Congratulations on your purchase of the VINTAGE TUBE SERIES all tube amplifier. Carvin has been building tube guitar amplifiers since 1949. They have been used by top professionals like: Joe Walsh, Chet Atkins, Jeff Beck, James Burton, Jorma Kaukonen, and many other great musicians. You will discover that these amplifiers represent a significant sound improvement over conventional tube amplifiers. Spend time with your new amp and get to know it’s many sounds.

TECHNICAL DESIGN OF THE VINTAGE TUBE SERIES

The VINTAGE TUBE SERIES is 100% tube design—no IC’s, FET’s or transistors. The design criteria was to build an all-tube guitar amp that sounded better than anything else on the market. This meant that the VINTAGE TUBE SERIES was going to be totally new from the ground up and that it was going to be an all tube design.

DYNAMIC EL84 POWER TUBES

Premium EL84 power tubes are selected for their excellent saturation and power soak characteristics. Just like early VOX AC30 amps, EL84’s are used for their ideal transconductance delivering a tight bottom and soft drive with superior definition.

HIGH IMPEDANCE GUITAR INPUT

Carvin has long known about the effects of miss-loading a guitar pickup which can cause high frequency loss. The VINTAGE TUBE SERIES guards against this loss with its ultra high input impedance. Also, we considered the capacitance of the average shielded guitar cable which can reduce the high frequency response of your guitar pickups. Unlike other amplifiers, we purposely avoided adding capacitance anywhere in the preamp to control high frequency oscillations. Instead, we controlled oscillations through careful component layout and lead placement allowing its shimmering highs to be reproduced.

CLEAN AND SOAK CHANNELS

The equalization of the clean and soak channel is designed to offer clarity to your instrument. Special mud-cutting circuits eliminate the unwanted sounds in the 500 to 700 Hz range which normally take away the tone definition of your instrument. You will also notice the clean channels rear PRESENCE control which adds acoustic voicing to your instrument. This control boosts only the guitars very highest harmonics which are in the 10K Hz range instead of the normal 3K Hz of a bright switch.

TONE 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). 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 on dual or single 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 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 11K Hz giving the VINTAGE TUBE SERIES it’s dynamic highs.

REVERB

The FS22 footswitch for the long tailed REVERB system in the VINTAGE TUBE SERIES 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 “boing” 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 tube amps. Guitar Player magazine rated this system as one of the best they have heard. The Vintage 16™ does not have the footswitch option.

RECEIVING INSPECTION—read before getting started

INSPECT YOUR AMP FOR ANY DAMAGE which may have occurred during shipping. If any 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.

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 VINTAGE TUBE SERIES amp, a 120 or 230 AC grounded power outlet, your instrument and a standard guitar cord. With the amp turned off, you may now plug it into the proper AC voltage.

Now turn all the volume and drive controls off and set tone controls at their mid center position. If you have purchased the FS22 foot switch, plug it into the rear foot switch jack for switching the channels and reverb. Note: The channel SELECT switch must be selected for channel 1 for the FS22 to function (a hum will be heard if it’s in the wrong position).

Now, turn the power switch on and allow a few minutes for the tubes to warm up then turn on the standby switch. Gradually raise the volume controls and re-adjust the tone controls and your ready to go. Please call if you feel your amp is malfunctioning. Occasionally tubes are damaged in shipping.

VINTAGE16 SPECS:

- RMS Power: 16.5 watts
- Power Tubes: 2—EL84’s
- USA Model: 120VAC, 300VA
- USA Fuse: 1A 250V slow blow, 5 x 20mm
- Export Model: 240VAC
- Export Fuse: 1A 250V slow blow, 5 x 20mm
- Cabinet Size: 16W x 17.75H x 8.5D, 31 lbs.
- Cabinet: 7-ply poplar wood
- Warranty: One Year
- Options: CV16 cover

VINTAGE16 SPECS:

- Nomad and Bel Air Combo SPECS:
  - Speakers: One/Two Celestion G12 30” 30” 30”
  - USA Model: 33 watts Vintage 33, 50 watts all others
  - USA Fuse: 4.5 & 5kΩ
  - Export Model: 1A 250V slow blow, 5 x 20mm
  - Export Fuse: 1A 250V slow blow, 5 x 20mm
  - Cabinet: 7-ply poplar wood
  - Warranty: One Year
  - Options: CV3212 cover, FS22 footswitch
FRONT PANEL

1. GUITAR INPUT
A standard 1/4" input jack feeds both channels through using the SELECT channel 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 pickups.

2. CHANNEL SELECT
Set the channel SELECT switch to the desired channel. Channel 1 is designed for clean playing while channel 2 is designed for overdrive/sustain. For the FS22 foot switch to function, set the channel 2 SELECT switch to the channel 1 position.

CLEAN CHANNEL 1

3. CLEAN VOLUME 1
Use channel 1 for clean playing. Thanks to special mud-cutting circuits that work between the frequencies of 500 and 700 Hz, your guitar tones will be full and vibrant.

4. 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 normalize (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 rear PRESENCE control off.

LEAD CHANNEL 2

5. SOAK—6. LEAD VOLUME 2
To get the Vintage overdrive, keep the VOLUME 2 (VOLUME for Vintage 16™) down until you have determined your final gain level—think of this control as a master volume. Turn the SOAK control up until you get the amount of overdrive you’re looking for. The setting will vary for the same amount of overdrive depending on the pickups used—single or dual coil and the setting of your guitar. The Vintage 16™ low wattage allows you to turn up both controls to get different distortions.

7. LEAD—BASS, MID & TREBLE
To start off with, set the BASS, MID & TREBLE controls at their center (5) position. These controls are to be set according to the type of pickups used (dual or single coil). It’s normal to decrease the BASS at higher playing levels.

REAR PANEL

10. AC POWER & FUSE
The detachable AC POWER CORD supplied is designed to operate with one type of voltage (the European 230V export model uses a CEE-7 plug cord set). Check the rear power cord label for the proper voltage and fuse value. 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 (some models have circuit breakers) is located within the AC power cord receptacle. To check or replace the fuse, remove the power cord, place a screwdriver under the “FUSE” cap and pull the fuse holder out. The fuse type is a 250V Slow Blow SB 5 x 20mm rated at 3A for 120V & 1.5A for 230V models. Do not use fast acting fuse, only a SLOW BLOW (SB) type fuse will work. The Vintage 16™ uses 1A slow blow for both 120 VAC and 250 VAC models.

11. POWER SWITCH
The rear POWER SWITCH is to be utilized as the master ON/OFF switch. The front panel light will illuminate when the amp is switched on. (The power switch is on the front of the Vintage 16™.)

12. STANDBY SWITCH
Use the rear 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 preamp tube filaments on for immediate use.

13. ACOUSTIC PRESENCE
The rear ACOUSTIC PRESENCE control adds a sibilance to the high frequencies of your guitar. Most presence controls work in the 3k to 4k range. However, the VINTAGE TUBE’s presence starts at a very high 8kHz delivering 10 dB at 12kHz and continues to 20kHz which extends all the upper harmonics of your guitar. The amount of sibilance will depend on the speakers used. To keep both channels totally independent, the ACOUSTIC PRESENCE is switched by relay only into clean channel 1. The effect of the ACOUSTIC PRESENCE will seem ever so slight, however, the result is added sibilance only to the ultra-high frequencies.

MASTER SECTION

8. MASTER REVERB
Set the REVERB control for the desired amount (this works in both channels).

9. POWER INDICATOR LIGHT
As the amp is turned on, the red pilot light will illuminate.
14. EFFECTS LOOP
For the lowest possible noise from an effects processor, use the effects loop instead of plugging the guitar into the effects and then into the amp. 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 normal to have a slight gain reduction of several dB with some effects units. However, the amp has plenty of gain to overcome any loss.

15. FS22 FOOTSWITCH
Most foot pedals with 2 switches, a stereo cord and plug will work. However, Carvin’s FS22 is recommended because of the correct identification label on the foot switch. First, the channel SELECT switch on the front panel must be selected to channel 1 before the footswitch will work. Now that you are connected correctly, the channels and reverb can be switched remotely. If a hum is heard in the speakers, the select switch is in the wrong position.

16. 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 setting 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.

17. SPEAKER IMPEDANCE SWITCH
The IMPEDANCE SWITCH offers the selection of 4, 8, or 16Ω to match your speaker system. Set the rear impedance switch to the following impedance: 8Ω for Nomad, 8Ω for the Bel Air™ combo and 8Ω for the 410 cabinet. In the case of adding another extension cabinet, set the impedance switch to 4Ω.

18. SPEAKER JACKS
Two 1/4” SPEAKER JACKS are featured to operate several speaker systems at the same time. Move the IMPEDANCE SWITCH to the correct setting. (Vintage 16™ has one 1/4” 8Ω jack for the internal Celestion speaker.)

19. POWER MODE (Vintage 16™ only)
Shut the amp OFF before switching between the pentode 16w and the triode 5w mode.

HELP SECTION
a) FEEDBACK FROM THE LEAD CHANNEL
The VINTAGE TUBE SERIES will 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, keep the DRIVE control set around 5 to 7 on the dial. Some of the best lead saturation will be at around 5—not 10. Sometimes replacing V1 (12AX7A) can help reduce feedback.

b) TUBE REPLACEMENT GUIDE
It is not uncommon for tubes to malfunction during shipping. If your amp is not working properly, please call or refer to the following replacement guide to replace tubes.

1) The 12AX7A preamp tubes are located in the following order on your chassis: V1, V2, V3, V4, V5. To start with, V1 is located next to the outside of your chassis behind the output transformer. It is recommended to turn your amp upside down to replace tubes. Replacing V1 will help reduce feedback in channel 1. Replacing V2 and V3 can also help but V1 is the main tube to replace. Replacing V4 will correct problems with the reverb system unless there is a defective reverb tank or tank cables. If the power amp is not functioning, check or replace the EL84 power tubes and check V5 by inserting a signal into the Effects RETURN jack. All tubes are keyed in the same direction. In the Vintage 16™ V1 is the input tube, V2 is the Reverb tube, and V3 is the power tube.

2) The EL84 power tubes are located in the following order on your chassis: V6, V7, V8, V9. Normally you’ll want to replace these tubes as a set. Please call for our latest prices. Sometimes you can spot defective power tubes when they are glowing red-hot along with an audible hum in the speaker when the amp is idling. If this happens, shut the amp down immediately. After they have cooled down, push the hold-down clamp over the top of the tube and pull out to remove. It is recommended to turn your amp upside down to replace tubes. 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.
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 appliance.

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 marking on the 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 bedroom, kitchen, laundry, and work areas.

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SAFE GROUNDING OR POLARIZATION: Precautions should be taken so that the grounding or polar-

FUSING: If your unit is equipped with a fuse receptacle, replace only with the same type fuse.

Refer to the following text on cords at plugs, convenience receptacles, and the point where they exit from the appliance.

GROUNDING OR POLARIZATION: Precautions should be taken so that the grounding or polar-

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When RETURNING merchandise to the factory, you may call for a return authorization number. Describe briefly what is wrong with the unit you are returning. We will then be able to give you 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. Wipe the black vinyl cover-

ting with a damp cloth.

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

UK. 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 and vacuum tube components are guaranteed for a period of 90 days. Carvin will replace and supply all parts at no charge to the customer, provided the unit is under warranty. Shipping costs are the responsibility of the customer. Carvin does not pay for parts or servicing other than its 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, servicing, or repair of Carvin products. Carvin shall not be liable for incidental or consequential damages.

Carvin cannot be responsible for unit failures due to the use of incorrect parts, power supply voltages, etc. Refer to the original replacement text on the unit for correct fuse type.

When RETURNING merchandise to the factory, you may call for a return authorization number. Describe briefly what is wrong with the unit you are returning. We will then be able to give you a call to help guide you through this simple repair.

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. Wipe the black vinyl cover-

ting with a damp cloth.