Vacuum Tube Amplifiers

Owner's Manual and User's Guide for YAMAHA T-Series Amplifiers

T50 / T50C / T100 / T100C

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Congratulations !

Congratulations, you are now the proud owner of a powerful new musical instrument capable of inspiring and fueling your musical creativity. This is not just another amplifier! This amp is the result of passion, vision and commitment from people who want you to enjoy yourself every time you plug in your guitar. We're sure you'll agree as you discover the limitless tones and voices of your new amp!

Just as we have taken many hours perfecting this amplifier, we would ask you to take some time and read this manual thoroughly. This owners guide describes the functions and features of your new amp and it contains important warnings, installation guides and safety information. Please be sure to save this manual and the receipt of purchase for your reference.
Please take a moment and complete the information below.

MODEL: _____

SERIAL #: _____

DATE OF PURCHASE: _____

PURCHASED FROM: _____

SAVE THIS GUIDE AND YOUR RECEIPT OF PURCHASE FOR YOUR RECORDS

Before You Begin

Your amp was designed and built to provide many years of faithful and true performance. And like any new toy you've ever purchased, a little common sense and careful following of some simple rules will extend the life of your new amp.

Unpacking

Please inspect your Yamaha amp for hidden damage that may have occurred in transit. Your amp was inspected and sound tested before it was shipped from our factory.
All claims for shipping damage must be made by the receiver. Save your box and packing materials for evidence of damage if it has occurred.

Packing Materials

The original box and packing materials are specially designed to protect your amp during shipment. SAVE ALL PACKING MATERIALS. In the unlikely event that your amp needs to be returned for service, the original box and packing material will be necessary for shipment. These are carrier approved packing materials and they will insure safe transit back for service.

MOST IMPORTANT WARNING:

Do not proceed until you have read the IMPORTANT WARNINGS and INSTRUCTIONS pages.
Never operate this amp without a proper speaker load connected to the speaker output.
(Proper speaker loads include: speaker cabinets, internal combo speaker, a load resistor, speaker emulator)
Without a proper load, fatal amplifier damage may occur and will not be covered by warranty.

This manual covers the features and functions of all four models of Yamaha T-series amplifiers, the 50 watt and 100 watt combo amplifiers and the 50 watt and 100 watt amplifier heads. The combo amps feature a "tubes down" chassis while the amp heads feature a "tubes up" chassis. In consideration of space, all diagrams will refer to the "tubes down" chassis.

* Note: The "tubes up" head chassis may also be rack mounted. See the pages titled **RACK MOUNTING** for additional information

Introduction

A Yamaha amp that's completely designed and manufactured in America? With all tubes even? Now that's an amp that needs an introduction.

We at Yamaha are proud to present the
Yamaha T-Series Tube Amplifiers

Truly a labor of love, this amp was first conceived in 1988. Designed in Hollywood, California by world class tube amp builder Michael J. Soldano, your new Yamaha amp was destined for greatness.

Mike Soldano is both a guitar player and a highly respected builder of custom tube type amplifiers. The demand for the hand made SLO-100W head brings him in contact with some of the world's finest guitar players and their search for the "ultimate tone". Soldano's unique position of performer, designer, and direct contact with discriminating users, creates what we believe to be an unbeatable product design scenario.

It was his wish and our desire to make this custom tone technology available to everyone seeking "the ultimate tone", that's why this amp exists!

The **Yamaha T-Series Amplifiers** were modeled after the established world class tones of the custom built Soldano SLO-100w head. Then additional features were added such as; separate tone controls for each channel and built-in spring reverb. For added flexibility the amp is available in rack mount head, or combo format.

All of this technology comes home to you in an amp that is completely built in America from a company that is committed to continued excellence in fine musical instruments, **YAMAHA**.

This User's Guide is designed to read quickly and to provide you with detailed information that will help you get the most out of your new amp. After you've read the entire guide, save it for future reference and to document your favorite sound settings. To learn more about your new amp, please read on.

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Getting Started

No doubt you've got the amp out of its box and given it the visual "once over". And if you're like most guitar players we know, you've probably plugged in and blown a few licks. This section offers a detailed and comprehensive user guide designed so you can get the most tone and enjoyment from your amp. The more you understand the amp and its functions and features, the more satisfaction and fulfillment you will experience. So let's jam!

Take a moment and read through first, then try the examples.

First, make sure a speaker or load is plugged into the amp (see warning). Now, plug the AC cord into the wall and flip the "power" switch "on". Be sure to leave the "Standby switch" down in the standby position.

Note: Always use your standby switch! This switch will prolong the life of your output tubes. Use standby when first turning your amp on and during short breaks between sets or use. Also place the amp in standby and let it cool down before you "power off".

After the amp has warmed up (approx. 1 minute), flip the "standby" switch up to operate your amp.

The following pages offer a detailed look into the controls of the amp. Actual settings and levels will vary according to your guitar and playing style. One thing we know for sure, this amp sounds great when it's at bedroom volume, but it sounds monstrous when loud. Find somewhere that is safe and "crank it up".

With that said, let's get into it!

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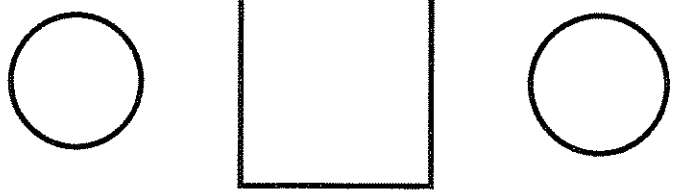
MODEL T 1OO C

SERIAL NO. [redacted]



120V 60Hz~
200 WATTS

AC OUTLET
120V 60Hz ~

[redacted] AMP
250V FUSE

[redacted]

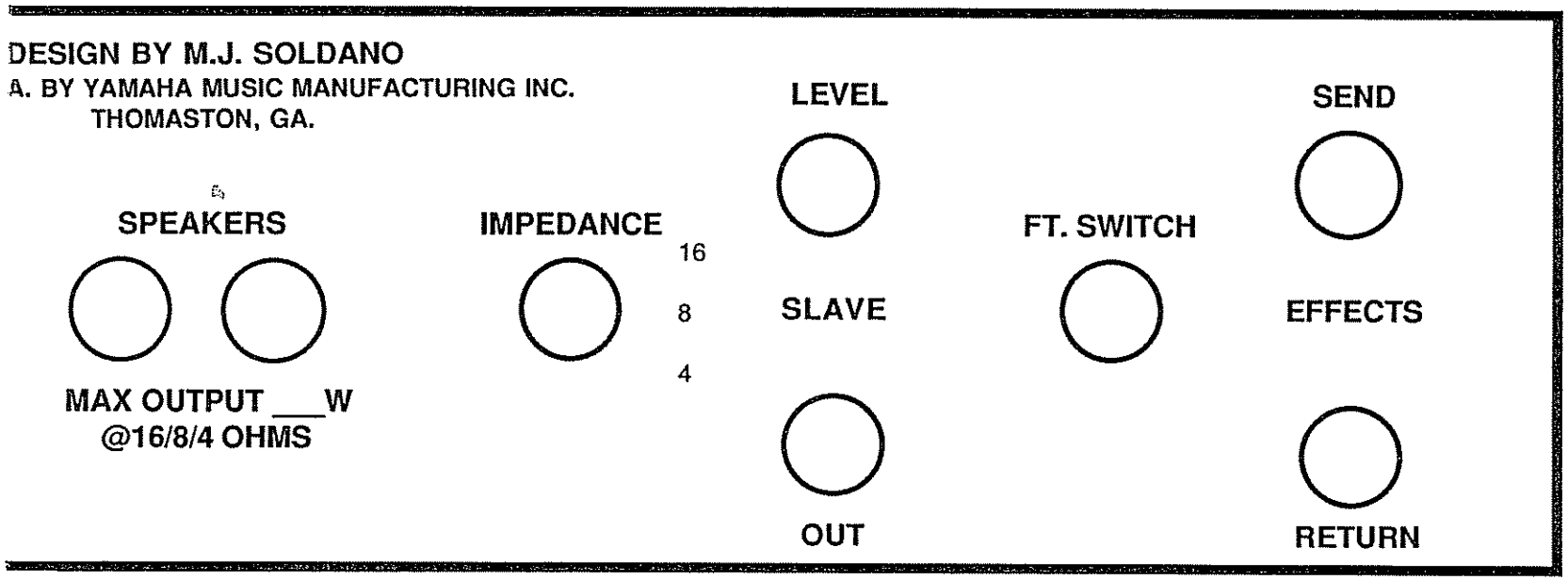
MADE IN U.S.A.

CAUTION To reduce the risk of electric shock, do not remove chassis. No user serviceable parts inside. Refer servicing to qualified personnel.

WARNING To reduce the risk of fire or electric shock, do not expose this equipment to rain or moisture.

CAUTION To reduce the risk of fire replacement fuse must be type/rating indicated.

CAUTION Vacuum tubes get very hot! Avoid contact


DESIGN BY M.J. SOLDANO
A. BY YAMAHA MUSIC MANUFACTURING INC.
THOMASTON, GA.
SPEAKERS
IMPEDANCE
16
8
4
MAX OUTPUT ___W
@16/8/4 OHMS
LEVEL
SLAVE
OUT
FT. SWITCH
SEND
EFFECTS
RETURN

Front Panel Features

Please flip open the right hand page and follow along with the descriptions.
Note: Top row of controls is for the Clean Channel. Bottom row of controls is for the Overdrive Channel. (This is the same for both combo and head chassis).

Input: Plug your guitar in here for input to both footswitchable channels.

Clean Channel Preamp: A most powerful control! This knob will determine the Clean voice of your amp. Lower settings (2 - 5) will yield "jazzy to funky" very clean tones. (For the most efficient clean sound, set this as high as possible before clipping /distorting.) For those that like some teeth to their rhythm, higher settings will provide some pleasant surprises. As the control goes from 5 to 10 you'll notice several unique voices appear. From grimey "broken rhythm" to stinging blues, you'll find a wider variety of tones than any other two channel amp!
Recommended starting point: 4 - 6.

Pull Bright: This switch adds sparkle and bite to the Clean Channel only. With this pulled out, you might use a lower treble/presence combination.

Overdrive Channel Preamp: A monster in disguise! In this control you'll find gain, gain, and more gain. Low settings (2 - 4) will knock your socks off, tones here are powerful, punchy, and potent! As you turn it higher, you'll find singing sustain, buzz saw overdrive and finally endless harmonics. As with any high-gain preamp, the higher you set this control, the softer and mushier the tones. When playing louder - use less of this control.
Recommended starting point: 4

Pull Select: By pulling this control you will manually select the Overdrive Channel. When using an external footswitch the front panel switch will be disabled.

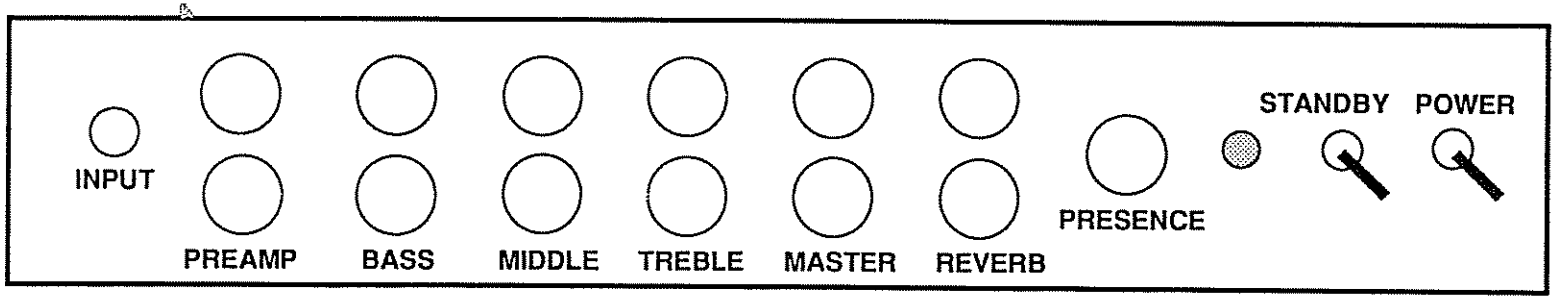
Special Message

WARNING: CHEMICAL CONTENT NOTICE
The solder used in the production of this product contains LEAD. In addition, other electrical/electronic and/or plastic (where applicable) components may also contain traces of chemicals found by the State of California (and possibly other entities) to cause cancer and/or birth defects or other reproductive harm.

DO NOT REMOVE ANY ENCLOSURE COMPONENTS
There are no user serviceable components inside. All service should be performed by a service representative authorized by Yamaha to perform such services.

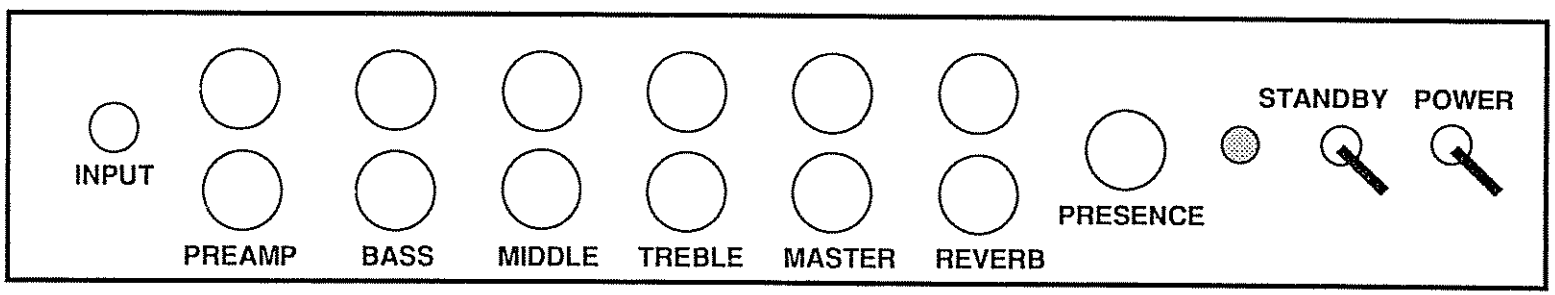
IMPORTANT MESSAGE
Yamaha strives to produce products that are both safe and environmentally "friendly". We sincerely believe that our products meet these goals. However, in keeping with both the letter and the spirit of various statutes, we have included the message you see above and similar messages in this manual.

Sound Sheets



Guitar used:

Clean Channel:
Overdrive Channel:



Guitar used:

Clean Channel:
Overdrive Channel:

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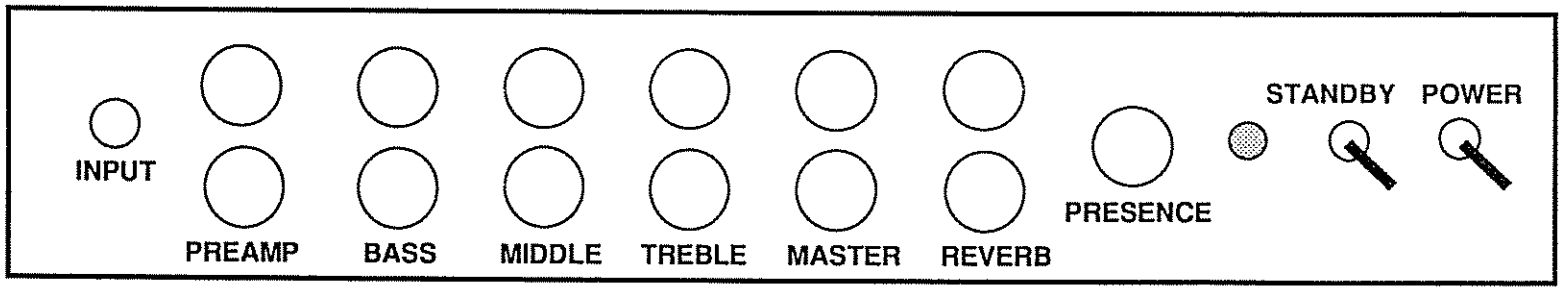
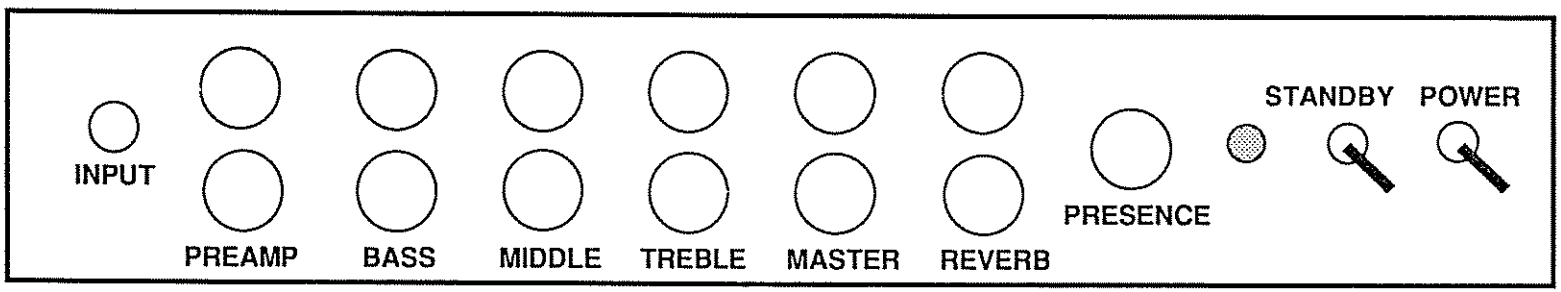
Sound Sheets

Use these sample control sheets to record your favorite settings.
"Collect all four, trade with friends..."



Guitar used:

Clean Channel:
Overdrive Channel:



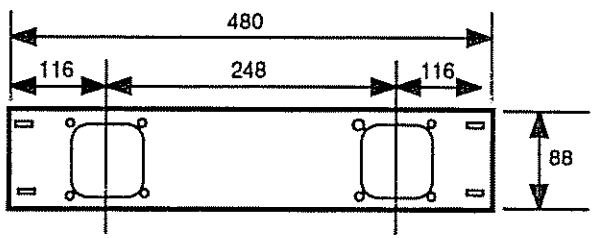
Guitar used:

Clean Channel:
Overdrive Channel:

Rack Mounting

FAN UNIT

The fan unit shown below uses two fans, each having an air movement rating of 29 CFM (cubic feet per minute) and a maximum pressure of 5mm H2O.

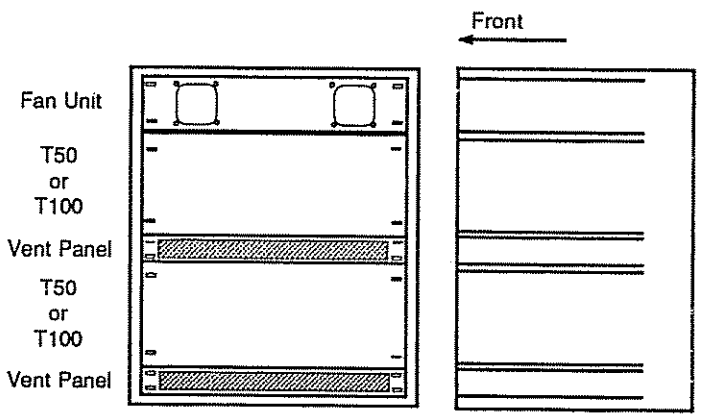


Note: The dimensions shown are applicable for the fan specified as an example. Dimensions may differ if another model/product is used.

VENTILATED PANEL

The Yamaha VP1 ventilation panel is available as an optional accessory. Comparable panels (having open areas of at least 35% of the total area) would also be appropriate.

Rack mounting with cooling fans and ventilated panels.



IMPORTANT: When you mount your tube type amplifier in a rack, be sure to take both the heat generated by other components and the effect the heat your tube amp/s may have on these components into consideration.

The fan specified below is an example of a fan having the proper specifications.

Manufacturer	Type/Model	Airflow Rate
Japan Servo CO LTD.	VS2B4	29 CFM

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Rack Mounting

CAUTION! When an amplifier is mounted in a rack, the heat generated by the amp causes the temperature of the amps operating environment to increase. It is therefore necessary that you make sure that the rack is well ventilated in order that the amplifiers operating environment, and the environment of adjacent equipment, be maintained at an acceptable level.

Since hot air tends to rise, the most effective ventilation method is to draw air into the rack at the bottom (or below the unit to be cooled) and expel the air from the top (above the unit/s to be cooled).

The T100 and T50 head type amplifiers have been tested in the configuration shown in the illustrations found on the next page with acceptable results. Please use the instructions provided as a guide.

1. Fan installation. Install a fan unit immediately above the top amplifier. Install a ventilating type blank panel below this amplifier. If a second tube amplifier is to be rack mounted, add an additional ventilating type blank panel below the second amp. If a third amp is to be rack mounted, add a second fan unit and a third ventilating type blank below the third amp. For additional amplifier units, follow the same pattern.

IMPORTANT: If the rack is enclosed (has a back panel) make sure that there is at least 100mm (appx. 4") between the amplifiers rear panel and the rear of the rack enclosure.

3. Fan specifications. Most tube-axial fans having dimensions of approximately 1" by 3 1/8" (the flat, square type) are capable of moving from 27 to 32 CFM (cubic foot per minute) of air. Your Yamaha T100 and T50 amplifiers have been tested using the fan unit shown on the next page which has a total capacity of 58 CFM. Naturally, any system that provides equal (or greater) cooling capacity would be also be acceptable.

Troubleshooting

	7. Volume controls on your guitar are off	7. Increase settings and listen
	8. Tube failure	8. Read "Preamp Tubes" and check V4, V5, V7
Loud amplifier hum	1. Using an Unshielded or defective cable	1. Replace guitar cable with proper cable
	2. Guitar connecting cable not properly grounded	2. See that connecting cable is plugged into instrument
	3. 6L6 GC power tube shorted	3. Replace tube (see "Power/Output Tubes")
Amp blows a fuse after several minutes of operation	1. Cable from speaker to amplifier shorted	1. Replace speaker cable
	2. 6L6 power tube defective	2. Replace tube
	3. Problem persists	3. Return amp to Dealer for service
Amp blows a fuse immediately after it is switched on	1. Defective 6L6 power tube	1. Replace tube
	2. Internal short circuit	2. Return amp to Dealer for service
Distorted sounds coming from both channels	1. Preamp control level set too high on Rhythm Channel	1. Reduce control level setting
	2. Speaker cable shorting	2. Replace speaker cable
	3. Pickup, guitar, or connecting cable may be defective	1. Substitute cable and guitar with one you know operates properly
	4. Defective speaker(s)	4. Check speaker(s) with another amp

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Troubleshooting

The following chart should enable you with little or no knowledge of electronics, to isolate the cause of some problems you may experience with your amp and the steps required for repair. Most causes of impaired amplifier performance are due to minor problems or irregularities which can be easily corrected by you. However, if you cannot identify the cause of the problem using the chart, or if it indicates your amp to be defective and in need of repair, return the amp to an authorized Yamaha Service Center of call (800) 854-3619 for return authorization information.

Symptom	Probable Cause	Remedy
Amplifier does not come on when power switch is "on".	1. Power not connected	1. Ensure power cord is plugged into a known live power outlet
	2. Blown amp fuse	2. Check amp fuse; replace if blown with type and rating indicated
	3. Defective ON/OFF power switch	3. Return amp to Dealer or Factory Service Center for repair
No sound coming from speaker(s) (no audible amplifier hum)	1. Amplifier in "standby"	1. Place Standby switch in ON (up) position
	2. Master Volume and/or Preamp control levels set too low	2. Increase control level setting(s) to "2" and listen
	3. Speaker output plug disconnected	3. Connect internal combo speaker or external speaker cabinet
	4. Bad speaker cable	4. Replace with one known to operate
	5. Instrument pickups/electronics or cable may be defective	5. Unplug cable from instrument and touch tip of plug; if hum is heard, replace instrument with one known to work. No hum = bad cable
	6. Defective speaker(s)	6. Verify speakers operate properly using another amp

Power/Output Tubes

One fact of tone life is that power tubes wear down and out. And just like you change the oil and tune up your car to keep it running at peak performance, so must you change your Power tubes to maintain its best performance.

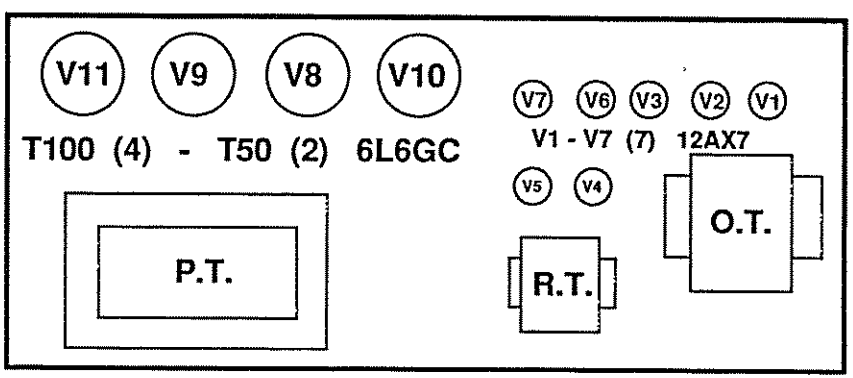
Power tubes, the big ones, gradually wear down from the first time you use your amp. That's natural. And since the wear is so small and gradual you may not notice for a long time. Severely run down tubes will sound flat, dull and wimpy. Please use only high grade 6L6 GC replacement tubes in this amp. When you change your power tubes you should replace them all. (2 6L6 GC in 50 watt models, 4 6L6 GC in 100 watt models)

Power tubes rarely fail. If they are bad, these might be the symptoms:

- Loud crackling that is not affected by front panel controls
- Intermittent or regular blowing of fuses
- Weird amp "distorting"
- Loss of power
- Hum
- One tube has a blue aura that is brighter than others
- Visible cherry red vertical strip that grows longer with time

Changing a tube is a simple and quick fix for most problems in your amp.
Caution when changing tubes. Always unplug the AC from your amp and let hot tubes cool.

For other troubleshooting, read on...



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Preamp Tubes

The pre-amp stage in your amp is the first place the signal gets amplified. And thus, each tube is critical to the tone and will have dramatic influence on your amps performance. Your preamp tubes (the little ones), each have a specific job and if not functioning correctly will create problems with the tone and performance of your amp. This page will familiarize you with each preamp tube function and some symptoms of tube problems. If you experience any of these symptoms, try replacing the corresponding tube with a high quality replacement. Each tube is given a name according to its position in the circuit (V1 thru V7) and its position is labeled in the back of your amp.

V1 = This is the "input buffer" and first stage of the Clean Channel Preamp. This tube is critical to great amp performance. If the tube in this (V1) socket is bad, you might notice some or all of the following symptoms:
- Microphonic whistling or squealing on one or both channels
- Lack of tone on Rhythm Channel
- General wimpiness in preamp controls
- NOISE!

V2 = This tube controls the "overdrive gain stages". It only functions on the Overdrive Channel and if bad, its symptom would be lack of overdrive gain in the Overdrive Channel.

V3 = This tube is the "final preamp gain stage" and "effect send driver". Symptoms here include:
- Overall low amp volume
- Level coming from "effects send" jack would be very weak
- Low signal to reverb

V4 = This is your "effects return" and "reverb mix" tube. If this tube were bad you might experience:
- No sound in output
- No reverb
- Weirdness in overall amp volume

V5 = This is your "tone control drive" tube. If this tube fails you might notice:
- No output
- Lack of volume

V6 = "Reverb driver". This one is pretty obvious...if it is bad, no reverb is the clue.

V7 = This tube is the "phase inverter" of your amp. Also known as a driver tube in some amps, the symptoms of failure would be low or no output from the amp.

Important Warnings

10. Your Yamaha amplifier should be serviced by a qualified service person when:

    a. The power cord or plug has been damaged: or

    b. Objects have fallen or liquids have been spilled into the product; or

    c. The amp has been exposed to rain; or

    d. The amp does not operate, exhibits a marked change in performance; or

    e. The product has been dropped, or the enclosure of the amp has been damaged.

11. When leaving your unit for a break, use the "STANDBY" switch. When your amp is not expected to be used in the immediate future, always turn your amp OFF. If your amp is not to be used for a longer period of time, always UNPLUG the amp from the main supply.

12. Do NOT attempt to service this amplifier beyond that described in the Maintenance section of this manual. All other servicing should be referred to qualified service personnel.

13. Do NOT modify this amplifier! Your amp has been tested by an independent, nationally recognized, safety testing laboratory and when used as indicated in the instructions, all foreseeable hazards have been eliminated. Modification may result in product performance and/or safety levels being diminished. Claims filed under the express warranty may be denied. Implied warranties may also be affected.

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Important Warnings

WARNING: When using any electronic product, basic precautions should always be followed which include, but are not necessarily limited to, the following:

1. Read all Safety, and Installation instructions BEFORE using your new Yamaha tube amplifier.

2. Main power supply verification. Your Yamaha tube type amplifier was manufactured specifically for the main supply voltage used in the area where it was to be sold. The voltage required is printed on the rear panel of the amplifier. If any doubt exists, contact your dealer BEFORE you try to use your new amplifier.

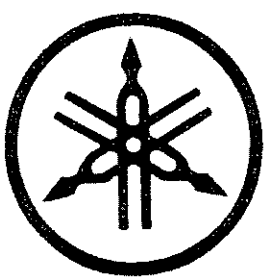
3. Your Yamaha tube type amplifier is equipped with a plug having three prongs. If you are unable to insert the plug into an outlet, contact an electrician to have the obsolete socket replaced. Do NOT defeat the safety purpose of the plug.

4. WARNING: Do NOT place objects on the power cord or place your Yamaha tube type amp in a position where any one could walk on, trip over, or roll anything over cords of any kind. An improper placement of this type can create the possibility of a fire hazard and/or personal injury.

5. Environment/ventilation: Your Yamaha tube type amp should be installed away from heat sources such as heat registers. You must make sure that your amps position does not interfere with it's proper ventilation.

CAUTION: If you are planning to install a head type unit in a rack, please review the pages titled "RACK MOUNT" for installation information.

6. Amplifiers are frequently incorporated into "systems" which may be assembled on carts, stands, or in racks. Utilize only those carts, stands, or racks that have been designed for this purpose. Observe all safety precautions that are supplied with the product.

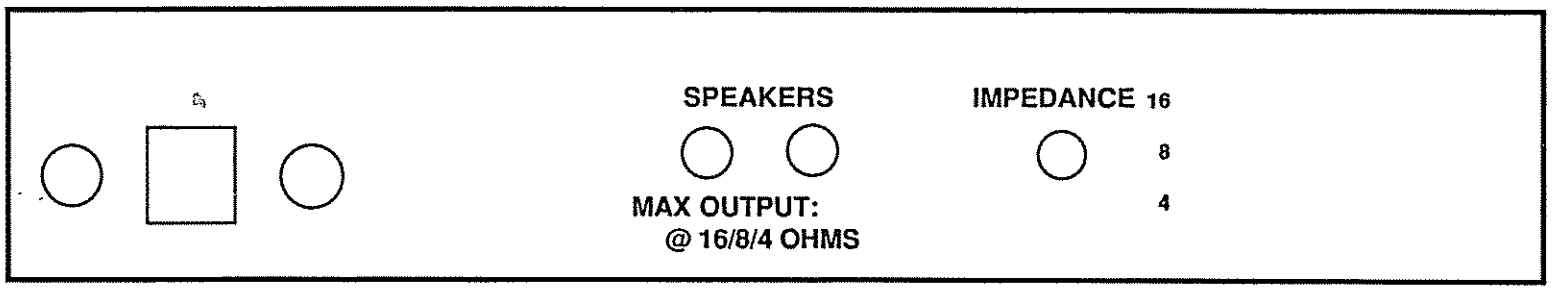


7. This amplifier, either alone or in a combination with additional amplification, headphones or speakers, may be capable of producing sound levels that could cause permanent hearing loss. Do NOT operate this amplifier at high levels or at a level that is uncomfortable. If you experience any discomfort, ringing in the ears, or suspect any hearing loss, you should consult an audiologist.

8. Do NOT use this product in the rain or in a wet environment. For example, near a swimming pool, spa, or in a wet basement.

9. Care should be taken so that objects do not fall, and liquids are not spilled into the enclosure.

Speaker Outputs



MOST IMPORTANT WARNING:

Never operate this amplifier without a proper speaker load connected to the speaker output.

(Proper speaker loads include: speaker cabinets, internal combo speaker, a load resistor, speaker emulator, or dummy load).
Without a proper load, fatal amplifier damage may occur and will not be covered by warranty.

Take care to properly select the speaker output impedance switch. Improper settings of switch vs. actual load will definitely affect the life of your output tubes. To determine your speaker load, look on the back of the speaker or speaker cabinet. When using multiple speakers or cabs, remember to divide the ohms by number of speakers or cabs.

(ie. (2) single 8 ohm speaker cabs = 4 ohm load, (2) 16 ohm cabs = 8 ohm load)

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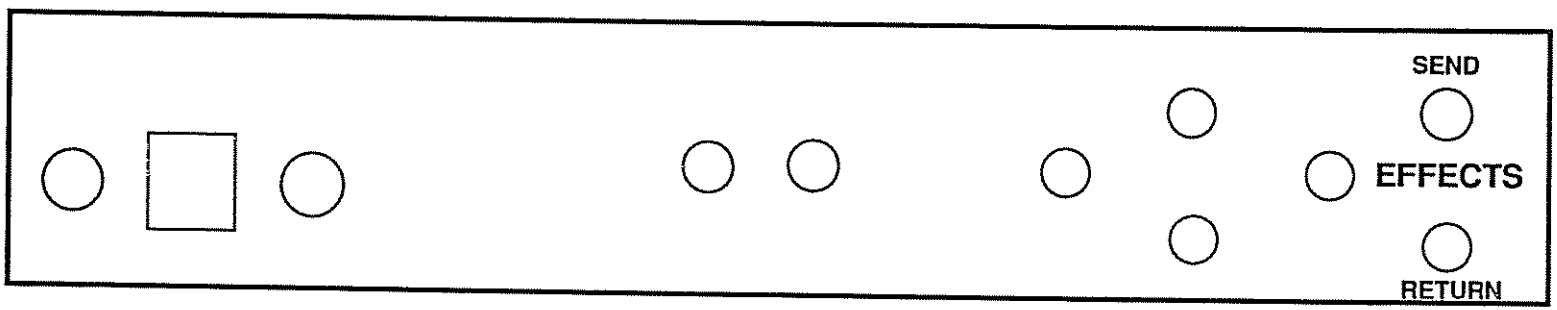
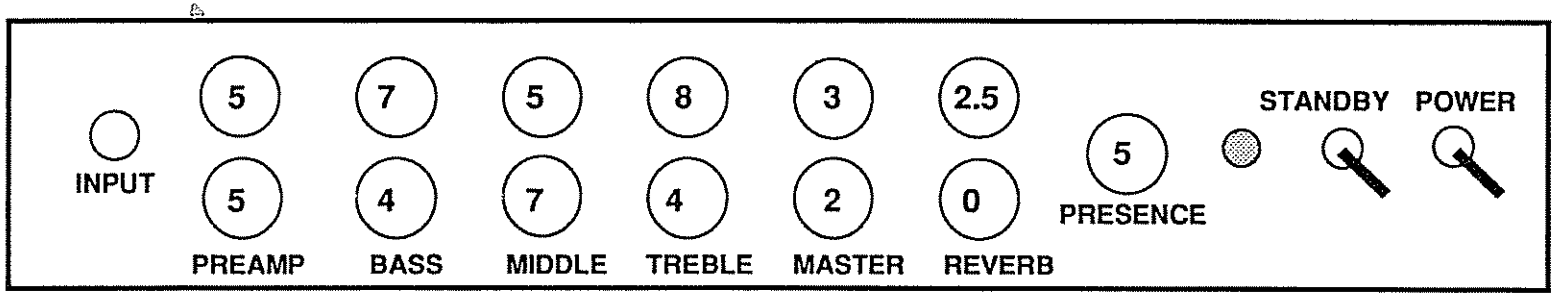
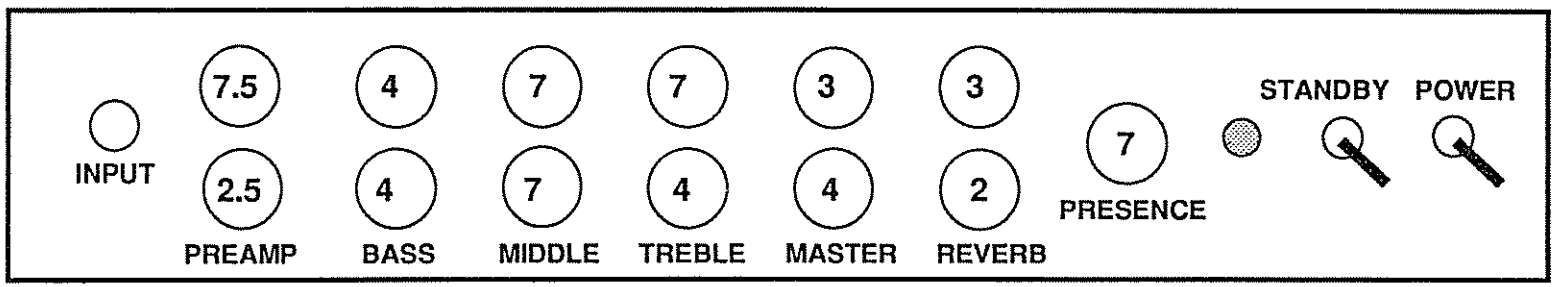
Effects Loop



The effects loop on the rear panel of your new Yamaha amp is a most valuable feature! Not just an added "bell or whistle", this is a very unique design feature. Unlike many other amps, your new amp has its effects loop placed right after the preamp gain controls, before the tone controls, and in parallel with the reverb return. This design makes your effects more dynamic and allows you to EQ after you've returned "effected" tone to your amp. The loop is fully buffered, is tube driven, and features tube recovery. Your effects loop can drive both low and high impedence effects without loss of fidelity. Proper setting of your external effects "input and output" levels is vital to maintain maximum performance and tone. It is best to set your levels using the Overdrive Channel as the effects loop output is hotter in this channel. By properly using your effects loop you get the efficiency of creating tone first, then sending it to external effects, and finally giving it EQ and volume. To use, simply connect the "effects send" to the input of your external FX and connect the output of your external FX to the "effects return". Try it, you'll like it!

Sample Settings





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Rear Panel Features

To learn about rear panel features and functions, please flip open the left hand page and follow along.

Effects Loop
Send Jack: Use a shielded "guitar type" cable to connect this "output" to the input of your external effects.

Return Jack: Use a shielded cable to "return" the output of your external effects to this effects return "input" of your amp.

Footswitch Jack: This is where you will connect the cable going to your footswitch. You may use either a shielded (guitar) cable or an unshielded (speaker) cable. Also note; should you ever lose/misplace or forget your YAMAHA footswitch, any "latching" (switch to ground) type of footswitch will work.

Slave Out Jack: For those that choose to "Slave" their amp into a component style rack system, take output signal from here. *Note:* While slaving you still **must have** a speaker or resistive load connected to this amp or damage will occur.
Slave Out Level Control: This controls the amount of signal sent from the "slave out jack".

Speaker Impedance Selector Switch: Use this switch to properly match your amp to speaker or speaker cabinet(s) impedance. Please read the page on "Speaker Output" for detailed information.
Speaker Output Jacks: These jacks connect the output from your amp to the input of your speaker(s). Use a high quality UNSHIELDED speaker cable(s) ONLY.

Fuse: Replace only with the type and rating indicated on the chassis. It's a good idea to always carry some spares because of the effect of bad power tubes. If this fuse "blows", please review the Power/Output Tube page and check for a bad tube.

Aux. AC Outlet: We've added this outlet for your convienence. Use it for external effects, tuners, etc. Just don't exceed the maximum rating which is 300w.

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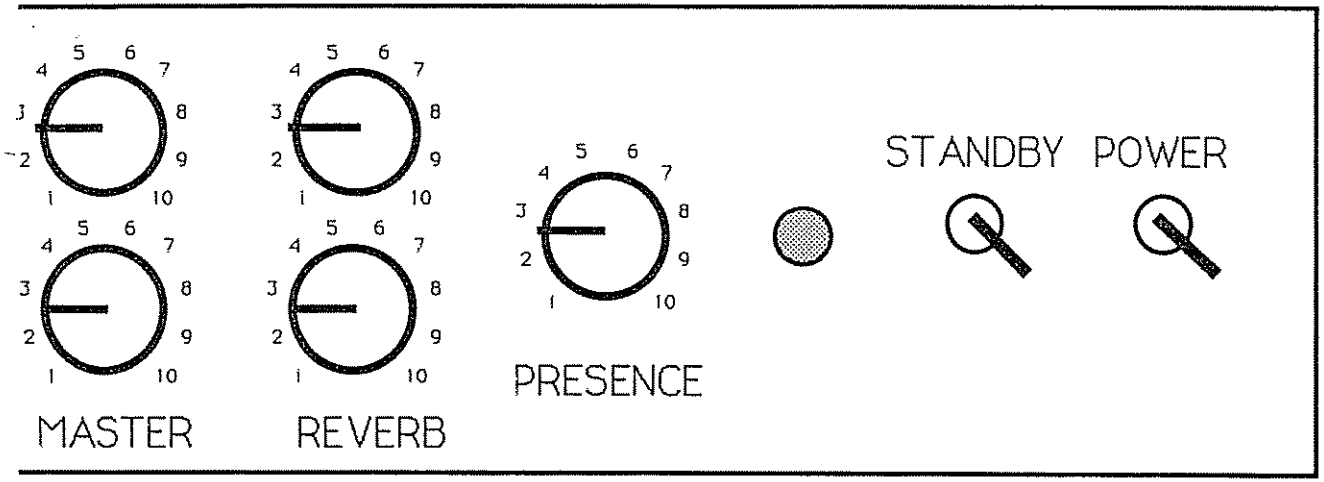
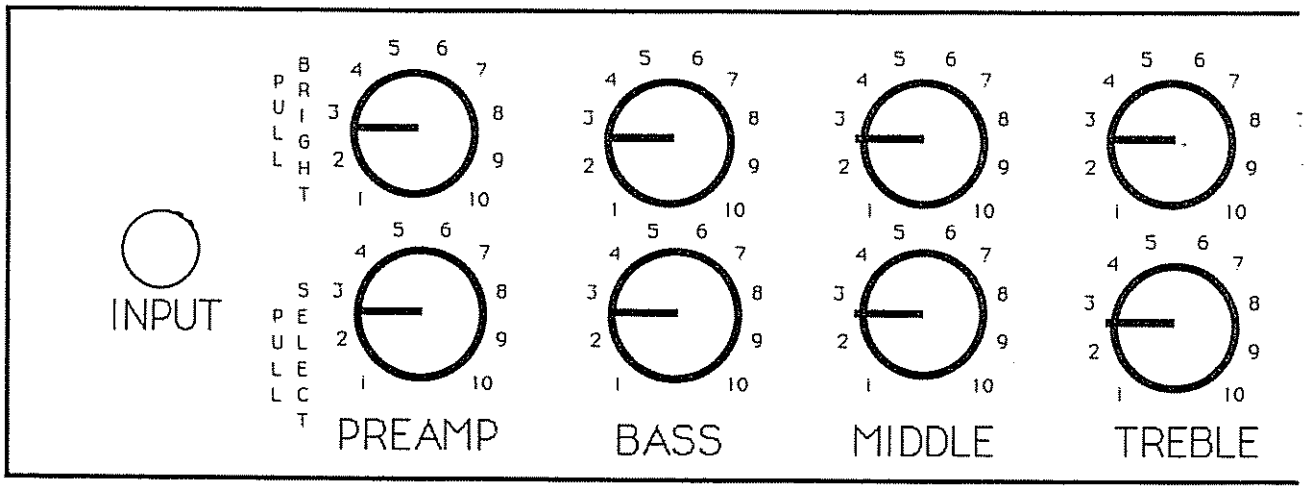


Reverb: A classic amp feature! We've included the finest Accutronics 3 spring reverb with separate level controls for each channel. Higher settings deserve "surf licks" ! Recommended setting: Both channels 2 - 3

Presence: As this control works on the power amp sections, it affects both channels at the same time. You'll notice it adds overall brightness and clarity most apparent in the upper ranges of the control from 6 to 10.

Standby: An important power tube saver! This switch controls the high voltage going to the output tubes. Use it when warming up, between sets and before powering down and you'll prolong the life of your tubes. Flip the switch up to operate, down for Standby.

Power: Up is on, down is off.



Bass: Truly a Soldano signature feature, this control on the Clean channel adds body and depth. On the Overdrive channel it's the famous "chunk, chunk, chunk" that many have paid dearly for. (no mods needed here)
Recommended starting points: Clean 6 / Overdrive 4
• Note: With higher Lead Preamp settings use a lower Bass setting.

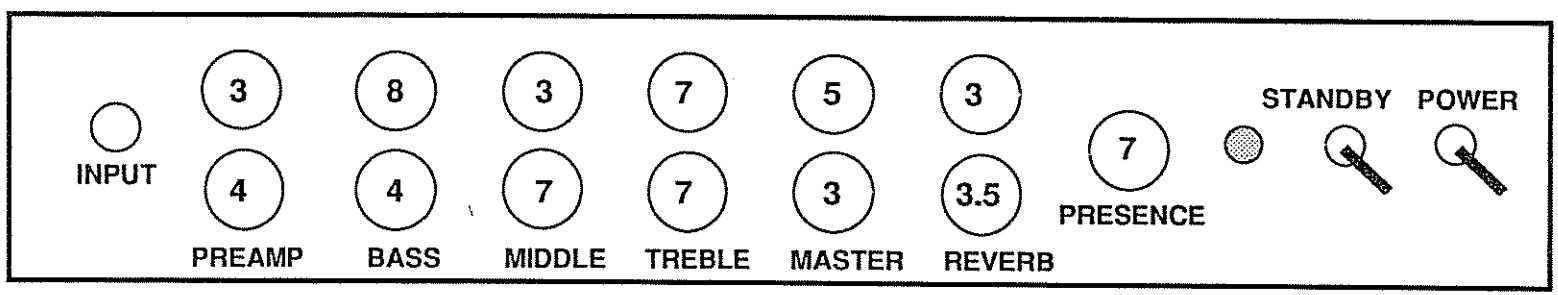
Middle: The most "active" control! Ranges from "no middle" hollowness to the fattest, beefy mids heard. This control may be "the key" to your tone.
Recommended starting points: Clean 7 / Overdrive 4

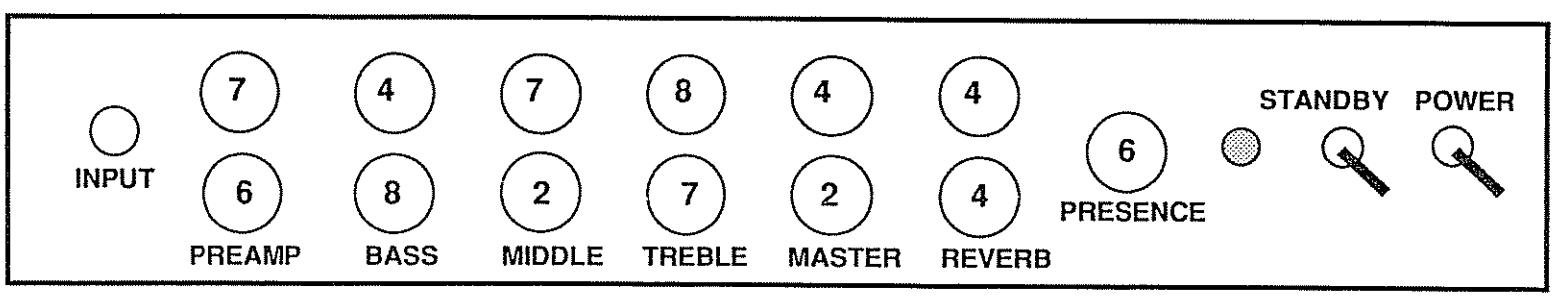
Treble: This is Mr. Personality. Use this control to add top end sizzle and bite. Experiment with different combinations of treble and "Pull Bright" in the Clean Channel, and remember if it's set too high on the Overdrive Channel with too much "Preamp", the amp may squeal. (simply turn down the treble or preamp to remedy)
Recommended starting points: Clean 7 / Overdrive 5

Master: Unlike other two channel amps, your new Yamaha amp features completely independent master volume controls. This control determines the overall loudness of the amp. Remember to use these for "tone" also. Try a higher setting on the Clean Master for an amazing blues tone. But be careful, this amp gets LOUD! Any volume level may be obtained from bedroom metal to concert volume. In regular use try to keep these controls close in value.
Note: In extreme settings like high Overdrive levels with very low Clean levels some channel bleed will be heard.
Recommended starting points: Clean 2 / Overdrive 2

Sample Settings

Immediate gratification. That's right, instant tone, just add your licks. This section is designed to get you "dialed in" quickly and to show you some of the different personalities of your new amp. These settings were found by using a standard "S" type guitar with 3 single coil pickups and by using another guitar with humbucking pickups. Sounds and settings are paired with each other to form usable footswitchable combinations. Please remember, playing styles and pickups differ from player to player, you may need to "tweak" these settings so they best suit your situation.





Enjoy

Wow! What a mouthful. Don't let all of this stuff confuse you. Your new Yamaha amplifier was designed for music, and is an instrument capable of fueling your creativity. Take time and get to know its features and functions, then put it through its paces. Let its tone and personality bring passion and fire to your performance. We thank you for taking the time to learn about your new amp. We also thank you for choosing Yamaha to be your amp company, it is an honor we don't take lightly. Our commitment is to be the best.

Please enjoy your Yamaha amp for a lifetime.

Thank you.

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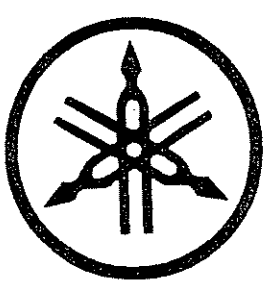

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