

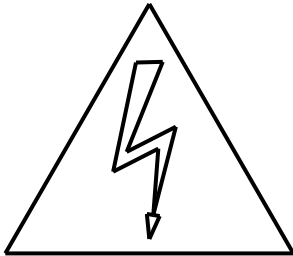
Pritchard Amps Combo Manual

Pritchard Amps
340 Pritchard Lane
Berkeley Springs, WV 25411

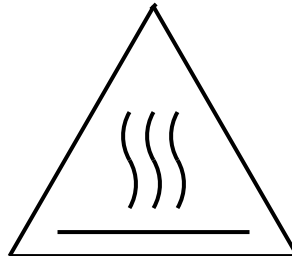
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A. SAFETY CONSIDERATIONS:

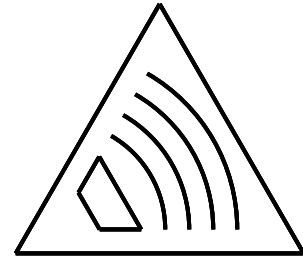
1. **Operating Position:** Pritchard amplifier and combo units can be operated in any position with the following reservations:
 - a. Adequate ventilation must be maintained.
 - b. The spring reverb will feedback if the amp is tilted significantly. This is only a problem if you wish to use the reverb.
2. **Ventilation Requirements:** Pritchard amplifiers and speakers need space around the cabinet for two reasons, amplifier heat dissipation and proper Tunnel Back operation. There must be at least 3 inches of space around all sides of the amplifier plus several inches on top of the amplifier.
3. **Operating Voltage:** Unless otherwise stated, the operating voltage for a Pritchard amplifier is nominally 115 volts, 50-60 Hz alternating current.
4. **The Fuse Amperage:** 2 amps at 115 VAC; 1 amp at 230 VAC
5. **Graphical Symbols:** There are three graphical symbols engraved on the rear of the amplifier chassis that indicate that there is a shock hazard inside, that the surface can get hot, and that the amplifier can be quite loud. The first two symbols are standard IEC symbols. The loudness symbol has been recreated to avoid the implication of the lack of art.



Electrical Shock Hazard!



**Potentially Hot!
High heat dissipation
area, keep ventilated**



**High volume may
require ear protec-
tion**

6. **Read these instructions.**
7. **Keep these instructions.**
8. **Heed all warnings.**
9. **Follow all instructions.**
10. **Do not use in or near water.**
11. **Clean only with dry cloth or a cloth dampened with a vinyl treatment.**
12. **Do not block ventilation - Pritchard Amps need 6 inches in the back and sides to sound good**

5. **Voice:** The Voice Knob allows Pritchard Amps to sound like different amps by giving them different fundamental frequency responses. Keep in mind the following descriptions are subjective, you may have your own interpretations and you are not restricted to producing only one sound with a voice. The tone can be tweaked further by adjusting the tone controls.
 - A - Airy Acoustic Art - electric guitars sound somewhat like acoustic guitars - a cool clean tone that is also great for acoustic guitars
 - B - Bass boost - a mellow jazz or ballad tone.
 - F - Flat - somewhat like Fender
 - H - Heavy - a high-bass scoop with substantial treble emphasis
 - L - Liquid Lead - a combination of famous American and British tones - creamy like an expensive American tone
 - M - Moderately bright - similar to the treble character of a Marshall
 - N - Nasty Notch- a lower mid-range scoop with treble emphasis
 - P - Precision - somewhat like a Precision Bass - and a good Tele impression
 - S - Solo - a slight mid-range notch to accent bass and treble
 - V - Very bright - somewhat like Vox bright channel with treble cut
6. **Boost Control:** The boost control operates like an additional volume control when the boost is switched on. Although it can control clean volume, its basic purpose is to control the amount of distortion. Nominally clean channels do not have Boost Controls, its boost is fixed 10dB.
7. **Tone Controls:** There are three tone controls, Bass, Mid, and Treble, on all amplifier channels. Margaux adds a Deep control in lieu of a Boost control. These controls use the vintage tone control circuit. The frequency response with the Bass and Treble controls up and the Mid control down forms a notched frequency response with a minimum at approximately 400 Hz.
8. **Reverb:** Reverb controls the level of the spring reverb in the output.
9. **Watts Knob:** The patented Watts Knob controls the effective output power of the amplifier while keeping the essence of the fully driven amplifier: breathing, expansive harmonics, fat, sag, and ripple modulation.
10. **C Switch:** The C switch and Yellow LED indicator has the following meanings:
 - a. Black/Blood Dagger/Jade Dagger - Crunch boost - an approximate 10 dB gain boost
 - b. Sword of Satori/Gold Estoc - Channel switch - LED on indicates the top channel is on.
 - c. Sultry Margaux - Channel C boost on.
11. **B Switch:** The B switch and red LED indicator has the following meanings:
 - a. Black/Blood Dagger - Variable Boost on.
 - b. Jade Dagger - 20 dB Fixed Boost on
 - c. Sword of Satori/Gold Estoc - Variable Boost of main (dirty) channel and a 20 dB Fixed Boost of second (clean) channel on.
 - d. Sultry Margaux - Channel B boost on.
12. **Noise Gate LED:** This green LED indicates when the treble noise gate is effective.
13. **Power LED:** This yellow LED indicates that the internal power supply is powering the amplifier.

D. REAR PANEL:

The extensive rear panel makes Pritchard Amps Versatile!

1. **Power Switch** - Turns the amp on.

2. **Power Cord** - Plug in the IEC compatible cord here.
3. **Speaker PJ** - Plug the speaker in this jack for practice at tone compensated lower levels
4. **Speaker GIG** - Plug the speaker in this jack for gig levels.
5. **Foot Switch** - Plug the dual momentary switch foot switch in this TRS stereo jack to control the amp:
 - a. Black Dagger: Variable Boost and Crunch
 - b. Blood Dagger: Variable Boost and Crunch
 - c. Jade Dagger: Fixed Boost and Crunch
 - d. Sword of Satori: Boost and Channel
 - e. Gold Estoc: Boost and Channel
 - f. Sultry Margaux: Boost of Channels B & C
6. **Effects Send** - Amp output (line level) to drive external effects. This signal is limited by light emitting diodes to about 1.5 volts peak or about +4 dB.
7. **Effects Return** - Amp effects inputs, tip for serial, ring for parallel. The Return Jack is unique in that it can be used in three ways:
 - a. It can accept an effects return signal in the standard series form.
 - b. It can accept a parallel effects signal on the ring terminal.
 - c. It can work with a low impedance (25K) volume pedal with only a single jack cord
8. **EQ DI** - XLR equalized direct: speaker emulator output to drive mixer for recording or PA. This output assumes that its use will not involve an instrument speaker and therefore requires the speaker frequency response to sound right.
9. **Amp DI** - Direct output (approximately +4 db line level at 600 ohms, unbalanced signal but balanced impedance) to drive external amplifier that drives instrument speakers. This is particularly useful for bass players who want both an artistic sound with great power.
10. **MIC** - Secondary XLR input for microphones. Optionally may be transformer coupled.

E. AMPLIFIER OPERATION:

Warning: Do not turn the controls up completely. Having all the controls up can cause feedback. Pritchard Amps have more gain than is needed with all controls up. However, there are operating scenarios which demand less gain such as In, Volume and Boost..

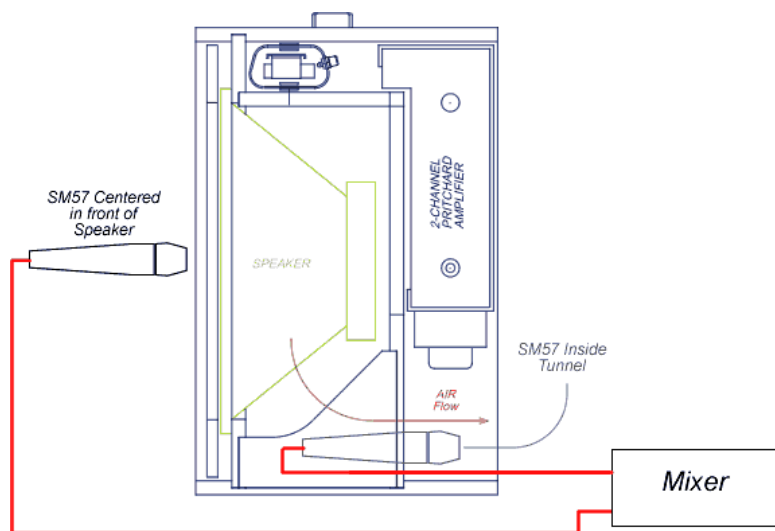
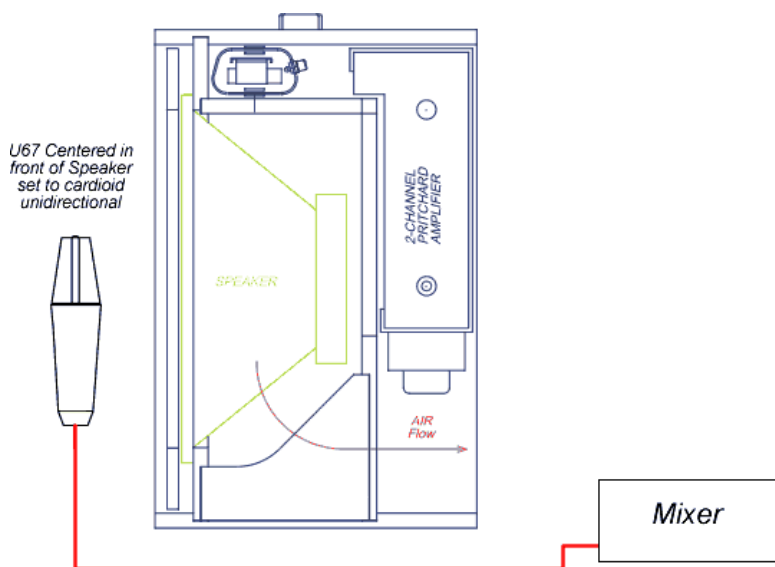
Volume, Gain, & Watts Knob Adjustments: The knob adjustments on a Pritchard amplifier are somewhat different in that Pritchard amps use Gain Boost instead of multiple volume or gain controls. Consequently, there is some interaction that requires some explanation. First, there are some interrelationships that need to be explained:

1. **Adjustment of interactive controls:** The clean volume is affected by the Input Gain, Volume, Boost/Crunch, and Watts. Obviously, separating these interacting knobs is important. Here is one scenario:
 - a. The Input Gain is supposed to match you and your guitar to the amplifier, particularly to the maximum signal level of the input stage. So with the other knobs turned down but not completely down and Boost turned off, the Input Gain is turned up so that playing hard picking clean tone is on the verge of distortion or has a suitable amount of fullness.
 - b. The dirty volume is affected only by the Watts Knob. So, with the other knobs turned up and/or the Boost turned on, the dirty volume needs to be set with the Watts Knob.
 - c. Then with the Boost turned off, the Volume sets the clean volume. This is made somewhat

more difficult with the fixed boosts (Crunch) found in the Dagger, the Fixed Boost in the second channel of Sword, and both channels of Margaux. The fixed gain boost demands some tradeoff between clean transient distortion and the amount of crunch.

d. Then with the Boost turned on, the Boost knob adjusts the amount of distortion.

2. **Voice Switch:** The Voice Switch has been designed to be switched from one selection to another without requiring substantial changes in the other controls. While their attenuations vary, the louder ones tend to be distorted and the ones with more attenuation tend to be clean tones.
3. **Tone Controls:** The Tone Controls in Dagger and Sword were derived from vintage amplifier tone circuits, although the values have been adjusted somewhat. The greatest change is that the bass control actually does something, although there is less bass. Margaux counters this character by including a Deep Bass control as well. Margaux also includes a parametric filter that can be used in either channel as determined by a push button switch. The Freq control sets the frequency of the band to be cut or boosted. The C/B control sets the cut or boost. Turning the knob down below mid-position creates a cut and above mid-position is a boost.
4. **Reverb Level:** The Reverb level can be set under any condition with confidence because the unique Pritchard Amps reverb circuit can not be significantly over driven beyond the output stage distortion. Consequently, the reverb does not become greater in distorted modes.



5. **Speaker Jack Selection:** Plug the internal or external 4-ohm speaker into the Gig Jack for normal operation. Plug the internal or external 4-ohm speaker into the Practice Jack (PJ) for attenuated, tone compensated operation. One can use 8-ohm loads by connecting with a stereo phone plug and not connecting the ring terminal to anything. Two 8-ohm speakers can be handled either by an external parallel connection and a mono phone plug or by connecting the hot wire of both speakers to the tip and the ground wires separately to the ring and the sleeve.
6. **Foot Switch:** The foot switch is a pair of remote switches that operate in parallel with the front panel switches.

F. CABINETS:

The 1-12/2-5 TB cabinet may come equipped with a switch or a jack to connect a foot switch to allow the 5's to be switched on and off. Additionally it may also have a second jack to allow an extension cabinet to be tied in.

G. MIKING THE CABINETS:

The Tunnel Back Cabinets have a bass character that goes beyond what would be capable in their small size from an open back cabinet. This great bass character is directly attributable to the patented Tunnel Back cabinet design. The tunnel acts like an acoustic cross-over. Above the cross-over frequency the sound comes from the front and very little comes through the tunnel and out the rear. Below the cross-over frequency the

sound comes predominately from the rear. This nature produces good room characteristics because at substantial distances the bass back wave easily overpowers the front wave to provide a great listening experience. This is quite different from open back operation in which the back wave almost cancels the front wave and the cabinet response is somewhat compensated by speaker resonance and that leads to problems in producing good dirty tones.

The reason why the back sound wave is different than the front wave is simple; it must travel through the tunnel. The tunnel air presents the back of the speaker with an air mass load. This loading lowers the resonant frequency of the speaker as well as reducing the front wave output in the bass region. The tunnel passes predominately low frequencies and produces a back wave bass with greater intensity than the front wave bass. As you can now imagine this cabinet sounds great at a distance but is prone to close miking problems.

1. **1-12 Tunnel Back**
 - a. SM57 - one close and centered on front of speaker and the second placed in a port backward. This was verified in a studio.
 - b. U67 - use the cardioid unidirectional pattern in the front, close and centered.
2. **1-15 Tunnel Back**
 - a. SM57 - one close and centered on front of speaker and the second placed in a port backward. This was verified in a studio. Additionally, the rear port was tested with the microphone facing into the port and this worked as well too due to the larger volume of the cabinet.
 - b. U67 - use the cardioid unidirectional pattern in the front, close and centered.
3. **1-12 / 2-5 Tunnel Back**
 - a. The U67 does not work on both types of speakers because it must be near both speakers or suffer from the back wave.
 - b. Two SM57's placed about 18 inches away from the front and back has worked in the lab. This has not been verified in the studio yet.
4. **4-10 Tunnel Back**
 - a. Close miking on either low speaker works as expected by either the U67 or SM57 microphones.
 - b. Miking front and back should be done using one of the upper speakers.
5. **1-12 Closed Back**
 - a. Standard techniques apply.

The SM57 solution is simple - mike both the speaker and the tunnel and mix them. The phase reversal can be handled in three ways: use the phase reversal switch, use a phase reversing cable, or reversing the direction of the microphone. Single miking approaches can be realized with a true cardioid microphone. A single channel miking technique can be done by wiring two SM57's in parallel. This is the way that the tests run below were done. Since this requires a special "Y" cable, they can also be paralleled with a phase reversal as well.

H. MORE INFORMATION:

There is substantially more information on the Pritchard Amps web site: www.pritchardamps.com

US Patent # Issue Date Patent Title

4,809,336 02/28/89 Semiconductor Amplifier with Tube Amplifier Characteristics
4,995,084 02/19/91 Semiconductor Emulation of Tube Amplifiers
5,133,014 07/21/92 Semiconductor Emulation of Tube Amplifiers
5,434,536 07/18/95 Semiconductor Emulation of Vacuum Tubes
5,636,284 06/03/97 Solid-State Emulation of Vacuum Tube Audio Power Amplifiers
5,734,725 03/31/98 Tube Emulator Amplifier System
5,761,316 06/02/98 Variable and Reactive Audio Power Amplifier
5,761,317 06/02/98 Tube Amplifier Fat Emulation Structure
5,802,182 09/01/98 Audio Process Distortion
5,805,713 09/08/98 Solid State Circuit for Emulating Push-Pull Tube Amplifier
5,848,165 12/08/98 Fat Sound Creation Means
6,057,737 05/02/00 Non-Linear Asymmetrical Audio Amplifiers
D430,144 08/29/00 Speaker Grill Depicting a Hat and a Guitar
D429,236 08/08/00 Ornamental Design for Speaker Cabinets Including an Amplifier

D432,582 10/24/00 PA Logo Design
6,411,720 06/25/02 Speaker Systems with Lower Frequency of Resonance
6,631,195 10/07/03 Speaker Attenuation for Practicing a Musical Instrument

PCT Application

US88/01025 03/23/87 Semiconductor Emulation of Tube Amplifiers Completed
US93/06031 06/24/93 Semiconductor Emulation of Vacuum Tubes Pending in Canada, Japan
US97/02787 02/22/97 Fat Sound Creation Means Pending in Australia, Canada, Europe (UK, France, Germany)

Foreign Patents

0 307 465 UK Semiconductor Emulation of Tube Amplifiers
0 307 465 FR Semiconductor Emulation of Tube Amplifiers
P 38 55 425.9 GR Semiconductor Emulation of Tube Amplifiers
2834167 JA Semiconductor Emulation of Tube Amplifiers
0 651 906 EP Semiconductor Emulation of Vacuum Tubes
651906 UK Semiconductor Emulation of Vacuum Tubes
651906 FR Semiconductor Emulation of Vacuum Tubes
69318025 GR Semiconductor Emulation of Vacuum Tubes
651906 SW Semiconductor Emulation of Vacuum Tubes
718748 AU Fat Sound Creation Means
2245525 CA Fat Sound Creation Means
97506736 EU Fat Sound Creation Means

Pritchard Amps, PA logo, Black Dagger, Blood Dagger, Jade Dagger, Sword of Satori, Gold Estoc, Sultry Margaux, Voice Knob, Practice Jack, XGPA, Exaggerated Grid Plate Action, Watts Knob, TB, and Tunnel Back are all Trademarks of Eric Pritchard. All legal rights are reserved.

Rear Panel

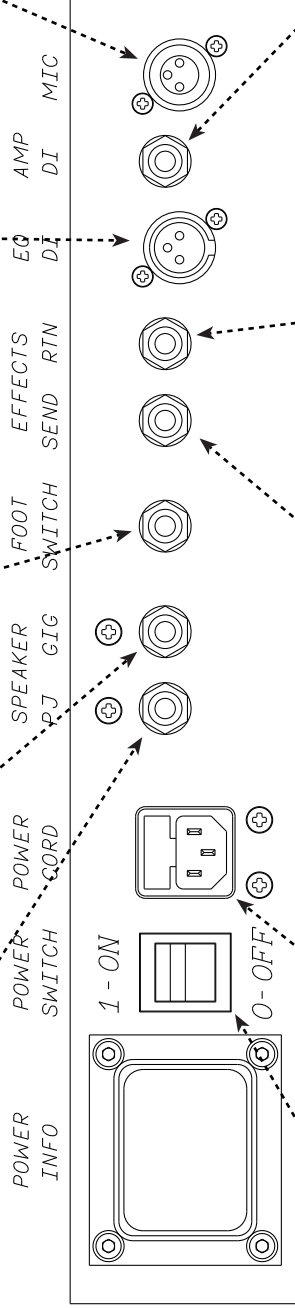
Speaker PJ - Plug the speaker in this jack to practice at tone compensated lower levels. About the level of an acoustic guitar. Our gift to domestic tranquility.

Speaker GIG - Plug the speaker in this jack for gig levels. This provides unattenuated volume.

Foot Switch - Plug in the provided, foot switch for remote control operation of the corresponding switches on the front panel.

EQ DI - XLR Equalized Direct: speaker emulator output drives a mixer for recording or a PA system. This output assumes that its use will not involve an instrument speaker and therefore requires the speaker frequency response to sound right.

Mic - Secondary XLR input for microphones. This is the active input until a jack cord is plugged into the front Input.



Power Switch - Turns the amp on or off.

Power Cord - Accepts the provided IEC compatible power cord. This is also where you replace the fuse. A spare fuse is included. Always use the same type fuse as indicated by the fuse rating on the amp.

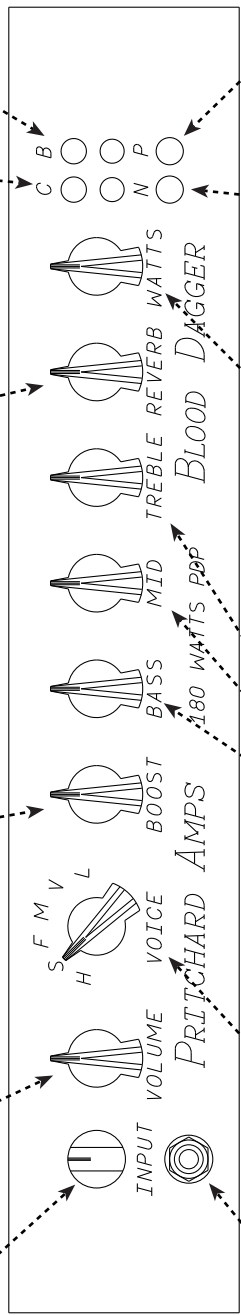
Effects Send - Amp output (line level) to drive external effects. This signal is limited by light emitting diodes to about 1.5 volts peak or about +4 dB.

Effects Return - Amp effects inputs, tip for serial, ring for parallel. The Return Jack is unique in that it can be used in three ways:
 a. It can accept an effects return signal in the standard series form.
 b. It can accept a parallel effects signal on the ring terminal.
 c. It can work with a low impedance (25K) volume pedal with only a single jack cord

Amp DI - Amp Direct output (approximately +4 db line level at 600 ohms, unbalanced signal but balanced impedance) to drive external amplifier that drives instrument speakers. This is particularly useful for bass players who want both an artistic sound with great power.

Blood Dagger

Front Panel



Input Level:
The odd knob at the left of the amplifier controls the gain of the first stage. This control adapts your guitar and your playing strength to the amplifier.
Basically, you adjust this control so that playing hard nearly causes the first stage to clip.
Rough Settings:
Up for weak single coil. Down for Humbuckers

Volume:
The volume control with the Watts Knob sets the clean volume. The volume control also sets the amount of distortion while the Watts Knob sets the dirty volume.

Variable Boost Control: The boost control operates like an additional volume control when the boost is switched on. Although it can control clean volume, its basic purpose is to control the amount of distortion.

Reverb:
Controls the level of the spring reverb in the output.

Crunch Switch:
Turns on and off Crunch boost. When the yellow indicator LED is lit, it produces a 10dB gain boost.

Boost Switch:
Turns on and off the variable boost. When the red indicator LED is lit boost is active.

Input Jack:
The mono input jack accepts the jack cord from the instrument to be amplified.
Alternatively with an empty jack, an XLR microphone cable plugged into the rear panel will be amplified.

Voice Knob:
This exclusive feature breaks the mold of one trick amps by giving you the ability to dial in any style of music.
H - Heavy Dirt
S - Smooth Solo
F - Famous Flat
M - Moderately Bright
V - Very Bright
L - Liquid Lead

Tone Controls:
There are three tone controls, Bass, Mid, and Treble. The frequency response with the Bass and Treble controls up and the Mid control down forms a notched frequency response with a minimum at approximately 400 Hz

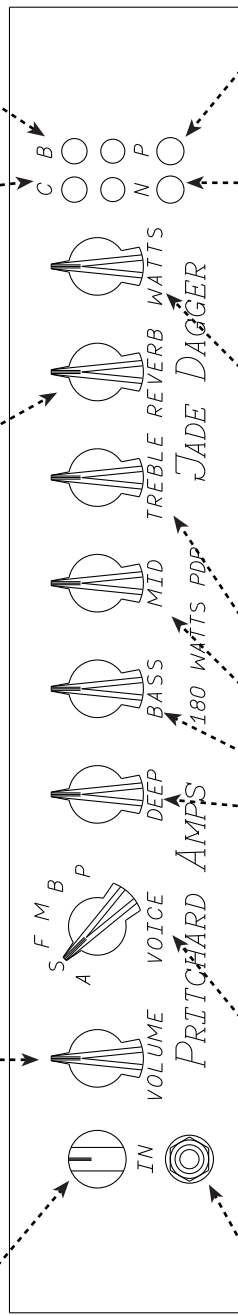
Watts Knob:
The patented Watts Knob controls the effective output power of the amplifier while keeping the essence of the fully driven amplifier: breathing, expansive harmonics, fat, sag, and ripple modulation.

Noise Gate:
Indicates if the Noise Gate is active. Operates only when both crunch and boost are on.

Power On:
When indicator LED is lit Amplifier is on.

Jade Dagger

Front Panel



Input Level:
The odd knob at the left of the amplifier controls the gain of the first stage. This control adapts your guitar and your playing strength to the amplifier. Basically, you adjust this control so that playing hard nearly causes the first stage to clip.
Rough Settings:
Up for weak single coil. Down for Humbuckers

Volume:
The volume control with the Watts Knob sets the clean volume. The volume control also sets the amount of distortion while the Watts Knob sets the dirty volume.

Reverb:
Controls the level of the spring reverb in the output.

Crunch Switch:
Turns on and off Crunch boost. When the yellow indicator LED is lit, it produces a 10dB gain boost.

Boost Switch:
Turns on and off the boost. When the red indicator LED is lit boost is active. It provides about 20 dB gain boost.

Input Jack:
The mono input jack accepts the jack cord from the instrument to be amplified. Alternatively with an empty jack, an XLR microphone cable plugged into the rear panel will be amplified.

Voice Knob:
This exclusive feature breaks the mold of one trick amps by giving you the ability to dial in any style of music.
A - Airy Art
S - Smooth Solo
F - Famous Flat
M - Moderately bright
B - Bass Boost
P - Precision/Tele

Tone Controls:
There are four tone controls, Deep, Bass, Mid, and Treble. The frequency response with the Bass and Treble controls up and the Mid control down forms a notched frequency response with a minimum at approximately 400 Hz

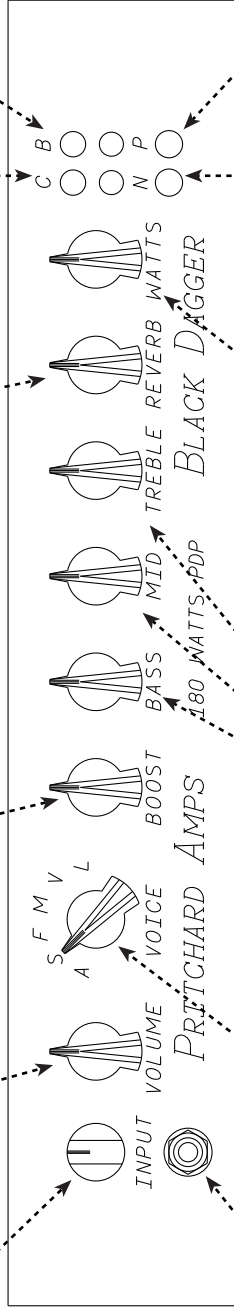
Watts Knob:
The patented Watts Knob controls the effective output power of the amplifier while keeping the essence of the fully driven amplifier: breathing, expansive harmonics, fat, sag, and ripple modulation.

Noise Gate:
Indicates if the Noise Gate is active. Operates only when both crunch and boost are on.

Power On:
When indicator LED is lit Amplifier is on.

Black Dagger

Front Panel



Input Level:
The odd knob at the left of the amplifier controls the gain of the first stage. This control adapts your guitar and your playing strength to the amplifier.
Basically, you adjust this control so that playing hard nearly causes the first stage to clip.
Rough Settings:
Up for weak single coil. Down for Humbuckers

Volume:
The volume control with the Watts Knob sets the clean volume for the channel. The volume control also sets the amount of distortion while the Watts Knob sets the dirty volume.

Variable Boost Control: The boost control operates like an additional volume control when the boost is switched on. Although it can control clean volume, its basic purpose is to control the amount of distortion.

Reverb:
Controls the level of the spring reverb in the output.

Crunch Switch:
Turns on and off Crunch boost. When yellow indicator LED is lit, it produces a 10dB gain boost.

Boost Switch:
Turns on and off the variable boost. When red indicator LED is lit boost is active.

Input Jack:
The mono input jack accepts the jack cord from the instrument to be amplified.
Alternatively with an empty jack, an XLR microphone cable plugged into the rear panel will be amplified.

Voice Knob:
This exclusive feature breaks the mold of one trick amps by giving you the ability to dial in any style of music.
A - Airy Acoustic
S - Smooth Solo
F - Famous Flat
M - Moderately Bright
V - Very Bright
L - Liquid Lead

Tone Controls:
There are three tone controls, Bass, Mid, and Treble. The frequency response with the Bass and Treble controls up and the Mid control down forms a notched frequency response with a minimum at approximately 400 Hz

Watts Knob:
The patented Watts Knob controls the effective output power of the amplifier while keeping the essence of the fully driven amplifier: breathing, expansive harmonics, fat, sag, and ripple modulation.

Noise Gate:
Indicates if the Noise Gate is active. Operates only when both crunch and boost are on.

Power On:
When indicator LED is lit Amplifier is on.

Sword of Satori

Front Panel

Input Level:
The odd knob at the left of the amplifier controls the gain of the first stage. This control adapts your guitar and your playing strength to the amplifier. Basically, you adjust this control so that playing hard nearly causes the first stage to clip.
Rough Settings:
Up for weak single coil. Down for Humbuckers

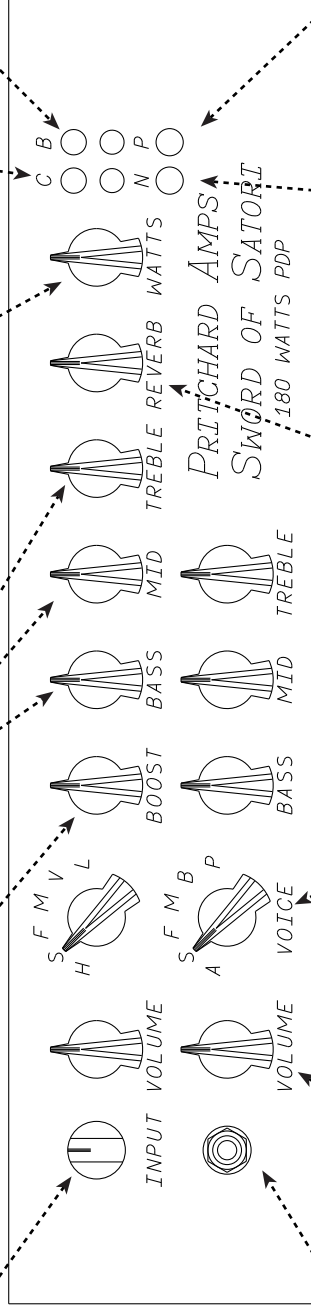
Ch 1 Variable Boost Control:
The boost control operates like an additional volume control when the boost is switched on. Although it can control clean volume, its basic purpose is to control the amount of distortion.

Tone Controls: There are three tone controls, Bass, Mid, and Treble, on both amplifier channels. The frequency response with the Bass and Treble controls up and the Mid control down forms a notched frequency response with a minimum at approximately 400 Hz

Watts Knob:
The patented Watts Knob controls the effective output power of the amplifier while keeping the essence of the fully driven amplifier: breathing, expansive harmonics, fat, sag, and ripple modulation.

Channel Switch:
Allows you to switch between the first and second channel. If the yellow indicator LED below is lit then channel 1 is active. If it is not lit then channel 2 is active.

Boost Switch:
Turns on and off the boost for both channels simultaneously. If the red indicator LED is lit Boost is active for both channels. Boost for channel 1 is variable while the boost for channel 2 is fixed.



Input Jack:
The mono input jack accepts the jack cord from the instrument to be amplified. Alternatively with an empty jack, an XLR microphone cable plugged into the rear panel will be amplified.

Volume:
The volume control with the Watts Knob sets the clean volume for the channel. The volume control also sets the amount of distortion while the Watts Knob sets the dirty volume.

Voice Knob:
This exclusive feature breaks the mold of one trick amps by giving you the ability to dial in any style of music

Reverb:
Controls the level of the spring reverb in the output.

Noise Gate:
Indicates if the Noise Gate is active. Operates only when the boost is on in the main channel.

Power On:
When indicator LED is lit Amplifier is on.

Gold Estoc

Front Panel

Input Level:
The odd knob at the left of the amplifier controls the gain of the first stage. This control adapts your guitar and your playing strength to the amplifier. Basically, you adjust this control so that playing hard nearly causes the first stage to clip.
Rough Settings:
Up for weak single coil. Down for Humbuckers

Ch 1 Volume:
The volume control with the Watts Knob sets the clean volume for the 1st channel. The volume control also sets the amount of distortion while the Watts Knob sets the dirty volume.

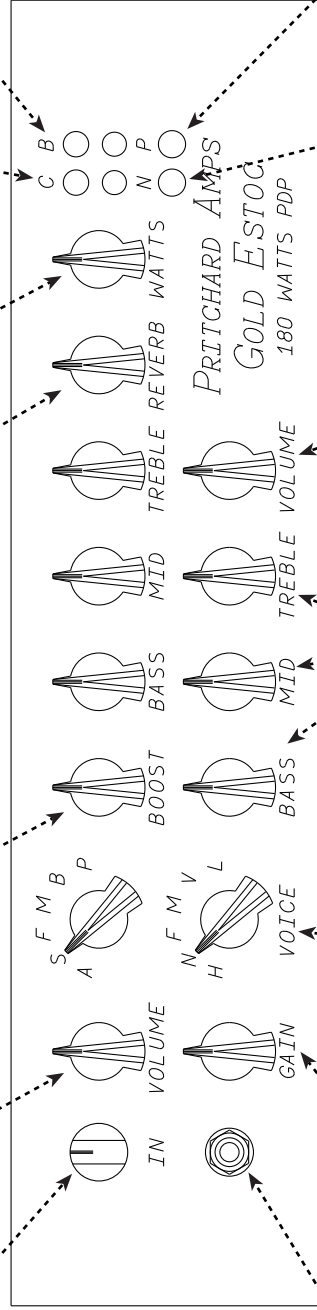
Ch 1 Variable Boost Control:
The boost control operates like an additional volume control when the boost is switched on. Although it can control clean volume, its basic purpose is to control the amount of distortion.

Reverb:
Controls the level of the spring reverb in the output.

Watts Knob:
The patented Watts Knob controls the effective output power of the amplifier while keeping the essence of the fully driven amplifier: breathing, expansive harmonics, fat, sag, and ripple modulation.

Channel Switch:
Allows you to switch between the first and second channel. If the yellow indicator LED below is lit then channel 1 is active. If it is not lit then channel 2 is active.

Boost Switch:
Turns on and off the boost for both channels simultaneously. If the red indicator LED is lit Boost is active for both channels. Boost for channel 1 is variable while the boost for channel 2 is fixed.



Input Jack:
The mono input jack accepts the jack cord from the instrument to be amplified. Alternatively with an empty jack, an XLR microphone cable plugged into the rear panel will be amplified.

Gain:
This volume control with the Watts Knob sets the clean volume for the 2nd channel. The volume control also sets the amount of distortion while the Watts Knob sets the dirty volume.

Voice Knob:
This exclusive feature breaks the mold of one trick amps by giving you the ability to dial in any style of music.
A - Airy Acoustic
H - Heavy dirt
S - Smooth Solo
F - Famous Flat
M - Moderately Bright
V - Very bright
L - Liquid Lead
B - Bass Boost
P - Precision/Tele

Tone Controls:
There are three tone controls, Bass, Mid, and Treble, on both amplifier channels. The frequency response with the Bass and Treble controls up and the Mid control down forms a notched frequency response with a minimum at approximately 400 Hz.

Ch 2 Volume Control:
This post distortion volume control has two benefits. Like a master volume control, you can get distorted tones below clean levels. Second, in conjunction with the Watts Knob, you can get distortion mixing at low volumes.

Noise Gate:
Indicates if the Noise Gate is active. Operates only when the boost is on in the 2nd channel.

Power On:
When indicator LED is lit Amplifier is on.

Sultry Margaux

Front Panel

Input Level:
The odd knob at the left of the amplifier controls the gain of the first stage. This control adapts your guitar and your playing strength to the amplifier.
Basically, you adjust this control so that playing hard nearly causes the first stage to clip.
Rough Settings:
Up for weak single coil. Down for Humbuckers

Voice Knob:
This exclusive feature breaks the mold of one trick amps by giving you the ability to dial in any style of music.
A - Airy Art
S - Smooth Solo
F - Famous Flat
M - Moderately bright
B - Bass Boost
P - Precision/Tele

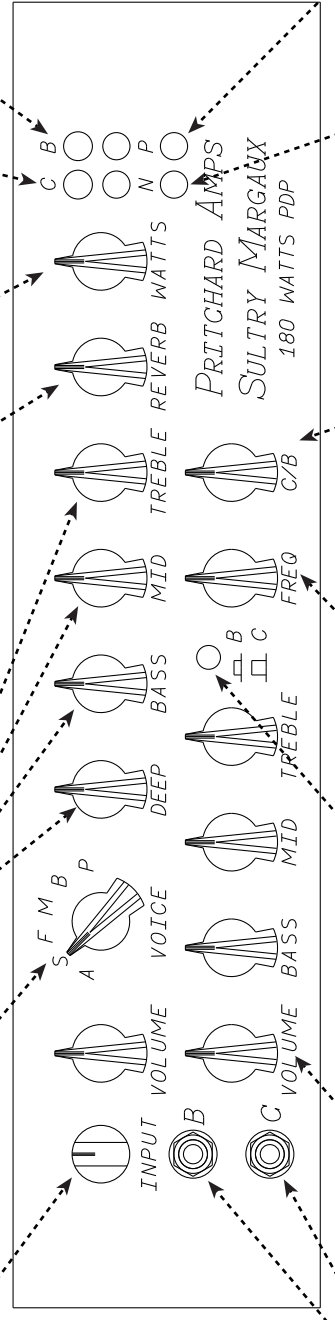
Tone Controls: There are four tone controls, Deep, Bass, Mid, and Treble, on the B channel and three tone controls on the C channel. The frequency response with the Bass and Treble controls up and the Mid control down forms a notch in the frequency response with a minimum at approximately 400 Hz.

Reverb:
Controls the level of the spring reverb in the output.

Watts Knob:
The patented Watts Knob controls the effective output power of the amplifier while keeping the essence of the fully driven amplifier: breathing, expansive harmonics, fat, sag, and ripple modulation.

C Channel Boost Switch: Activates and deactivates the boost for the C channel only. It is active when the yellow LED below it is lit.

Channel Boost Switch: Activates and deactivates the boost for the B channel only. It is active when the red LED below it is lit.



Input Jack:
Channel B has a mono jack.
Channel C has a stereo jack with the Microphone defaulting to this channel.
Alternatively the ring of this jack feeds channel B while the tip of this jack feeds channel C.

Volume:
The volume control with the Watts Knob sets the clean volume for the channel. The volume control also sets the amount of distortion while the Watts Knob sets the dirty volume.

Filter Switch:
If button is down then filter is on channel B (ch 1), if button is up then filter is on channel C (ch2).

Frequency Knob:
This sets the frequency of the parametric filter.

Cut/Boost:
Set cut or boost level of parametric filter.

Noise Gate:
Indicates if the Noise Gate is active.

Power On:
When indicator LED is lit Amplifier is on.