

Headlight Loom Upgrade:

PLEASE NOTE: this document assumes some knowledge of electronics and the art of soldering, and should not be taken as a complete list of instructions. Complete, ready to go looms can be bought from Pirahna, ARB, or from an auto-electrician and should be considered if you are not comfortable with playing with your cars electrics. If in doubt, always seek the guidance of someone who knows, or an auto-electrician.

Requirements (Most Available from Jaycar)

- 15 Amp Fig 8 DC Cable (cat WH3078 \$1.25 per metre)
- 25 Amp DC Cable (cat WH3080 \$0.75 per metre) red and black (can also be used instead of 15amp fig 8 for running active to lights)
- Cable Ties
- 4 – way Narva Fuse Holder (Available from Repco, Autobarn 54420BL ~\$5.00)
- 2 x 30a SPST Relay (Cat SY4068 \$5.90)
- 3 x Spade Crimp On Connector Packs (Cat PT4707 \$2.25)
- 1 x crimp on eyelets (Cat no PT4714 \$3.10)
- 2 x H4 Plug base (local auto electrician)
- Fuses (depends on globes wattage. Calculate Amps using: $\text{amps} = \text{wattage}/12$)
- Split Conduit.
- Black electrical insulation tape.
- Handtools
- Soldering Iron and solder. (for the 15 and 25 amp cable, a 25watt soldering iron probably wont work, I normally use a 200 watt soldering station)
- Multimeter.

Method:

Measure up how much cable you will need:

- 2 actives from each headlight to the relays (15 amp fig 8 or 25 amp red),
- 2 actives from battery to fuse panel on firewall (25 amp red),
- 2 actives from fuse panel to relays (25 amp red).
- Earth from each relay to chassis, and from each light to chassis (25 amp black).

Locate existing H4 plug behind light driver's side light, using multimeter work out which wire is high beam active, low beam active, earth should be the middle (looking from top down).

Cut off the plug (make sure battery is disconnected and lights switched off etc) and join some wire (doesn't need to be special, just regular fig 8 speaker cable will suffice) either soldering or using a crimp on butt connector, and run to act as trigger for new relays (pin 86) using existing headlights switch. Connect earth to chassis.

Mount fuse panel and relays high up on firewall and run 2 active leads (25 amp red) to fuse panel from battery terminal.

Run active (25 amp red) from fuse panel to each relay (pin 30) (see below for wiring diagram).

Run active (15 amp fig 8) cable from lights up to firewall, should have a low and high beam from each light, join 2 low beam wires together, and 2 high beams together either soldering or using a butt connector, and connect to pin 87 on respective relays.

Run earth from each relay (pin 85), and each light (using black 25 amp cable) to chassis earth with eye terminal on each end.

Make sure you tape all joins properly, run everything in split conduit to make it nice and neat, and run the loom making sure it clears any hot/moving components and cable tie it off.

Best way to describe how to wire it up is using diagram below:

