

The AC120 is designed to be a safe, convenient power distribution point for your rack-mounted gear. The AC120 offers several protection devices to protect all gear plugged into it. The first form of protection are the TRANSIENT/SURGE ABSORBERS removing over voltage spikes on the AC lines from other gear and appliances. Next is the 15 AMP EMI FILTER reducing RF and other noise elements on the AC lines coming in. The AC120 provides two visual indicators on the front panel for further protection. The first of these is the LINE VOLTAGE Meter displaying the incoming voltage in 16-segments from 100-130 VAC. The other is the

SAFETY GROUND indicator which illuminates when EARTH grounded is present. The AC120 also comes complete with two retractable lamps. The retractable lamps provide light for all the rest of the gear in the rack with two brightness settings. The AC120 has been designed to accommodate up to four "wall-warts" and four standard spaced plugs. The AC120 is a durable unit constructed of 18 GA steel and ready for the road. You'll find the AC120 Power Conditioner an invaluable addition to your rack.



NOTE: The AC120 is fitted with a 15AMP circuit breaker so the maximum total current available to the all eight outlets is 15AMPS. A maximum of one high powered amplifier can be plugged into the AC120 (such as DCM1000's and larger).

FRONT PANEL

1. MOUNTING

The AC 120 provides four standard single space rack mounting holes. All four screws should be used to secure the unit in the rack. The best placement for the AC120 in the rack is at the top so the lamps can shine down on the rest of the gear in the rack.



AC120 shown in rack case with lamps extended

RECEIVING INSPECTION

INSPECT YOUR ITEM FOR ANY DAMAGE which may have occurred during shipping. If any damage is found, please notify the shipping company & CARVIN.

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.

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

Serial No. _____ Invoice Date _____

2. LAMP SWITCH

The Lamp switch is off in the center position. Press the lamp switch up for HIGH illumination and push down for LOW illumination.

3. LAMPS

To use the lamps, pull the tubes out and position as needed. The lights will normally project downward.

4. SAFETY GROUND INDICATOR

The green SAFETY GROUND LED indicator will be illuminated if the AC120 is plugged into a wall socket providing a solid Earth Ground. If the green LED is not on, this indicates that the gear plugged into the AC120 is not connected to Earth ground. Make sure the SAFETY GROUND indicator is illuminated. Equipment that is not properly grounded introduces the risk of electric shock.

5. LINE VOLTAGE METER

The LINE VOLTAGE METER consists of 16 LED's measuring the incoming AC voltage from 100VAC to 130VAC in two volt increments. The LED's indicate the RMS voltage level of the wall outlet or junction box. This is the same voltage being supplied to the gear plugged in to the AC120. By monitoring the voltage level, you will be assured the AC line voltage is in a safe operating range for your gear.

6. POWER SWITCH

The power switch will be illuminated when the unit is plugged in and turned on.

REAR PANEL

8. AC POWER

The AC120 is designed to run on 120V 60Hz. Never defeat the grounded connection or electrocution may result!

9. CIRCUIT BREAKER

A 15A circuit breaker is provided for over current protection.

10. AC OUTLETS

The rear AC outlets have been positioned to allow for up to four "wall-warts" and four standard spaced plugs to be used simultaneously. Before plugging gear into the AC120, check voltage level on the LINE VOLTAGE meter and verify that it is in the safe range specified by the gear manufacture. Also be sure to verify that the green SAFETY GROUND indicator is illuminated.

AC120 SPECIFICATIONS:

PROTECTION	One EMI Filter & Three Transient/Surge Absorbers
Circuit Breaker	15A
Power Rating	120V - 15A - 1800VA
Dimensions	1 3/4" H x 19" W x 6 1/2" D
Weight	7 lbs

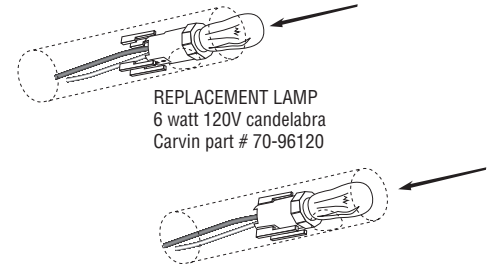
CARVIN

LAMP replacement

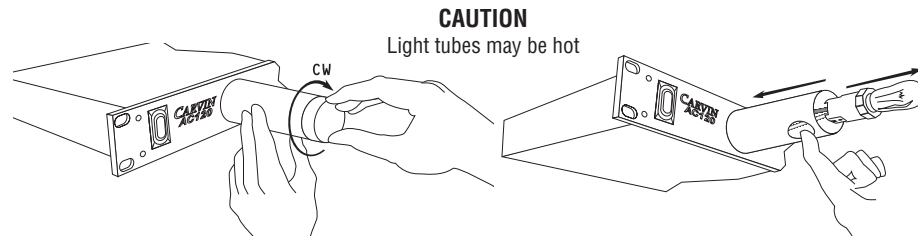
For Lamp replacement do, the following:

1. Turn off the AC120 and let lamp tubes cool if needed.
2. Extend light tube.
3. With one hand, hold on to the tube.
4. With the other hand, hold tube cap, turn cap clockwise one click and pull cap off.
5. With finger, nudge lamp out while pushing the tube back into AC120 chassis.
6. Unscrew lamp from socket and replace bulb.
7. Reinsert lamp & socket into tube.

8. Be sure to line up the lower flat sides of lamp socket with the double guides inside of lamp tubes. Lamp should seat all the way inside of tube in order for light to shine through tube light hole.
9. Hold tube with one hand place tube cap on tube with the other hand and turn one click counter clockwise. Cap should not come off when pulling tube out.



REPLACEMENT LAMP
6 watt 120V candelabra
Carvin part # 70-96120



CAUTION

Light tubes may be hot

! 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 1 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 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.

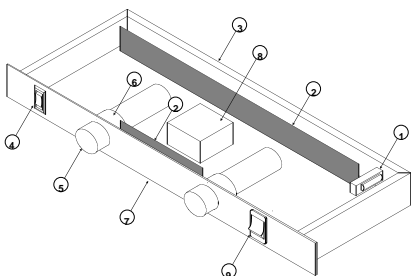
When RETURNING merchandise to the factory, you may call for a return authorization number. Describe in writing each problem. If your unit is out of warranty, you will be charged the current FLAT RATE for parts and labor to bring your unit up to factory specifications.

MAINTAINING YOUR EQUIPMENT

Avoid spilling liquids or allowing any other foreign matter inside the unit. The panel of your unit can be wiped from time to time with a dry or slightly damp cloth in order to remove dust and bring back the new look. As with all pro gear, avoid prolonged use in caustic environments (salt air). When used in such an environment, be sure the mixer is adequately protected by a cover.

REFER SERVICING TO QUALIFIED SERVICE PERSONNEL!

REPLACEMENT PARTS LIST



"AC120 Chassis, Cables, & Hardware"

REF DESCRIPTION

PART #

QTY

1	15A Circuit Breaker	70-28115	1
2	Circuit Board Assembly	80-10034	1
3	Unichassis	10-10039	1
4	Switch, Lamps	25-20911	1
5	Lamp Tube w/ Cap	03-10000	2
6	Lamp Tube Clamp	03-02033	2
7	Front Panel	10-10031	1
8	EMI Filter	15-15250	1
9	Switch, Power	25-31353	1
10	Strain Relief	03-01217	1
11	Power Cord, AC, 16AWG	05-01604	1
12	Cover, Chassis	10-10035	1
13	Lamp (120V) with wires	03-77710	2
14	Wire, 16AWG, Blue	05-36640	1
15	Wire, 16AWG, Black, 203mm	05-46020	1
16	Wire, 16AWG w/, Black	05-46040	1
17	Wire, 16AWG w/, Brown	05-46128	1
18	Wire, 16AWG, Red05-46220	2	
19	Wire, 16AWG, Blue	05-46620	2
20	Wire, 16AWG, Grn/Yellow, 5	05-96545	1
21	Cable, Ribbon, 24AWG, 4Pin	05-64420	1
22	Terminal, .25	06-40070	2
23	Terminal, 2 Male/1 Female, .25	06-40080	1

PCB PART LIST

A1	"Op-amp, Low Noise, SMT"	62-45580
A2	"Comparator, Quad, Single Supply, SMT"	62-29010
A3	"Comparator, Quad, Single Supply, SMT"	62-29010
A4	"Comparator, Quad, Single Supply, SMT"	62-29010
A5	"Comparator, Quad, Single Supply, SMT"	62-29010
C1	"Capacitor, Electrolytic, 22µF, 35V, SMT"	49-22035
C3	"Capacitor, Electrolytic, 22µF, 50V"	47-22051
C4	"Capacitor, Tantalum, 1µF, 35V"	48-01031
C5	"Capacitor, Ceramic, 180PF, 50V, SMT"	49-18152
C6	"Capacitor, Poly, 1µF, 250V"	41-01122
C7	"Capacitor, Electrolytic, 22µF, 35V, SMT"	49-22035
D1	"LED, Small Red"	60-75320
D2	"LED, Small Red"	60-75320
D3	"LED, Small Yellow"	60-75340
D4	"LED, Small Yellow"	60-75340
D5	"LED, Small Green"	60-75330
D6	"LED, Small Green"	60-75330
D7	"LED, Small Green"	60-75330
D8	"LED, Small Green"	60-75330
D9	"LED, Small Green"	60-75330
D10	"LED, Small Green"	60-75330
D11	"LED, Small Green"	60-75330
D12	"LED, Small Green"	60-75330
D13	"LED, Small Yellow"	60-75340
D14	"LED, Small Yellow"	60-75340
D15	"LED, Small Red"	60-75320
D16	"LED, Small Red"	60-75320
D17	"Diode, 1A, 200V, 1N4003"	61-40030
D18	"Diode, 1A, 200V, 1N4003"	61-40030
D19	"Diode, 1A, 200V, 1N4003"	61-40030
D20	"Diode, 1A, 200V, 1N4003"	61-40030
D21	"Diode, 250mW, 1N914, SMT"	62-19140
D22	"Diode, 250mW, 1N914, SMT"	62-19140
D23	"Diode, 1A, 200V, 1N4003"	61-40030
D27	"LED, Small Green"	60-75330
H1	"4 Pin Vert, 2.5mm, PCB"	23-11004
H2	"4 Pin Vert, 2.5mm, PCB"	23-11004
P1	"Pot, Trimmer, 5K"	71-25000
PL1	"Receptacle, AC, w/Fast-On"	21-31100
PL2	"Receptacle, AC, w/Fast-On"	21-31100
PL3	"Receptacle, AC, w/Fast-On"	21-31100
PL4	"Receptacle, AC, w/Fast-On"	21-31100
PL5	"Receptacle, AC, w/Fast-On"	21-31100
PL6	"Receptacle, AC, w/Fast-On"	21-31100
PL7	"Receptacle, AC, w/Fast-On"	21-31100
PL8	"Receptacle, AC, w/Fast-On"	21-31100
Q1	"Transistor, MMB4403 PNP"	62-24403
Q2	"Transistor, MMB4403 PNP"	62-24403
QC1	"Quick Connect, 90°, .250"	06-40060
QC2	"Quick Connect, 90°, .250"	06-40060
QC3	"Quick Connect, 90°, .250"	06-40060
QC4	"Quick Connect, 90°, .250"	06-40060
QC5	"Quick Connect, 90°, .250"	06-40060
QC6	"Quick Connect, 90°, .250"	06-40060
QC7	"Quick Connect, 90°, .250"	06-40060
QC8	"Quick Connect, 90°, .250"	06-40060
QC9	"Quick Connect, 90°, .250"	06-40060
QC10	"Quick Connect, 90°, .250"	06-40060
R1	"Resistor 1/4W, SMT, ±1%, 150Ω"	58-15025
R2	"Resistor 1/4W, SMT, ±1%, 2.2K"	58-22035
R3	"Resistor 1/4W, SMT, ±1%, 33K"	58-33045
R4	"Resistor 1/4W, SMT, ±1%, 2.2K"	58-22035
R5	"Resistor 1/4W, SMT, ±1%, 150Ω"	58-15025
R6	"Resistor 1/4W, SMT, ±1%, 330Ω"	58-33025
R7	"Resistor 1/4W, SMT, ±1%, 15K"	58-15045
R8	"Resistor 1/4W, SMT, ±1%, 15K"	58-15045
R9	"Resistor 1/4W, SMT, ±1%, 10K"	58-10045
R10	"Resistor 1/4W, SMT, ±1%, 15K"	58-15045
R11	"Resistor 1/4W, SMT, ±1%, 15K"	58-15045
R12	"Resistor 1/4W, SMT, ±1%, 10K"	58-10045
R13	"Resistor 1/4W, SMT, ±1%, 15K"	58-15045
R14	"Resistor 1/4W, SMT, ±1%, 10K"	58-10045
R15	"Resistor 1/4W, SMT, ±1%, 15K"	58-15045
R16	"Resistor 1/4W, SMT, ±1%, 10K"	58-10045
R17	"Resistor 1/4W, SMT, ±1%, 15K"	58-15045
R18	"Resistor 1/4W, SMT, ±1%, 15K"	58-15045
R19	"Resistor 1/4W, SMT, ±1%, 10K"	58-10045
R20	"Resistor 1/4W, SMT, ±1%, 15K"	58-15045
R21	"Resistor 1/4W, SMT, ±1%, 10K"	58-10045
R22	"Resistor 1/4W, SMT, ±1%, 10K"	58-10045
R23	"Resistor 1/4W, SMT, ±1%, 100K"	58-10055
R29	"Resistor 1/4W, SMT, ±1%, 68K"	58-68045
R30	"Resistor 1/4W, SMT, ±1%, 4.7K"	58-47035
R31	"Resistor 1/4W, SMT, ±1%, 15K"	58-15045
R32	"Resistor 1/4W, SMT, ±1%, 1.0M"	58-10065
R33	"Resistor 1W, SMT, ±1%, 510Ω"	53-51029
R34	"Resistor 1/4W, SMT, ±1%, 1K"	58-10035
R35	"Resistor 1/4W, SMT, ±1%, 22K"	58-22045
R36	"Resistor 1/4W, SMT, ±1%, 10K"	58-10045
R37	"Resistor 1/4W, SMT, ±1%, 22K"	58-22045
R38	"Resistor 1/4W, SMT, ±1%, 6.8K"	58-68035
R39	"Resistor 1/4W, SMT, ±1%, 6.8K"	58-68035
R40	"Resistor 1/4W, SMT, ±1%, 6.8K"	58-68035
R41	"Resistor 1/4W, SMT, ±1%, 6.8K"	58-68035
R42	"Resistor 1W, SMT, ±1%, 510Ω"	53-51029
R43	"Resistor 1W, SMT, ±1%, 510Ω"	53-51029
Z1	"Zener Diode, 16V ±5%, 1N4745A"	61-47450
Z2	"Zener Diode, 13V ±5%, 1N4743A"	60-47430
Z3	"Zener Diode, 13V ±5%, 1N4743A"	60-47430
Z4	"Zener Diode, 16V ±5%, 1N4745A"	61-47450
Z5	"Transient Absorber, 130Vac"	60-20065
Z6	"Transient Absorber, 130Vac"	60-20065
Z7	"Transient Absorber, 130Vac"	60-20065