

"If you know subwoofers, you know about Velodyne."

"... it's safe to say that when it comes to woofin' done right, Velodyne's bigger models are probably the safest bet there is."

"... we just sat there marvelling at the sheer power and majesty of this junior varsity Velodyne."

-Corey Greenberg
Home Theater Technology/February 1995
Face Off: Comparison of five subwoofers
Model Tested: VA-1012X

N 806/907 Owner's Manual



Velodyne Acoustics, Inc.
1070 Commercial St. Suite #101
San Jose, CA 95112

408.436.7270 voice
408.436.7276 fax
Web Site: <http://www.velodyne.com>
E-mail: velodyne@earthlink.net

Velodyne
Audio/Video Subwoofer System



P/N: 63-610

Printed on recycled paper.



CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN



Caution

To reduce the risk of electric shock, do not remove cover (or back). No user-serviceable parts inside. Refer servicing to qualified service personnel.

The lighting flash with arrowhead symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the subwoofer.

1. Read Instructions -- All safety and operating instructions should be read before the subwoofer is operated.
2. Retain Instructions -- The safety and operating instructions should be retained for future reference.
3. Heed Warnings -- All warnings on the subwoofer and in the operating instructions should be adhered to.
4. Follow Instructions -- All operating and use instructions should be followed.
5. Water and Moisture -- The subwoofer should not be used near water -- for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, near a swimming pool or the like.
6. Carts and Stands -- The subwoofer should be used only with a cart or stand recommended by the manufacturer.
7. Wall or Ceiling Mounting -- The subwoofer should be mounted to a wall or ceiling only as recommended by the manufacturer.
8. Ventilation -- The subwoofer should be situated so that its location or position does not interfere with its proper ventilation. For example, the subwoofer should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or placed in a built-in installation such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.
9. Heat -- The subwoofer should be situated away from heat sources such as radiators, heat registers, stoves, or other subwoofers that produce heat.
10. Power Sources -- The subwoofer should be connected to a power supply only of the type described in the operating instructions or as marked on the subwoofer.
11. Power-Cord Protection -- Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point at which they exit from the subwoofer.
12. "Caution: To prevent electrical shock, match wide blade of plug to wide slot, fully inserted." "Attention: Pour eviter les chocs electriques, introduire lame la plus large de la fiche dans la borne correspondante de la prise et pousser jusqu' au fond."
13. Cleaning -- The subwoofer should be cleaned only as recommended by the manufacturer.
14. Nonuse Periods -- The power cord of the subwoofer should be unplugged from the outlet when left unused for a long period of time.
15. Object and Liquid Entry -- Care should be taken so that objects do not fall and liquids are not spilled onto the enclosure.
16. Damage Requiring Service -- The subwoofer should be serviced by qualified service personnel when:
 - a. The power-supply cord or plug has been damaged.
 - b. Objects have fallen or liquid has been spilled into the subwoofer.
 - c. The subwoofer has been exposed to rain.
 - d. The subwoofer does not appear to operate normally or exhibits a marked change in performance.
 - e. The subwoofer has been dropped or damaged.
17. Servicing -- The user should not attempt to service the subwoofer beyond what is described in the operating instructions.

All other servicing should be referred to qualified service personnel.

SPECIFICATIONS	VA-806	VA-907
Cabinet (incl. legs)	13"x12.8"x12.8" (H,W,D)	15"x15"x15"
Frequency Response	39hz-200hz +/- 3 dB.....	
High Pass Crossover	85hz (6 dB/octave)	
Low Pass Crossover	50hz - 150hz (6 dB/octave, 24 dB ultimate).....	
Amplifier	Class A/B, 70 watts, 200 watts peak	Class A/B, 80 watts, 200 watts peak
Woofer	6" forward firing	8" foward firing
Magnet	25 oz.....	
Voice Coil	1.5".....	
Passive Radiator	8" downward firing	10" downward firing
Inputs	Line-level & speaker-level.....	
Outputs	Line-level & speaker-level.....	
Warranty	One year (parts & labor).....	
Weight	38 lbs. (approx.)	44 lbs. (approx.)

Specifications are subject to change without notice.

FOR YOUR RECORDS. . .

DATE PURCHASED _____

DEALER _____

SERIAL# _____

**NOTE: Please complete and return your warranty card within ten (10) days.*



signal sensing turn on/off that will automatically turn on the unit when a signal is present at the inputs and turn off the unit after several minutes when there is no longer any signal at the inputs.

If you plan to leave the VA-806/907 unused for an extended period of time, we recommend that you turn off the unit by the master power switch on the rear panel.

Troubleshooting & Service

Before seeking service for your VA-806/907 subwoofer, please re-check all systems. Following is a simple troubleshooting guide to assist you.

1. Verify unit is plugged in and power outlet used is active.
2. Is power switch on?
3. Is auto turn on/off set properly?
4. Is unit receiving an input signal from your source?
5. Have all controls on subwoofer (volume, crossover, phase, etc.) been properly set?

The following conditions require service by a qualified technician:

1. The power cord has become damaged.
2. The unit does not appear to operate normally or exhibits a marked change in performance.
3. The unit has been exposed to water.
4. Some part of the cabinet or circuitry is physically damaged.

Thank you for purchasing a Velodyne!

Congratulations!

Congratulations on your purchase of a Velodyne VA-806/907 subwoofer system. This system represents the state of the art in accurate low frequency reproduction. Read and follow the instructions below to insure safe and proper system operation.

Warning!

To prevent fire or shock hazard, do not expose this equipment to rain or moisture. To avoid electrical shock, do not open speaker enclosure or amp chassis cover. Please observe all warnings on the equipment itself. There are no user serviceable parts inside. Please refer all service questions to your authorized Velodyne dealer.

Prior to installation

Please unpack the system carefully. Remove all staples used to seal the carton as they can scratch the cabinet. Please save the carton and all packaging materials for future use. Record the serial number in the space provided on the warranty card for future reference.

Product Features & Controls

- Built in power amplifier
- Adjustable (50 to 150hz) low-pass crossover
- 85hz high-pass crossover
- Line-level inputs & outputs
- Speaker-level inputs & outputs with spring clips
- Signal sensing auto turn on/off with bypass option
- Variable volume control
- selectable phase control (0 or 180 degrees)
- Magnetically shielded for video use

continued...



Installation

Your new VA-806/907 subwoofer system provides for a number of installation options. Read all the installation information below in order to determine which installation option is best for your system.

Remember to perform all installation procedures with system power turned off.

Inputs

Your new VA-806/907 subwoofer is equipped with both speaker-level and line-level inputs. Use the LINE-IN jacks when connecting your subwoofer to a pre-amp, signal processor, or line-level crossover. The FROM AMPLIFIER jacks connect directly to the speaker outputs of a integrated amplifier or receiver. Your amplifier section will notice no additional loading effects when you use these inputs because of their high impedance.

Note

Do not use both LINE-IN and FROM AMPLIFIER inputs simultaneously.

Volume control

This control allows you to balance the output from the subwoofer to the main speakers in your system. To adjust the volume, start with the volume knob indicator at the "MIN" setting. With your other speakers playing, rotate the knob clockwise until you create a volume balance with your speakers. In most cases this will be somewhere between the "10 o'clock" and "2 o'clock" positions on the dial.

Warning - Turning the volume to "MAX" setting may damage the subwoofer with certain source material.

Low-pass crossover

Both sets of inputs sum the left and right channels together and the resulting signal is passed through an adjustable low-pass crossover before being amplified. The crossover control allows you to adjust the upper limit of the subwoofer's frequency response from 50 to

When using a pair of VA-806/907 subwoofers in stereo, it is preferable to place each subwoofer adjacent to the satellite of the same channel.

Keep in mind that frequency response and output level can be drastically influenced by placement depending on the acoustic properties of the listening room. Typically the VA-806/709 will sound louder when placed next to a wall or in a corner.

Caution!

The VA series subwoofers have amplifiers built into the cabinet. Do not place the cabinet next to sources of heat such as furnace registers, radiators, etc. The power cord should be routed in such a way that it will not be walked on, pinched, or compressed in any way.

Regardless of where you install your VA-806/907 subwoofer, it must remain in an upright position (passive radiator facing downward). Using, shipping, or otherwise storing the VA-806/907 subwoofer in any other position for an extended period of time may result in damage to the unit not covered by warranty.

The VA-806/907 Subwoofer is magnetically shielded to reduce magnetic emission from its cabinet to increase the number of possible locations available for placement. However, this shielding may not be adequate for all installations. Certain types of televisions are particularly sensitive to stray magnetic fields. If your television produces distorted colors after installation of your VA-806/907 subwoofer, simply increase the distance between your television and the VA-806/907 until normal color and operation is returned.

Care of your subwoofer

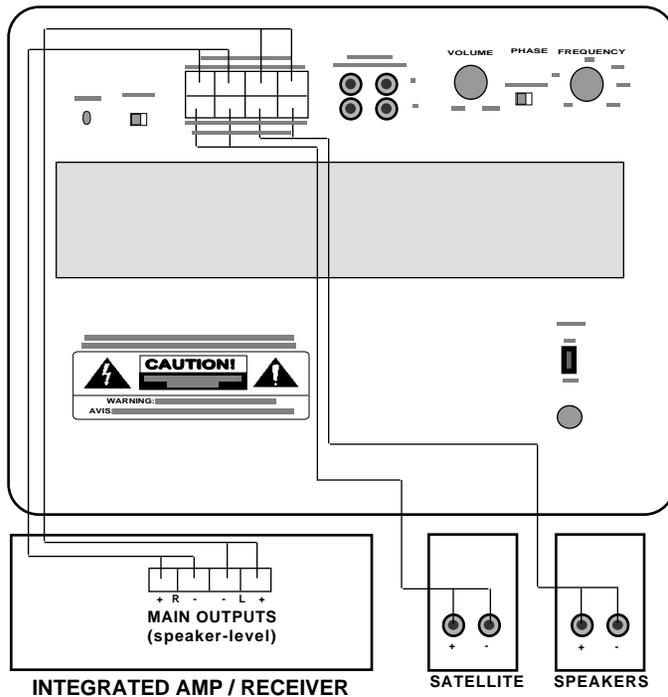
Do not use any harsh detergents or chemicals to clean the cabinet. Abrasives, detergents, or cleaning solutions may damage the finish on the cabinet. We recommend using a damp cloth to clean the cabinet.

During normal conditions, the VA-806/907 subwoofer may be left on continuously without any problems. The unit is equipped with a

continued...



Figure 2: Installation using speaker-level (from amplifier) inputs



150 hz. The subwoofer's response will begin rolling off above the frequency you set this control to.

You should set the crossover frequency to obtain a smooth and seamless transition from the subwoofer to the main speakers in your system. If your main speakers are smaller units with limited low frequency output, you may wish to choose a higher frequency (such as 100-120hz) than you would with larger speakers which have greater low frequency output. With larger speakers, you might start with this control set lower, such as 80hz.

Phase adjustment

This control allows you the ability to compensate for having the subwoofer in a different location than the main speakers. Ideally, you will have the sound from the subwoofer reach the listening position the same time as the sound from the main speakers. However, if the distance from the listening position to the subwoofer and the distance from listening position to the main speakers differs, the sound from each will reach your ears at a different time.

This control allows the signal to be delayed 180 degrees so the output of the subwoofer will blend in to that of your main speakers without any cancellation.

Interconnect cables

When installing your VA-806/907 using the line-level inputs/outputs, you should use standard shielded phono cables. Always keep the lines as short as practical to minimize noise.

When using the speaker-level inputs/outputs, use the same quality speaker cable to your subwoofer as you run to your satellites.

Placement

The VA-806/907 operates at very low frequencies which are primarily non-directional. While it is recommended that the subwoofer be placed on the same plane as the satellite speakers, room and system conditions often dictate otherwise. See your dealer for help in placement.

Auto turn on switch

The auto turn on switch allows the user to bypass the auto turn on function if desired. When set in the "auto" mode with main power on, the VA-806/907 will turn itself on when an input signal is present. If no signal is present, after several minutes the unit will shut itself off. When set in the "on" mode, the auto turn on/off function is bypassed and the unit will be on whenever the main power switch is on.

Power switch

The master power switch is located on the right half of the unit. This slide style switch is the main on/off for the unit. This switch should be set to up for on , down for off.

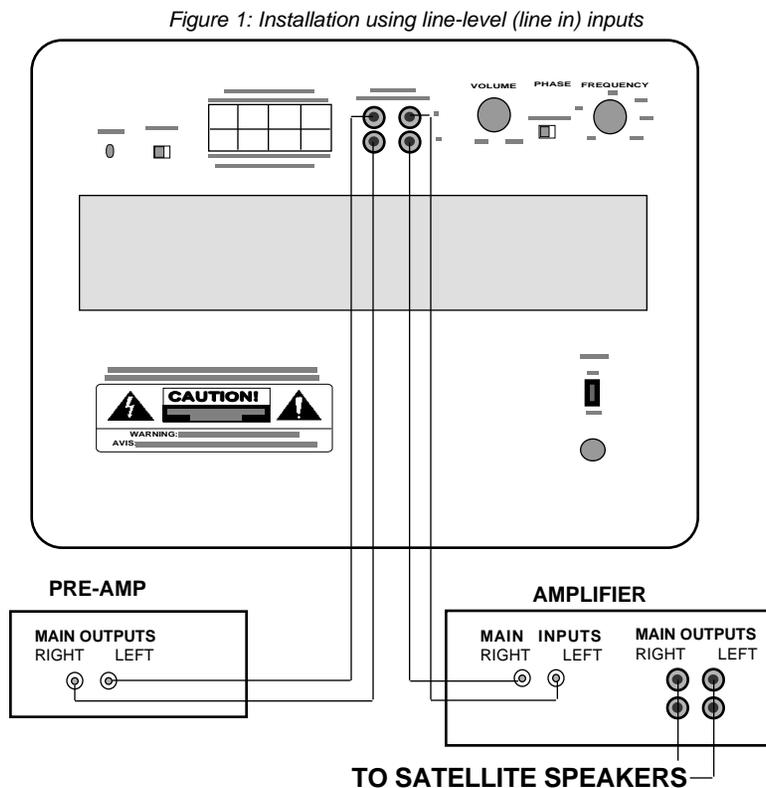
continued...



Line-level connection

Figure 1 shows connection to a pre-amplifier's main outputs and returning them to your amplifier inputs.

When installed in this fashion, your satellite speakers will be crossed over at 85hz, which removes the lower bass from your amplifier and speakers thus, enabling them to do a better job reproducing high frequencies. By utilizing this method, you will have a bi-amplified system, gaining improved power and headroom for your system.



A word about subwoofer outputs

The Velodyne subwoofer is designed to operate using the full range audio signal for input when using the built-in crossover. Some surround sound processors/receivers have a "subwoofer out" jack that is already crossed over and designed to be used with a conventional amplifier and speaker. If this is the case, you should set the low pass crossover to 150Hz.

Note

If not using an external crossover, you should use the built-in crossover for optimal performance.

Subwoofer out from A/V Processor

From the low pass output of your signal processor install into right or left RCA line in connector in the back of the subwoofer or use a "Y" connector adapter into both right and left RCA line in connectors in the back of the subwoofer.

Speaker-level connection

Figure 2 shows an easy way to connect your VA-806/907 subwoofer directly to your receiver or integrated amplifier.

When connected in this fashion, your satellite speakers will be crossed over at 85hz, which removes the lower bass from your speakers thus, enabling them to do a better job reproducing high frequencies.

You may also connect your satellites directly to your receiver or amplifier along with the subwoofer if you wish to bypass the internal high-pass crossover.

Caution!

To avoid damage to your main amplifier, be sure to maintain correct polarity when making all connections. Red (positive) to red, and black (negative) to black. Be sure that all connections are tight, and that there are no loose strands or frayed wires.

continued...

