

fit a third brakelight

Every new car on the road now has a third, high-level brakelight.

Matt Stubbs tells you how to fit one to your caravan

Data panel

The RL095

DIY fitting rating

This project will present no difficulty to any average DIY caravanner. However, two 12v electrical connections are involved. If you don't feel competent to make them, seek expert help for this part of the job. In any event, it would be sensible to have your work inspected by a professional before you use the caravan.

Tools needed

Power drill, 3mm pilot drill, 6mm drill, 10mm drill, hammer, Stanley knife, staple gun, screwdrivers, pliers, wire cutter, coathanger wire, spirit level, square.

Additional materials

Scotchlocks, silicone sealant, insulating or duck tape, cable clips, widow prop.



1 Put a prop in place to support the window and then unscrew the window stay at the inboard end.



2 Peel back the strip from the centre of the window seal; drill a pilot hole through the frame into the wardrobe/cupboard.



3 Probe the pilot hole with a piece of coat-hanger wire and then transfer the position of the hole on to the cupboard wall.



4 Carefully drill through the cupboard wall; and, when you have confirmed that it lines up with the hole through the framework, open it up to 10mm dia.

BRAKE AWAY!

Of all the extras you could add to your caravan, a third (high-level) brakelight must rate as one of the very best. If you look at the models that have come on to the market in the last year or two, third brakelights seem to be almost the norm.

Before embarking on the project, check that the brakelight will fit between the window and the flyscreen without obstructing the flyscreen. Once you're happy with the chosen position, you need to decide where the cable is to run, bearing in mind it must be connected to the brakelight circuit.

Whenever I can, I like to run cables as unobtrusively as possible. In this case it meant running the cable under the cover strip of the window seal, and then through a drilled hole into the wardrobe. From here, I ran it down the wall and out through



5 Screw the brake light bracket in position at the centre top of the window.



6 After fitting the brake light, staple the twin cable in position.

the floor, where I connected it to the brake light and earth cables of the 12N wiring loom.

Start the project by unscrewing the inboard end of the window stay. You'll need to use a prop to support the window in the open position. A piece of timber cut to length, or two pieces clamped together, are ideal. Or use part of your awning frame.

Next up, remove the centre plastic strip from the window

seal to a point where the cable will be routed through into the wardrobe or cupboard.

The light can now be screwed in position. Then drill a 3mm pilot hole through the rubber seal and timber framework.

Caravan window frames are made from fairly small sections, so you should be able to feel the drill exiting the other side.

If you don't then there may be other timbers you simply didn't



7 Open up the hole through the frame to 6mm, then tape the cable to the coathanger wire and feed it carefully through the hole.



8 Hook the cable out of the hole in the wardrobe.



9 The cable is stapled down the wall and to the floor to the 6mm exit hole.



10 Under the caravan, scotchlok the twin cable to the brake and return leads in the 12N cable.



11 Refit the centre plastic strip and the window stay.



12 When the brake pedal is pressed, the LEDs will light up in the window to warn following traffic.

know about; in which case, just try another position.

Once the pilot hole has been drilled, use a piece of coathanger wire to probe the hole. At this point I should mention that my coathanger wire is just about the most useful tool I have. It's ideal for feeding cables through awkward places; and with a hook on the end, you can pull cables out of holes, and also reach items dropped into otherwise inaccessible places. No toolkit should be without one!

The pilot hole can now be opened up to 6mm. I then used a spirit level and square to transfer the position of the hole on to the wall immediately adjacent to the partition in the wardrobe.

Once I was satisfied that the position on the wardrobe wall was aligned with the hole through the frame, I drilled a 10mm dia hole through the wall panel.

Having used the coathanger probe to confirm that the two holes line up, I then taped the cable to the multi-purpose coathanger and pushed it through the hole in the frame.

In the wardrobe, I used a second piece of wire with a hook on the end, to pull the cable out of the 10mm hole.

Once all the cable had been fed into the wardrobe, I used my staple gun to secure it in position round the window frame and then refitted the centre plastic strip to conceal it.

In the wardrobe, I fitted a rubber grommet over the cable and pushed it into the hole before securing the cable to the wall panel with staples. Finally, I applied some silicone sealant to the grommet. Having drilled a 6mm hole down through the floor from inside the van, I then fed the cable through.

Under the caravan again, I carefully removed about 10cm (4in) of the outer sheath. This part of the project probably requires more care than any other as you obviously need to avoid cutting through the sheaths of the individual cables. The way I did it was to remove several cable clips which held the 12N to the floor so that it hung down slackly. I then used a Stanley knife to cut round the other sheath.

Finally, I used a thin-bladed screwdriver to split the rubber laterally until I could peel it back.

From the exposed wiring loom, pick out the red and white cables. Unless your caravan is non-standard, the red cable supplies power

to the brakes and the white is the return. The instructions actually state that the earth wire can be taken to a suitable earth point on the vehicle chassis.

This, however, applies to motor vehicles. In the case of a caravan I prefer to connect to the white return for three reasons: firstly, it's there alongside the red; secondly a suitable bolt on the chassis may be some distance away. Thirdly, in the past I have had earthing problems on caravans due to corrosion.

Scotchloks can be used to make the connections, after which duck tape or insulating taped should be wrapped round the exposed cables. The cable clips can then be refitted, and the brakelight cable secured to the underside of the floor with cable clips. For added protection I applied silicone sealant to the hole in the floor. Finally, to make everything look neat and tidy, I covered the cables with some more duck tape.

Job complete; and I'm delighted with it!

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Tel: 0113 276 276