

# **BASS FACE**

## **Instruction Manual**



**MODEL**

**POWER12.1**

# !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](mailto: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](http://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 Bass Face POWER12.1 active subwoofer enclosure is a high quality product designed to add lots of bass to a car audio environment. It is designed primarily for installation in the boot of a hatchback style vehicle but can also be used in other applications.

**PLEASE NOTE – THE POWER INDICATOR LIGHT ON THE AMP BODY IS GREEN. NOT BLUE AS THE TEXT SAYS.**

Before you even get the unit out of the box (realistically, you will have done this already and boy it looks sweet doesn't it!) you will need to install a suitable wiring kit in your vehicle. You can use either a 10AWG or 8 AWG kit for this product. Do bear in mind that many manufacturers offer wiring kits that actually come up smaller in true wire gauge than advertised.

To begin, disconnect the car battery, taking note of any required precautions suggested by the vehicle manufacturer such as alarm or radio codes, or on board computer or AGM battery requirements.

You need to find a suitable point on the firewall (bulkhead) to run the power wire through. If you have to drill a hole, you will need to fit a rubber grommet to ensure the wire does not get damaged as a short will ruin the whole setup and can be very dangerous. The positive wire needs to go to the + positive terminal on the battery. A fuse of appropriate size to protect the cable (for a quality 8 AWG kit we suggest 25A) needs to be fitted in line and no more than 18" from the battery.

Once you have the cable in the car, run it back to the location point for the box. When you do this, be aware you will need to run the remote cable and the RCA's from the headunit back to the amp too. Obviously, if you don't have RCA's on your head unit you will also need to run a pair of speaker cables from your source instead. The POWER12.1 has a standard female Molex plug for high level input. Note that the male Molex side of this is not supplied with the unit, since BassFace recommends the use of RCA inputs where possible. If you need it, you can obtain a 4 pin Molex male from any good electronics store.

If the wires you are running have to run over or go alongside other looms of the car, try to cross them at right angles to avoid unwanted interference in the signal, and try not to run them parallel with other cables either. If you can, run the power and the signal cables down opposite sides of the car. This isn't essential but if you do get any interference once the job is complete the first thing to look at will be separating these wires so if you can do it first it makes a lot of sense!

The absolutely most important aspect of the power install is the earth wire. This wants to be very securely bolted to the chassis of the car. Try to pick a solid chassis bolt and remember to sand off any paint to the bare metal where the wire will be connected. If there is an opportunity to drill a new hole and create your own earth point, then this is the optimum. A bad earth is a very common flaw in installation and can cause a number of headaches later down the line so be sure to take care in doing this. Do NOT use a self tapping screw to try and screw the earth down, as it will come loose and impair performance. Other common disasters include trying to earth to rear light mounting bolts, boot lock mountings, seat belt securing points and other ways to "trap" the cable in the vein hope you might get a good earth. For every volt the amplifier doesn't see it requires TWICE the power to create the same output. That means poor performance and a possible broken amplifier.... DO THE EARTH RIGHT!

Once your power cable, RCA, and remote lead are all securely running through the car to where you want the box and the earth wire is fastened securely, somewhere close to the unit, you can decide how to fasten the unit itself. We often make a simple bracket to retain the box, but we have seen elaborate boot floor constructions or even luggage straps used to good effect. The box is deliberately designed to be of heavy construction. This gives the woofer something to kick against for the best possible sound. If you can mount the unit securely to a solid surface then you will further improve the performance.

Time to lay on some power. Connect the earth first. Then 12V power, then remote. Then connect in the RCA cables and you can move onto setting up the gain and sound controls on the amplifier (the fun bit!) If you are not using RCA connections then connect in the high level inputs to the Molex plug provided. Take care to make sure you get positive and

negative the right way round. If you get one side wrong then you're not going to get much output at all from the unit. One good tip here is to connect in one side, get the subwoofer working and then test connect the other side. As you do that you will hear that when connected one way round you get LESS output than you did with only one side connected. With it connected the correct way round you will of course get slightly MORE output than with only one side connected. Make sure you have this right.

Setting the "Gain" or "level" on the amp is a crucial aspect and needs to be done with care, otherwise you can easily damage your equipment. Before we move onto this we need to be sure the crossover settings are right for the application.

Set the crossover (low pass) knob to approximately 100Hz as a starting point. Later, you can experiment by testing 80Hz and 120Hz – you may find that if your car has large speakers 80Hz works better, and if you only have very small speakers that 120Hz is your preference.

Once your crossover settings are set up, you can power up the unit and move on to the gain or "Level". This bit is REALLY important!

Before we begin, in earnest you need to be realistic about how much bass it is possible to create from an active enclosure with a 12 inch driver. The output will be tight and punchy, with excellent low end extension and it will move enough air to create a bass line you can feel. This woofer box is, however, not going to be a substitute for three 15 inch woofers in a ported box – and we urge you to keep this in mind as you work through the setup process.

The first step is to work out just how loud the rest of your system can go. It is likely that previously you have had just your head unit (car radio) and standard speakers. In this configuration the limiting factor has been the car radio amplifier, which has a restricted amount of ability to produce bass notes cleanly. The first job, then, is to turn up the radio with the subwoofer OFF (pop a fuse out) and have a listen. First set the bass and treble to 0 or flat – no adjustment, and ensure any loudness controls are off. You will notice that as the level climbs up to around half way or just over (the more modern cars are better!) you begin to hear

distortion. Go into the head unit menu and reduce the bass setting to a negative value and re-try. What you will begin to learn is that as you reduce the bass, the rest of the sound can be played cleanly at a louder level, and that it sounds sweeter. You can also try nudging in some extra treble at this point to get the sound exactly as you want it. Try to ignore the fact that you now have a thin and tinny sound. You're going to fix that in a moment! Take a note of the new maximum volume level that you can play to cleanly, and average that across 2 or 3 different different songs (to take account of different recording levels) – you want to know for sure that at the level you agree on in your head you KNOW your system is totally clean regardless of the song you listen to. We are going to call this your SET POINT.

Now, disconnect all other speakers and put the fuse back into the subwoofer. Next, turn the level on the bass box all the way down. Set the remote knob to a point somewhere in the middle of the range.

Before we do this please learn to hear distortion from a woofer, because it is slightly different from a conventional speaker. On a woofer, distortion makes itself known as an unclean bass note – you may hear a cracking, a metallic slapping sound or a rattle. It is different for each setup and song but to do this setup properly you will need to learn how to detect it. As you work it is acceptable to swing on the controls and let the system distort for a second or so as you learn to recognise the sound as it goes bad. Don't be too scared of this – but as soon as you hear those bad sounds just make sure you immediately back off into normal operation. If you do not understand how an unhappy woofer sounds then you risk becoming another sad statistic in our “rejected warranty” book – you will be ringing up in about a week wondering why your woofer is toasted. Don't be this sad individual!

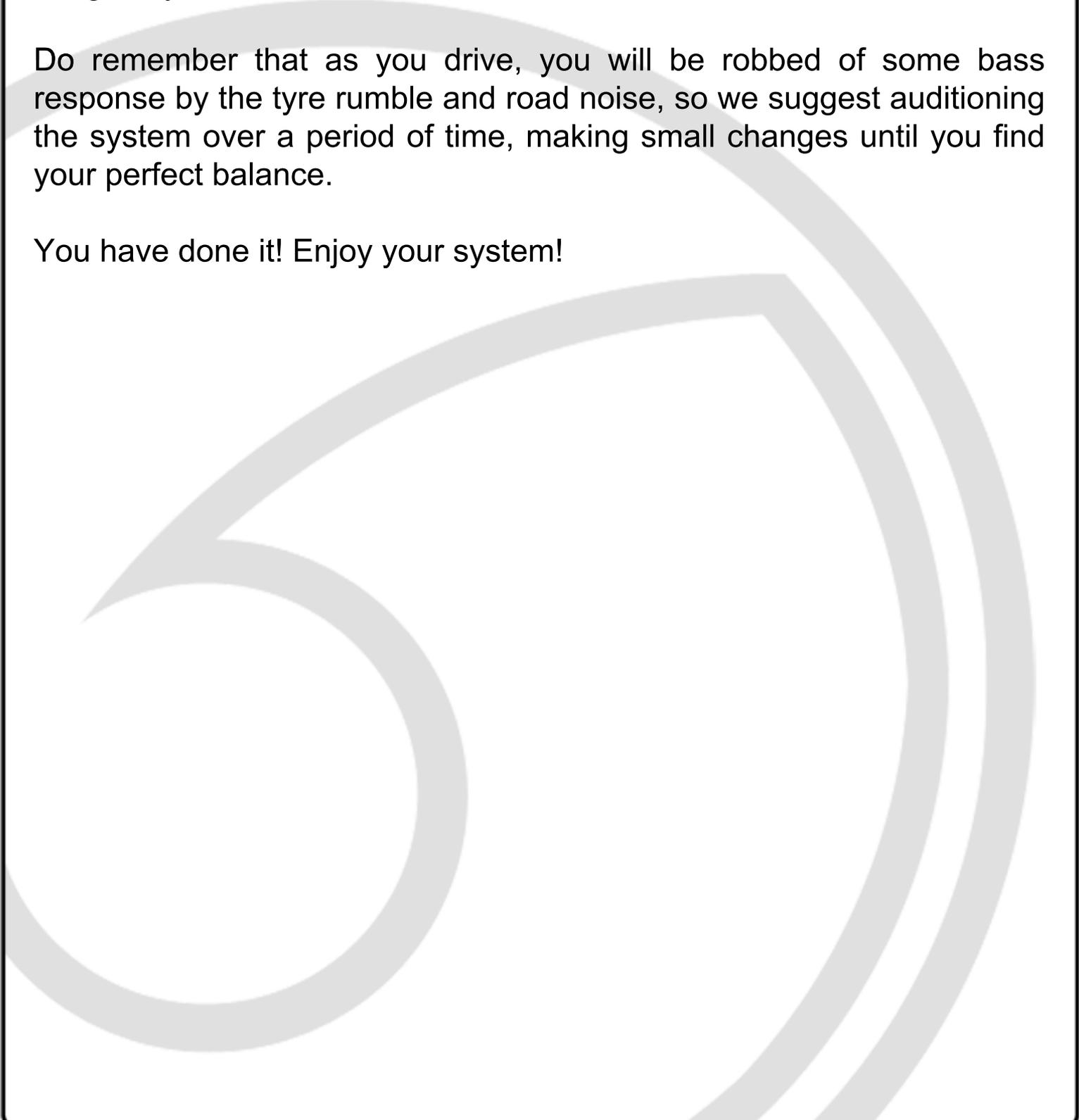
Now, go to your head unit and gradually turn up the volume until either you begin to hear distortion from the woofer or you reach the set point. **REREAD THAT SENTENCE.** If you hit distortion first, then you will need to reduce your set point to a level that allows your woofer to play cleanly at that point. If this is the case then you are done here – your woofer is set up. This is unlikely – what will most likely happen is that you will reach the set point and you won't be getting that much out of the woofer....

Now, with the head unit at the set point turn up the level control on the woofer until it begins to distort. Then back the level off a bit to a point at which the bass sounds clean and tidy no matter what song you throw at it. You can now reconnect the rest of your speakers and have a listen.

It will likely be the case that with your setup done in this way the integration and balance of the amount of bass vs the rest of the sound is not perfect right away. The way to deal with this is to fine tune the levels now by either reducing the bass box level or the head unit level to tune things to your taste.

Do remember that as you drive, you will be robbed of some bass response by the tyre rumble and road noise, so we suggest auditioning the system over a period of time, making small changes until you find your perfect balance.

You have done it! Enjoy your system!



## Earthing Instructions

As explained in the previous instructions, getting a good quality connection on the earth is critical for getting your equipment working correctly. If you get it wrong, it WILL fry your amp and WONT be covered under warranty! These pictures give you very clear examples of good and bad practices.

To the left you can see what is commonly perceived to be a good earthing point. It is not, there will not be enough pressure on the ring terminal and oxidisation will occur on surfaces.



To the right here is a complete fail, the earth has been attached to painted metal and held with a washer and a self tapping screw, this will most definitely cause serious resistance and while the amp may appear to function correctly initially, at higher output levels, the amp will strain and a component within will fail very quickly. DO NOT DO YOUR EARTH LIKE THIS!!! PLEASE! :)



To the left, we see a hole drilled directly into the chassis, big enough for a bolt and with access to the nut from behind. The area has been prepared by sanding off all the paint down to the bare metal. on the contact side of the hole. Although you do not need to sand off as large an area as you see here, this was done for illustration purposes.



Here you can see the finished product, as you can see there will be ample contact between the ring terminal and the chassis of the car. The bolt is the correct size to clamp down only on the ring. It's worth mentioning at this point, a quick blow over with primer will stop the metal rusting too!

