

# ROSETTE

Owner's Manual

## Greetings from the Home of Tone®

... You, smart player and intuitive human, have put your trust in us to be your amplifier company. This is something that we do not take lightly. By choosing this instrument to be part of your musical voice, you have become part of the MESA\* family... WELCOME!

Our goal is to never let you down. Your reward is that you are the new owner of an amp, bred of fine heritage, benefitting from the many pioneering and patented MESA circuits as well as fresh cutting edge research and development efforts, leading to this new and exciting model. We feel confident that this amp will inspire many hours of musical satisfaction and lasting enjoyment. It was built with you in mind, by players who know the value of a fine musical instrument and the commitment it takes to make great music. The same commitment to quality, value and support we make to you... our new friend.

## Table of Contents

IMPORTANT SAFTEY INSTRUCTIONS INTRODUCTION / OVERVIEW / INSTANT GRATIFICATION / HELPFUL HINTS	1-5
FRONT PANEL	. •
	E
CHANNEL 1 INPUT SELECT	5 5-6
MICROPHONE INPUT JACK	
PHANTOM POWER LED	0
PICKUP INPUT JACK	0
MUTE SWITCHES	0
PHASE SWITCHES	0
HI-PASS FILTERS  GAIN CONTROLS & CLIP LEDS	0
FX SENDS	0
BASS CONTROLS	7
LOW MID & HIGH MID CONTROLS	
TREBLE CONTROLS	
FX MASTER	 7
MASTER	
MASTEREFFECTS PROGRAM	 7
PARAMETER CONTROLS_	8
REVERB + CHORUS	8
ROOM REVERB	8
HALL REVERB	8
EFFECTS BYPASS LED	8
POWER/PROTECT/LIMIT LEDS	8
REAR PANEL	
POWER SWITCH	9
IEC POWER INLET	9
SPEAKER OUTPUT	9
TWEETER LEVEL SWITCH	9
HEADPHONE OUTPUT	9-10
MUTE FOOTSWITCH	
FX BYPASS FOOTSWITCH	10
EFFECTS SEND & RETURN	10
AUX INPUT	10
AUX INPUT	10
DIRECT OUTPUT SOURCE	10
DIRECT OUTPUT LEVEL	10-11
PIN 1 LIFT (DI OUTPUT)	11
TROUBLESHOOTING	12-13
DISCUSSION ABOUT AMPS & CLASS D FROM THE DESIGN TEAM	14-15
OCH CLITICO	10
TWIST-LIFT ADJUSTMENT	17
TECHNICAL SPECIFICATIONS	18
SERVICE INFORMATION	
BLOCK DIAGRAM	20
PARTS DIAGRAM	21

#### **IMPORTANT SAFETY INSTRUCTIONS**

Read these instructions.			
Keep these instructions.			

Heed all warnings.

Follow all instructions.

Do not use this apparatus near water.

Clean only with dry cloth.

Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.

Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

Only use attachments/accessories specified by the manufacturer.

Unplug this apparatus during lightning storms or when unused for long periods of time.

Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

To insure proper ventilation always make sure there is at minimum four inches (101.6mm) of space behind the rear of the apparatus. The ventilation should not be impeded by covering the ventilation openings with items, such as newspapers, tablecloths, curtains, etc. Do not impede ventilation by placing objects on top of the apparatus which extend past the rear edge of its cabinet.

When rack mounting this unit proper ventilation space must be maintained. Do Not cover or block front and rear and allow at least 2" of open "breathing" space on both sides of the unit.

No naked flame sources, such as lighted candles, should be placed on the apparatus.

The apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.

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

The AC plug is the mains disconnect. The plug should remain accessible after installation. The "OFF" position of the power switch does not disconnect all poles.

**WARNING:** EU: permission from the Supply Authority is needed before connection.

**WARNING:** Always make sure proper load is connected before operating the amplifier. Failure to do so could pose a shock hazard and may result in damage to the amplifier.

Do not expose amplifier to direct sunlight or extremely high temperatures.

Always insure the amplifier is properly grounded. Always unplug AC power cord before performing ANY service to the amplifier, including but not limited to changing the fuse. Use only same type and rating when replacing fuse.

Keep amplifier away from children.

To avoid damaging your speakers and other playback equipment, turn off the power of all related equipment before making the connections.

Do not use excessive force when handling buttons, switches and controls. Do not use solvents such as benzene or paint thinner to clean the unit.

Always connect to an AC power supply that meets the power supply specifications listed on the rear of the unit. Export models: always insure unit is wired for proper voltage. Make certain grounding conforms with local standards.

YOUR AMPLIFIER IS LOUD! EXPOSURE TO HIGH SOUND VOLUMES MAY CAUSE PERMANENT HEARING DAMAGE!

Your MESA/Boogie Amplifier is a professional instrument. Please treat it with respect and operate it properly.

READ AND FOLLOW INSTRUCTIONS OF PROPER USAGE.



### Introduction:

Congratulations on your choice of the ROSETTE® series acoustic amplifier, and welcome to the MESA/Boogie® family! First, we would like to thank you for choosing us as your amplifier company and trusting us to help create your musical voice. This is something we never take for granted and you will find that we are here, ready to assist, should you ever need help. Our goal is to help you sound your best at all times. We feel confident that your new amplifier will bring you many years of reliable service, rewarding inspiration and create a newfound freedom for expressing your music.

You have chosen an amplifier bred of a fine heritage, and this model is our testament to our legacy of tone. Its forefathers can be traced back to the very first MESA® amplifiers ever built, the original modified Fender® Princeton guitar amps and later the first fully Mesa handbuilt Boogie® 130 Lead for British rocker Dave Mason followed by the first Mark I Boogie for Carlos Santana. In fact, over 3000 such MESA amplifiers were built in that Lagunitas mountain shack!

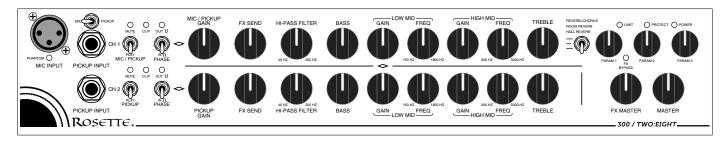
The Mark I, Mark II and later models went on to become classics used by the some of the world's most talented guitarists for over 40 years. Al DiMeola, Bruce Springsteen, Charlie Hunter, Bob Weir, Mike Einziger and Taj Majal are but a few of the international stars that have put these amps to the test. These iconic amps still bring top dollar when you can find one changing hands on the pre-owned market.

Over the years, we have had numerous requests to customize one model or another into being more acoustic instrument friendly. We also had players feed a signal from an acoustic preamp (either on-board or pedal) into the effects returns of these electric guitar amps in order to accommodate an acoustic set or project, so the design team embarked on a serious R&D program to determine what Mesa Boogie could bring to the world of acoustic instrument amps, and the Rosette is the culmination of this effort.

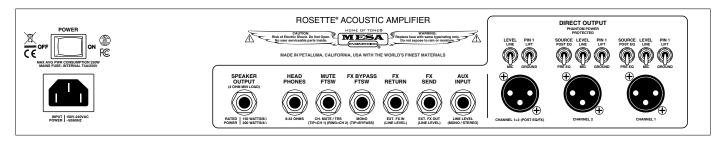
The Rosette is a dedicated acoustic amplification platform designed for acoustic guitars (supporting our guitar based legacy), but is also a great choice for mandolin, ukulele, violin/fiddle, dulcimer, cello, upright bass, and other uniquely acoustic instruments. Not only do the amplifiers include rich feature sets that are suitable for the professional player, but also include studio quality DI's, DSP based reverbs/chorus with natural sounding algorithms (fully adjustable parameters), and low noise mic preamp circuitry.

The Rosette Acoustic series is the next step in the MESA/Boogie amplifier bloodline, a tone dripping powerhouse that's both compact and lightweight, packaged to go the distance with the features and control necessary to continue the legacy that was started over 40 years ago in that Lagunitas mountain shack. All Rosette products are handcrafted in Petaluma, California, U.S.A. with the world's finest materials.

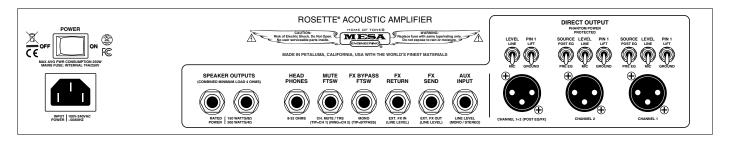
#### FRONT VIEW: ROSETTE® 300 / Two:Eight & One:Ten



#### REAR VIEW: ROSETTE® 300 / Two:Eight



#### REAR VIEW: ROSETTE® 300 / One:Ten



## OVERVIEW: FRONT PANEL

The basic philosophy that has guided us on this project was our attention to accurate reproduction of your acoustic instrument through the combination of features, circuitry and quality construction. The preamplifier's approach is based on high end recording and live audio console architecture, with a feature set and layout that would be right at home in such an environment.

The ROSETTE® begins with the front panel input section, comprised of 2 separate channels, "CHANNEL 1" (TOP) and "CHANNEL 2" (BOTTOM). Channel 1 contains both a microphone and pickup inputs, while channel 2 contains a pickup input.

CHANNEL 1 consists of a MIC INPUT jack, PICKUP INPUT jack, MIC-PICKUP SELECTOR SWITCH, CLIP LED, MUTE SWITCH (foot switchable) and PHASE SWITCH. The MIC INPUT is a bipolar low noise preamp with high dynamic range (includes phantom power & indicator LED) that works seamlessly with both dynamic and condenser microphones. The PICKUP INPUT is a low noise FET preamp with high impedance and wide bandwidth, providing appropriate gain and loading for all pickups. CHANNEL 2 is identical to channel 1, with the exception of the MIC INPUT.

The MUTE SWITCH silences the signal from the respective input to all outputs except the TUNER OUTPUT, allowing for silent tuning. The PHASE SWITCH inserts a polarity inversion to the signal, which can be helpful to reduce the feedback. Indicator LEDs are provided for all switched functions. Additional controls on each channel include a variable HIGH PASS FILTER that is used to block unwanted sub-sonic and/or low frequency signal, a GAIN CONTROL with red CLIP LED indicator, an EFFECTS SEND CONTROL

that send signal to either the on board DSP effects (reverbs/chorus) or the external EFFECTS SEND jack (if not using the on-board effects). Tone shaping includes a 4-BAND EQUALIZER section consisting of a LOW, LOW MID, HIGH MID and HIGH FREQUENCY bands, with both midrange bands having sweepable frequencies.

Finally, there is a master section, with a MASTER EFFECTS control, that adjusts the amount of effects being mixed into the output, and a MASTER VOLUME control which sets the overall volume of the amp. The digital effects processor used in this amplifier is unique amongst acoustic amps in that there are 2 separate reverb families, a layered reverb + chorus program, plus 3 PARAMETER CONTROLS (for adjusting variables such as time, rate, filters or mix) of each effect.

#### OVERVIEW: REAR PANEL

On the rear panel, you will find the POWER SWITCH and the AC MAINS INLET on a standard IEC "C14" connector. The ROSETTE® contains an auto-ranging universal power supply that can take anywhere between 100-120 volts & 220-240 volts AC, 50/60Hz automatically. This feature makes these amps ideal for the international touring musician who plays in a variety of global regions. The only thing necessary is the correct power (mains) cable that matches the power source.

The ROSETTE® is available in both a 2 x 8" and a 1 x 10" combo format. The 2 x 8" combo presents a 4 ohm load to the amplifier, and includes a single SPEAKER JACK. The 1 x 10" combo presents an 8 ohm load to the amplifier, and includes two SPEAKER JACKS. The 1 x 10" combo is the only model that supports an extension speaker. The built in speakers connect directly to the amplifier with the attached cable. The amplifier delivers 300 watts "RMS" to the 2 x 8" combo's speakers. On the 1 x 10" model, the amplifier delivers 150 watts "RMS" to the 1 x 10" combo's speaker with another 150 watts "RMS available to drive an additional 8 ohm extension speaker. Under no circumstances should either terminal be grounded, or connected to anything but a speaker.

A HEADPHONE OUTPUT is provided for practicing (along to an MP-3 source via the aux input if desired). To silence the speaker simply unplug the speaker cable. There is also a MUTE FOOTSWITCH JACK (used with a 2 button latching footswitch, for muting either channel 1, channel 2 or both), an EFFECTS BYPASS FOOTSWITCH JACK (used with a 1 button latching footswitch) for muting the effects, EFFECTS SEND and RETURN JACKS (used for inserting parallel effects in place of the onboard effects), and an AUX INPUT, which sums left and right channels (from any stereo source) into the amp for playing along to accompaniment or for learning new material.

A feature that sets your new ROSETTE® amplifier apart from the rest of the market is the inclusion of studio grade XLR balanced DIRECT OUTPUTS, complete with PRE-POST EQ SWITCHES (on the input channel signals), MIC/LINE LEVEL switches, and pin 1 GROUND LIFT switches. These outputs are phantom power protected.

INSTANT GRATIFICATION

The ROSETTE® is an easy amp to get great sound from, it's essentially a "plug and play" amplifier, but as you become more familiar with the amp's capabilities and its comprehensive controls, that's when the real fun begins.

Starting with Channel 2 (the bottom channel), set the MUTE SWITCH down (mute off), the PHASE SWITCH down (in phase), the HIGH PASS FILTER to the 10:00 position, the 4 EQUALIZER controls (BASS, LOW MID GAIN, HIGH MID GAIN and TREBLE) in the "flat" (12:00 straight up) position (MID FREQUENCY control position won't matter with the mid gains set "flat") and the MASTER VOLUME control in the 1:00 position. Plug your guitar into CHANNEL 2's PICKUP INPUT and turn the PICKUP GAIN control up until you reach your desired volume. Now, set the EFFECTS PARAMATER controls fully counter-clockwise, select an effects program, set the EFFECTS MASTER control to the 1:00 position and gradually rotate the FX SEND control on the PICKUP CHANNEL clockwise to add effects to the overall sound. Now, it's just a matter of setting the EQ to taste and fine tuning the EFFECTS PARAMETER controls (more on this in the player notes section).

## HELPFUL HINTS ON CONTROLLING FEEDBACK WITH ACOUSTIC INSTRUMENTS Feedback occurs when

the sound from the speakers vibrates the body of the instrument and the amplifier re-amplifies this vibration, which gets louder, which gets re-amplified again and again until it "takes off". That's why it's called a feedback "loop". There are several ways to decrease the tendency for feedback.

- The first way is to reduce the exposure of the body of the instrument to the speakers, by increasing the distance between the instrument and the speakers, and/or by turning the instrument so the sound from the speakers doesn't directly strike the sound board of the instrument.
- The second way is to reverse the phase (polarity) of the signal which changes the sensitivity to the frequency at which feedback may occur. If this change is different enough from the natural resonant frequency of the body of the instrument, the tendency for feedback will be reduced.
- The third way is to use the variable HIGH PASS FILTER (passes the high frequencies and cuts the low frequencies), which reduces the tendency to feed back at very low frequencies by reducing the amount of low frequency energy available to vibrate the body of the instrument. This technique is especially helpful on deep dreadnaughts, upright bass and cellos. Rotating the control clockwise raises the cut-off frequency which decreases the amount of low bass energy. It's often desirable to raise the cutoff frequency when playing at higher volumes to help preserve clarity of the sound.
- The fourth way is by the use of equalization to reduce the amount of energy in a specific frequency band, thus reducing the tendency to feed back in that band. Since this feedback is often aggravated by cavity resonance of the instrument's body, it's often most easily accomplished by using the LOW MID eq controls. Starting with the LOW MID GAIN control at the 3:00 position and the LOW MID FREQUENCY control fully clockwise position, set the gain control while playing to a little bit below the level that feedback occurs, now slowly rotate the LOW MID FREQUENCY control counter-clockwise and at some point you should hear the resonant characteristics of the beginning of feedback. Reduce the LOW MID GAIN control to about the 10:00 position and the sound of the resonance should pretty much disappear. You will probably find that rotating the LOW MID FREQUENCY control back and forth a bit from this point, you will find a spot that works the best. If you need a little more cut of this frequency band, you can rotate the LOW MID GAIN control counter-clockwise a little bit more. Note that the BASS control naturally overlaps the lower end of the LOW MID range, so if you find that you are cutting below ~150Hz on the low mids, you might try turning the BASS control down a little too.

Speaking of feedback control, a more powerful 4-BAND EQ with 2 sweepable frequency MIDS has been included with the ROSETTE® rather than the more common, simple 2 or 3-BAND fixed frequency, 3-BAND with a single sweepable mid frequency EQ. A sweepable mid band operated in cut mode will do much the same thing as a notch filter, except that you are not limited to a fixed notch depth. In cut mode, the notch depth is variable from 0dB to over 12dB, meaning that you only have to use just enough to get the job done and no more (plus you still have a sweep mid band left over for additional EQ). If feedback isn't an issue, then you have both bands available for EQ use (including boost), which represents the most powerful EQ available on any acoustic amp.

HELPFUL HINTS ON GETTING GOOD RESULTS WITH EQUALIZATION (EQ) Simply put, equalization allows you to increase or decrease the amount of energy (signal level or volume) within a band of frequencies. The first purpose of equalization is to balance the tonal ranges of the instrument (and its pickup system along with the speaker system) to fit better within the acoustic space of the room and also within the mix itself (in a band situation). Each band of the EQ corresponds to a portion of the frequency range of your instrument, the 2 midrange bands can be positioned by sweeping the frequency control to the best frequency position for your needs.

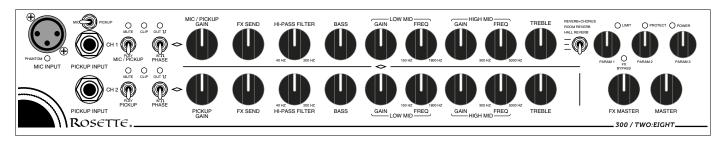
The second purpose of equalization is to decrease the likelihood of acoustic feedback that can occur if the overall volume is high, and enough of this acoustic energy from the speaker is picked up by the instrument and re-amplified in a never-ending loop, which is the definition of feedback. (see the above section on using eq for feedback control)

The BASS control is used to add or subtract (boost or cut) low frequencies (bass) from the sound. Clockwise from the 12:00 position (12:00 is the "flat" position, no boost or cut) boosts the bass and counter-clockwise from the 12:00 position cuts the bass. In general, at low volumes boosting the bass a little bit sounds deeper and fuller, but at higher volumes you may find that cutting the bass a little will be helpful to preserve clarity and reduce the tendency for low frequency feedback.

- 2. The LOW MID/HIGH MID section consists of 2 different sets of controls, LOW MID/HIGH MID GAIN and LOW MID/HIGH MID FREQUENCY. Simply put, the LOW/HIGH MID GAIN control cuts or boosts the amount of low/high midrange centered at the frequency that the LOW/HIGH MID FREQUENCY control selects. The low mid frequency spectrum is responsible for the "earthy", "woody", "woofy" sometimes boxy character of the tone and the high mid spectrum is responsible for the "attack", "brittle" or "biting" character of the tone. In general, better and more repeatable results are achieved by cutting of undesirable tones.
- 3. The TREBLE control is used to add or subtract (boost or cut) high frequencies (treble) from the sound. Clockwise from the 12:00 position boosts the treble and counter-clockwise from the 12:00 position cuts the treble. In general, at low volumes boosting the treble a little bit sounds brighter and more open, but at higher volumes you may find that cutting the treble a little will be helpful to prevent harshness and brittleness. Generally, a somewhat brighter tone will work better in the context of a band mix, and will help the instrument cut through better.
  - a. Here's an easy way to set the MIDRANGE EQ bands. Starting with the LOW MID GAIN control at the 3:00 position and the LOW MID FREQUENCY control fully clockwise position, set the gain control while playing to below the level that feedback might occur. Now, slowly rotate the LOW MID FREQUENCY control counter-clockwise while playing (it's helpful to have a third hand for this) and listen for the sound that you don't like, tone that gets in the way of the instrument's natural tone and stands out as undesirable. Sweeping this control will allow you to find this frequency range quickly. Then, simply reduce the LOW MID GAIN control (about the 10:00 position is a good starting point) and the tones that you don't like should pretty much disappear. You will probably find that rotating the LOW MID FREQUENCY control back and forth a bit from this point to fine tune, you will find a spot that works the best. If you need a little more cut of this frequency band, you can rotate the LOW MID GAIN control counter-clockwise a little bit more. Now, repeat the same thing with the HIGH MID section. It does take some practice, but the better you get the better your results will be.
  - b. As a starting point, based on a wide cross-section of guitars and pick-up systems, a good starting point will be with both the LOW/HIGH MID GAIN controls set to about the 10:00 position and the LOW/HIGH MID frequency controls ranging from the 10:30 2:30 positions.
  - c. At higher volumes, it is common that you will find that a little more cut may be necessary to ensure the most natural sound.

There are many internet sites devoted to acoustic musicians that discuss this topic. It is often helpful to read up on this subject in more detail, and see how others address EQ and feedback, because the better you understand it, the better you can avoid it in the first place. Another possible resource is to contact a pro audio guy and have them show you how they equalize a PA system. They deal with exactly the same thing on a daily basis and will almost certainly understand (and appreciate) that you are trying to expand your skills in this challenging area.

### Front Panel (Controls & Features)



CHANNEL 1 INPUT SELECT This switch selects between the XLR MIC INPUT and the 1/4" (6.35mm) PICKUP INPUT on channel 1. If phantom power is enabled on the mic input, the PHANTOM POWER LED will switch off when the PICKUP INPUT is selected.

MICROPHONE INPUT JACK
This jack feeds the microphone preamp (when the INPUT SELECT SWITCH is in the "MIC" position). The microphone preamp features discrete, low noise, balanced circuitry. The MICROPHONE INPUT provides DIN P-12 phantom power, which works well with most microphones encountered in live sound. If a higher voltage is required, (such as DIN P-48), an external phantom power supply may be used in line with the mic input. It is always good practice to turn down the MIC

GAIN control and mute the channel whenever connecting or disconnecting your microphone to prevent pops from being sent to the internal speaker and to the DI output. The sound engineer will appreciate this bit of courtesy.

PHANTOM POWER LED This LED indicates that phantom power is present on the MIC INPUT (turns on when the MIC INPUT is selected). Note that phantom power can be enabled or disabled internally via DIP switch J2 located behind the mic jack (clearly labeled). For virtually all typical applications, regardless of internet lore and old wives' tales, phantom power can be present with no adverse effects. Your amplifier ships from the factory with phantom power engaged. The only real worries concerning phantom power arise with some ribbon mics (check with the manufacturer, many introduced within the past 10 years have no problem and some require phantom power to operate) and with certain cable faults but only in conjunction with a very small number of especially vulnerable mics.

PICKUP INPUT JACK
This jack feeds the monolithic JFET input stage of the pickup input. The impedance and sensitivity of this input is compatible with all common pickups. It is always good practice to turn down the PICKUP GAIN control and mute the channel whenever connecting or disconnecting your instrument to prevent pops from being sent to the internal speaker and to the DI output.

MUTE SWITCHES

Mute the audio signal being sent to the respective channel's DIRECT OUTPUT, HEADPHONE OUTPUT and SPEAKER OUTPUT for silent tuning. When the switch is in the up position, there will be NO audio will be present at the DIRECT OUTPUT jack, HEADPHONE OUTPUT jack, or the SPEAKER OUTPUT jack. This switch can also be used to place the channel into standby mode before and between sets, and for switching between instruments without adjusting any of the controls.

**NOTE:** The MUTE function can also be accessed remotely via a latching 2 button footswitch connected to the MUTE FOOTSWITCH jack located on the back panel. The front panel toggle switches must be in the down (PLAY) position for the foot-switched functions to work properly. Mesa sells a Rosette specific 2 button footswitch separately through our authorized dealers, our parts & accessories online store, or by contacting our customer service department.

PHASE SWITCHES

Set the phase (polarity) of the signal from each channel to all outputs, including the speaker output. Under some conditions, if the signal from your instrument and the signal from the speaker are of the same acoustic polarity, feedback can become more possible. Set this switch to the position that produces the minimum tendency for feedback before attempting to use the equalization for feedback control. When using a pickup system that includes both a pick-up and a microphone, be sure to switch one of the PHASE switches back and forth and choose the position that is most rich & full. There is no standard for polarity of pickups, so this insures that they are in relative phase with each other. Once this is done, switch both together to determine if one position is more prone to feedback than the other (and select the position that is least prone to feedback). This determines the polarity of the entire instrument relative to the speaker.

HI-PASS FILTERS

These controls are an important feature in maintaining control over the extreme low frequency response, especially under higher volume conditions. This variable frequency filter sweeps from 40Hz – 200Hz with a smooth low frequency roll-off. While HPF's have been standard fare within the pro audio industry for decades, this feature has only begun to appear in acoustic instrument amplifiers within the past few years. This variable filter also helps with the sub-sonic harmonics generated by the acoustic cavity of larger instruments (like cello, mando-cello, upright bass, viola and dreadnaught guitar This is the kind of feature that a pro audio engineer can show you how it works in a matter of seconds if you are having difficulty or would like to gain a higher proficiency quickly.

GAIN CONTROLS & CLIP LEDS

Determine the input gain of their respective channels. The red CLIP LED provides a visual indication of the status of the drive signal level, and when flashing, indicates that preamp clipping may be present. To eliminate clipping turn down the GAIN control and if you need more volume, turn up the MASTER VOLUME control a little bit to compensate (remembering that the master volume controls the level of both channels and you may need to turn the other channel down a bit too to retain balance between channels).

FX SENDS These controls adjust the level of the signal that is sent to the onboard effects processor. Generally, if the MASTER EFFECTS (return) control is set to the 1:00 position, this EFFECTS SEND control will fall within the 10:00 and 3:00 position. If you then need more effects level than this, you would increase the MASTER EFFECTS control to achieve it while the send control remains within the 10:00 – 3:00 positions. The reason for providing both the send and master controls is to allow better scaling for a wider variety of instruments, pickups and effects units.

BASS CONTROLS

These controls are responsible for the amount of low frequencies present in the signal, relative to the rest of the spectrum. Low frequencies (below 200Hz) are responsible for the "bottom", "roundness", "depth" or "feel" of the tone. These are active controls with boost and cut, the amount of boost and cut proportional to the clockwise and counter-clockwise rotation from the flat (12:00) knob position. As with everything related to EQ, generally, a little bit goes a long way. Use enough to get the job done and no more. Note that if you are experiencing low frequency woofiness, try turning this control down a little bit. It will be helpful to first fine tune the response with the variable HI-PASS FILTER before using the BASS EQ control, and sometimes a combination of the BASS EQ and HI-PASS FILTER is more effective.

LOW MID & HIGH MID CONTROLS

These controls are responsible for the amount of LOW and HIGH MIDRANGE frequencies present in the signal, relative to the rest of the spectrum. LOW MID frequencies (adjustable between 150Hz and 1800Hz) are responsible for the "earthy", "woody" character of the tone. HIGH MID frequencies (adjustable between 300Hz and 5000Hz) are responsible for the "edge", "attack" or "biting" character of the tone. These are active controls with boost and cut controlled by the LOW MID GAIN and HIGH MID GAIN controls, the amount of boost and cut proportional to the clockwise or counterclockwise rotation from the flat (12:00) position. The frequency ranges that these GAIN controls act upon are selected by the LOW MID FREQ and HIGH MID FREQ controls as indicated on the front panel. With the gain control in the flat (12:00) position, there will be no difference heard when sweeping the corresponding FREQ control because there is no boost or cut in the flat position.

TREBLE CONTROLS

These controls are responsible for the amount of high frequencies present in the signal, relative to the rest of the spectrum. High frequencies above 5000Hz) are responsible for the "bright", "airy", or "shimmery" character of the tone. These are active controls with boost and cut, the amount of boost and cut proportional to the clockwise and counter-clockwise rotation from the flat (12:00) knob position. If the sound is perceived at too bright or brittle, try turning this control down a bit.

This control adjusts the amount of effects being returned from the onboard (or external if used) effects processor that is being mixed back into the overall sound. In general, start by setting this control so that the FX SEND control (on the channels) falls within the 10:00 to 3:00 knob position for desired effect level in your sound, this will give the best compromise between noise floor and dynamic range. Note that high levels of effects can increase the potential for feedback.

MASTER
This control is responsible for the overall level (volume) of amplifier. Using the MASTER control along with the MIC/PICK-UP GAIN controls allow optimum control over playing volume. The typical application will usually find the MASTER set between the 10:00 and 2:00 knob positions.

EFFECTS PROGRAM

This switch selects which of the three effects programs is being used. With the switch in the "DOWN" position, the hall reverb program is selected, with the switch in the "MIDDLE" position the room reverb program is selected and with the switch is in the "UP" position the layered room reverb plus chorus program is selected.

PARAMETER CONTROLS

The 3 smaller controls to the right of the EFFECTS PROGRAM switch, labeled PARAM 1, 2 and 3, offer additional adjustments of parameters within these programs. Their specific functions, which vary by program, are detailed within the program descriptions below.

- REVERB + CHORUS This program layers the ROOM REVERB with a CHORUS program, which together can enhance
  the natural acoustic properties and interaction of the instrument with its environment.
  - PARAM 1: Reverb Mix Mix (reverb level in the effect, clockwise increases level)
  - PARAM 2: Chorus Rate (modulation speed, clockwise increases speed)
  - PARAM 3: Chorus Mix (chorus level in the effect, clockwise increases level)
- ROOM REVERB These programs are based (or modeled) on smaller acoustic spaces, have shorter pre-delays, decay tails
  and initial reflections with less complex regeneration and are a little brighter and more aggressive overall (compared with
  hall reverbs). They are used to fatten and warm up the fullness of a guitar while providing a mild bit of acoustic sustain.
  - PARAM 1: Reverb Time (length of decay or room size, clockwise increases time)
  - PARAM 2: Low Pass (High Cut) Filter (clockwise decreases the cut frequency)
  - PARAM 3: High Pass (Low Cut) Filter (clockwise increases the cut frequency)
- HALL REVERB These programs are based (or modeled) on larger acoustic spaces, have longer pre-delays, decay tails and initial
  reflections with more complex regeneration, which become a little darker as the decay "tails out" (much like a larger concert hall).
  Hall reverbs are commonly used to expand the sound of the instrument in a larger but acoustically dead natural environment.
  - PARAM 1: Reverb Time (length of decay or room size, clockwise increases time)
  - PARAM 2: Low Pass Pass (High Cut) Filter (clockwise decreases the cut frequency)
  - PARAM 3: High Pass (Low Cut) Filter (clockwise increases the cut frequency)

The red LED between parameter 1 and 2 indicates when the effects (either the internal effects or those being used in the effects loop) have been bypassed (canceled/muted) by using external footswitch control via the rear panel FX BYPASS jack, using a standard "latching" tip to ground footswitch. This feature can be useful when tuning instruments by ear, and for eliminating effects when using the microphone channel for vocals while talking between songs.

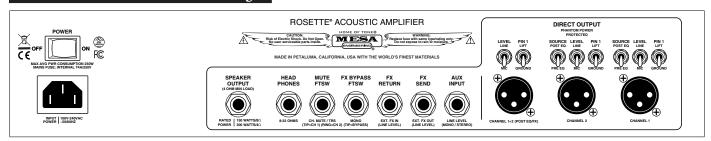
POWER LED This blue LED indicates that the amplifier is connected to a power source and is switched on, operating correctly. If this LED is not on, double-check the power source, and be sure the power cable is firmly inserted into the IEC power inlet socket.

PROTECT LED This red LED indicates that the amplifier has entered protect mode and is either protecting itself from an external fault (such as a shorted speaker cable or defective speaker), or that there is an internal fault within the amp itself.

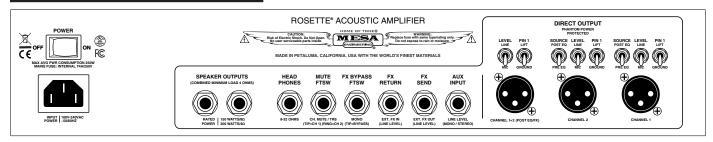
This amber LED indicates that the power amp is nearing maximum power and is entering the soft clip/limit mode. Soft clip/limit mode mimics many of the desirable characteristics of tube amp output stage overdrive while eliminating common solid state clipping artifacts. There is approximately 4dB of range on this circuit, and driving beyond this, of course, will cause gradual output stage clipping. It's acceptable for this amplifier to operate in output stage overdrive mode (if that's the tone you are after) with the LED flashing roughly 25% of the time.

### REAR PANEL (CONTROLS & FEATURES)

#### REAR VIEW: ROSETTE® 300 / Two:Eight



#### REAR VIEW: ROSETTE® 300 / One:Ten



**POWER SWITCH** This switch is used to turn your amp on and off by internally disconnecting the amplifier from the power source. This amplifier complies with the EU Eco-design directive by providing a switched "0.00 watt power consumption off-mode".

This power inlet conforms to the IEC C-14 type standard, and is to be used with a cordset containing a matching connector with the appropriate plug for the intended market. Since the connector provides for a snug fit, always insure that it is fully seated. Never alter the power cable or remove the ground, which is an essential part of the amplifier's safety system.

SPEAKER OUTPUT The Rosette 300 amplifier is rated to drive a 4 ohm minimum total load and may be safely operated with no speakers connected for silent practice or for using as a recording preamp.

**Model TWO:EIGHT** - The 2 x 8" combo's internal speaker system is rated at 4 ohms, this model cannot drive external speakers, and delivers 300 watts into the internal speakers.

**Model ONE:TEN** - The 1 x 10" combo's internal speaker system is rated at 8 ohms, this model can support one additional 8 ohm speaker or two additional 16 ohm speakers, and delivers 150 watts into the internal speaker. With an 8 ohm or 2 x 16 ohm external speakers, the amp will deliver 300 watts split equally between the internal and external speaker.

**EXTERNAL SPEAKERS** – If using a standard unpowered (passive) speaker as an extension, connect to the second speaker output. If using a powered speaker as an extension, use the DI (1+2 output) set to mic or line level (depending on the powered speaker model). **DO NOT** use the speaker or headphone output to drive anything except speakers and headphones.

TWEETER LEVEL SWITCH This 3 position switch adjusts the level of the tweeter from "OFF" (commonly used for jazz electric and arch tops), to "-6dB" (warmer, more mellow tone) all the way to flat (which provides a more even, extended treble response).

The ROSETTE® includes a 1/4" (6.35mm) TRS (tip-ring-sleeve) HEADPHONE OUTPUT jack, which will drive all common headphones and IEM ear pieces. It's advisable to use caution whenever sticking any sound source in your ear, as damaging volume is possible. This output contains some additional cabinet emulation circuitry. Do not connect anything to the

HEADPHONE OUTPUT except headphones and ear buds. If you wish to run the combo silently with headphones, simply unplug the speaker cable from the jack. We suggest researching and auditioning headphones before you buy, as performance can vary widely between brands and models.

MUTE FOOTSWITCH

The ROSETTE® is provided with a 1/4" (6.35mm) TRS (tip-ring-sleeve) MUTE FOOTSWITCH jack, which works with standard 2 button latching footswitches. Shorting the tip to the sleeve mutes CHANNEL 1 (top) and shorting the ring to the sleeve mutes CHANNEL 2 (bottom). The LEDs on the front of the amp will indicate when each function is selected. The toggle switches on the front of the amp must be in the down (PLAY) position for the footswitch to function properly. Mesa sells a Rosette specific 2 button footswitch separately through our authorized dealers, our parts & accessories online store, or by contacting our customer service department.

FX BYPASS FOOTSWITCH
jack, which works with standard 1 button latching footswitches. Shorting the tip to the sleeve cancels (or mutes) the effects, including any external effects processors that may be inserted in the effects loop. The red EFFECTS BYPASS LED on the front of the amp will illuminate when the effects are bypassed/muted. Mesa sells a Rosette specific 1 button footswitch separately through our authorized dealers, our parts & accessories online store, or by contacting our customer service department.

The ROSETTE® is provided with a pair of 1/4" (6.35mm) TS (tip-sleeve) jacks that together form the effects loop. The EFFECTS SEND jack takes its signal from each channel's FX SEND control, the same signal that is sent to the internal effects processor. The EFFECTS RETURN jack inserts its external signal in place of the internal effects processor, the level being controlled by the MASTER EFFECTS control. This is a parallel loop that allows the substitution of an outboard effects processor in place of the internal processor. While designed specifically for line level effects, there is adequate control range and make-up gain to work with many instrument level effects as well. The external processor's output mix control must be set to the 100% wet (effects only, no dry signal) position as the wet-dry mix function is handled by the ROSETTE®.

AUX INPUT

The ROSETTE® is provided with a 1/4" (6.35mm) TRS (tip-ring-sleeve) AUX INPUT. This TRS stereo jack properly sums left and right channels from an MP3 player, i-device, tablet or laptop as many of these devices do not contain adequate build out resistors for proper low distortion summing. The signal injection point is right before the MASTER VOLUME control, you can use the music player's volume control its level. Note that for best performance, when a 1/8" (3.5mm) TRS to 1/4" (6.35mm) TRS cable (also called a stereo cable) is used, this will always match between devices and allow the amp's left-right summing circuitry to work properly. (The only signal that is not compatible is a TRS balanced mono signal, but this will not be available on a headphone output of an MP-3 player, phone, tablet or laptop computer)

DIRECT OUTPUTS (DI OUTS)

A feature that sets your new ROSETTE® apart from the rest of the market is the inclusion of studio grade XLR balanced direct outputs. There are outputs provided for channel 1 only, channel 2 only, and the summed channels 1+2 (with effects) output. These outputs are capable of driving balanced analog lines as long as 500 feet, and are fully phantom power protected. These output follows the pro audio standards of pin 2=non-inverting, pin 3=inverting and pin 1=ground. Every known console in the world follows this wiring standard.

These switches select either PRE-EQ or POST-EQ signals from the individual channels (1 & 2). These outputs are commonly used where the control of individual channel levels by the PA system is possible, and would usually be selected as PRE-EQ to allow the PA to equalize the signals as needed for the PA system. The POST-EQ signal routing might be selected when the amplifier is being used for multi-track recording, where EQ might be desired during tracking or where the PA system may not have an operator with sufficient experience to eq an acoustic instrument. These outputs are always pre effects (no effects present) because the take-off points occur before the effects are generated. There is no PRE-POST EQ switch available on the channel 1+2 output because the signals are already equalized before being combined. The channel 1+2 output also includes the effects signal.

DIRECT OUTPUT LEVEL

These switches select the DIRECT OUTPUT signal level between mic level (approx. -30dBu) and line level (approx +4dBu) depending on the needs of the receiving device. While most pro level mixing consoles can handle line level

signal, that's not always true of intermediate and lower level mixers which often require mic level to prevent overloading of their inputs. Recording interfaces for studio work, however, are generally equipped to handle (and often can only accept) line level.

PIN 1 LIFT (DI OUTPUT)

These switches connect or lift the circuit ground/earth connection from pin 1 on the XLR DI OUT connector. Balanced signals outputs do not rely on the pin 1 (or shield) connection to transmit signal to the console. While pin 1 is always connected to the console's master ground bus, sometimes small currents will flow between grounds if there is a connection between the two devices, resulting in hum. By lifting the ground at the sending (amplifier) end, this allows the shielding to remain in place while breaking the ground current. Additional RF grounding techniques are employed in the network, providing added RFI (radio frequency interference) rejection. The general rule is to start with pin 1 switch in the "LIFT" position. If noise is present, switch to the "GROUND" ground position. While there are many other other possible causes of noise, this switch is a solution for ground loop noise between the PA or other balanced device and the ROSETTE® amplifier.

## Enjoy your new amplifier!

This wraps it up for the Controls and Features of your Rosette Amplifier. Exercise a little patience the first couple weeks of ownership and learn the Controls. You will be well rewarded for your time spent with years of enjoyable performance.

Thank you for your support and for trusting us to be your amplifier company. We never take it for granted and we wish you countless hours of fun, inspiration and enjoyment from your new instrument. Feel free to reach out to us anytime you may need assistance. We're always glad to hear from you!

From the Entire MESA/Boogie Family; Welcome and Enjoy!

## **TROUBLESHOOTING**

In the event that your amplifier appears not to work correctly, often enough the problem is not with the amp, but a related piece of equipment so it's necessary to take a deliberate, systematic approach to troubleshooting in order to effectively identify and correct the problem. Yes, believe it or not, we have seen all of these things many times. Flip the MUTE SWITCH to the PLAY (down) position and enjoy the ride!

#### SYMPTOM

#### NO AUDIO OUTPUT

Is the power LED lit?

**NO:** Possible causes to check in this order are:

- 1. Verify the power source, verify that the IEC power cable is not damaged and is fully inserted into its socket,.
- 2. Verify that nobody unplugged your amp or turned off your power strip when you weren't looking (if so, blame the drummer, turn on and play.).
- 3. If these do not solve your problem, it's possible that your amplifier has failed so call our customer service department and we will help you get this resolved.

YES: Possible causes to check in this order are:

- 1. MUTE SWITCH engaged (turn mute function off)
- 2. GAIN or MASTER controls turned down (turn the controls up)
- 3. Defective speaker cable or cabinet (test known good speaker cable and cabinet)
- 4. Defective pickup or cable (test with known good pickup and cable)
- 5. There is indeed a problem with your amp, call our customer service department and we will help you get this resolved.

#### SYMPTOM

#### DISTORTED AUDIO OUTPUT

- 1. Defective battery in active instrument causing instrument's onboard preamp to distort (replace battery)
- 2. Gain structure problem (if the input clip LED is flashing), turn down input gain control to eliminate flashing of the input clip LED and turn up master volume control if more volume is needed.
- 3. Slightly intermittent cable in system (this can be an instrument cable, patch cable or speaker cable)
- 4. Defective or blown speaker(s) in cabinet (test with known good cabinet, repair cabinet as needed)
- 5. There is indeed a problem with your amp, call our customer service department and we will help you get this resolved.

#### SYMPTOM

#### NOISE (POPPING) IN AUDIO

- 1. Popping or clacking noise while playing. (check pickup mounting to be sure it is securely attached.)
- 2. Popping while just sitting there, or when touched. (under dry environmental conditions, it's possible that electrostatic discharge is the cause. (try antistatic mat on floor, humidifier in room)

#### **SYMPTOM**

#### NOISE (LOW FREQUENCY HUM) IN AUDIO

- Defective instrument cable or problem with instrument wiring (unplug instrument cable from amplifier, if hum goes away, this
  means that the noise is entering from outside the amplifier. Try known good instrument cable and/or instrument)
- 2. Power source wiring is not grounded/earthed (check all wiring for missing grounding/earthing pins, have qualified electrician check building power wiring for missing ground/earth connections and correct as necessary.)
- 3. External stray magnetic field present coupling into the pickups, especially single coils (one clue that this may be the cause is when the volume level of the hum changes with position of the instrument. Possible causes are large power transformers located near the performance area, if this occurs when you get close to another instrument amp it may be due to stray field from its power supply)

#### **SYMPTOM**

#### NOISE (HIGH FREQUENCY HISS AND HASH) IN AUDIO

- 1. If the noise goes away when the instrument cable into the amp is unplugged, the cause of the noise is external to the amp (possibly an active preamp with the TREBLE turned all the way up, a failing battery, defective on board preamp)
- 2. If your amp model contains a tube/valve in the preamp, it's possible that you are experiencing the beginning of a tube/valve failure (replace tube/valve)
- 3. Power source wiring is not grounded/earthed (check all wiring for missing grounding/earthing pins, have qualified electrician check building power wiring for missing ground/earth connections and correct as necessary.)
- 4. Problem with wiring or a device in the effects loop (remove send and receive wiring from the amp's effects loop to identify the source of the noise, correct as necessary.)
- 5. Tweeter turned all the way up in a quiet room (may need to turn tweeter down under such conditions, especially if the sensitivity of the tweeter greatly exceeds that of the low frequency drivers with tweeter turned up)

#### SYMPTOM

#### PROTECT LED TURNS ON

- Disconnect all cables except power cable, if the amp is no longer in protect, try plugging in just the speaker cable. If the amp goes immediately into protect, one possible cause is a defective or damaged crossover that is presenting an illegal load to the amplifier and the protection circuit is working correctly.
- 2. Protect circuit shuts down amp while playing at low to moderate volumes (possible shorted speaker cable, try known good speaker cable, possible low AC power source voltage, amplifier is protecting itself from damage)
- Protect circuit shuts down amp at moderate to high volumes (possible low AC power source voltage, amplifier is protecting itself from damage
- 4. Power source voltage falling dangerously low due to improper wiring or extension cable that is too long for its wire size. (correct problems as needed with the help of a qualified electrician)
- 5. There is indeed a problem with your amp, call our customer service department and we will help you get this resolved.

## DISCUSSION ABOUT AMPS & CLASS D FROM THE DESIGN TEAM

QUESTION What makes this new amplifier so small and light weight?

ANSWER This amplifier uses new technology, both an SMPS (SwitchMode Power Supply) and a CLASS D power amplifier to decrease the size and weight. These designs are carefully implemented and fully tested to insure robust, reliable performance in real world conditions night after night

QUESTION How can a light weight amplifier deliver solid bass? I was always told that an amplifier has to be heavy to produce acceptable bass.

ANSWER

By operating in a non-linear fashion (with the power devices that are either fully on or fully off) the output stages no longer have to accommodate reactive load inefficiencies, overly sensitive protection of "safe operating areas", and dissipate waste heat like output devices operating within the linear region. This means more power and better low frequency control. In fact, the pro audio industry has been using SMPS and Class D almost exclusively in the large scale touring market for about 10 years now, driving massive arena and stadium subwoofers night after grueling night on the road. In fact, much of the technology in our power amplifiers comes from the high reliability touring pro audio world.

QUESTION How do I know that these amplifiers will be reliable?

ANSWER The design engineer of the ROSETTE® amplifier project has over 10 years of successful SMPS and Class D amplifier experience, both in bass and acoustic amplifiers as well as in the touring pro audio world. We have worked closely with the European engineering team on the development of these new power modules, including extensive testing, not just in the lab, but real world testing on real stages with real musicians and real audiences, night after night.

QUESTION Why is the power supply so small and light weight?

ANSWER An SMPS is just like any other power supply, except for the fact that it operates at a much higher frequency (typically around 80-100kHz) than a line frequency power supply (either 50Hz or 60Hz). The higher the operating frequency, the smaller the power supply's transformer core needs to be. Since most of the weight of a power transformer is in the core (and the copper wire around the core), making the core smaller reduces size, weight and the amount of copper needed to wrap around the core.

QUESTION How does the SMPS work?

ANSWER Without getting too technical, a switch-mode power supply takes the incoming AC mains (50-60Hz) power, rectifies it to a high voltage direct current (HVDC). This HVDC is then filtered and stored in the input filter capacitors as reserve energy for discharge as needed into dynamic loads. This HVDC is then chopped/switched at about 100kHz into a high voltage, high frequency alternating current (HVHFAC), which is then fed through a high frequency transformer which converts the HVHFAC into low voltage, high frequency alternating current (LVHFAC) which is then rectified and filtered into low voltage direct current (LVDC) that the power amplifier's circuitry uses.

QUESTION

Why is the Class D power amplifier so small and light weight?

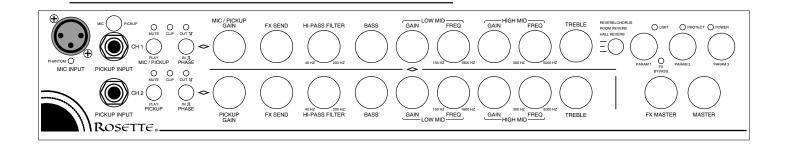
ANSWER A Class D amplifier operates its output stage non-linearly, meaning that the output devices are switched either fully on or fully off at a switching frequency of about 500kHz. This "cutoff-saturation" switching minimizes waste heat by avoiding operation in the wasteful "linear range", and without the heat, there's no need for the large, heavy aluminum heatsinks.

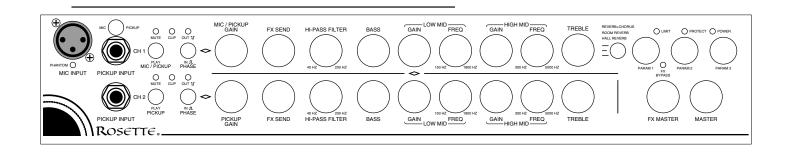
QUESTION

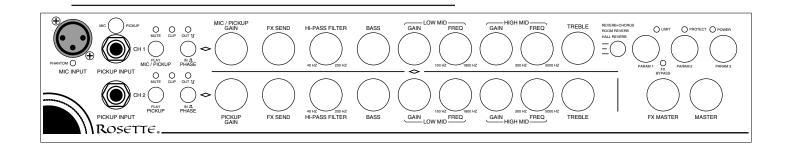
How does the Class D amplifier work?

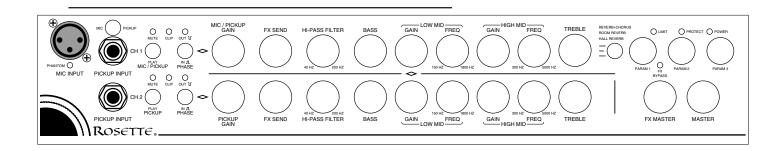
ANSWER In Class D amplifiers, the analog audio signal is converted into a PWM (pulse width modulated) pulse train representation of the analog audio signal (similar to the A/D converter in a PWM digital audio recorder but at a much higher frequency) at +5 volts conventional computer logic level. This PWM pulse train is level shifted by large solid state switching power transistors (that operate non-linearly to avoid waste heat) to a high voltage (and current), the resulting high level PWM signal passes through a high powered "low pass reconstruction filter" that reintegrates the original but level shifted (amplified) audio signal from the PWM signal which feeds your speakers. Class D is neither digital or analog, but share properties of both platforms. (Disclaimer: While this is a very simplified description, and there are many critical details omitted, the basic operational function is correct. There are a lot of highly technical tricks used in this highly specialized area of audio that are important to a high performance, robust, safe and reliable design.)

## **USER SETTINGS**









## TWIST-LIFT

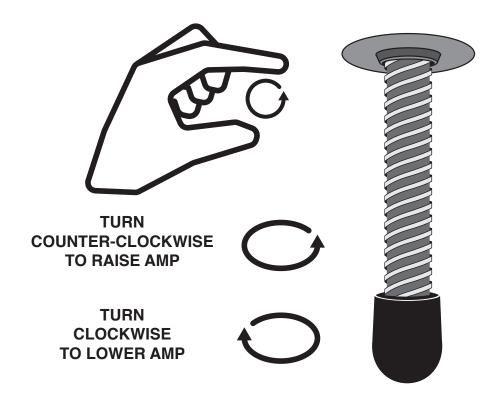
The ROSETTE® includes an inovative tilt-back feature called the Twist-Lift. The Twist-Lift allows you to adjust the tilt-back of the cabinet incrementely to get the exact angle needed for personal monitoring.

**TWIST-LIFT ADJUSTMENT** Adjustment of the Twist-Lift is as simple as turning the threaded stand on the bottom side of the cabinet counter-clockwise to RAISE the amp, or turning the threaded stand clockwise to return it to its stowed position for transporting the ROSETTE® Combo.

NOTE: Fully tighten the TWIST-LIFT clockwise when not in use.

PLAYERS NOTES & REMINDERS

CAUTION: Do not use tools to tighten TWIST-LIFT, only hand tighten.



## Rosette.

## Technical Specifications

Input Level & Impedance:

1/4" (6.35mm) Pickup Input Instrument level (-20 to 0 dBu), 1M Ohm (unbalanced)
XLR Mic Input Microphone level (-50 to -20 dBu), 3.5k Ohm (balanced)

1/4" (6.35mm) Aux Input Line level (+4 dBu), ~10k Ohm (stereo summed to mono)

**Phantom Power:** 

XLR Mic Input 12VDC (with 1.8k Ohm source resistors)

**Equalization:** 

Bass +14dB/-14dB @100Hz [note 1]

Low Mid +14dB/-14dB @150-1.8kHz (sweepable) High Mid +14dB/-14dB @300-5kHz (sweepable)

Treble +11dB/-14dB @ 8kHz [note 1]

Filters:

High Pass Filter 40Hz – 200Hz, 12dB/octave, Sallen Key alignment

Effects loop Level & Impedance:

Effects Send 1/4" (6.35mm) line level unbalanced (-10 to +4 dBu), <100 Ohms Effects Return 1/4" (6.35mm) line level unbalanced (-10 to +4 dBu), >50k Ohms

XLR Direct Outputs:

Level Mic level (-50 to -20 dBu) or line level (-10 to +4 dBu) selectable

Impedance ~1k Ohms, balanced

Signal Source Channel 1 & 2: pre/post selectable, Channel 1+2 post
Ground Pin 1 connect or lift, selectable. Phantom power protected

Amplifier:

8 Ohm Load 150 Watts (RMS) at 1% THD 4 Ohm Load 300 Watts (RMS) at 1% THD

Frequency Response 40Hz – 20kHz (-3dB)

**Power Requirements:** 

Volts, Freq, Power 100-120/220-240 VAC, 50/60Hz, 250 W (auto-selecting voltage)

Fuses No user replaceable fuses

Physical:

TWO:EIGHT
Dimensions [note 2]

18"(457mm) wide x 14.75"(375mm) high x 12.25"(311mm) deep

Weight Approx. 30 lbs (13.6 kg)

ONE:TEN

Dimensions [note 2] 18"(457mm) wide x 16.5"(419mm) high x 12.50"(318mm) deep

Weight Approx. 28 lbs (12.7 kg)

Speaker System:

Cabinet Impedance TWO:EIGHT - 4 Ohms, ONE:TEN - 8 ohms

Low Frequency TWO:EIGHT - 2 x 8" drivers, ONE:TEN – 1 x 10" neodymium magnet

High Frequency 1" silk composite dome, neodymium magnet

Tweeter Level 3 position switch: Off, -6dB and flat

[note 1]: measured approx. 1 octave from the knee

[note 2]: including feet and handle

Mesa/Boogie® continually develops new products and improves existing ones. For this reason, specifications and information in this manual are subject to change without notice.

## SERVICE INFORMATION

#### **USA /CANADA Customer Support:**

For technical support, troubleshooting, tone questions, settings help and more... 707-778-6565 Monday-Thursday, 9AM-5PM Pacific Time NOTE: If a Product Specialist is not available when you call (helping other customers), PLEASE leave a voice message with a phone number and a good time to call and WE'LL CALL YOU BACK!

#### **INTERNATIONAL Customer Support:**

For warranty and technical support, please contact your LOCAL MESA DISTRIBUTOR. You may use this link to search the web for your local distributor's contact information: www.MESAboogie.com/support/locations.html





This device has been tested and found to comply with the limits for a Class B device pursuant to part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

