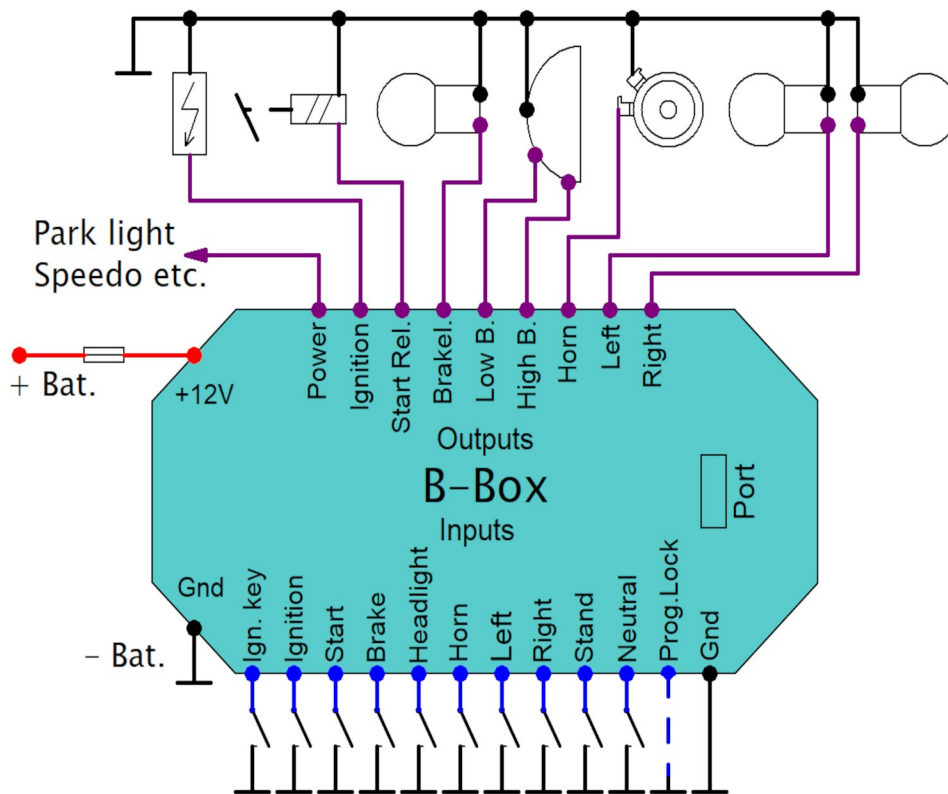


Installation manual Electronicbox Ver. B from 12 / 22

No time for manuals? No problem, it will take only 2 minutes of your time to read it and you will have more fun while the installation of your new B - Box.



+ 12 Volt main (Red): It is wired **direct to the battery**.

Ground (Black): This cable is connected to battery minus / ground. Please take care for a good connection to the minus pole.

Input Key switch: This input is wired to the key switch. The other end of the switch is wired to ground. The power output (Park light / Speedo / Rear light etc.) is active when this contact is closed to ground.

Button - or killswitch input Ignition: This input is wired to the ignition switch or to the engine stop switch. Pls. take care that the other end of the switch or button is **wired to ground**. You switch on or off the ignition by a press on the button or by using the engine stop switch

Button input start: This input is wired to the start button.

Input brake switch: Just connect the brake switch(es) to this input. The brake light is activated by switching this input to ground.

Button or switch input for the headlight: This is the connector for the head light switch. The head light changes when this input is connected to ground. In the button mode you can switch off the head light by pressing and hold the button for 2 seconds.

Button input horn: The horn output is activated when this input is switched to ground.

Button or switch input left indicators: The left flashers are activated when this input is switched to ground

Button or switch input right indicators: The right flashers are activated when this input is switched to ground.

By the way, you can activate an emergency flasher function by a press on both buttons at the same time if the „Button mode“ is chosen.

Input side stand switch: This input can be connected to the side stand. The ignition will switch off in the case if the option 1 in the table is activated and the gear box of your bike is not in the neutral position.

Input neutral switch: If you have option 1 of the table activated you can only start your bike if the ignition switch is closed to ground.

Input program lock: The adjusted settings in the B - Box can not be changed if this cable is connected to ground. You should connect it to ground if all settings are ready made. However, you can change it at any time if you open this connection.

Output power: This output is wired to the speedo / park light / plate light etc.

Output ignition: This output is wired to the 12 Volt input of the ignition.

Output start relay: This output is wired to the starter relay and can supply max. 10 Ampere to the starter relay. Don't wire the starter direct to this output!

Output brake light: This is the 12 Volt output to the brake light.

Output low beam: This output is wired to the low beam. The head light is switched off in the moment when you start your bike

Output high beam: This output is wired to the high beam part of the head light.

Output horn: This is the switched output to the horn. Please note that the B-Box can supply maximum 3 Ampere for this output. Some old horns have a higher current consumption what can destroy this output. A new horn usually need about 2,5 Ampere and cost below 10,-.

Outputs for the flashers left and right: These switched outputs are connected to the direction indicators. The flasher frequency is – of course constant, no matter if you use traditional bulbs or modern led lights.

Programming of the box:

You can change the functions of the box at any time if the „Program lock“ input is open. Press and hold the **„Left“ button and the brakeswitch** and switch on the key switch. The box is in the „programming“ mode when releasing the button. The number of flashes of the direction indicators show you the row number in the table. The first row is the setting for the side stand and neutral switch. You can activate the switches by pressing the „Left“ button or disable the switches by pressing the „Right“ button. The box change to the next option after a press on a direction button. The following options are possible:

| Number of flashes | Mode | Left flasher button | Right flasher button | Description |
|-------------------|---|---------------------|----------------------|---|
| 1 x | Neutral / sidestand switches enabled or disabled | Active | Disabled | Safety control of ignition and start function active or not. |
| 2 x | Flasher auto off | Off | On | The direction indicators switch off after 50 flashes |
| 3 x | Engine stop switch or pushbutton for ignition on | Engine stop switch | Push button | The ignition is on in switch mode if the contact is closed to ground or if switch on / off in button mode. |
| 4 x | RFID antenna | Installed | Not installed | The power is controlled via traditional key switch or RFID chip. |
| 5 x | Brake light flasher | On | Off | The brake light flashes for 3 times until it is continuous on when brake. |
| 6 x | 2 button mode | On | Off | The complete box is controlled just by the 2 direction buttons, when activated. |
| 7 x | Ignition button / Start button combination possible | 5 buttons | 6 buttons | The ignition / start can be controlled by one or 2 buttons. The „Start input is unconnected in 5 button mode. |
| 8 x | Head light control | Switch | Push button | The head light is controlled by a switch or a button |
| 9 x | Indicator control | Switch | Push button | The direction indicators are controlled by a switch or 2 buttons. |

The settings are stored in the B-Box after 9 presses on a direction button. However in the 2 button mode are the settings stored after 6 presses. You can protect the box against an accidental change of the settings if you wire the „Prog.Lock“ input to ground.

RFID Mode: For the RFID antenna you'll need a small button what is wired instead of the key switch to the box. You can use the optional available antenna when you connect the antenna to the 4 pin connector and activate the option 4 in the table. Then you just need to „teach“ the B -Box the unique code of the 2 electronic keys. The procedure is almost similar to the procedure of the other options: Just press the „Left“ or „Right“ button and press the new „key“ button. The box „learn“ the code of the key when you place the key within 10 seconds in front of the antenna. A flash of the direction indicators indicate that the box have learned the code. Now repeat the procedure with the other key and the other direction button. By the way, don't install the antenna behind any metal. This will reduce the maximum distance to the key or it will not work correct.

The „2 button mode“ is very intuitive and no button combinations need to be learned:

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

Press right 1 x briefly: 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 more than 0.3 seconds: Horn.

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

Installation:

Connect the red cable to plus 12 Volt and the black cable to the minus pole of the battery. **You can connect the plus cable direct to the battery if you use the RFID antenna. The red cable could be connected after the ignition switch if you don't use the RFID antenna.** The wires from the handle bar switches to the B-Box can be as thin as possible. There is no significant current through these cables. The cables to the loads should have a minimum size of 0,75 qmm. Please take care that the wires to the handlebar switches are as far as possible away wired from the ignition cables. It is always a good idea to use a 6 wire shielded cable to the handlebar switches in order to reduce the possibility of electric disturbances from the spark plug cables. Keep a minimum distance of 10 cm between the input cables to the spark plug cables if you don't use shielded cables to the handle bar buttons or switches.

The B - Box should be installed by professional well trained engineers only. Please check your local regulations regarding the traffic light rules in your country before of the use of the B - Box in your bike. Please be aware that we are not responsible for any hazards, damages or disadvantages due to the use of the electronicbox. The electronicbox devices are registered under the number DE54933725 WEEE as B2C device. We also declare that the B - Box is conform to the CE and ROHS regulations for the European market.

We tried to keep the functions of the B - Box and this manual as simple as possible. If you have any questions while the installation please don't hesitate to contact us at info@elektronikbox.de .

We wish you to have a lot of fun with your new B - Box in your bike and of course always a safely trip!