

PSW 15™

Professional Subwoofer



PSW 15P™

Powered Professional Subwoofer

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3/05

AMERICAN AUDIO

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Introduction: Congratulations and thank you for purchasing the American Audio® PSW 15™ or the PSW 15P™ professional subwoofer. This subwoofer is a representation of American Audio’s continuing commitment to produce the best and highest quality audio products possible at an affordable price. The PSW 15™ is a passive subwoofer, encased in a wood encloser. This subwoofer has been designed to be used as both a portable and a permanently installed unit. The PSW 15P™ is a 300 watt self powered version of the PSW 15™. Please read and understand this manual completely before attempting to operate your new subwoofer. This booklet contains important information concerning the proper and safe operation of your new subwoofer.

Customer Support: American Audio® provides a toll free customer support line, to provide set up help and answer any question should you encounter problems during your initial set up or operation. You may also visit us on the web at www.americandj.com for any comments or suggestions. Service Hours are Monday through Friday 9:00 a.m. to 5:30 p.m. Pacific Standard Time.

Voice: (800) 322-6337
 Fax: (323) 582-2610
 E-mail: support@americandj.com

Caution! There are no user serviceable parts inside this subwoofer. Do not attempt any repairs, without being instructed to do so by an authorized American Audio technician. Doing so will void your manufacturer’s warranty. In the unlikely event your subwoofer may require service, please contact American Audio®.

Every PSW 15™ and PSW 15P™ has been thoroughly tested and has been shipped in perfect operating condition. Carefully check the shipping carton for damage that may have occurred during shipping. If the carton appears to be damaged carefully inspect your units for any damage and be sure all accessories necessary to operate the system have arrived intact. In the event damage has been found or parts are missing, please contact our toll free customer support number for further instructions. Please do not return the subwoofer to your dealer without first contacting customer support.

ELECTRICAL PRECAUTIONS



The lightning flash with arrowhead symbol, within an equilateral triangle, 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.



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE THE COVER (OR BACK). THERE ARE NO USER SERVICEABLE PARTS INSIDE. REFER SERVICE TO YOUR AUTHORIZED AMERICAN AUDIO® SERVICE TECHNICIAN.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

IMPORTANT SAFETY INSTRUCTIONS

READ INSTRUCTIONS — All the safety and operating instructions should be read before the product is operated.

RETAIN INSTRUCTIONS — The safety and operating instructions should be retained for future reference.

HEED WARNINGS — All warnings on the product and in the operating instructions should be adhered to.

FOLLOW INSTRUCTIONS — All operating and use instructions should be followed.

CLEANING — The product should be cleaned only with a polishing cloth or a soft dry cloth. Never clean with furniture wax, benzene, insecticides or other volatile liquids since they may corrode the cabinet.

ATTACHMENTS — Do not use attachments not recommended by the product manufacturer as they may cause hazards.

WATER AND MOISTURE — Do not use this product near water — for example, near a bathtub, wash bowl, kitchen sink, or laundry tub; in a wet basement; or near a swimming pool; and the like.

ACCESSORIES — Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a child or adult, and serious damage to the product. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the product. Any mounting of the product should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.

CART — A product and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the product and cart combination to overturn.



VENTILATION — Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating, and these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.

POWER SOURCES — This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your product dealer or local power company.

LOCATION — The appliance should be installed in a stable location.

NONUSE PERIODS — The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.

GROUNDING OR POLARIZATION

- If this product is equipped with a polarized alternating current line plug (a plug having one blade wider than the other), it will fit into the outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.
- If this product is equipped with a three-wire grounding type plug, a plug having a third (grounding) pin, it will only fit into a grounding type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding type plug.

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 where they exit from the product.

OUTDOOR ANTENNA GROUNDING — If an outside antenna or cable system is connected to the product, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges. Article 810 of the National Electrical Code, ANSI/NFPA 70, provides information with regard to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See Figure A.

LIGHTNING — For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the product due to lightning and power-line surges.

POWER LINES — An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.

OVERLOADING — Do not overload wall outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock.

OBJECT AND LIQUID ENTRY - Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.

SERVICING — Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

DAMAGE REQUIRING SERVICE - Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- When the power-supply cord or plug is damaged.
- If liquid has been spilled, or objects have fallen into the product.
- If the product has been exposed to rain or water.
- If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation.
- If the product has been dropped or damaged in any way.
- When the product exhibits a distinct change in performance — this indicates a need for service.

REPLACEMENT PARTS -- When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.

SAFETY CHECK - Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.

WALL OR CEILING MOUNTING — The product should not be mounted to a wall or ceiling.

HEAT — The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.

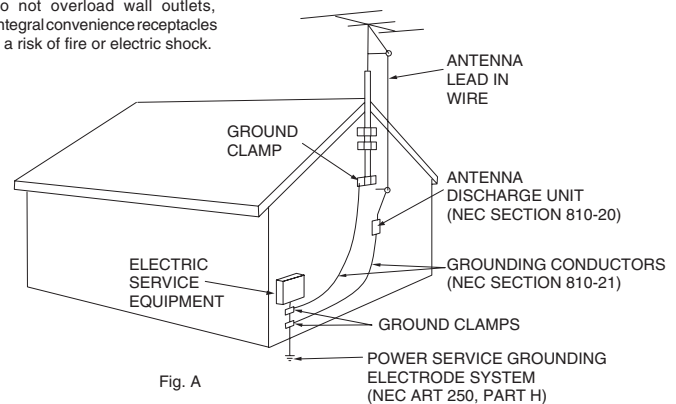


Fig. A

NEC — NATIONAL ELECTRICAL CODE

- The PSW 15™ and the PSW 15P™ subwoofers can easily reproduce sound pressure levels (SPL) sufficient enough to cause sever and permanent hearing damage. A great degree of care should be taken to protect your ears to prolong exposure to SPL in excess of 85dB.
- For adult use only - Keep out of the reach of children.
- Be sure all power is turned off before making subwoofer connections
- Do not remove the subwoofer cover or grill under any conditions
- Always use a power cord that meets the manufactures exact power specifications
- Disconnect from main power before making any type of connection
- To reduce the risk of electrical shock or fire, do not expose this unit rain or moisture
- This subwoofer is intended for indoor use only, use of this product outdoors voids all warranties.
- Always mount this subwoofer in safe and stable matter.
- 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 where they exit from the mixer.
- Heat -The subwoofer should be situated away from heat sources such as radiators, heat registers, stoves, or other mixers (including amplifiers) that produce heat
- Be sure to save the packing carton in the event the unit needs to be returned for service
- Read all documentation before attempting to operate your new subwoofer. Please save all your documentation for future reference
- Do not spill water or other liquids in to or on to your subwoofer
- Be sure that the local power outlet matches that of the required voltage for your subwoofer.
- Do not attempt to operate this subwoofer if the power cord has been frayed or broken. Please route your power cord out of the way of foot traffic
- Always have the gain controls set to their lowest level during initial power-up to prevent subwoofer damage
- Servicing - The user should not attempt to service the subwoofer beyond that described in this manual. All other servicing should be referred to qualified service personnel. The subwoofer should only be serviced by qualified personal when;
 - A. Objects have fallen, or liquid has been spilled into the subwoofer
 - B. The subwoofer has been exposed to rain or water
 - C. The subwoofer does not appear to operate normally or exhibits a change in performance
 - D. The terminal/cross-over plate has been damaged

PSW 15™ Subwoofer:

- Dual Speakon Type Connections
- 500 Watts RMS - 900 Watts Peak Power
- Built-in Heavy Duty Carrying Handle
- Attached heavy Duty Rubber Feet

PSW 15P™ Powered Subwoofer:

- Dual XLR/1/4 Inputs
- XLR Balanced Inputs
- XLR Line Outputs
- 300 Watts RMS - 1000 Watts Peak Power
- Built-in Heavy Duty Carrying Handle
- Attached heavy Duty Rubber Feet
- Built-In Adjustable Electronic Crossover

The PSW 15™ and the PSW 15P™ carry a one year (365 days) limited warranty. Please fill out the enclosed warranty card to validate your purchase. All returned service items whether under warranty or not, must be freight pre-paid and accompany a return authorization (R.A.) number. The R.A. number must be clearly written on the outside of the return package. A brief description of the problem as well as the R.A. number must also be written down on a piece of paper and included in the shipping container. If the unit is under warranty, you must provide a copy of your proof of purchase invoice. You may obtain a R.A. number by contacting customer support at (800) 322-6337. All packages returned to the service department not displaying a R.A. number on the outside of the shipping package will be returned to the shipper unopened.

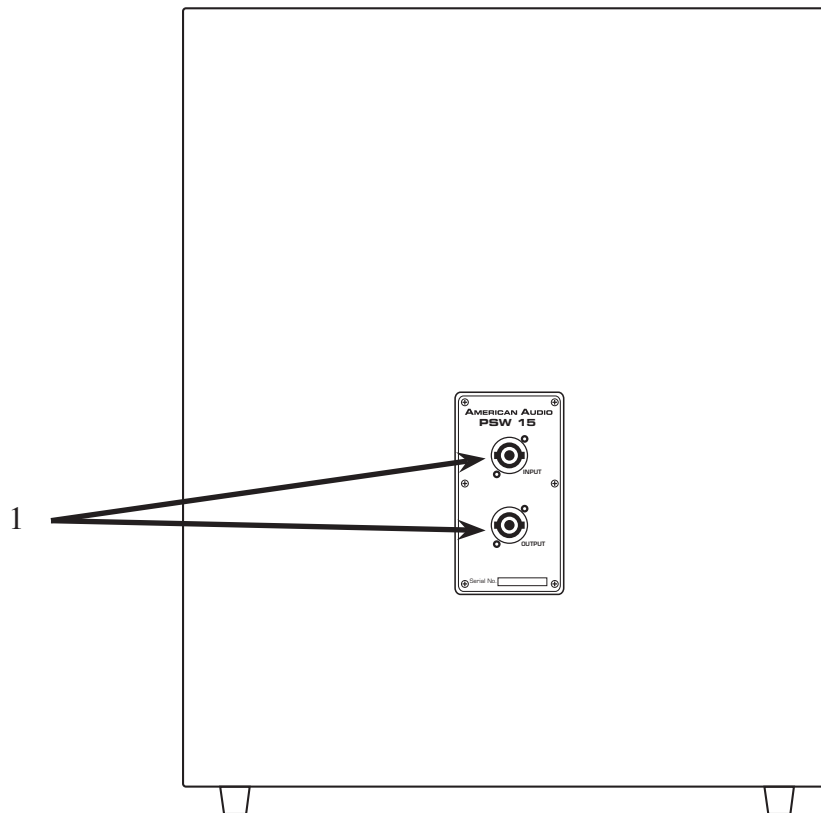
The serial and model number for this unit is located on the rear panel Please write down the numbers here and retain them for future reference.

Model No. _____

Date Purchased _____

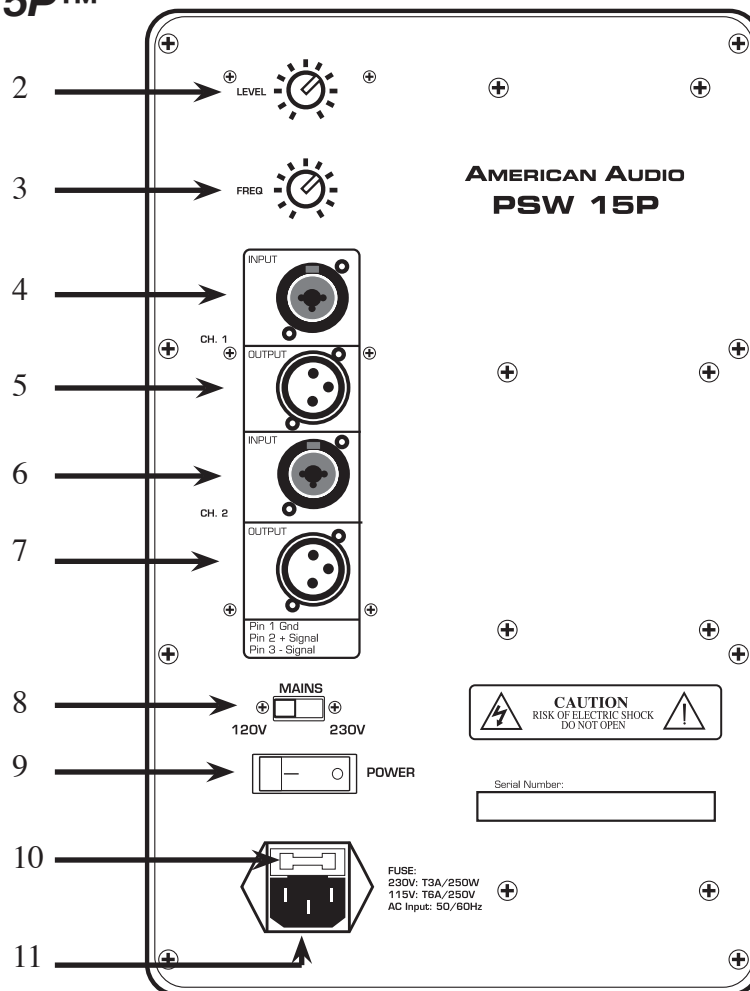
Serial No. _____

Dealer Name _____

Rear of PSW 15™

-
- 1. SPEAKON CONNECTIONS** – The PSW 15 includes a pair of Speakon type connections. You may use both connections at once to loop subwoofers. The Speakon connectors have a pin 1+ (hot) and 1- (ground) configuration, pins 2+ and 2- are not used. For more wiring information regarding the Speakon connectors see page 17.

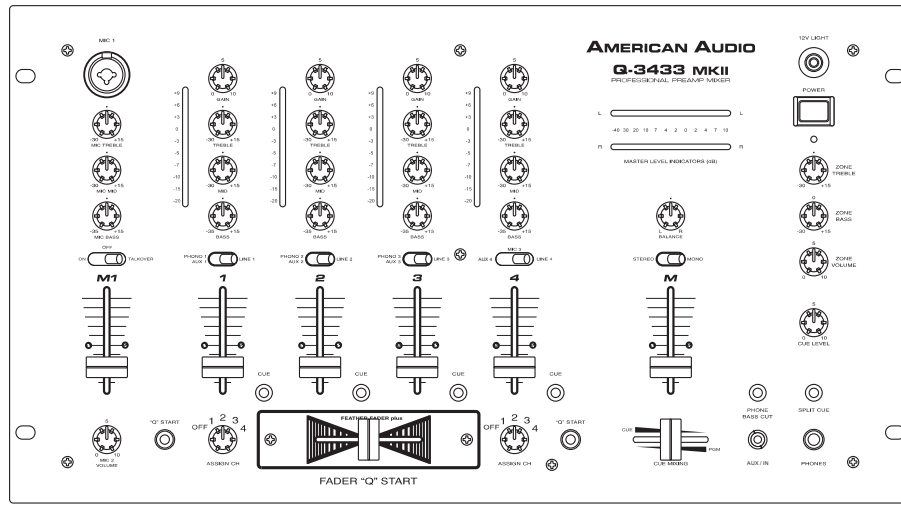
Rear of PSW 15P™

**Rear Panel:**

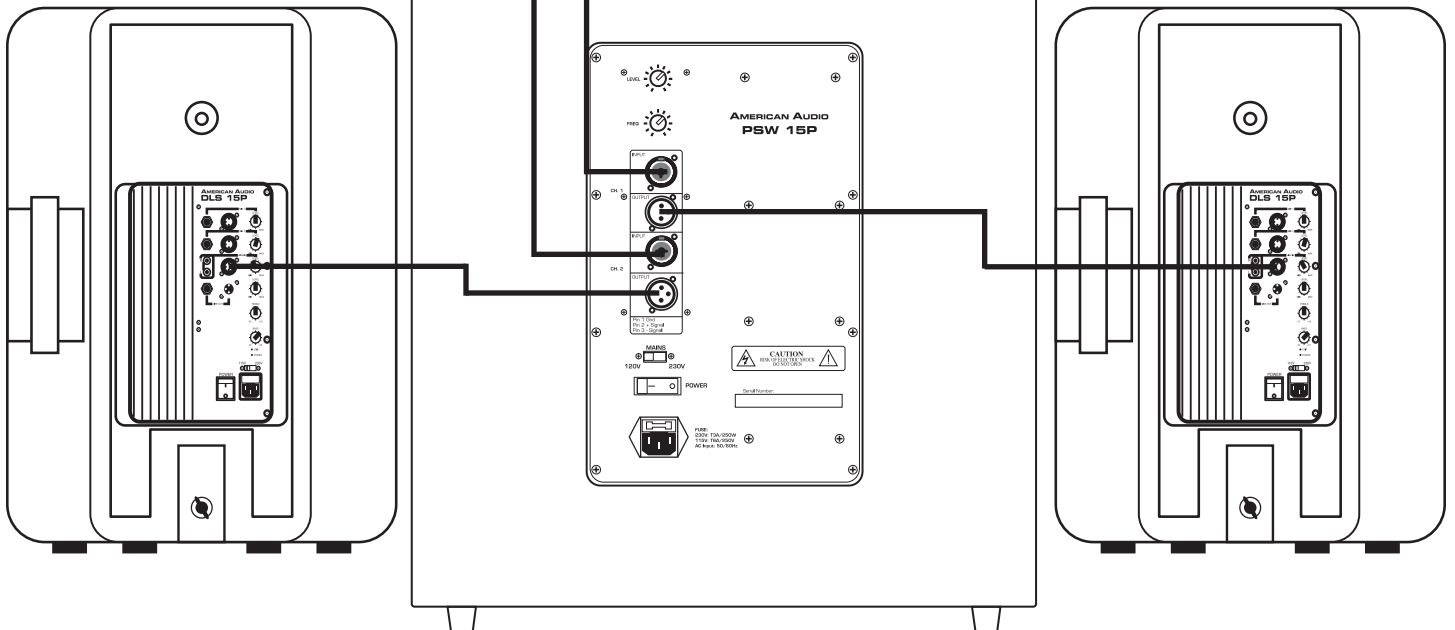
- 2. INPUT LEVEL** – This knob is used to regulate the output signal of the line level source connected to the Line Level Input Jacks (4 & 6).
- 3. FREQUENCY RESPONSE** – This knob is used to adjust the crossover frequency of the subwoofer.
- 4. BALANCED XLR/1/4" LINE INPUT** – This connection is designed to accept a balanced line input signal from a mixer or other line level device with a balanced output jack. Use a balanced cable when the signal cable length exceeds 15 feet, this will reduce excessive signal loss. Be sure to connect only line level input devices such as mixers and tape machines to this jack.
- 5. XLR PARALLEL OUTPUT JACK** – This jack is used to send the incoming signal from either of the Inputs Jacks to another PSW 15P™ or speaker.
- 6. BALANCED XLR/1/4" LINE INPUT** – This connection is designed to accept a balanced line input signal from a mixer or other line level device with a balanced output jack. Use a balanced cable when the signal cable length exceeds 15 feet, this will reduce excessive signal loss. Be sure to connect only line level input devices such as mixers and tape machines to this jack.

- 7. XLR OUTPUT JACK** – This jack is used to send the incoming signal from either of the Inputs Jacks to another PSW 15P™ or speaker.
- 8. VOLTAGE SELECTOR SWITCH** - Because power supplies vary from location to location a voltage selector switch has been incorporated in the unit's design. This switch can select a voltage input of 120v or 230v to accommodate the two major power source. Always be sure to disconnect the power plug before changing the voltage.
- 9. MAIN POWER SWITCH** – This is the main power ON/OFF button. Before main power is applied, be sure you have made all connections to the subwoofer. Remember to avoid damaging pops to the subwoofers, the mixer is turned on first and turned off last.
- 10. FUSE HOLDER** – This housing stores the 6 amp GMA protective fuse. Always replace with the exact same type fuse, unless otherwise instructed, by an authorized American Audio® service technician. Replacing with any other type of fuse than that of the recommended fuse will void your unit warranty.
- 11. MAIN POWER INLET** – This connector is used to supply main power to the unit via the included detachable power cord. The power connection uses an I.E.C. type connector, use only the supplied polarized AC power cord. Use only a power cord that matches this type of connection. Be sure to only connect this unit to a power outlet that matches the printed power label on the unit. Never use a power when the ground prong has been removed or broken off. The ground prong is used to reduce the risk of electrical shock in case of an electrical short. This cord is designed to fit in one direction only. Do not attempt to force a cord if it does not fit, be sure the cord is being inserted properly.

PSW 15P™ Input/Output Set-Up

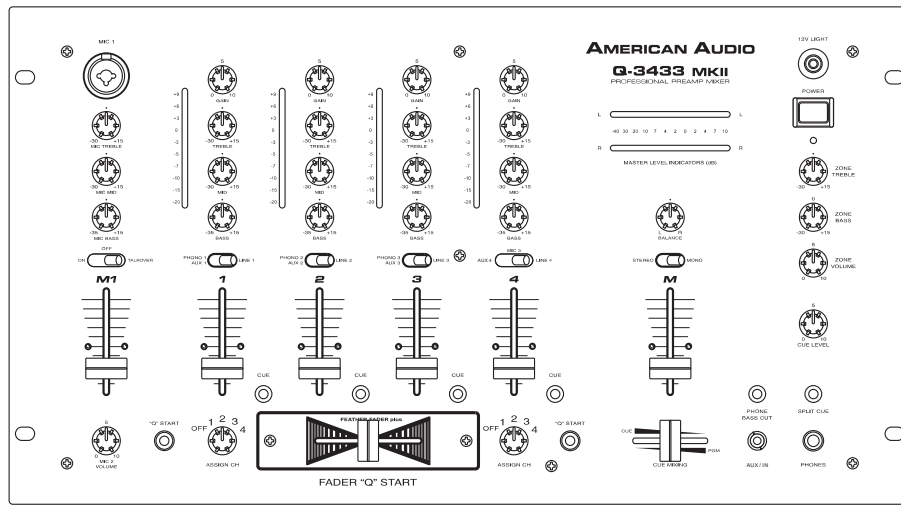


XLR-XLR Balanced Cables

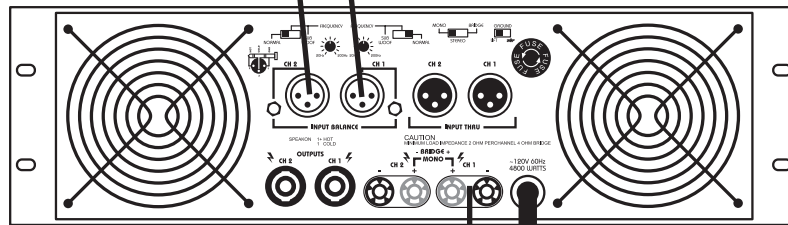


PSW 15P™

PSW 15™ Input/Output Set-Up

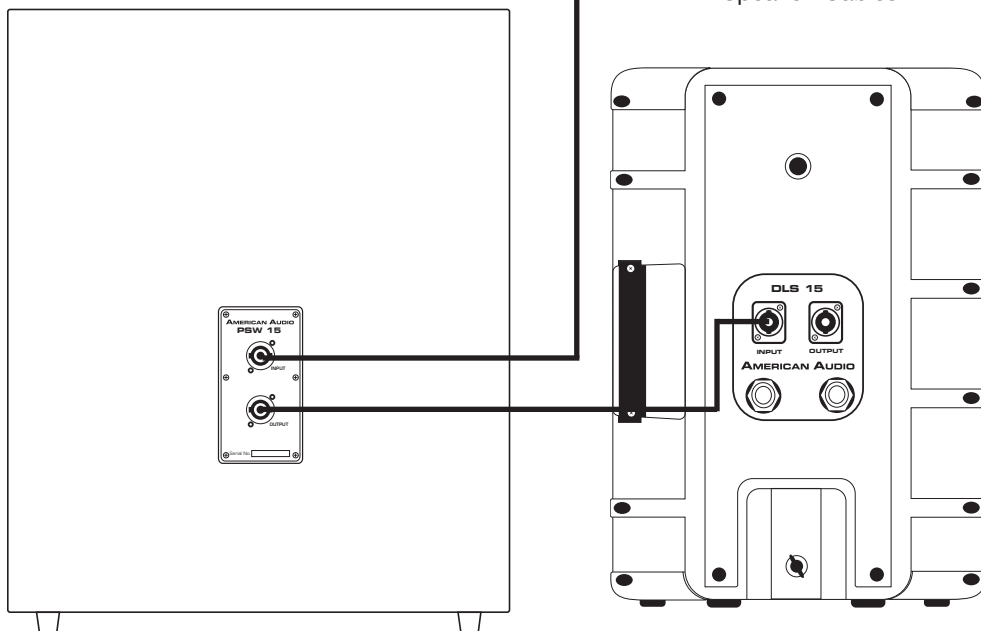


XLR-XLR Balanced cables



V4000 Amplifier

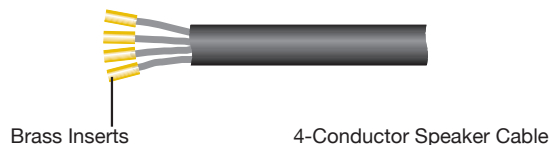
Speakon Cables



SPEAKON ASSEMBLY: You will need a pair of Neutrik Speakon® NL4FC connectors. You will also need high-quality two or four conductor subwoofer cable, a pair of needle-nosed pliers and a 1.5-mm Allen key to assemble the Speakon connectors to your subwoofer wire. To assemble the Neutrik Speakon NL4FC connector, complete the following steps:

1. Strip back 3/4-inch of the cable casing. Strip off 1/4-inch from the end of each of the conductors down to bare wire, and insert the brass fittings (Figure 10).

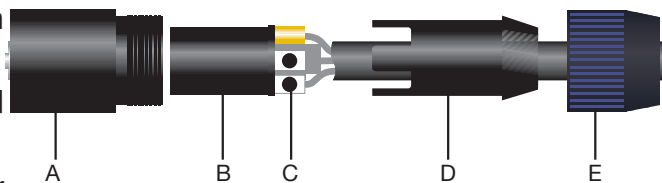
Figure 10



2. Slide the cable tension clip (D) and the speakon coupler (E) through the cable end. See figure 11.

3. Insert each wire with the brass fittings into the top of appropriate slot of the connector insert (B) as shown in figures 11 and 12. Use a 1.5-mm Allen key to tighten the connection (Figure 12).

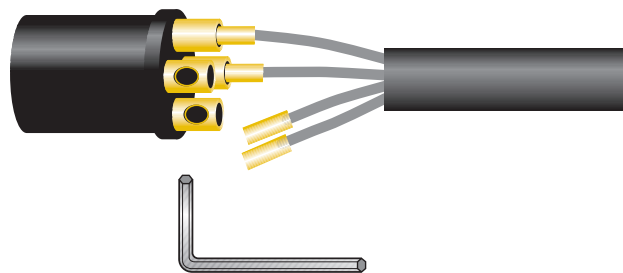
Figure 11



4. Be sure to properly match the positive (+) and negative (-) leads of each wire (Figure 13).

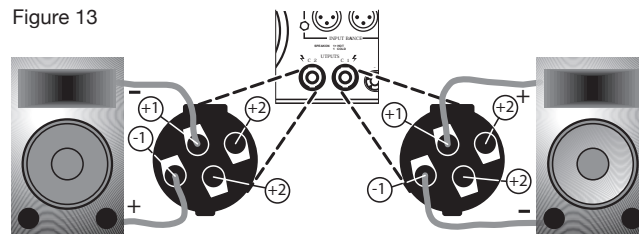
5. Slide the connector insert (B) into the connector housing (A), making sure that the large notch on the outer edge of the insert lines up with the large groove on the inside of the connector housing. The insert should slide easily through the housing and out the other side until it extends approximately 3/4-inch from the end of the housing.

Figure 12



6. Slide the cable tension clip (D) along the cable and insert into the housing (A), making sure that the large notch lines up with the large groove on the inside of the connector housing (A). The cable tension clip (D) should slide easily into the housing until only 3/8-inch of the cable tension clip (D) extends from the back end of the connector.

Figure 13



7. Slide the coupler (E) along the cable and screw it onto the end of the housing (A). Before tightening, you may want to test the connector to make sure it has been assembled properly.

1-YEAR LIMITED WARRANTY

- A. American Audio® hereby warrants, to the original purchaser, American Audio® products to be free of manufacturing defects in material and workmanship for a period of 1 Year (365 days) from the date of purchase. This warranty shall be valid only if the product is purchased within the United States of America, including possessions and territories. It is the owner's responsibility to establish the date and place of purchase by acceptable evidence, at the time service is sought.
- B. For warranty service, send the product only to the American Audio® factory. All shipping charges must be pre-paid. If the requested repairs or service (including parts replacement) are within the terms of this warranty, American Audio® will pay return shipping charges only to a designated point within the United States. If the entire instrument is sent, it must be shipped in its original package. No accessories should be shipped with the product. If any accessories are shipped with the product, American Audio® shall have no liability whatsoever for loss of or damage to any such accessories, nor for the safe return thereof.
- C. This warranty is void if the serial number has been altered or removed; if the product is modified in any manner which American Audio® concludes, after inspection, affects the reliability of the product; if the product has been repaired or serviced by anyone other than the American Audio® factory unless prior written authorization was issued to purchaser by American Audio®; if the product is damaged because not properly maintained as set forth in the instruction manual.
- D. This is not a service contract, and this warranty does not include maintenance, cleaning or periodic check-up. During the period specified above, American Audio® will replace defective parts at its expense, and will absorb all expenses for warranty service and repair labor by reason of defects in material or workmanship. The sole responsibility of American Audio® under this warranty shall be limited to the repair of the product, or replacement thereof, including parts, at the sole discretion of American Audio®. All products covered by this warranty were manufactured after January 1, 1990, and bear identifying marks to that effect.
- E. American Audio® reserves the right to make changes in design and/or improvements upon its products without any obligation to include these changes in any products theretofore manufactured.
- F. No warranty, whether expressed or implied, is given or made with respect to any accessory supplied with products described above. Except to the extent prohibited by applicable law, all implied warranties made by American Audio® in connection with this product, including warranties of merchantability or fitness, are limited in duration to the warranty period set forth above. And no warranties, whether expressed or implied, including warranties of merchantability or fitness, shall apply to this product after said period has expired. The consumer's and or Dealer's sole remedy shall be such repair or replacement as is expressly provided above; and under no circumstances shall American Audio® be liable for any loss or damage, direct or consequential, arising out of the use of, or inability to use, this product.
- G. This warranty is the only written warranty applicable to American Audio® Products and supersedes all prior warranties and written descriptions of warranty terms and conditions heretofore published.

Model:	American Audio®PSW 15™ - Subwoofer
<u>Subwoofer Section:</u>	
Dimensions:	13.58" x 16.53" x 26.37" / 4344mm x 419mm x 669mm
Weight:	56 Lbs. / 25.5 kgs
Environmental conditions:	Operational temperature: 5 to 35°C (41 to 95°F) Operational humidity: 25 to 85% RH (non-condensation) Storage temperature: -20 to 60°C (4 to 140°F)
Frequency Response:	40 - 20 KHz
Crossover:	100 - 300Hz Recommended
Impedance:	8 Ohms
Power Capacity:	500 Watts RMS - 900 Watts Peak
Input Sensitivity:	103dB/m/w

NOTES:

*The specifications are subject to change to any improvement by negotiations in advance.
The parts are subject to change to any improvement within the range of the specifications.*

Model: American Audio® PSW 15P™ - Professional
Powered Subwoofer

Subwoofer Section:

Dimensions: 13.58" x 16.53" x 26.37" / 344mm x 419mm x 669mm
Weight: 61 Lbs. / 28 kgs
Environmental conditions: Operational temperature: 5 to 35°C (41 to 95°F)
Operational humidity: 25 to 85% RH (non-condensation)
Storage temperature: -20 to 60°C (4 to 140°F)
Frequency Response: 40KHz - 20KHz (-3dB)
Crossover: 100 - 300HZ Recommended
Power Capacity: 300 Watts RMS - 1000 Watts Peak Power

Amplifier Section:

Power supply: AC 115v/230v, 50/60Hz
Power consumption: 12 Watts Typical
Accessories: I.E.C. Power Cord, 2 Floor Monitor Brackets

Input Sensitivity (Note; Level/Impedance: 0dBV = 1V RMS)

Line: 10K ohms input impedance
70mV RMS Sensitivity for 0dBm Output

Output Sensitivity: 109 dB/m/w
Master Output: 9V RMS Maximum

Frequency Response:
Line: 20Hz-22KHz +/-0.5dB
Microphone: 20Hz-15KHz +/-0.5dB

Signal to Noise Ratio (Maximum Output):

Line: Better than 94dB
Microphone: Better than 76dB

THD - Total Harmonic Distortion:

Master Output: Less than 0.1%

NOTES:

*The specifications are subject to change to any improvement by negotiations in advance.
The parts are subject to change to any improvement within the range of the specifications.*

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