DYNALITE— 60 AMP
POSITIVE EARTH
FITTING INSTRUCTIONS

IMPORTANT

CAREFULLY READ ALL INSTRUCTIONS
BEFORE FITTING THE UNIT.

POSITIVE EARTH

Proudly made in the UK

www.powerlite-units.com

IMPORTANT NOTICE

Always disconnect the battery before undertaking electrical work!

The Dynalite is a dynamo to alternator conversion, providing the modern benefits of an alternator but with the period look of a dynamo. The Dynalite is identical to the original dynamo in size and shape - however unlike an original dynamo the Dynalite is a self-regulating alternator and therefore the existing control box is no longer required. If you wish to retain your control box, some wiring changes must be made as described in these instructions.

FITTING:

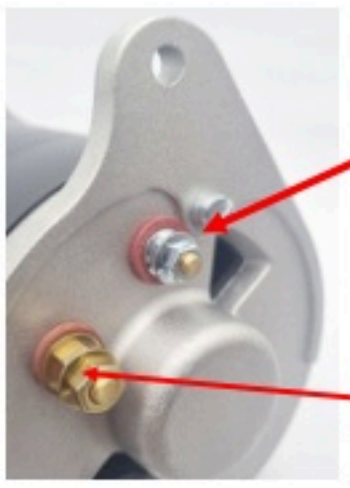
1. Disconnect the battery

2. Exchange the original dynamo for the new Dynalite transferring your existing fan and pulley. (we also have a wide range of fans and pullies if needed).

Wiring changes at the voltage regulator - see opposite for appropriate diagram depending on which control box is on the vehicle. If it is available, an original wiring diagram will aid in identifying the wires.

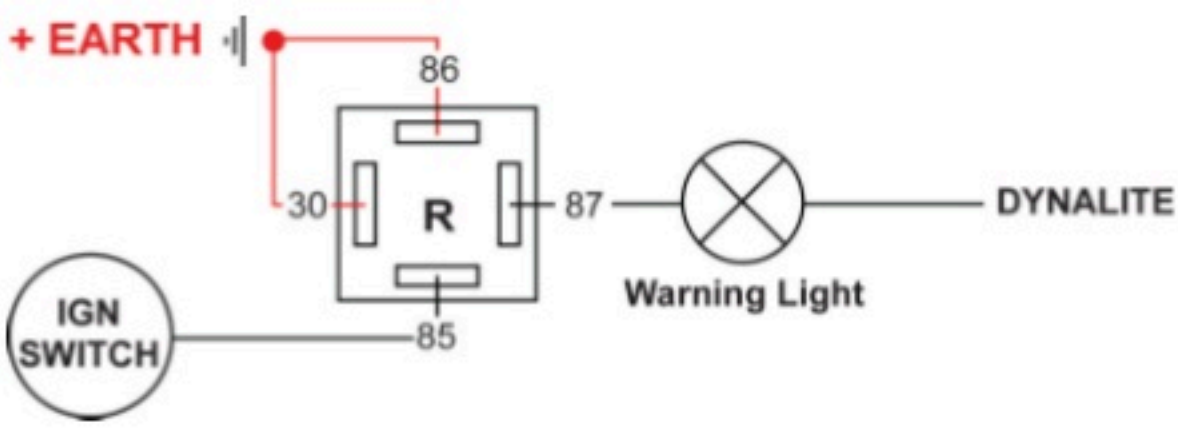
3. Disconnect the earth from the control box.

4. Remove field lead (F) and warning light from regulator (Small wire at D terminal) and attach together.



5. Remove dynamo lead (D) from regulator and attach to battery negative lead to create a battery feed. (**The main alternator feed to battery must be rated at 60 amps minimum**.)

6. All positive earth units are supplied with a relay; this is part of the positive earth Dynalite installation. This MUST be fitted between the ignition warning light and ignition switch behind the dashboard as shown. The Dynalite cannot function correctly without this relay - failure to install it correctly will result in instant failure of the Dynalite.



7. Carefully check all wiring, re-connect battery and test.

More information can be found in our "Frequently Asked Questions" in these instruction

Frequently asked questions about the Dynalite

Q. Can I use my old fan and pulley with a Dynalite?

A. Yes, each Powerlite Dynalite has a shaft designed so the original fan and pulley fits. And if you don't have one, we can supply them.

Q. My car is negative earth (ground), does this matter?

A. Yes, Dynalites are polarity sensitive. No problem though, the majority of our Dynalites are available in negative and positive earth specification.

Q. What do I do with my old control box?

A. The Dynalite doesn't need a control box as it has an internal regulator so you can simply remove it and fit the Dynalite as you would an alternator. Alternatively, you can leave the control box in place with the wires connected to the studs or blades but not attached at the other end so the engine bay still looks original.

Another option would be to install one of our 'dummy' control boxes. These are equipped with a modern fuse to run with your new Dynalite, and are perfect replicas of the original control box so you have a functional yet period looking solution.

Q. What does pulley ratio mean?

A. Pulley ratio essentially compares the size of a driven pulley (in this case the Dynalite) to the size of the crankshaft pulley (also known as the driver pulley). This ratio can be found by dividing the diameter of the smaller pulley into the larger one. For optimum operation of your Dynalite, you need to achieve a pulley ratio of 2 to 1 – i.e., the Dynalite pulley needs to be roughly half the size in diameter to the crank pulley.

Q. Do I need to change my battery cable?

A. Yes. Dynalites have a higher output than original dynamos. Therefore, you will need to increase the size or loading capability of the existing battery cable. Check the output of the Dynalite chosen and then specify the cable accordingly—this will be either 40 or 60 amps depending on the Dynalite. The distance between the battery and Dynalite needs to also be considered.

Q. My car has an ammeter, what do I do?

A. As Dynalites have a higher output than dynamos, in most cases the ammeter will not function correctly (the needle will move to the max.) One solution would be to by-pass or remove it altogether. However, to keep the look of the vehicle's dash display, there are ammeters available that have an increased and suitable rating. Please contact us.

IMPORTANT NOTICE

Final checks before fitting a Dynalite

- Check all connections and cables.
- Check main battery cable is rated to a <u>minimum</u> 60 Amps.
- You must use the supplied relay when using this positive earth Dynalite
- Check your pulley ratio—best at 2:1. Contact us if you're not sure.
- Ensure the fan and pulley can run freely—DO NOT CHECK WHILE THE ENGINE IS RUNNING!
- Ensure the fan belt is tensioned correctly.
- Ensure that the battery is fully charged before reconnecting.

Vehicle electrics and wiring on classic cars is not always straightforward. If you have any doubts about the fitting or wiring of this awesome product, please get in touch!

WARRANTY

The Dynalite is proudly Made in the UK by our skilled auto electricians.

Designed, tested and produced by us here at Powerlite, we are so confident in our Dynalites that each one comes with a *<u>LIFETIME WARRANTY</u>*

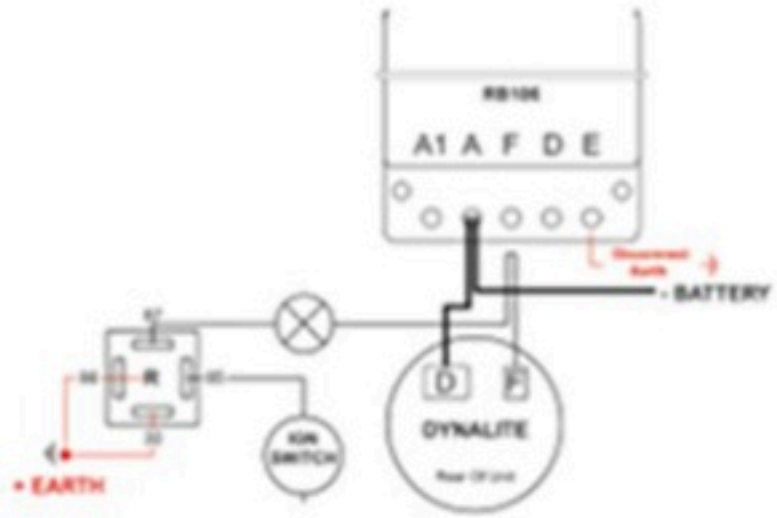
In the very unlikely event that this unit should fail, please return it to us for inspection and, rest assured we will repair it or replace it Free Of Charge. Some conditions apply—please see our Warranty Policy on our website.

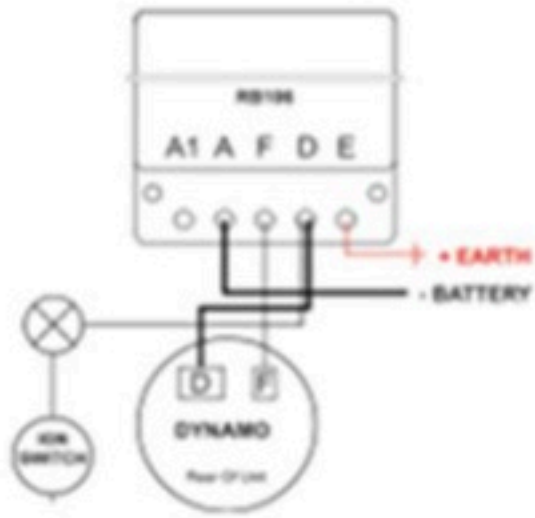
Thank you for your purchase!

DYNALITE WIRING

DYNAMO WIRING

RB106





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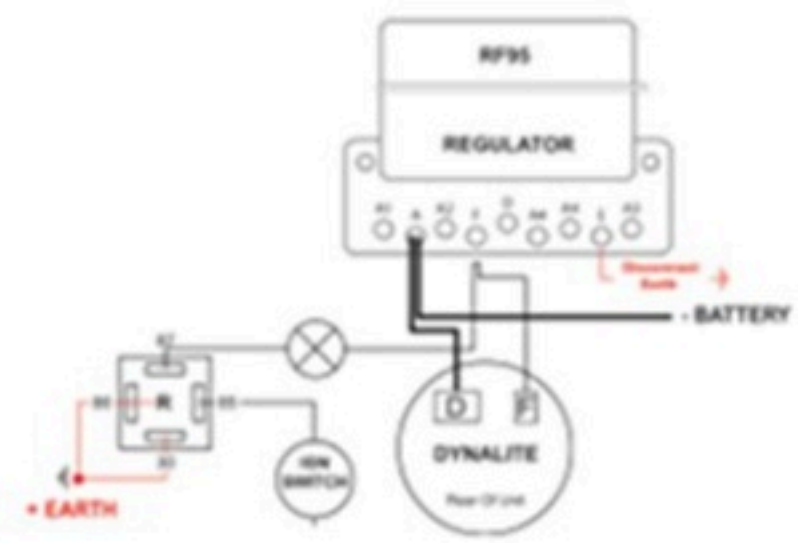

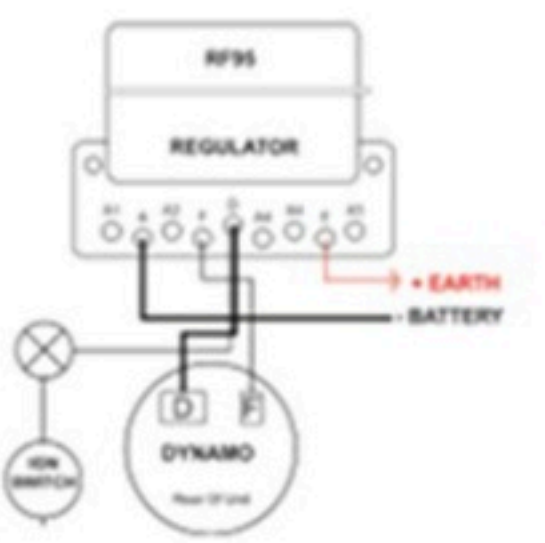

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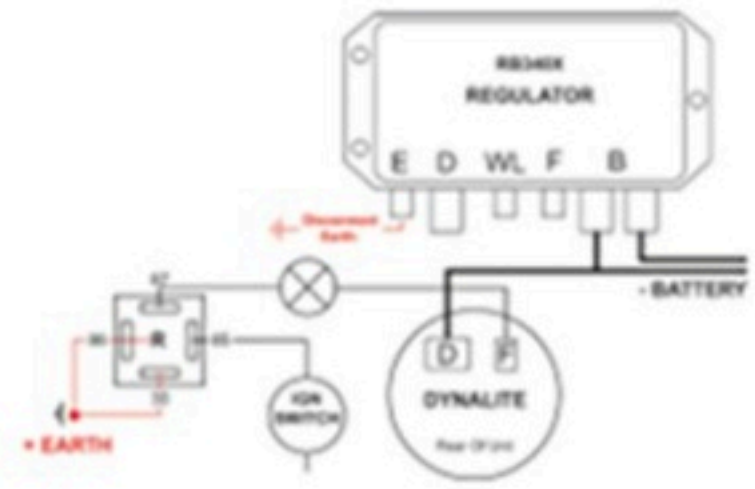

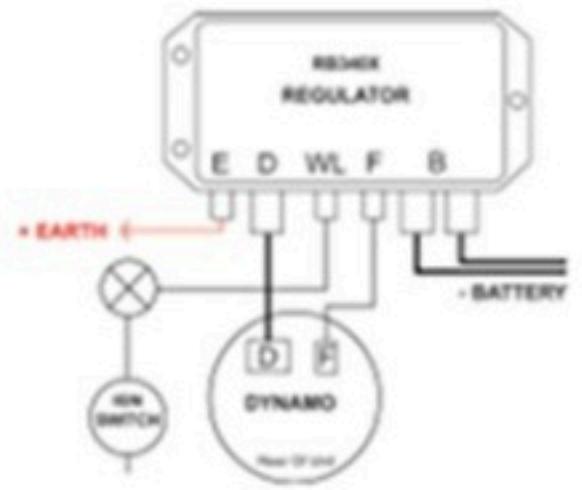

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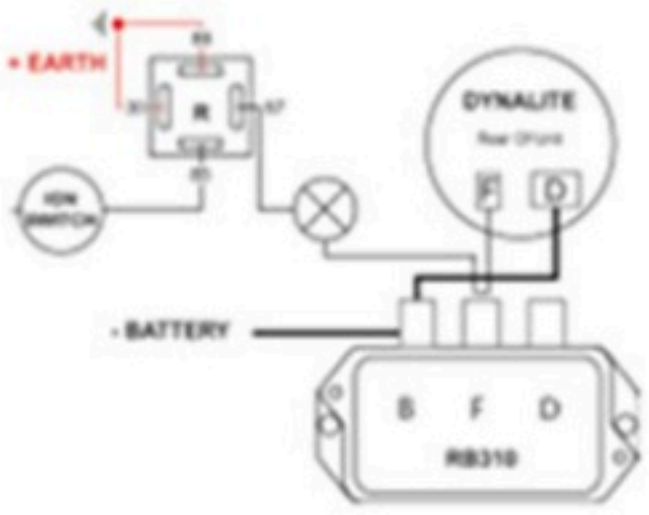
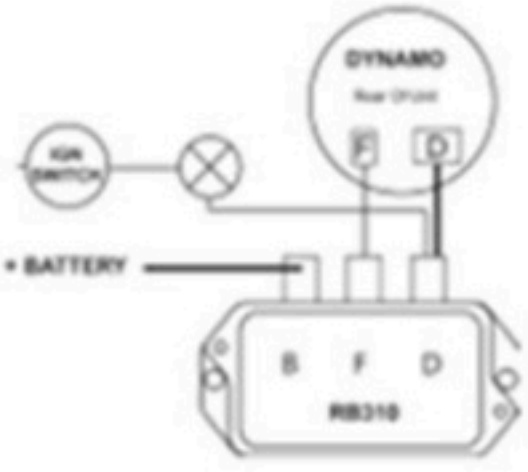
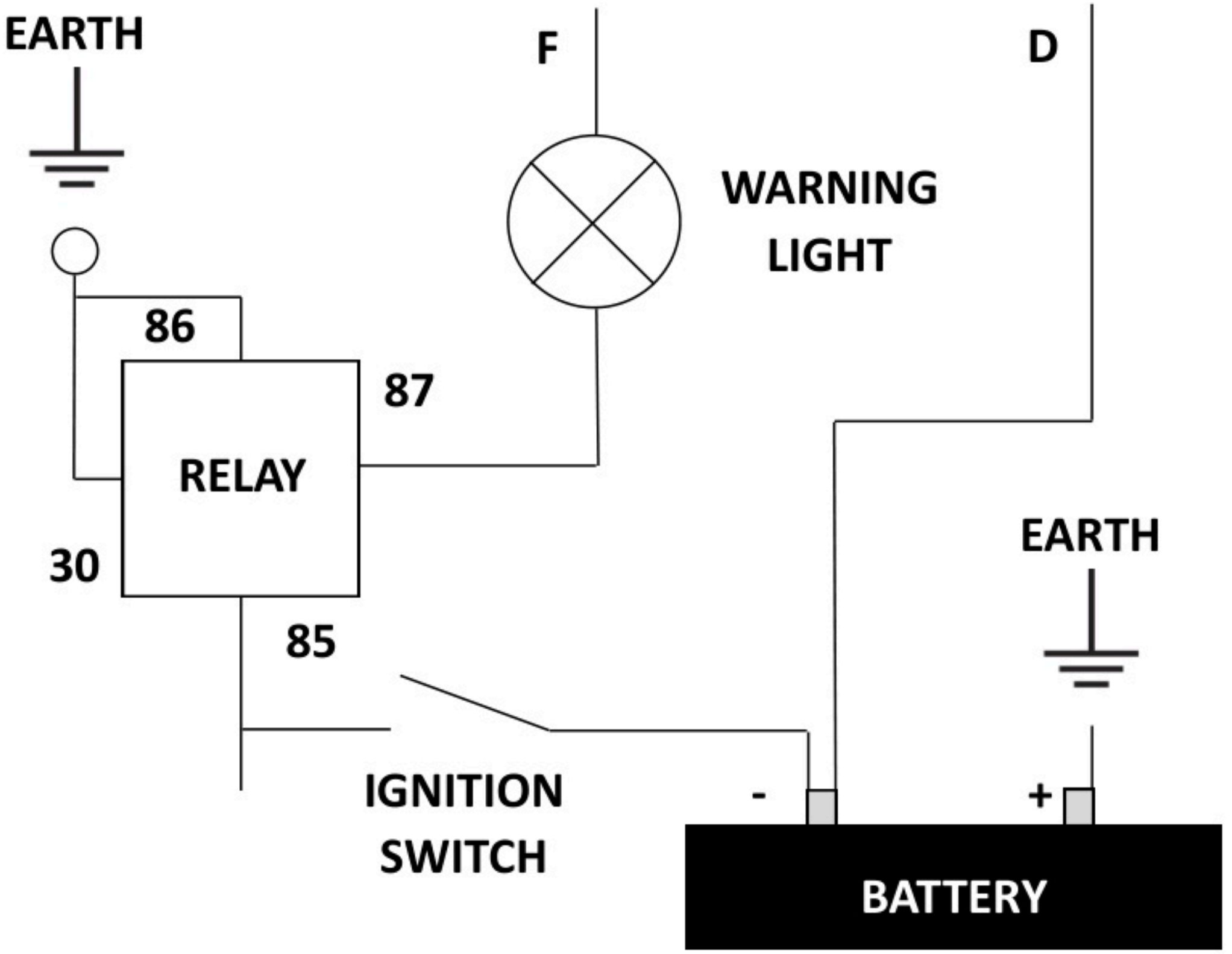




HOW TO CHECK THAT THE WIRING IS CORRECT BEFORE FITTING A DYNALITE.

(POSITIVE EARTH ONLY)



WARNING

FIT THE NEW RELAY AS CLOSE TO THE WARNING LIGHT
TO REDUCE INTERFERENCE FROM OTHER PICKUPS ON THAT CIRCUIT.

RELAY CONNECTIONS

1. CONNECT THE PRECONNECTED TERMINALS 30 & 86 TO A CLEAN EARTH.
2. CUT THE WIRE BETWEEN THE WARNING LIGHT & IGNITION FEAD AS CLOSE TO THE WARNING LIGHT AS POSSIBLE.
3. CONNECT TERMINAL 87 TO THE CUT WIRE CONNECTED TO THE WARNING LIGHT .
4. CONNECT TERMINAL 85 TO THE CUT WIRE CONNECTED TO THE IGNITION FEAD.

1) WITH THE IGNITION ON.
DOES THE RELAY CLICK?

CHECK THE CONNECTIONS 85/87, ARE THEY THE RIGHT WAY ROUND

YES

NO

2) USE A TEMPORARY LINK WIRE AND CONNECT “F” WIRE TO “D” WIRE.
DOES THE WARNING LIGHT COME ON?

CHECK THE CONNECTIONS TO THE REG BOX

YES

NO

3) DISCONNECT THE TEMPORARY LINK WIRE FROM THE “F” WIRE TO “D” WIRE.
DOES THE WARNING LIGHT GO OFF?

CHECK THE CONNECTIONS

YES

NO

4) IT IS NOW OK TO FIT YOUR NEW POWERLITE DYNALITE

PowerLite

Also available from

Powerlite:

HIGH TORQUE
STARTERS

HIGH TORQUE
SLIMLINE STARTERS

HIGH TORQUE
MicroStart STARTERS

DYNALITE
ALTERNATORS

LIGHTWEIGHT
ALTERNATORS

REMANUFACTURED
WIPER MOTORS

ACCESSORY
RANGE

THERMAL
HEAT SHIELDS

If you have any questions at all about our products and fitting, please don't hesitate to contact us.

PLEASE SEE OUR WEBSITE FOR THESE AND MORE

www.powerlite-units.com

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