



Professional Tube Amplifier

PRO-18

User Manual

WWW.NACEAMPS.COM

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CHAPTER 1 IMPORTANT SAFETY INSTRUCTIONS

PLEASE READ ALL OF THE INSTRUCTIONS

1. Heed all warnings.
2. Follow all instructions.
3. **Lethal voltage levels are present inside the amp that may cause serious bodily harm. Do not use the amp outside of the cabinet.**
4. Do not play the amp without the appropriate speaker attached to one of the amplifier outputs.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Maintain at least 3 feet of distance around all sides of amplifier. Do not block any ventilation openings with items such as newspapers, tablecloths, curtains, etc.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. 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.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to Nace Amps. 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.

15. Avoid placing any liquids on or near the amplifier that may splash or drip such as those contained in bottles, cans, glasses, etc.

16. Nace amplifiers are capable of producing very high sound pressure levels which can cause temporary or permanent hearing damage.

17. Do not operate with a Variac. The amplifier has line conditioning and damage to the amplifier may occur if a Variac is used.

18. For best results and safety information, please watch the Tech Tips – AC Power video at

www.youtube.com/watch?v=Y1nTFILdY3s&index=1&list=PL1A4D3BEE951417D5

PLEASE KEEP THESE INSTRUCTIONS FOR FUTURE REFERENCE

THANK YOU

CHAPTER 2 FIRST TIME OUT OF THE BOX SETUP AND PLAY

1. Carefully remove the amp from the shipping carton. Please retain shipping materials for at least one (1) year.
2. Attach the supplied AC cable to the AC module on the back panel.
3. Plug the other end of the AC cable into a 115VAC outlet
4. Flip the AC power toggle switch to the ON (up) position with the standby toggle switch in the off (down) position. The pilot light will light up.
5. Set the controls as follows:
 - a. GAIN: to 9 O'clock
 - b. Master Volume to 12 O'clock
 - c. TREBLE: to 12 O'clock
 - d. BASS: to 12 O'clock
 - e. REVERB: fully counter clockwise, 7 O'clock
 - f. V-Power fully clockwise, 5 O'clock
 - g. No connections on the back panel other than the appropriate 4/8/16 ohm speaker connection and the AC cord.
 - h. Wait about 2 minutes for the amp to warm up and the tubes are fully operating.
 - i. Plug in your favorite guitar.
 - j. Flip the standby toggle switch to the on (up) position.
 - k. Adjust the guitar controls and play.
 - l. Once you are comfortable with the levels, adjust the controls to your specific playing style.

CHAPTER 3 FRONT AND BACK PANEL

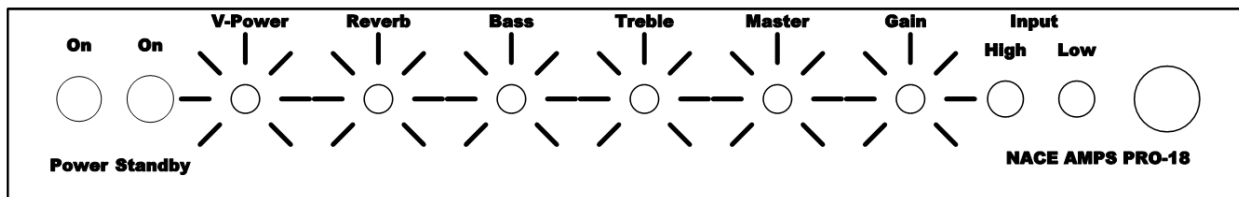
1. Front Panel Controls, Switches and Connections:

- a. Gain
- b. Master Volume
- c. Treble
- d. Bass
- e. Reverb
- f. Variable power*
- g. AC ON/OFF switch
- h. Standby switch
- i. ¼" Hi impedance jack
- j. ¼" Lo impedance jack
- k. Pilot light

2. Back Panel connections:

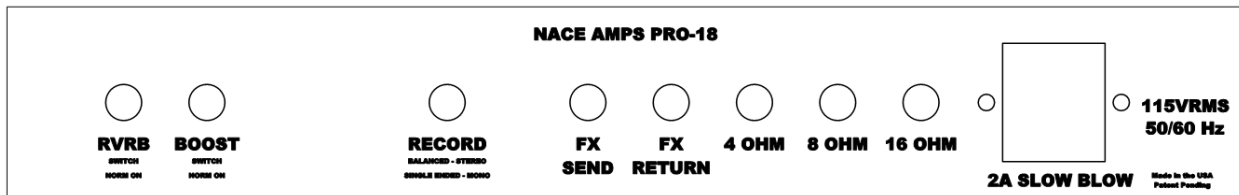
- a. ¼" mono rhythm/boost jack. Boost enable is default.
- b. ¼" mono reverb jack. Reverb enabled is default
- c. ¼" mono FX Send jack
- d. ¼" mono FX return jack
- e. ¼" stereo record jack
- f. ¼" mono 4 ohm jack
- g. ¼" mono 8 ohm jack
- h. ¼" mono 16 ohm jack
- i. IEC AC connector with internal fuse.

CHAPTER 4 FRONT PANEL



1. Power: Switch up to turn amplifier on
2. Standby: Switch up to enable amplifier
3. V-Power*: Sets the maximum output power from 1 Watt to 18 Watts
Please refer to Specification 1 for conditions
4. Reverb: Controls the reverb level.
5. Bass: controls the low end EQ.
 - a. 12 O'clock is flat
 - b. Clockwise is boost
 - c. Counter clockwise is cut
6. Treble: controls the high end EQ.
 - a. 12 O'clock is flat
 - b. Clockwise is boost
 - c. Counter clockwise is cut
7. Master: Mater Volume
 - a. Controls signal level to the power tubes and sets the level of distortion from the power tubes.
8. Gain:
 - a. Controls the signal level to the preamp and sets the level of the preamp distortion.
9. Input:
 - a. High is the normal guitar input.
 - b. Low may be used as another guitar input, electronic device, or to daisy chain amplifiers.

CHAPTER 5 BACK PANEL



1. RVRB:
 - a. External on/off foot switch for reverb.
 - b. Normally enabled and controlled via the Front Panel Reverb control.
 - c. Foot switch is not included.
 - d. Recommend item P-H477 from Antique Electronic Supply
2. BOOST:
 - a. External on/off foot switch controls pre-amp level to boost from rhythm to lead.
 - b. Levels can be set up via the gain and/or V-power* controls.
 - c. Normally enabled for lead.
 - d. Foot switch is not included.
 - e. Recommend item P-H477 from Antique Electronic Supply
3. RECORD:
 - a. A line out from the pre-amp to facilitate recording sessions and other functions. Use a ¼ inch stereo plug for balanced output and a ¼ inch mono plug for single ended output.
 - b. Emulates the SPL of a Celestion Greenback.
 - c. Use a high quality guitar cable or mic cable for best results.
 - d. Turn the Master Volume fully counter clockwise when using.
 - e. Cable is not included.
4. FX SEND/FX RETURN:
 - a. Output from pre-amp (no internal reverb) to facilitate the use of external audio processors including foot pedals.
 - b. FX SEND may be used as a pre-amp output to other amplifiers.
 - c. FX RETURN may be used as an input from other amplifiers.

- d. With a blank ¼ jack plugged into FX SEND or FX RETURN, user may then play with the internal reverb only.
 - e. Use a high quality guitar cable or mic cable for best results.
 - f. Cables are not included.
5. 4/8/16 OHM OUTPUTS:
- a. Facilitates the use of speakers with 4, 8, or 16 ohm voice coils.
6. IEC AC Connector:
- a. Accepts a standard IEC AC cable.
 - b. Module has an internal fuse. Use a 2A slow blow fuse only.
 - c. AC cable and fuse are included.

CHAPTER 6 NOTES ON THE V-POWER* CONTROL

A common problem with practice vs. stage playing is to get the same tonal characteristics at practice that you get on stage. Consider that on stage you set the gain control to get the pre-amp distortion that you desire and then set the master volume to get just the right amount of power amp distortion. Now, take these same settings home to practice, and your wife, kids, and/or neighbors will run you out of the house. So now you have to reduce the master volume to reasonable levels in order to keep peace in the neighborhood but your tone is now messed up.

Another scenario is, while on stage, the audio engineer wants you to reduce output level. Here, again, you must compromise between tone and proper stage setup.

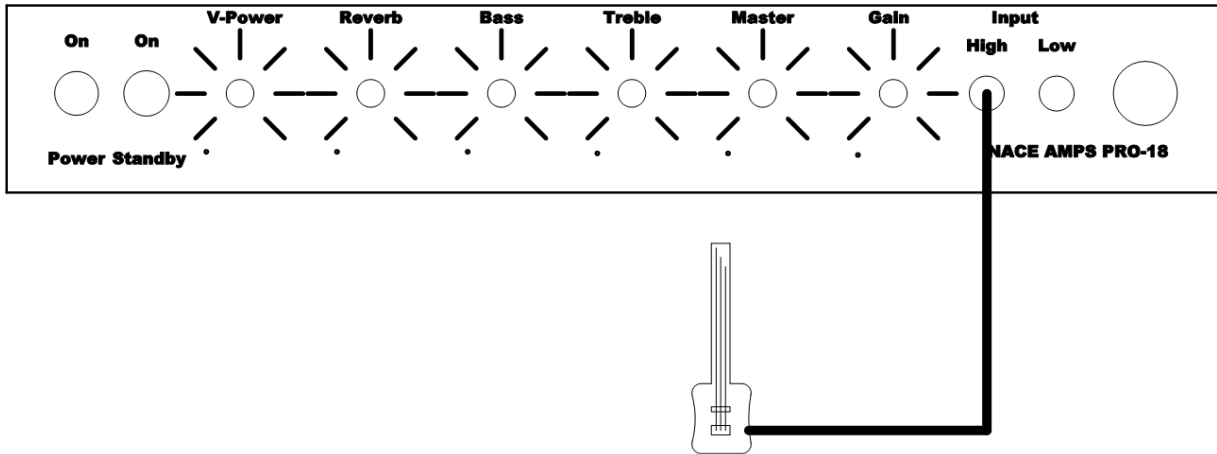
Nace Amps has invented a solution to this problem. The V-POWER* front panel control. This control allows you to set the output power level without affecting the master volume and gain control settings thus keeping the tone you want but at lower output levels. Typically from 1 Watt peak (464 milli watts average) with the V_POWER* control fully counter clockwise to 27 Watts peak (18 Watts average) with the control fully clockwise and all power levels in-between. This is not a half power switch that eats power or removing tubes from the power amp section but an electronic circuit that controls the actual gain of the power tubes (EL84s) to control the output power without changing the tone of the amp.

Now you have it all. A practice amp and a stage amp all in one amplifier.

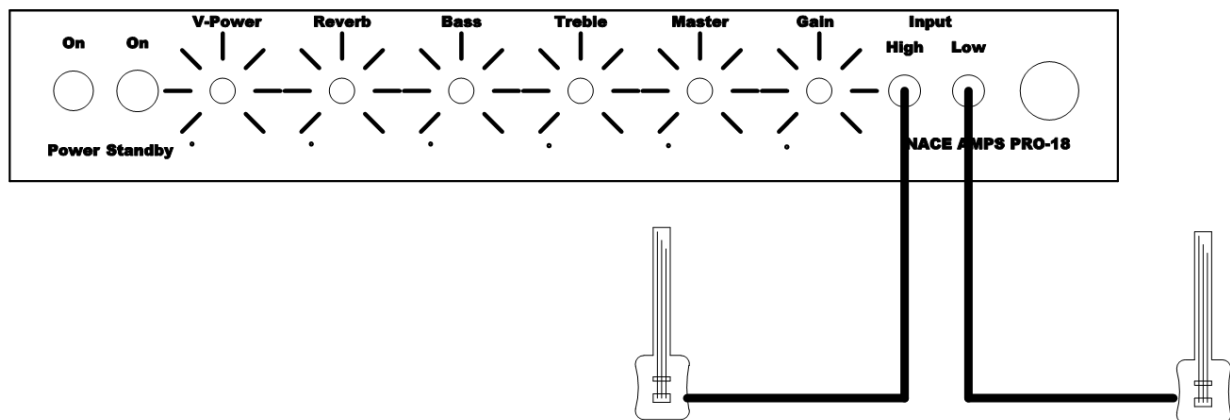
*The V-power circuitry is Pat. Pending

CHAPTER 7 FRONT PANEL CONNECTIONS

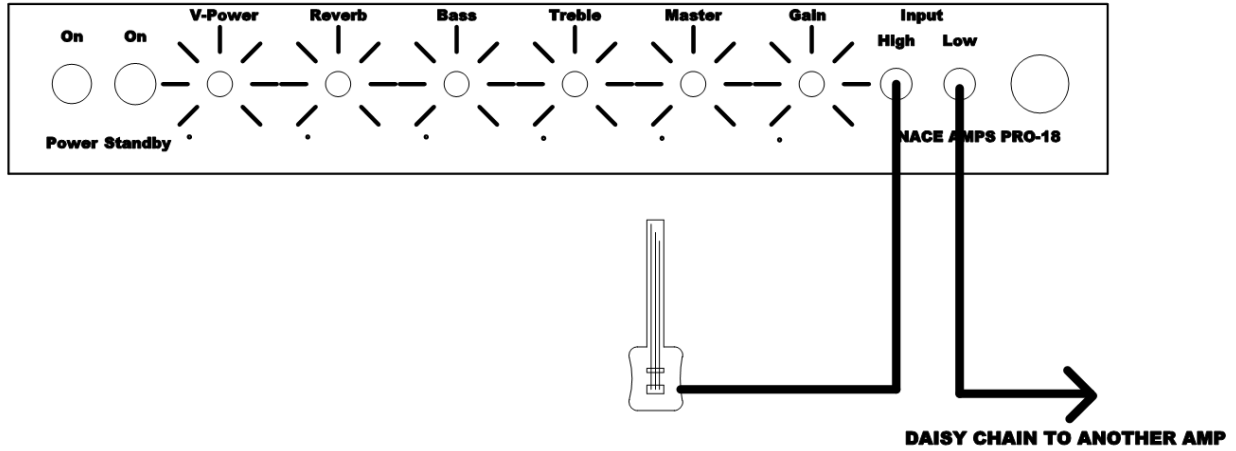
Normal Guitar Connection



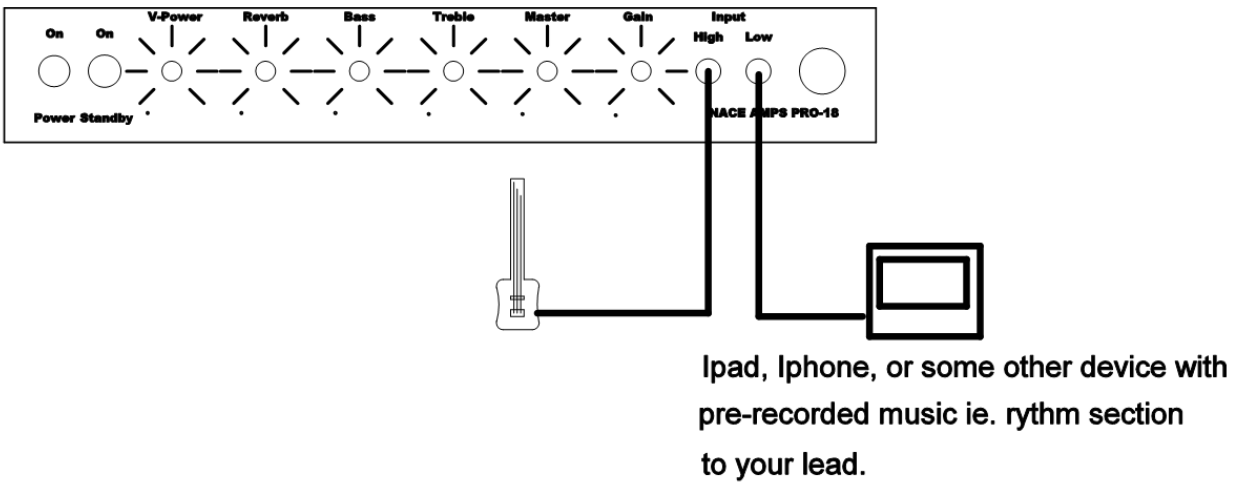
Two Guitars



Daisy Chain to another amp

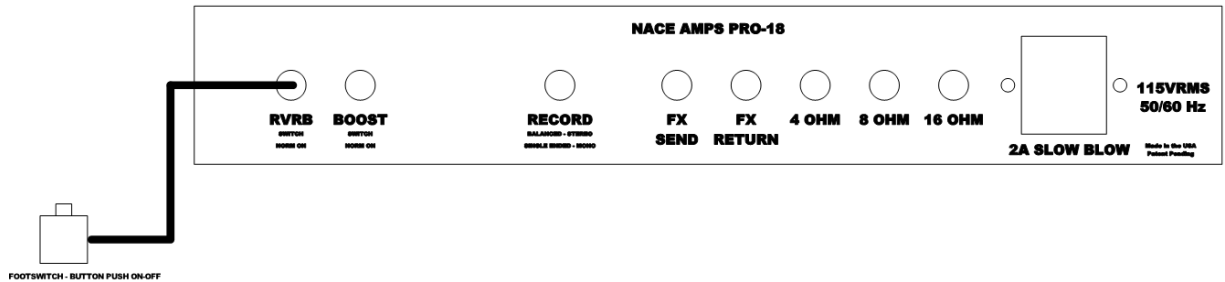


Adding a Rhythm section with a redcording device

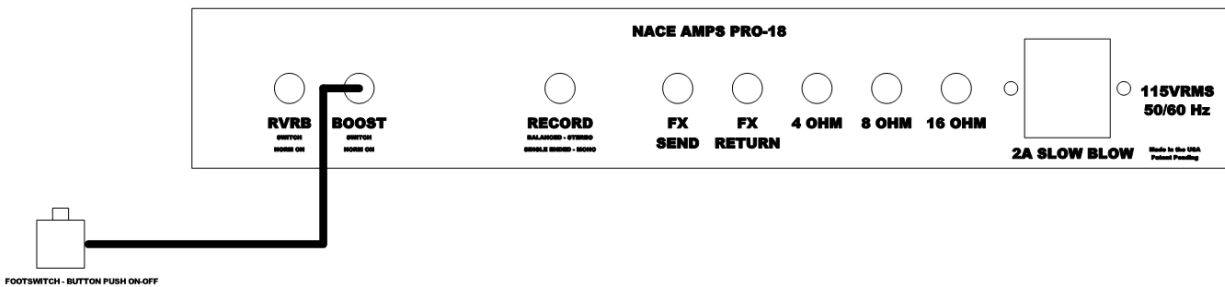


CHAPTER 8 BACK PANEL CONNECTIONS

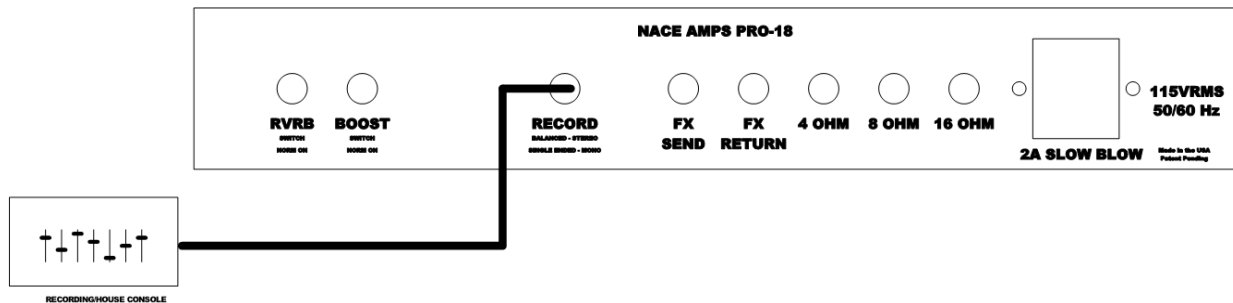
REVERB FOOT SWITCH CONNECTION



BOOST FOOT SWITCH CONNECTION

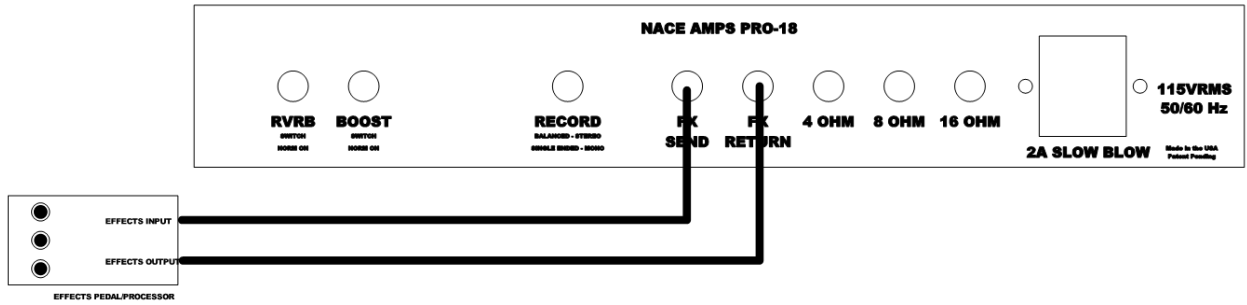


RECORD



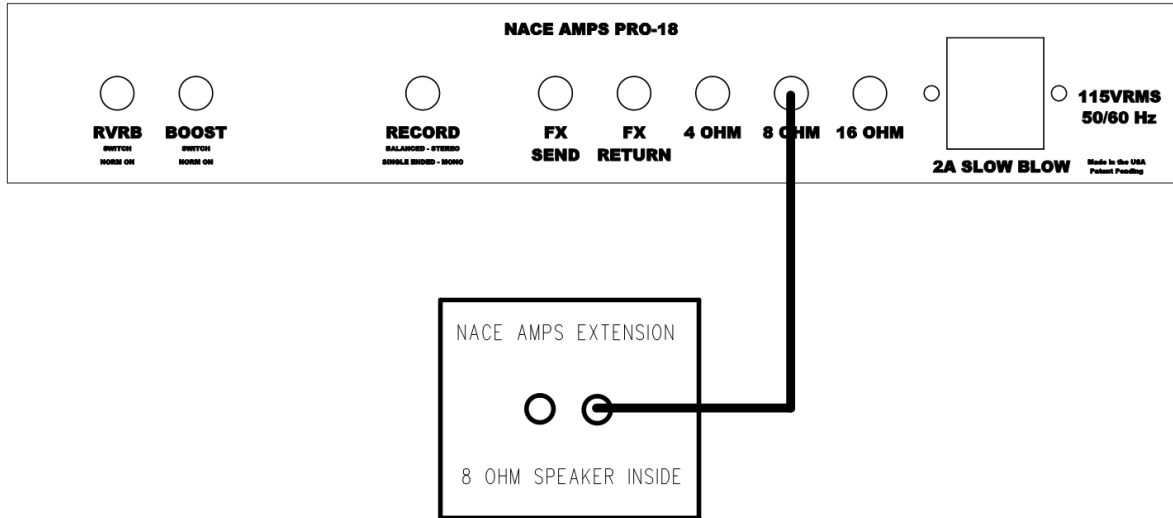
Master Volume must be fully counter clockwise if no speaker is being used from the amp.

FX SEND/RETURN



CHAPTER 9 EXTENSION CABINET CONNECTIONS

Single speaker connection

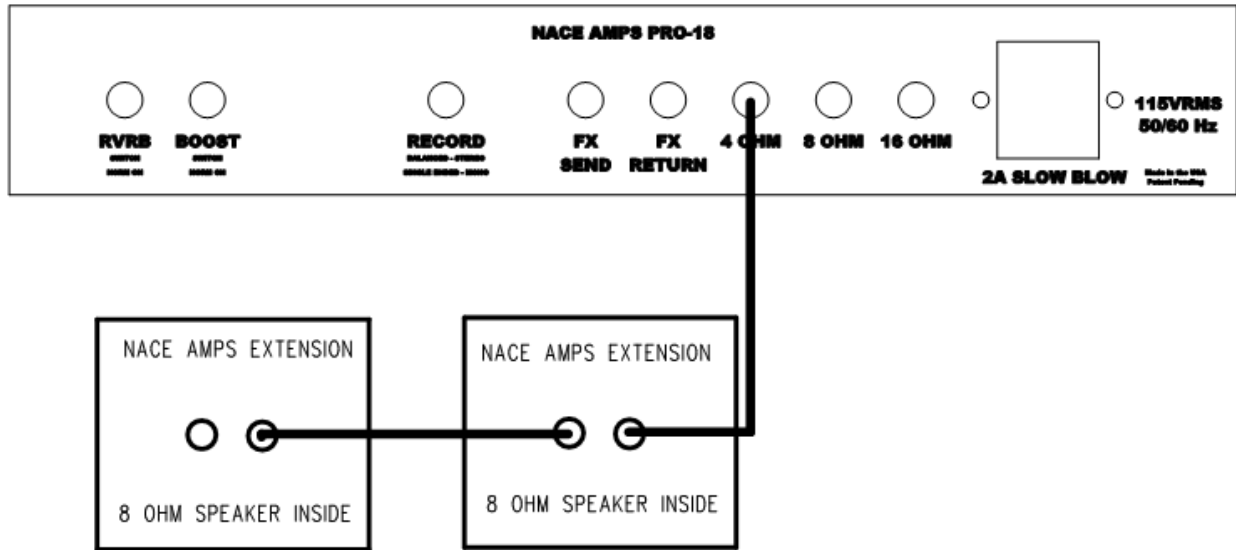


PLUG SPEAKER CABLE INTO EITHER JACKS

If your extension has a different ohmage speaker, plug the extension into the appropriate amplifier output. For example, your extension has a 16 ohm speaker. Plug the extension into the 16 ohm output of the amp.

Always match the speaker ohmage to the amplifier's output ohmage.

Two of more speaker connections



PLUG SPEAKER CABLE INTO EITHER JACKS

The rule is to use the same speaker ohmage for parallel cabinet connections. Thus, use two 16 ohm cabinets and connect to the 8 ohm amp output. Or, use two 8 ohm cabinets and connect to the 4 ohm amp output. Or use four 16 ohm cabinets and connect to the 4 ohm amp output.

CHAPTER 10 A FEW NOTES ON THE RECORDING OUTPUT

No matter how great an amp sounds, translating that sound through a microphone and then through a mixer often leads to less than desirable results.

Mic'ing up a guitar amp is as much art as science and most of us don't have the necessary acoustic spaces or experience to do it well time after time. Similarly, if you capture that magical spot once, it's nearly impossible to duplicate.

The Recording Out on the Nace PRO-18 solves all of these problems. By simply plugging a 1/4" cable between the Recording Out and straight into your mixer or recording interface, you'll enjoy the sound of a well mic'ed up guitar cabinet without any voodoo or magic required.

In the studio the benefits of this may be obvious: shorter setup time and consistent sound.

For the live player the benefit to sound engineers of not having to have an extra microphone on stage are numerous.

Keep in mind that less noise will result from using a balanced (TRS) cable between the amp and mixer/interface.

CHAPTER 11 AVERAGE AND PEAK POWER.

There are many articles discussing peak vs. average power with lots of math and other cures for insomnia. What I want to do is keep it simple.

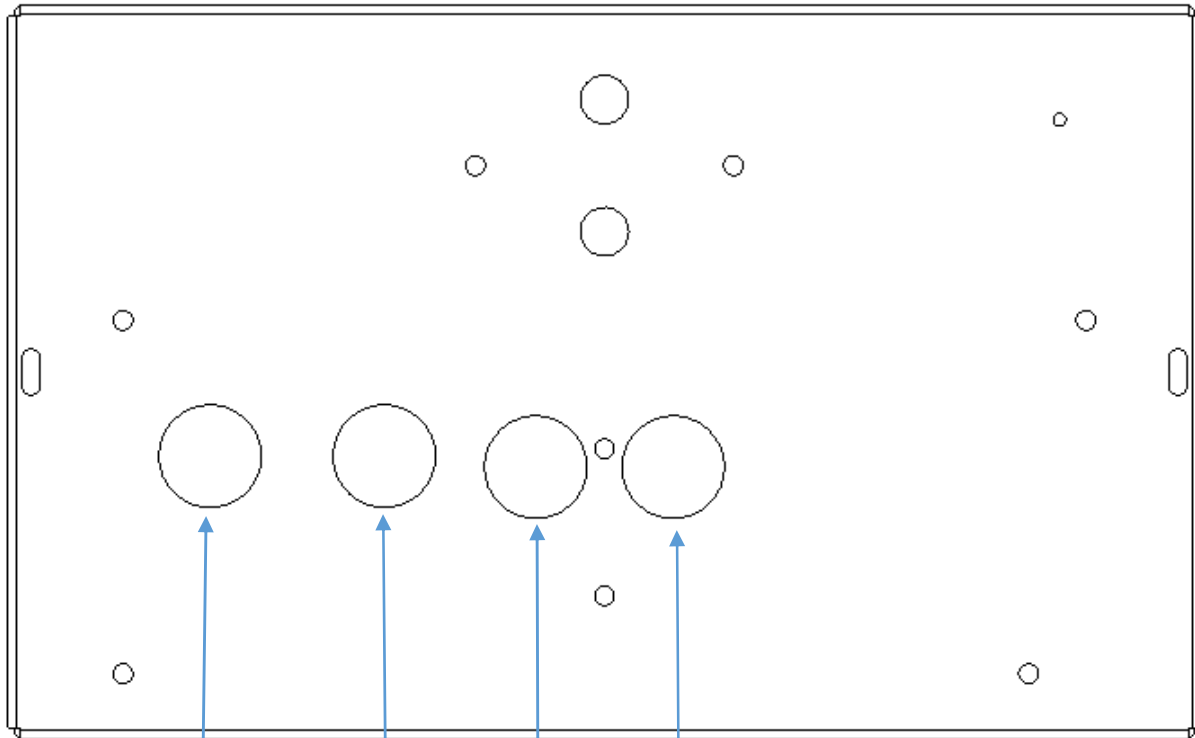
Humans “hear” peak power not average power. Average power is taken over time usually of a continuous, steady state sound. Consider a fire cracker. We “hear” the explosion as it occurs, not averaged over time. If the sound produced by the fire cracker were averaged over time, we would never hear it or for that matter much anything else. Thus, when we play a guitar, we hear the sound as it is being produced not averaged over time. So, when I specify the peak power, this is the power level you will hear. The average is included considering a 1000 cycle tone being played continuously forever.

CHAPTER 12 ELECTRICAL SPECIFICATIONS

1. Maximum Power Output - 27 Watts peak, 18 Watts average** under the following conditions:
 - a. Gain control fully clockwise
 - b. Master Volume control fully clockwise
 - c. Variable Power* control fully clockwise
 - d. Reverb control fully counter clockwise
 - e. Bass control at 12 O'clock
 - f. Treble control at 12 O'clock
 - g. Boost enabled (default)
 - h. 10mv input signal
2. Power tubes: 2 X EL84 (6BQ5)
3. Preamp tube: 1 X 12AX7/ECC83
4. Phase splitter tube: 1 X 12AT7/ECC81
5. Input voltage:
 - a. 115VRMS +/- 15%, 48/1000 Hz
 - b. 120VDC to 200VDC
 - c. The power supply is a regulated power supply that, among other things, provides power conditioning. Do not use a Variac with this amplifier.

CHAPTER 13 TUBE LOCATIONS

BACK PANEL



FRONT PANEL

12AX7/ECC83 12AT7/ECC81 EL84/6BQ5 EL84/6BQ5

CHAPTER 14 WARRANTY

Item: All Nace Amps

Amplifier: Ten (10) years parts and labor

Speaker(s): One (1) year parts and labor

Cabinet(s): One (1) year parts and labor

Excluded Warranty Items: Tube(s), Fuses, AC line cord.

1. Nace Amps reserves the right to refuse, for warranty, any damaged, misused, or modified units.
2. In the event Nace Amps refuses the unit for warranty, Nace Amps shall contact the buyer with a quote for repairs. The buyer shall be required to authorize the charges prior to non-warranty service being performed.
3. The buyer is responsible to properly package the product for shipment.
4. Nace Amps shall pay any shipping charges for the first year of the warranty.
5. This warranty is transferable.

