indicator on or off.

Right: Press 1 x briefly to switch the right indicator on or off.

Press both buttons briefly once: Hazard warning lights.

Press left button 2 x briefly: Switch between high and low beam.

Press right button 2 x briefly: Switch ignition on or off.

Press left and hold for 0.3 seconds: Horn.

Press right and hold for more than 0.3 seconds: Starter (only works when ignition is on).

## Programming the boxes:

You can change the different functions at any time. Before switching on the ignition switch, press the handbrake and the left flashing button and hold them until the power supply is on. After releasing the flashing button, the box is in setting mode. If you have a switch for the turn signals, you can simulate a push button by turning it on and off. A warning flash indicates that you are in the setting mode. The respective option is indicated by the number of flashes. In this way, you "shimmy" through a maximum of 9 menu items and make your desired settings with the left or right flashing button. In 2-button mode or when a handlebar adapter is connected, options 5 to 9 or 6 to 9 are omitted. The settings are retained without 12 Volt battery and can be changed again at any time.

Flashers	Mode	Left button	Right button	Description
1 x	Flasher auto cancel	On	Off	The flashers switch off after 40 flashes if you choose the left option.
2 x	Brake Flasher	On	Off	The brakelight flashes 3 times before it remains on when you brake.
3 x	Low light	On	Off	The indicators glow permanent if no direction indicator is set
4 x	Sidestand – and neutralswitch	Active	Not active	Safety options for the ignition and the start relay
5 x	Control your bike with just 2 buttons	2 buttons	6 buttons or switches	The CBS Harness can be controlled with 2 push buttons or with 5 or 6 buttons or switches
6 x	Control your bike with 5 or 6 buttons	5 buttons	6 buttons	You choose here if you use 5 or 6 buttons.
7 x	Engine off - Kill switch or button	Kill switch	Button	The ignition can be controlled via a permanent kill switch or a push button
8 x	Flasher switch or button control	Flasher switch	Button	The indicators can be controlled via a permanent switch or with buttons
9 x	Light switch or button control	Light switch	Lightbutton	The head light can be controlled via a permanent switch or with a button.

## Installation:

The cables for the control of the fittings may be as thin as 0.1 qmm. Only a very small current flows here in the switching state. The load cables, on the other hand, should have a cross-section of at least 1 qmm.

Please place the boxes and the control cables as far away as possible (>10cm) from the ignition cables. The ground connection to the frame should be as short as possible to avoid interference from the ignition system. Otherwise, the strangest errors can occur (turn signals go off now and then, the light sometimes switches for no reason, etc.). The boxes are relatively insensitive to EMC interference due to several blocking measures and software fuses, but precaution does not hurt. In any case, shielded plug connectors should be used.

Please note that the modules may only be installed by appropriately trained service technicians. Any liability on the part of the manufacturer for any damage or disadvantages suffered by the user as a result of improper use or installation of the electronics box is hereby expressly excluded.

Please observe the relevant traffic regulations. Joost further declares that these modules comply with the applicable CE standards and ROHS regulations. If you have any further questions, please do not hesitate to contact us at [info@elektronikbox.de](mailto:info@elektronikbox.de).

**We wish you a lot of fun with your new C-BS Harness!**