

CARR AMPLIFIERS

SLANT
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OWNER'S MANUAL

Revised 22 Mar 2011

Slant 6V Instructions

Thank you for purchasing the Carr Slant 6V amplifier. The Slant 6V is our most versatile amp capable of yielding a huge array of tones. Our channel switching scheme uses a high quality, gold contact relay to organically select between the 100% discrete channels. The guitar signal does not have to go through any solid state devices in this style of channel switching. Our goal was to fully optimize each channel for its job without compromise. Cathode and fixed bias pairs of power tubes and a tube rectifier set the Slant 6V apart as a truly unique design. Please take time to familiarize yourself with this manual.

Clean Channel

Volume – Adjusts the loudness of the clean channel.

Treble – Varies the top end from dark to bright.

Middle – Varies the mid frequencies and is very influential in taking the tone from a 60's blackface sound (minimum to 11 o'clock) to a pushed tweed mid sound (11 o'clock to full).

Bass – Varies the low end from lean to full.

Reverb – Controls the amount of reverb from none to deep and lush.

Channel Selector Switch – Selects the active channel: clean (switch baton *left*), or overdrive (switch baton *right*). The switch is active only when the *Footswitch/Panel* switch on the back panel is in the *Panel* position. See *Footswitch* below for more information.

Overdrive Channel

Reverb – Controls the amount of reverb from none to deep and lush.

Volume – Adjusts the amount of overdrive from slight (8 to 10 o'clock) to distorted (10 o'clock to full) with more and more grind and sustain.

Boost Switch – Increases the gain before the master volume control (see *Master* below) by a factor of 3. Though it does result in an increase in loudness, its main effect is to produce more overdrive and sustain. ON when the switch baton is *down*, OFF when the switch baton is *up*. The switch is active only when the *Footswitch/Panel* switch on the back panel is in the *Panel* position. See *Footswitch* below for more information.

Master – Adjusts the overall loudness of the overdrive channel.

Treble – Varies the top end from balanced to forward.

Middle – Varies the mid frequencies and is very influential in taking the tone from dark to cutting.

Bass – Varies the low end from lean to full.

Standby – Set amp to Standby (switch baton *down*) before turning on the power switch (see *On-Off-On* below). After 1 minute of warm up, switch the Standby baton *up*. The amp is ready to be played. Using the Standby switch every time the amp is turned on will prolong tube life. Set the amp to standby when adjusting the *Impedance* and *Power* selectors (see below).

Back Panel

On – Off – On – Selects between two ON positions and the OFF position (middle). The two ON's are wired in opposite phase of each other. If you receive a shock from another piece of equipment (a microphone or another amp) that is not properly grounded, or if you hear static, switching to the opposite ON may solve the problem. This is sometimes called “switching polarity”.

Mains Fuse – The Slant 6V is protected by a 2 Amp Slow Blow fuse for 120v and 100v (North America and Japan) models or a 1 Amp Slow Blow fuse for 220v and 240v (Europe and Asia) models. Please consult us or a qualified tech for assistance in the event of the mains fuse blowing.

High Voltage Fuse – The Slant 6V is further protected against damage from tube failure by a 3/8 Amp fast blow fuse (all domestic and export models). If the high voltage fuse blows, one of the power tubes has most likely gone bad. Please consult us or a qualified tech for assistance in the event of the high voltage fuse blowing.

Bias Test Points – see *Biasing your Slant 6V* below

Power Selector – *When adjusting the Power selector, the amp should be set to standby.* The Power selector allows you to engage either pair of output tubes (half power) or all 4 at once (full power). Changing the power setting may require an adjustment of the impedance setting. See *Impedance Selector* below for the correct setting combinations.

Full Power: 40 Watts. The full power setting brings the best from both the cathode and fixed bias pairs of output tubes. The snappy immediacy of the fixed bias pair is fleshed out with the more complex midrange of the cathode bias pair. The amp has added dimension with a more organic quality to its dynamics in full power. The full power setting has the most clean headroom.

Half Power,
Fixed Bias: 22 Watts. This half power setting delivers a punchy attack, with more power than the cathode bias setting, for a tight, crisp sound.

Half Power,
Cathode Bias: 18 Watts. This half power setting takes advantage of the power tubes' inherent, natural compression, giving plentiful sustain and tasty harmonic distortion especially when pushed with the overdrive channel.

Footswitch – The footswitch included with the Slant 6V can be used to remotely switch between the clean and overdrive channels (left button) and turn the boost feature on and off (right button). Next to the footswitch jack on the back panel is a switch that toggles control of the channel switching and boost functions between the footswitch and the front panel switches. To use the footswitch, set the switch baton to *Footswitch*. To use the front panel switches, set the switch baton to *Panel*.

Speaker Output Jacks – The Slant 6V has two speaker output jacks wired in parallel. When connecting just one speaker cabinet, you may plug into either of the two output jacks. When connecting two speaker cabinets at once, we recommend using only cabinets of the same impedance. For example, if you are already connected to one 8 ohm cabinet, e.g. the Slant 6V combo speaker(s), the second cabinet you connect to should also be 8 ohms. In this scenario, the total speaker load or impedance is 4 ohms. Use the total speaker load to set the Impedance Selector according to the instructions below (see *Impedance Selector*).

Impedance Selector – *When adjusting the Impedance and Power selectors, the amp should be set to standby.* Correctly setting the Impedance selector depends on two factors: (1) Your Power Selector setting and (2) The total speaker load of your cabinet(s). Proper setting of the Impedance selector optimizes the amplifier's performance and produces a fuller, richer tone.

When the Power Selector is set to Full Power, set the Impedance Selector to match the total speaker load. For example, when connected to the stock 8 ohm Slant 6V cabinet, set the Impedance selector to 8 ohms.

When the Power Selector is set to one of the Half Power settings, set the Impedance Selector to *one half* of the total speaker load. For example, when connected to the stock 8 ohm Slant 6V cabinet, set the Impedance Selector to 4 ohms.

Example speaker configurations and their impedance settings:

Speaker Configuration	Total Speaker Load	Impedance Selector setting when Power Selector is set to:		
		Full Power	Half Power, Fixed Bias	Half Power, Cathode Bias
Slant 6V combo speaker(s)	8 ohms	8 ohms	4 ohms	4 ohms
Carr extension cabinet	8 ohms	8 ohms	4 ohms	4 ohms
Combo speaker(s) and Carr extension cabinet	4 ohms	4 ohms	<i>*See below</i>	<i>*See below</i>
Marshall-style 4x12 extension cabinet	16 ohms	16 ohms	8 ohms	8 ohms

**In this configuration, a 2-ohm setting of the Impedance Selector would be required in either of the half power modes. In this case, you should use the 4-ohm setting of the Impedance Selector. This will not harm the amplifier, but the power tubes will have to work harder and thus age faster.*

Mixing speakers and cabinets of differing loads, e.g. the 8 ohm combo speaker and a 16 ohm extension cabinet, is not recommended.

Biasing your Slant 6V

The bias needs to be adjusted whenever the fixed-bias pair of 6V6s (inner pair of power tubes) are changed. This is easy to do with a voltmeter:

1. With the new tubes installed, set the amp for half power, fixed bias, and turn it on.
2. Set the voltmeter to volts DC or millivolts DC (0.001 volt = 1 millivolt).
3. Locate the bias test points on the back panel, and plug the red lead of the voltmeter into the red test point and the black lead into the black test point.
4. Locate the bias adjustment control on the bottom of the chassis near the power transformer (on the left and toward the front if you are looking at the back panel—see *Chassis Diagram*), and turn it left or right until the voltmeter reads 0.066 volts or 66 millivolts.

Please note the bias will vary a little bit as the amp warms up. Fluctuations in the AC line voltage can also cause the bias to fluctuate—this is normal and not to be of concern.

If you do not feel comfortable making the adjustment yourself, take the amp to a competent tech.

A note about changing power tubes: Replace power tubes with matched pairs of 6V6s. The fixed-bias pair (inner pair) should be a matched set, and the cathode-bias pair (outer pair) should be a matched set (see *Chassis Diagram*). A more foolproof option is to purchase a matched quad, which allows you to interchange tubes between cathode bias and fixed bias sockets without fear of a mismatch. The Slant 6V can only use 6V6 power tubes.

Carr Amplifiers selects and tests the finest current production tubes specifically for each amplifier model. Caution should be used when buying replacement tubes from any dealer who does not have a return policy as all tubes can have problems (NOS tubes are susceptible to microphonics and failure too).

Recommended Settings

Clean Channel

Pickup	Sound	Volume	Treble	Middle	Bass	Reverb
Single coil	Warm 60s American					
Single coil	Surf					
Single coil	Atmosphere Neck					
Humbucker	Warm 60s American					
Humbucker	Bridge Bark					
Humbucker	Atmosphere Neck					

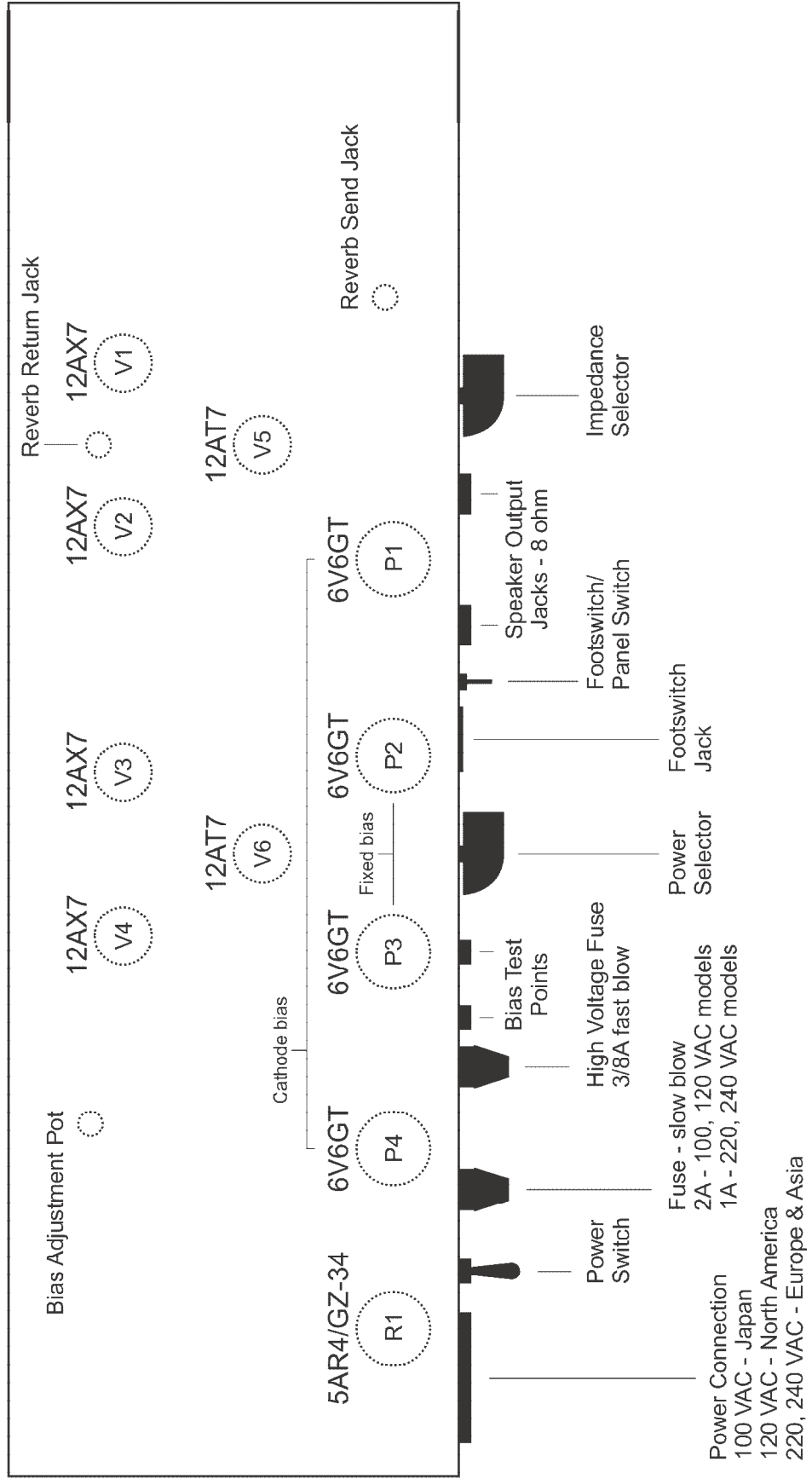
Overdrive Channel

Pickup	Sound	Volume	Boost	Master	Treble	Middle	Bass
Single coil	Texas Neck		Up				
Single coil	Brit AC Bridge		Up				
Single coil	73 Rock		Down				
Single coil	Neck Swell		Down				
Humbucker	1972 Punch		Up				
Humbucker	Clear Punch		Up				
Humbucker	Cutting Rock		Down				
Humbucker	Neck Bow		Down				

SLANT 6V

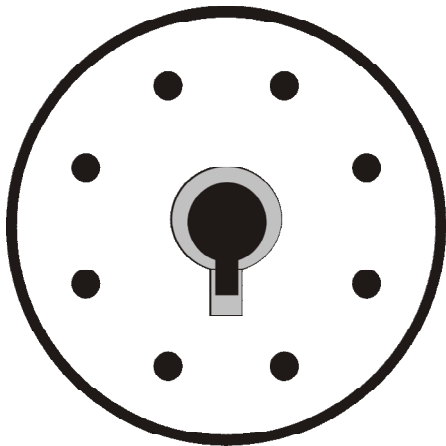
CARR AMPLIFIERS CHASSIS DIAGRAM

Items indicated by a dashed line are on the bottom of the chassis.

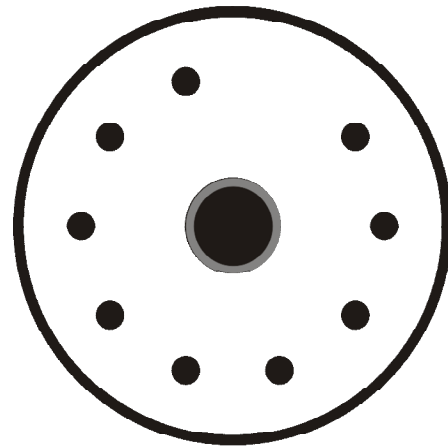


IMPORTANT REMINDERS

- Please keep the original packing materials in case your amp needs to be shipped for service.
- When inserting power tubes, the power tube key must line up with the tube socket keyway.
- When inserting preamp tubes, the tube pins must line up with the tube socket holes.



Do not insert power tubes with missing or damaged keys or pins.



Do not insert preamp tubes with missing or damaged pins.

- To reduce the risk of electric shock, keep the unit away from excess moisture.
- No user serviceable parts inside.
- Potentially lethal voltage present.

CARR AMPLIFIERS WARRANTY

All Carr amplifiers are warranted to be free from defects in workmanship (solder joints, hardware assembly etc.) for the lifetime of the original owner, and free from defects in materials (including cabinet) for three years from the date of purchase by the original owner, provided that:

- The owner mails the signed warranty registration card (next page) and a copy of the original sales receipt to Carr Amplifiers within thirty days of purchase.
- Problems are not the result of misuse, abuse, tampering, circuit modification, improper tube installation (incorrect orientation of tubes can damage the amp), or spilled beverages, as these will void the warranty.
- The amplifier is shipped to Carr Amplifiers in the original packing materials with freight paid by the purchaser. We pay the return shipping after the warranty work is complete.

Tubes, speaker(s), and reverb tanks carry a ninety-day warranty, and are subject to the same terms and conditions as above.

Please call us at 919-545-0747 if you have a warranty claim. Be prepared to provide the model and serial number of your amp. We will issue a Return Merchandise Authorization number (RMA#) before the amplifier is shipped for service.

For customers outside of North America, warranty and repair service is provided through the dealer where the amp was purchased.

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