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to alert the user to the operating and maintenance (servicing) instructions in the literature accompanying the appliant

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 polariza-

tion 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)

MAIN PLUG INTO A POWER SOCKET.

1 EACH CAP CERM 180PF 500VOLT 5%

1 EACH CAP CERM 330PF 1000VOLT 10%

"2 EACH CAP ELEC 1,000 MFD 25V 20%"

1 EACH CAP ELEC 220 MFD 50VOLT 10%

4 EACH CAP ELEC 470 MFD 50 VOLT 20%

1 EACH CAP SMT 1UF 50V ELECTROLITIC

"C42, C43, C44, C45"

47-10225

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

LIMITED WARRANTY

Your Carvin product is guaranteed against failure for ONE YEAR unless otherwise stated. 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 WAR-RANTY. 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

In the USA, please call 800-235-2235 for a RMA # (return authorization number). Write this number on the box and enclose a description of the problem. Prepay to Carvin 12340 World Trade Drive, SD, CA 92128. 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

Check the power to the amp. Check for tripped circuit breakers, unplugged extension cords or power-strip switches that may be turned off. After you have verified there is AC power and the amp still doesn't work, your unit will require servicing.

To bring back the new look, your K15 front panel can be wiped with mild detergent and/or a warm damp soft cloth. This will remove normal dust and oil from the cabinet. Never spray cleaners or detergents directly at the electronic controls. The K15 is virtually sealed from outside dust and dirt, but it is recommended to keep the unit free from excessive dust, dirt, and moisture as much as possible

REPLACEMENT PARTS LIST (for circuit cards)

80-71004A	PCB ASSY MAIN K15 SMT		C15
03-00475	1 EACH SPACER PAD .1X .4X .75 W/ADHSV	49-10212	1 EACH 0.001UF SMT 10% FILM 0805 50V
	SPACER UNDER PL1	1	C61
03-49553	4 EACH TAPE W/ADHSVE 3M .375 X .375	49-10312	6 EACH 0.01UF SMT 10% FILM 080550V
03-50135	1 EACH STANDOFF LED .500 X .135 T1, D1		"C33, C64, C93, C95, C104, C76"
03-60043	1 EACH SIL PAD W/ADHESIVE 9 MIL	49-10451	9 EACH 0.1 uF SMT 10% FILM 1206 50V
	STICK TO VP1		"C23, C32, C70, C72,"
05-22102	"6 EACH POLYOLEFIN SHRINK TUBING 1/16"""		"C67, C68, C69, C110, C134"
06-40050	3 EACH TERMINAL VERT MALE PC MTG .250	49-22035	33 EACH SMT CAP 22uF 35v ELECTROLITIC
	"QC1, QC2, QC3"		"C1, C2, C3, C4, C6,"
06-40060	3 EACH TERMINAL 90dg MALE PC MTG .250		"C8, C9, C14, C17, C19,"
	"QC4, QC5, QC6"		"C20, C21, C22, C26, C34,"
15-00300	2 EACH INDUCTOR .3 mH DRUM CORE		"C35, C46, C47, C51, C54,"
	"L7. L8"		"C55, C56, C59, C62, C91,"
15-27430	4 EACH BEAD W/LEAD .138Dx .35Lx 22AWG		"C100, C102, C107, C108, C111,"
	"L1, L2, L5, L6"		"C303, C304, C310"
15-05001	1 EACH LINE FILTER/INDUCTOR 5mH 3A, L3	49-22212	3 EACH 0.0022UF SMT 10% FILM 0805 50V
15-90032G	1 EACH TRANSFORMER SWITCHING 100W ,T1		"C75, C78, C106"
21-31100	1 EACH RECEPTACLE AC W/FAST-ON CHASS	49-22312	1 EACH 0.022UF SMT 10% FILM 0805 50V
	PL1		C60
21-40000	1 EACH XLR FEMALE CONNECTOR W/O GRND	49-25152	3 EACH 220PF SMT 5% CERAMIC 0805
	J41		"C92, C139, C79"
21-40020	1 EACH JACK RCA DUAL PC VERTICAL MTG	49-33312	2 EACH 0.033UF SMT 10% FILM 0805 50V
	J13		"C116. C71"
21-51345	1 EACH JACK .250 PHONE MONO PLASTIC, J5	49-39052	25 EACH 39PF SMT 5% CERAMIC 0805
21-52345	10 EACH JACK .250 PHONE MONO STEEL		"C5, C7, C10, C11, C16,"
	"J1, J2, J3, J6."		"C18, C24, C25, C29, C48,"
	"J11, J12, J21, J22, J31, J41"		"C49, C50, C52, C53, C57,"
21-52545	2 EACH JACK .250 PHONE STEREO STEEL		"C58, C66, C97, C99, C101,"
	"J4, J10"		"C128, C309, C403, C80, C133"
23-03529	2 EACH FUSEHOLDER CLIPS 3AG VERT MTG, F1	49-47212	3 EACH 0.0047uF SMT FILM 0805 50V
23-11004	2 EACH CONNECT HEADER 4 PIN STRAIGHT		"C30, C63, C73"
	"H4A, H4B"	49-47312	3 EACH 0.047UF SMT 10% FILM 0805 50V
23-11008	2 EACH CONNECT HEADER 8 PIN STRAIGHT		"C12, C13, C74"
	"H1A, H1B"	49-56152	3 EACH 560PF SMT 5% CERAMIC 0805
23-11010	4 EACH CONNECT HEADER 10 PIN STRAIGHT		"C77, C305, C306"
	"H2A, H2B"	49-82052	2 EACH 82PF SMT 5% CERAMIC 0805
	"H3A, H3B"		"C103, C127"
25-02201	1 * STD 4 EACH ASSEMBLED SWITCH AND CAP	51-00050	"2 EACH RES 0.00 OHM .50X.20"" JUMPER"
	"S11, S21, S31, S32"		"B5, B7"
30-71004B	1 EACH PCB MAIN K15	53-47045	1 EACH RES 47.00KOHM 1.00W 5% CARBON
41-27322	3 EACH CAP POLY FILM .027uF 250VAC 10		R42
	"C113, C114, C115"	55-04705	2 EACH RES .47 OHM 5W 10% SB VERT
41-47322-	1 1 EACH CAP MYLR .0470UF 250VAC BOX		"R113, R114"
	C41	58-00035	4 EACH 0.0 SMT JUMPER 1206
41-47422	1 EACH CAP MYLR .47uF 250VAC BOX		"B3, R51, R58, R59"
	C122	58-10015	3 EACH 10.5 SMT .25W 1206 1%
42-12142	1 EACH CAP ELEC 120MFD 400VOLT 20%		"R127, R128, R41"
	C27	58-10025	4 EACH 100.5 SMT .25W 1206 1%

"R47, R92, R112, R164"

"R101, R102, R3, R133" 33 EACH 10K SMT .25W 1206 1%

"R2, R22, R24, R4, R10,"

"R17, R35, R57, R61, R65,"

"R153, R312, R108, R98,"

"R80, R81, R87, R135, R136," "R55, R60, R119, R90, R148, R82,"

"R25, R111," "R84, R150, R63, R64,

10 EACH 1K SMT .25W 1206 1%

58-10035

"R111, R120, R121, R125,

1 EACH TRANSISTOR 15A 100V PNP

1 EACH TRANSIENT VOLT SUPP 200V 600W

60-00084

60-20060

REFER SERVICING TO QUALIFIED SER-VICE PERSONNEL! THIS UNIT CON-RISK OF ELECTRIC SHOCK TAINS HIGH VOLTAGE INSIDE!

1 FACH IC PRIMARY VIPER 100

		"R134, R535, R37, R137"	00 22 100	VP1
	58-10055	4 EACH 100K SMT .25W 1206 1%	60-25011	
	30-10033		00-23011	1 EACH IC OPTO COUPLER ISOLATOR OP2
	E0 1000E	"R77, R79, R69, R36"	00 40000	
	58-10065	3 EACH 1M SMT .25W 1206 1%	60-40002	1 EACH THERMISTOR 40ohm 2amp 20%
		"R166, R168, R93"	0	TR1
	58-15035	6 EACH 1.5K SMT .25W 1206 1%	61-47430	1 EACH DIODE ZNR REG 1N4743A 13V 1W
		"R58, R59, R66, R86,"		Z2
		"R304, R305"	60-50200	4 EACH DIODE GEN REC 1N5402 3A 200V
	58-15045	7 EACH 15K SMT .25W 1206 1%		"D14, D15, D16, D17"
		"R3, R12, R34, R19, R26,"	60-55500	2 EACH TRANS 2N5550 HV NPN 250V T0-92
		"R122, R99"		"Q2, Q11"
	58-15055	3 EACH 150K SMT .25W 1206 1%	60-75330	1 EACH LED GREEN DIFFUSED 3MM T-1.00
		"R71, R75, R147"		D1
	58-22035	14 EACH 2.2K SMT .25W 1206 1%	60-78150-	1 * STD 1 EACH REG VOLT 15+V 1A (PREPPED)
				Q16
		"R306, R307, R97,"	60-79150-	1 * STD 1 EACH REG VOLT 15-V 1A (PREPPED)
		"R70, R72, R74, R76, R78, R96,"		Q17
		"R106, R109, R110, R116, R123"	60-80200	2 EACH DIODE 8A 200V TO-220
	58-22045	19 EACH 22K SMT .25W 1206 1%		"D22, D23"
		"R8, R11, R13, R27, R28,"	61-04737	1 EACH DIODE REG GEN 1N4737A 7.5V 1W
		"R29, R44, R52, R67, R94,"		Z4
		"R5, R6, R18, R146,"	62-04739	3 EACH SMT DIODE ZENER 4739
		"R115, R100, R105, R126, R132"		"Z8, Z9, Z10"
	58-27025	1 EACH 274 OHM SMT .25W 1206 1%	62-08451	1 EACH SMT ZENER DIODE 5.1 VOLT
		R50		Z501
	58-33045	7 EACH 33K SMT .25W 1206 1%	62-06001	3 EACH DIODE ULTRA FAST 600V 1A SMA
		"R7, R9, R20, R23, R48, R537, R43"		"D18, D19, D21"
	58-36055	1 EACH 365K SMT .25W 1206 1%	62-19140	13 EACH 1N914 HI SPD SMT 250mW DIODE
		R73		"D2, D3, D5, D6, D9, D10, D11,"
	58-39035	2 EACH 3.9K SMT .25W 1206 1%		"D12, D13, D20, D27, D28, D29"
		"R40, R54"	62-20430	3 EACH NJM2043SMT(TESTED) DUAL HFREQ
	58-47015	2 EACH 47.5 SMT .25W 1206 1%		"A5, A11, A12"
		"R85, R151"	62-45650	14 EACH NJM4565 SMT DUAL HI FREQ
	58-47025	2 EACH 470.5 SMT .25W 1206 1%		"A1, A2, A3, A4, A6,"
		"R104, R158"		"A7, A8, A9, A10, A14,"
	58-47035	3 EACH 4.7K SMT .25W 1206 1%		"A15, A16, A17, A19"
		"R62, R95,"	62-54001	9 EACH MMBT5401LT1 PNP SOT-23 SMT
		"R91,"		"Q3, Q4, Q5, Q6, Q9, Q10, Q12, Q14," Q18
	58-47045	18 EACH 47K SMT .25W 1206 1%	62-55500	5 EACH MMBT5550 NPN SOT-23
		"R38, R39, R56, R88, R89, R32, R33,"		"Q1, Q7, Q8, Q13, Q19"
		"R15, R21, R68, R83, R149,"	70-05710	1 EACH RELAY SPDT 12A@120VAC/24V COIL
		"R103, R107, R129, R117, R118, R124"		K1
	58-56035	5 EACH 5.6K SMT .25W 1206 1%	70-21050	1 EACH FUSE ABC 5.00A FAST 6.35X32MM
		"R14, R16, R30, R31"		F1
		R1	71-09252D	"4 EACH POT 9 ""D-P"" 25F B50K-CC BLUE"
	58-68025	1 EACH 680 SMT .25W 1206 1%		"P32, P42, P43, P44"
		R49	71-09253B	"3 EACH POT 9 ""D-P"" 25F B50K WHITE"
	58-68035	2 EACH 6.8K SMT .25W 1206 1%		"P31, P41, P1"
		"R25, R53"	71-10320	5 EACH FADER 20MM SL20V3-B10K-L15D(G)
	58-68045	1 EACH 68K SMT .25W 1206 1%		"P51, P52, P53, P54, P55"
		R132	72-12552	"2 EACH POT 12 ""D-P"" 25F 1B50Kx2-C BLK"
ĺ	58-91025	2 EACH 910.5 SMT .25W 1206 1%		"P12, P22"
		"R45, R46"	72-12553	"4 EACH POT 12 ""D-P"" 25F 1B50Kx2 BLACK"
	60-00083	1 EACH TRANSISTOR 15A 100V NPN		"P11, P21, P2, P3"
		04		

CARVIN ENGINEERING DATA



Congratulations on your purchase of the K15 amplifier. Designed specifically for the keyboard performer's needs, the **K15** features four input channels with independent levels, a balanced/stereo LINE OUT with independent level and a 5 band graphic EQ.

Channel features include; stereo inputs on channels 1&2 with an additional RCA input on channel 1. Tone control with Mid Contour switch are featured on channel 3 for optional use with bass or guitar. Channel 4 features a 3-band EQ with both 1/4" line and XLR for instruments and microphones. All inputs are designed for simultaneous use without degrading the signal.

The tilt-back bass ported enclosure and high frequency tweeter deliver fullrange sound. Combined with 100 watts of power, the **K15** is an ideal amp and stage monitor. The direct LINE OUT allows you to connect to the main house mixer for use in larger venues.

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 and below and this manual for your records. Keep your portion of the card and return the portion with your name and comments to us. Or you may register online at www.carvin.com/registration

USA customers register online at: www.carvin.com/registration All other countries register online at: www.carvinworld.com/registration

For your records,	you may wish to record the following information.
Serial No	Invoice Date

76-71000B 1106

OPERATING MANUAL

CONNECTING AC POWER TO YOUR K15 Use only a grounded (3 prong) power outlet to prevent a shock hazard. **CONNECTING INPUTS TO YOUR K15**

- Channels one and two are line inputs. A keyboard or any unbalanced device such as a drum machine can be plugged in using 1/4" phone plug shielded cables
- Channel one features stereo RCA inputs for connecting devices such as disc players, MP3 players, or tape decks. Both inputs can be used at the same time.
- Channel three is a line/instrument input. A keyboard or any instrument such as a guitar or bass can be plugged in using a 1/4" phone plug shielded cable.
- Channel four is a microphone & line input. Plug a microphone into the balanced XLR MIC input using an XLR shielded cable. Plug a 1/4" shielded cable from a keyboard into the **LINE** input. Both inputs can be used at the same time.

TURNING ON YOUR K15

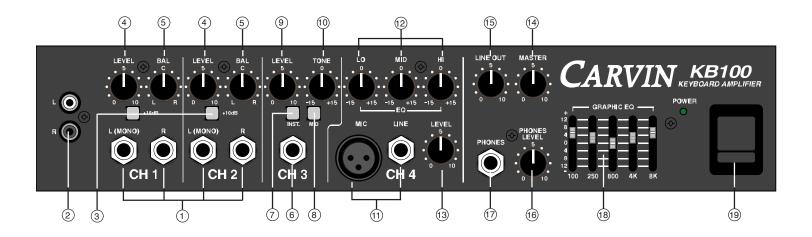
K15 KEYBOARD AMP

- Plug in your instruments and microphone into the appropriate channels.
- Adjust all four channel volume controls to their off position (full counter-clockwise)
- Adjust all "BAL" and "EQ" tone controls to their center detent position.
- Turn the K15 on by the power switch on the front panel and watch for the power LED
- Adjust the volume controls to the desired playing level. (For detail on the individual channel tone controls and the graphic equalizer, see the appropriate sections in this

K15 KEYBOARD AMP SPECIFICATIONS:

Frequency Response:	Inputs to Line Out: 20Hz-20kHz ±1dB			
Output Power:	100 Watts @ 8ohms			
THD:	Less than 1%			
Channel 1:	Stereo/Mono 1/4"inputs, RCA Stereo inputs, LEVEL control, BALANCE control, +12dB gain switch			
Channel 2:	Stereo/Mono 1/4"inputs, LEVEL control, BALANCE control, +12dB gain switch			
Channel 3:	Mono 1/4" input, TONE control, LEVEL control, Instrument level switch, MID cut switch			
Channel 4:	Mono 1/4" input, XLR MIC input, 3-band EQ controls, LEVEL control			
Graphic EQ.:	5 Band: 100Hz, 250Hz, 800Hz, 4kHz, and 8kHz ±12dB			
Headphones:	Stereo 1/4"jack, high current output, LEVEL control			
Rear 1/4" Jacks:	LINE OUTs: 1 Balanced Mono (Unbalanced Right) output, 1 Unbalanced Left output, Independent LINE OUT level control (front) EFFECTS SEND / MAIN OUT EFFECT RETURN / AMP IN MAIN and AUX SPEAKER OUTPUTS, series wired (80hms min.)			
SPEAKER SPECS:	15" PS15 woofer High frequency tweeter with adjustable L-Pad on crossover.			
Enclosure response:	57Hz to 16.5kHz			
Power Consumption:	150VA @ 120/240VAC			
Power Requirement:	100 to 240 VAC, 50-60Hz			
Size:	19.3Wx14.9Dx24H, 46Lbs.			





K15 FRONT PANEL FEATURES

CHANNEL 1&2 FEATURES

1. L (MONO) & R INPUT JACKS

These 1/4"INPUT jacks are designed for keyboards but will work with most any inputs. Plug the stereo outputs from your keyboard into these jacks. Plugging into the L(MONO) jack only will send that input to both Left and Right at the LINE OUT and PHONES jacks.

2. CH 1 RCA INPUT JACKS

The **Left** and **Right RCA** inputs on Channel 1 are for connecting disc players, MP3 players, tape decks, as well as keyboards with RCA connectors.

3. +12DB GAIN SWITCHES

For inputs with low level signals on **CH1** and **CH2**, press "**IN**" the **+12dB** switches to raise the level.

4. LEVEL CONTROL

The **LEVEL** controls adjust the volume of each channel heard through the speaker at the **LINE OUT** jacks and the **PHONES** jack.

5. BAL CONTROL (BALANCE)

The **BALANCE** control adjusts the difference in level between the **L** and **R** inputs of the channel. You can double the number of inputs on these channels by plugging in two different **MONO** sources to the **L** and **R** inputs and adjusting the **BAL-ANCE** control to bring them to equal levels.

CHANNEL 3 FEATURES

6. CH 3 INPUT JACK

The **CH 3** input jack is a high-impedance input designed for keyboard, line level an unbalanced mic and instruments such as a quitar or bass.

7. INST (INSTRUMENT LEVEL) SWITCH

The **INST** switch increases the level.

8. MID SWITCH

The $\boldsymbol{\text{MID}}$ switch provides additional tone shaping for instruments by cutting mid frequencies in the 500Hz range.

9. LEVEL CONTROL

The **LEVEL** control adjusts the volume of **Channel 3** heard in the speaker, at the **LINE OUT** jacks and the **PHONES** jack.

10. TONE CONTROL

The **TONE** control is used to shape the bass or treble sound of the input signal. Start with the tone control center position where it does not affect the signal. Then as needed, turn to the Right to boost **HIGH** frequencies or to the Left to boost **LOW** frequencies.

CHANNEL 4 FEATURES

11. XLR MICROPHONE & 1/4" INPUT JACKS

The **MIC** input is designed for balanced low impedance (microphone) input signals. The Balanced input will reduce the common noise picked up on the microphone cables. The XLR connector is wired as per the industry standard; pin 1 is ground, pin 2 is positive and pin 3 is negative. The 1/4" jack is designed for keyboard and line level signals. Both of these inputs can be used at the same time.

12. LO, MID, AND HI TONE CONTROLS

The **LO**, **MID** and **HI** tone controls are used to shape the bass, midrange, and treble sound of the input signal. It is suggested that the tone control settings start in their center positions where they do not effect the signal. Then, as needed, turn the turn to the right to boost, or turn to the left to cut. To add crispness to your sound, set the **Lo** to ± 10 , **Mid** to ± 10 , **Hi** to ± 10 .

13. LEVEL CONTROL

The **LEVEL** control adjusts the volume of the channel heard in the speaker, at the **LINE OUT** jacks and the **PHONES** jack.

MASTER SECTION FEATURES

14. MASTER VOLUME

The overall speaker volume is controlled by the **MASTER** control. Turn up the volume here before increasing the individual channel **LEVEL** controls. The MASTER control does not affect the **LINE OUT** or **PHONES** levels.

15. LINE OUT CONTROL

The LINE OUT control adjusts the output level of the rear LINE OUT jacks.

16. PHONES LEVEL CONTROL

The **PHONES LEVEL** control adjusts the volume heard at the **PHONES** jack.

17. PHONES JACK

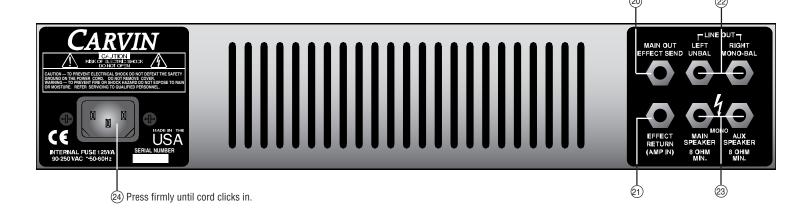
The stereo **PHONES** jack is driven by high current headphone amps that will drive any pair of headphones.

18. THE 5 BAND GRAPHIC EQUALIZER

The 5 band graphic EQ is an excellent tool to fine tune the overall mix from your **K15**. To use the 5 band Graphic, set all sliders to their center detent position. When the sliders are in this position, they do not effect the audio signal. When a slider is raised or lowered, it boosts and cuts the listed frequency. One setting that can be used to enhance your sound is to cut the mid range (set 800 Hz slider to -8) and raise the high and low frequencies as shown. This is a common "smile" curve that gives a tight punchy sound with plenty of highs to cut through a crowd. This EQ does not affect the **LINE OUT** or **PHONES** jacks.

19. POWER SWITCH

The power switch is to be utilized as the master ON/OFF switch. If the power LED does not turn on, check the power cable and make sure it is properly connected at the back of the amp. Also verify there is power at the wall receptacle. If the amp does not power up after this is verified, contact customer service.



REAR PANEL FEATURES

20. MAIN OUT (EFFECTS SEND) JACK

The **MAIN OUT** jack is a post EQ output jack for pre amplifier signal access. This output is the same signal that is being fed to the internal power amplifier. Use this jack as your **EFFECT SEND** when using external effects. It will also drive an external amp should you require more power.

21. EFFECTS RETURN (AMP IN) JACK

The **EFFECTS RETURN** jack is the input return jack that completes the effects loop. This jack will interrupt the signal path when plugged into. Plug the output of your external effects unit into this jack.

22. LINE OUT JACKS

The front **LINE OUT** control sets the output level of these jacks. They are fully independent from the **MASTER** control.

The **RIGHT** / **MONO-BAL** jack is a **MONO**, balanced **TRS** (Tip-Ring-Sleeve) output when used by itself. When a plug is inserted into the **LEFT/UNBAL** jack, the **RIGHT** jack becomes a standard unbalanced output and you have a pair of stereo outputs.

The **LINE OUT** jacks are generally used to connect your amp to the main mixer.

23. EXTERNAL SPEAKER JACK (CHASSIS)

The **EXTERNAL SPEAKER** jack is for connecting additional speaker cabinets. The jack is configured so an external speaker cabinet can be connected in series with the **K15**'s internal speaker. Recommended external speaker impedances are 4 to 8 ohms. Carvin recommends the **112AG** extension speaker.

24. AC POWER

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). 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 internal switching power supply will "auto-switch" from 100 VAC to 250 VAC, 50 to 60 Hz. This allows the **K15** to be used in various countries without the need for modifications or external transformers.

25. 1/4" SPEAKER INPUT

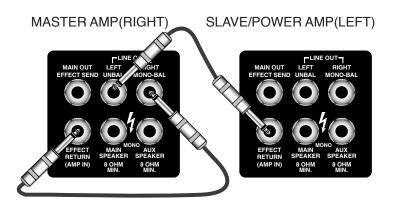
A 1/4" jack is used for connecting the amp to the speaker cabinet.

26. TWEETER L-PAD

The rear **TWEETER L-Pad** adjusts the level of the tweeter to give crisp clear highs. If distortion is heard when playing excessively loud, turn the tweeter down as it can amplify distortion.



STEREO SETUP USING TWO K15'S OR ONE ADDITIONAL POWER AMP & SPEAKER:



The **K15** is capable of stereo operation if another amp is available. Connect the **RIGHT LINE OUT** jack to the **AMP IN** (EFFECT RETURN) of the amp you have your instruments connected to. Use the **LEFT LINE OUT** jack to connect to the **INPUT** of a seperate power amp, or to the **AMP IN** (EFFECT RETURN) of another **K15** unit. (*NOTE: GRAPHIC EQ will not function*)