DBX BASSFACE

PRODUCT MANUAL

This is our latest generation of performance amplifier. Using the best technology from our previous models we are able to achieve an amazing performance for an amplifier at this price point.

BASSFACE

Indy DB4.1X

Thank you for purchasing a Bassface amplifier. Please follow these instructions carefully to guarantee a good installation. Please undertake installation of the amplifier only if you have the skills, knowledge and tools required to do so.

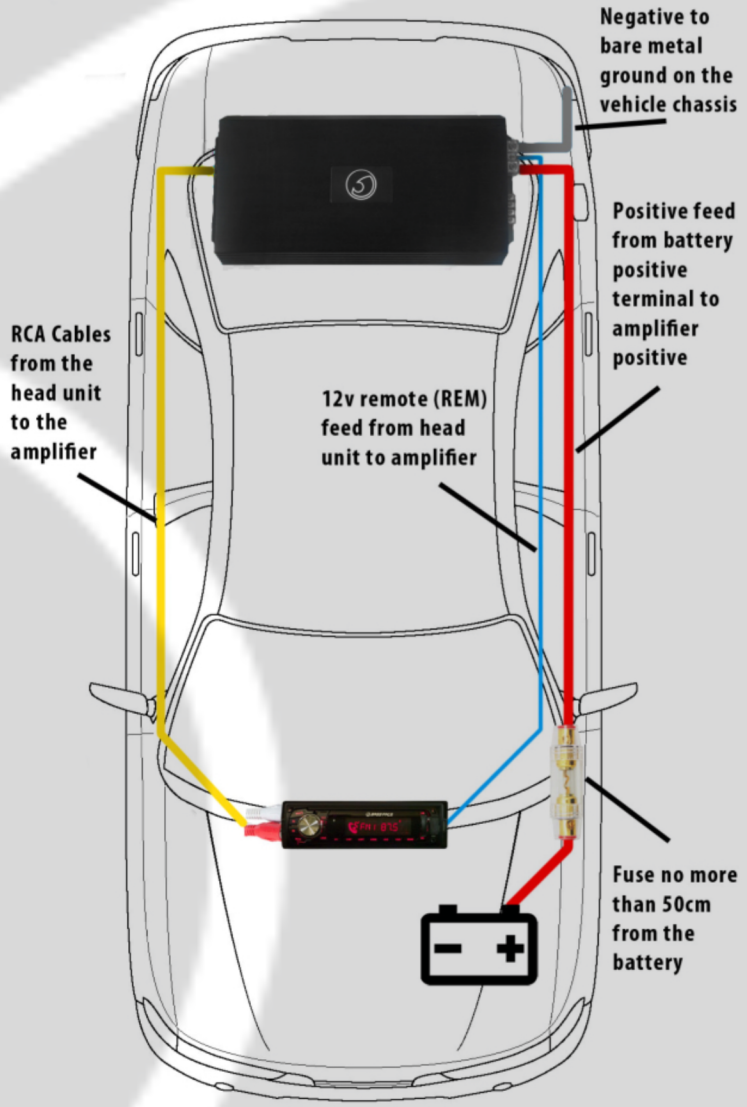
Failure to observe any of the installation points will immediately invalidate your warranty.

To begin 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 must fit a rubber grommet to ensure the wire does not get damaged. A short can cause a fire. The positive wire needs to go to the "+" positive terminal on the battery. A fuse of appropriate size to protect the cable must be fitted in line and no more than approximately 50cm from the battery.

Note that this amplifier is only compatible with a 12V electrical system with negative grounding.

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 (RCA) 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!

Bolt earth point to bare metal chassis, ensuring a resistance better than 0.02Ω. We recommend drilling a hole in the boot floor and it is essential to sand off any paint where the wire will be connected. Do NOT use a self-tapping to bolt the earth down, it will come loose which will result in damage to the amplifier.



Use the chart below to size your power cables. Other brands of cable will have different and often inferior characteristics. Please take care to observe this point if you are not using Bassface cable. This chart is designed to provide high, safe performance.

Table Assumes a short ground cable no more than 12 inches long of exact same specification cable					
Wire Length	0-5ft (0-1.5m)	5-10ft (1.5-3m)	10-15ft (3m-4.5m)	15-20ft (4.5-6m)	20-25ft (6-7.5m)
Gauge AWG (mm²)	Power Handling (Amps) - Bassface CCA / OFC				
8AWG (8.35mm²)	175 / 215	87 / 100	58 / 67	45 / 55	29 / 36
4AWG (21.2mm²)	442 / 512	222 / 251	149 / 171	112 / 145	73 / 94
2AWG (33.6mm²)	710 / 845	354 / 410	237 / 279	178 / 234	116 / 152
1/0AWG (42.4mm²)	1133 /1345	567 / 669	378 / 445	283 / 320	184 / 208
00AWG (53.5mm²)	1253 / 1495	627 / 750	420 / 493	298 / 345	194 / 224

Use high quality, non-combustible, correctly rated cables only with appropriate crimped or bolted terminals. Failure to observe this point can result in damage to product or vehicle, or even an electrical fire.

Do not mount the amplifier to the bass cabinet. The vibration passed from the speakers will damage the circuit board over a period of time.

Ensure good ventilation of air around the amplifier. Securely mount the amplifier with bolts to a prepared flat horizontal surface designed for temperatures up to 90°C. Take care touching the amplifier when in use as it may be hot.

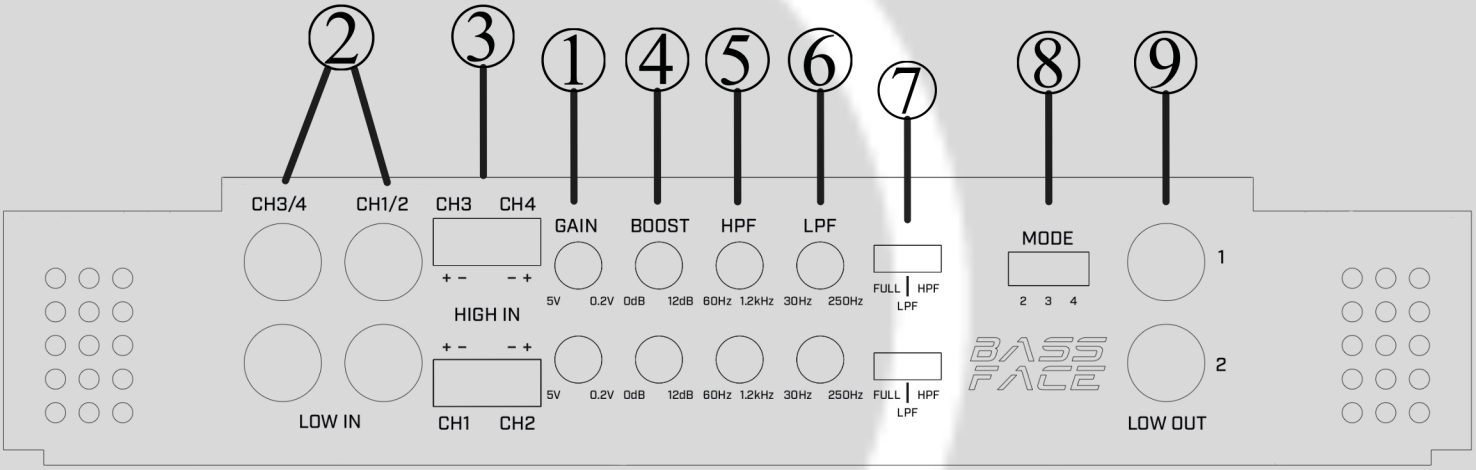
During installation, disconnect the batteries, taking note of any required precautions suggested by the vehicle manufacturer such as alarm or radio codes, on board computer or AGM battery coding requirements.

Check vehicle power supply is adequate by following the "Minimum Power Supply" figure in the specification sheet.

Do not forget to connect the remote feed "REM" to a switched 12V source to facilitate switching on and off. Do not leave the amplifier switched on all the time. Failure to do this will lead to a flat battery and can damage the amplifier.

Make sure the speaker load on the amplifier is within the suitable range listed on the specification sheet.
Failure to run the amplifier above the minimum load listed can lead to damage of the amplifier and result in smoke and fire.

Due to manufacturing tolerances of amplifier components we do not recommend to run dual coil woofers from separate mono channels or amplifiers. This also applies (but less so) to single coil speakers in the same enclosure air space run from separate mono channels. We always recommend the use of a larger amplifier when possible in this case.



1) Gain controls. Are used for level matching your amplifier to your source unit. These are not volume controls.

2) Low level inputs. These are the inputs from your source unit.

3) High level inputs. These allow you to connect to a factory source unit directly from existing speaker cables.

4) Bass boost. These controls are to adjust the bass levels relative to the rest of the frequency range. WARNING- if used you will need to reset the gain downwards to accommodate the adjustment.

5) High pass filter frequencies. These are to adjust the frequency range that is filtered.

6) Low pass filter frequencies. These are to adjust the frequency range that is filtered.

7) Filter switches. These controls select whether to filter out the high or low frequencies so this amplifier can be dedicated for a subwoofer or coaxial/component speakers.

8) Mode switch. This will allow you to enable 2-3 channel bridge-mode. Keep this on 4 to disable bridge-mode for normal use with 4 inputs.

9) Loop out. This allows you to easily connect multiple amplifiers together with the same signal input.

Crossover setup

If you are running coaxial or component speakers you first need to set the “HPF/FULL/LPF” switch to "HPF".

The High Pass Filter will stop very low frequencies from getting to the speakers witch can cause damage at high volumes. We recommend to use 200Hz for 4” speakers, 100Hz for 5” speakers and 60-80Hz for 6” ones as a useful starting point.

If you are running a subwoofer set the switch to “LPF”. This will filter out the high frequencies reducing the stress on the amplifier. We recommend an LPF of about 100Hz initially for most car woofers. Try 80Hz and 120Hz too – you will notice the sound change.

Team Tip: An easy way to accurately find the crossover point is to play a test tone of the frequency you want the crossover to be at and slowly increase or decrease the crossover frequency until the tone starts to go quiet meaning you are at the correct point.

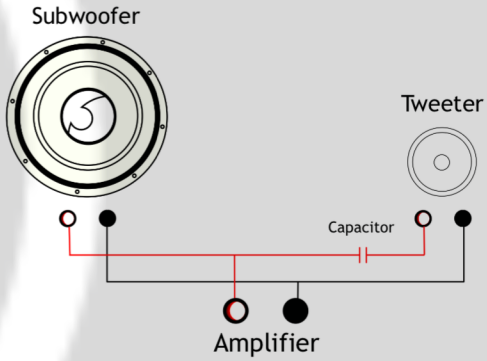
Gain setup

This is a crucial part of the setup process; actually it is every bit as important as the physical installation. Incorrect adjustments will damage your amplifier and speakers. Damage caused by improper setup will not be covered by warranty. Do not run the amplifier with any channels undriven. This can damage the unit badly as well as being very dangerous, causing smoke and the possibility of an electrical fire.

Before you set the gains make sure any sound enhancements such as "bass boost" or "loudness" are disabled. Set the volume level on your source unit to around 75% (most source units are safe from distortion up to this point. If you know your source unit does not clip then it is recommended to use as high a setting as possible to maximise the signal voltage to your amplifiers.) Either way this will become your new maximum volume setting.

Adjusting the gain by ear is a tricky thing to do and may take some practice to learn what to listen for. Some help from an experienced installer can be really useful at this point. The professionals use expensive hardware clip detectors and oscilloscopes which most DIY installers do not have access to. Therefore, please read and understand the below to make the best installation you can.

Team Tip: For setting subwoofers it is possible to make a useful DIY clip detector. Wire an old tweeter and high voltage capacitor (we recommend a 250V 6.8uF) as shown in this diagram. Next, play a 50Hz tone. Turn the gain up slowly until the tweeter makes a distinctive metallic rasp then back the gain off a small amount until the tweeter stops making the noise. Only use a tweeter you do not need as this can damage the tweeter. This method works because the capacitor blocks the bass signals to the tweeter as normal until the amplifier distorts and you hear the noise.



For setting up full range or mid range speakers it is not possible to use the DIY clip detector above.

There are 3 signs of clipping. Learn to use these signs to help you understand where the clipping point is. The first sign is a slight change of tone when you turn the gain above a particular point. This is the "install clipping point" and this is where you want the gain to be set. However the change of tone is subtle and hard to perceive.

The next sign of clipping is "dynamic compression". This is when you turn the gain up to a point when the sound isn’t getting much louder compared to the gain level.

The final sign is when you hear distortion. This means the gain is far too high and will damage the speakers and amplifier if not turned back down rapidly.

With all other speakers powered off play a 1000Hz (1KHz) tone. Carefully turn up the gain to identify the 3 points described above. It may take several attempts and some careful listening to be successful. You are aiming to set the gain just below the "install clipping point".

We thank you for taking the time to read and understand these instructions. We hope that the information we have provided helps you to build a well-balanced and stable system that will provide years of listening pleasure.

To download a more in-depth manual please go to our website: www.bassfacecaraudio.co.uk. Navigate to the product page and click on download manual below product description.