

The **AC120S** is a safe and convenient power distribution unit offering several devices to protect your valuable rack-mounted equipment.

Turning on (or off) a complete audio system from one switch can create loud “POP”s which can damage speakers and other gear. The other option is going to various pieces of equipment to turn them on (and off) in the proper order by hand. The **AC120S** features **sequenced** power start-up and shutdown. Each outlet is turned on one at a time, with a delay between each one. This delay prevents pops, by allowing each piece of gear time to properly power up before audio signals pass through. The **AC120S** also features an **EMI filter** which suppresses RF (radio frequency) and other AC line noise, resulting in quieter operation of units plugged into it. The **Line Voltage meter** displays the incoming voltage from 100-130 VAC, assuring the AC voltage is in a safe operating range for your gear. Two retractable **LED light tubes** provide a cool-running light source for all the gear in your rack, and will never burn out. You will find the **AC120S** Sequenced Power Conditioner an invaluable addition to your rack.

FRONT PANEL FEATURES

1. MOUNTING

Mount the **AC120S** in a standard 19” rack, using all four screws. The best placement for the **AC120S** is at the top of the rack so the LEDs can light up the other gear below.

2. LED LIGHT TUBES

To use the **LED** light tubes, simply pull the tubes out and position as needed. The lights will turn on automatically when pulled out, off when pushed in.

3. TIME INTERVAL INDICATORS

One of these four LEDs will indicate the time in seconds between each outlet being powered on or off when using the **SEQ** (sequenced power) button. (1 second, 2 seconds, 3 seconds, 4 seconds)

4. TIME INTERVAL SELECT BUTTON (TIME)

Use the **TIME** button to change the interval between outlets powering on/off. The interval between outlets being powered on/off will be indicated by one of the four LEDs (see #3 above).

5. NON-SEQUENCED POWER BUTTON (ALL)

Use the **ALL** button to turn on or off all the outlets all at one time. Use as a master switch if sequenced power is not necessary.

6. SEQUENCED POWER BUTTON (SEQ)

The **SEQ** button turns ON the outlets in sequence 1 thru 10, and OFF in reverse order 10 thru 1. (see #3 and #4 above)

7. OUTLET INDICATOR LEDES

The LEDs numbered 1-10 indicate which outlets are powered ON. The “1” outlet is furthest from the AC input cord, on the right as viewed from the rear.

8. OUTLET MANUAL POWER BUTTONS (1-10)

Use the buttons labeled 1-10 to turn on or off the individual outlets manually.

9. LINE VOLTAGE METER

The **LINE VOLTAGE** meter displays the AC voltage available at the rear AC outlets. The reading should be between about 110 and 120 volts.

10. POWER SWITCH

The **POWER** switch turns on the LED light tubes and **LINE VOLTAGE** meter and allows the rear outlets to be turned on from the **SEQ** or **ALL** button.

REAR PANEL FEATURES

11. AC POWER INPUT CORD

The **AC120S** is designed to run on 120V / 60Hz. Never defeat the grounded connection or electrocution may result!

12. FUSE

The **FUSE** provides over current protection of the **AC120S** internal circuits. Replace only with same size and type. The fuse does not protect outlets.

13. AC OUTLETS

The rear AC outlets allow for up to ten standard spaced plugs. Before plugging gear into the **AC120S**, check the front **LINE VOLTAGE** meter and verify that it is in the safe range specified by the gear manufacturer. Sequenced startup will begin with the outlet furthest from the AC input cord.

SET-UP and OPERATION - SEE BACK OF SHEET

Receiving Inspection

INSPECT YOUR ITEM FOR DAMAGE which may have occurred during shipping. If 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.

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 _____

AC120S SPECIFICATIONS:

Power Rating	120V - 20A - 2000VA (maximum load)
Dimensions	(1U) 1.75” H x 19” W x 10.3” D (without cord)
Weight	10.85 lbs

CARVIN

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PLUGGING IN:

To prevent speaker pops and other surges, it is important to have your equipment power on in the correct order. The order is fairly simple to understand, because it is the same order that audio signals pass through your system. Most importantly, turn power amps ON last, and turn them OFF first. This will prevent the power amps from amplifying pops and possibly damaging your speakers. The **AC120S** will turn ON the rear outlets in order from **1** to **10**, and will turn them OFF in reverse order from **10** to **1**.

Plug in each unit in order of the audio signal path, beginning with the right rear outlet (the outlet labeled "1" in the image on the front page), which is furthest from the AC cord.

Example:

1. Wireless mic receivers or mic preamp units.
2. The mixer.
3. Compressors/processors in the mic inserts.
4. Effect processors in the effect loops of the mixer.
5. EQ's or compressor/limiters between the mixer and amps.
6. Electronic crossovers or speaker management controllers.
7. Power amps.

Power amps are always powered ON LAST and OFF FIRST.

***NOTE:** The maximum total current available to the all ten outlets is 20 AMPS. A maximum of one high powered amplifier can be plugged into the **AC120S** (such a DCM1000 or larger).

CHECKING YOUR SETUP:

Now that you have your gear plugged into the **AC120S** in the proper order, press "IN" the **POWER** switch. The **LINE VOLTAGE** meter should display a number from about 110 to 120 volts. If the voltage is too high or too low, your equipment may become damaged or not turn on. Consult your owner's manuals for acceptable ranges.

Turn all gear plugged into the **AC120S** to their ON positions.

(Once your setup is complete, you can leave the switches for this gear in the ON position, and use the **AC120S** for off/on.)

If you are using any amplifiers not plugged in to the **AC120S**, turn them ON LAST, after the power ON sequence is finished.

(These amps should also be shut OFF FIRST, before starting the power OFF sequence.)

Make sure that your power amps are set to a low volume but not off, so you can hear pops if they happen but are least likely to damage gear.

TEST:

To test the order of your plugs, press the "1" button on the front panel. The white LED just above the "1" should light up. (see item #8 **MANUAL POWER** buttons, on front page). Continue with buttons **2** to **10**, and notice if any pops are heard. If a loud pop is heard when pressing a certain button, you may need to change the order of your plugs. Now turn each outlet OFF, in reverse order **10** to **1**, listening for pops and re-arrange the order if necessary.

POWERING UP:

Press the **SEQ** button on the front panel. The LEDs **1** thru **10** on the front panel will start coming on. If there are any loud pops coming out of your system at any time during the sequence, you may need to increase the **TIME** setting, or change the order of your AC plugs on the rear of the **AC120S**.


POWER OFF:

First, turn off any amps in the signal path not plugged into the **AC120S**.

Press the **SEQ** button again to begin the POWER OFF sequence. The LEDs will begin to turn off in reverse order, **10** thru **1**.

Again, if there are any loud pops coming out of your system at any time during the sequence, you may need to increase the **TIME** setting, or change the order of your AC plugs.


To shut off power during the sequence on or sequence off period, turn off the main **POWER** switch on the front panel.

 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: Do not expose this appliance to rain or moisture. Do not use this apparatus near water (in a wet basement, near a swimming pool, bathtub etc). Care should be taken so that liquids are not spilled or splashed onto the unit. Do not place objects filled with liquids such as beverage containers on this apparatus.

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 unit. Unplug during lightning storms.

GROUNDING OR POLARIZATION: Precautions should be taken so that the grounding or polarization means of an appliance is not defeated.

POWER CORD: 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 and the point where they exit from the appliance. The plug or power inlet is the disconnect device and shall remain readily operable.

PLACEMENT: Do not block ventilation openings. Do not install near heat sources such as radiators, stoves or other products that produce heat. Do not install in a confined area. Use only mounting hardware such as brackets and tripods recommended by the manufacturer.

SERVICING: The user should not attempt to service the unit. All 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.

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 WARRANTY.** 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 must call for a return authorization number. 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) UNIT WILL NOT TURN ON

Check the power to the AC cord. Check for tripped circuit breakers, unplugged extension cords or power-strip switches that may be turned off. Check the fuse or circuit breaker on the unit if available. If the fuse has been replaced with the proper value and the fuse fails again, or the internal circuit breaker activates after reset, the unit will require servicing.

2) NO OUTPUT with POWER light ON

Shipping damage will be the primary reason for your product to not function properly. Please give us a call to help you determine the problem.

3) KEEP YOUR UNIT LOOKING NEW

Use only a dry cloth to wipe the control and venting areas. Surfaces without openings may be cleaned with a damp cloth.



CAUTION

RISK OF ELECTRIC SHOCK

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