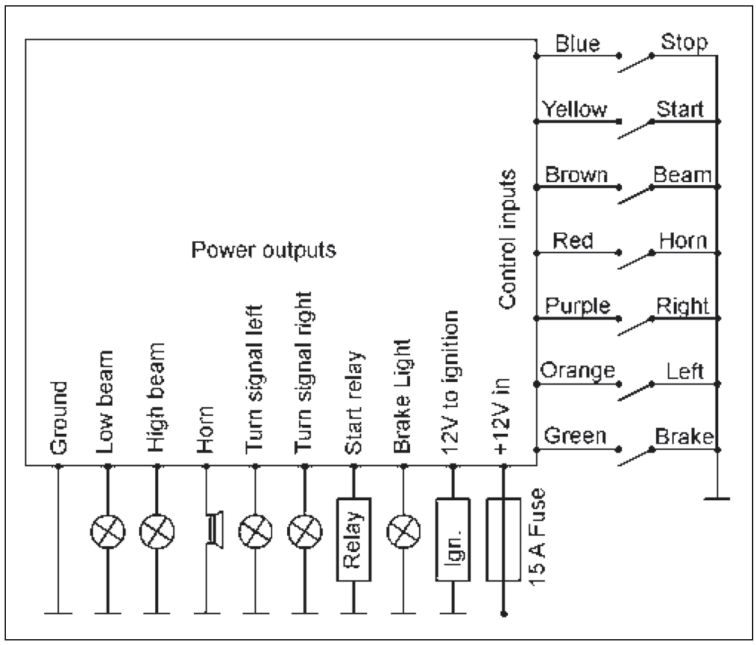
ZPN 749504

Installation instruction Elektronicbox, version D



Push button or switch input for the left flashers (orange): You can use this input for a push button or a switch that will connect the input to ground / chassis when pressed. A closed contact will start the left flasher output.

Push button or switch input for the right flashers (purple / violet): You can use this input for a push button or a switch that will connect the input to ground / chassis when pressed. A closed contact will start the right flasher output.

An emergency flasher function is active by pressing both direction buttons. This function is only enabled in the "button mode" for the flasher section.

Push button for the horn function (thin red): The horn will work when the button is pressed and the input cable is connected to ground via the button.

Button or Switch input for the headlight (brown): The headlight will toggle between high - and low beam when the button is pressed and the input cable is connected to ground.

Button input for the start relay (yellow): The relay output will switch the 12 volt for the starter relay when the button is pressed and the input cable is connected to ground.

Button input for engine stop (blue): This is the connection for the engine stop function. A press on the button will switch off the 12 Volt power from the D-Box to the ignition for 2 seconds.

Brake light switch (green): You can connect your brake light switch(es) to this cable and control your brake light or rear light with this input.

Ground (black): Just connect the black cable directly to the chassis and make a connection from this point to the buttons of the handle bar. It is important that the handle bar has the same ground connection, Otherwise the box might make some "funny" mistakes due to a poor grounding of the handle bar when a button is pressed.

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 info at page 2, "setup").

Output high beam: This is the 12 Volt output for the high beam bulb.

Output horn: This is the 12 Volt output to the horn, that is activated by a button press.

Flasher outputs left and right: These are the 12 Volt power outputs to the turn signals. However, the flasher frequency is independent of the load. So, problems with led flashers are a matter of the past.

Output start relay: This output is connected to the start relay and not direct to the starter. You know that the small D - Box can not handle direct 100 Ampere for the starter and will need a starter relay.
Output brake light / rear light: This output is connected to the brake light. You can use this cable for the rear light as well if you switch on the mode option 5 (see page 2).

12 V Output to ignition: This output is connected with the ignition. A press on the stop button will disconnect the ignition for 2 seconds.

Flasher control: Some new bikes need a flasher indicator lamp. Just take simple 2 diodes (1N4007 or similar) and connect the cathodes, (ring side) together and connect it to your indicator lamp. The other sides of the diodes can be connected to the flasher outputs. That's it...

+ 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 recommend to wire a 15 Ampere fuse in the line, as the temperatures in the case of a short circuit will reach about 120 degree C which might result in small flaws in the plastic housing and a possible loss of the water protection.

Adjustment of the different functions:
The D - Box can be used in most circumstances without any modification on the box. However, you can easily change some functions in the box without being a software specialist. Just press the "horn" button while switching on the ignition switch and you are in the "setup mode". A one time emergency flash will indicate the "Mode 1". This is just a small power-on function. The flashers will flash 2 times when switching on the ignition switch. 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" which is indicated with 2 flashes of the turn signals. 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 are done! ...it is that simple... The D - Box will keep your settings after a power off. However, you can change the settings every time you want. The following options are possible:

Number of flashes	Mode	Left flasher button	Right flasher button	Description
1 x	Power-on flasher	Off	On	2 emergency flashes when power on the box
2 x	Flasher auto off	Off	On	The flasher will switch off after 20 or 40 times
3 x	Flasher auto off	20 flashes	40 flashes	Number of repeats when "Flasher Auto" is on
4 x	Low light	On	Off	The flashers will glow with about 25 % when the flasher function is off
5 x	Brake light mode	Only brake light	Brake light / rear light combination	The rear light will glow with 40 % when the brake light switch is not pressed
6 x	Start / Stop	1 push button	2 push buttons	You can use one or two buttons for the start and stop functions
7 x	Headlight - switch or button	Switch	Momentary push button	The box can handle a headlight switch or a push button.
8 x	Flasher control	Switch	Momentary push button	The flasher can be controlled by push button or by a switch

Installation:
The power outputs can work with up to 6 Ampere for each output. The maximum current of the whole D - Box is 20 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 or 20 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 EMI disturbances. Otherwise the D - Box might do some "funny" unwanted functions like changing the light, switching on the flashers, etc. It is also a good idea to use shielded cables to the push buttons if available.

The D - Box was developed for an installation in show bikes and racing bikes. It should be installed by professional well trained engineers only. Please check the local regulations in your country before the use of the D - Box on 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 D - Box is conform to the CE and ROHS regulations for the European market.
We tried to keep the functions of the D - Box and this manual as simple as possible. If you have any questions during installation please don't hesitate to contact us at: sales@zodiac.nl

We wish you to have a lot of fun with your new D-Box on your bike and of course always Ride Safe!