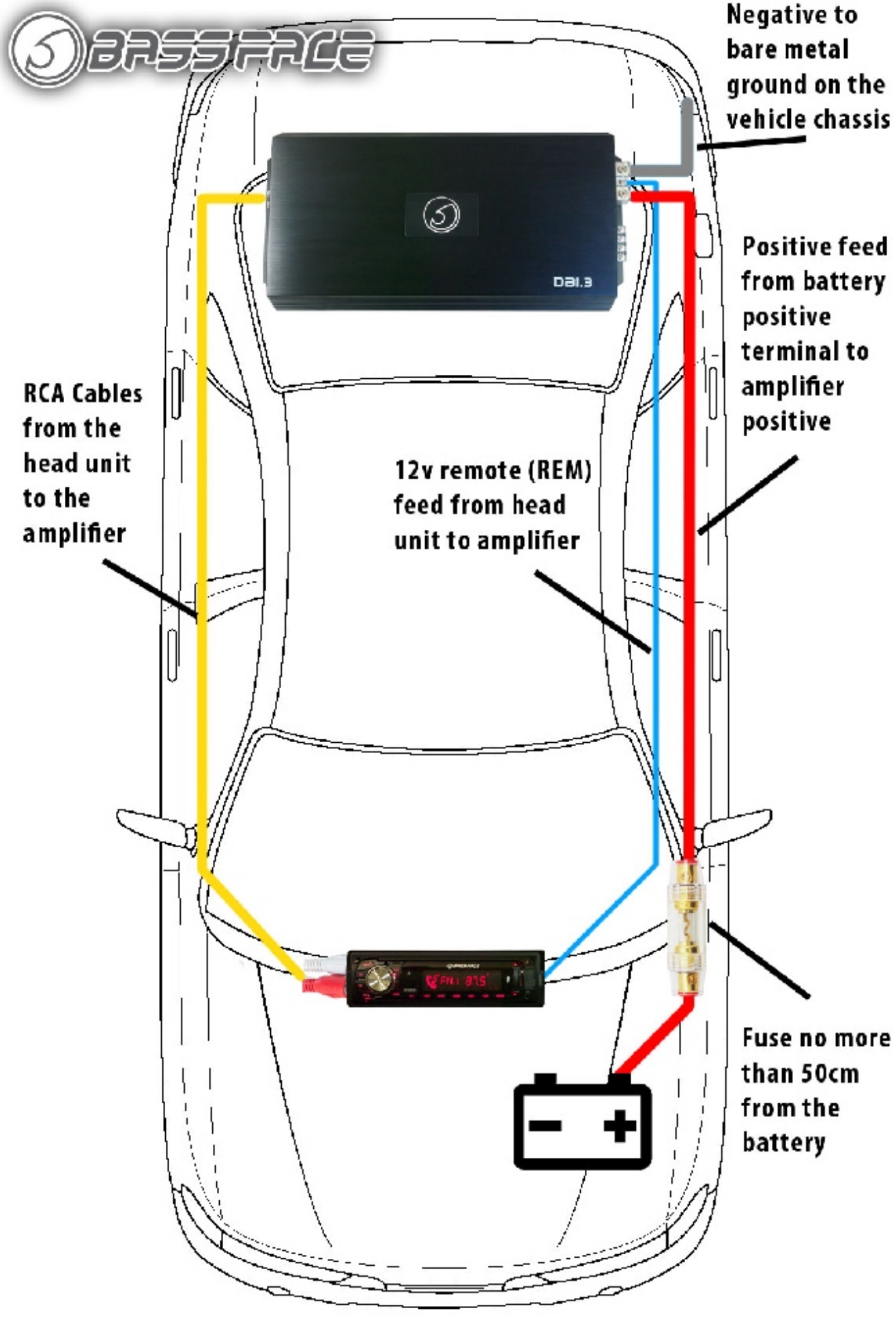
POWER8.2 8" 20cm 400w RMS Compact Subwoofer Unit With Integrated 12v 180w RMS Power Amplifier

Instruction manual

Thank you for choosing Bassface. From the simplest connector to our top of the range amplifier - every element of these products has been designed to give you the best possible performance for your money. Please take the time to read these instructions carefully as they contain useful and important information. Modern high power audio systems can generate voltages at the speaker similar to mains operated equipment – for some reason everyone seems to ignore or forget this. Your wiring needs to be good to be safe. Please remember this and take your time. Please exercise caution when setting volume levels – powerful audio equipment can easily produce enough sound to permanently damage hearing. Remember that audio competitors use ear protection when operating and competing. Do remember that incorrect installation or abuse is not covered under warranty – please make sure that your installation and any partnered product is suitable and compatible. If you are unsure please seek qualified advice before proceeding. Always use appropriate hand and eye protection when working with tools, and always work within your capabilties as an installer. We offer a 12 month manufacturer warranty via your distributor or retailer. Please retain your purchase receipt as proof of purchase. Please note that Bassface operates a policy of continuous product development and we reserve the right to change specification without prior notice. You can follow our process on our website by reviewing the version history information.

Please note that we sometimes include information inside these manuals which we feel is of potential value to the client on related subjects such as conversion charts, capacitance values or wiring diagrams. Please feel free to copy any of this information since it is in the public domain.


BASSFACE
Negative to bare metal ground on the vehicle chassis
Positive feed from battery positive terminal to amplifier positive
RCA Cables from the head unit to the amplifier
12v remote (REM) feed from head unit to amplifier
Fuse no more than 50cm from the battery
DB1.3

Begin by disconnecting 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.

For vehicles with front mounted batteries find a suitable point on the firewall/bulkhead to run the power wire through. Where the cable passes through the metal it is absolutely vital that a rubber grommet be fitted to prevent the cable from chafing through the insulation as this would be a major fire risk. The positive wire needs to go to the + positive terminal on the battery. A fuse of appropriate size to protect the cable needs to be fitted in line no more than 18” from the battery.

Once you have the power cable in the car, run it back to the bass box. When you do this, be aware that you will need to run the remote turn on cable and the RCA signal cable from the head unit back to the amp too. If you intend to use the high level speaker inputs rather than the RCA cable then at this point run these in too by tapping into the cables from one left and one right speaker. Ensure that your taps are well insulated and safe. Our Power 8.2 Active box has the facility to use “auto turn on” which senses the music on the cables and switches the unit on and off as appropriate. In this case you could choose not to run the remote switching lead. Note that the auto switching function only works with the high level inputs – not the RCA inputs.

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. We recommend drilling a hole (take care not to drill through your spare tyre, brake lines or anything else) in the boot floor and sand off any paint to the bare metal where the wire will be connected. 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 secure the earth down, as it will probably soon come loose and impair performance. Other common disasters include trying to earth to rear light mounting bolts, boot lock mountings and other ways to “trap” the cable in the 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 which means poor performance and a possible broken amplifier. Once the work is complete neatly repaint the over the finished bolted connector and chassis of the car with some primer to prevent corrosion.

Once your power cable, RCA/high level cables and remote lead (as appropriate) are all securely running through the car and the earth wire is fastened securely it is 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.

If you are not using RCA connections then connect in the high level inputs to the Molex plug provided. Wiring colours are as follows: White = R+, White/Black = R-, Grey = L+, Grey/Black = L-. 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. The single black wire should be connected to a solid earth.

If you are using auto turn on on the Power 8.2 unit make sure the “auto turn on” button is set correctly (ie “off” if you are using a hardwired remote turn on cable or “on” if not.)

Where appropriate set the phase button to 0 degrees. You’ll leave the phase button at 0 degrees until everything else is done. At that point you might want to switch to 180 degrees just to try it. When listening from the drivers seat you may notice a difference in output level with the 0/180 setting.

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. Make sure the bass boost control knob is set to minimum (0). Next, set the crossover (low pass) knob to approximately 100Hz as a starting point. Set the subsonic filter if applicable to about 35Hz

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 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 that 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 power up the subwoofer by reinstalling the fuse. 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 recognize 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 damaging the speaker as you listen to it.

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. If you hit distortion first, then keep turning down the remote bass knob on the woofer until you can get to the set point cleanly. 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. If you have too much bass, it is a simple matter to turn down the woofer on the dashboard knob. If you have too much midrange and treble then you need to lower your set point and turn up the woofer on the dashboard knob, being careful to re-check the output at this lower set-point in the same way as before. If you choose a lower set point and are happy with that lower output level than your head unit is capable of then you will be able to put back some of the bass that you took out of the head unit previously which will be helpful.

You will notice that earlier in the text we set the bass boost to off. This is because more often than not this EQ control is misunderstood and can cause damage. The bass boost control ramps a range of frequencies in the bass region that will cause more bass to be created than the signal coming in from the head unit expects. It will also consume more power and can push a system into distortion if the settings are not made carefully. An example of a valid use of bass boost might be where your car/woofer combination has an uneven response – as you turn up the gain the upper region of the output becomes strained and begins to distort but yet with low frequencies you are able to turn up the bass without distortion. In this case, you would go back to the beginning of the setup instructions, get the woofer playing at a modest level and then swing in some bass boost until the distortion happens at the same volume level, regardless of the music you are playing. Then, you would set the gain with the bass boost control in that position – to take account of that level of boost. You should not increase the bass boost once you have already set the gain level – you'll overdrive the amplifier and burn something out.

For the physical installation we recommend that suitable luggage straps (not supplied) be used to secure the unit to the luggage strap mounting points in the vehicle. It is very important that the vehicle is not driven unless the enclosure is mounted safely.

In the case of our under seat models the unit car be mounted using other methods but in any event it should be secure and safe. If you are installing the unit under a seat then obviously the woofer will be close to the seat above it – this will create some acoustic loading on the unit which will help to add to the cone control.

If you are installing in another location such as the boot, then before you commit to fastening the unit in please give consideration to facing the woofer into a solid surface such as a boot floor or corner. As an initial starting point, allow approximately 3” clearance between the woofer and the side of the vehicle. After the installation is complete you can experiment with moving the woofer closer and further away from the side. As you do this, you MUST be listening sat in the driver’s seat as you won’t hear the effects of phase change if you are stood over the unit. If you cannot hear any difference or you can’t “load” the box in this way then don’t worry – it will work fine “free field” in the boot.

REMOTE CONTROL
GAIN
SUBSONIC
BASS BOOST
LOW PASS
AUTO POWER ON
PHASE
POWER STATUS
GREEN: POWER
RED: PROTECT