

See other side for SPS™ Powered Speaker operation



742

Congratulations on your selection of the 742 monitor speaker. The 742 is our top of the line 15" monitor speaker designed to cut through on any stage. This monitor will easily handle 400 watts and at the same time offer studio quality sound even when pushed to extreme levels. Because of its controlled dispersion, feedback problems are minimized.

RECEIVING INSPECTION

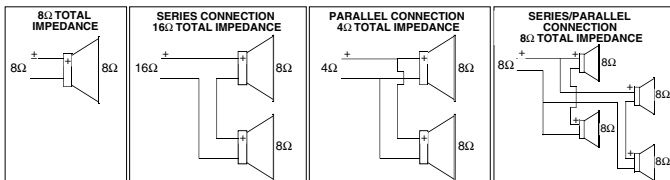
INSPECT YOUR SPEAKER FOR ANY DAMAGE which may have occurred during shipping. If any damage is found, please notify the shipping company & CARVIN. **SAVE THE CARTON & ALL PACKING MATERIALS.** In the event you have to re-ship your unit, always use the original carton and packing material. CARVIN and the 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. Return the warranty card with your name and comments to us.

WARRANTY

Parts and labor are covered for 1 year on manufacturer's defects. Warranty does not cover burned out drivers caused by excessive power or distortion, or physical damage caused by general use, moisture or dust. CAUTION: Distortion from power amps can destroy drivers much faster than clean power. Contact Carvin's Customer Service at 800-854-2235 or returnsrepairs@carvin.com. Customer is responsible for shipping charges.

TYPICAL LOUDSPEAKER IMPEDANCE CONFIGURATIONS

Individual speaker or speaker cabinet wiring examples for total impedance.



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

Serial No. _____ Invoice Date _____

REAR CONNECT PLATE

Two professional Twist-Lok™ connectors and two standard 1/4" phone jacks are featured. Use either the 1/4" or Twist-Lok™ connectors for connecting to the power amp and daisy chaining to an additional speakers.

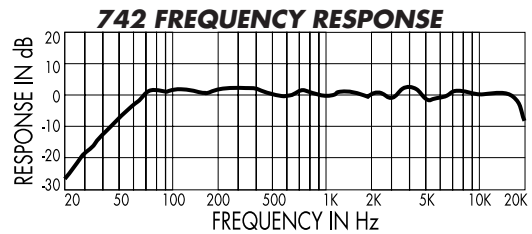


SPEAKER CABLES

The PH50 is our standard cable when purchasing a complete sound system. These cables feature 1/4" plugs and heavy 16 gauge copper wire. The PH50 is adequate for lengths up to 50' under normal use. You can DAISY-CHAIN up to one additional speaker per cable by using the unused 1/4" OUTPUT" jack (right side) on your speaker jack plate. Be sure to note the total impedance to the amp so it is not lower than its recommended impedance. See *Typical Loudspeaker Impedance Configurations*.

SUGGESTIONS FOR OPTIMAL PERFORMANCE

To help control feedback, use a graphic equalizer. Keep the speakers in front of the microphone. Never direct the microphone towards the speaker. For greater coverage, add additional monitors.



MODEL 742 SPEAKER SYSTEM SPECS:

- Frequency Response:** 65 Hz to 17 kHz ±3 dB
- Useable Low Frequency:** 42 Hz (-10 dB)
- Power Handling:** 400w Continuous Power
- Recommended Amp:** 5 to 600 watts
- Sensitivity:** 101 dB SPL, 1 Watt @ 1 meter
- Coverage Angles:** 90° Horizontal, 45° Vertical
- Imp:** 8Ω
- Horn Driver Protection:** Yes
- Inputs/Outputs:** Two 1/4"
- Woofers Enclosure Type:** Closed Box
- Enclosure Covering:** Black Duratuff II™
- Dim/Wt:** 20"W x 14"D x 26"H, 46lbs.
- Warranty:** One Year
- Options:** Cover: CV5742

CARVIN

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(800) 854-2235
www.carvin.com



742P POWERED SPEAKER INSTRUCTIONS



742P

Read general information about the 742 enclosure for specs, warranty and precautions on the other side.

SPS™ POWERED SPEAKER FEATURES

Carvin's SPS™ SMART POWERED SPEAKERS™ are more than just another "power amp in a cabinet". They offer advanced electronics to perfectly control every speaker component. Woofers are power-managed through active filtering, allowing more low-end punch and preventing over excursion. The mid range has exceptional detail without harshness and the top-end remains crystal clear. The exclusive optoisolator limiter helps keep your peaks under control reducing distortion. Surprising transparency is delivered by pure, uncolored power from ultra-fast slew rate power amps.

The heart of every Carvin SPS™ powered speaker is our exclusive Digital Powered Processing Amplifier (DPPA™), which is fundamentally, a very sophisticated delta-sigma V/A converter. The amplifier's THD is less than .1% from 20-20k Hz. The 742P SPS™ offers 300 watts direct to the drivers with no cable loss. SPS™ powered speakers have an incredible 91% efficiency allowing you to run more powered speakers from the same 15 or 20 amp AC circuit. They run cool because power is not wasted into the heat sink. This also means you can expect full output 24 hours continuously - not reduced as with other systems when they get hot. Of course, mute and protection circuits are standard to save your gear from any unfriendly stage conditions. The biggest advantage of Carvin powered speakers is rock-solid reliability and convenience while only adding 6 lbs over the weight of our standard enclosures!

SMART POWERED SPEAKERS™ are easy to connect via a 1/4" or XLR balanced inputs. Daisy-chain as many powered speakers as you need for additional coverage. A 12 dB gain switch matches every audio source. A removable AC cord frees the enclosure when transporting.

INPUT

For any distance over 25', use a balanced source. Use the balanced XLR or 1/4" connectors featured on the rear connect plate. You may DAISY-CHAIN as many speakers as you wish. All connectors are wired in parallel.

12dB PAD

To start the initial hook up, be sure the 12dB pad switch is in the "IN" position. This will be the least sensitive position for your input source. If your signal is weak, depress the Pad switch to the "OUT" position, which will raise the level of your powered speaker.

SOFT LIMITING

Unlike other limiters, the SPS™ incorporates an exclusive optoisolator limiter system, which does not add distortion when limiting. Soft limiting starts to occur when you approach the maximum output of your powered speaker allowing you to get more usable power out of your system without severe clipping. However, when you hear distortion, hard clipping or cutting out, reduce the overall level as you have exceeded the system's capacity.

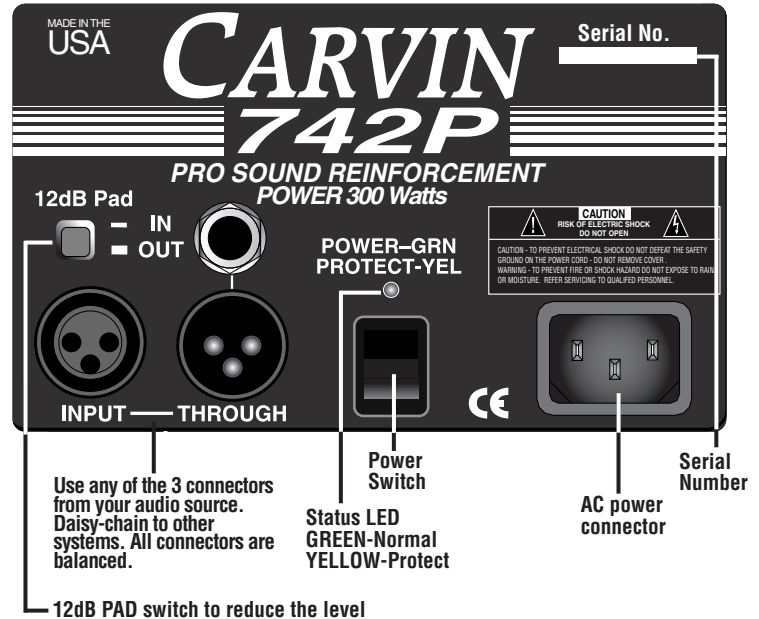
POWER/PROTECT

When the system has been activated by the power switch, the LED will indicate GREEN. If the system should go into protect, the LED will indicate YELLOW which may occur if; a) one of the internal drivers short or b) if the power amp should require service.

AC POWER

The 742P is available in either 120V or 240V models. Always use dedicated circuits for powered speakers. Every Carvin SPS™ powered speaker is designed to be left on continuously in the case of permanent installations.

REAR POWERED CONNECT PLATE



SPS™ 742P POWERED AMP SPECS

Frequency Response:	20 Hz to 20 kHz ±1 dB
THD:	less than .1%
Power :	300 watts @ 8Ω
Duty Cycle :	Continuous without power reduction circuits
Sensitivity:	.5VAC for full output, 12 dB pad
Input/Through:	XLR & 1/4" Balanced
Input Impedance:	10k Ω, (for 100 to 600 Ω inputs)
Input Common Mode Rejection:	72 dB @ 1k Hz
Overload Protection:	Yes
AC Power Muting:	Yes
Power Supply:	Toroid Design
Power Amp Design:	High Slew Rate Digital DPPA™
Power Amp Efficiency :	91%
AC Voltage, VA:	120 or 240 VAC models, 400VA
Idle VA:	15VA
AC Connection:	3 prong connector (grounded)
AC Power Cable:	16 Ga (heavier for long runs)
Wt:	52 lbs.