

Congratulations on your purchase of the Legacy 3 all tube signature amplifier. Steve Vai worked very closely with Carvin Engineering to develop the sound and look of the Legacy amplifiers. Exhaustive listening tests of various tube and electronic circuitry were performed by Vai. His choice of EL34 tubes and Celestion™ Vintage 30 speakers provide the finishing touches on a truly original amp. Take some time to discover the extensive features of the Legacy 3.



1 CLEAN, 2 LEAD CHANNELS and MORE GAIN

The equalization of the CLEAN and LEAD channels is designed to offer clarity to your instrument. The CLEAN channel's PRESENCE switch adds acoustic voicing to your instrument by enhancing only the very highest harmonics in the 10kHz range. The LEAD channels "2" & "3" have separate DRIVE, VOLUME, and PRESENCE controls. The second LEAD channel "3" features a GAIN switch which adds even more drive to the classic Legacy lead sound. By changing the tube gain circuits a higher gain state is achieved while maintaining a smooth, organic sound.

MASTER CONTROL

The MASTER volume control allows you to get the sound you want from all 3 channels, then adjust the overall volume of the amp without changing your tone or the volume balance between channels.

GIVE YOURSELF A BOOST!

A switchable volume boost is available by footswitch or by MIDI. Set the amount of boost with the BOOST control. When turned on, it will boost your amp's output by up to 6dB for solos or any time you need to stand out in the mix.

"SMART" REVERB

The REVERB is channel-tracking, allowing you to assign reverb to only the channels you want. Carvin's classic "long-tail" feature lets the reverb ring out after it's been switched off.

MIDI MEMORY and CC Control

Set the Channel (1-3), Reverb (on/off), Boost (on/off) and internal back-lighting color. Put the Legacy 3 in "learn" mode and it will assign your settings to the MIDI program number you send from your controller. The Legacy 3 also responds to CC for each MIDI switching function.

DYNAMIC EL34 POWER TUBES

Your amp is equipped with EL34 power tubes because of their smooth distortion, responsive sound and reliability. The compression characteristics of these "high-output" power tubes respond to the dynamic range of lead guitar playing. These tubes react even to the most subtle touch - if you play soft, the tubes remain clean and if you increase your attack they respond accordingly.

STONE CONTROLS

The T-Bridge passive BASS, MID and TREBLE tone controls offer a wide range of tone settings. Take full advantage by setting them where they sound best. Your sound may not be at center 5 on the dial. 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 controls comes from the high impedance 1 Meg sealed pots (most guitar amps use 250k pots). The frequency of the bass control is set at 80 Hz while the mid control is set at 650 Hz. The treble control is set at a very high 11kHz giving the Legacy 3 its dynamic highs.

RECEIVING INSPECTION—read before getting started

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

SAVE THE CARTON & ALL PACKING MATERIALS. In the event you have to re-ship your unit, always use the original carton and packing material. This will provide the best possible protection 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 service if needed in the future.

SHIPMENT SHORTAGE. If you find items missing, they may have been shipped separately. Please allow several days for the rest of your order to arrive before inquiring.

RECORD THE SERIAL NUMBER on the enclosed warranty card or below on this manual for your records. Keep your portion of the card and return the portion with your name and comments to us.

MODEL VL300 SPECIFICATIONS:

RMS Power	15, 50 or 100 watts (switched)
Output Impedance:	4, 8 or 16 ohms (switched)
Input Impedance:	220,000 ohms
Tone Controls:	BASS: 80Hz MID: 600-700Hz TREBLE: 11kHz
Channels:	3 - switchable from front panel, FS44M footswitch, or MIDI
Boost function:	Switchable, up to +6dB of volume at the Master, by FS44M or MIDI
Effect Loop	Series Loop, pre-Master Volume
Master Out / Amp In	Series connection, post-Master Volume
MIDI functions:	Channel selection, Master Boost, Reverb, backlight LED colors 100 available patch locations, CC control.
MIDI connections	MIDI IN, MIDI THRU (5 pin jacks)
Sensitivity:	Ch.1: 30mV for full output, Ch.2&3: 15mV, Ch.3 w/Gain: 10mV
Voiced Line Out:	1.5 VAC @ 100 watts RMS
Preamp Tubes:	4 - 12AX7's (dual stage)
Power Amp Tubes:	4 - EL34's (power pentode)
AC Power:	120VAC or 240VAC (switchable), 50-60Hz, 300VA
Fuse:	5x20mm, 120VAC: 6A slow-blow, 240VAC: 3A slow-blow
Size / Weight:	17.25W x 8.5H x 9.5"D / 32lbs.
Warranty:	One Year
Country of MFG:	USA
Options:	FS44M footswitch for CHANNEL and BOOST with LED indicators C412T, C412B: (matching 4x12" Vintage 30 speaker cabinets, 16Ω) C212S: (matching 2x12" Vintage 30 speaker cabinets, 16ohm)

For your records, you may wish to record the following information.

Serial No. _____ Invoice Date _____

CARVIN

12340 World Trade Drive, San Diego, CA 92128
(800) 854-2235 www.carvin.com



GETTING STARTED QUICKLY

If you are like most players, you probably want to plug in your new amp and get started playing it right away. You can read the rest of the manual later to learn the finer points of operating your amp. In order to get started you will need your Legacy 3 amp, a 120 or 230 AC grounded power outlet, your instrument, a standard guitar cord, a speaker cabinet and speaker cable.

First, make sure the rear 120VAC/240VAC switch is set for the voltage in your area. With the amp turned off, plug it into the proper AC voltage.

Then, set the rear panel Speaker Ohms switch to match the speaker cabinet(s) you are using. (If two of the same cabinets are used, set the switch for 1/2 value.)

Turn all the volume and drive controls off and set tone controls to their center position. If you have purchased the FS44M footswitch, plug it into the rear foot switch jack for switching the channels 1, 2, 3 and Boost.

Now, turn ON the Power switch, wait 5-10 seconds, then turn ON the Standby switch. Allow 30 seconds for the tubes to warm up. Turn up the Master slightly, and gradually raise the Channel Volumes and Drives. Adjust the tone controls and you're ready to go.

If you experience problems with the amp, first check all connections and settings. If you still feel your amp is malfunctioning, contact Carvin. Occasionally tubes are damaged in shipping.

FRONT PANEL

1. GUITAR INPUT

A standard 1/4" input jack feeds all channels through using 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 from your guitar pickups.

2. CHANNEL SELECT SWITCHES

Choose the desired channel with switch 1, 2, or 3. The LED's next to the volume controls will let you see which channel is functioning, and will also be displayed on the external FS44M footswitch LED's. Use channel 1 for pristine clean playing without breakup. Use channels 2 & 3 for thicker rhythm or overdriven lead sounds and use the GAIN switch on channel 3 for super high gain lead sounds. Channel changes can also be made with the FS44M footswitch or by MIDI control.

Pressed in combination, these switches allow access to various MIDI settings.

CLEAN CHANNEL 1

Channel 1 gives you crisp, clean playing with high headroom and no breakup. Thanks to special mud-cutting circuits that work between the frequencies of 500 and 700 Hz, your guitar tones will be full and vibrant.

3. CLEAN CHANNEL INDICATOR

The *green* LED will indicate the CLEAN channel is selected.

4. CLEAN VOLUME

This control sets the CLEAN channel 1 volume. The MASTER control also affects output.

5. 6. 7. CLEAN—BASS, MID & TREBLE CONTROLS

You can start at 5 on the dial for each of the tone controls. However, these settings do not represent a normalized (flat) sound. You need to set them where they sound best! Most musicians like to reduce the MID'S between 1 and 4 for deeper bass and crisper highs. If your sound is too bright with single coil pickups, you may want to keep the PRESENCE switch off.

8. CLEAN PRESENCE

For added clarity, the PRESENCE switch increases only the highest guitar harmonics in the 8-10k Hz range which is ideal for brightening up dual coil neck pickups.

LEAD CHANNELS 2 & 3

9. LEAD CHANNEL INDICATORS for CH.2 & CH.3

The *red* LED will indicate LEAD channel 2 is selected.

The *yellow* LED(s) will indicate LEAD channel 3 is selected.

10. 11. 12. LEAD BASS, MID & TREBLE

To start off with, set the BASS, MID & TREBLE controls at their center (5) position. These controls are set according to the sound you are looking for. Once you have the sound you like, you can set the separate CH2 and CH3 PRESENCE and DRIVE controls for CH2 and CH3 to get different sounds between channels. Even though you may have found "your sound", you may want to change the settings for different guitars or playing conditions. It's normal to decrease the BASS at higher playing levels, or adjust the TREBLE or PRESENCE for different rooms.

13. LEAD PRESENCE - CH.2 & CH.3

Channels 2 & 3 feature separate PRESENCE controls. The wide range of these controls, in the higher range of the tonal spectrum, can be set for very different sounds from each channel. Turning the PRESENCE "up" can allow one channel to stand out in the mix, or sound more aggressive. Turning PRESENCE "down" can produce a smoother, thicker sound. Adjust each DRIVE, VOLUME, and the Channel 3 GAIN switch for even more variety.

14. DRIVE - CH.2 & CH.3 ***

For mild tube saturation, set the DRIVE control between 1 & 2. For some of the best rhythm sounds, set the drive control set between 3 & 6. For full blown overdrive, set the control between 7 and 10. With high-output pickups, Drive settings above 8 can be subject to over saturation causing sluggish distortion. If so, play your guitar with it's volume at 10 and decrease the DRIVE until the crisp highs come back. For very high gain playing, try Channel 3 with the GAIN switch.

*** USING THE VAI "HIDDEN FEATURE"

One of the "hidden" features of the Legacy series amplifiers is using a technique that Steve Vai requested be part of the amp for his own use. While playing on the lead channel with a generous amount of DRIVE (around 6), back off the volume on your guitar. You will find the channel actually "cleaned up" with your guitar at a lower volume. This is a great feature for playing both rhythm and lead without switching channels. You will also find that the amp will be very responsive to your "attack". An advanced player knows how to vary their attack when picking or strumming, and the Legacy 3 is designed to respond to this.

15. CHANNEL 3 GAIN SWITCH and LED

Channel 3 has a GAIN switch for adding even more drive to the classic Legacy sound, while still retaining 12AX7A tube dynamics. Super-hi-gain sounds are available *without* the need for external pedals that can limit dynamics.

The *yellow* LED near the GAIN switch will indicate the GAIN is ON for CH.3.

16. LEAD VOLUMES

Set the volumes of the LEAD channel 2 or 3 with these controls. The MASTER control also affects output.

MASTER SECTION

17. MASTER

Set the MASTER control for overall volume of the amp. The MASTER affects the MASTER OUT jack level to allow control of multiple amps from a single knob. The MASTER will not affect the Effect Loop Send level.

18. BOOST / LED

The BOOST control allows you to add an overall volume increase to the amp by up to +6dB, whenever you may need it. The BOOST can be activated through the remote FS44M footswitch, or by MIDI control. The BOOST does not affect the SEND jack, only the MASTER OUT jack.

REAR PANEL FEATURES

Select proper AC VOLTAGE.
Press firmly to fully insert cord.



19. REVERB CONTROL / REVERB ON SWITCH / LED

Set the REVERB control for the overall amount of Reverb available. Then for each channel 1-3, press the REVERB SWITCH to select which channels you want the Reverb working. The "ON" LED will show Reverb is active for the channel you are currently using. When you come back to that channel, the amp will remember if the Reverb should be On or Off. The REVERB circuits are located after the EFFECT LOOP and before the MASTER. The REVERB can also be turned on/off through the rear REVERB footswitch 1/4" jack, or by MIDI control.

20. STANDBY SWITCH

Use the STANDBY SWITCH if you are taking a break. This turns the high voltage off, increasing the life of your power tubes while keeping the power and pre-amp tube filaments on for immediate use.

21. POWER SWITCH & INDICATOR

The power switch is to be utilized as the master ON/OFF switch. As the amp is turned on, the RED portion of the power switch will illuminate as your ON indicator.

REAR PANEL

22. SPEAKER JACKS

Two 1/4" SPEAKER JACKS are featured to operate several speaker systems at the same time. 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.

23. SPEAKER IMPEDANCE SWITCH

The SPEAKER OHMS switch offers the selection of 4, 8 or 16 ohms (□) to match your speaker systems. The correct setting for one C412 cabinet is 16□. For use with two C412 (16 ohm) cabinets, the correct setting would be 8□. In the case of connecting two 8 ohm systems such as the C212E 8 ohm extension cabinet, move the switch to 4 ohms.

24. RMS POWER SWITCH

The 3-position RMS POWER switch reduces the 100 watt output of the amp down to 50 or 15 watts, while still using all four output tubes. Lower settings will allow the great sound and *feel* of the tube power amp being overdriven, but at lower volume levels. For maximum output power and headroom set the switch to 100 watts. For early power amp saturation move this switch to 50 or 15 watts. The maximum volume reduction will only be 3dB and 8dB respectively.

25. POWER TUBE BIAS SWITCH

If you desire to change from EL34 to 5881 (6L6GC) power tubes, you may do so by selecting the external BIAS switch to the 5881 (6L6GC) position on the rear panel. Be sure that this switch is selected to the proper position or excessive heat will damage your tubes.

We recommend re-biasing when changing power tubes. The internal P11 bias trim control can be set by a qualified technician. To set the bias, measure the current across the terminals of the STANDBY switch (set this switch to the off position when the amp is on). Set the idle current to 100 mA for all tube types.

26. VOICED LINE OUT

The LINE OUT 1/4" jack is "CABINET VOICED" to prevent excessive bass or highs going to your mixer. This greatly aids in sound quality because you do not have to move your mixer EQ settings to the extreme. The 1.5 VAC output (reference to 100 watts output at 8 ohms) is more than adequate to drive any professional mixer or power amp.

27. FS44M FOOTSWITCH JACK (NOT a MIDI JACK)

Connect only the Carvin FS44M to this jack. Other devices will not work and may cause damage. The FS44M will allow you to remotely choose channel 1, 2 or 3 and activate the master BOOST function. The LEDs on the FS44M indicate your selections, and will also reflect changes made through the MIDI IN jack.

28. REVERB FOOTSWITCH JACK (FS22)

The front panel REVERB on/off feature will follow (track) your channel selection or MIDI, however you may want to switch it manually with a footswitch. Connecting an FS22 will allow you to toggle the REVERB on/off. Other basic footswitches with a 1/4" plug will work.

29. MIDI IN / MIDI THRU

Connect any standard MIDI controller to the MIDI IN jack with a 5-pin MIDI cable. You can connect other MIDI compatible devices to the MIDI THRU. (See MIDI PROGRAMMING at the end of this page.)

30. EFFECTS LOOP: SEND and RETURN

For the lowest possible noise from an effects processor, use the EFFECT LOOP SEND and RETURN. To use the EFFECTS LOOP, plug the INPUT of your effects into the SEND jack and the OUTPUT of your effects into the RETURN jack. Use shielded cables, not speaker cables. It's possible to have a slight gain reduction of a few dB with some effects units. However, the amp has plenty of gain to overcome any loss. The SEND jack levels will not be affected by the MASTER control.

31. MASTER OUT and POWER AMP IN

The MASTER control affects the MASTER OUT jack level to allow control of multiple amps from a single knob. Signals sent into the POWER AMP IN feed directly to the power amp section and will have no volume control. These jacks can also be used as an effects loop, however if you are using dynamics based effects that rely on very specific signal level settings (compressor, auto-wah) it is recommended to use the EFFECTS LOOP instead.

32. AC POWER & FUSE

First, make sure the AC VOLTAGE switch is set for the voltage in your area. The detachable AC POWER CORD supplied is designed to operate with one type of voltage (for European 230VAC use a CEE-7 plug cord set). Make sure the cord is securely inserted into the back of the unit. Plug the cord into a grounded "3 prong" power source. No attempt should ever be made to defeat or use the amp without the ground connected. The fuse is located inside the AC jack.

33. AC VOLTAGE SELECTOR

BEFORE you insert the AC cord into its receptacle, make sure the AC voltage switch is set for your region (120VAC in the USA), and remove the warning label. The wrong setting may cause severe damage to your amp and will not be covered by the warranty.

For the 240VAC setting, replace the fuse with a 3A fuse before operating.

34. LED SET BUTTON

The Legacy 3 has internal LED lighting that can be set to change color with channel selection, by MIDI presets, or by CC control.

To change the LED backlighting color:

1. Press and hold down the channel switch you want to change the color for. (1, 2 or 3)
2. While still holding the first switch in, press in the other two switches, then release all switches at once.
3. On the back panel, press and release the "SET LED" button to set the lighting color to GREEN, RED, AMBER or OFF.
4. Press and release any channel (1,2,3) button to save and exit. Normal operation is resumed.

- SEE NEXT PAGE FOR MIDI SETTINGS -

LEGACY 3: MIDI FEATURES

MIDI PRESET MEMORY:

The Legacy 3 will save the CHANNEL selection (1, 2, or 3), BOOST(on/off), REVERB(on/off) and LED backlight color in a MIDI program location (1 thru 100). The settings will be recalled when the same MIDI program number is received. Volume, Drive and Tone level settings will not be saved.

To SAVE a MIDI program setting: First, set the amp features for saving.

1. Hold down the channel (1,2,or 3) button for the channel setting you wish to save.
2. Now press the other two channel buttons, and release all three at the same time. The REVERB LED will be flashing.
3. From your MIDI controller, select (send) the MIDI program number you wish to save. The REVERB LED will stop flashing, and normal operation is resumed.

To change the LED backlighting color:

1. Hold down the channel (1,2,or 3) button to change the LED color for that channel.
 2. Now press the other two channel buttons, and release all three at the same time. The REVERB LED will be flashing.
 3. On the back panel, press and release the "SET LED" button to set the lighting color to GREEN, RED, AMBER or OFF. The REVERB LED will stop flashing.
 4. Press and release any channel (1,2, or 3) button to save and exit.
- Normal operation is resumed.

To change the MIDI receive channel:

1. Press and release all 3 channel SELECT buttons on the front panel. The REVERB LED will be flashing.
2. Choose MIDI channel 1, 2, or 3 by pressing the 1, 2, or 3 button. The REVERB LED will stop flashing, and normal operation is resumed.

CC (CONTINUOUS CONTROLLER) COMMANDS:

The Legacy 3 will respond to MIDI Continuous Controller ("CC") commands. This allows you to recall a MIDI preset, then switch ON/OFF different amp features on demand through your MIDI controller.

CC parameters:

- #81: Amp channel 1 (any change on CC#81)
- #82: Amp channel 2 (any change on CC#82)
- #83: Amp channel 3 (any change on CC#83)
- #84: Boost (OFF=0-63 / ON=64-127) - toggle with MIDI footswitch in CC mode
- #85: Reverb (OFF=0-63 / ON=64-127) - toggle with MIDI footswitch in CC mode
- #89: LED backlight colors:
(0-15:OFF) (16-31:GREEN) (32-47:RED) (48-63:AMBER)
(64-79:OFF) (80-95:GREEN) (96-111:RED) (112-127:AMBER)

HELP SECTION

a) USING THE VAI "HIDDEN FEATURE" :

One of the "hidden" features of the LEGACY amps is using a technique that Steve Vai requested be part of the amp for his own use. While playing on the lead channel with a generous amount of DRIVE (around 6), back off the volume on your guitar. You will find the channel actually "cleaned up" with your guitar at a lower volume. This is a great feature for playing both rhythm and lead without switching channels. You will also find that the amp will be very responsive to your "attack". An advanced player knows how to vary their attack when picking or strumming, and the Legacy 3 is designed to respond to this.

b) FEEDBACK FROM THE LEAD CHANNEL:

The Legacy 3 can easily feedback when the LEAD volume, DRIVE, TREBLE and PRESENCE are turned all the way up. Like other highly modified tube amps, this is normal. To help reduce feedback and noise follow these tips;

- Stand with the guitar pointed away from the amp, and mute strings not being played.
- Keep the DRIVE control set around 5 to 7 on the dial. Some of the best lead saturation will be at around 5-7, not 10.
- If the V1 or V2 (12AX7A) has become microphonic, replacing it can help reduce feedback.

c) TUBE REPLACEMENT GUIDE:

It is not uncommon for tubes to malfunction during shipping. If your amp is not working properly (popping noises, bad ringing, or power tube problems), please refer to the following tube replacement guide.

1) 12AX7 LOCATIONS: V1 is located closest to the INPUT jack. The other tubes follow consecutively with V4 towards the middle of the chassis. V1 and V2 are the most critical tubes for noise problems with V1 being the most sensitive (try exchanging with V3). Replace these tubes if you have popping or a bad ringing in the Lead 2 or 3 channel. Note: Low noise tubes may be hard to find and must be tested for low noise. V3 and V4 generally do not generate noise into the amp if they are slightly noisy. V3 drives the Clean channel and Power Amp IN. V4 is the Phase Inverter for the power amp. If the power amp section is not working, check V3 & V4 by inserting a signal into the rear POWER AMP IN jack (it's gonna be Loud!). If the power amp still does not work, read about the EL34 power tubes V5 through V8.

2) The EL34 power tubes are the larger tube, located in the following order on your chassis: V5, V6, V7, V8. Normally you'll want to replace these tubes as a set. Please contact Carvin for our latest prices. Sometimes you can spot defective power tubes when they are glowing red-hot, or flashing blue, along with an audible hum in the speaker when the amp is idling. If this happens, shut the amp OFF immediately. Check the rear bias switch to be sure that it is selected for the proper tubes. Unplug the AC power to the amp. After the tubes have cooled down, remove the metal cover and carefully remove the spring retainers. Remove the tubes by rocking the tubes in a small circular motion while pulling them out. All tubes are keyed in the same direction. Running defective power tubes could damage the amp. It is recommended that you have a spare set of power tubes along with several 12AX7A preamp tubes.

 <p>This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.</p>	<p>CAUTION</p> <p>RISK OF ELECTRIC SHOCK</p> <p>DO NOT OPEN</p> 	<p>This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.</p> 
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IMPORTANT! FOR YOUR PROTECTION, PLEASE READ THE FOLLOWING:

WATER AND MOISTURE: Appliance should not be used near water (near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc). Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.

POWER SOURCES: The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.

GROUNDING OR POLARIZATION: Precautions should be taken so that the grounding or polarization means of an appliance is not defeated.

POWER CORD PROTECTION: Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.

SERVICING: The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

FUSING: If your unit is equipped with a fuse receptacle, replace only with the same type fuse. Refer to replacement text on the unit for correct fuse type.

SAFETY INSTRUCTIONS (EUROPEAN)

The conductors in the AC power cord are colored in accordance with the following code.
GREEN & YELLOW—Earth **BLUE**—Neutral **BROWN**—Live

U.K. MAIN PLUG WARNING: A molded main plug that has been cut off from the cord is unsafe. NEVER UNDER ANY CIRCUMSTANCES SHOULD YOU INSERT A DAMAGED OR CUT MAIN PLUG INTO A POWER SOCKET.

LIMITED WARRANTY

Your Carvin product is guaranteed against failure for ONE YEAR unless otherwise stated. Vacuum tubes are guaranteed for 90 days. Carvin will service and supply all parts at no charge to the customer providing the unit is under warranty. Shipping costs are the responsibility of the customer. CARVIN DOES NOT PAY FOR PARTS OR SERVICING OTHER THAN OUR OWN. A COPY OF THE ORIGINAL INVOICE IS REQUIRED TO VERIFY YOUR WARRANTY. Carvin assumes no responsibility for horn drivers or speakers damaged by this unit. This warranty does not cover, and no liability is assumed, for damage due to: natural disasters, accidents, abuse, loss of parts, lack of reasonable care, incorrect use, or failure to follow instructions. 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. CARVIN SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

SERVICE

In the USA go to www.carvinservice.com

Outside the USA, contact your dealer or go to <http://www.carvinworld.com> for your nearest service center. Include a written description of the problem with serial number and date of purchase.

HELP SECTION

1) **AMP WILL NOT TURN ON**
Check the power to the amp. Check for tripped circuit breakers, unplugged extension cords or power-strip switches that may be turned off. Check the fuse. If a dark brownish color or no wire can be seen within the glass tube, then replace. The amp may be perfectly fine but occasionally a fuse may blow because of high AC voltage surges. After the fuse has been replaced with the proper Slow Blow value and if the fuse fails again, the amp will require servicing.

2) **NO OUTPUT with POWER LIGHT ON**
Tubes damaged in shipping will be the primary reason for your amp to not function properly. Please give us a call to help guide you through this simple repair.

3) **KEEP YOUR AMP LOOKING NEW**
Use a damp cloth to wipe the controls on the front & rear chassis panels.