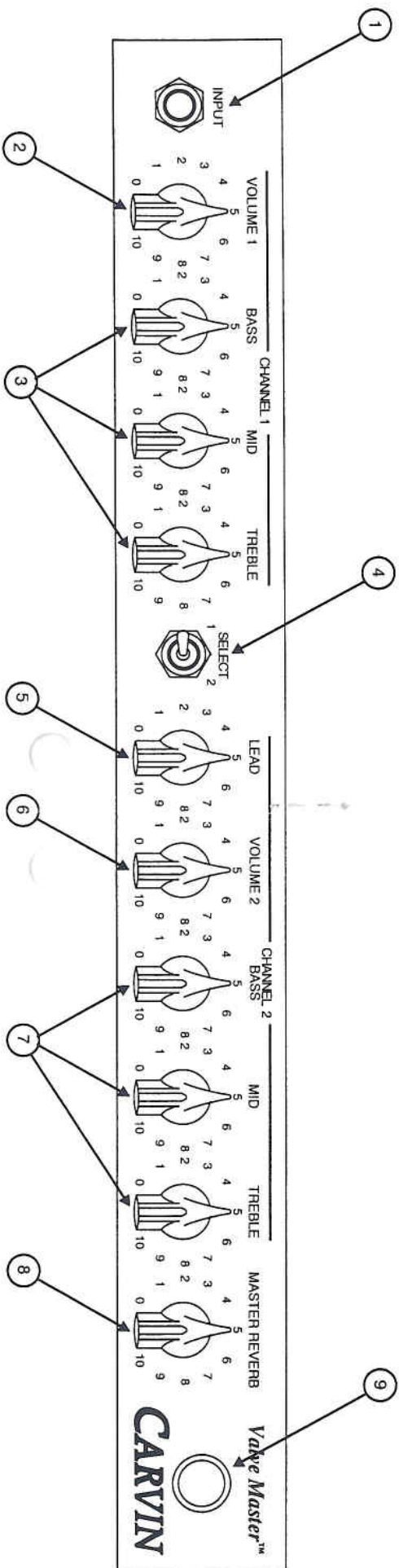


## FRONT PANEL FEATURES



### 1. INPUT JACK

A standard 1/4" input jack feeds both channels through the SELECT switch. Use a professional quality guitar cord no longer than 25 feet. Typical cable capacitance should be under 50pf—the longer the cord, the greater the capacitance (you can measure this with a capacitance meter). A long cable with high capacitance will reduce the overall treble response of your pickups.

### 2. CHANNEL 1 VOLUME

Start with a setting around 2 on the VOLUME dial. If you want more highs, reduce the volume to 1 on the dial and turn up your guitar. This will give you about 2 dB more treble at 10k Hz. This special taper volume control allows for more highs at the lower settings while a fatter—warmer sound starting about 4 on the dial. If you have too much treble, simply reduce the TREBLE control.

### 3. CHANNEL 1 BASS, MID & TREBLE CONTROLS

These controls may have no standard settings that you are familiar with. They will require different settings when using single coil or dual coil pickups. You can start at 5 on the dial for each of the tone controls. However, because this is an "all tube" amp, these settings do not represent a normalize (flat) sound as found with active solid state EQ systems. You need to set them where it sounds best! Most musicians like to reduce the MID'S between 1 and 4 for a deeper bass and crisper highs. Turn up the rear PRESENCE control for added top end at 12k Hz.

#### SUGGESTED SETTINGS FOR DUAL and SINGLE COIL PICKUPS

**SINGLE COIL PICKUP:** A typical setting with good bottom end: BASS 9, MID 2 & TREBLE 3  
**DUAL COIL PICKUP:** A typical setting with good bottom end: BASS 7, MID 4 & TREBLE 8

### 4. CHANNEL SELECT

Set the channel SELECT switch to the desired channel. Use CH 1 for clean playing. Use CH 2 for overdrive sustain. For foot switch operation, leave the CH SELECT to the CH 1 position.

### 5. DRIVE (CHANNEL 2)

For clean playing, set the DRIVE control on 1 and use VOLUME 2 to set the level. For crunch, set the levels between 1 and 3. For overdrive sustain, set the control between 5 and 10 (these settings are with the guitar volume up full). Because the Valve Master has been "Hot Rodded" with added gain, you may experience some guitar feedback. To help eliminate this problem, reduce the amount of DRIVE or move the guitar to the side or away from the speaker(s).

### 6. VOLUME 2 (Pull MID BOOST—Dual Voicing)

Channel 2 offers 2 voice settings controlled by the VOLUME 2 push-pull switch. With the VOLUME 2 switch in the IN position, a deeper bass along with a mid frequency cut offers a popular sound for musicians requiring good bottom end. If you need more upper mids in the IN position, turn up the MID control in the rear PRESENCE.

The OUT position of the VOLUME 2 control restores and brings out the mids, offering a second voice option that is also popular.

For clean playing only, set the VOLUME 2 to ten and use the DRIVE control to set levels.

### 7. CHANNEL 2 BASS, MID & TREBLE CONTROLS

Channel 2's voicing for the BASS, MID & TREBLE controls are entirely different from channel 1. These controls will have to be set according to the type of pickups you are using (dual or single coil). It's normal to increase the BASS when VOLUME 2 is set for lower playing levels. At high levels you will want to decrease the BASS response. If you need more bass, reduce the MID control setting. Remember that you have the rear PRESENCE control for the upper mid range and treble.

### 8. MASTER REVERB

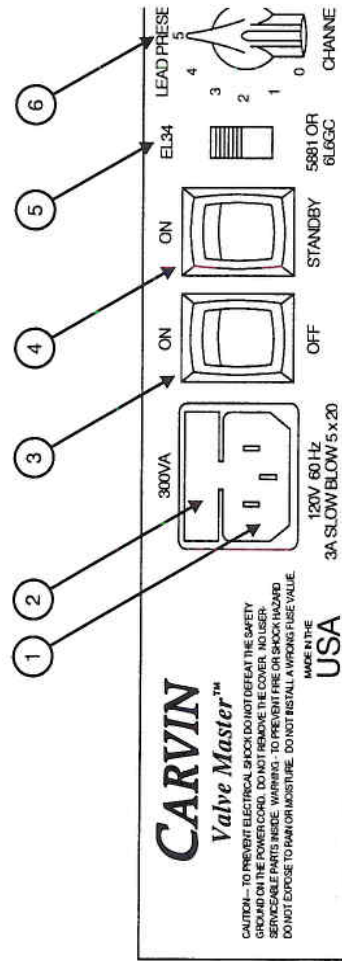
Set the REVERB control for the desired amount (functions in both channels).

### 9. POWER INDICATOR LED

The jeweled power light is powered by a 6 volt ac supply. Replace the bulb with a #40 bulb with a screw type base.



# REAR PANEL FEATURES



## 1. AC POWER CORD

Carvin supplies you with a detachable AC POWER CORD. Your unit is designed to operate with one type of voltage. Plug the cord into a grounded "3" prong" power source. If a grounded outlet is not available, the VALVE MASTER should not be used. **For safety reason, no attempt should ever be made to defeat the ground on the AC cord.**

## 2. AC LINE FUSE

The VALVE MASTER has a fuse built into the AC receptacle. To check or remove the fuse, remove the AC cord and place a slot-head screwdriver under the cap labeled "FUSE". Pull the fuse holder out. Once removed, the fuse can be replaced (note the space for a spare fuse within this holder. The external fuse is a 3 Amp "Slow Blow" 5 x 20mm type. This fuse is available in the USA at all Radio Shack stores. (Additional fuse protection is provided within the power amp. Internal fuses consist of one 10SB slow blow and three 1ACG fast blow fuses). Note: The fuse holder will contain a spare fuse.

## 3. POWER SWITCH

The power switch is to be utilized as the master ON/OFF switch.

## 4. STANDBY SWITCH

The STANDBY SWITCH turns the high voltage off within the amplifier. If you don't plan to play for a while, turn this switch off. This will increase the life of your power tubes while keeping the power and preamp tube filaments on for immediate use.

## 5. BIAS SWITCH (SERIES II)

The BIAS switch must be selected for the proper power tubes (EL34 or 5881/6L6GC). If this is not correctly selected, excessive heat and power tube failure will result (or) excessive crossover distortion at low levels will result. Please see the HELP section for more information.

## 6. CHANNEL 2 LEAD PRESENCE (SERIES II)

Channel 2 features it's own LEAD PRESENCE for added penetration. It's frequency is concentrated in the upper mid range for extra lead penetration. Careful adjustment in conjunction with the front MID and TREBLE controls will make this control very useful.

The long tailed REVERB system in the Valve Master switches only the reverb "send" leaving the tail of the reverb to decay naturally, the way it's done in the studio. A special pre filter eliminates the spring "bong" normally heard in other systems giving it a "lush" sound. The all tube reverb system offers vibrant clarity with full depth reminiscent of the sixties.

The buffered EFFECT LOOP has a gain structure that is normalized to accept all effects devices without degrading the performance of the Valve Master. This means you can use battery powered foot pedals or professional rack systems with equal success. The loading (impedance) of the "Send" and "Receive" jacks have been guarded to protect the impedance of your effect device preventing premature distortion.

The cabinet voiced LINE OUT is designed as an output to drive other equipment requiring line levels. The 1.5 VAC output (referenced to 100 watts output at 8Ω) is more than adequate for any professional mixer or power amp. This output has been "cabinet voiced" which normalizes the frequency response for recording. This prevents excessive bass or highs at the mixer or power amp

The Valve Master may be equipped with either EL34 or 5881 power tubes. Most models feature the Russian Sovtek™ brand selected for their smooth distortion, responsive sound and reliability. Our proprietary transformers offer the compression sag to react to the most subtle touch—if you play soft, the power tubes remain clean. If you increase your attack, the power tubes respond with enormous force and sustain. If you desire to change the type of tube your amp was supplied with, you can do so by re-adjusting the external BIAS control on Series II models. There is also an internal bias control that can be adjusted by a qualified technician.

If you want less power or earlier power amp clipping, simply move the rear 50/100 watt power switch to the 50 watt setting. The difference between 50 and 100 watts is only 3 dB which is not a huge difference in loudness. However, it does enable you to get power amp clipping at lower levels. When the 50 watt setting is used, the cathodes of the two outside power tubes are turned off. Close examination of the blue color gases within the tubes (as you play) will reveal the tubes that are turned on.

The rear speaker IMP (impedance) switch should be selected for the correct total speaker impedance. If not, tube life can be shortened along with losing the full potential output of your amp. The correct setting for two 8Ω speakers (cabinets) should be 4Ω. The correct setting for two 16Ω speakers (cabinets) should be 8Ω. Both speaker jacks are wired in parallel with each other. The power supply that feeds the Valve Master is guarded with four internal fuses and one external fuse associated with the rear AC cord connector for a total of five fuses. The 500 volt filter capacitors are carefully installed using RVT to secure them in place. Internal cables and wires are secured with tie-wraps. A portion of the Valve Master's protection circuits includes high voltage diodes placed across the high voltage section, protecting the power tubes and output transformer from high voltage arcing—a comforting thought, should a tube go bad!

Putting the technical information aside, the Valve Master is a very simple amp to operate. The control panel is logically laid out with the channel SELECT switch between the channels—just point the switch to the channel you want (be sure to leave the SELECT switch in the channel 1 position if a foot switch is used). Any standard foot switch with a stereo plug and 2 switches will work fine.



## ABOUT THE VALVE MASTER

The Valve Master design criteria was to build an all-tube guitar amp that sounded better than anything else on the market (including amps costing three times more). That meant the Valve Master was going to be totally new from the ground up. It also meant that the Valve Master was going to be designed with tubes only—No IC's. However, more than it's all-tube design or the number of tubes—it's the way the tubes are incorporated into the circuits that makes the Valve Master a better sounding guitar amp.

To start off with, Carvin has long known about the effects of miss-loading a guitar pickup which can cause high frequency loss. The Valve Master guards against this loss with it's ultra high input impedance of 2.2 meg  $\Omega$ . This is 2.2 times greater than the typical 1 meg  $\Omega$  that Fender uses in their input. Also, we considered the capacitance of the average shielded guitar cable which can reduce the high frequency response of your guitar pickup even further. Unlike other amplifiers, we purposely did not add capacitance anywhere in the preamp to control high frequency oscillations. Instead, we controlled oscillations through careful component layout and lead placement allowing the shimmering highs to be produced.

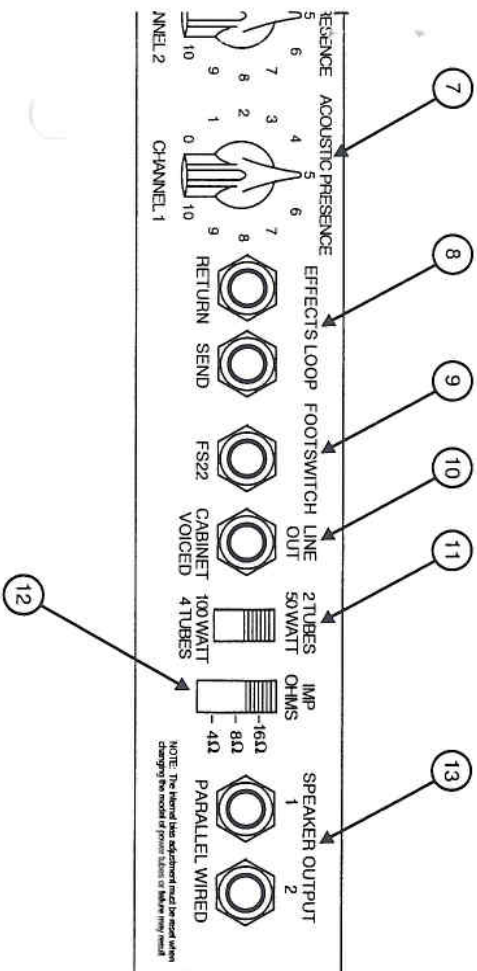
Hum and noise could be another design problem with the high gain of the Valve Master amps. However, because we use precision film resistors, excessive noise is not generated. Mylar capacitors are used because of their tighter tolerance and non microphonic performance. And, the Sovtek™ 12AX7 preamp tubes are utilized in such a way that microphonics have been all but eliminated (unless of course it's a defective tube—microphonics produce an undesirable resonant ringing). Hum is also reduced because of a special DC filament supply used on V1 and V2 preamp tubes (guitar amps normally have AC filaments which can inject 60 Hz hum in sensitive areas).

The Channel 2 DRIVE is configured with tremendous gain pushing the 12AX7 preamp tubes to their full saturation. However, the unique DRIVE attenuator, allows control for semi-clean playing. Turn the VOLUME 2 up to 10 (acts as a master volume) and turn the DRIVE up to the desired level—you have an alternate semi-clean channel. Channel switching is controlled by the front channel select switch or FS22 foot switch. Internally, switching is done via a 2P2T relay to keep the signal purely tube generated.

The T-Bridge passive BASS, MID and TREBLE tone controls offer a wide range of tone settings. Take full advantage by setting them where it sounds best. Your sound may not be 5 on the dial. Instead, the treble and bass may need to be at 10 while the mid control at 0 (or) the treble at 1 and the bass at 10 depending if your using single or dual coil pickups. These controls will not affect or color your sound when set at extreme settings, nor do they interact with each other. The greater range of these passive controls comes from high impedance 1 meg sealed bearing pots (most guitar amps use 250k pots). The frequency of the bass control is set at 75 Hz while the mid control is set between 450—600 Hz. The treble control is set at 11k Hz giving the Valve Master it's shimmering highs.

The Valve Master II features two PRESENCE controls located on the rear control panel. Channel 1 incorporates an ACOUSTIC PRESENCE which adds a brilliance to the high frequencies of your guitar not normally available from other presence controls. Most presence controls work in the 3k to 4k Hz range. The Valve Master's presence is different. It works in the very high range of 12k to 20k Hz delivering a glassy output. The ACOUSTIC PRESENCE works off the negative feedback of the power amp section allowing the output transformer to play an important part of its tone.

Channel 2 features it's own LEAD PRESENCE for added penetration. It's frequency boost is concentrated in the upper mid band range giving the extra bite used by heavy-metal players.



### 7. CHANNEL 1 ACOUSTIC PRESENCE

This presence controls adds a brilliance to the high frequencies of your guitar. It works in the very high treble range of 12k to 20k Hz for a shimmering, glassy output.

### 8. EFFECT LOOP

Plug the output of your effect device into the RETURN jack and the input of your effect device into the SEND jack. Use a shielded cord for both. It is normal to have a gain reduction of several dB with some effects units. The amp has plenty of reserve gain to overcome the loss.

### 9. FS22 FOOTSWITCH

Any foot switch with 2 switches and a stereo plug will work. However, Carvin's FS22 is recommended because of the correct identification on the footswitch. The channel SELECT switch on the front must be selected to channel 1 position before the footswitch will work for the channel selection. The REVERB is also remotely selected by the FS22 foot switch.

### 10. LINE OUT

The LINE OUT 1/4" jack is "cabinet voiced" preventing excessive bass or highs that are normally required to equalize the speaker system. The 1.5 VAC output (reference to 100 watts output at 8 $\Omega$ ) is more than adequate to drive any professional mixer or power amp.

### 11. 4 TUBE (100 WATT)—2 TUBE (50 WATT) 1/2 POWER SWITCH

For maximum output power, be sure this switch is selected for 4 TUBE operation. For less power and earlier power amp clipping, select the 2 TUBE operation.

### 12. SPEAKER IMPEDANCE SWITCH

The IMPEDANCE SWITCH offers the selection of 4, 8 or 16 $\Omega$  to match any standard speaker system. The switch should be selected for the correct total speaker impedance. If not, power tube life can be shortened along with losing some of your output power. The correct setting for two 8 $\Omega$  speakers (cabinets) would be 4 $\Omega$ . The correct setting for two 16 $\Omega$  speakers (cabinets) would be 8 $\Omega$ .

### 13. SPEAKER JACKS

Two 1/4" SPEAKER JACKS are featured to operate several speaker system at the same time. You must calculate the total speaker impedance based on parallel wiring as both speaker jacks are wired in parallel. Select the IMPEDANCE SWITCH for the correct impedance.



## WARRANTY AND SERVICE INFORMATION

Call Toll-Free 800-854-2235 if you need help with your CARVIN product. If you need to return it for service, our service dept. will issue a Service Number so that we can expect your shipment. Write the Service Number on the carton and be sure to include a full description of every problem. Pack in its original carton using all its packing material. Return by UPS pre-paid. Units returned with physical damage, missing parts, or damage from improper service are not serviceable.

### REPAIRS UNDER WARRANTY (1 YEAR)

There is no charge for service under warranty. However, shipping is to be paid both ways by the customer. All tubes are warranted for 90 days.

### REPAIRS OUT OF WARRANTY

After your warranty has expired, call us for the current flat rate charge which includes parts labor and testing to bring your unit up to factory specifications.

### SERVICING IN YOUR AREA

You may select your own service center or have your own qualified technician work on the unit at your own expense. This will not void the warranty unless damage was done because of improper servicing. Under the ONE YEAR WARRANTY, Carvin will ship parts pre-paid to you or your technician providing that the defective part(s) are first returned for our inspection. If you do not have a qualified service person, we ask that you do not involve yourself in servicing the unit.

### LIMITED WARRANTY

Your Carvin Professional Series Product is guaranteed against failure for ONE YEAR. Carvin will service the unit and supply all parts at no charge to the customer providing the unit is under warranty. CARVIN DOES NOT PAY FOR PARTS OR SERVICING OTHER THAN OUR OWN. This warranty is extended to the original purchaser only and is not transferable. THIS WARRANTY DOES NOT INCLUDE TUBES or FAILURES CAUSED BY INCORRECT USE, INADEQUATE CARE OF THE UNIT, OR NATURAL DISASTERS. A COPY OF THE ORIGINAL INVOICE IS REQUIRED TO VERIFY YOUR WARRANTY. Carvin takes no responsibility for any horn driver or speaker damaged by this unit. This warranty is in lieu of all other warranties, expressed or implied. No representative or person is authorized to represent or assume for Carvin any liability in connection with the sale or servicing of Carvin products. No liability is assumed for damage due to accident, abuse, lack of reasonable care, loss of parts, or failure to follow Carvin's directions. CARVIN SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

*In the interest of creating new products and improving existing ones, Carvin is continually researching the latest state of the art audio design methods, and modern packaging and production techniques. Thus, Carvin reserves the right to make changes in its products and specifications without notice or obligation.*

# CARVIN

800-854-2235

## RECEIVING INSPECTION

**INSPECT YOUR AMP FOR ANY DAMAGE** which may have occurred during shipping. If any damage is found, notify the shipping company and call CARVIN immediately.

**SAVE THE CARTON & ALL PACKING MATERIALS.** In the event you have to reship your amp, always use the original carton and packing material. This will provide the best possible protection for your unit during shipment. CARVIN and the shipping company are not liable for any damage caused by improper packing.

**SAVE YOUR INVOICE.** It will be required for warranty servicing of your unit. Always check your invoice against the items you have received.

**SHIPMENT SHORTAGE.** If you find items missing, it may be that they were shipped separately. Please allow several days for the rest of your order to arrive before inquiring. If you determine (after allowing an appropriate amount of time) you have not received all the items you ordered, please call CARVIN.

## HELP SECTION

### 1) AMP WILL NOT TURN ON

After checking that the amp is properly plugged in and the amp does not turn on, remove the AC cord from the amplifier chassis. Remove the FUSE holder that is built into the AC cord receptacle. Check the fuse and replace if necessary with a 3 AMP SLOW BLOW 5x20mm type.

If the fuse is OK, then the fuse receptacle has to be re-adjusted. This happens when the AC cord has been severely pulled to one side. To correct this, take a small slot screw driver (with the fuse holder out) and push the tabs in the receptacle (that hold the fuse) in towards each other about 1/16". After inserting the fuse holder with the fuse, the problem should be corrected.

### 2) GUITAR FEEDBACK FROM CHANNEL 2

If feedback is occurring in Channel 2, reduce the DRIVE and move the guitar away from the speakers. Because channel 2 incorporates a "Hot Rodded" preamp, you can expect some feedback unless you correct for it. Likewise, if you turn every control in channel 2 full on, you can expect some kind of oscillation or feedback.

### EXCESSIVE PREAMP NOISE

The 12AX7 preamp tubes can add noise if they have become defective. Normally they last a long time once they have settled-in. It's normal that Channel 2 is noisy when the DRIVE and VOLUME 2 are turned full on. However, excessive noise can develop from V1 and V2 tubes which adds to the overall noise of channel 2. To reduce channel 2 noise, try exchanging V1 and V2 with V3 and V4.

### 4) TUBE ORDER & FUNCTIONS

The following 12AX7 preamp tubes—V1, V2 and V3 drive channel 1 and 2. V4 drives the reverb system and V5 drives the power amp. Note: Each tube has 2 sections for a total of 10 12AX7 stages in the Valve Master. TUBE ORDER: The V1 tube is next to the outside edge of the chassis with V2, V3, V4 and V5 following towards the center of the chassis—in order. To remove a tube, be sure to push the top of the retainer to the side freeing the top of the tube. All 12AX7's are "Keyed" in the same direction.

The power tubes V6, V7, V8 and V9 are located in the center of chassis next to the rear panel. To remove the tubes, take a flat blade screwdriver and push the retainer down—working it from side to side—pulling the tube out. Be sure to reset the BIAS switch if changing tube types.

### 5) SHORTEN LIFE FROM POWER TUBES OR EXCESSIVE HEAT

Check the rear BIAS switch for the correct tube model. This switch selects the proper bias voltage range for either EL34's or 5881/6L6GC's. For the exact bias voltage, the internal (P11) calibration control can be adjusted for the correct 100 ma A/B idle current. Set the P11 control for 100 ma across the terminals of the STANDBY switch (set the STANDBY switch in the OFF position and the POWER switch in the ON position). Be sure the BIAS switch is selected for the correct tubes model and the 1/2 power switch is selected for 4 TUBES (100 WATTS) before adjusting. CAUTION: Only a quality technician is to make the internal bias adjustments—LETHAL VOLTAGES EXCEED 500 VOLTS! Note: Tubes with listed gain numbers, such as 1 through 10, should be internally adjusted. The output does not vary between high and low numbers—only the bias setting.

### KEEPING YOUR AMP LOOKING NEW

Use a damp cloth to wipe down the controls and chassis. Make sure that all items are dry when through cleaning.



# CARVIN

Dual Voicing—Channel 2

## SERIES II VALVE MASTER™ GUITAR AMPLIFIERS



### HELPLINE

### 1-800-854-2235

8:30 To 4:30 Monday-Friday  
Pacific Standard Time  
USA

## CARVIN

**OPERATION MANUAL**  
Manual No. 76-10100  
Revision 1.3

## CARVIN

MADE IN USA  
(800)854-2235

Record the serial number of your AMP in the space provided below:

Serial No. \_\_\_\_\_ Date Received \_\_\_\_\_