



**FEATURES
CELESTION
SPEAKERS!**

Vintage16™

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 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.

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 its 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 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
Output Imp: 8Ω
Input Imp: 100,000 ohms
Tone Controls: BASS: 80Hz
 MID: 600-700Hz
 TREBLE: 11k Hz
Sensitivity: 1mV for clipping
 16mV for full output
Preamp Tubes: 3—12AX7's (dual stage)
Power Tubes: 2—EL84's
USA Model: 120VAC, 300VA
USA Fuse: 1A 250V slow blow, 5x 20mm
Export Model: 240VAC
Export Fuse: 1A 250V slow blow, 5x 20mm
Cabinet Size: 16W x 17.75H x 8.5"D, 31 lbs.
Cabinet: 7-ply poplar wood
Warranty: One Year
Options: CV16 cover

NOMAD & BEL AIR COMBO SPECS:

Speakers: One/Two Celestion G12 Vintage 30 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, 5x 20mm
Export Model: 230VAC, 300VA
Export Fuse: 1.5A 250V slow blow, 5x 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

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

Serial No. _____ Invoice Date _____

VINTAGE TUBE SERIES FRONT & REAR PANEL CONTROLS

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.

MASTER SECTION

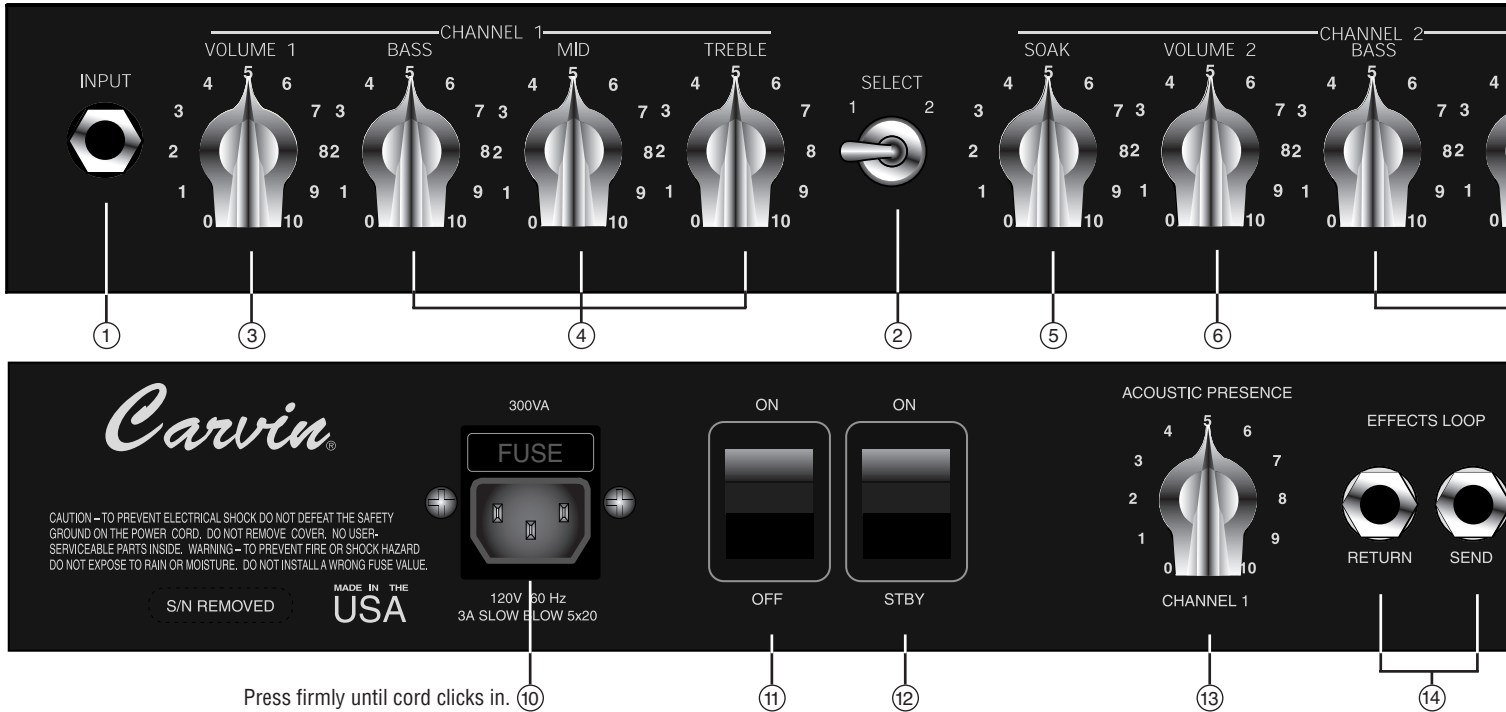
8. MASTER REVERB

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.

BEL AIR & NOMAD



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



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.

CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN



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
B1	Junper, 0.5", 0Ω	51-00050	C38	Capacitor, Electrolytic, 47µF 63V, 20%	47-47061
B2	Junper, 0.35", 0Ω	50-00035	C39	Capacitor, Mylar, 0.047µF 630V, 10%	46-47362
B3	Junper, 0.5", 0Ω	51-00050	C40	Capacitor, Electrolytic, 22µF 500V, 20%	42-20052
B4	Junper, 0.5", 0Ω	51-00050	C41	Capacitor, Electrolytic, 22µF 500V, 20%	42-20052
B5	Junper, 0.5", 0Ω	51-00050	C42	Capacitor, Electrolytic, 22µF 500V, 20%	42-20052
B7	Junper, 0.35", 0Ω	50-00035	C43	Capacitor, Electrolytic, 22µF 500V, 20%	42-20052
B9	Junper, 0.5", 0Ω	51-00050	C44	Capacitor, Electrolytic, 22µF 500V, 20%	42-20052
B10	Junper, 0.5", 0Ω	51-00050	C45	Capacitor, Electrolytic, 2200µF 6.3V, 20%	47-22260
B11	Junper, 0.35", 0Ω	50-00035	C46	Capacitor, Electrolytic, 2200µF 6.3V, 20%	47-22260
B12	Junper, 0.35", 0Ω	50-00035	C47	Capacitor, Electrolytic, 2200µF 6.3V, 20%	47-22260
B13	Junper, 0.35", 0Ω	50-00035	C48	Capacitor, Mylar, 0.047µF 630V, 10%	46-47362
B14	Junper, 0.35", 0Ω	50-00035	C49	Not Used	
B15	Junper, 0.35", 0Ω	50-00035	C50	Capacitor, Poly, 0.0022µF 100V, 10%	46-22212
B16	Junper, 0.8", 0Ω	44-18000	C70	Capacitor, Poly, 0.01µF 100V, 10%	46-10312
B17	Junper, 0.5", 0Ω	51-00050	C71	Capacitor, Ceramic, 180PF 500V, 10%	45-18152
B18	Junper, 0.35", 0Ω	50-00035	C72	Capacitor, Ceramic, 120PF 500V, 10%	45-12152
B19	Junper, 0.5", 0Ω	51-00050	D1	Diode, 1N4745A 16V, 1W	60-47450
B20	Junper, 0.35", 0Ω	50-00035	D2	Diode, 1N4745A 16V, 1W	60-47450
B22	Junper, 0.35", 0Ω	50-00035	D3	Diode, 1N4745A 16V, 1W	60-47450
B23	Junper, 0.8", 0Ω	44-18000	D4	Diode, 1N4745A 16V, 1W	60-47450
B24	Junper, 0.35", 0Ω	50-00035	D5	Diode, 1N4003 200V, 1A	60-40030
B25	Junper, 0.35", 0Ω	50-00035	D6	Diode, 1N4007A 1000V, 1A	60-10000
B26	Junper, 0.35", 0Ω	50-00035	D7	Diode, 1N4007A 1000V, 1A	60-10000
B27	Junper, 0.35", 0Ω	50-00035	D8	Diode, 1N4007A 1000V, 1A	60-10000
B28	Junper, 0.35", 0Ω	50-00035	D9	Diode, 1N4007A 1000V, 1A	60-10000
B29	Junper, 0.5", 0Ω	51-00050	D10	Diode, 1N4007A 1000V, 1A	60-10000
B30	Junper, 0.5", 0Ω	51-00050	D11	Diode, 1N4007A 1000V, 1A	60-10000
B31	Junper, 0.5", 0Ω	51-00050	D12	Diode, 1N4007A 1000V, 1A	60-10000
B32	Junper, 0.8", 0Ω	44-18000	D13	Diode, 1N4007A 1000V, 1A	60-10000
B33	Junper, 0.8", 0Ω	44-18000	D14	Diode, 1N4007A 1000V, 1A	60-10000
B34	Junper, 0.5", 0Ω	51-00050	D15	Diode, 1N4007A 1000V, 1A	60-10000
B35	Junper, 0.35", 0Ω	50-00035	D16	Diode, 1N4007A 1000V, 1A	60-10000
B36	Junper, 0.35", 0Ω	50-00035	D20	Not Used	
B37	Junper, 0.35", 0Ω	50-00035	D21	Not Used	
B50	Junper, 0.5", 0Ω	51-00050	F1	Fuse Clips, (1 pair)	23-03529
C1	Capacitor, Electrolytic, 10µF 50V, 20%	47-10051	F2	Fuse 1AGC Fast	70-21010
C2	Capacitor, Poly, 0.01µF 100V, 10%	46-10312	F3	Fuse Clips, (1 pair)	23-03529
C4	Capacitor, Poly, 0.001µF 100V, 10%	46-10212	F4	Fuse 10A Slow	70-22101
C5	Capacitor, Poly, 0.033µF 100V, 10%	46-33312	F5	Fuse Clips, (1 pair)	23-03529
C6	Capacitor, Ceramic, 120PF 500V, 10%	45-12152	F6	Fuse 1AGC Fast	70-21010
C7	Capacitor, Poly, 0.01µF 100V, 10%	46-10312	G1	Ferrite Bead	15-27430
C8	Capacitor, Electrolytic, 10µF 50V, 20%	47-10051	H1A	Cable 10" 2 conductor + Shield	05-00110
C9	Capacitor, Mylar, 0.047µF 400V, 10%	41-47342	H2A	Conn. Header, 2 Pin Vert, SHS	23-11002
C10	Not Used		H2B	Conn. Header, 2 Pin Vert, SHS	23-11002
C11	Capacitor, Electrolytic, 10µF 50V, 20%	47-10051	H3A	Conn. Header, 4 Pin Vert, SHS	23-11004
C12	Capacitor, Poly, 0.0033µF 100V, 10%	46-33212	H3B	Conn. Header, 4 Pin Vert, SHS	23-11004
C13	Capacitor, Ceramic, 250PF 500V, 5%	45-25152	H5	Wire 10", 18GA (Pair)	04-18010
C14	Capacitor, Ceramic, 560PF 500V, 10%	45-56152	H6	Wire 4", 18GA (Pair)	04-18040
C15	Not Used		H7A	Conn. Header, 2 Pin Vert, SHS	23-11002
C16	Capacitor, Ceramic, 0.0047µF 400V, 10%	41-47242	H7B	Conn. Header, 2 Pin Vert, SHS	23-11002
C17	Capacitor, Electrolytic, 10µF 50V, 20%	47-10051	H8A	Conn. Header, 2 Pin Vert, SHS	23-11002
C18	Capacitor, Mylar, 0.047µF 400V, 10%	41-47342	H8B	Conn. Header, 2 Pin Vert, SHS	23-11002
C19	Capacitor, Ceramic, 120PF 500V, 10%	45-12152	J1	Phone Jack, 1/4, 90° Rev Threaded Neck	21-01804
C20	Capacitor, Poly, 0.022µF 100V, 10%	46-22312	J2	Phone Jack, 1/4, 3 Pin Plastic, 24mm	21-06453
C21	Capacitor, Poly, 0.0022µF 100V, 10%	46-22212	J3	Phone Jack, 1/4, 3 Pin Plastic, 24mm	21-06453
C22	Capacitor, Poly, 0.0022µF 100V, 10%	46-22212	J4	Phone Jack, 1/4, 3 Pin Plastic, 24mm	21-06453
C23	Not Used		J5	Phone Jack, 1/4, 7 Pin Plastic Stereo, 24mm	21-06457
C24	Not Used		L1	Relay 3V PCB MNT, 5V DPDT	70-05303
C25	Capacitor, Poly, 0.047µF 100V, 10%	46-47312	L2	Relay 3V PCB MNT, 5V DPDT	70-05303
C26	Capacitor, Ceramic, 82PF 500V, 5%	45-82052	P1	Potentiometer, B100K, 0 Shaft, 16mm, RX250 90°	71-14052
C27	Capacitor, Electrolytic, 10µF 50V, 20%	47-10051	P2	Potentiometer, B1MEG, 0 Shaft, 16mm, RX250 90°	71-14070
C28	Capacitor, Mylar, 0.047µF 400V, 10%	41-47342	P3	Potentiometer, 25A25K, 0 Shaft, 16mm, RX250 90°	71-14050
C29	Capacitor, Poly, 0.0022µF 100V, 10%	46-22212	P4	Potentiometer, B1MEG, 0 Shaft, 16mm, RX250 90°	71-14070
C30	Capacitor, Electrolytic, 10µF 50V, 20%	47-10051	P5	Potentiometer, 5A500K, 0 Shaft, 16mm, RX250 90°	71-14060
C31	Capacitor, Poly, 0.0022µF 100V, 10%	46-22212	P6	Potentiometer, B100K, 0 Shaft, 16mm, RX250 90°	71-14052
C32	Not Used		P7	Potentiometer, B1MEG, 0 Shaft, 16mm, RX250 90°	71-14070
C33	Capacitor, Poly, 0.001µF 100V, 10%	46-10212	P8	Potentiometer, 25A25K, 0 Shaft, 16mm, RX250 90°	71-14050
C34	Capacitor, Ceramic, 56PF 500V, 5%	45-56052	P9	Potentiometer, B100K, 0 Shaft, 16mm, RX250 90°	71-14052
C35	Capacitor, Poly, 0.047µF 100V, 10%	46-47312	P10	Potentiometer, B100K, 0 Shaft, 16mm, RX250 90°	71-14052
C36	Capacitor, Mylar, 0.047µF 400V, 10%	41-47342	P11	Potentiometer, Trimmer, 20K PCB MTG	71-22012
C37	Capacitor, Mylar, 0.047µF 400V, 10%	41-47342	P21	Potentiometer, 25A15K-C, 0 Shaft, 16mm, RX250 90°	71-14048



CAUTION
RISK OF ELECTRIC SHOCK

REFER SERVICING TO QUALIFIED SERVICE PERSONNEL! THIS UNIT CONTAINS HIGH VOLTAGE INSIDE!

Ref. #	Description	Carvin PN	Ref. #	Description	Carvin PN
OC1	Spade Terminal, OC Vertical, 0.205	06-40045	R64	Resistor, 56K, .35 Prep., 5% Carbon, 1/4W	50-56045
OC2	Spade Terminal, OC Vertical, 0.205	06-40045	R65	Resistor, 56K, .35 Prep., 5% Carbon, 1/4W	50-56045
OC3	Spade Terminal, OC Vertical, 0.205	06-40045	R66	Resistor, 350Ω, .35 Prep., 5% Carbon, 1/4W	50-35035
OC4	Spade Terminal, OC Vertical, 0.205	06-40045	R67	Resistor, 350Ω, .35 Prep., 5% Carbon, 1/4W	50-35035
OC6A	Spade Terminal, OC Vertical, 0.250	06-40050	R70	Resistor, 2.2K, .35 Prep., 5% Carbon, 1/4W	50-22035
OC6B	Spade Terminal, OC Vertical, 0.250	06-40050	R71	Resistor, 10K, .35 Prep., 5% Carbon, 1/4W	50-10035
OC7	Spade Terminal, OC Vertical, 0.250	06-40050	R72	Resistor, 470K, .35 Prep., 5% Carbon, 1/4W	50-47045
OC8	Spade Terminal, OC Vertical, 0.250	06-40050	R73	Resistor, 22K, .35 Prep., 5% Carbon, 1/4W	50-22045
OC9	Spade Terminal, OC Vertical, 0.250	06-40050	S1	Switch, DPST Lift Tail Bat, PCB MTG	25-76286
OC13A	Spade Terminal, OC Vertical, 0.250	06-40050		Switch, Channel Select, SPST toggle, Chassis MTG	25-75801
OC13B	Spade Terminal, OC Vertical, 0.250	06-40050		Switch, Power, LG DPDT, Chassis MTG	25-31350
OC14	Spade Terminal, OC Vertical, 0.250	06-40050		Switch, Stand-by, LG DPDT, Chassis MTG	25-31350
OC21	Spade Terminal, OC Vertical, 0.250	06-40050	SPK1	Phone Jack, 1/4, 3 Pin Plastic, 24mm	21-06453
OC32	Spade Terminal, OC Vertical, 0.250	06-40050	SPK2	Phone Jack, 1/4, 3 Pin Plastic, 24mm	21-06453
OC33	Spade Terminal, OC Vertical, 0.250	06-40050		Vintage Tube 50, 120V Transformer, Chassis MTG	15-10640
OC35	Spade Terminal, OC Vertical, 0.250	06-40050		Vintage Tube 50, Output Transformer, Chassis MTG	15-02066
OC36	Spade Terminal, OC Vertical, 0.250	06-40050	V1	Socket for 12AX7A/EL84 12VAC, 9 Pin, SIN/RUS	23-91632
OC37	Spade Terminal, OC Vertical, 0.250	06-40050		Vacuum Tube, Type Tube 12AX7A	65-00127
R1	Resistor, 100K, .35 Prep., 5% Carbon, 1/4W	50-10055	V2	Socket for 12AX7A/EL84 12VAC, 9 Pin, SIN/RUS	23-91632
R2	Resistor, 1.5K, .35 Prep., 5% Carbon, 1/4W	50-15035		Vacuum Tube, Type Tube 12AX7A	65-00127
R3	Resistor, 220K, .35 Prep., 5% Carbon, 1/4W	50-22035	V3	Socket for 12AX7A/EL84 12VAC, 9 Pin, SIN/RUS	23-91632
R4	Resistor, 150K, .35 Prep., 5% Carbon, 1/4W	50-15055		Vacuum Tube, Type Tube 12AX7A	65-00127
R5	Resistor, 100K, .35 Prep., 5% Carbon, 1/4W	50-10055	V4	Socket for 12AX7A/EL84 12VAC, 9 Pin, SIN/RUS	23-91632
R6	Resistor, 1.5K, .35 Prep., 5% Carbon, 1/4W	50-15035		Vacuum Tube, Type Tube 12AX7A	65-00127
R7	Resistor, 100K, .35 Prep., 5% Carbon, 1/4W	50-22055	V5	Socket for 12AX7A/EL84 12VAC, 9 Pin, SIN/RUS	23-91632
R8	Resistor, 1.5K, .35 Prep., 5% Carbon, 1/4W	50-15035		Vacuum Tube, Type Tube 12AX7A	65-00127
R9	Resistor, 220K, .35 Prep., 5% Carbon, 1/4W	50-22055	V6	Socket for 12AX7A/EL84 12VAC, 9 Pin, SIN/RUS	23-91632
R10	Resistor, 4.7K, .35 Prep., 5% Carbon, 1/4W	50-47035		Vacuum Tube, Type Tube EL84	65-00084
R11	Resistor, 220K, .35 Prep., 5% Carbon, 1/4W	50-22055	V7	Socket for 12AX7A/EL84 12VAC, 9 Pin, SIN/RUS	23-91632
R12	Resistor, 47K, .35 Prep., 5% Carbon, 1/4W	50-47045		Vacuum Tube, Type Tube EL84	65-00084
R13	Resistor, 1K, .35 Prep., 5% Carbon, 1/4W	50-10035	V8	Socket for 12AX7A/EL84 12VAC, 9 Pin, SIN/RUS	23-91632
R14	Resistor, 220K, .35 Prep., 5% Carbon, 1/4W	50-22055		Vacuum Tube, Type Tube EL84	65-00084
R15	Resistor, 47K, .35 Prep., 5% Carbon, 1/4W	50-47045	V9	Socket for 12AX7A/EL84 12VAC, 9 Pin, SIN/RUS	23-91632
R16	Resistor, 10K, .35 Prep., 5% Carbon, 1/4W	50-10055		Vacuum Tube, Type Tube EL84	65-00084
R17	Resistor, 22K, .35 Prep., 5% Carbon, 1/4W	50-22045			
R18	Resistor, 100K, .35 Prep., 5% Carbon, 1/4W	50-10055			
R19	Resistor, 220Ω, .35 Prep., 5% Carbon, 1/4W	50-22025			
R20	Resistor, 2.2M, .35 Prep., 5% Carbon, 1/4W	50-22065			
R21	Resistor, 47K, 0.8 Prep., 5% Carbon 1W	53-47045			
R22	Resistor, 2.2M, .35 Prep., 5% Carbon, 1/4W	50-22065			
R23	Resistor, 220K, .35 Prep., 5% Carbon, 1/4W	50-22055			
R24	Resistor, 1.5K, .35 Prep., 5% Carbon, 1/4W	50-15035			
R25	Resistor, 220K, .35 Prep., 5% Carbon, 1/4W	50-22055			
R26	Resistor, 1M, .35 Prep., 5% Carbon, 1/4W	50-10065			
R27	Resistor, 22K, .35 Prep., 5% Carbon, 1/4W	50-22045			
R28	Resistor, 1.5K, .35 Prep., 5% Carbon, 1/4W	50-15035			
R29	Resistor, 220K, .35 Prep., 5% Carbon, 1/4W	50-22055			