



SOUND ESSENTIALS PART 2.

SOUND REINFORCEMENT AND REALLY CLEVER STUFF!

Hopefully you have read this two-part feature in the right order. If not, may we recommend that you scoot over to page 25 before continuing?

Having started on our upgrade path, we can now take a look at what other sonic delights await the budding in-car listener. It is quite common these days to be offered an “audio upgrade” when purchasing a new car. The words appear in quotation marks for a good reason. As mentioned previously, car manufacturers are not great at audio and that goes for what they term “upgrades” too. These typically take the form of some heritage badge from the world of home hi-fi. The amount of time, effort and budget that is put into the “upgrades” is questionable. Such upgrades take the form of a tweak to the imposed sound curve in the head unit. If you think about this for a while, you are paying sometimes £000’s to have tone controls tweaked!

A far better solution is to buy your car in its standard form and visit your local FOUR MASTER who will be able to provide you with a system of far better performance for the same or even less money.

What are you likely to get in an aftermarket upgrade? This publication, as with previous issues of Driving Sounds, is full of explanations of the issues related to establishing good sound in a car. In Part 1, we mentioned just a few and suggested that speakers with a wide sound dispersion characteristic and the application of sound deadening would go some way to addressing these. However, there is so much more that can be done to achieve hi-fi sound in your car. Although standard head units are generally adequate as an audio source, enforced sound curves contrived to make rubbish speakers sound better are our worst enemy here. If you are unfortunate enough to have one of these then although the addition of amplifiers and a subwoofer are helpful, they will still be subject to factory-made issues. Adding a Digital Signal Processor (DSP) to your system will enable your installer to all but remove such curves and give your amplifier a much better starting point from which to add often much needed control to your upgraded speakers. DSP’s are also extremely good at establishing a soundstage and combating poor speaker positioning, as they will include time-alignment, which allows your installer to delay signals from speakers close to the listener to ensure those signals arrive at exactly the same time as sound from more distant speakers. NB. Do not get

too excited about the number of speakers there are in your car, this is completely irrelevant to establishing good sound – 11 rubbish speakers will never sound as good as 4 good ones!

Although we advocated a speaker upgrade as your first port of call, we need to be aware of the power restrictions offered by factory standard head units. Much of the quoted power is only achievable after the introduction of so much distortion that the listening experience is very uncomfortable indeed. Introducing the same amount of high quality Watts will drive your speakers much better and allow more level to be achieved before distortion sets in. It is always a good idea to trust your FOUR MASTER when it comes to amplifiers, as specifications can be very difficult to fathom. Do not be drawn to big numbers alone.

The skill is in matching speakers and amplifiers together and requires in-depth knowledge of both the science and equipment!

So we have now quietened road noise, introduced some wide-dispersion speakers, time-aligned them and matched them to their perfect amplifier. What else could you possibly need? Many people enjoy bass reinforcement in a car. Road noise will cancel low frequencies and often leave your music lacking in drama. A subwoofer need not take up your entire boot

and you rarely need more than one. There are many compact subwoofer solutions on the market today some of which come with a built-in amplifier and can be slotted under a seat or against the boot wall. Sub-bass is not directional and can be situated anywhere provided your amplifier/processor combination can be handed control over level. It is common for a subwoofer level control to be added as the slower you are driving, the less bass you will need and although it can be energising to have heavy bass in your car, it doesn’t work for live acoustic music for instance where the recording can contain “artefacts” that do not add anything to the music and will soon become very annoying if over emphasised.

Once again and with all things car audio related, it is important to put your trust in your installer. He will know what combination of equipment will suit your car and genre preferences best. □

To find your local FOUR MASTER, visit www.fourmasterscaraudio.co.uk or call 0800 652 5125

