

How to... fit race harnesses

WHAT WE'RE GONNA FIT...

If you're in and out of your car a lot, and want harnesses that are easy to use every day, then check out these new inertia reel harnesses from Safety Devices. They're a cross between three-point harnesses and normal seatbelts. With the ignition on, these harnesses allow the driver to pull the straps on and when they're fastened will pull the straps back across the driver with the same tension you'd expect from a normal seatbelt. So you get the comfort and convenience of a seatbelt with the safety and support of race harnesses that you can use everyday.

Follow us as we fit a set to our Pug 205 GTI

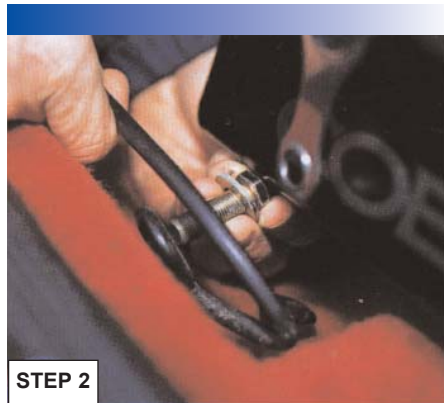
WHAT YOU NEED

- Philips screwdriver
- Flat screwdriver
- 17mm socket
- 17mm spanner
- Mole grips
- Wire cutters
- Voltmeter (optional)



STEP 1

First things first, remove the belts from the box and slide them through the holes in the back of your seat. Adjust them to fit roughly where you're gonna need them



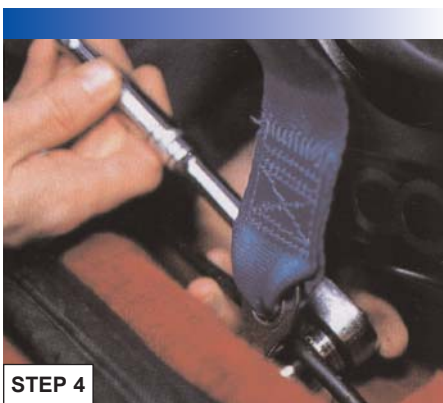
STEP 2

Undo the seat-belt lower mounting slide rail, which is fastened to the car with a 17mm bolt. Remove the bolt and washer, but hang onto them cos you'll be needing them in a second



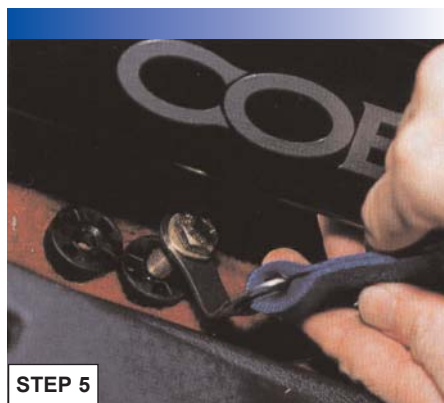
STEP 3

On the Pug, we needed to bend the mounting bracket for the right-hand mounting point so it clears the seat-belt slide rail. We used mole grips for gentle persuasion



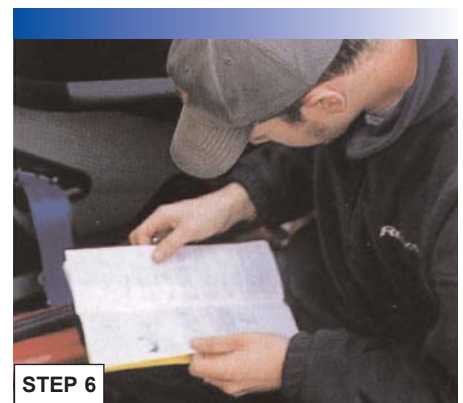
STEP 4

Refit the seat-belt slide rail 17mm bolt and washer, sandwiching the harness bracket in-between the car body and the rail. Tighten up firmly. That's one point done already



STEP 5

To mount the left-hand side harness bracket we used one of the Peugeot original seat mounting points. Again, we bent the bracket, this time to allow clearance for the Cobra seat frame



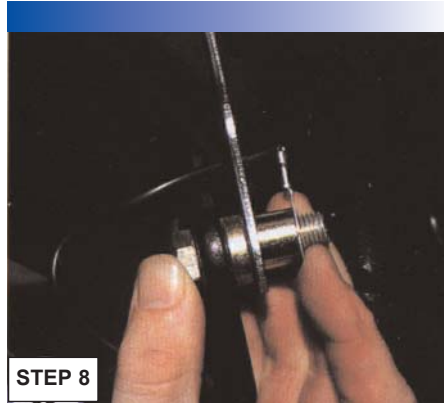
STEP 6

Reading the instructions, decide where you want to mount the third harness point - the inertia reel mechanism. We're gonna use the rear seatbelt mounting point on the C-pillar



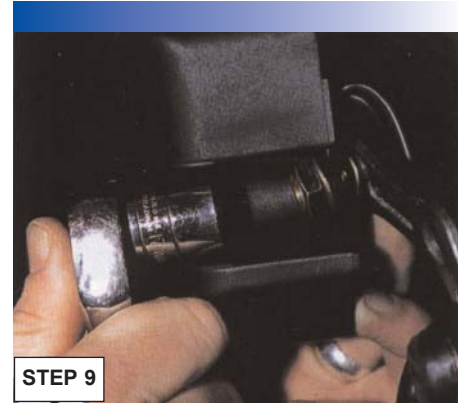
STEP 7

Undo the rear seatbelt mounting bolt (17mm again) and note the order the spacer collars and washers fit as you pull the whole lot off. Don't lose anything



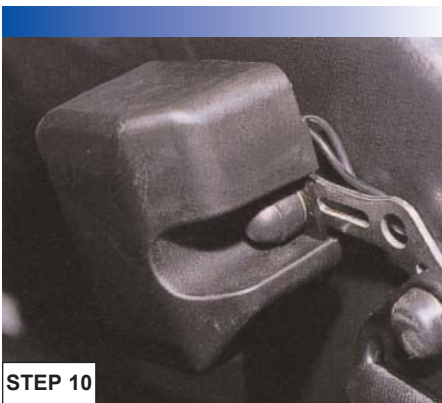
STEP 8

To mount the inertia reel you'll use the supplied bracket to keep it clear of the rear seat belt. You'll also fit an electrical earth eye for the inertia reel mechanism as shown - it must touch the car body



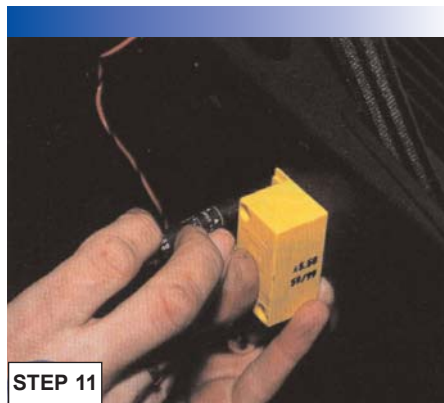
STEP 9

Bolt the whole lot back to the car, making sure your earth point is secure and the inertia reel bracket is in the right position - check the instructions as it can differ for individual cars



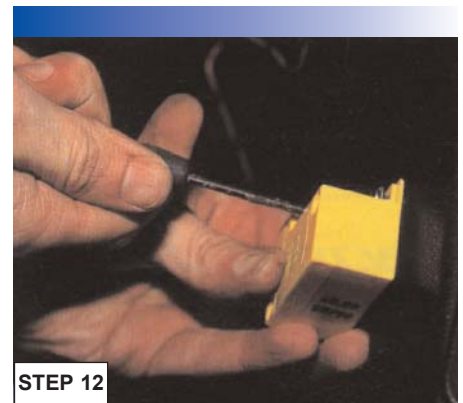
STEP 10

Re-fit the plastic bolt end caps. Tuck the cabling neatly behind the bracket and seat-belt mounting. Make sure no chaffing occurs when you use either the harness or the rear seat-belt



STEP 11

You'll need to decide where to mount the motion detector switch. It must be level when the car is on flat ground. We chose the rear shelf support to help keep wiring runs to a minimum



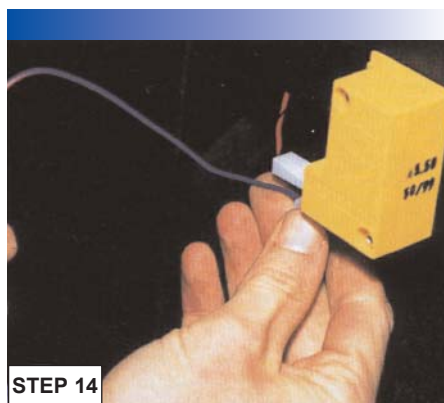
STEP 12

Screw the sensor to the plastic shelf support using the self-tapping screws supplied in the kit. If you've got a small spirit level it's worth checking to make sure the sensor's level



STEP 13

Plug the red/black wire from the inertia reel into the top contact of the motion sensor. Tuck away any spare wire so it won't get snagged by anything in the boot



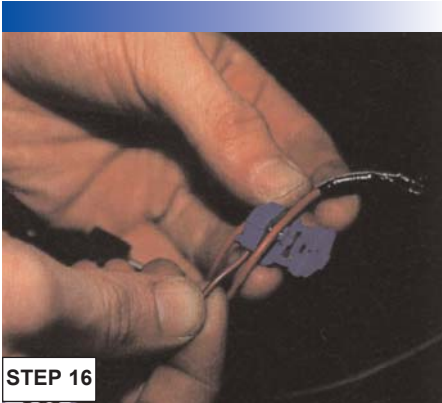
STEP 14

Plug the supplied red/blue wire into the other motion detector contact on the bottom of the unit. This wire is to be run to an ignition-switched positive power supply



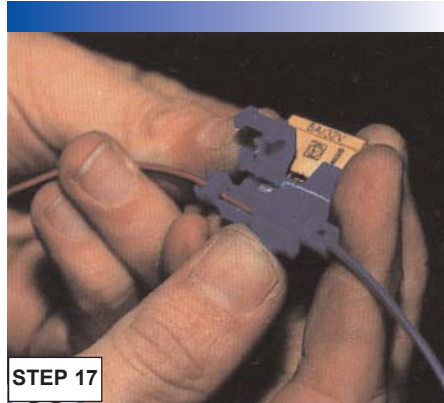
STEP 15

We used a voltmeter to find a positive feed with the car ignition switch on - you could use the ignition-switched supply to your car stereo. We used a feed to the rear washer motor



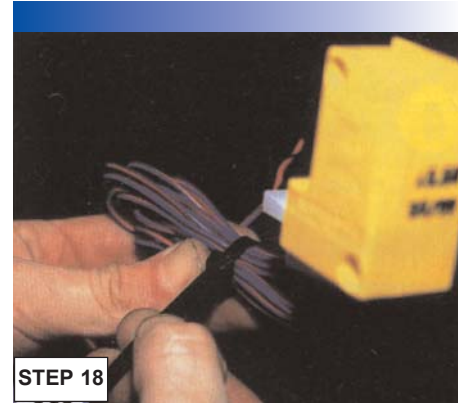
STEP 16

Using the supplied wire, crimp into the positive wire you've just found. (This crimp latches onto the supply to the washer motor without the need for breaking the wire to make a joint)



STEP 17

Fit the fuse into the supplied in-line blade fuse holder. Using the fitted crimp connector (not shown) join the end of this wire to the long red/blue wire from the sensor to complete the positive circuit



STEP 18

With the connections complete, use a cable tie to tidy up any wires. Clip the harnesses from the seat into the inertia reel belt. Flick the ignition on and the mechanism will release the harness. Bingo!



WHAT TYPES ARE AVAILABLE?

The variations come from the number of mounting points (three, four, or five) and the width of the harness straps. For most road cars a two-inch wide harness is enough; it's normally only motorsport regs that require the wider 3in version, which can be a bit cumbersome for everyday use.

The simplest harness design is the three-point which, as the name suggests, mounts in three places in the car. These are the most popular as they're easiest to fit. Four-point harnesses simply use two rear mounting points, whereas three-point versions shoulder straps are joined together and mount at one rear point. Five-point versions are like fours but have an extra strap that goes between the driver's legs to prevent your lower body sliding forward in the seat.

There one more type and it's dead new, being specially designed for cars that more road use than serious track abuse. It's the inertia reel harness.

LOWDOWN

Our tips for fitting the harnesses are simple. Firstly, the instructions supplied are brilliant (covering mounting points for loads of cars), so if you read them before you start the job's a piece of piss. Secondly, decide where you're gonna mount the electrical bits and pieces. Planning this bit makes the job a lot easier. If you want to retain the original car seat-belts and still fit the Safety Devices harnesses, it's not hassle - it's how we did it. So if you're just popping to the pub you can still use the back seats, and the driver can use his normal seat-belt.