

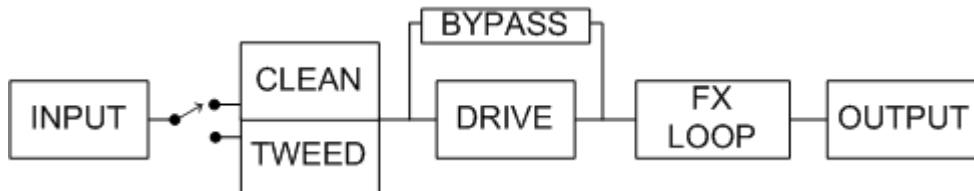


*- Amps That Sing -*

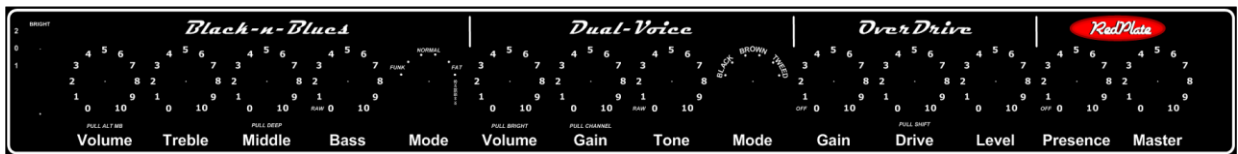
## **Black-n-Blues Operations Manual**

Welcome to the RedPlate Family, thank you for your purchase of a RedPlate Black-n-Blues amplifier. Please take a moment and review this manual for an understanding of all the available features (or just put all the knobs at noon and play). This Manual applies to Black-n-Blues models produced after 03/01/2011.

### **Signal Path Block Diagram:**

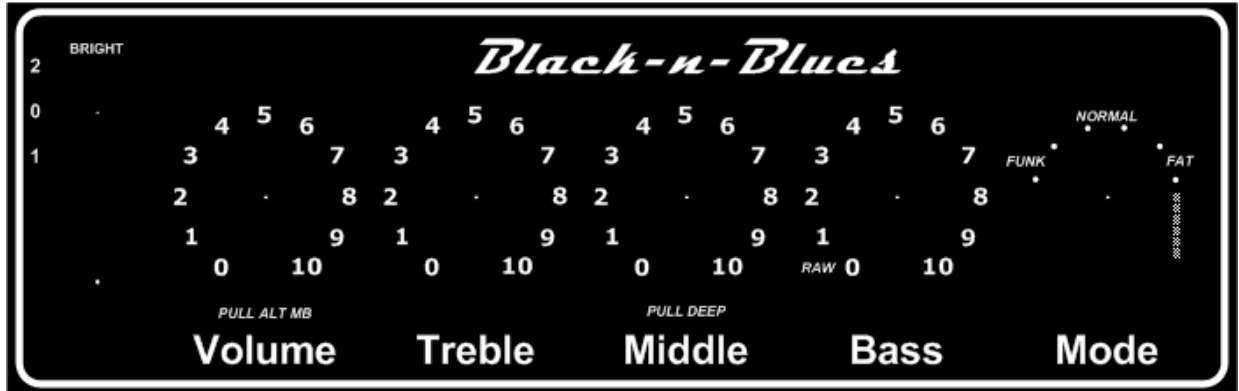


### **FRONT PANEL:**



**Input Jack** – Typical High impedance input to the amplifier. Designed to be “Pedal Friendly” in the unlikely event you will ever use a pedal in front of the Black-n-Blues.

### **CLEAN PREAMP SECTION**



The Clean Preamp is designed to imitate (and surpass) all of the “classic” guitar amp preamps. The Black-n-Blues gives the player the ability to do two unique things:

1. Shift the midrange center point frequency.
2. Select the amount of Bass gain appropriate to your guitar choice (via Humbucker/Single coil switch covered in the **Rear Panel** Section of this manual).

**Bright Switch** – Center = OFF, Down = sound of new strings, Up = normal Bright response.

**Volume** – Typical setting is between 3 and 5 but experimentation is encouraged. Pulls to switch the intensity of the Mid Boost (this topic is covered in the **Other Features** Section of this manual).

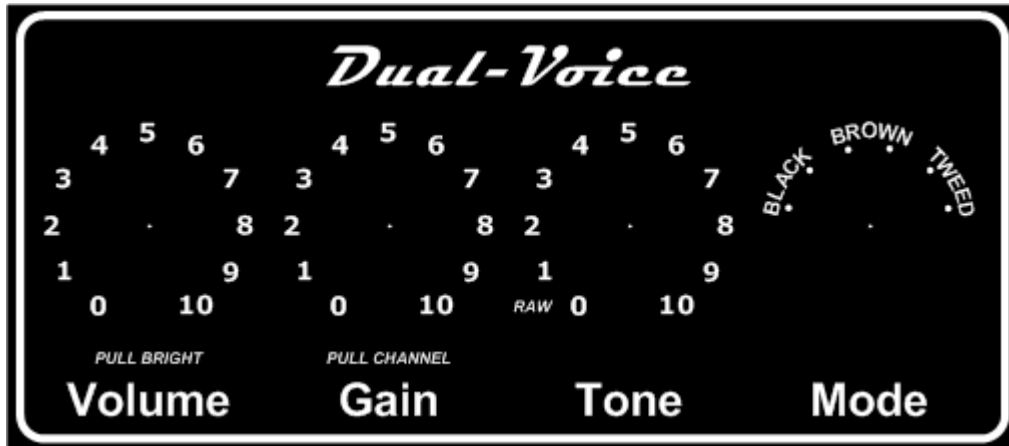
**Treble Control** - Adjusts highs (also upper midrange when the Tweed Boost is engaged).

**Middle Control** – Controls the amount of Midrange frequencies, somewhat interactive with the Bass Control. Pulls to enable “Deep” which scoops some midrange frequencies and emphasizes Bass (makes your electric sound more like an acoustic).

**Bass Control** – Sets the amount of low end. Can be rotated to zero where it clicks off for a full tone stack lift.

**Mode Selector** – A six position rotary switch, it steps through 5 progressively fatter positions of the midrange center frequency and achieves maximum fat midrange by engaging Mid Boost in position 6 (see the **Other Features** section of this manual for details).

### TWEED PREAMP SECTION



The Tweed Preamp is based on the classic Tweed Style design with two important differences:

1. Gets into the “sweet spot” at various volume levels for consistency of tone and character in both small and large venue sizes.
2. Can imitate the headroom and mid scoop of more traditional Treble Middle Bass style amps when needed.

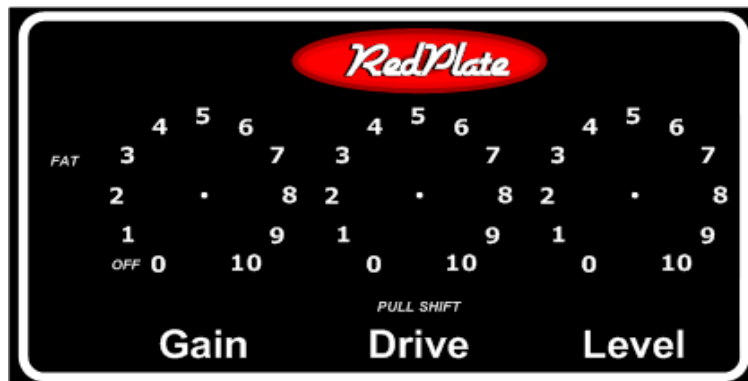
**Volume Switch** – Pulls for Bright, this control sets the overall volume of the Tweed channel.

**Gain** – Pulls to make the Tweed channel the active channel (handy when you don’t have the footswitch connected) This control sets the “sweet spot” – adjust this for the amount of break up character you desire in your tone. Typical setting is between 3 and 5 but experimentation is encouraged.

**Tone** – Treble is emphasized at settings past 5, more bass at the lower numbers. When rotated to zero it clicks off for a full tone lift. The tone lift can also be accessed instantly via the Boost button on the footswitch (see the **Other Features** section of this manual for details).

**Mode Selector** – A six position rotary switch, it steps through 6 progressively fatter positions of midrange and girth. The fattest Tweed setting is position 6.

### DRIVE SECTION

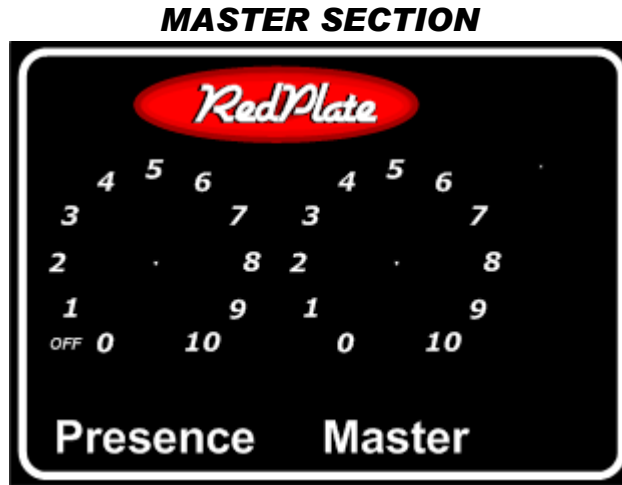


The Drive section controls the amount of character to add to the preamp tone. The section’s range of effect can be just a hint of early break up or a full on aggressive heavy metal distortion.

**Gain Control** – Bypasses the section when rotated to zero, this control sets the amount of signal for the first gain stage of the section. Low settings are smoother and higher settings are more aggressive.

**Drive Control** – Sets the amount of distortion by controlling the level between the 2 gain stages of the section. Pull this control to shift into more gain and girth for the distortion.

**Level Control** – Sets the output volume of the section. Higher settings are “bigger” and more 3 dimensional. Newer versions may have a HI CUT feature when pulled.

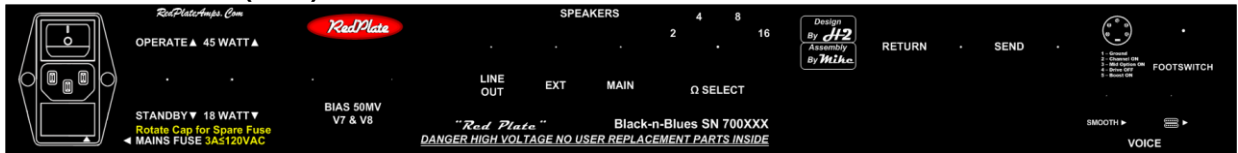


**Presence Control** – The presence circuit uses global negative feedback to remove low frequencies which frees up bandwidth for more midrange and highs. Think of it as a tone control to balance the relationship between highs and lows, especially when the amplifier is naturally producing increased low end at louder volumes. The control clicks off when rotated to zero for no presence.

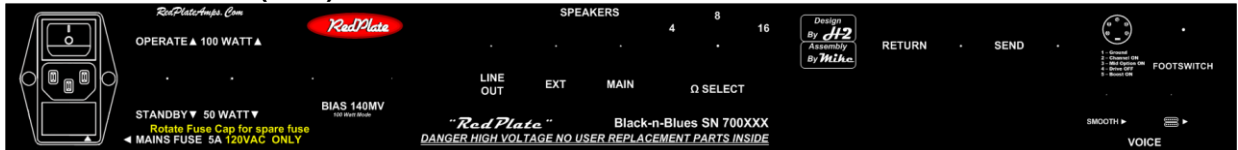
**Master Volume** – This is an active control and actually adds gain at the higher settings. The cleanest tones are achieved at settings below 7.

### REAR PANEL SECTION

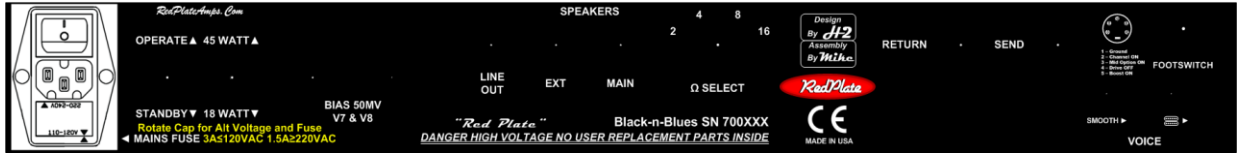
#### Domestic 45 Watt (USA):



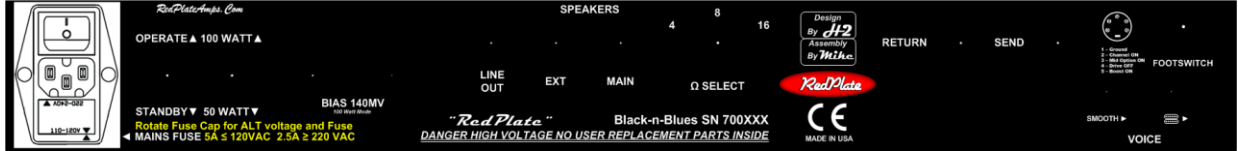
#### Domestic 100 Watt (USA):



**Rear Panel 45 Watt Export:**



**Rear Panel 100 Watt Export:**



**IEC Module** – contains the main power switch, power cord inlet connector and the fuse drawer which doubles as the voltage selector on export models. To access the fuse(s) use a small flat blade screwdriver in the notch at the bottom of the power cord inlet connector, the drawer snaps out in a rearward direction. The Black-n-Blues can accept both the larger (3AG footprint) or smaller European (5mm X 20mm) fuses. A time delay variety (SLO-BLO) is recommended. For 45 watt amplifiers a fuse in the range of 2.5 to 3 Amps is fine for domestic use (110 – 125 VAC) and 1.25 to 1.5 amps is fine for Export use (220 – 240 VAC). For 100 watt amplifiers a 5 amp fuse is recommended for domestic use (110 – 125 VAC) and 2.5 amps should be used for Export use (220 – 240 VAC). The fuse drawer can be rotated on the export models for voltage selection, make sure the correct value fuse is located on the same side of the fuse drawer as the desired selection arrow. Line up the appropriate arrow on the fuse drawer with the arrow on the bottom right of the module for the proper VAC selection.

**Standby Switch** – This switch allows the tubes to warm up before operating the amplifier. Wait 1 minute after power on to move it up to the operate position. For improved tube life and performance do not leave the amplifier in Standby position for longer than 20 minutes (better to just leave it in operate mode during performance intermissions).

**45 WATT / 18 WATT Switch (45 watt model only)** – In 45 watt position the inside pair of tubes is running fixed bias while the outside pair is running in cathode bias. In 18 watt position the switch lifts the two fixed bias tubes leaving only the outside pair running in cathode bias mode. It is alright to change the selection of this switch even when the amplifier is in operation

The 45 watt model will support the use of two 6L6 tubes as either an inside or outside pair (see BIAS Section of this manual). DO NOT MIX 6L6 AND 6V6 TUBES.

**100 WATT / 50 WATT Switch (100 watt model only)** – This switch lessens the influence of the inside pair of output tubes. It is alright to change the selection of this switch even when the amplifier is in operation

**Bias adjustment and bias test point** – Allows external access for bias adjustment (see bias procedure in the **Maintenance** section).

**LINE OUT** – A line level signal jack derived from the speaker output which contains the whole tone of the amplifier.

**Speaker Jacks** – The MAIN and EXT jacks are wired in parallel. The MAIN jack must be used first because it has a protection device. ALWAYS HAVE A SPEAKER CONNECTED TO AVOID PERMANENT AMPLIFIER AND OUTPUT TUBE DAMAGE.

**Impedance Selector  $\Omega$**  - Set this to the total impedance of all attached speakers.

**SEND and RETURN Jacks** – The send jack connects to the input of an external effects device and the return jack connects to the output of an external effects device. The return jack interrupts the signal path so the external effects unit must mix the wet and dry signals.

**Footswitch Jack** - This is a standard 180 degree 5 pin DIN jack for footswitch connection. If a replacement cable is needed, make sure all 5 wires are supported. The pinout is conveniently located on the rear panel for use with automated switcher conversion boxes.

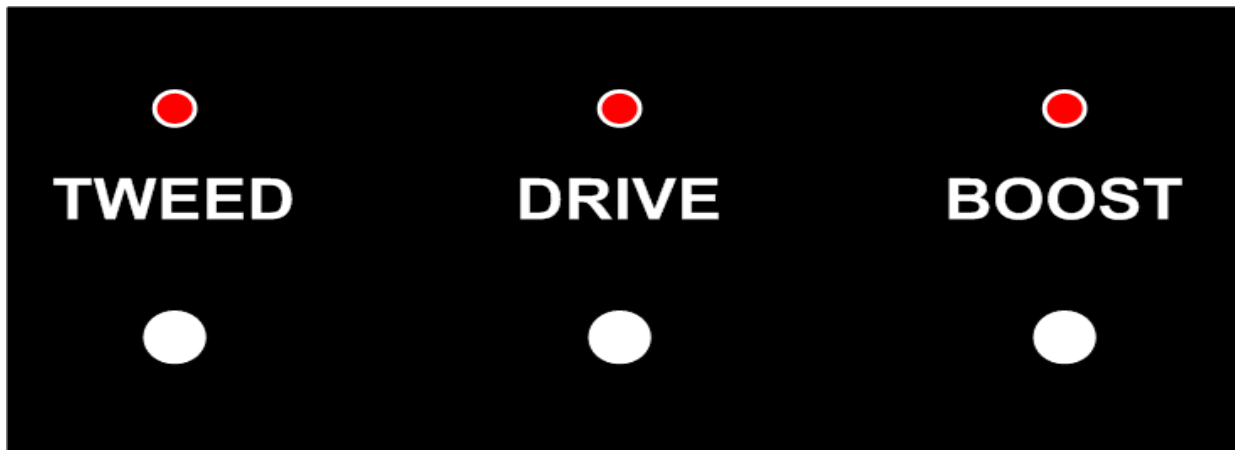
**SMOOTH Switch** – Employs local negative feedback in the clean preamp for a hint of compression.

**Humbucker / Single coil Switch** – Sets the amount of bass gain in the input of the clean preamp stage, useful for matching the amplifier to the guitar type.

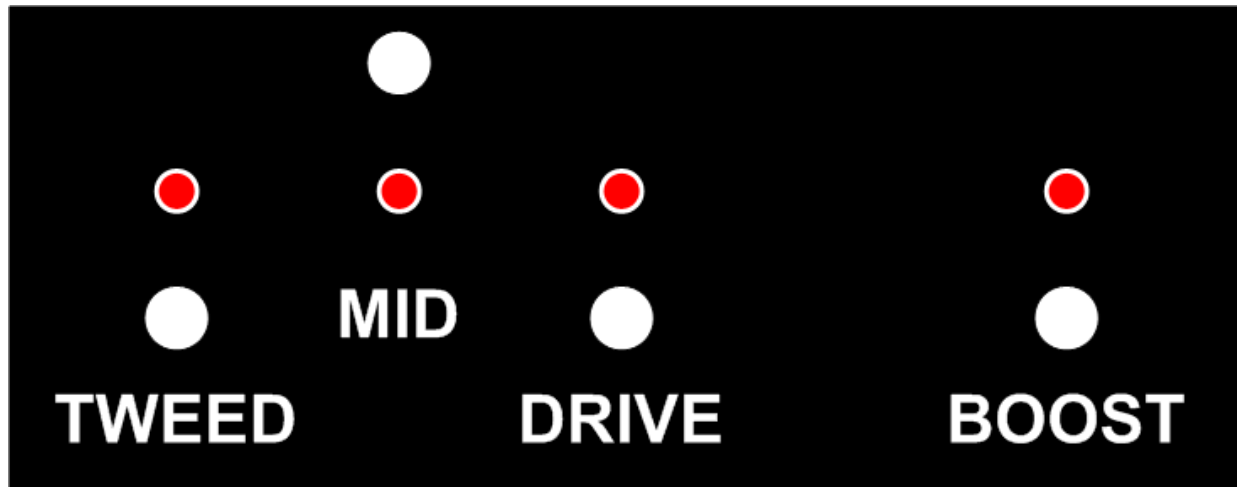
### **OTHER FEATURES**

The Black-n-Blues comes complete with a footswitch and a 25' footswitch cable. The cable used is a regular MIDI cable and is readily available in any length at most music stores.

#### **STANDARD 3 BUTTON FOOTSWITCH**



### **OPTIONAL 4 BUTTON FOOTSWITCH**



**TWEED** – When engaged the guitar input is routed to the Tweed channel. The footswitch button does not work when the Tweed Channel's Gain control is pulled because it is a duplicate function.

**DRIVE** – Character Boost feature. When lit, the Drive section of the amplifier is active, not lit, means the section is bypassed. The footswitch button does not work when the Drive section's Gain control is rotated to zero because it is a duplicate function.

**BOOST** – Girth Boost feature, it, adds volume and tone by doing a partial tone stack lift on the clean channel or a full tone control lift on the Tweed channel. The footswitch button does not work when:

- A. The Clean channel is active and the Clean preamp's Bass control is rotated to zero (because it is a duplicate function).
- B. The Tweed channel is active and the when the Tweed channel's tone control is rotated to zero (because it is a duplicate function).

**MID (Optional footswitch only)** – Midrange Boost feature. When engaged the size of the treble capacitor is increased to allow for more upper midrange, at the same time it does a lift of the midrange control for maximum midrange. The effect can be lessened by pulling the front panel Volume control which eliminates the midrange control lift. The footswitch button does not work when position 6 of the rotary MODE switch on the front panel is selected because it is a duplicate function.

### **POWER ON/OFF PROCEDURE**

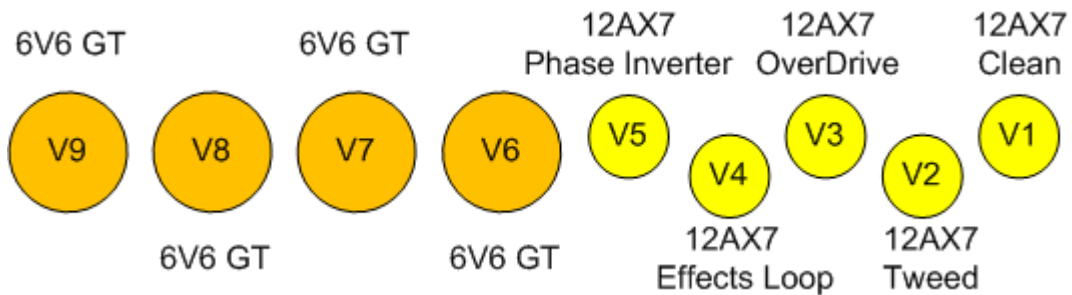
1. Check the Standby switch to make sure it is toggled downward for Standby operation.
2. Toggle the main power switch to the up position (this switch is located at the top of the IEC input module). The front panel pilot light should be lit.
3. Wait one minute and then toggle the Standby switch upwards to the Operate position.
4. **POWER OFF** – Toggle the main power switch downward, there is no need to go into standby first although it will not hurt anything.

## **MAINTENANCE SECTION**

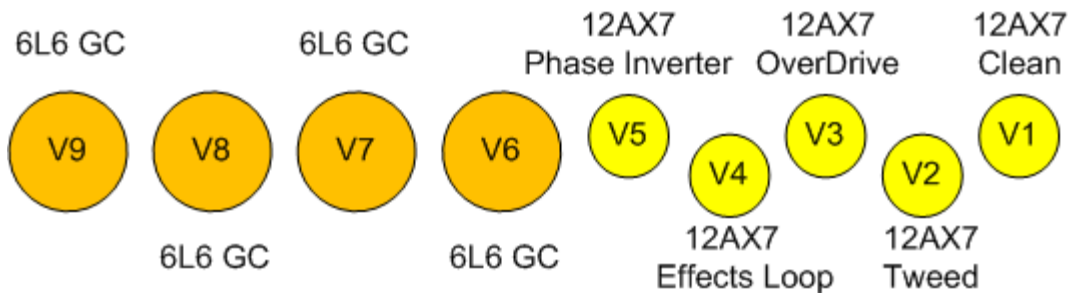
Your Black-n-Blues amp has been designed for years of trouble free operation. The vacuum tubes will need to be replaced over time. We recommend new output tubes every 160 - 240 hours and new preamp tubes every 320 - 480 hours.

The front and rear panels have a protective finish that can be easily scratched with abrasives so always use a damp soft cloth to clean them (never use paper towels). The cabinetry can be cleaned with our super secret tolex cleaner (on a paper towel - 2 squirts of WD-40 and 4 squirts window cleaner), let your keyboard player try it on his plastic keys, it replicates the feel of a brand new keyboard, also a great cable cleaner.

### **TUBE CHART 45 Watt**



### **TUBE CHART 100 Watt**



All tube brands are acceptable, a long plate is preferred in the V5 (Phase Inverter) position.

**Warning – No user serviceable parts inside so unless you know what you’re doing please refer to a qualified service person only.**

### **BIAS PROCEDURE - 45 Watt Model w/ 4 6V6 tubes**

1. When new 6V6 GT output tubes are installed it is important to re-bias the amp for optimal performance.
2. ALWAYS HAVE A SPEAKER CONNECTED.
3. Use a digital volt meter set to DC volts at lowest scale (MV). Makes sure the black lead is the common terminal of the meter and the read lead is the DC voltage terminal of the meter.
4. Place the Amplifier in operate mode with the Master Volume set to zero.
5. Set the 45 WATT/ 18 WATT switch to the 45 WATT position.
6. Place the red meter lead in the test point hole (red tip jack) and touch (or clip) the black meter lead on one of the metal output tube retainer clips.



7. Use a small flat blade screwdriver to adjust the bias pot for a reading of  $50\text{MV} \pm 5\text{ MV}$  (FYI - the plate voltage is 380 volts). The reading is the sum of the idle current for both tubes.
8. Recheck the reading after 10 minutes of operation, and again after a week or two of operation.

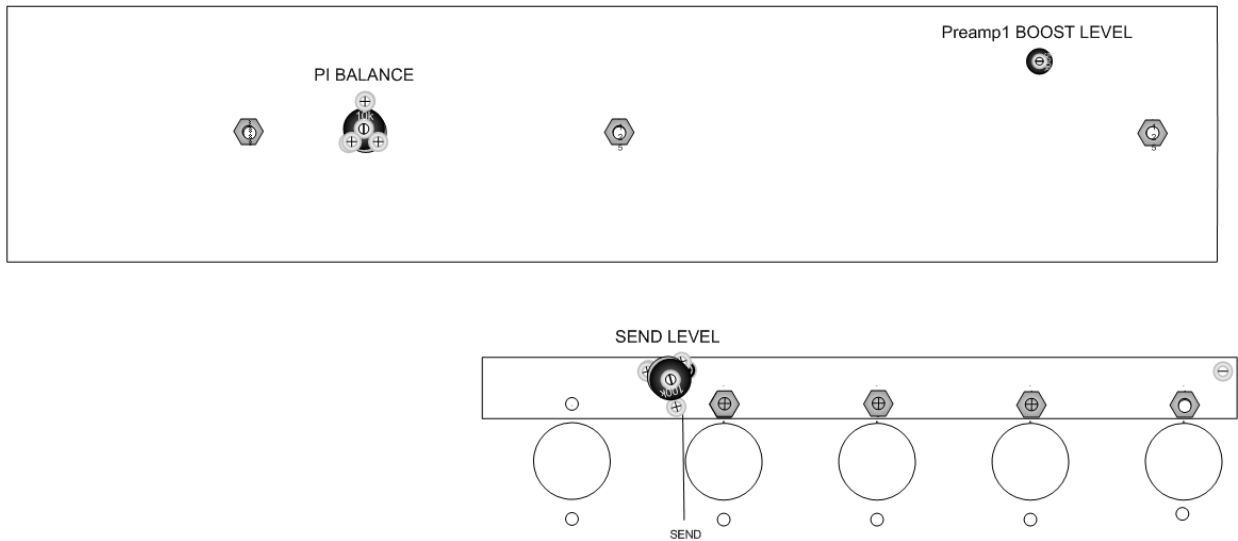
### ***BIAS PROCEDURE - 45 Watt Model w/ 2 6L6 tubes***

1. The 45 watt model can also be configured for use with two 6L6 GC output tubes. No biasing needed for 6L6 tubes installed as the outside pair (V6 & V9) because they will be running in cathode bias mode.
2. CAUTION - REMOVE ALL FOUR 6V6 TUBES BEFORE INSTALLING TWO 6L6 GC TUBES. NEVER MIX 6L6 AND 6V6 TUBES AND ALWAYS HAVE A SPEAKER CONNECTED.
3. Use a digital volt meter set to DC volts at lowest scale (MV). Make sure the black lead is the common terminal of the meter and the red lead is the DC voltage terminal of the meter.
4. Install the 6L6 GC tubes into the inner pair sockets (V7 & V8)
5. Place the Amplifier in operate mode with the Master Volume set to zero.
6. Set the 45 WATT/ 18 WATT switch to the 45 WATT position.
7. Place the red meter lead in the test point hole (red tip jack) and touch (or clip) the black meter lead on one of the metal output tube retainer clips.
8. Use a small flat blade screwdriver to adjust the bias pot for a reading of  $80\text{MV} \pm 5\text{ MV}$  (FYI - the plate voltage is 380 volts). The reading is the sum of the idle current for both tubes.
9. Recheck the reading after 10 minutes of operation, and again after a week or two of operation.

### ***BIAS PROCEDURE 100 Watt Model***

1. When new 6L6 GC output tubes are installed it is important to re-bias the amp for optimal performance.
2. ALWAYS HAVE A SPEAKER CONNECTED.
3. Use a digital volt meter set to DC volts at lowest scale (MV). Make sure the black lead is the common terminal of the meter and the red lead is the DC voltage terminal of the meter.
4. Place the Amplifier in operate mode with the Master Volume control set to zero.
5. Set the 100 WATT/ 50 WATT switch to the 100 WATT position.
6. Place the red meter lead in the test point hole (red tip jack) and touch (or clip) the black meter lead on one of the metal output tube retainer clips.
7. Use a small flat blade screwdriver to adjust the bias pot for a reading of  $144\text{MV} \pm 5\text{ MV}$  (FYI - the plate voltage is 440 volts). The reading is the sum of the idle current for all 4 tubes.
8. Recheck the reading after 10 minutes of operation, and again after a week or two of operation.

## INTERNAL TRIM POTS



The Black-n-Blues has 3 internal trim pots as shown.

1. Boost level – sets the footswitch boost amount when the Clean preamp is active.
2. Send Level – sets the signal size at the Send Jack.
3. PI Balance – Useful for working with unmatched 12AX7 tubes in the phase inverter position. Refer to qualified personnel for proper setting.

## RedPlateAmps Warranty

At RedPlateAmps we pride ourselves making products that are built to last. The workmanship in your RedPlate amplifier is warranted to be problem free for the lifetime of the original owner. The actual electrical components in your amplifier are warranted for a period of 3 years. Exclusions are vacuum tubes, reverb tanks, cables, speakers and cosmetics which are warranted for 30 days. Improper handling or product misuse or product abuse or unauthorized repair work or unauthorized modifications may nullify your warranty. Eligibility for coverage and covered items are at the sole discretion of RedPlateAmps.

### RedPlateAmps

[www.RedPlateAmps.com](http://www.RedPlateAmps.com)

email: [info@RedPlateAmps.com](mailto:info@RedPlateAmps.com)

Thanks again for joining the RedPlate Family – Henry

### **BONUS SECTION - SETTINGS TEMPLATE**

[Check the website for future updates to this section]

Copy or print the next page to record your settings. Once you've zeroed in on your signature setting please email the completed template to [info@RedPlateAmps.com](mailto:info@RedPlateAmps.com) – we may include your favorite in the online version of this manual.

**Black-n-Blues** Channel: Volume (0-10), Treble (0-10), Middle (0-10), Bass (0-10), Mode (NORMAL, FAT, BRIGHT), Volume (0-10).

**Dual-Voice** Channel: Volume (0-10), Gain (0-10), Tone (0-10), Mode (TWEED, BROWN, BLACK), Gain (0-10).

**OverDrive** Channel: Drive (0-10), Level (0-10), Presence (0-10), Master (0-10).

**MID**  
**TWEED DRIVE BOOST**

100 ▲ 45 ▲  
○ ○

50 ▼ 18 ▼

SMOOTH ▶  
VOICE ▶