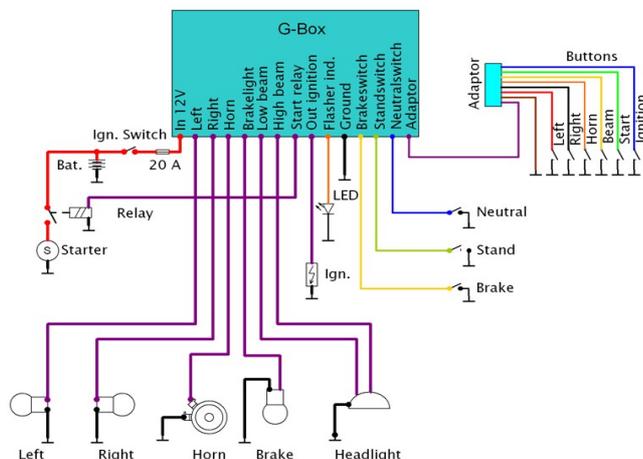


Installation manual for the electronicbox, version G

No time for manuals? No problem, this will take only 3 minutes of your time to read it and you will have more fun while the installation of your new G-Box.

The G-Box comes together with a handle bar adapter and a 2 meter shielded 2 pin cable what can use for the connection between the handle bar adapter and the G-Box. **Please note that the G-Box is made for the control with momentary push buttons but not for the control with permanent switches!** The handle bar adapter makes the wiring easy and almost invisible. You will need only one thin cable from the handle bar to the G-Box. Just connect the push buttons in your handle bar to the adapter as described in the picture:



The **brown cable** from the adaptor is connected to the shield of the cable and the push buttons are connected with one pin to the shield as well. However, you can also use the ground of the handle bar. We would recommend to use the shield of the cable as well, what is connected to the G-Box on the other side. The reason is that the ground of the handle bar might be different to the ground of the frame due to possible poor connection to the frame what might result in "funny" unwanted functions of the G-Box. Just connect the **purple / violet cable** from the handle bar adapter via the shielded cable with the thin **purple cable** of the G-Box. If you use **2 handle bar adapters** (version G2) then connect the purple and the brown cables from both sides. The unused cables can be cut and insulated.

The power outputs are from left to right:

+ 12 Volt input from ignition lock (big red cable): This is the 12 volt power input for the box and the power outputs. The outputs of the box are self resettable in the case of a short circuit. However, We have wired a 20 Ampere fuse in the line, cause the temperatures in the case of a short circuit will reach about 120 degree C what might result in small flaws in the plastic housing and a possible loose of the water protection.

Flasher outputs left and right: These are the power outputs for the flashers. The flasher frequency is independent of the load. So, problems with led flashers are a matter of the past.

Output horn: This is the 12 Volt output to the horn, what is active by a button press. **Be careful, this output can control modern horns with maximum 3 Ampere. Every current above this value might destroy this output.**

Output brake light: This output is connected to the rear light or the brake light / rear light combination. You can use the complete rear light as brake light as well if you want to wire only 1 cable to the rear light. This function can be enabled with the menu option 4, what is described at page 2.

Output low beam: This is the 12 Volt output for the low beam headlight. However, the light can be switched off when pressing the "start" button in order to have enough energy for the starter (further infos at page 2, "setup").

Output high beam: This is the 12 Volt output for the high beam bulb. By the way, you can switch off the head light by a press of 2 seconds on the light button.

Output start relay: This output is connected to the **start relay (max. 3 Ampere)** and not direct to the starter. You know that the small G - Box can not handle direct 100 Ampere for the starter and will need a start relay ;-). By the way, the internal start switch is off if the battery voltage drop below 6 Volt while starting. A weak battery result in fast switching on and off, what is bad for the start relay. Pls. take care that the battery is charged when start your bike.

Output to ignition: This output delivers the 12 Volt power to the ignition. You can switch on and off the ignition with a press on the "engine stop" button.

Black ground cable: This cable is connected direct to minus of the battery or the frame. However, it's very important to have a good ground connection. The most unwanted "funny functions" result from a poor ground connection.

Flasher control (Orange): This is the output for the flasher control led in your dashboard or speedo.

Brake light switch (Yellow): Just connect the both brake light switches to the box if you want to use this functions via the G-Box.

Side stand (Green): This cable is connected to the side stand switch if necessary. The other pin of the side stand switch is connected to ground.

Neutral switch (Blue): This cable is connected to the side stand switch if necessary. The other pin of the side stand switch is connected to ground. You can connect your neutral control led here as well. However it might happen that the led is not complete off if you have a gear on. Just wire in this case one or two 1 k-Ohm resistors between this cable and switched plus 12 Volt. This should help to reduce the glow of the led to zero.

You can activate the sidestand - and neutral switch function with the menu option nr 6, described at page 2. However, the unused switch need to be connected to ground if the sidestand - and neutral switch function is enabled.

Adjustment of the different functions:

The G - Box can be use for the most circumstances without any modification on the box. However, you can easily change some functions in the box without to be a software specialist. Just press the "horn" button while switching on the ignition switch and you are in the "setup mode". An one time emergency flash will indicate the "Mode 1". This ist just a small show function. The flashers will flash 2 times when switching on the ignition switch. Just feel free to press the "right" button if you like to activate this function. Alternatively you can switch off this function by pressing the "left" button and you will come immediately to "Mode 2" what is indicated with 2 flashes of the direction lamps. Feel free to continue to make your personal settings for your bike. All settings are stored in the box after 8 times pressing the "left" or "right" button. Your done! ...it's that simple... The G - Box will keep your settings after a power off. However, you can change the settings to every time you want. The following options are possible:

| Number of flashes | Mode | Left flasher button | Right flasher button | Description |
|-------------------|--------------------------------------|---------------------------|---------------------------|---|
| 1 x | Show flasher | Off | On | 2 emergency flashes when power on the box |
| 2 x | Flasher auto off | Off | On | The flasher switch off after 40 times |
| 3 x | Low light | Off | On | The flashers will glow with about 20 % when the flasher function is off |
| 4 x | Brake Light / Rear light combination | Off | On | The rear light will glim with about 40 % if no brake switch is activated. |
| 5 x | Start Stop button mode | 1 button for start / stop | 2 button for start / stop | The G - Box can be used with one or 2 buttons for start and stop |
| 6 x | stand - and neutral switches | Switches enabled | Switches disabled | Ignition and starter relay can be controlled by stand - and neutral sw. |

Installation:

The power outputs can deliver between 3 and 6 Ampere for each output. The maximum current of the G - Box is 15 Ampere due to the small size of the box. So, please take care that the 12 Volt power to the box is protected with a 15 Ampere fuse. The cables to the buttons should be more than 10 cm away from the ignition and spark plug cables (if possible) in order to prevent the box against emv disturbances. Otherwise the G - Box might can do some "funny" unwanted functions like changing the light, switching on the flashers, etc. **It's also a good idea to use the shielded cable what comes together with the G-Box for the connection between handle bar adapter and box. Just use one of the inner cables for the extension of the thin violet cable between adapter and box and the other inner cable for the handle bar brake switch. A good ground connection between handle bar ground and chassis ground is important!**

The G - Box was developed for an implemenation in show bikes and racing bikes. It 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 G - 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 G - Box is conform to the CE and ROHS regulations for the European market. We tried to keep the functions of the G - 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 G - Box in your bike and of course always a safely trip!