



BASS FACE

Instruction Manual



MODEL

SPL12.2

!Warning!

Bass Face products can produce sound pressure levels that can permanently damage your hearing. Please exercise extreme caution when setting volume levels. Also be mindful of other listeners, they might not enjoy listening at the same levels as you. We will not be held in any way responsible for injuries caused by the misuse of our products.

Please take care when attempting any alterations or installations with the electrical system of the car. ALWAYS disconnect the positive terminal at the battery.

Bass Face operates a policy of continuous improvement and reserves the right to update and alter the content and design of both product and instructions as it sees fit. Although the information contained in the instruction manuals is given in good faith based on extensive testing and experience the final responsibility for the installation and operation of your system must rest with the installer and the operator. If you are installing your equipment yourself please be realistic about your abilities and seek professional advice if you are unsure about any aspect of the task that you are undertaking.

If you face a particular problem with your installation or product we will be happy to answer your questions. Please email info@bassfaceaudio.co.uk - please note that our response time is 2 to 3 days, and that we are closed over the weekend. For more urgent help please contact your country distributor. In the UK this is Thompsons Ltd (www.thompsonsltd.co.uk)

Please note that Bass Face is unable to process warranty support directly. For warranty support you MUST contact your distributor.

Introduction:

Firstly, thank you for your purchase. Every element of this product has been optimised to give you the best possible performance for your money. We think that Bass Face represents the highest quality to price ratio available on the market today.

Please take the time to read these instructions carefully. You will need to follow them to have a successful install and get the most from the product.

Do remember that incorrect installation or abuse is NOT covered under warranty – it is YOUR responsibility to make sure that your installation and partnered product is suitable and compatible.

The SPL12.2 is a very high performance dual 4Ohm voice coil subwoofer, capable of producing very high sound pressure levels with very low distortion or colouration, if deployed in the correct manner. This manual aims to inform you how to achieve this type of performance from your SPL12.2 subwoofer.

The SPL12.2 is best suited to a ported enclosure. We recommend the construction or purchase of an 18mm or 25mm thick MDF or Weather Proof Ply Board (WBP) bass box with glued and screwed edges for strength. We also recommend that you use some clear silicone sealant to seal the edges of the box and ensure no air leakage. You can't make the box "too well" – so if you want to make a double layered, or a super thick fiberglass box, then this can only be a benefit.

An important and often overlooked aspect of box construction is the baffle, which is the panel that the subwoofer is mounted to. If possible, this needs to be 25mm or 2 layers of 18mm material. When attaching the driver to the baffle, you can use screws but we do not recommend it. These have been known to fail and cause leaks which can in turn destroy the woofer. T-nuts are the professionals choice. These ensure a very secure fit and enable you to take the woofer out and put it back in without causing any damage to the mounting holes and have a much higher tensile strength to screws so are more secure under the very heavy pressure loads the woofer will generate.

We recommend a 1.5 - 3 cubic foot box tuned to around 35hz. There are a number of resources online for designing and tuning ported bass boxes.

Please follow instruction and use AT LEAST 18mm thick MDF. Chip board of any thickness will NOT be strong enough, neither will cheap Ply, as it is full of voids and made from inferior strength wood and will not result in the best possible performance. The density and strength of the wood determines how much energy it will absorb; the less strength (thinner, less dense material) the more energy will be wasted. The stronger the material the less energy absorbed and the more efficient the result. More efficient means more volume. Simple!

If you are considering running more than one woofer you will need to make a decision about whether you will run a mono bass or a stereo bass. If you are running two woofers from one amplifier the decision is made for you – it is a mono bass, and you can install the two or more woofers into one enclosure cavity of a suitable size and have them act effectively as a single piston. This is the most efficient way to utilize multiple woofers. If you are running more than one amp channel then you need to either ensure you have created a mono feed by summing the left and right inputs into mono OR you must use separate enclosure spaces that are completely independent of each other. If you actively WANT to run a stereo bass, then again, you should ensure that the woofers are in separate boxes. Running a stereo bass input into a pair of woofers in the same box will not obtain the optimum sound output and could damage your equipment.

If you are installing the subwoofer into a simple bass box that has a carpeted finish the first task is to carefully cut around the subwoofer and peel off the carpet to reveal the bare wood. Carpet is porous and will not allow a good seal. The same applies if your bass box has a plastic terminal block cut into the side. Trim the carpet away and seal using silicone sealant, before screwing back in.

The SPL12.2 is designed to run in enclosures from 1.5 – 3 cubic feet in size. Feel free to experiment with sizing to tune the sound to your preference. A larger box will tend to allow more low bass, but at the expense of some power handling. If you are lucky enough to have a large and powerful amplifier you will be able to run the subwoofer harder in a more controlled way. Small amplifiers or amplifiers with smaller power supplies do not offer the same authority of control over the speaker cone, which increases the chance of damage due to distortion.

When you come to set the amplifier crossover settings we recommend the use of a 30Hz subsonic setting and a 100 or 120Hz low pass filter. This will give you an excellent starting point for your listening. With this size of woofer it would not be unreasonable to look at crossover frequencies as high as 150Hz, depending on the partnering equipment you are using and the installation type and location.

Running your amplifier with the level set too high can very easily lead to a distorted (or “clipped”) signal being fed into the subwoofer. This will destroy your woofer very quickly, because the voice coil will become heat-saturated to the point of failure.

The other common mistake is not to listen to the subwoofer in isolation. When you set the system up it is best to take some time to disconnect all the other speakers in the car and to listen to just the woofer. Although it will sound strange and there may be some car vibration it will be very obvious as you alter the levels and increase the pressure when you have taken it a step too far. A distorting woofer can sometimes make a slapping or rattling sound, or sometimes the bass goes fuzzy during distortion. Either way that noise is killing your equipment, and you need to recognize those settings and attenuate the levels or crossovers so that during playback normally those conditions are not created. Once you bring in the other noisy speakers in your system it is all too easy to mask over the sound of a distressed woofer and you will be lining up to join the other people who have not heeded the warning signs in our “warranty rejected” queue! Don’t be that guy! :)

Also, bear in mind run in time. All speakers require run in time to loosen up the cone suspension and bed in. typically this is about 20-40 hours. This may seem like a long time but it is a valuable investment. Once your subwoofer has been run in, it will working at optimal levels and will respond better, handle more power without distortion and sound cleaner. We recommend a month at lower power. Then after a month, set your system up again with the new found power handling and sound capabilities of your woofer.

Please study the provided diagrams for wiring the 2 voice coils to 8 or 2 Ohm configuration.

Dual Voice Coil Wiring Configurations

Parallel

Wiring the Voice Coils in parallel is simply running them in tandem. The resulting impedance is half of the impedance of ONE coil. So for the SPL12.2 it will give you 2 Ohms impedance as it has 4 Ohm Voice Coils.



2 Ohm

Series

Wiring in series is putting the current through one coil, then into the other, then back to the amp. This adds the impedances of the 2 coils together, in this case giving us 8 Ohms.



8 Ohm