

Thank you for buying an EGON product.

We design these products for a long working life using the best components we can find. We also design them to be easy to install, so that anyone can easily do a high-quality job. Please read the guides and safety instructions before you begin your installation.

And have fun and enjoy your installation!

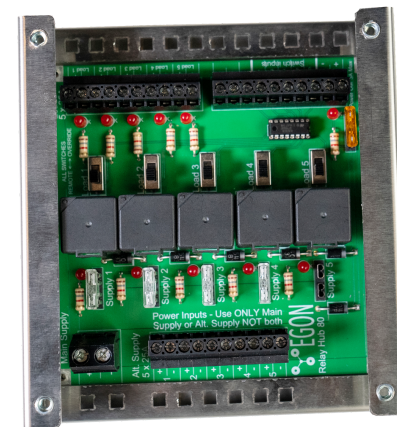
Best wishes from the inventors,
Heiner Klarmann and Andrew S White.

Scan this code with your device to access the installation guide web page

<https://www.egon.com.au/relay-hub-install>



EGON RELAY HUB



INSTALLATION and OPERATIONS MANUAL



WHAT IS THE RELAY-HUB?

The EGON Relay Hub is a 12 - 24 Volt is a combined switching and fusing hub which can be used as a standalone or in combination with an EGON DC Hub. It can also be an add on for switching or adding extra circuits.

It has been designed to make it extremely easy to integrate switching into your electrical DC system. It also works great as a combination of switched outputs and constant outputs with a battery box or small system installation where a more simplified version of the DC Hub is required.

It features:

- ✓ Blown fuse indicators
- ✓ Outputs active indicators
- ✓ 5 individual switching / constant power supply circuits
- ✓ Override switches on the board for added redundancy
- ✓ Switch power supply circuit
- ✓ High quality screw connectors for easy connection of cables
- ✓ Sockets for 5 x standard automotive relays (available worldwide)
- ✓ 80A maximum current throughout
- ✓ 5 x 25A output circuits



INSTALLATION

In our example drawing, Circuit 1 is being used to switch Load 1 through an external switch. Circuit 2 is being used to switch Load 2 through an external switch. Circuit 3 is being used to supply constant power to a fridge. Circuit 4 is not being used. Circuit 5 is being used to supply constant power to comms.

UNDERSTANDING

The trick to understanding the inner workings of the EGON Relay Hub is to understand that the circuits that are labeled Supply 1, Load 1, Alt. Supply 1, Switch Input 1 (all labeled on the circuit board) are all relating to the same circuit on the board.

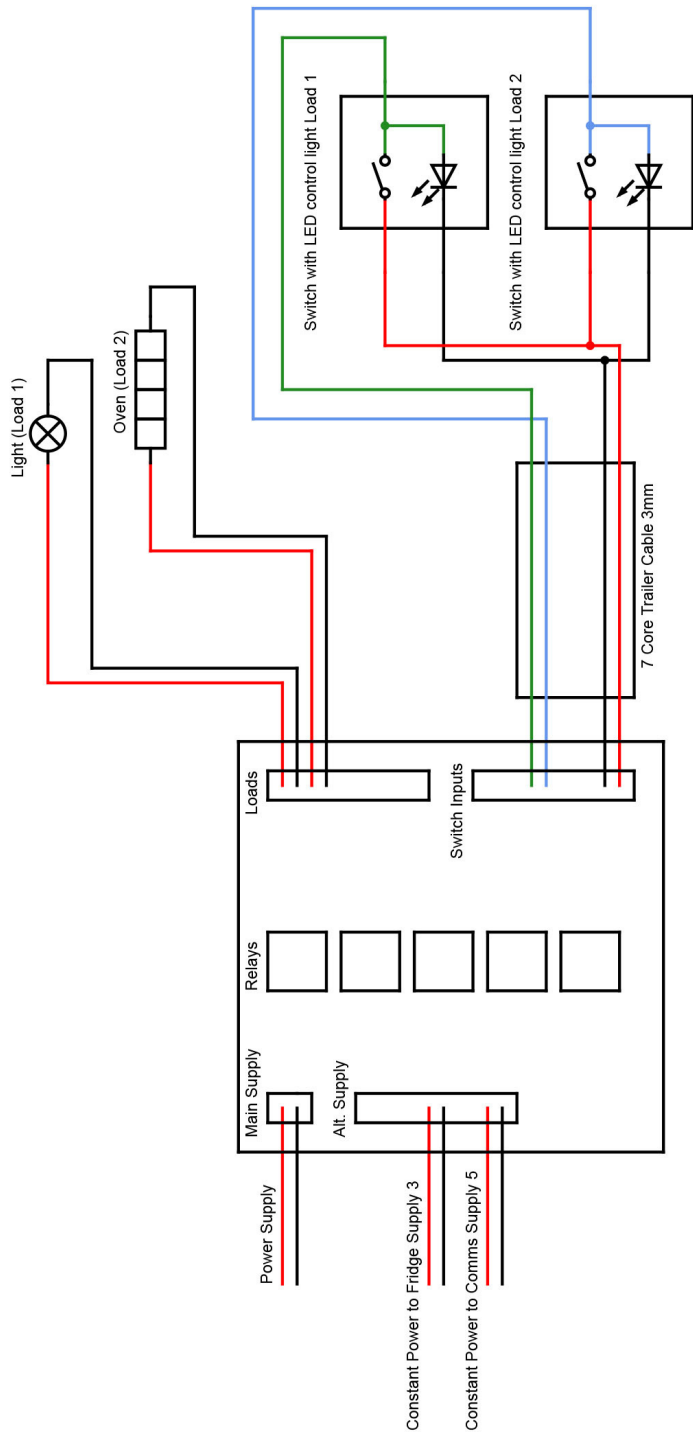
HOW TO CONNECT

Power Supply

Connect the Main Supply with an external fuse (80A max.) to a power supply. This can be a DC Hub, Battery Box, House- or Auxiliary-Battery or even your Start-Battery if you want to use this to power the electrical system that you are about to install. Now you have established the power supply to the board. Next step is to add a fuse to Supply 1 which will then power up the Alt. Supply 1 circuit and gives power to the Load 1 relay. The Load 1 relay when switched on will give power to the Load 1 pos and neg terminals.

To switch the relay, you can either use the override switch on the board which powers the activation circuit of the relay, or you can use an external switch.

Note: When the relay output is active the LED next to the Load 1 terminals will light up.



The following connection diagram shows a combination of switched, constant power loads and external switching.

External Switch

To add an external switch, you can run a 3-core cable from the switch input terminals on the board to your switch. For multiple switched circuits run 4, 5, 6 or 7-core cable. Add a fuse to the Power Out circuit (maximum 3 A).

This will power the switch inputs pos and neg terminals. These will act as a power supply for your switches.

The switch Inputs 1 through 5 will act as a signal return from the switch to activate the relay.

Switch Input 1 will activate the Load 1 relay.

Switch Input 2 will activate the Load 2 relay, and so on.

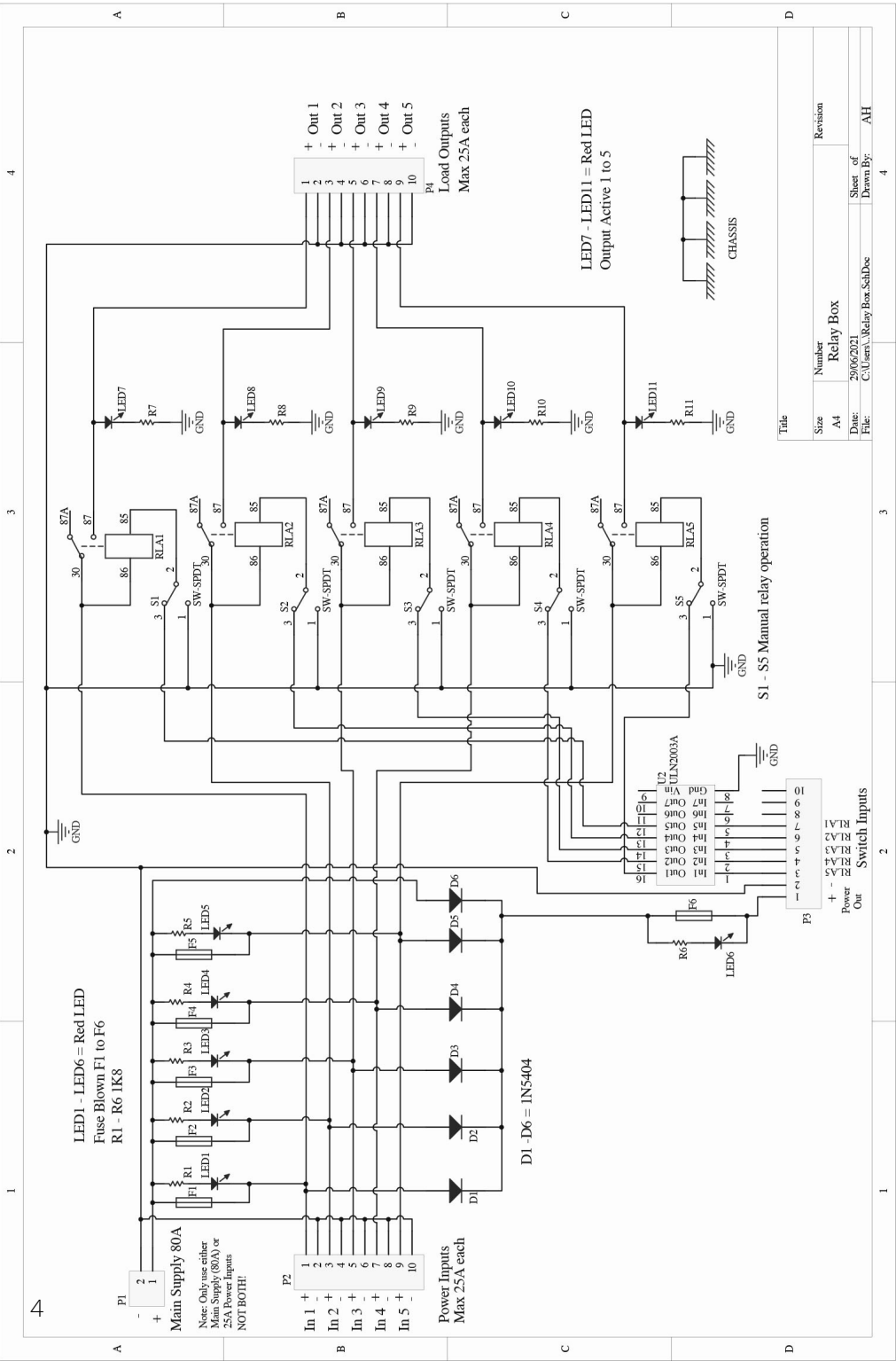
Switched Load

To connect a switched load (light, pump, oven, etc) use twin core cable and run it from your load to the load terminals on the board.

Constant Power Load

To connect a constant power load (fridge, comms, etc) use twin core cable and run it from the load to the Alt. Supply terminals on the board.
Note: You can use a circuit for switching and constant power supply at the same time. You just need to make that the fuse rating is chosen accordingly to being able to supply the switched load and the constant load. Please make sure that the fuse rating stays within the safe working limits of the connected cables and components that are connected to the EGON Relay Hub.

Recommended torque settings for 25A connectors: 0.6 Nm



SUPPORT

Support and additional installation information can be found here: (type these links into your browser window).
 Website: <https://www.egon.com.au/>
 Email: support@egon.com.au
 YouTube: <https://bit.ly/EGONYoutube>.

SAFETY FIRST

Please read these instructions and guides BEFORE you begin your installation. They will save time, improve performance and keep you and your vehicle/installation safe.

PAY SPECIAL ATTENTION:

- ✓ To the location of fuses. ALL batteries MUST be fused as close to the battery as possible. **This is VERY important!** Do not rely on the fuses built into the Relay-Hub for this.
- ✓ To the size of cables you use. Cables that are too thin can cause heat build-up and reduce efficiency of chargers and accessories by a large factor.
- ✓ All connections. We've made connecting cables extremely easy! But one can still get them wrong, so please check your own work. The copper must be clean and enter into the connection cleanly (no bits of copper wire hanging out) and the screw tightened firmly. (see torque settings for guides).
- ✓ Fuse sizes. Fuses protect the cables from burning in case of a short-circuit. So fuses must be capable of handling the current required to run the accessory, but NOT MORE THAN 25% of that. Accessory manufacturers will recommended fuse sizes. Don't think its okay to change these! These are provided to protect against fire.
- ✓ Car batteries can produce a huge amount of energy, and short-circuit fires cannot easily be put out. Pay attention to your work and stick to these guidelines. If you think you know better, you are fooling yourself and could be putting yourself and your family in danger.