



# **BASS FACE**

## **Instruction Manual**



**MODEL**

**SPL69.1**

Before installation, please take the time to review your chosen fitment location and to check on mounting clearance both behind and in front of the speaker. If you do not have the clearance behind to allow operation of the vehicle windows or other functions you may need to obtain spacer rings to move the unit forwards. You need to ensure that the tweeter, cone and surround will not touch anything during playback. Remember that the cone will move a good few mm forwards during operation. Should you need to make your own spacer rings, we suggest MDF or similar, since the additional solidity and lower resonance goes a long way towards eliminating vibrations when compared to a standard plastic ring.

When you mount the speaker with screws it is really important to make sure that you do not damage the rubber surround with tools or any retaining washers. If you need to drill new holes for mounting the speaker into the steel of the panel then make a small pilot hole first to ensure accuracy, after first marking the points with a felt tip pen.

Crucially, you also need to ensure that there is no gap between the speaker framework and the door panel – as leaks like this will ruin the bass response. Additionally it is vital that the chassis of the speaker is tightly mounted and perfectly flat. If you do not have a flat surface then you can use a combination of washers and long screws to install without pulling the chassis of the speaker around. You must then ensure that any leaks are totally plugged with silicone sealant.

We strongly advise that you consider sound proofing the car at least around the speakers themselves to ensure that the sound produced does not get lost in the vibrations created in the panel. This will allow your speaker to be more rigid, giving you the best sound quality possible. It will also improve the output of the driver considerably, with no downsides!

When installing sound proofing it normally helps to warm the material before use. Try to double up the layers close to the speaker itself. You are trying to increase the weight of the panel and give the speaker something solid to kick against.

Next we need to connect the terminals to your system. A common mistake is to accidentally reverse the positive and negative connections somewhere in the car. This can result in poor bass response and out of focus vocals. This condition is known as connecting “out of phase” and is a common mistake!

If you are connecting directly to the factory cables from the head unit, then you can sometimes have a tricky job because the colours and markings of OEM cables are inconsistent from side to side. The easiest way to get this right is use a simple multi meter. Firstly, set the multi meter to volts. Then, connect the ground wire of the multi meter to a ground point of the car and play some music through the head unit, testing each wire as you go. The multi meter will show either a positive figure or a negative figure as the music plays. The wire that goes into positive voltage is the positive cable. Connect this to the positive side of the speaker and connect the other wire to the negative side of the speaker.

If you are connecting via an amplifier your task becomes a lot easier. All you have to do is remember which wire is positive coming from the amplifier by identifying the stripe on the wire and keeping that convention consistent throughout your installation. So it's either "stripe to positive" or "stripe to negative" right the way through.

When it comes to setting up your system for sound, please remember that the single most common cause of speaker failure is distortion. And the single most common cause of distortion is an amplifier set at too high a level.

The most annoying aspect of car audio is that the car radio manufacturers insist on producing head units that actually distort at about three quarters the way up their volume scale. If you add a little bass to the settings this critical point can be as low as half the way up the volume level! The result of this is that the hapless owner of the system blames the speaker for the distortion. The comment is usually "the speakers are not powerful enough to take the sound." In reality, you need to ensure that you play the system within the scope of the capability of the amp you are using. If this is a simple head unit then consider adding a subwoofer if you need more bass – or add an amplifier to the speaker outputs if you need to drive your new speakers harder. Whatever you do, don't sit there distorting your sound and then expect us to dish out replacement speakers under warranty.

With your BassFace speakers you are going to experience a much finer tonal balance and a superb stereo experience. What you are not going to do is to make your amplifier or head unit more powerful than it already is, or to re-write the rules of physics and create sub bass out of a speaker that is not designed to do that.

Once the levels are nicely set up and you have your system performing at its best you might consider adjusting the angle of the tweeter to achieve the best sound imaging. On some of our speakers it is not possible to do this with the factory grille installed, due to space constraints. Where clearance exists a very useful lift in sound stage can often be obtained by angling the tweeters at an imaginary point above the gearstick. (Experimentation recommended.)

If you have the facility available on your head unit or amplifier it will be beneficial in most cases to set a crossover point, to limit the amount of bass that is being fed in to your coaxial speakers. For smaller speakers such as the SPL4.1 or SPL46.1 we advise the use of a 125 to 150Hz crossover point if you are using a subwoofer in conjunction with your BassFace speakers. On larger speakers such as SPL5.1 or SPL6.1 you can look to an 80 or 100Hz crossover, or even lower if you have a really solid well soundproofed installation and high power amplifier. On the SPL69.1 when installed in a solid parcel shelf it is not necessary to use a high pass crossover at all for most applications, but we do recommend the use of a subsonic filter set to around 30Hz for ultimate performance.

One final point for advanced installers. PLEASE NOTE THAT USING THE SPEAKER IN THIS FASHION IMMEDIATELY VOIDS THE WARRANTY  
(If you do not understand the following paragraph it is likely you should not be attempting this...)

The BassFace coaxial speakers have the tweeter cable from the silk dome unit run through the centre of the magnet and out underneath the label. If you carefully remove the rubber magnet gasket you can un-solder the cable from the terminal block on the side of the speaker to create a separate input for the tweeter. It is thus possible to run the speaker from a separate amplifier or channel on both mid and tweeter, in either an active or passive capacity. This creates a true “coupled component” system for the ultimate in performance and adjustability. The silk dome tweeter is relatively safe to 4000Hz at 12db/Octave for sensible listening, or 5000Hz at the same slope for everyone else. You can obviously use the supplied capacitor if you want to run passive.

