NEXT GENERATION

DC-HUB NANO

INSTALLATION AND OPERATIONS MANUAL

The compact solution for simplifying and standardising DC installations.

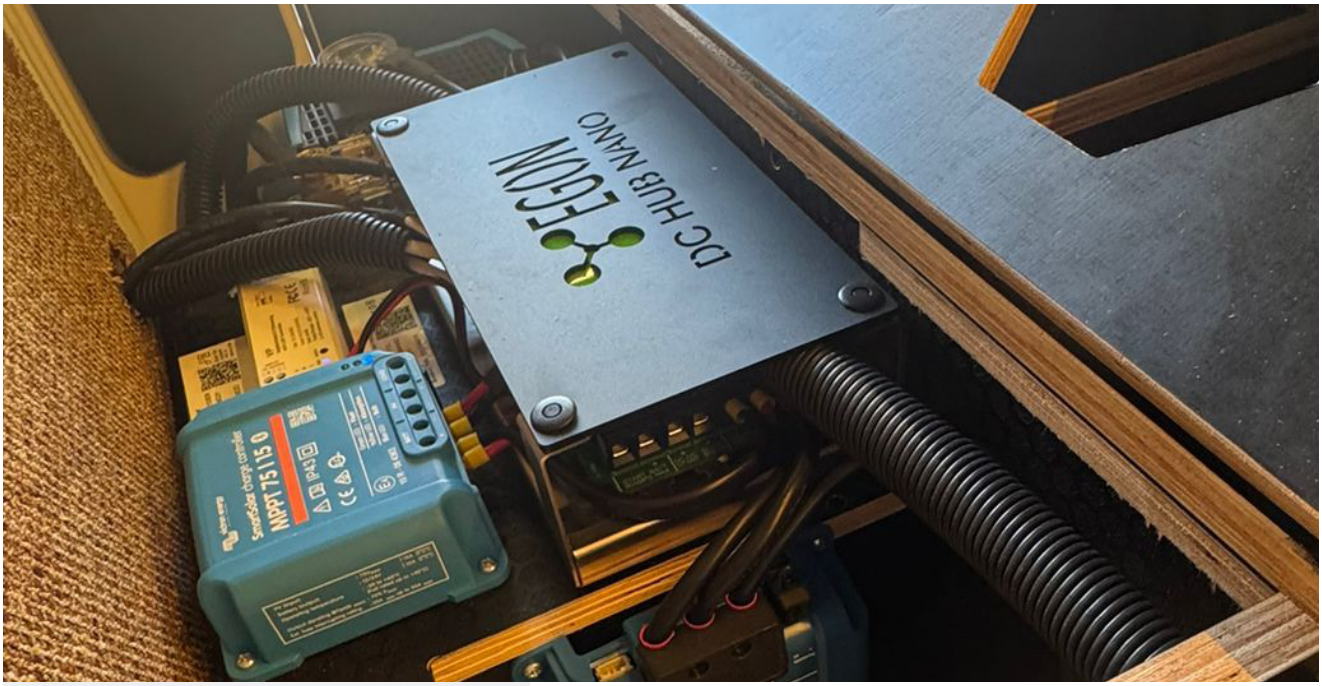
EGON

GAME-CHANGING SIMPLICITY

Designed and made in Australia.

Klarmann White Innovations ABN: 69637144088

THE NESPRESSO OF DC INSTALLATIONS

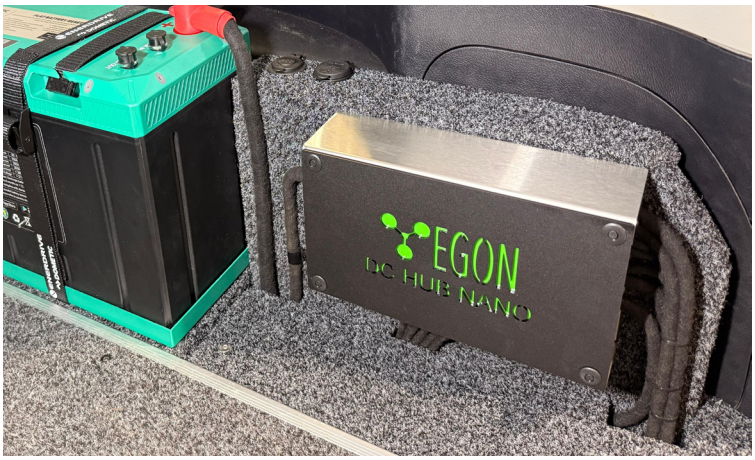


Thank you for purchasing an EGON product!

Whether this is your first EGON purchase or your 10th, we appreciate your trust in us. You won't be disappointed.

EGON was born from a need for quicker, standardised and more efficient installations. Plain and simple. So, that's what we bring to you in the **EGON DC Hub NANO.**

We like to think of our EGON Hubs as the Nespresso of in-vehicle DC installations. To do something that's been done for decades, but altogether easier, faster, cheaper and just better at everything.
This is the game-changing solution that offers simplicity in vehicle builds you've never dreamed of. Sound too confident? We know.



TIME FOR YOU TO MEET THE DC-HUB NANO

The quality of the components is top-notch and the device is designed by a German automotive engineer (that's Heiner) and adored by a gallivanting 4WD explorer (that's Andrew). What else do you need to know? Ah, yes! The installation instructions.

If we had few words to describe the DC-Hub NANO, they'd be:

SIMPLE

COMPACT

OUT-OF-THE-BOX

Thank you for choosing the EGON DC-Hub Nano.

The DC-Hub Nano is a compact, engineered DC power distribution hub designed to standardize and simplify 12V and 24V electrical systems in touring vehicles, campers, vans, and mobile setups. Rather than relying on custom, hand-built wiring looms that vary from installer to installer, the DC-Hub Nano provides a single, clearly defined, and repeatable electrical architecture.

That's more time enjoying your build and less time pulling your hair out.

GET TO KNOW THE NANO'S BEST FEATURES

All critical distribution logic—fusing locations, current paths, and connection grouping—has been engineered into the board. Your job is to size cables correctly, install appropriate fuses, and follow the clearly labelled terminals.

Used correctly, the DC-Hub NANO will:

1. Dramatically reduce wiring complexity.
2. Eliminate many common causes of electrical failure.
3. Make installations easier to understand, inspect, and service.
4. Provide a professional, repeatable outcome even for DIY installers.

2. Safety Information

2.1 Read before installing.
DC power systems store and transfer significant energy. Incorrect installation can result in fire, damage to equipment, or serious personal injury. Take your time, read this manual fully, and do not proceed if you are unsure about any step.

2.2 General Safety Rules
• Always disconnect all batteries, chargers, and solar inputs before starting work.
• Never work on live circuits. Confirm circuits are de-energized with a multimeter.
• Wear eye protection and remove rings, watches, and metal jewelry.
• Secure all cabling to prevent vibration damage in high-vibration conditions.
• Never exceed the rated current of connectors, cables, or fuses.

2.3 Fusing rules (critical)
All batteries must be externally fused as close to the battery as possible (within 30 cm).
• Fuses on the DC-Hub Nano do NOT replace battery protection fuses.
• Fuse size must always protect the cable first, then the device.
• Never install a fuse with a higher rating than the cable can safely carry.

3. Product Overview

3.1 Brief

The EGON DC-Hub Dual is designed for dual dc/dc charger systems that demand professional-grade distribution, clear fault-finding, and long-term reliability.

3.2 The DC-Hub NANO provides:

- A centralised connection point for start battery, auxiliary battery, solar, and DC-DC chargers.
- Three high-current 80A fused input/output circuits.
- Five 25A fused accessory circuits that can be used as inputs or outputs.
- Dedicated DC-DC charger and solar interfaces to remove wiring guesswork.

4. Specifications

Electrical

- System voltage: 12V / 24V DC
- House battery input 150A max current
- Start battery input 80A max current
- High-current I/O circuits: 3 × 80A max
- Solar input 60A max current
- DC-DC charger 80A max current
- 3x 80A input/output
- 5x 25A input/output
- Fuse types: F1–F5 blade fuses, FM1–FM5 midi fuses

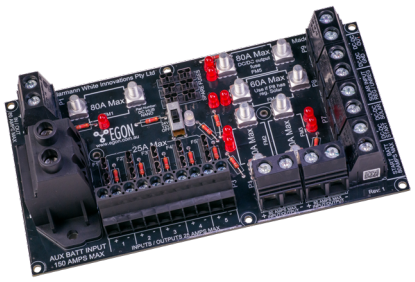
Environmental

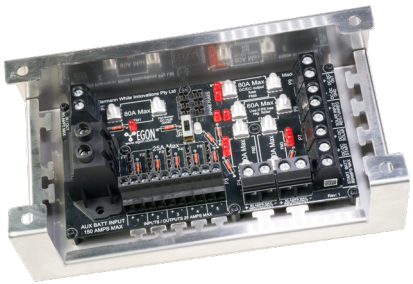
- Intended for automotive, mobile and limited marine applications.
- Install in a dry, protected location away from extreme heat, direct water (including splashes) and extreme dust exposure. Not suitable for installation in an engine bay.

ALL THE GEAR, HOPEFULLY SOME IDEA.

Here's what you'll need:

- Cable cutters
- Screwdrivers
- This installation guide
- Your music of choice
- ***Optional:*** Your spectacles. We don't judge.





DC-HUB NANO

DC INSTALLATION IS NOW FAST AND SIMPLE
JUST FOLLOW THE STEPS BELOW

The DC Hub NANO groups connections by function. Follow the functional labels on the Hub.

6. Connection Overview

Connection descriptions provided are based on the logic that current flows in or out of the DC Hub NANO. For example P9 is the DC-DC charger power ouput, but is described on the NANO as a charge input because the current will be flowing into the NANO. And, P7 is the DC-DC charger supply for power from solar and start battery / alternator and is described on the DC-Hub as an output because the current is flowing out of the DC-Hub and into the DC/DC charger.

P1 High-current input/output circuits 80 amp max – FM1 Midi

P2 Auxiliary (house) battery input: 150 amp max – externally at house battery 150 Amp Mega max

P3 General-purpose input/output circuits: 5 x 25 amp max - F1 – F5 standard blade fuse

P4 High-current input/output circuits 80 amp max - FM2 midi

P5 High-current input/output circuits 80 amp max - FM3 midi

P6 Start battery input 80 amp max – Externally fused at start battery 80 Amp midi max

P7 Outputs for start battery and solar panel to DC-DC input connections – No fuse

P8 Solar input regulated and unregulated see chapter 6.1 for details 60 amp max – FM4 Midi 60 amp max

P9 DC/DC charger input 80 amp max – FM5 Midi 80 amp max

NB Do not use ferrules. The connectors are designed to clamp multi-core copper cable.

NB 99.9% of the few returns we've had of this product are due to the connectors not being tightened sufficiently. If arcing occurs because of this, the temperature of the connection can be sufficient to damage the connector.

If tightened sufficiently and current not exceeded - this cannot happen.

Connectors cannot loosen by themselves. **So this part is up to you!**

6.1 Solar Configurations

Unregulated solar (DC-DC charger with MPPT)

- For DC-DC charger with in-built MPPT (e.g Redarc BC-DC)
- Solar connects directly to DC-DC charger via P8
- DC-DC solar input cable connects via P6
- Fuse FM4 must **NOT** be installed.

Regulated solar (external MPPT):

- Solar connect to an external MPPT regulator.
- MPPT output connects to P8.
- Fuse FM4 must be installed.

6.2 Ground Connections

All ground (negative) connections return to the common negative bus on the DC-Hub NANO. (This operates as a in-built negative bus bar)

Ensure all high-current devices have an appropriately sized negative cable back to the NANO or to a properly engineered common ground point tied into the NANO's ground.

6.3 Wire Guage and Fuse Selection Guide

Always size cables based on current, length, and acceptable voltage drop. The table below is a general guide for typical automotive cable sizes used with the DC-Hub NANO.

Cable Size	Nom. Area mm2	Typical Single Core Amp Rating	Typical Dual Core Max Amp Rating	Lug/Crimp	Heatshrink
3mm	1	5A - 10A	7.5A	red	3mm
4mm	2	10A - 20A	15A	blue	6mm
6mm	5	20A - 35A	30A	yellow	10mm
8B&S	8	35A - 65A	50A	10mm2	10mm
6B&S	14	65A - 120A	100A	16mm2	13mm
3B&S	25	100A - 175A	150A	25mm2	19mm
1B&S	35	150A - 200A		35mm2	19mm
0B&S	50	200A - 250A		50mm2	25mm
00B&S	68	250A - 300A		70mm2	25mm
000B&S	90	300A - 350A		95mm2	25mm

7. Installation Steps. In this order

Mount spacers in the bracket with screws inserted from the back. Do not over-tighten the screws. Just a firm hand will do.

Mount the bracket in a dry and easily accessible location. (Nano is not suited to under-bonnet installations.)

Insert the DC-Hub NANO into its bracket aligning connectors with matching T-slots, and secure onto the 8 spacers using supplied screws.

Place external battery fuses near each battery but do NOT insert fuses until installation is complete, or near completion (safety).

Route and secure all cabling for chargers, solar, batteries and loads.

Connect loads, chargers, batteries and solar inputs as planned to the Dc-Hub NANO.

Use cable ties to secure the cables to the T-bars on the mounting bracket. This is IMPORTANT as it reduces vibration wearing the cables loose.

Find the small swich on the board. Select 12V/24V or OFF. This controls the small white LED on the board that can be used to indicate when the NANO is energized.

Verify polarity and connector torques, and then energize the system by installing the battery fuse/s. Insert each load fuse one at a time and check system behavior at every step. As each fuse is inserted, a red LED that indicated an open but connectted circuit, should go out. If one stays on, check the fuse. (The red LED will only illuminate if there is an accessory connected).

Double check the tightness of ALL the connectors on the NANO. THIS IS A VITAL FINAL STEP. DO NOT SKIP IT!

Please don't skip any of these steps, especially the last one. We've built the DC-Hub NANO from the best components we can find anywhere in the world. We assemble them in Western Australia and everyone who has a part in them is proud of this amazing product. 1000's of DC-Hubs are working faultlessly all over the world, and the reliability is already legendary. So please make sure you read all this boring stuff. Hey, that means you, bloke with a beer in hand. We understand. Truly we do! Get it right, and it'll serve you right year after year.

RECOMMENDED TORQUE SETTINGS

Tightening screw terminals on the DC-Hub NANO properly is a VITAL step.

- 140A connector: 3Nm
- 80A/40A connectors: 1.8Nm
- 25A connectors: 0.8Nm

Don't forget to check screw tensions regularly for high-vibration applications.

8. Troubleshooting and Maintenance

If a circuit stops working:

- Check the relevant fuse and LED indicator.
- Inspect wiring and terminations.
- Confirm the load itself is functioning correctly.

Maintenance

Inspect the system periodically, especially after rough travel. Check terminal tightness, fuse condition, and cable routing. Early inspection prevents small issues becoming major failures.

9. Warranty and Support

The EGON DC-Hub NANO is covered by EGON's standard 4-Year warranty against defects in materials and workmanship when installed correctly. Damage caused by incorrect installation or misuse is not covered.

For support, installation guidance, and updates, contact EGON through the EGON website.

Refer to EGON's video installation guides and wiring examples for further help.

?

WHAT'S WITH THOSE CLEVER RED LEDS?

Each fused circuit on the DC-Hub includes an LED indicator. If a fuse blows and a load is present, the LED will illuminate, making fault-finding fast and intuitive.

Take an even closer look at how it works in our **Connection Example Video Library.**

DON'T GET YOUR WIRES CROSSED! NEED SUPPORT?

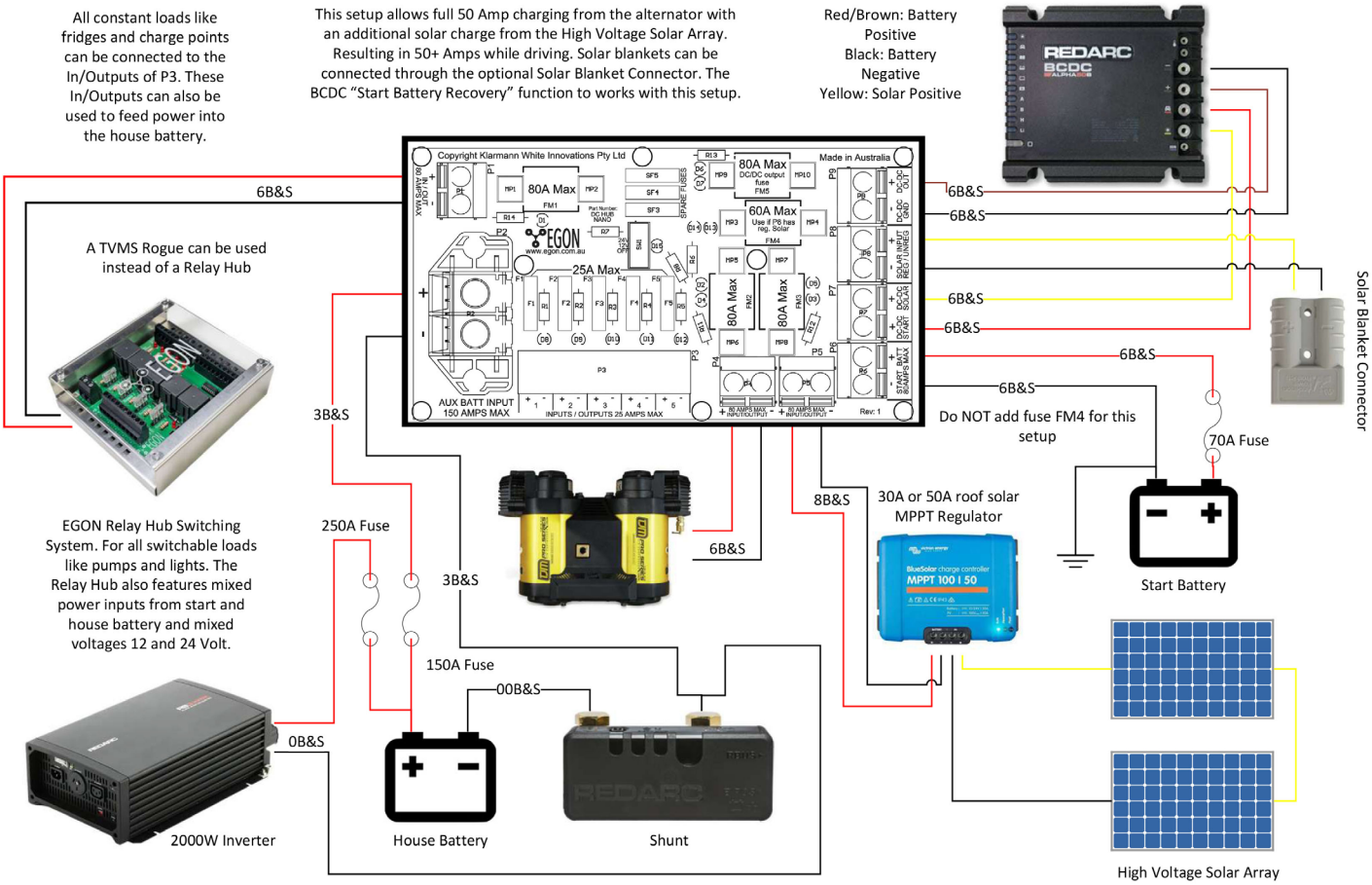
Contact support@egon.com.au

DC-HUB NANO

LET'S TALK COMPATIBILITY. HOW EGON MAKES ALL THESE PRODUCTS EASIER TO INSTAL

Check out these game-changing connection examples and you'll be on your way.

NANO AND REDARC

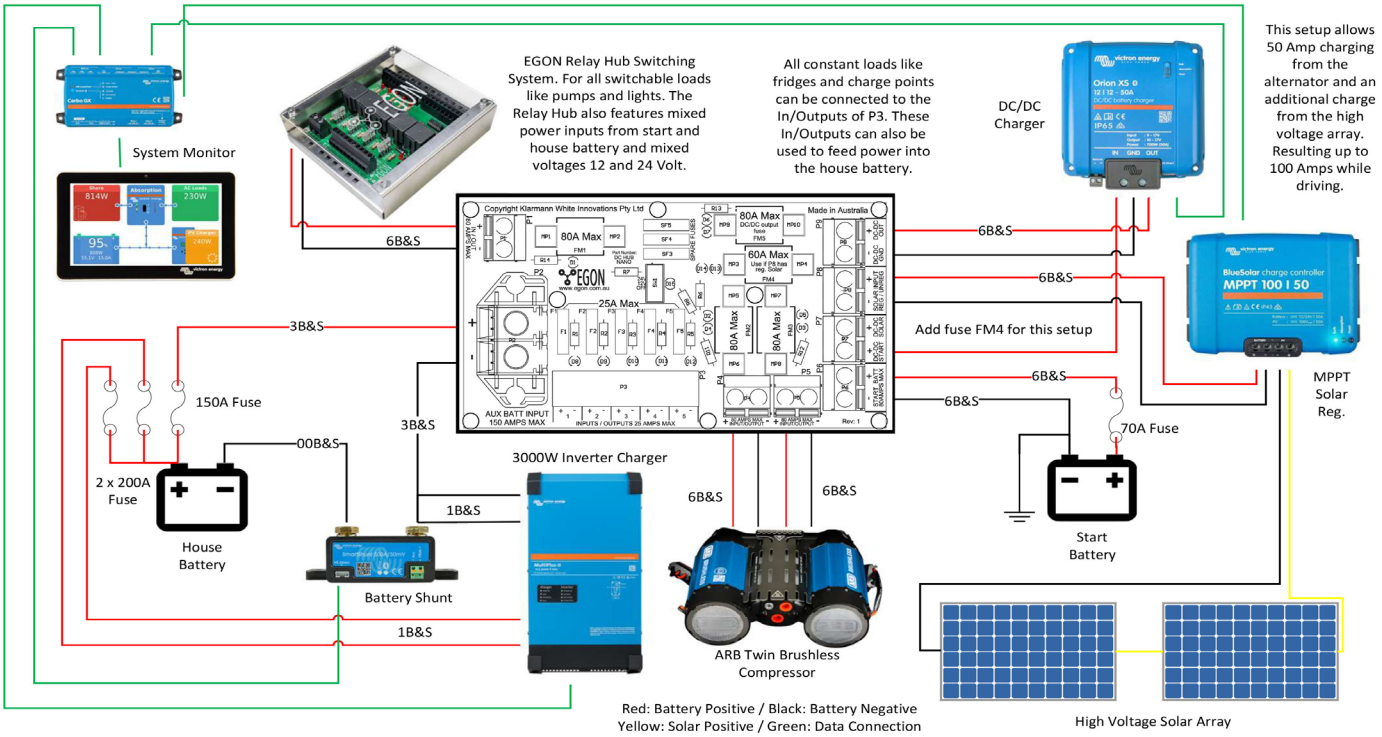


- **Red** cables? Connect to the house battery.
- **Blue** cables? Connect to the start battery.
- **Yellow** cables? Connect to the unregulated solar.

The above also depicts an integration of a shunt to monitor the state of charge of the house battery. If your inverter exceeds 80A fuse ratings, it can be integrated using an external fuse from the house battery (shown above).

DC-HUB NANO

NANO AND VICTRON



This configuration is a powerhouse and works beautifully in caravans, camper trailers, Troopcarriers, or even a canopy setup.

The DC-Hub brings everything together, handling your high charge current and battery capacity like a pro, while keeping the whole system streamlined and easy to manage.

Take an even closer look at how it works in our **Connection Example Video Library.**

EGON MAKES ENERDRIVE AND RENOGY EASIER TO INSTAL

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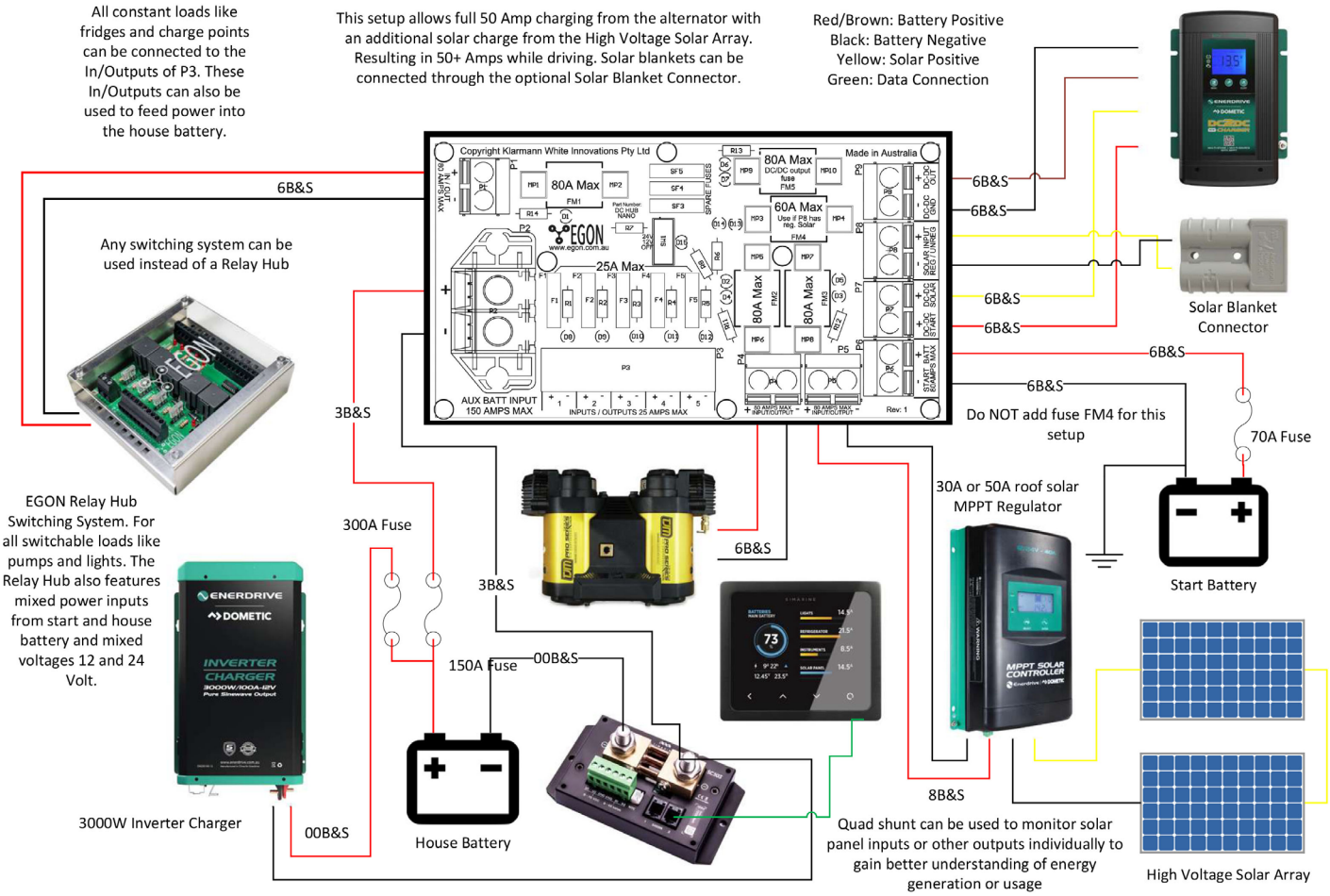
NANO AND ENERDRIVE



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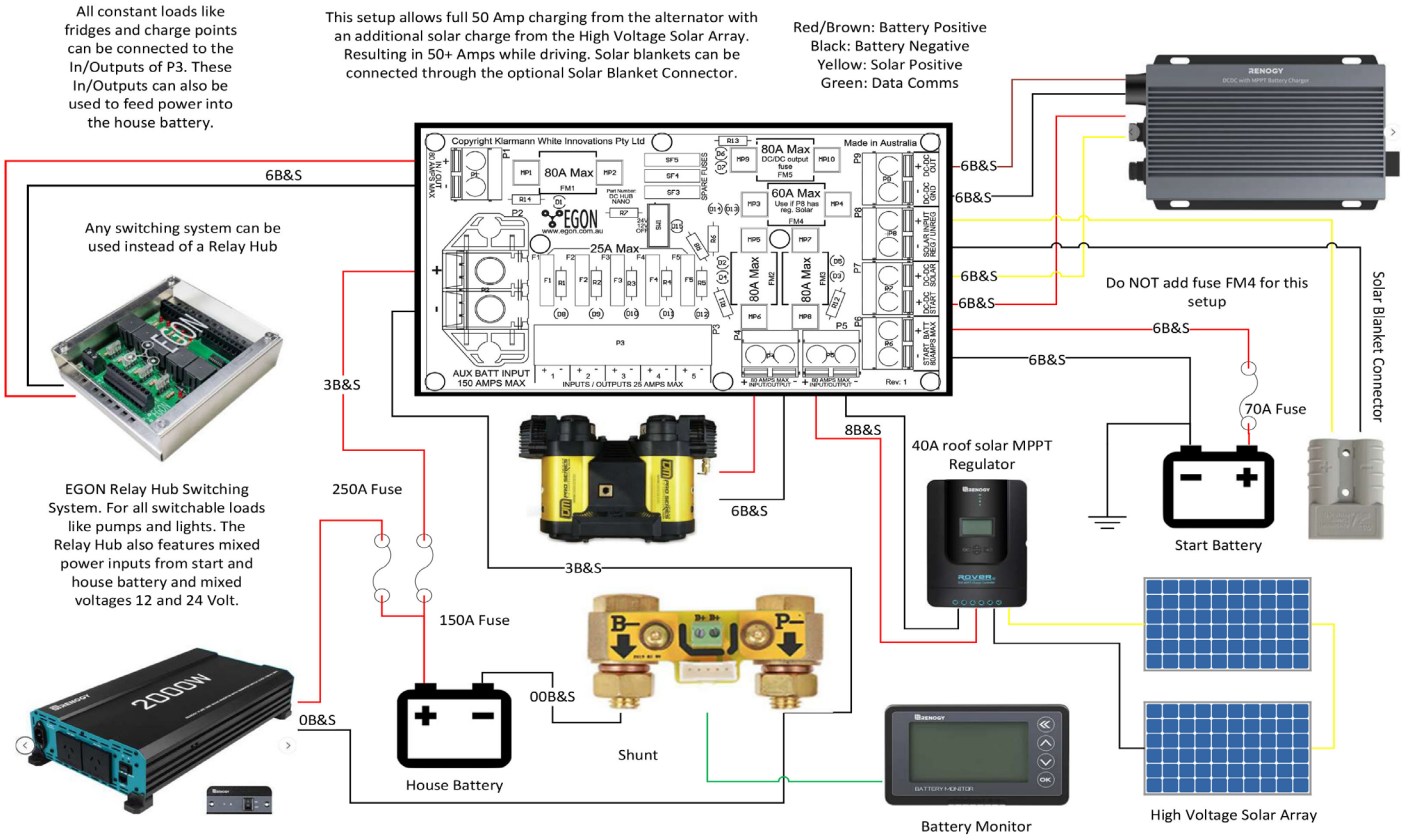
DC-HUB NANO

NANO AND RENOGY



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DC-HUB NANO

EGON MAKES ITECHWORLD EASIER TO INSTAL

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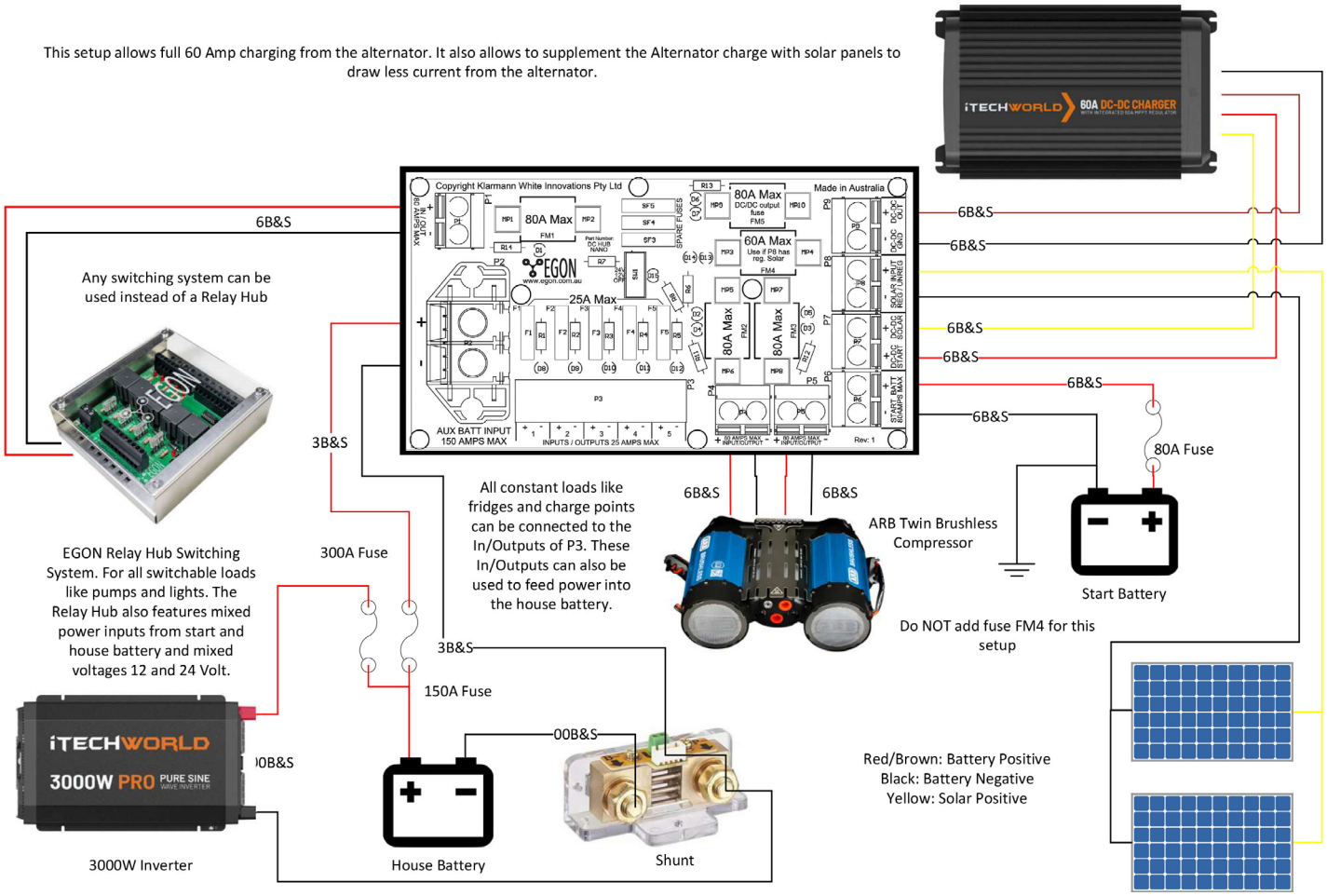
NANO AND ITECHWORLD



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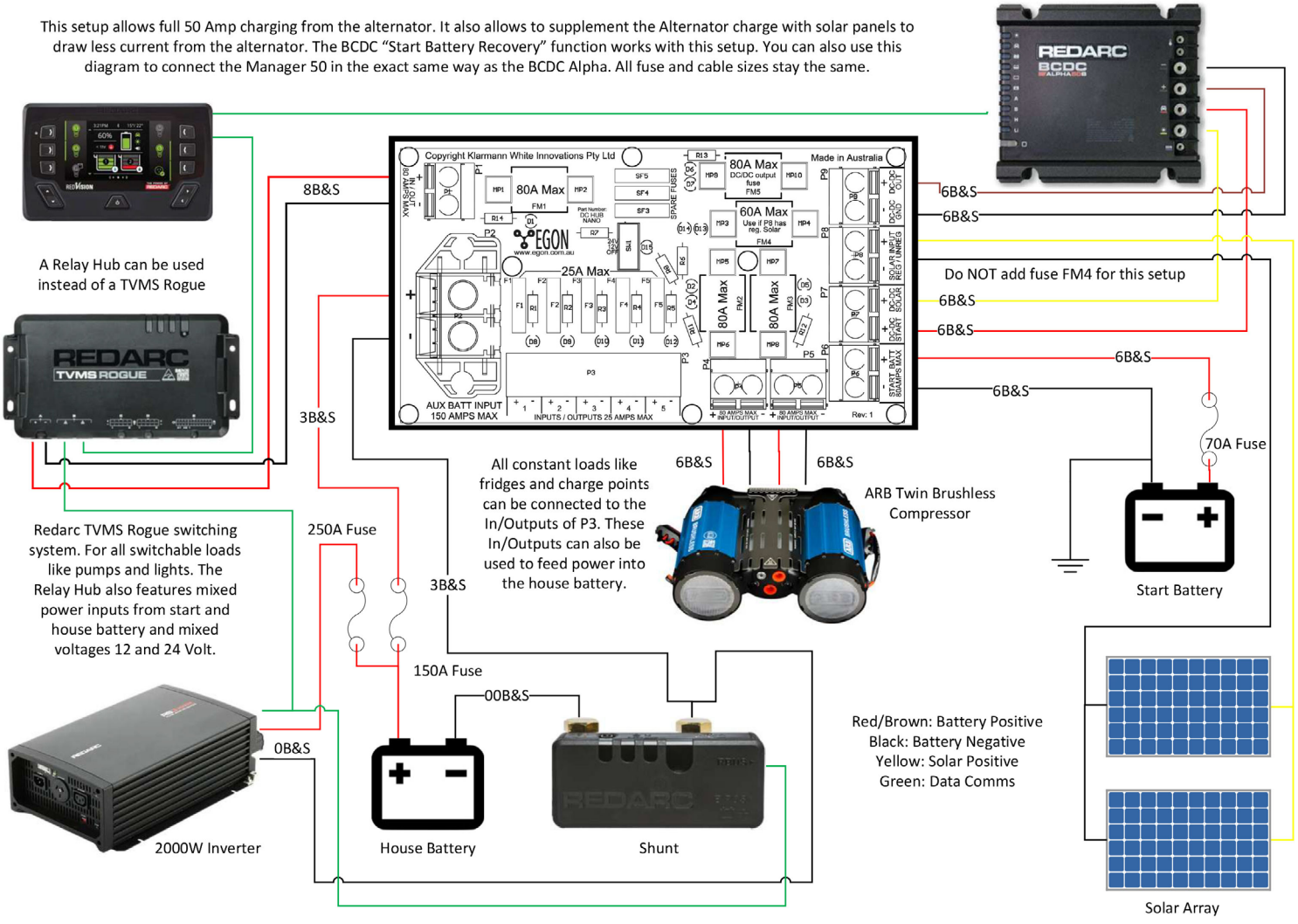
DC-HUB NANO - MORE

NANO WITH REDARC BCDC ALPHA 50 OR MANAGER 50

This setup allows full 50 Amp charging from the alternator. It also allows to supplement the Alternator charge with solar panels to draw less current from the alternator. The BCDC "Start Battery Recovery" function works with this setup. You can also use this diagram to connect the Manager 50 in the exact same way as the BCDC Alpha. All fuse and cable sizes stay the same.



DC-HUB NANO

EGON MAKES ITECHWORLD EASIER TO INSTAL

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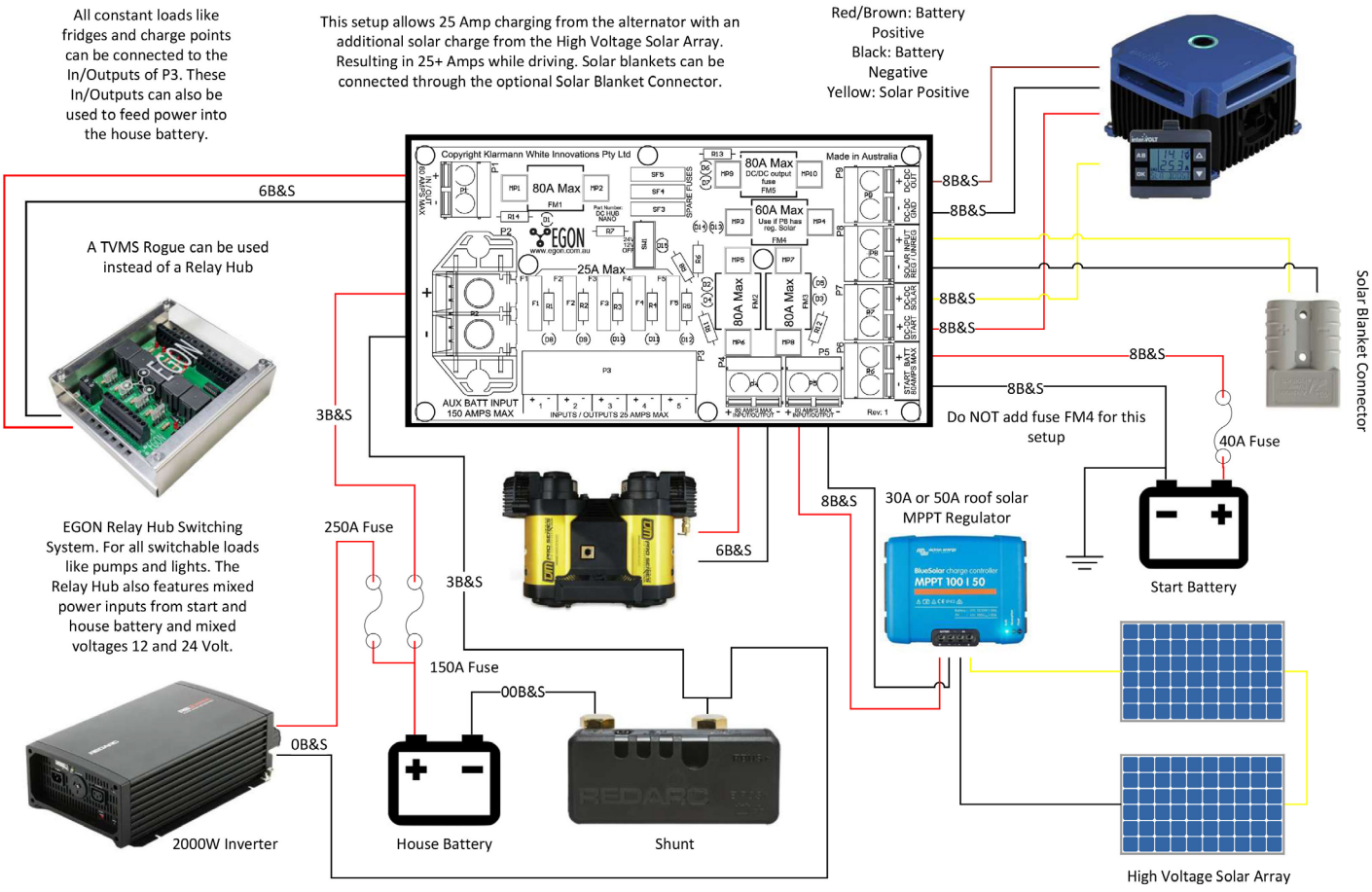
NANO, INTERVOLT AND REDARC



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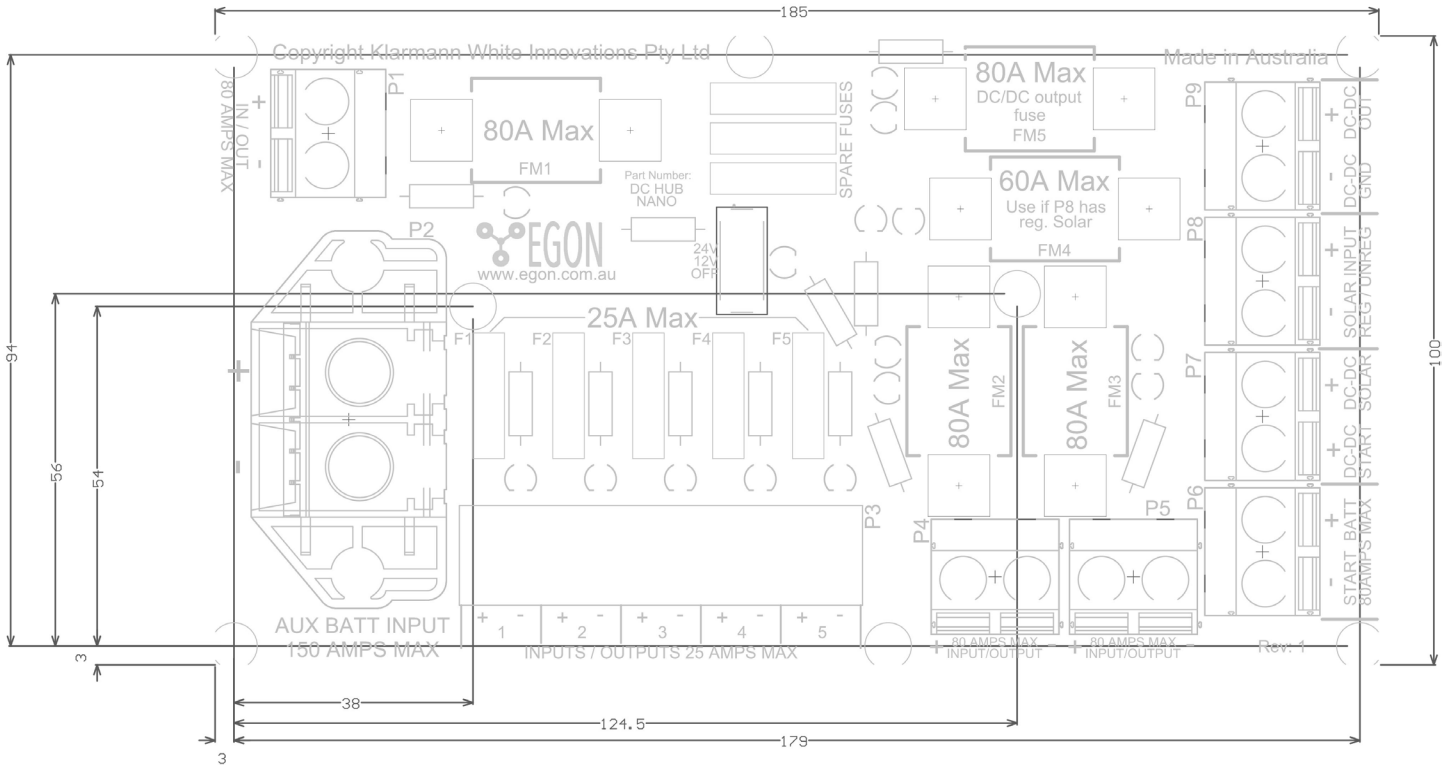

THIS STICKER IS INCLUDED WITH YOUR NANO

Record useful fuse allocation info and fix in the promimity of the Nano, or insert into the vehicle owner operator handbook.

DC-HUB 12/24V FUSE GUIDE EGON

Vehicle owner/details:

Nr.	A	description

POWER-DISTRIBUTION SIMPLICITY

A FINAL WORD. PAY ATTENTION TO THIS ONE:

- **All** batteries MUST be fused as close to the battery as possible. Do not rely on the fuses built into the DC-Hub NANO for this. **Read that again. Now.**
- Cables that are too thin can cause heat build-up and reduce the efficiency of chargers and accessories.
- DC-DC chargers should be placed as close as possible to the battery being charged, otherwise your system will not charge the battery efficiently.
- MPPT chargers should be also be placed as close as possible to the battery being charged.
- When inserting wires, the copper must be clean and enter into the connection cleanly.
- Tighten the screw terminals properly (see torque recommendations). PLEASE PAY ATTENTION TO THIS and double check them before signing off.
- 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 recommend fuse sizes for a reason.
  Cue: "We didn't start the fire" by Billy Joel.

By now, you should be experiencing the game-changing simplicity of the EGON DC-Hub NANO.

But if you've run into any trouble (or if you have any issues in the future), we've got your back.

Support Email: support@egon.com.au

Online Guides and Information: Installation guides click here

DC-Hub Installation:

Video How-Tos