



805



1230



1540/1540A



1232



1542/1542A



PM15/PM15A



1562



1588/1588A



1584/1584A



SW1801/SW1801A



SW1802

Superb sound with reliability has been one of Carvin's trademarks for high performance loudspeakers. High grade components, lightweight Poplar plywood with dado construction ensures high performance for many years. For road worthiness, Carvin uses recessed steel handles, steel corners, expanded metal steel grilles and duratuff™ covering. Front loaded woofers and wide dispersion titanium high frequency drivers are used to reproduce the full audio spectrum with superb clarity.

Carvin's **APS™** Active Powered Speakers are more than just another "power amp in a cabinet". Biamp or Triamp models feature time aligned circuitry and adjustable EQ resulting in a much more efficient system that adds clarity to your sound that our competitors do not offer. Every **APS™** loudspeaker utilizes Carvin's DCM power amp technology for continuously rated RMS power. Carvin's extensive engineering along with numerous listening tests have proven our "made in USA" loudspeakers to be superior. Like millions of users around the world, enjoy using your new loudspeaker.

**RECEIVING INSPECTION**

INSPECT YOUR LOUDSPEAKER 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. 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 for your records. Return the warranty card with your name and comments to us, or register online at:

USA customers register online at:  
[www.carvin.com/registration](http://www.carvin.com/registration)

All other countries register online at:  
[www.carvinworld.com/registration](http://www.carvinworld.com/registration)

**LIMITED 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: Square wave distortion from power amps can destroy drivers much faster than clean RMS power. The power generated by the APS internal power amps has the capacity to damage the drivers, in which case they would not be covered under warranty.

**SERVICE**

In the USA, please call 800-235-2235 for a RMA number (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.



## 2-WAY SYSTEMS SPECS:

**805**  
**Frequency Response:** 85 Hz to 17 kHz  $\pm 3$  dB  
**Useable Low Frequency:** 72 Hz (-10 dB)  
**Power Handling:** 200 watts Continuous  
**Recommended Amp:** up to 400 watts  
**Sensitivity:** 98 dB SPL, 1Watt @ 1meter  
**Coverage Angles:** 60° Horizontal, 60° Vertical  
**Horn Driver Protection:** Yes  
**Nominal Impedance:** 8 $\Omega$   
**Biampable:** No  
**Connectors:** Two 1/4"  
**Woofer Enclosure Type:** Vented Bass Reflex  
**Construction:** Poplar Plywood  
**Dimensions:** 12.75"W x 11.5"D x 18.5"H  
 32.4 x 29 x 47 cm  
**Net Weight:** 24 lbs.  
 9.8 Kgs  
**Options:** Cover: CV400  
 Stand: SS20

**1230**  
**Frequency Response:** 75Hz to 18kHz $\pm 3$ dB  
**Useable Low Frequency:** 55 Hz (-10 dB)  
**Power Handling:** 300 watts Continuous  
 up to 600 watts  
**Sensitivity:** 99 dB SPL, 1Watt @ 1meter  
**Coverage Angles:** 90° Horizontal, 45° Vertical  
**Horn Driver Protection:** Yes, relay protection  
**Nominal Impedance:** 8 $\Omega$   
**Biampable:** Yes  
**Connectors:** Two 1/4" & Two Speakon™  
**Woofer Enclosure Type:** Vented Bass Reflex  
**Construction:** Poplar Plywood  
**Dimensions:** 17.5"W x 12"D x 22"H  
 44.4 x 30.5 x 55.8 cm  
**Net Weight:** 36 lbs.  
 16.3 Kgs  
**Options:** Cover: CV1230  
 Stand: SS20

**1232**  
**Frequency Response:** 80Hz to 18kHz $\pm 3$ dB  
**Useable Low Frequency:** 61 Hz (-10 dB)  
**Power Handling:** 300 watts Continuous  
 up to 600 watts  
**Sensitivity:** 99 dB SPL, 1Watt @ 1meter  
**Coverage Angles:** 90° Horizontal, 45° Vertical  
**Horn Driver Protection:** Yes, relay protection  
**Nominal Impedance:** 8 $\Omega$   
**Biampable:** Yes  
**Connectors:** Two 1/4" & Two Speakon™  
**Woofer Enclosure Type:** Closed Box  
**Construction:** Poplar Plywood  
**Dimensions:** 18"W x 13"D x 22"H  
 45.7 x 33 x 55.8 cm  
**Net Weight:** 33 lbs.  
 15 Kgs  
**Options:** Cover: CVS1232

**1540**  
**Frequency Response:** 60Hz to 18kHz $\pm 3$ dB  
**Useable Low Frequency:** 49 Hz (-10 dB)  
**Power Handling:** 400 watts Continuous  
 up to 800 watts  
**Sensitivity:** 100 dB SPL, 1Watt @ 1meter  
**Coverage Angles:** 90° Horizontal, 45° Vertical  
**Horn Driver Protection:** Yes, relay protection  
**Nominal Impedance:** 8 $\Omega$   
**Biampable:** Yes  
**Connectors:** Two 1/4" & Two Speakon™  
**Woofer Enclosure Type:** Vented Bass Reflex  
**Construction:** Poplar Plywood  
**Dimensions:** 20"W x 14"D x 26"H  
 50.8 x 35.5 x 66 cm  
**Net Weight:** 51 lbs.  
 23 Kgs  
**Options:** Cover: CVS1540

**1542**  
**Frequency Response:** 65Hz to 18kHz $\pm 3$ dB  
**Useable Low Frequency:** 52 Hz (-10 dB)  
**Power Handling:** 400 watts Continuous  
 up to 900 watts  
**Sensitivity:** 101 dB SPL, 1Watt @ 1meter  
**Coverage Angles:** 90° Horizontal, 45° Vertical  
**Horn Driver Protection:** Yes, relay protection  
**Nominal Impedance:** 8 $\Omega$   
**Biampable:** Yes  
**Connectors:** Two 1/4" & Two Speakon™  
**Woofer Enclosure Type:** Closed Box  
**Construction:** Poplar Plywood  
**Dimensions:** 20"W x 14"D x 26"H  
 50.8 x 35.5 x 66 cm  
**Net Weight:** 46 lbs.  
 21 Kgs  
**Options:** Cover: CVS1542

**1562**  
**Frequency Response:** 54Hz to 19kHz $\pm 3$ dB  
**Useable Low Frequency:** 44 Hz (-10 dB)  
**Power Handling:** 600 watts Continuous  
 up to 900 watts  
**Sensitivity:** 102 dB SPL, 1Watt @ 1meter  
**Coverage Angles:** 90° Horizontal, 45° Vertical  
**Horn Driver Protection:** Yes, relay protection  
**Nominal Impedance:** 4 $\Omega$   
**Biampable:** Yes  
**Connectors:** Two 1/4" & Two Speakon™  
**Woofer Enclosure Type:** Vented Bass Reflex  
**Construction:** Poplar Plywood  
**Dimensions:** 17"W x 15.25"D x 44.25"H  
 43 x 38.7 x 112cm  
**Net Weight:** 82 lbs.  
 15 Kgs  
**Options:** Cover: CV1562

## 3-WAY SYSTEMS SPECS:

**1584**  
**Frequency Response:** 50 Hz to 18 kHz  $\pm 3$  dB  
**Useable Low Frequency:** 38 Hz (-10 dB)  
**Power Handling:** 400 watts Continuous  
**Recommended Amp:** up to 800 watts  
**Sensitivity:** 100 dB SPL, 1Watt @ 1meter  
**Coverage Angles:** 90° Horizontal, 45° Vertical  
**Horn Driver Protection:** Yes, relay protection  
**Nominal Impedance:** 8 $\Omega$   
**Biampable:** Yes  
**Connectors:** Two 1/4" & Two Speakon™  
**Woofer Enclosure Type:** Vented Bass Reflex  
**Construction:** Poplar Plywood  
**Dimensions:** 22"W x 15.25"D x 31.5"H  
 55.8 x 38.7 x 80 cm  
**Net Weight:** 74 lbs.  
 29.4 Kgs  
**Options:** Cover: CVS1584  
 Stand: SS20

**1588**  
**Frequency Response:** 45Hz to 19kHz $\pm 3$ dB  
**Useable Low Frequency:** 34 Hz (-10 dB)  
**Power Handling:** 800 watts Continuous  
 up to 1200 watts  
**Sensitivity:** 103 dB SPL, 1Watt @ 1meter  
**Coverage Angles:** 90° Horizontal, 45° Vertical  
**Horn Driver Protection:** Yes, relay protection  
**Nominal Impedance:** 4 $\Omega$   
**Biampable:** Yes  
**Connectors:** Two 1/4" & Two Speakon™  
**Woofer Enclosure Type:** Vented Bass Reflex  
**Construction:** Poplar Plywood  
**Dimensions:** 25"W x 19.25"D x 48.5"H  
 63 x 49 x 123 cm  
**Net Weight:** 124 lbs.  
 51 Kgs  
**Options:** Cover: CVS1588

## PM 15/PM 15A SPECS:

**Frequency Response:** 60 Hz to 18 kHz  $\pm 3$  dB  
**Useable Low Frequency:** 49 Hz (-10 dB)  
**Power Handling:** 400w continuous, 800 peak  
**Recommended Amp:** up to 800 watts  
**Sensitivity:** 100 dB SPL, 1 Watt @ 1 meter  
**Coverage Angles:** 90° Horizontal, 45° Vertical  
**Horn Driver Protection:** Yes  
**Nominal Impedance:** 8 $\Omega$   
**Biampable:** Yes  
**Connectors:** One 1/4", One Speakon™  
**Woofer Enclosure Type:** Vented  
**Construction:** Acrylonitrile Butadiene Styrene (ABS)  
**Dimensions:** 17.5"W x 14"D x 27"H  
 44.5 x 35.6 x 68.6 cm  
**Net Weight:** 48 Lbs.  
**Options:** 21.8 Kgs  
 Cover: CV15



## SUBWOOFER SYSTEMS SPECS:

**SW1801**  
**Frequency Response:** 40 Hz to 450 Hz  $\pm 3$  dB  
**Useable Low Frequency:** 28 Hz (-10 dB)  
**Power Handling:** 800 watts Continuous  
**Recommended Amp:** up to 1600 watts  
**Sensitivity:** 95 dB SPL, 1Watt @ 1meter  
**Nominal Impedance:** 4 $\Omega$   
**Connectors:** Two 1/4" & Two Speakon™  
**Woofer Enclosure Type:** Vented Bass Reflex  
**Construction:** Poplar Plywood  
**Dimensions:** 24.75"W x 24"D x 34"H  
 63 x 61 x 86 cm  
**Net Weight:** 93 lbs.  
 41.7 Kgs  
**Options:** Cover: CVS1230  
 Stand: SS20

**SW1802**  
**Frequency Response:** 35Hz to 1 kHz $\pm 3$ dB  
**Useable Low Frequency:** 24 Hz (-10 dB)  
**Power Handling:** 1600 watts Continuous  
 up to 3200 watts  
**Sensitivity:** 97 dB SPL, 1Watt @ 1meter  
**Nominal Impedance:** 4 $\Omega$   
**Connectors:** Two 1/4" & Two Speakon™  
**Woofer Enclosure Type:** Vented Bass Reflex  
**Construction:** Poplar Plywood  
**Dimensions:** 48"W x 24"D x 31"H  
 122 x 61 x 79 cm  
**Net Weight:** 159 lbs.  
 65.7 Kgs

## APS™ POWER AMP SPECS:

**1540A**  
**Frequency Response:** 20 Hz to 20 kHz  $\pm 1$  dB  
**THD:** Less than 0.1% @ 90% power  
**Total Power:** 350 watts RMS  
**Low Frequency:** 300 watts @ 8 $\Omega$   
**Mid Frequency:** N/A  
**High Frequency:** 50 watts @ 16 $\Omega$   
**Sensitivity:** 1.5VAC for full output-level set at "0"  
**Equalization:** High  $\pm 6$ dB @ 10 kHz  
 Mid  $\pm 6$ dB, sweepable 100 Hz-5 kHz  
 Low  $\pm 6$ dB @ 100 Hz  
**Active Crossover Filters:** 24dB / octave Linkwitz-Riley  
**Input/Through:** 1/4" balanced & XLR  
**Input Impedance:** 22k $\Omega$   
**Common Mode Rejection:** 72dB @ 1kHz  
**Overload Protection:** Yes  
**Power Amp Design:** Carvin DCM™ Technology  
**AC Voltage, VA:** 120 or 240 VAC models, 300 VA  
**Idle VA:** 20 VA  
**AC Connection:** 3 prong connector (grounded)  
**AC Power Cable:** 16 ga. (heavier for long runs)  
**Weight:** 55 lbs.  
 24.9 kg  
**Options:** Cover: CVS1540  
 Stand: SS20

**1542A**  
**Frequency Response:** 20 Hz to 20 kHz  $\pm 1$  dB  
**THD:** Less than 0.1% @ 90% power  
**Total Power:** 350 watts RMS  
**Low Frequency:** 300 watts @ 8 $\Omega$   
**Mid Frequency:** N/A  
**High Frequency:** 50 watts @ 16 $\Omega$   
**Sensitivity:** 1.5VAC for full output-level set at "0"  
**Equalization:** High  $\pm 6$ dB @ 10 kHz  
 Mid  $\pm 6$ dB, sweepable 100 Hz-5 kHz  
 Low  $\pm 6$ dB @ 100 Hz  
**Active Crossover Filters:** 24dB / octave Linkwitz-Riley  
**Input/Through:** 1/4" balanced & XLR  
**Input Impedance:** 22k $\Omega$   
**Common Mode Rejection:** 72dB @ 1kHz  
**Overload Protection:** Yes  
**Power Amp Design:** Carvin DCM™ Technology  
**AC Voltage, VA:** 120 or 240 VAC models, 300 VA  
**Idle VA:** 20 VA  
**AC Connection:** 3 prong connector (grounded)  
**AC Power Cable:** 16 ga. (heavier for long runs)  
**Weight:** 51 lbs.  
 23.1 kg  
**Options:** Cover: CVS1542

**1584A**  
**Frequency Response:** 20 Hz to 20 kHz  $\pm 1$  dB  
**THD:** Less than 0.1% @ 90% power  
**Total Power:** 425 watts RMS  
**Low Frequency:** 300 watts @ 8 $\Omega$   
**Mid Frequency:** 75 watts @ 16 $\Omega$   
**High Frequency:** 50 watts @ 16 $\Omega$   
**Sensitivity:** 1.5VAC for full output-level set at "0"  
**Equalization:** High  $\pm 6$ dB @ 10 kHz  
 Mid  $\pm 6$ dB, sweepable 100 Hz-5 kHz  
 Low  $\pm 6$ dB @ 100 Hz  
**Active Crossover Filters:** 24dB / octave Linkwitz-Riley  
**Input/Through:** 1/4" balanced & XLR  
**Input Impedance:** 22k $\Omega$   
**Common Mode Rejection:** 72dB @ 1kHz  
**Overload Protection:** Yes  
**Power Amp Design:** Carvin DCM™ Technology  
**AC Voltage, VA:** 120 or 240 VAC models, 400 VA  
**Idle VA:** 20 VA  
**AC Connection:** 3 prong connector (grounded)  
**AC Power Cable:** 16 ga. (heavier for long runs)  
**Weight:** 81 lbs.  
 36.7 kg  
**Options:** Cover: CVS1584  
 Stand: SS20

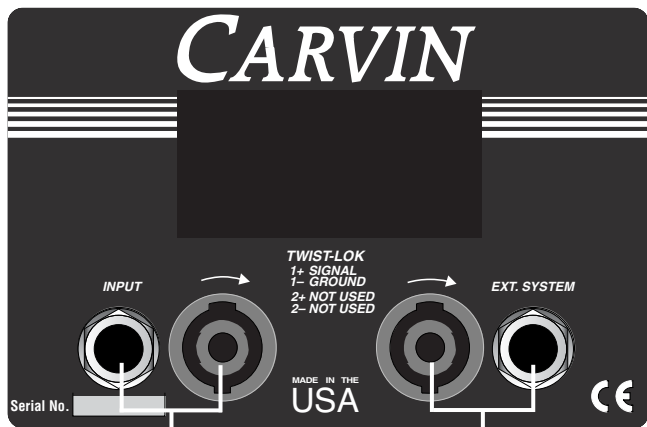
**1588A**  
**Frequency Response:** 20 Hz to 20 kHz  $\pm 1$  dB  
**THD:** Less than 0.1% @ 90% power  
**Total Power:** 900 watts RMS  
**Low Frequency:** 700 watts @ 4 $\Omega$   
**Mid Frequency:** 120 watts @ 8 $\Omega$   
**High Frequency:** 80 watts @ 16 $\Omega$   
**Sensitivity:** 1.5VAC for full output-level set at "0"  
**Equalization:** High  $\pm 6$ dB @ 10 kHz  
 Mid  $\pm 6$ dB, sweepable 100 Hz-5 kHz  
 Low  $\pm 6$ dB @ 100 Hz  
**Active Crossover Filters:** 24dB / octave Linkwitz-Riley  
**Input/Through:** 1/4" balanced & XLR  
**Input Impedance:** 22k $\Omega$   
**Common Mode Rejection:** 72dB @ 1kHz  
**Overload Protection:** Yes  
**Power Amp Design:** Carvin DCM™ Technology  
**AC Voltage, VA:** 120 or 240 VAC models, 900 VA  
**Idle VA:** 25 VA  
**AC Connection:** 3 prong connector (grounded)  
**AC Power Cable:** 16 ga. (heavier for long runs)  
**Weight:** 139 lbs.  
 63 kg  
**Options:** Cover: CVS1588

**SW1801A**  
**Frequency Response:** 20 Hz to 20 kHz  $\pm 1$  dB  
**THD:** Less than 0.1% @ 90% power  
**Total Power:** 700 watts RMS  
**Low Frequency:** 700 watts @ 4 $\Omega$   
**Mid Frequency:** N/A  
**High Frequency:** N/A  
**Sensitivity:** 1.5VAC for full output-level set at "0"  
**Equalization:** N/A  
**Active Crossover Filters:** 24dB / octave 80Hz, 120Hz, or bypass  
**Input/Through:** 1/4" balanced & XLR  
**Input Impedance:** 22k $\Omega$   
**Common Mode Rejection:** 72dB @ 1kHz  
**Overload Protection:** Yes  
**Power Amp Design:** Carvin DCM™ Technology  
**AC Voltage, VA:** 120 or 240 VAC models, 900 VA  
**Idle VA:** 25 VA  
**AC Connection:** 3 prong connector (grounded)  
**AC Power Cable:** 16 ga. (heavier for long runs)  
**Weight:** 139 lbs.  
 63 kg  
**Options:** Cover: CVS1801

The power generated by the APS internal power amps has the capacity to damage the drivers, in which case they would not be covered under warranty.

# NON-POWERED MODELS

**REAR CONNECT PLATE (non-powered speakers)** - Use either 1/4" or Speakon™ cables for connecting to the power amp and daisy chaining to an additional speaker. For high powered applications, use Speakon™ cables only.



Speakon™ & 1/4" inputs from power amp output.

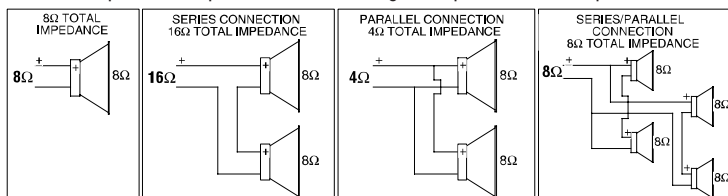
Speakon™ & 1/4" through connectors for additional speakers

**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 speakers. Doubling the speakers adds four times the acoustical power which is more advantageous than increasing power.

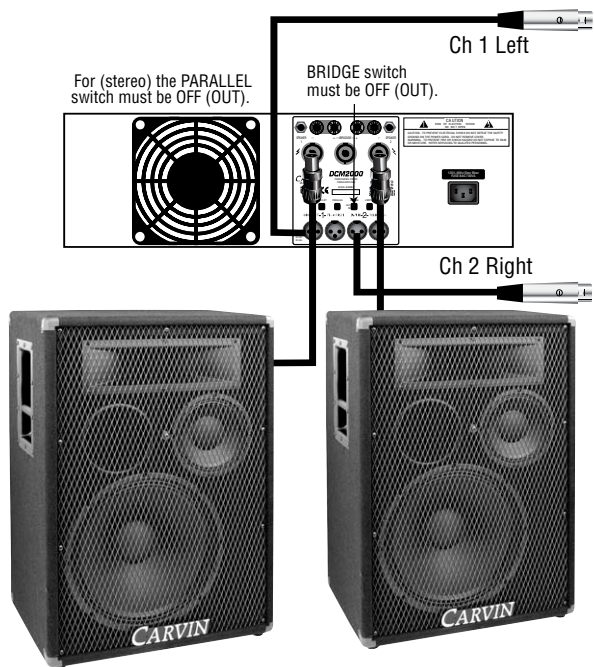
**SPEAKER CABLES** Use either Carvin's PH50 speaker cable for up to 50' or high-current 12GA Speakon™ cables for lengths up to 150'. 18GA cables are not recommended. You can DAISY-CHAIN up to one additional speaker per cable by using the OUTPUT connector. Be sure the total impedance to the amp is not lower than the amp's minimum impedance.

## TYPICAL LOUDSPEAKER IMPEDANCE CONFIGURATIONS

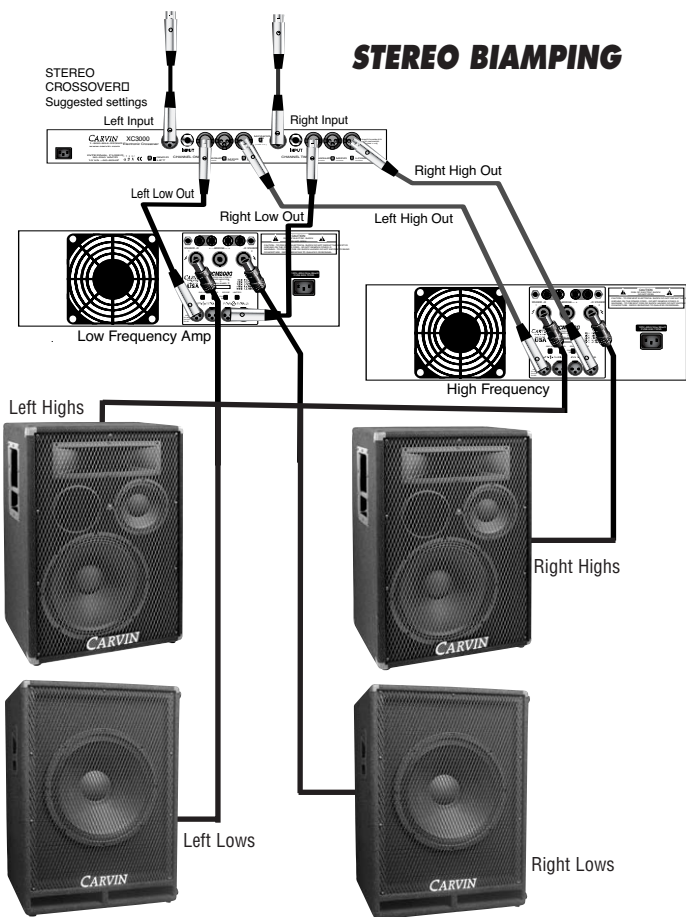
Individual speaker or speaker cabinet wiring examples for total impedance.



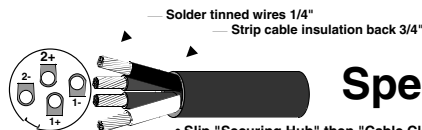
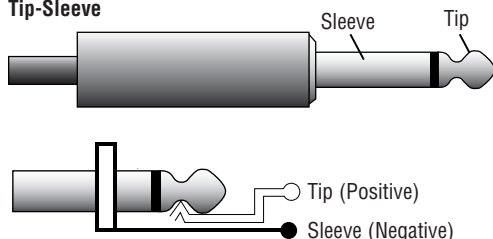
## TYPICAL STEREO SETUP



## STEREO BIAMPING



## Standard 1/4" Phone Plug Tip-Sleeve



## Speakon™

• Slip "Securing Hub" then "Cable Clamp" over cable before attaching wires.

• Connection Configuration:

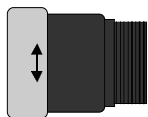
Black (1+) / positive

White (1-) / negative

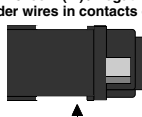
Red (2+) / positive

Green (2-) / negative

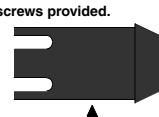
• Solder wires in contacts or use hex screws provided.



Twist-Lok Housing



Contact Insert



Cable Clamp



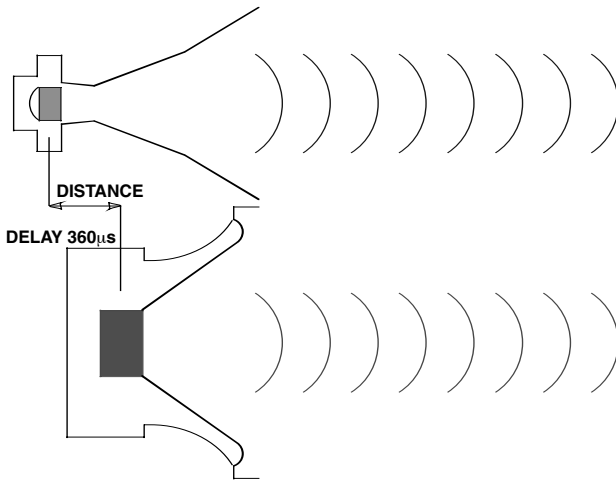
Securing Hub



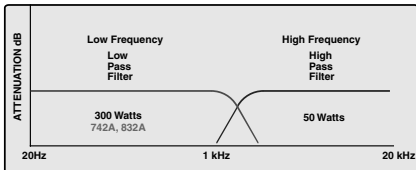
**APS BI-AMPED/TRI-AMPED LOUDSPEAKERS** Carvin's APS™ Active Powered Speakers are more than just another “power amp in a cabinet”. With two separate power amps in the 2-way systems and three separate power amps in the 3-way systems, a more efficient design adds clarity as each amp only needs to reproduce frequencies for its respective driver. Compared to other powered speakers the APS system will deliver more clarity with greater power.

**APS POWER AMPS** APS loudspeakers utilize Carvin's DCM power amp technology to supply continuously rated RMS power.

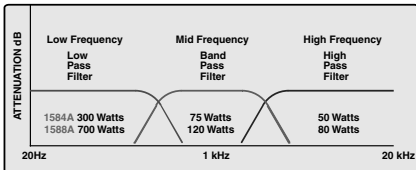
**APS TIME ALIGNMENT CIRCUITRY** Due to the physical size and placement of various drivers in a speaker enclosure, the sound of each driver reaches your ears at different times. This difference is enough to cause a slight phase change. To alleviate this problem, the APS utilizes time delay circuits to time-align the drivers with one another.



**APS ACTIVE ELECTRONIC CROSSOVERS** An electronic crossover splits the incoming signal into specific frequency ranges before going to the separate amps for each driver. For superior frequency control and maximum phase accuracy, the APS utilizes the design of our XC3000 crossover featuring sharp 4th order 24dB/octave Linkwitz-Riley filters. Perfect crossover points are achieved with appropriate frequencies going to each driver. A subsonic filter improves woofer efficiency by removing extremely low frequencies under 20 Hz that waste power.



BI-AMP



TRI-AMP

## APS HOOK-UP

**1. INPUT/THRU OUTPUT** Use the balanced XLR or 1/4" connectors featured on the rear control panel. Using a balanced source will reduce noise which may be picked up by the cable. You may DAISY-CHAIN as many APS systems as you wish. All connectors are wired in parallel.

**2. APS EQUALIZATION** The APS powered loudspeakers offer a passable 3-band mid sweep equalizer for custom tuning to the acoustical environment. The EQ system is engineered specifically for the APS, featuring a boost and cut range of ±6dB to prevent radical adjustments that could otherwise compromise the sound of the system. The Mid-band sweep is particularly useful for enhancing critical mid range frequencies for stage monitoring or for cutting certain frequencies to compensate for room resonances. Press the “EQ IN” switch to activate the equalizer. The BLUE LED displays when the EQ is active.

**3. LEVEL CONTROL** The LEVEL control adjusts the output volume of the APS. Start by setting the LEVEL at “0”. Weak input signals can be boosted by setting the LEVEL at “+6”. Strong signals can be reduced by turning the LEVEL toward “-12”. The RED LED will flash if the internal power amps start to clip. Turn the LEVEL control down to avoid clipping. Damage to the drivers can result from operating at a level where the RED CLIP LED is constantly illuminated.

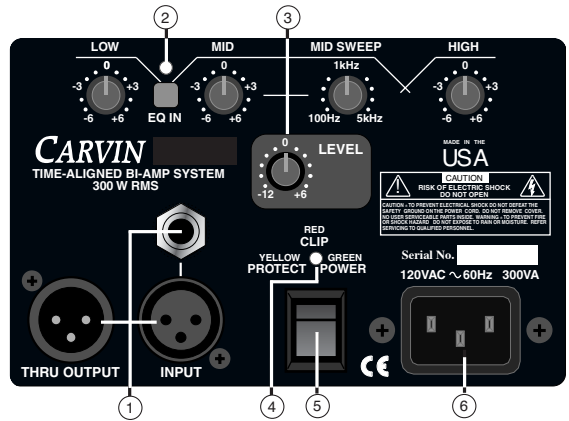
**4. POWER/PROTECT/CLIP INDICATOR** Power up your audio source first, then turn on the APS with the power switch. When the system is active, the LED will indicate GREEN. When shutting down turn off the APS first, then turn off the mixer. If any of the power amps are clipping, the LED will indicate RED and you should reduce the output level. If the system should go into protect mode, the LED will indicate YELLOW and the power amps will shut off. This may occur if; a) the system is overheated due to clipping the power amps for an extended period of time, b) one of the internal drivers developed a short or c) the power amps require service.

**5. POWER** Push this switch to the UP position to apply power to the unit. The POWER LED will light to show the system is on.

**6. AC POWER** Use a standard grounded AC cord. Whenever possible, use dedicated circuits for powered speakers. The powered speakers are available in either 120V or 240V models.

**7. CROSSOVER FREQUENCY SWITCH** The CROSSOVER FREQUENCY switch selects the crossover point for the APS. The 120Hz out setting is generally used with small to mid sized speakers in your setup. Almost all 12" and 15" woofers will benefit from the 120Hz setting. The 80Hz (switch in) setting is generally used with larger 18" woofers.

### APS BI-AMP/TRI-AMP REAR PANEL:



### SW1801 SUBWOOFER

**8. CROSSOVER BYPASS SWITCH** The crossover bypass switch bypasses the internal active crossover allowing the use of an outboard active crossover.

