S W R

POWER 750
OWNER'S MANUAL

SWR
8860 E. Chaparral Rd. Suite 100
Scottsdale, AZ 85250-2618 USA
PHONE: (480) 596-9690
FAX: (480) 367-5262
EMAIL: custserve@fenderusa.com
WEB: WWW.SWRSOUND.COM

IMPORTANT SAFETY INSTRUCTIONS

CAUTION: TO REDUCE RISK OF ELECTRIC SHOCK, DO NOT REMOVE THE COVER OR BACK.
NO USER-SERVICEABLE PARTS INSIDE. PLEASE REFER TO A QUALIFIED SERVICE TECHNICIAN.

A. Read Instructions: All safety and operation instructions should be read before the product is operated.

B. Retain Instructions: The safety and operating instructions should be retained for future reference.

C. Heed Warnings: All of the warnings on this product and in the operating instructions should be adhered to.

D. Follow Instructions: All operating and use instructions should be followed.

E. Cleaning: Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a slightly damp cloth for cleaning.

F. Water and Moisture: Do not use this product near water; for example, near a swimming pool, wet basement, and the like.

G. 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.

H. Ventilation: Slots and openings in the unit are provided for ventilation and to ensure reliable operation of the product, to protect it from overheating, thus these openings must not be blocked or covered. 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.

I. Grounding: This product is equipped with a three-wire grounding-type plug, a plug having a third (grounding) pin. This plug 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.

J. 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 them, paying particular attention to cords at plugs and the point where they exit the product.

K. Lightning: For added protection of 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. This will prevent damage to the product due to lightning and power-line surges.

L. Overloading: Do not overload wall outlets or extension cords as this can result in a risk of fire or electric shock.

M. Object and Liquid Entry: Never push objects of any kind into this product through the 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.

N. 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.

O. Damage Requiring Service: Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

1) When the power supply cord has been damaged
2) If liquid has been spilled or objects have fallen into the product
3) If the product has been exposed to rain, water, or other conductive liquids
4) If the product does not operate normally by following the operating instructions
5) If the product has been dropped or damaged in any way
6) When the product exhibits a distinct change in performance.

P. 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.

Q. 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.

R. Heat: The product should be situated away from heat sources such as radiators, heat registers, stoves or other products that produce heat.

POWER 750 OWNER'S MANUAL

INTRODUCTION 1

Congratulations on your purchase of the SWR Power 750! You now own one of the meanest, toughest and loudest power amps ever made specifically for bass guitar.

Bassists have a unique burden when it comes to power, because it takes considerably more power to amplify lower frequencies than it does for higher ones. That's why your guitarist can blow people away with his 100 watt combo amp, and you can't even leave the house with less than 200 watts if you want to be heard at all in a high-
volume situation. Our loyal customer base has been telling us for years that they
wanted a really simple, really loud bass amp. We responded in 1999 with the Bass 750, a black-and-chrome mono beast with a stripped-down EQ and power for days-750 watts into 4 ohms.

So the Power 750 is a natural extension of the idea that spawned the Bass 750. Make it simple, turn it up, scare the neighbors. There's no switching power supply or digital anything inside. It's all true solid-state power, immediately available at the touch of your finger to the string. The noise and power specifications are exacting, in most cases similar to (or better than) our Stereo 800 power amp, a Bass Player Magazine award-winner for both Best Buy and Top Tone categories. The design is based on the original power amp circuit of SWR founder Steve W. Rabe, and as always, every SWR Power 750 is handmade and individually tested in the United States.

We truly hope that your purchase of the SWR Power 750 helps bring out the best in your playing and adds to your enjoyment of music. To that end, we ask that you read this Owner's Manual carefully and thoroughly so that you can fully realize the potential of your new Power 750. After all, with more than a full "one horsepower" (one HP = 746 watts) behind you, you'd better know what you're doing before you do it.

Note: Please take a moment to verify that the following items were included in your Power 750 packaging: AC cable, Owner's Manual, SWR Catalog.

FRONT PANEL FEATURES

- Rack Handles
- Volume Control
- Four Segment LED Dot-Bar Display
- Speaker On/Off Switch
- Power On/Off Switch

REAR PANEL FEATURES

- Unbalanced (1/4") Input Jack
- Balanced (XLR) Input Jack
- Ground/Lift Switch (for Balanced XLR Input Jack)
- Slave Output Jack
- Fan On/Off Switch
- Two 1/4" Speaker Output Jacks
- Two Speakon Speaker Output Jacks
- One Speaker Fuse (3AG, 15 amp fast-blo)
- One Line Fuse (3AG, 12 amp slo-blo)
- AC Power Cord Receptacle

POWER 750 SPECIFICATIONS

The Power 750 Power Amplifier from SWR Sound Corporation is a high quality, all purpose power amplifier. It uses a discreet power supply, quasi-complementary power amp design utilizing SIX 15 amp, 250 volt bi-polar NPN devices direct coupled to the output via an in-line speaker fuse.

Note:
All measurements were taken with a line voltage of 120VAC.
All noise specifications are "unweighted."
All voltages and watts are "RMS."

POWER OUTPUT:
850 Watts @ 2.6 ohms
750 Watts @ 4 ohms
450 Watts @ 8 ohms
(minimum load = 2.6 ohms)

INPUT IMPEDANCE:
Balanced = 10K ohms
Unbalanced = 33K ohms

OUTPUT IMPEDANCE: Slave Output = 100 ohms

SENSITIVITY: 1.582 VRMS

LOAD CAPABILITY:
2.6 ohms to infinity

NOISE:
Residual = <.00072 volts (720 millivolts)
Signal to noise ratio = <-100 dB

DISTORTION:
< .026% THD, 1 kHz @ 8 ohms
< .13% THD, 20 Hz to 20 kHz @ 8 ohms
Intermodulation Distortion = .07%

POWER BANDWIDTH: (@ 850 watts RMS) -3dB @ 20 Hz and 40 kHz

CHASSIS AND COVER MATERIAL: Aluminum (with Chromed Steel Faceplate)

DIMENSIONS: 19"W x 5.38"H x 10.5"D (3 rack spaces)

WEIGHT: 32 lbs.

CONNECTING YOUR SPEAKER CABINETS

The Power 750 is a MONO amplifier. All of the speaker outputs (both 1/4" and Speakon) are in parallel, meaning that they all run off of the same mono power amplifier inside the unit. The number of speaker cabinets you use is your choice, but there are factors that will help you make that choice. Please keep in mind that the Power 750 delivers 750 watts into one 4 ohm speaker cabinet. Make sure that your speaker cabinet can handle the power listed in the "Power Ratings" section of the "Power 750 Specifications" section of the manual.

USING ONE SPEAKER CABINET

First, locate the "Speaker Outputs" section on the rear panel of the unit. Connect the speaker cable of your choice (1/4" or Speakon) from the Power 750 to your speaker cabinet. The impedance of your single speaker cabinet must be no lower than 2.6 OHMS. In real world terms, this means a single 8 ohm or 4 ohm speaker cabinet will be OK, but not a single 2 ohm enclosure.

BE SURE that your single 8 ohm speaker cabinet can handle at least 450 watts, and that your single 4 ohm speaker cabinet can handle at least 750 watts of rated power.

USING TWO SPEAKER CABINETS

Connect the speaker cables of your choice (1/4" or Speakon) from the speaker out jacks on your Power 750 to the inputs on speaker cabinets. Can you use one 1/4" output jack and a Speakon output jack at the same time? Yes. Remember, all of the Speaker Outputs are coming off of the same mono power amp inside the unit.

If the cabinets are the same impedance, the same amount of power will be sent to each enclosure.
If the cabinets are different impedances, more power will flow to the cabinet with the lower impedance. In a mono situation, equal impedances are ideal since there is no individual control over each cabinet's volume, but there's no law against using cabinets of different impedances, just so long as the total impedance is equal to, or higher than the amplifier's minimum total impedance (2.6 ohms on the Power 750, or an 8 ohm and a 4 ohm enclosure connected together in parallel).

In plainer terms, this means you can safely use:
a) two 8 ohm cabinets
b) one 8 ohm and one 4 ohm cabinet
c) three 8 ohm cabinets

And you cannot use:
a) one 2 ohm cabinet
b) two 4 ohm cabinets

Again, make sure to check the power handling capabilities and impedances of the speaker cabinets you wish to use against the "Power Ratings" section of the "Power 750 Specifications" section of the manual.

TURNING THE UNIT ON

Remove the AC cable from the accessory pack and connect it from the amplifier's AC receptacle to a standard wall outlet. Make sure that the Volume control is set to the minimum position. Locate the power switch on the right side of the front panel and turn the amplifier on. The LED above the power switch should then illuminate. Upon powering up, don't be surprised if you hear a small pop. This is absolutely normal. (Fully eliminating this "power on transient" would require a component called a relay. SWR chose not to incorporate this type of component due to the fact that relays degrade signal quality and often fail, causing the unit to have no output and requiring a trip to a local service center.) This "pop" can be avoided by having the Speaker On/Off switch in the "OFF" position during powering up.

GETTING SOUND OUT OF THE POWER 750

Plug your instrument cable directly into the unbalanced input jack on the rear of the unit. Make sure the Speaker On/Off switch is in the "ON" position. Turn your instrument's volume up to maximum and begin playing. Now turn the Volume control clockwise from minimum slowly toward maximum. You should now hear the sound of your instrument amplified through the Power 750 into your speaker cabinets. The LED's may not light up at all, or perhaps only the first (-20 dB) will illuminate. This is normal, as we are bypassing the preamp in this instance simply to determine that your Power 750 is in fine working order, just as it left the factory.

CONNECTING YOUR PREAMP TO THE POWER 750

Plug your instrument cable into the input of your preamp. Make sure you properly adjust the gain and volume controls of your preamp before sending the signal to your Power 750. (Check the manual of your preamp for instructions.) Often a preamp will have both a pre-level (usually listed as "gain") and a post-level (usually listed as "post" or "master"). If the signal is clipping or distorted before it leaves your preamp, it will only get worse when the Power 750 amplifies that distorted signal.

Once you have achieved proper level settings on your preamp, run a high-quality shielded 1/4" patch cable from the unbalanced output of your preamp to the unbalanced input on the rear of the Power 750. (The option for a balanced XLR connection exists as well, but we'll discuss that later.) Make sure the Volume Control on the front of the Power 750 is set to minimum. Set the Speaker On/Off switch to the "ON" position. Begin playing your bass and slowly turn up the Power 750 Volume Control. Note the Four Segment LED Dot Bar Display as you adjust your level, making sure to keep the signal out of "constant red." By the time your preamp is sending a healthy signal to the Power 750, and the Power 750 Volume Control is set so that your hardest notes are just barely illuminating the +3 dB (red) LED on the front panel, chances are you'll be feeling your insides rumble.

We urge to you to read the remainder of the manual completely and thoroughly for descriptions of all the functions and features on your new Power 750, as well as detailed operating instructions relating to the power amp and speaker outputs.

RACK HANDLES

The rack handles were chosen for comfort while carrying your Power 750 from place to place. They will also protect the front panel controls in the event the unit is dropped on its face. In some types of racks, the handles may need to be removed before installation. This is easily done by removing the four screws holding them to the front panel.

VOLUME CONTROL

The Volume control affects the amount of signal driving the power amplifier. With the knob indicator in the full counter-clockwise ("MIN") position, turning the control clockwise will gradually increase the level the power amp sees and thus increase the overall volume. In most cases, we suggest you run the Power 750 with the Volume control set near maximum and control the level from your signal source
(i.e. preamplifier, console, etc.). This will result in less knobs to worry about and insure repetitive gain structures. In any event, always keep an eye on the dot bar display to make sure the Power 750 is not being overdriven (+3 red LED continuously lighting) as this can result in damage to your speakers due
to DC content in a clipped waveform. Turning down the Volume control will correct this situation.

FOUR SEGMENT DOT BAR DISPLAY

The Dot Bar Display in your Power 750 can be thought of as a power amp "headroom" indicator whose markings are in dB increments. For example, running the Power 750 with the "0" yellow LED lighting on the musical peaks or transients gives the user a maximum of 3db of headroom available before the amplifier reaches clipping or maximum undistorted power as indicated by the following red LED marked +3. The user has reached maximum power from the Power 750 when the red LED is activated. Running the Power 750 with the +3 LED lighting continuously will expose your power components to more intense heat (shortening their life span) and can also eventually harm your loudspeaker components.

SPEAKER ON/OFF SWITCH

Moving the Speaker On/Off Switch to the "ON" position allows the signal from the amplifier to be heard through any speaker enclosure(s) connected to the Power 750's output section. Moving the Speaker On/Off Switch down to the "OFF" position (labeled "Speaker") disables the Power 750's output section.
This feature allows the user to tune up without interfering with other band members, plug and unplug instruments without fear of a loud "pop," and various other applications.

NOTE: If you do not hear any sound when you plug in and your system is properly connected, check the position of this switch!

POWER ON/OFF SWITCH

Moving the Power Switch to the "ON" position will turn on the amplifier as indicated by the illumination of the LED directly above the switch.

INPUT SECTION

UNBALANCED INPUTS

This is the main power amp input jack for most applications, and should connect to the "Unbalanced Output" on your preamp of choice (preferably an SWR Interstellar Overdrive or Grand Prix!). This input utilizes a standard 1/4" phone jack. Input impedance for the unbalanced input is 33K ohms. Maximum input level is 16 volts RMS.

BALANCED INPUT JACK

Some preamps are equipped with XLR output jacks as a superior option to regular 1/4" patching. An electronically Balanced (XLR) Input Jack is provided for premium signal integrity. Input impedance for the balanced input is 10K ohms. Maximum input level is 8 volts RMS.

Pin assignments for the Balanced Input is American Standard as follows:
Pin 1 = ground Pin 2 = + Pin 3 = -

GROUND LIFT

A ground lift is provided for the Balanced Inputs. In the normal (out) position of the push switch, Pin 1 on the XLR connector is grounded. In the Lift (in) position, the ground on Pin 1 is disconnected. When using the Balanced Inputs, always be aware of the position of the ground lift switch. This function only affects the Balanced Inputs and does not affect the Unbalanced Inputs.

SLAVE OUTPUT

A 1/4" Slave Output (some call it a "patch-through") is provided in the event you want to "daisy chain" more than one power amp at a time. To use the Slave Output to run an additional power amp, run a shielded patch cord from the Power 750 Slave Output to the input of the additional power amp. Whatever signal is coming into your Power 750 will be available at the Slave Output, where the signal can be sent to the additional power amp of your choice (preferably ANOTHER SWR Power 750!). The Volume controls on the Power 750 do not affect the level of the Slave Output. The Slave Output can also be used as an unbalanced record out or a monitor send.

SPEAKER OUTPUT SECTION

The following section of the manual will deal with the proper connection of speaker cabinets to the power amplifiers in the Power 750. Some of this ground has already been covered in the "Getting Started -Connecting Your Speaker Cabinets" section in the beginning of the manual. This is meant to supplement that section and provide information in greater detail, as power amplifiers, impedance and speaker cabinets are all crucial in determining how best to operate your new Power 750.

HOW IMPEDANCE AFFECTS POWER RATINGS

People often have questions about impedance. What is it? The root of the word "impedance" is the verb "impede", which means to block or resist. That's what impedance is - resistance to power.

Power amps do not have a pre-determined impedance. They deliver power at whatever impedance the speaker cabinet tells it to. That's why you hear the term "slave amp" - amplifiers only do what they're told. So if someone tells you that they have a "4 ohm power amp," their terminology and understanding of the concept is off the mark.

Unlike power amps, every speaker cabinet has a pre-determined impedance rating measured in "ohms." In most cases this rating is either 4 or 8 ohms (though there may still be some older 2 ohm models out there). The higher the impedance of the speaker cabinet, the more resistance to power it will offer. The lower the resistance of the speaker cabinet, the less resistance to power it will offer. In other words, higher impedance means less power can enter the speaker cabinet. Lower impedance means more power can enter the speaker cabinet.

You may be thinking that you've found the solution to the universe - just use speaker cabinets with really low impedances and you can get skull-crushing power out of your amplifier, right? Wrong. There's a catch. Power amps have limits as to how low an impedance they can drive safely. This is what's known as an amplifier's "Minimum Impedance Rating." If you try and operate a power amp below its minimum impedance rating, it will give you lots of power for about five minutes, then overheat, short out and fail completely. In other words, the lower the operating impedance of the amplifier, the hotter it will get.

POWER 750 POWER AMPLIFIER MINIMUM IMPEDANCE RATINGS

Here's what this means to the power amp in the Power 750. The Minimum Impedance Rating of the Power 750 is 2.6 ohms. This means that you can connect:

a) two 8 ohm cabinets
b) one 8 ohm and one 4 ohm cabinet
c) three 8 ohm cabinets

Damage to the power amplifier in your Power 750 may occur if speaker enclosures with total impedances less than the minimum loads listed above are connected to the speaker output section.
The owner's manual that came with your speaker cabinet should state its total impedance. On SWR speaker enclosures, the total impedance is generally indicated on the speaker's input panel.

So how do you determine the total impedance of two cabinets hooked up to your Power 750?
Here's a quick key of the most common setups:

One 8 ohm enclosure + one 8 ohm enclosure = 4 ohms total impedance (OK)
One 8 ohm enclosure + one 4 ohms enclosure = 2.6 ohms total impedance (OK)
One 4 ohm enclosure + one 4 ohm enclosure = 2 ohms total impedance (NOT OK!)

Here's another formula: To figure out the total impedance of two or more cabinets of equal value hooked up in parallel, divide the impedance of one cabinet by the number of cabinets:

Impedance of one cabinet / number of cabinets = total impedance

(For an even more in-depth discussion of impedance and power rating issues, go to the SWR Website at www.swrsound.com, click on "Press", then click on "Articles", then click on "Plug and Play - Setup Tips for Amps and Speakers" - an article by SWR founder Steve Rabe that ran in the August '92 issue of Bass Player Magazine.)

POWER 750 POWER DELIVERY CAPABILITIES (POWER RATINGS)

After determining how the number of cabinets you wish to run affects the total operating impedance, you need to take into account the power handling capabilities of your speaker cabinets as compared to what the Power 750 can deliver at that impedance. Those ratings are as follows:

850 watts @ 2.6 ohms
750 watts @ 4 ohms
450 watts @ 8 ohms

So if you have two 8 ohm speaker cabinets, they will each get up to 375 watts of power, and more during transient peaks. A single 4 ohm cabinet will get up to 750 watts of power. Make sure your speaker cabinets can handle the horsepower!

This is even more crucial when running at the minimum impedance. When operating your Power 750 at 2.6 ohms, the combined power handling of your 4 ohm and 8 ohm cabinet had better be at least 850 watts. To be safe, each individual cabinet (especially the 4 ohm cabinet) should handle at least 500 watts. Don't guess or assume that your speaker cabinets can handle the power listed above - get the specs and make sure!

Also be aware that when running the Power 750 at 2.6 ohms, you are operating at the maximum capacity of the power amplifier. If you're sending too hot a signal from your preamp, and your Power 750 Volume control is set high as well, you may hear audible clipping of the power amp (and the +3 Red LED on the front panel should be glowing). If so, you have exceeded the maximum capacity of the power amp. Continual clipping of the power amp section can cause damage to the power amplifier and/or your loudspeakers.

Remember, it's always better to have a little too much power than just barely enough. If you find yourself constantly wanting more power than the Power 750 provides, either:

a) ask your bandmates to turn down
b) ask the monitor engineer to turn you up
c) (best option) take the time to investigate getting another external power amp and/or additional speaker cabinets to supplement your system

NOTE: The frequency response of the Power 750 is far greater than usually found in musical instrument amplifiers (20 Hz to 40 kHz). This was engineered in order to give the bass player the same punch and clarity on stage as found in the studio or concert P.A. systems. Therefore, it is doubly important that you are aware of the impedance and power rating of the speakers that you intend to use, and that they are compatible with the Power 750.

Speakers that have been overdriven are easy to detect and generally do not fall under manufacturer warranty.

SPEAKER OUTPUT JACKS

There are two 1/4" jacks and two Speakon jacks provided for the output section of the Power 750. Make sure all speakers are properly connected BEFORE turning on the Mo' Bass whenever possible. Generally it's a bad idea to plug or unplug your speakers while the unit is on.

SPEAKON VS. 1/4" JACKS

We have found the Speakon connection to be superior in both stability and amperage conductivity, and so we have provided Speakon output jacks in addition to the standard 1/4" jack. If using the Speakon output jack, we highly recommend the use of a Speakon-to-Speakon speaker cable, one of which is supplied with your unit. (All SWR Professional Series speaker cabinets manufactured after January of 2000 come equipped with Speakon input jacks.) If your speaker cabinet(s) does not have a Speakon input jack, you should use the 1/4" output jacks on the Power 750 and connect them accordingly. The Speakon jacks are wired "standard" (+1/-1) and additional Speakon-to-Speakon cables are available through most musical equipment retail outlets.

SPEAKER CABLE

The speaker cable you use to connect your SWR system should be made of at least 18 gauge wire, and heavier if possible. (The thicker the wire, the lower the gauge, so 18 gauge is heavier than 20 gauge, 16 gauge is better than 18 gauge, and so on.) DO NOT use instrument cables to hook up your speakers. This can result in intermittent power loss, cause the power amp to oscillate and damage itself and/or your speakers, and render the cables useless for any purpose.

SPEAKER FUSE

The speaker fuse is provided to protect your speakers in the unlikely event of a power amp failure or incorrect connection procedure. Size and rating of the fuse is 3AG, 15 amp, fast-blo. Do not defeat the purpose of this feature by using a higher rated fuse. The speaker fuses can open if there is a fault in the speaker cable or even the speakers themselves. Therefore, it is always wise to carry extra fuses at all times. Do not defeat the purpose of this feature by using a fuse of a higher amperage. It will only cause further problems if a fault lies in the system.

LINE (MAINS) FUSE

The size and rating of the Line Fuse is 3AG, 12 amp, slo-blo. It serves to protect your amplifier's power supply and transformer from large voltage spikes caused by an external source, and also serves to protect the transformer in the unlikely event of a power supply failure. NEVER replace this with a fuse of a higher rating as it will void your warranty.

A/C CORD RECEPTACLE

This receptacle accepts a standard A/C power cable (supplied with the Power 750), the same kind used with almost all current musical, professional and household electronic devices. If this cable is misplaced or lost, a replacement can generally be found almost any appliance store, supermarket or the like. Make sure that the AC cord is plugged firmly into both the amplifier and the wall socket. If your cord ever becomes frayed or split, replace it IMMEDIATELY.

NOTE: The rating for the A/C cable is 3 conductor, 10 amperes MINIMUM. If replacement is necessary, or if you wish to buy a longer cable, look for the rating on the cable and be sure it is at least 10 amps.

COOLING FAN DEFEAT SWITCH

Your Power 750 features a cooling fan for protection against excessive heat. The "ON" position activates the fan in its normal operating mode. We recommend leaving the fan switch set to the "ON" position for the majority of the time that the amplifier is in operation, as continuous cooling can help extend the life of the internal components. The "DEFEAT" position removes the power source from the fan so that it will not operate. This position should be used in situations where the noise floor is so low that normal fan noise would be noticeable or distracting, such as close micing in a recording studio.

- Please note that it is normal for the cooling fan to be audible at low levels.

A FEW WORDS CONCERNING HEAT

One of the most asked questions about our amplifiers is why they tend to get warmer than other amps. The chassis of your amplifier can get quite warm during normal usage. This is especially true if you are are driving the amplifier at its minimum impedance. This is because a 2.6 ohm impedance introduces
the least efficient condition possible for the unit (ie: power drawn from the outlet in relation to power
produced in the speakers). The difference in these two figures can be quite high,

Furthermore, most musical instrument amplifiers on the market today use steel for their chassis', which in most cases is considerably cheaper than aluminum and does not conduct heat as well. The Power 750 utilizes an aluminum chassis (with the exception of the chromed front panel) which is a better
conductor of heat. This results in the chassis acting as a heatsink - drawing heat away from internal heat-producing components, thus extending their life. In this manner we feel we have produced a more reliable amplifier, however, at the same time, the chassis of the Power 750 will get warmer than a similar amp chassis that is made of steel.

The one condition you should be aware of is if the power amplifier in your unit becomes "over-biased." This condition can be recognized by turning your amplifier on and letting it sit "idle" (without speakers plugged in and without playing it). If your unit starts getting hot under these conditions, it may be
over-biased. This situation should be attended to and can be easily remedied in about 15 minutes by a qualified service technician. A power amp can become over-biased through continuous vibration or by any large jolt received in shipping, etc.

RACK MOUNTING INSTRUCTIONS

To preserve the beauty and reliability of your amplifier, we recommend that you install your amplifier in a rack case. The Power 750 is completely ready to be rack mounted and needs no additional parts or accessories other than the rack screws and the case itself.

The Power 750 takes up three full rack spaces (5"). If the rack in which you mount the Power 750 requires that the rubber feet on the bottom of the chassis be removed, please remember to keep the screws handy in case you wish to reattach the rubber feet at a later date.

The Power 750 should be mounted as close to the bottom of the rack case as possible. If you must mount the Power 750 in an area of the rack other than the bottom space, a piece of wood or similar solid material should be installed between the bottom of the rack case and the bottom of the amplifier to prevent flexing of the amplifier's chassis. Severe or constant flexing of the chassis can damage the amplifier and is not covered under warranty.

Don’t forget about your amplifier after it has been installed in a rack case! Continuous transportation and vibration can cause screws to become loose, both on the Power 750 and with your rack case rails. We recommend that at least once a month you remove the Power 750 from the case and tighten all outside screws (especially the rear mounted screws holding on the front panel) and wipe off the outside of the chassis with a damp cloth (to help keep that chrome nice and shiny!). Then check all the connections in your rack case and reinstall the unit.

ELECTRICAL AND GROUNDING CONSIDERATIONS

In a rack system with a large power amplifier such as the Power 750, placement of effects units and preamplifiers with respect to the power amplifier may be important as hum induction may occur. Generally speaking, install a preamplifier so that it is farthest away from the power amplifier with line level effects units, tuners, etc., in between. Whenever possible, leave an empty rack space between
the power amplifier and other accessories in the same rack.

All patch cords should be made as short as possible using high quality shielded cable and plugs. Placement of patch cables should not run next to AC power cords and should not be routed in between different components. In other words, do not run a patch cable from the front of a preamplifier over the top or under the bottom and then to the rear input of a power amplifier, as this can cause "hum" in the system. If you must run patch cables in this fashion, experiment with the routing so that ideal placement is achieved.

Another consideration in a rack system is a ground loop caused by the chassis' of several pieces of equipment electrically "tied" together by the metal rack rails. Some equipment is built with this situation in mind, such as the Grand Prix Preamp from SWR. It comes with an option of separating certain
electrical grounds from chassis earth grounds thus isolating the chassis from the inner workings. This method is far superior than that of using a three prong to two prong adapter on your AC cord. These adapters "lift" the earth ground from your chassis and could make for an unsafe condition.

If you are experiencing a system grounding problem (each piece of equipment works good by itself, but connecting them together causes undesirable hum), and using a ground adapter on one piece of
equipment solves the problem, consult the manufacturer of that piece of equipment to see if there is a way to isolate the secondary grounds from the primary or chassis earth ground. Feel free to contact our service department if a product from SWR is in question. (In situations with intractable ground issues in a complicated, multi-component rig, we here at the factory have found the Hum Eliminator by Eb-Tech to be an invaluable and inexpensive accessory available at most Guitar Centers and other large M.I. retailers.)

We sincerely hope that the Power 750 exceeds your expectations in the area for which it was chosen.

LIMITED WARRANTY

The **POWER 750** from FMIC is warranted to the original consumer purchaser for TWO YEARS from the date of purchase, against defects in materials and workmanship and provided that it is purchased from an Authorized SWR Dealer. This warranty applies only to products purchased in the USA or Canada.

This warranty is VOID if the unit has been damaged due to accident, improper handling, installation or operation, shipping damage, abuse or misuse, unauthorized repair or attempted repair, or if the serial number has been defaced or removed. FMIC reserves the right to make such determination on the basis of inspection by an Authorized FMIC Service Center.

All liability for any incidental or consequential damages for breach of any expressed or implied warranties is disclaimed and excluded herefrom.

Some states do not allow limitations on how long an implied warranty lasts, or the exclusion or limitation of incidental or consequential damages, so that the above exclusion may not apply to you.
This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

SHOULD YOUR SWR AMPLIFIER REQUIRE SERVICE OR REPAIR, PLEASE USE THE FOLLOWING PROCEDURE:

1 Locate your original receipt showing date of purchase, model and serial number.

2 Determine the closest Authorized FMIC Service Center to your location. The fastest way to get a complete list of Authorized FMIC Service Centers is on the web, at:

http://www.mrgearhead.com/faq/allservice.html

You can also get this information by calling FMIC Consumer Relations at (480) 596-7195.

3 ITo receive warranty service, return the complete product to an Authorized FMIC Electronics Service Center, with proof of purchase, during the applicable warranty period. Transportation costs are not included in this Limited Warranty.

4 Defective products that qualify for coverage under this warranty will be repaired or replaced, at FMIC's discretion, with a like or comparable product, without charge.

SWR
8860 E. Chaparral Rd. Suite 100
Scottsdale, AZ 85250-2618
PHONE: (480) 596-9690
FAX: (480) 367-5262
WEB: WWW.SWRSOUND.COM