Mounting Location

It will be necessary to find a mounting location for the enclosure. Select the location in which you wish to mount the enclosure. Use caution when mounting the enclosure, there are many wires, gas lines, vacuum lines, brake lines as well as a gas tank in the automobile. Make sure you know where they are when mounting the enclosure to avoid puncturing lines, shorting wires or drilling holes in the gas tank.

HI LEVEL INPUT SUPPLEMENT

1. In many new vehicles the factory audio systems have become more advanced. Many radios have built in crossovers incorporated into the system. It's very important you locate and use the signal from the front door speakers that produce low frequencies. Many vehicle rear speakers do not receive the full range of low frequencies. If your SOUND WAVE enclosure does not receive the full range of low frequencies, it cannot reproduce low sub bass
2. In vehicles with a factory subwoofer installed simply identify the positive and negative on the factory harness. You will get signal by connecting to the factory subwoofer + (positive) and – (negative) wiring and then disconnecting the harness from the factory subwoofer. In this connection you connect both positive (+) of the high-level input and both negative (-) of the high-level input and connect to your SOUND WAVE enclosure. In doing so the voltage will increase and your remote level will become quite sensitive and you will not have the need to increase the remote gain as you do in systems without a subwoofer input connection.
3. In many new vehicles that incorporate multiple microphones, primarily in the rear of the vehicle which will need to be disconnected to avoid low frequency feedback to your SOUND WAVE enclosure.
4. If you should need additional technical support, contact your SOUND WAVE distributor. They are experienced professionals when it comes to installation of the SOUND WAVE enclosures.

Specifications
Output Power @14.4V – 300 RMS
Frequency Response – (-1dB)20Hz-150Hz
S/N Ratio (A~weight) - >95dB
THD with 22K filter - ,<0.2%
Low Input Level – 100mV-4V
Hi Input Level – 10V
Battery Voltage Range – 10.5VDC-16VDC
Crossover Type – LP
Variable Low Pass Range – 35Hz-150Hz
Crossover Slope 12dB/Oct

Specifications
Bass Boost (45 Hz) – 0-12dB
Subsonic Filter – 24dB @ 20Hz
Variable Phase – 0 / 180
Remote Bass Control - Yes
Remote Auto Start - Yes
Protection Circuit – Thermal, Over & Under Voltage
Amplifier Fuse & Holder – 2 x 10A
Size L x W x H (mm) – 470 x 243 x 338
Weight – 9.54 kg

Due to continuing product improvement, specifications subject to change without notice.

WARNING!

Exposure to high sound pressure levels can cause hearing loss or damage. Listening to your system at loud levels while driving will impair your ability to hear traffic sounds and emergency vehicles. Use common sense when listening to your system.

SOUND WAVE AUDIO DESIGN

DW103F & DW103A

10" POWERED ENCLOSURE

Installation Instructions / Owner's Manual

DW103A/F Manual
Rev 10.1.2020

IMPORTANT! BEFORE MAKING ANY CONNECTIONS, DISCONNECT THE CAR'S BATTERY UNTIL THE INSTALLATION IS COMPLETED TO AVOID POSSIBLE DAMAGE TO THE ELECTRICAL SYSTEM.

Connect the amplifier to the car's battery

At times, the amplifier will need to draw large levels of current that cannot be provided by any circuit in the car's fuse box. We recommend using a 4 to 8-gauge wire for your connections depending on the amplifier and length of the wire. Strip one end of the wire to connect the terminal on the amplifier marked +BATT. Loosen the screw terminal and connect the bare wire and tighten. Use caution to make sure no stray wire strands come in contact with surrounding terminals to cause any short circuits. Run the wire directly to the positive terminal of the car's battery. Make sure to use an in-line fuse within 12" of the car's battery to protect the electrical system and amplifier against short circuits and/or power surges.

Connect the ground terminal of the amplifier to the car's chassis

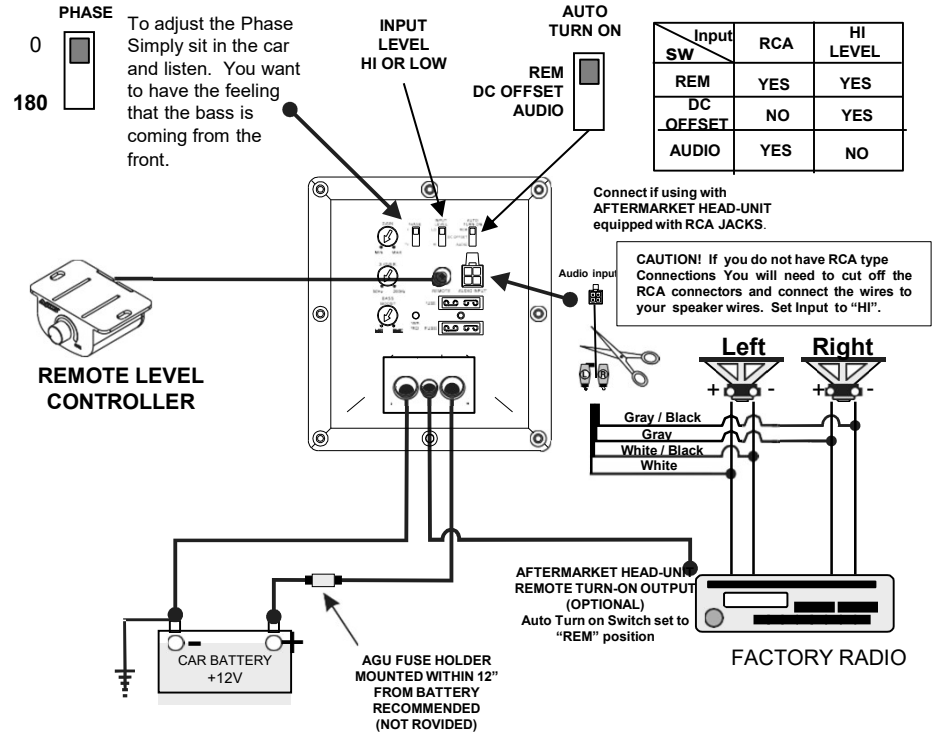
For the ground connection, use a 4 to 8-gauge wire (black to connect to the terminal marked GND and then connect it to the car's chassis. Try to keep the length of the cable as short as possible, preferably less than 6". Also make sure that the point on the car where the connection is to be made is free of paint and dirt.

(OPTIONAL) Connect the remote terminal of the amplifier to a switchable +12V source

This connection allows the amplifier to be turned on and off with the power control of the radio. If the radio has a REMOTE output terminal, connect it to the amplifier's terminal marked REM (using a 16-gauge wire or heavier). Now when the radio is turned on, the amplifier will automatically turn on. This connection can also be made to the radio's Power Antenna wire.

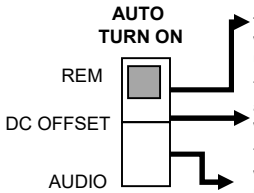
Connect the RCA output of the head unit (AM/FM cassette player, CD, or DAT) to the RCA input terminals of the amplifier.

To make these connections, we recommend using high quality RCA cables, which are available at your local car audio retailer. Run signal wires away from electrical wires to avoid possibility of induced noise from the car's electrical system (i.e. popping noises or engine noise).



Auto Turn On Switch

The "REM" setting is the best way to turn the unit on and off but if you do not have a REMOTE output wire from your head-unit then you will need to use either the "Audio" or "DC OFFSET" setting. Not all head-units are the same this is why we provide three different TURN ON options. You will need to select the setting that works best with your head-unit. (The AUDIO & DC OFFSET settings are to be used with the Factory or Hi-level connections below.



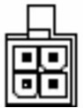
The "REM" setting is used when your head-unit has a +12v OUTPUT WIRE. Most factory radios do not have this "output wire". You can also connect this to the Accessory wire in your car and it will turn the amplifier on and off with the key regardless if the head-unit is on or not.

The "DC OFFSET" setting senses the voltage change when the head-unit is turned on and off and does not depend on music as the AUDIO setting below. This setting will work on about 80% of the head-units. Must use Hi-level input for this setting.

The "AUDIO" setting senses the music signal to turn on the amplifier. This setting will work with any head-unit. In this setting the amplifier will only turn on when it senses music, so even if your head-unit is on but at "0" volume the amplifier will not turn on. Must use RCA input for this setting.

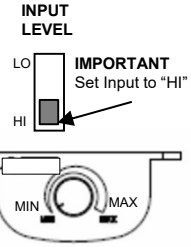
Factory System or Hi-level Connections

If connecting to a factory system or if your head-unit does not have RCA connections, you will need to use the Hi-level input connector (provided). First locate either your front or rear speaker wires. T's recommended on newer vehicles to get signal from front door speakers.



HI-LEVEL INPUT

Connect the wire WHITE wire to the Left + speaker wire.
Connect the WHITE / BLACK wire to the Left – speaker wire.
Connect the GRAY wire to the Right + speaker wire.
Connect the GRAY / BLACK wire to the Right – speaker wire.



Remote Level Control

Before connecting the remote, you need to find a mounting location that will be easy to access for adjustment. Once you select your mounting location, you will need to run the control wire from the remote to the amplifier. Run the cable from the remote to the amplifier away from any car electrical wiring.

NOTE: Once the remote is plugged in, it overrides the "GAIN" on the amplifier and becomes the primary level adjustment.

Fine Tune The System

The gain sensitivity control for the amplifier is located on the front panel. This gain control has been included to allow adjustment to properly match the output of the radio. This is one of the most misunderstood adjustments. By rotating the control in the clockwise direction, the amplifier's input will become more sensitive and the music will play louder. This is not a volume control and you will not get more power out of the amplifier in the maximum position! It may seem to deliver more output, but actually the system is only playing louder as you turn the volume control on the radio. Ideally to properly level match the system the goal is to achieve max output from the amplifier without distortion at about ¾ of the volume control. To determine if the amplifier's gain is set properly, turn the system on and slowly increase the volume control. You should be able to use about ¾ volume before the system gets loud but without distortion. It is very important when making these adjustments that you do not over drive the speakers (at point of distortion). Which will cause permanent damage to the speakers. If you are unable to achieve ¾ volume before distortion you will need to adjust the gain control (in this case, you would reduce the gain). This gain control should be adjusted very slowly. It may help to have another person to assist you by adjusting the gain control while you listen for distortion,.

Adjusting The X-Over and Bass Boost

The amplifier is equipped with a built-in variable crossover network which allows you to select the crossover point. If you are using this with another amplifier which has a Hi-pass setting you may want to match or slightly over-lap the x-over points. If this is being added on to a factory system, then the best way will be to just sit and listen and adjust until you have come to the best balance for your tastes. 80Hz is an ideal x-over point.

The amplifier is equipped with a built-in variable bass boost network which allows you to select the gain at 45Hz. When increasing the level you will notice more energy in the lower frequencies. Again there is no specific setting for this, and your preference should be the deciding factor for the level setting. Although it's recommended to not adjust more than ½ to avoid over excursion of the woofer