

Solar sounds

Sam George has a musical interlude this month, fitting a stereo radio/CD player in our long-term-test Lunar Solar 462

Time 4-5 hours **Difficulty** 5/10

YOU WILL NEED Power drill, pilot drill, 6mm and 10mm drill bits, coping saw or hole cutters, Stanley knife, screwdrivers, wire cutter/stripper, insulating tape, 12v cable, Superglue and/or cable clips, cable ties, cable tie saddles, offcut of flexible water pipe or flexible conduit, coaxial cable, TV/FM coaxial plug, Motorola-type plug, length of terminal block, speaker wire, radio mounting bracket, audio connector for ISO-type units (Halfords reference 002).

COST I fitted a Kenwood KDC-4060RA CD receiver and two

Kenwood KFC-1056 speakers from Halfords (Halfords stocks radio/CD players from £50 to £500). The other items needed can also be bought at Halfords for around £30. Thanks to Halfords Ltd for its help.

TOP TIP This installation involves 12v electrical connections, so remember to switch off the 12v supply before commencing work.

WARNING If you don't feel competent to follow the installation instructions which come with the radio/CD player, seek specialist help.



1 In addition to the audio unit, with mounting frame and speakers, you'll need the other items listed above – in particular, cable suitable for 12v, a length of co-ax cable and plug; and extension speaker cable (the wiring supplied will almost certainly not be long enough to reach the more distant speaker).



2 The choice of position for the radio was dictated by the position of the Status aerial booster on the Lunar. If your caravan doesn't already have an aerial, you'll have to fit one. On account of the thickness of the panelling, I had to drill holes all round the perimeter so that...



3 ... I could use a Stanley knife to cut the actual opening for the unit. I then used a power file to finish the edges of the aperture neatly. Obviously you can use an ordinary file if you don't possess the powered version.



4 Having pushed the mounting frame into position in the opening, the next thing to do was to bend the locking tabs outwards with a screwdriver to fix the frame securely in position. You need to be quite firm when doing this but you should take care not to push too hard or clumsily and distort the whole thing.



5 Put the player unit in place temporarily and check the distance from its top to the ceiling. The steady bracket should then be cut to length and fitted to the rear of the set as shown in the instructions. Insert the unit in the mounting frame and screw the bracket to the ceiling to secure the device in position.



6 The wiring terminates at a multi-socket into which the black and brown ISO connectors (Halfords ref 002) fit. Only the red and black cables in the black socket are used. Strip them, secure them in the terminal block, tape up the blue and orange wires, then fit the plug in the socket. Strip the white and white/black and grey and grey/black speaker cables in the brown plug, and join them to the terminal block. With only two speakers, as here, the violet, violet/black, green and green/black cables are not needed and can also be taped up. The brown plug can now be fitted into the socket.



7 Having plugged the harness into the radio, screw the terminal block to the wall in a position where the 12v supply and speaker cables can easily be fitted. Tidy the cables so that they're not unsightly and secure them to the wall with a cable tie and saddle.



8 Using the template supplied with the loudspeaker packaging, mark the positions where the speakers are to be fitted. But before drilling the pilot holes for the cutter, check inside your lockers to make certain that there are no obstructions, etc that might cause problems.



9 I used a hole cutter to make the speaker apertures. This had a 6mm diameter pilot drill in its arbor. Here's a tip: having drilled the pilot hole, rather than risk enlarging it when you're starting the main hole, reverse the bit so that the shank becomes an arbor. If you don't have a suitable hole cutter you could use a coping saw or Stanley knife.



10 Run the speaker leads to the speakers. White and white/black go to the left-hand one and grey and grey/black to the right. You'll probably need to drill small holes in the partitions between roof lockers to feed the cables through. If the cable to the further speaker is too short, use a terminal block or shrouded spade connectors to join the extra wiring.



11 The cable pair for each channel, as supplied, has a large and a small spade connector at its end. The large one connects to the positive terminal on the speaker and the small one to the negative. If you're extending the wiring for one channel take care not to reverse this polarity or the speakers will be out of phase, which will ruin the sound quality.



12 The speakers are fixed in place by four screws each (supplied). Once they're in position you simply push-fit the protective grilles into the surrounds. Take care when doing this to avoid denting or otherwise damaging the grilles. The cables can now be secured in position, using either Superglue or cable clips.



13 Trim the speaker wires to length and connect to the matching cables in the terminal block, ie white to white, white/black to white/black, grey to grey, grey/black to grey/black. If you opt to hook up the power leads to one

of the caravan's existing 12v circuits, you could lose the audio unit's memory whenever you switch off that circuit. To avoid this risk, I took a supply directly from the caravan battery. Having joined the supply cable to the unit's red and black leads, I ran it down through the adjacent dresser, out through the floor and over to the battery compartment on the offside.



14 I fixed the cable to the underside of the floor with clips, using a water hose offcut to sheath it where it passed through the chassis. I drilled a hole in the battery compartment floor, fed the cable through, removed the battery, then connected up. The radio was switched on briefly to check that power was reaching it, then the battery was put back.



15 The next job was to cut the co-ax cable to the right length and fit a plug to the end. Don't worry if you've never had to fit a plug to a coaxial cable before – the instructions on the packaging are extremely clear and easy to follow. If, however, you are fitting a new aerial, it makes sense to take care of installing that before cutting the cable.



16 The co-ax was now plugged into one of the TV/FM terminals in the Status aerial booster. I used Superglue to hold the cable to the wall panel.



17 The only thing that remained was to fit a Motorola-type plug to the other end of the co-ax lead and plug it into the aerial socket on the back of the radio. Now it was time to switch the power back on and give both the radio and the CD player a trial. Happy listening! 🚗