

STARTING FROM SCRATCH

Sound and music is a most interesting subject to study. The way different people are moved by different noises is still revealing new psycho-acoustic phenomena some of which are used by audio equipment manufacturers to great or average effect. Here we give a very basic introduction into our favourite pastime.

In the beginning there were the sounds of our habitat – Nothing else had been invented. These sounds and a human's ability to hear them, tell what direction they were coming from and judge whether they were happy sounds or sounds of warning helped contribute to the evolution and success of the human race. Moving forward, ancient man replicated sound firstly, to attract prey but then, for personal amusement and pleasure. Later still, sound and associated music led to the dance craze of the early eighties. Oops! Did I skip a bit? Well, how long do we have? Not long enough to chart the history and evolution of sound and music, as it is a hugely complex story. If you want to read fine detail on sound and how music is made, then I would strongly recommend a book by Howard Goodall called "The story of Music". It is a jolly good and easily consumed read by a proper expert.

In the meantime and getting to the nub of the subject, men and women have two ears placed on either side of their heads. The idea is that as well as hearing sounds between a very low 20 Hz to a very high 20,000 Hz, our brains can measure the relative level and time delay between sounds arriving in the right and left ears and with the benefit of 40,000 years of evolution and a bit of practice can pretty accurately identify where a sound is coming from. Fast forward a good few years and the very same bit of biological and physical science dictates how music is recorded and should be listened to. The artist, sound engineer and producer can decide where they want a sound to sit (left, right, centre or an infinite number of positions in between) and can use this positional information to enhance their art! It stands to reason therefore, that in order to listen to a piece of music as it is meant to be heard, the listener needs to replicate as closely as possible the accuracy of the equipment that the music is created on. In a car or any other listening environment this means a good pair of stereo speakers reproducing as much of the original audio information as accurately as possible.

Most cars fail to get anywhere close when listened to straight out of the showroom. The reason for this is that car manufacturers are far more concerned with the roundness of the wheels than the quality of the audio system. They know music is important to some people and will often actively promote what they have been told by their suppliers of audio equipment, is a substantial upgrade to their standard equipment but they are by no means any more expert in sound than the builder of your house is at choosing curtains! It is therefore left to the skill of an aftermarket audio installer (I would strongly recommend a FOUR MASTER) to get your car sounding right. So, I guess the first rule is: Car Manufacturer's do not necessarily know about music and sound. These same people do however, commit a lot of effort and development cost to making the "infotainment" centre in your car easy to use, essential to many comfort features (such as air conditioning and navigation) and of course, quite impossible to replace with anything else in most cases. Fortunately, as a sound source, these units tend not to be too atrocious these days and huge improvements in sound can be gained, even from these, by conditioning the speaker mounting positions with sound treatment materials and

upgrading the speakers. It is always highly recommended that the serious music lover upgrade the power output of the on-board "infotainment" system with the addition of a suitable amplifier. A car can be a noisy environment and any sound competing with your music is going to cancel some element of the information contained within it. Sound treatment will help but the addition of extra power will drive the speakers better, which in turn will positively affect the accuracy of their reproduction.

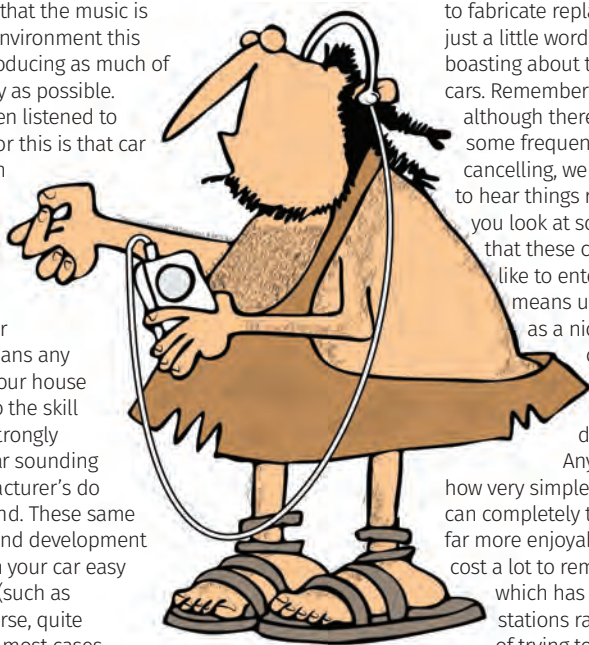
Although very simple and often inexpensive steps may be taken to save a driver from completely awful sound, (I would struggle to name a car with standard fit equipment in it that sounded enjoyable let alone good) there are many who would want to go a little further but before we move on to these, I would strongly recommend that if you have a standard car, that you visit a FOUR MASTER immediately and have a pair of Audison Prima speakers fitted along with some Skinz sound deadening. The difference will be extremely obvious and the whole job is unlikely to cost you more than £250. Worth noting here, that equipment can be removed very easily for use in your next car too and if you are driving a company car, the boss/lease company will never know!

How far do you go? – This depends entirely upon how critically you wish to listen. Adding an amplifier will bring even your upgraded speakers to life and many choose to add extra bass. Bass is an important element of music. I have previously likened it to the colour red, which we all know means danger. Big bass happens in nature during huge thunderstorms, heavy surf, a very large tree falling or a volcano erupting. Big bass adds drama and these days it does not need to take up all of your boot space. There are small bass speakers these days that, when fitted correctly in a discretely mounted enclosure under a seat or in that useless little plastic cupboard in the boot wall, can provide all of the drama you need and fill the secondary purpose for boosting bass which is to overcome the cancelling effect caused by road rumble.

How far can you go? – All the way to heaven! Some music lovers go as far as moving the speakers around in the car and putting them in the optimum position for listening pleasure. Some will add sophisticated audio processors that allow the sound to be shaped to overcome inherent difficulties with the car as a listening environment. More speakers can be fitted than were originally installed. A good FOUR MASTER is able to fabricate replacement panels to make this possible but just a little word. There has been a rise in car manufacturers boasting about the number of speakers they put in their cars. Remember that we are designed to listen in stereo and although there are very good reasons to perhaps separate some frequencies away from others to avoid inter-cancelling, we may not necessarily need 17 speakers in order to hear things regardless of what it says in the brochure. If you look at some purist home hi-fi speakers you will see that these contain just tweeters and woofers. If you would like to entertain the children on long journey's by all means update rear speakers but this is not essential as a nicely balanced stereo system with the sound coming from the front will entertain just as well in many cases and avoid front-seated listeners receiving a scrambled stereo image due to the effects of "rear fill" speakers.

Anyway, I started this piece in order to explain how very simple and modestly priced products exist which can completely transform the sound in your car and offer a far more enjoyable listening experience. It doesn't necessarily cost a lot to remove the shackles of standard fit equipment, which has left many listening to Medium Wave radio talk stations rather than put up with the fatiguing discomfort of trying to listen to music in their cars!

Visit your local FOUR MASTER and explore the possibilities – get back in touch with your inner caveman! □



Contact
FOUR MASTERS:
0800 652 5125 or visit:

www.fourmasterscaraudio.co.uk