



Vintage 33™
Nomad 112™



VT50 Vintage™
410 Speaker



212 Bel Air™

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; Chet Atkins, Jeff Beck, James Burton, Jerry Donahue, Dan Huff, Jorma Kaukonen, Will Ray, 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 delevering 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 take notice of 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.

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

Serial No. _____ Invoice Date _____
76-10302 797

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.

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 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.

MODEL VT50 HEAD SPECS:

RMS Power: 50 watts
Output Imp: 4, 8 & 16Ω
Input Imp: 100,000 ohms
Tone Controls: BASS: 80Hz
Both Channels: MID: 600-700Hz
TREBLE: 11k Hz
Ch 1 Sensitivity: 1mV for clipping
Ch 2 Sensitivity: 16mV for full output
Channels: 2—switching
Voiced Line Out: 1.5 VAC @ 100 watts RMS
Preamp Tubes: 5—12AX7's (dual stage)
Power Tubes: 4—EL84's
USA Model: 120VAC, 300VA
USA Fuse: 3A 250V slow blow, 5 x 20mm
Export Model: 230VAC, 300VA
Export Fuse: 1.5A 250V slow blow, 5 x 20mm
Cabinet Size: 22.5W x 10.5H x 9"D, 33 lbs.
Cabinet: 7-ply poplar wood
Warranty: One Year
Options: CV3200 cover, FS22 footswitch

MODEL 112 & 212 COMBO SPECS:

Speakers: One/Two VL12 Vintage Series 12" spks
RMS Power: 33 watts Vintage 33, 50 watts all others
Output Imp: 4, 8 & 16Ω
Input Imp: 100,000 ohms
Tone Controls: BASS: 80Hz
Both Channels: MID: 600-700Hz
TREBLE: 11k Hz
Ch 1 Sensitivity: 1mV for clipping
Ch 2 Sensitivity: 16mV for full output
Channels: 2—switching
Voiced Line Out: 1.5 VAC @ 100 watts RMS
Preamp Tubes: 5—12AX7's (dual stage)
Power Tubes: 4—EL84's
USA Model: 120VAC, 300VA
USA Fuse: 3A 250V slow blow, 5 x 20mm
Export Model: 230VAC, 300VA
Export Fuse: 1.5A 250V slow blow, 5 x 20mm
112 Cabinet : 19.5W x 10.25D x 17.5"H, 44 lbs.
212 Cabinet : 26W x 10.25D x 17.75"H, 56 lbs.
Cabinet: 7-ply poplar wood
Warranty: One Year
Options: CV3212 cover, FS22 footswitch

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.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

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.

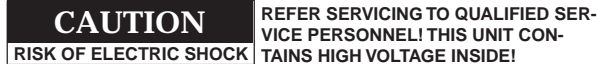
LIMITED WARRANTY

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.

When RETURNING merchandise to the factory, you may call for a return authorization number. Describe in writing each problem. If your unit is out of warranty, you will be charged the current FLAT RATE for parts and labor to bring your unit up to factory specifications.

- 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. Wipe the black vinyl covering with a damp cloth.

REPLACEMENT PARTS LIST (for circuit cards)



Ref. #	Description	Carvin PN	Ref. #	Description	Carvin PN	Ref. #	Description	Carvin PN	Ref. #	Description	Carvin PN
B1	Junper, 0.5", Ω2	51-00050	C38	Capacitor, Electrolytic, 47µF 63V, 20%	46-47362	OC1	Spade Terminal, OC Vertical, 0.205	06-40045	R64	Resistor, 56K, .35 Prep., 5% Carbon, 1/4W	50-56045
B2	Junper, 0.35", Ω2	50-00035	C39	Capacitor, Mylar, 0.047µF 630V, 10%	46-47362	OC2	Spade Terminal, OC Vertical, 0.205	06-40045	R65	Resistor, 56K, .35 Prep., 5% Carbon, 1/4W	50-56045
B3	Junper, 0.5", Ω2	51-00050	C40	Capacitor, Electrolytic, 22µF 500V, 20%	42-20052	OC3	Spade Terminal, OC Vertical, 0.205	06-40045	R66	Resistor, 350Ω, .35 Prep., 5% Carbon, 1/4W	50-35035
B4	Junper, 0.5", Ω2	51-00050	C41	Capacitor, Electrolytic, 22µF 500V, 20%	42-20052	OC4	Spade Terminal, OC Vertical, 0.205	06-40045	R67	Resistor, 350Ω, .35 Prep., 5% Carbon, 1/4W	50-35035
B5	Junper, 0.5", Ω2	51-00050	C42	Capacitor, Electrolytic, 22µF 500V, 20%	42-20052	OC6A	Spade Terminal, OC Vertical, 0.250	06-40050	R70	Resistor, 2.2K, .35 Prep., 5% Carbon, 1/4W	50-22035
B7	Junper, 0.35", Ω2	50-00035	C43	Capacitor, Electrolytic, 22µF 500V, 20%	42-20052	OC6B	Spade Terminal, OC Vertical, 0.250	06-40050	R71	Resistor, 10K, .35 Prep., 5% Carbon, 1/4W	50-10035
B9	Junper, 0.5", Ω2	51-00050	C44	Capacitor, Electrolytic, 22µF 500V, 20%	42-20052	OC7	Spade Terminal, OC Vertical, 0.250	06-40050	R72	Resistor, 470K, .35 Prep., 5% Carbon, 1/4W	50-47045
B10	Junper, 0.5", Ω2	51-00050	C45	Capacitor, Electrolytic, 2200µF 6.3V, 20%	47-22260	OC8	Spade Terminal, OC Vertical, 0.250	06-40050	R73	Resistor, 22K, .35 Prep., 5% Carbon, 1/4W	50-22045
B11	Junper, 0.35", Ω2	50-00035	C46	Capacitor, Electrolytic, 2200µF 6.3V, 20%	47-22260	OC9	Spade Terminal, OC Vertical, 0.250	06-40050	S1	Switch, DP3T Lift Tall Bat, PCB MTG	25-76286
B12	Junper, 0.35", Ω2	50-00035	C47	Capacitor, Electrolytic, 2200µF 6.3V, 20%	47-22260	OC13A	Spade Terminal, OC Vertical, 0.250	06-40050	Switch, Channel Select, SPST toggle, Chassis MTG	25-75801	
B13	Junper, 0.35", Ω2	50-00035	C48	Capacitor, Mylar, 0.047µF 630V, 10%	46-47362	OC13B	Spade Terminal, OC Vertical, 0.250	06-40050	Switch, Power, LG DPDT, Chassis MTG	25-31350	
B14	Junper, 0.35", Ω2	50-00035	C49	Not Used		OC14	Spade Terminal, OC Vertical, 0.250	06-40050	Switch, Stand-by, LG DPDT, Chassis MTG	25-31350	
B15	Junper, 0.35", Ω2	50-00035	C50	Capacitor, Poly, 0.0022µF 100V, 10%	46-22212	OC31	Spade Terminal, OC Vertical, 0.250	06-40050	SPK1 Phone Jack, 1/4, 3 Pin Plastic, 24mm	21-06453	
B16	Junper, 0.35", Ω2	44-18000	C70	Capacitor, Poly, 0.01µF 100V, 10%	46-10312	OC32	Spade Terminal, OC Vertical, 0.250	06-40050	SPK2 Phone Jack, 1/4, 3 Pin Plastic, 24mm	21-06453	
B17	Junper, 0.5", Ω2	51-00050	C71	Capacitor, Ceramic, 180PF 500V, 10%	45-18152	OC33	Spade Terminal, OC Vertical, 0.250	06-40050	Vintage Tube 50, 120V Transformer, Chassis MTG	15-10640	
B18	Junper, 0.35", Ω2	50-00035	C72	Capacitor, Ceramic, 120PF 500V, 10%	45-12152	OC35	Spade Terminal, OC Vertical, 0.250	06-40050	Vintage Tube 50, Output Transformer, Chassis MTG	15-02066	
B19	Junper, 0.5", Ω2	51-00050	D1	Diode, 1N4745A 16V, 1W	60-47450	OC36	Spade Terminal, OC Vertical, 0.250	06-40050	V1 Socket for 12AX7A/EL84 12VAC, 9 Pin, SIN/IRUS	23-91632	
B20	Junper, 0.35", Ω2	50-00035	D2	Diode, 1N4745A 16V, 1W	60-47450	OC37	Spade Terminal, OC Vertical, 0.250	06-40050	V2 Vacuum Tube, Type Tube 12AX7A	65-00127	
B22	Junper, 0.35", Ω2	50-00035	D3	Diode, 1N4745A 16V, 1W	60-47450	R1	Resistor, 100K, .35 Prep., 5% Carbon, 1/4W	50-10055	V2 Socket for 12AX7A/EL84 12VAC, 9 Pin, SIN/IRUS	23-91632	
B23	Junper, 0.8", Ω2	44-18000	D4	Diode, 1N4745A 16V, 1W	60-47450	R2	Resistor, 1.5K, .35 Prep., 5% Carbon, 1/4W	50-15035	V3 Vacuum Tube, Type Tube 12AX7A	65-00127	
B24	Junper, 0.35", Ω2	50-00035	D5	Diode, 1N4003 200V, 1A	60-40030	R3	Resistor, 220K, .35 Prep., 5% Carbon, 1/4W	50-22055	V3 Socket for 12AX7A/EL84 12VAC, 9 Pin, SIN/IRUS	23-91632	
B25	Junper, 0.35", Ω2	50-00035	D6	Diode, 1N4007A 1000V, 1A	60-10000	R4	Resistor, 150K, .35 Prep., 5% Carbon, 1/4W	50-15055	V4 Vacuum Tube, Type Tube 12AX7A	65-00127	
B26	Junper, 0.35", Ω2	50-00035	D7	Diode, 1N4007A 1000V, 1A	60-10000	R5	Resistor, 100K, .35 Prep., 5% Carbon, 1/4W	50-10055	V4 Socket for 12AX7A/EL84 12VAC, 9 Pin, SIN/IRUS	23-91632	
B27	Junper, 0.35", Ω2	50-00035	D8	Diode, 1N4007A 1000V, 1A	60-10000	R6	Resistor, 1.5K, .35 Prep., 5% Carbon, 1/4W	50-15035	V5 Vacuum Tube, Type Tube 12AX7A	65-00127	
B28	Junper, 0.35", Ω2	50-00035	D9	Diode, 1N4007A 1000V, 1A	60-10000	R7	Resistor, 220K, .35 Prep., 5% Carbon, 1/4W	50-22055	V5 Socket for 12AX7A/EL84 12VAC, 9 Pin, SIN/IRUS	23-91632	
B29	Junper, 0.5", Ω2	51-00050	D10	Diode, 1N4007A 1000V, 1A	60-10000	R8	Resistor, 1.5K, .35 Prep., 5% Carbon, 1/4W	50-15035	V6 Vacuum Tube, Type Tube 12AX7A	65-00127	
B30	Junper, 0.5", Ω2	51-00050	D11	Diode, 1N4007A 1000V, 1A	60-10000	R9	Resistor, 220K, .35 Prep., 5% Carbon, 1/4W	50-22055	V6 Socket for 12AX7A/EL84 12VAC, 9 Pin, SIN/IRUS	23-91632	
B31	Junper, 0.5", Ω2	51-00050	D12	Diode, 1N4007A 1000V, 1A	60-10000	R10	Resistor, 4.7K, .35 Prep., 5% Carbon, 1/4W	50-47035	V7 Vacuum Tube, Type Tube EL84	65-00084	
B32	Junper, 0.8", Ω2	44-18000	D13	Diode, 1N4007A 1000V, 1A	60-10000	R11	Resistor, 4.7K, .35 Prep., 5% Carbon, 1/4W	50-22055	V7 Socket for 12AX7A/EL84 12VAC, 9 Pin, SIN/IRUS	23-91632	
B33	Junper, 0.8", Ω2	44-18000	D14	Diode, 1N4007A 1000V, 1A	60-10000	R12	Resistor, 47K, .35 Prep., 5% Carbon, 1/4W	50-47045	V8 Vacuum Tube, Type Tube EL84	65-00084	
B34	Junper, 0.5", Ω2	51-00050	D15	Diode, 1N4007A 1000V, 1A	60-10000	R13	Resistor, 1K, .35 Prep., 5% Carbon, 1/4W	50-10035	V8 Socket for 12AX7A/EL84 12VAC, 9 Pin, SIN/IRUS	23-91632	
B35	Junper, 0.35", Ω2	50-00035	D16	Diode, 1N4007A 1000V, 1A	60-10000	R14	Resistor, 220K, .35 Prep., 5% Carbon, 1/4W	50-22055	V9 Vacuum Tube, Type Tube EL84	65-00084	
B36	Junper, 0.35", Ω2	50-00035	D20	Not Used		R15	Resistor, 47K, .35 Prep., 5% Carbon, 1/4W	50-47045	V9 Socket for 12AX7A/EL84 12VAC, 9 Pin, SIN/IRUS	23-91632	
B37	Junper, 0.35", Ω2	50-00035	D21	Not Used		R16	Resistor, 10K, .35 Prep., 5% Carbon, 1/4W	50-10045	V9 Vacuum Tube, Type Tube EL84	65-00084	
B50	Junper, 0.5", Ω2	51-00050	F1	Fuse Clips, (1 pair)	23-03529	R17	Resistor, 220K, .35 Prep., 5% Carbon, 1/4W	50-22055			
C1	Capacitor, Electrolytic, 10µF 50V, 20%	47-10051	F2	Fuse 1AGC Fast	70-21010	R18	Resistor, 100K, .35 Prep., 5% Carbon, 1/4W	50-10055			
C2	Capacitor, Poly, 0.01µF 100V, 10%	46-10312	F3	Fuse Clips, (1 pair)	23-03529	R19	Resistor, 220K, .35 Prep., 5% Carbon, 1/4W	50-22055			
C4	Capacitor, Poly, 0.001µF 100V, 10%	46-10212	F4	Fuse 10A Slow	70-22101	R20	Resistor, 2.2M, .35 Prep., 5% Carbon, 1/4W	50-22065			
C5	Capacitor, Poly, 0.033µF 100V, 10%	46-33312	F5	Fuse 1AGC Fast	70-21010	R21	Resistor, 47K, 0.8 Prep., 5% Carbon 1W	53-47045			
C6	Capacitor, Ceramic, 120PF 500V, 10%	45-12152	G1	Ferrite Bead	15-27430	R22	Resistor, 2.2M, .35 Prep., 5% Carbon, 1/4W	50-22065			
C7	Capacitor, Poly, 0.01µF 100V, 10%	46-10312	H1A	Cable 10" 2 conductor + Shield	05-00110	R23	Resistor, 220K, .35 Prep., 5% Carbon, 1/4W	50-22055			
C8	Capacitor, Electrolytic, 10µF 50V, 20%	47-10051	H2A	Conn. Header, 2 Pin Vert, SHS	23-11002	R24	Resistor, 1.5K, .35 Prep., 5% Carbon, 1/4W	50-15035			
C9	Capacitor, Mylar, 0.047µF 400V, 10%	41-47342	H2B	Conn. Header, 2 Pin Vert, SHS	23-11002	R25	Resistor, 220K, .35 Prep., 5% Carbon, 1/4W	50-22055			
C10	Not Used		H3A	Conn. Header, 4 Pin Vert, SHS	23-11004	R26	Resistor, 1M, .35 Prep., 5% Carbon, 1/4W	50-10065			
C11	Capacitor, Electrolytic, 10µF 50V, 20%	47-10051	H3B	Conn. Header, 4 Pin Vert, SHS	23-11004	R27	Resistor, 22K, .35 Prep., 5% Carbon, 1/4W	50-22045			
C12	Capacitor, Poly, 0.0033µF 100V, 10%	46-33212	H5	Wire 10", 18GA (Pair)	04-18010	R28	Resistor, 1.5K, .35 Prep., 5% Carbon, 1/4W	50-15035			
C13	Capacitor, Ceramic, 250PF 500V, 5%	45-25152	H6	Wire 4", 18GA (Pair)	04-18040	R29	Resistor, 220K, .35 Prep., 5% Carbon, 1/4W	50-22055			
C14	Capacitor, Ceramic, 560PF 500V, 10%	45-56152	H7A	Conn. Header, 2 Pin Vert, SHS	23-11002	R30	Resistor, 100K, .35 Prep., 5% Carbon, 1/4W	50-10055			
C15	Not Used		H7B	Conn. Header, 2 Pin Vert, SHS	23-11002	R31	Resistor, 560Ω, .35 Prep., 5% Carbon, 1/4W	50-56025			
C16	Capacitor, Ceramic, 0.0047µF 400V, 10%	41-47242	H8A	Conn. Header, 2 Pin Vert, SHS	23-11002	R32	Resistor, 100K, .35 Prep., 5% Carbon, 1/4W	50-10055			
C17	Capacitor, Electrolytic, 10µF 50V, 20%	47-10051	H8B	Conn. Header, 2 Pin Vert, SHS	23-11002	R33	Resistor, 22K, .35 Prep., 5% Carbon, 1/4W	50-22045			
C18	Capacitor, Mylar, 0.047µF 400V, 10%	41-47342	J1	Phone Jack, 1/4, 90° Rev Threaded Neck	21-01804	R34	Resistor, 22K, .35 Prep., 5% Carbon, 1/4W	50-22045			
C19	Capacitor, Ceramic, 120PF 500V, 10%	45-12152	J2	Phone Jack, 1/4, 3 Pin Plastic, 24mm	21-06453	R35	Resistor, 100K, .35 Prep., 5% Carbon, 1/4W	50-10055			
C20	Capacitor, Poly, 0.022µF 100V, 10%	46-22212	J3	Phone Jack, 1/4, 3 Pin Plastic, 24mm	21-06453	R36	Resistor, 100K, .35 Prep., 5% Carbon, 1/4W	50-10055			
C21	Capacitor, Poly, 0.0022µF 100V, 10%	46-22212	J4	Phone Jack, 1/4, 7 Pin Plastic Stereo, 24mm	21-06457	R37	Resistor, 220K, .35 Prep., 5% Carbon, 1/4W	50-22055			
C22	Capacitor, Poly, 0.0022µF 100V, 10%	46-22212	J5	Phone Jack, 1/4, 7 Pin Plastic Stereo, 24mm	21-06457	R38	Resistor, 2.9K, .35 Prep., 5% Carbon, 1/4W	50-39035			
C23	Not Used		L1	Relay 3V PCB MNT, 5V DPDT	70-05303	R40	Resistor, 100K, .35 Prep., 5% Carbon, 1/4W	50-10055			
C24	Not Used		L2	Relay 3V PCB MNT, 5V DPDT	70-05303	R41	Resistor, 4.7K, .35 Prep., 5% Carbon, 1/4W	50-47035			
C25	Capacitor, Poly, 0.047µF 100V, 10%	46-47312	P1	Potentiometer, B100K, O Shaft, 16mm, RX250 90°	71-14052	R42	Resistor, 2.2K, .35 Prep., 5% Carbon, 1/4W	50-22035			
C26	Capacitor, Ceramic, 82PF 500V, 5%	45-82052	P2	Potentiometer, B1MEG, O Shaft, 16mm, RX250 90°	71-14070	R43	Resistor, 350Ω, SDOF, 10% Sand Bar, 10W	56-35100			
C27	Capacitor, Electrolytic, 10µF 50V, 20%	47-10051	P3	Potentiometer, 25A25K, O Shaft, 16mm, RX250 90°	71-14050	R44	Resistor, 100Ω, 0.35 Prep., 1% Metal, 1/4W	50-10021			
C28	Capacitor, Mylar, 0.047µF 400V, 10%	41-47342	P4	Potentiometer, B1MEG, O Shaft, 16mm, RX250 90°	71-14070	R45	Resistor, 100Ω, 0.35 Prep., 1% Metal, 1/4W	50-10021			
C29	Capacitor, Poly, 0.0022µF 100V, 10%	46-22212	P5	Potentiometer, 5A500K, O Shaft, 16mm, RX250 90°	71-14060	R46	Resistor, 10Ω, 0.5 Prep., 5% Carbon, 1/2W	52-10015			
C30	Capacitor, Electrolytic, 10µF 50V, 20%	47-10051	P6	Potentiometer, B100K, O Shaft, 16mm, RX250 90°	71-14052	R49	Resistor, 100K, .35 Prep., 5% Carbon, 1/4W	50-10055			
C31	Capacitor, Poly, 0.0022µF 100V, 10%	46-22212	P7	Potentiometer, B1MEG, O Shaft, 16mm, RX25							

VINTAGE TUBE SERIES FRONT & REAR PANEL CONTROLS

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 and standby switch ON. Allow 60 seconds for the tubes to warm up. 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.

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

Channel 2 is offered for its unique tube soak output the overdrive of the pre 60's amps, or as an alternate clean channel offering a different voice than channel 1. To get the pre 60's overdrive, keep the VOLUME 2 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.

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.

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.

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.

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.

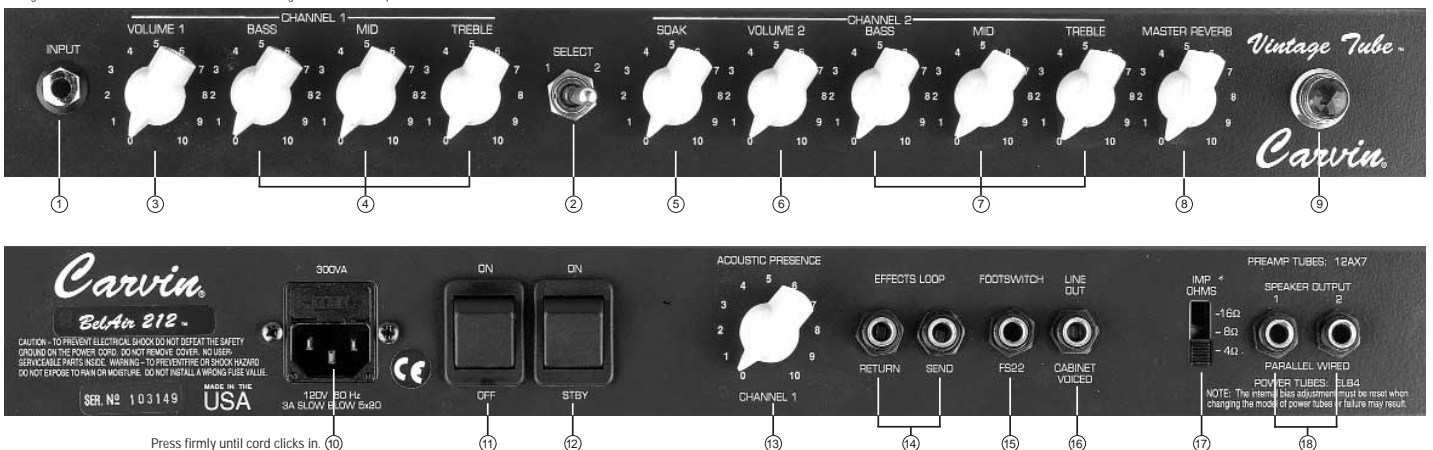
12. STANDBY SWITCH

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 8k Hz delivering 10 dB at 12k Hz and continues to 20k Hz which extends

Bel Air212 as shown
Vintage 33 & Nomad 112 controls are identical. VT50 Vintage head front & rear panels reversed



Press firmly until cord clicks in. 10

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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.

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 the Vintage 33™ and Nomad 112™, 4Ω for the 212 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.

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.
- 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.

Vintage Guitar Magazine

212 Bel Air Review—By Stephen Patt

...The fact that this American business has not only toughed it out for the past 50-odd years but is thriving reflects their devotion to quality, cutting edge manufacturing technology, and the ability to look at what people want and give it to them...Using gain circuits designed in collaboration with noted guitarist Allan Holdsworth, deriving their basic formula from the original Carvin tube amps of the 1950's, the Bel Air is a nifty combo amp rated fifty watts, housing two vintage Carvin 12" speakers, and packing all the punch of a mule. The power section, comprised of a quartet of matched EL84s, is easily accessible and shows neat work both inside and out. Thoughtfully placed integral wire clips retain the power tubes and the five 12AX7s safe from loss and vibration, and all the parts, including heavy-duty tube sockets, are high quality.

Externally, the overall impression of the Bel Air is Tweed with a Capital T...Really, I'm a sucker for a tweed combo. But this one sounds as good as it looks. A single input jack sits next to the dual channels on the front panel, and each channel has its own bass/mid/and treble controls, with the addition of a hidden weapon against the doldrums on the back panel; an "acoustic presence" control affecting the 8K-20K range on the clean channel only. It works as well in practice as in theory—with a Tele cranked through Channel One, the Presence control lends a glossy sheen to the high end, very Fendery and sweet to the ears (featured only on the Nomad & Bel Air)...The "soak", another word for gain...works on Channel Two only, and adds anywhere from a gritty overdrive reminiscent of Waddy Wachtel's punchy guitar on Warren Zevon's "Lawyers, Guns, Money", all the way up to a Skunk Baxteresque crunch a la "Reelin in the Years". Pretty versatile, and the element of the power tube distortion comes into play when this baby gets cranked, making for some realistic tube distortion, unmistakable live or recorded...A brief word about the reverb, which has a depth and lack of boinginess often associated with spring reverbs—this is Carvin's own circuit, designed to sound smooth and lush by pre-filtering the active signal and letting the tail decay naturally. We demo'd several of our VG test guitars through the Bel Air...The Bel Air sounded great at low volumes, with a firm bottom end one expects from twin 12s, and a tone that was classic and balanced. Channel One sounded natural and clear even at increasingly high volume levels...and a bit of a pleasing growl was detected when the humbuckers were put to use, which softened when the Jaro's volume was rolled down from ten to eight. Cool. The Fenders retained their classic twang in the normal channel, and when we switched over to the overdrive channel, a convincing ballsy-crunch became apparent, depending on each increment of the "Soak" control. The switching is predictably silent, with none of the annoying 'pops' heard on some amps.

Overall, there was a familiar and versatile feel to the Bel Air, and it proves to be a great all-around amp for club dates, recording, and loud gigs where that smaller amp you have just won't cut it...Way to go Carvin!...