

# SCx

The Carvin Audio SCx1000 series loudspeakers are a durable high performance solution for bands and audio companies for small to mid sized venues. They feature the latest innovations for both live sound and recorded music playback, incorporating drivers that deliver clear, very musical sound quality at high volume levels up to 134 dB. Smart crossovers with Speaker Guard™ circuitry protect high frequency drivers from overload. Rugged construction features CNC machined, multi-ply Baltic Birch enclosures protected with UV and weather resistant Duratec™ coating and powder coated radiused steel grills. Twist-lock input connectors, pole mounts, large side handles and recessed pockets for stacking add to a list of great performance values that are designed for today's pro audio.

The SCx1112 is a 12" 2-way enclosure for smaller applications and great for vocal stage monitors. The full range 1200 watt peak power rating and high SPL output permits the performer to really hear their mix. The 60x90 degree horn is vertically oriented for even floor monitor coverage at close or far angles, and horizontal pole-mounting provides wide audience coverage when used as front-of-house mains in smaller venues and events.

The SCx1115 is a 15" 2-way multi-purpose enclosure for front of house mains, stage monitors, or DJ sound. Loaded with a 15" heavy-duty woofer, it will handle up to 1600 watts peak. This is an exceptional sounding enclosure for most applications requiring extended bass from a small enclosure.

The SCx1253 is a high performance, compact, dual 15" 3-way loudspeaker. The 15" woofers are co-planar mounted resulting in a compact size that produces exceptional bass with real low-end punch. The Mid-High horn lens offers 90x60 degree coverage and is rotatable for vertical or horizontal orientation. The 6 1/2" mid-range horn loaded driver adds a new dimension of clarity to vocals and drums. The high frequency mylar compression driver features a 1-inch exit extending response to 20kHz. The twist-lock input connectors allow for easy bi-amping. 12 flypoints offer a variety of suspension options, or it can sit securely in the matching foot receivers on top of the SCx1118(A) subwoofer. With a 4 ohm impedance and 3200 watt peak power handling, this wide dispersion loudspeaker system delivers a high intelligibility, studio quality sound with a high SPL peak output of 134 dB. There is nothing on the MI market matching it's sound or output at this size and weight.

For more low-end thump, all SCx systems can be supplemented with SCx1118 passive subs or SCx1118A active subs. The heavy-duty 18" woofer is housed in a bass reflex enclosure delivering sub-bass down to 35 Hz, adding real depth and feel to your performances. The 8 ohm, 3" voice-coil is designed to handle up to 2000 watts peak. The active SCx1118A features an internal 1400 watts peak power amp. Ideal for multi-stacking or stacking mains on top, this compact hi-output subwoofer is a real work-horse that you can depend on, night after night.

Step up to a new experience in high performance sound with Carvin Audio SCx loudspeakers.



SCx1112



SCx1115



SCx1253



SCx1118  
SCx1118A



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## CHOOSING THE CORRECT AMPLIFICATION

SCx Loudspeakers are designed to be used with professional power amplifiers capable of producing the correct power into equivalent speaker loads. Care should be taken to avoid amplifier clipping. Due to the fact that music signals have a high peak-to-average "crest" factor, a lesser power amplifier driven into clipping is more likely to damage a speaker than a higher power amplifier used within its ratings. When an amplifier is over driven, its output waveform is clipped or squared off reducing the crest factor. If an amplifier is extremely over driven, the output waveform can approach that of a square wave. Under these extreme conditions, an amplifier is capable of producing far more power than its un-distorted rated power output.

Carvin recommends an amplifier capable of producing at least the power rating, up to 1.5 times the power rating of the speaker. (See TECHNICAL SPECIFICATIONS). The use of amplifiers with outputs greater than this is not recommended.

Always turn on the amplifiers after the mixer and control systems have been powered on. This will eliminate power peaks due to switch on surges which can damage loudspeakers. When powering down the system, reverse the sequence and switch off the power amplifiers first.

## Connection Plates

### 1. FULL RANGE/BIAMP SWITCH (SCx1112, SCx1115, SCx1253)

Slide switches to the FULL RANGE position when using a single amplifier delivering a full range signal, the internal passive crossover network divides the signals to the appropriate drivers. Replace the rubber plug to seal the cabinet.

Slide the switch to the BIAMP position when using external active crossover and multiple amplifiers in a bi-amp configuration. The BIAMP position bypasses the internal passive crossover network. Replace the rubber plug to seal the cabinet.

For the 3-way SCx1253, the Mid-High is driven by one amp and the dual 15" drivers by another.

### 2. FULL RANGE/CROSSOVER SWITCH (SCx1118)

Use the CROSSOVER position to engage the internal Low-Pass Crossover network. (150Hz, 6dB/oct.)

Slide the switch to the FULL RANGE position when using an amplifier driven by an external active crossover, the internal passive crossover network is bypassed.

Replace the rubber plug to seal the cabinet.

### 3. TWIST-LOCK FULL RANGE / BIAMP INPUT

This input can be used for Full Range or Biamped Input.

### 4. TWIST-LOCK THROUGH

This jack is wired in parallel with the full range input jack for daisy chaining additional enclosures. All 4 pins are connected in parallel with the Input.

### 5. 1/4" INPUT

Use this input when using a single amp configuration. Ensure switches are in FULL RANGE position.

### 6. 1/4" THROUGH

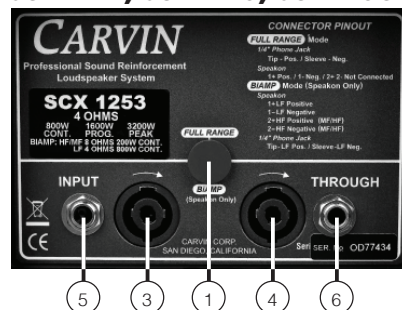
This jack is wired in parallel with the 1/4" input jack for daisy chaining additional enclosures. Ensure switches are in FULL RANGE position.

## CONNECTING SCx PASSIVE SPEAKERS

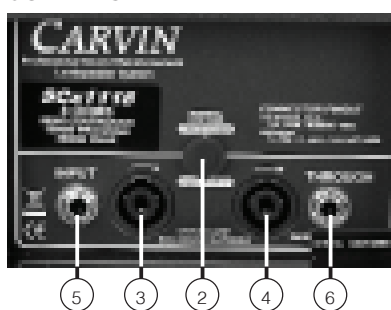
The rear panels of the SCx passive loudspeakers are fitted with both 1/4" and 4-pin twist-lock connectors. The twist-lock connection must be used for BIAMP. All connectors are wired in parallel.

4 pin	Bi-amp	Passive	Subwoofers
1+	Low Freq. Positive	Positive Input	Positive Input
1-	Low Freq. Negative	Negative Input	Negative Input
2+	High Freq. Positive	Through	Through
2-	High Freq. Negative	Through	Through

### SCx1112, SCx1115, SCx1253



### SCx1118



### SCx1118A



## SCx1118A POWERED SUBWOOFER

Carvin's SCx1118A powered sub takes the guesswork out of selecting the ideal power source to drive your subwoofers. Designed to handle the most demanding applications, the amplifier is perfectly mated with the subwoofer and enclosure, creating an optimally designed system. The SCx1118A powered system makes setup and operation easier as well, with less gear to haul. Feed your mixer's output directly to these loudspeaker systems, and you're ready.

### SCx1118A POWER AMP SPECS:

700w RMS Continuous/1400w Peak

THD less than .05% @ 90%, .1% at full power

Crossover: Active, 24dB/Octave @ 80 & 120 Hz

Protection systems: Short circuit, thermal and Speaker Guard™ protection

Power Requirement: 120/240 VAC, 50-60Hz

## SCx1118A CONTROL PANEL

**1. INPUT/THRU OUTPUT** Use the balanced XLR or 1/4" connectors featured on the rear control panel to connect to your mixer. Using a balanced source will reduce noise which may be picked up by the cable. You may DAISY-CHAIN as many systems as you wish. All connectors are wired in parallel, however if the HI PASS switch is used the THRU range will be set by the CROSSOVER FREQUENCY switch.

**2. LEVEL CONTROL** The LEVEL control adjusts the output volume. 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.

**3. POWER/PROTECT/CLIP INDICATORS** Power up your audio source first, then turn on the powered sub. When the system is active, the LED will indicate BLUE. When shutting down turn off the powered sub first, then turn off the mixer. If any of the power amps are clipping, the LED will indicate RED and you should reduce the input 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 amp requires service.

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

**5. AC POWER** Use a standard grounded AC cord. Whenever possible, use dedicated circuits for powered speakers.

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

**7. CROSSOVER FREQUENCY SWITCH** The CROSSOVER FREQUENCY switch selects the internal crossover point. The 120Hz (switch out) setting is generally used with small to mid sized speakers in your setup. The 80Hz (switch in) setting is generally used with mid to large speakers. The SCx1112 is usable with either setting depending on preference, but 80Hz is recommended for use with the SCx1115 and SCx1253 to eliminate muddiness in the 120Hz range from multiple sources.

**8. HI PASS OUTPUT SWITCH** The hi pass output switch changes the output of the XLR thru output from a parallel of the Input XLR to a hi pass (all frequencies above) the crossover switch setting. This is good for going to a top cabinet that can not handle the sub's low frequencies.

**SYSTEM SETUPS**

Speaker systems can be scaled from small to large for the size of the venue and type of performance, using different speakers in different positions as you grow a system. For instance a single pair of SCx1112's or SCx1115's on pole stands may be all that is required. Adding SCx1118 or SCx1118A subs will expand your system for bigger performances. For larger performances use the SCx1253 for mains with the SCx1112 or SCx1115 as stage monitors or side fills. Two SCx1118(A)'s can be used (per side) to keep up with the high SPL output of one SCx1253 per side.

**BIAMPING AND ADVANCED SYSTEM CONTROL**

With the SCx1118A, use the XLR THRU jack with the HI PASS OUTPUT switch engaged to drive the power amp for your SCx1112 or SCx1115 to reduce the power needed to drive these cabinets.

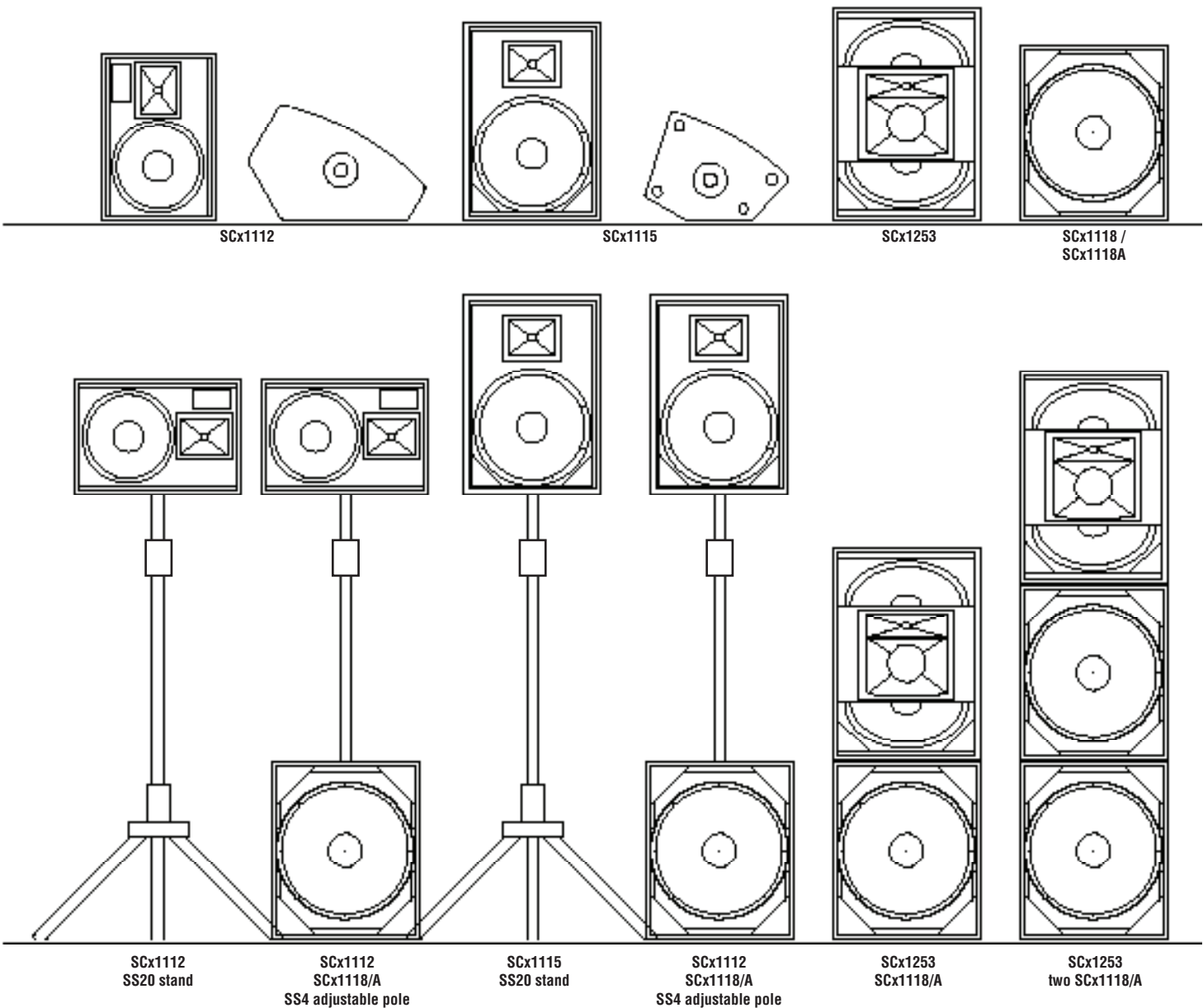
Active electronic crossovers such as Carvin's XD360 X-Drive can be used for more advanced control. Bi-amping, and 2- or 3-way setups allow more efficient use of speakers and power amps. See the chart for recommended crossover frequencies.

**RECOMMENDED EXTERNAL CROSSOVER FREQUENCIES**

<b>SCx1112</b>	<b>Biamp Low / High</b> 1.8kHz	<b>Low Cut with SUB</b> 80-100Hz
<b>SCx1115</b>	<b>Biamp Low / High</b> 1.8kHz	<b>Low Cut with SUB</b> 80Hz
<b>SCx1253</b>	<b>Biamp Low / High</b> 350Hz	<b>Low Cut with SUB</b> 50-60Hz
<b>SCx1118</b>	<b>Low Pass</b> 80-120 Hz	<b>Low Cut</b> 30-35 Hz

**STACKING AND USING SPEAKER STANDS SAFELY**

Ensure that the floor, stage or soundwings are level and solid. Be cautious of outdoor windy conditions, speaker stacks could topple over in high wind conditions or be accidentally pushed or bumped over by over-zealous crowds. Loudspeakers producing very high SPL (especially subwoofers) can shift from their original position. Ensure the feet of the loudspeakers are locked into the feet cups of the speaker below. Place frictional material between the floor and the loudspeaker.



### SCx1112 specifications:

System Type: 12-inch 2-Way, Bass-reflex  
Frequency Response: 60 Hz – 20 kHz (-10dB)  
70 Hz – 18 kHz (-3 dB)  
Coverage Pattern: Monitor 60x90; Main 90x60  
Crossover: 2-Way with Speaker Guard™ HF protection  
Crossover Frequency: 1.8 k Hz (internal)  
Recommended external crossover frequency:  
1.8k Hz @ 12dB/oct. or greater  
Power: Continuous / Program / Peak  
Full Range 300w /600w /1200w  
Recommended Amplifier Power: 300 to 900w  
Sensitivity (1w @ 1m): 96dB  
Maximum SPL: 120dB Cont. / 126dB Peak  
LF Driver: 12-inch woofer  
HF Driver: 1-inch exit Mylar 1.75-inch VC  
Connectors: Two 4-pin Twist Lock connectors  
Two 1/4-inch connectors  
Nominal Impedance full range: 8 ohms  
Bi-amp LF: 8 ohms 300w /600w /1200w  
Bi-amp HF: 8 ohms 60w /120w /240w  
Enclosure: 13-Ply Premium Russian Baltic Birch  
Finish: Black DuraTec™  
Grill: Black powder coated 16-Ga steel  
Suspension/Mounting: 1-3/8-inch pole mount cup  
Transport: 1 Recessed Handle  
Dimensions (H x W x D): 16.5 in x 15.25 in x 22.5 in  
420 mm x 388 mm x 572 mm  
Net Wt: 36.5 lb (16.5 kg)

### SCx1253 specifications:

System Type: Dual 15-inch 3-Way, Co-planar bass reflex  
Frequency Response: 50 Hz – 20 kHz (-10dB)  
60 Hz – 18 kHz (-3 dB)  
Coverage Pattern: 90H x 60V rotatable MF-HF Lens  
Crossover: 3-Way with Speaker Guard™ HF protection  
Crossover Frequencies: 350 Hz, 2.0 kHz (internal)  
Recommended external crossover frequency:  
350 Hz @ 12dB/oct. or greater  
Power: Continuous / Program / Peak  
Full Range 800w /1600w /3200w  
Recommended Amplifier Power: 500 to 1600w  
Sensitivity (1w @ 1m): 101dB 60-350Hz; 98dB 350-18KHz  
Maximum SPL: 128dB Cont. / 134dB Peak  
LF Driver: Dual 15-inch Heavy Duty 2.5-inch VC  
MF Driver: 6.5-inch Heavy Duty 1.5-inch VC  
HF Driver: 1-inch exit Mylar 1.75-inch VC  
Connectors: Two 4-pin Twist Lock connectors  
Two 1/4-inch connectors  
Nominal Impedance full range: 4 ohms  
Bi-amp LF: 4 ohms 800w /1600w /3200w  
Bi-amp MF/HF: 8 ohms 150w /300w /600w  
Enclosure: 13-Ply Premium Russian Baltic Birch  
Finish: Black DuraTec™  
Grill: Black powder coated steel  
Suspension/Mounting: 12 flypoints  
Transport: 2 Recessed Handles  
Dimensions (H x W x D): 29 in x 19.75 in x 22.75 in  
737 mm x 505 mm x 580 mm  
Net Wt: 88.2 lb (40 kg)

### SCx1115 specifications:

System Type: 15-inch 2-Way, bass-reflex  
Frequency Response: 54 Hz – 20 kHz (-10dB)  
62 Hz – 18 kHz (-3 dB)  
Coverage Pattern: 90H x 60V  
Crossover: 2-Way with Speaker Guard™ HF protection  
Crossover Frequency: 1.8 k Hz (internal)  
Recommended external crossover frequency:  
1.8k Hz @ 12dB/oct. or greater  
Power: Continuous / Program / Peak  
Full Range 400w /800w /1600w  
Recommended Amplifier Power: 400 to 1000w  
Sensitivity (1w @ 1m): 98dB  
Maximum SPL: 124dB Cont. / 130dB Peak  
LF Driver: 15-inch Heavy Duty 2.5-inch VC  
HF Driver: 1-inch exit Mylar 1.75-inch VC  
Connectors: Two 4-pin Twist Lock connectors  
Two 1/4-inch connectors  
Nominal Impedance full range: 8 ohms  
Bi-amp LF: 8 ohms 400w /800w /1600w  
Bi-amp HF: 8 ohms 60w /120w /240w  
Enclosure: 13-Ply Premium Russian Baltic Birch  
Finish: Black DuraTec™  
Grill: Black powder coated steel  
Suspension/Mounting: 1-3/8-inch pole mount cup  
Transport: 2 Recessed Handles  
Dimensions (H x W x D): 25.75 in x 18.5 in x 14.5 in  
654 mm x 470 mm x 367 mm  
Net Wt: 45 lb (20.5 kg)

### SCx1118 specifications:

System Type: 18-inch Sub, bass-reflex  
Frequency Response: 35 Hz – 1.5K Hz (-10DB)  
40 Hz – 1k Hz (-3 dB)  
Coverage Pattern: omni  
Crossover: 200Hz (internal)  
Recommended external crossover frequency:  
80-120 Hz @ 12dB/oct.  
Power: Continuous / Program / Peak  
Full Range 500w /1000w /2000w  
Recommended Amplifier Power: 500 to 1000w  
Sensitivity (1w @ 1m): 97dB  
Maximum SPL: 123dB Cont. / 130dB Peak  
LF Driver: 18-inch, 3-inch VC, woofer  
Connectors: Two 4-pin Twist Lock connectors  
Two 1/4-inch connectors  
Nominal Impedance: 8 ohms  
Enclosure: 13-Ply Russian Baltic Birch  
Finish: Black DuraTec™  
Grill: Black powder coated steel  
Suspension/Mounting: Top: 1 x 1-3/8-inch Pole Cup  
foot receivers for SCx1253  
Transport: 2 Recessed Handles  
Dimensions (H x W x D): 23.5 in x 19.75 in x 22.75 in  
600 mm x 505 mm x 580 mm  
Net Wt: 65 lb (29.5 kg)

### SCx1118A specifications: same as SCx1118 except:

Power Amp: 700w RMS continuous/1400w Peak  
THD: < 0.05% @90%, 0.1% @full power  
Crossover: Active, 24dB/oct. @80 or 120 Hz  
Protection systems:  
short circuit, thermal, Speaker Guard™ protection  
Power Requirement: 120/240VAC, 50/60HZ, 600VA  
Net Wt: 66 lb (30 kg)

NOTE: 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 power.

 <p>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.</p>	<p><b>CAUTION</b> RISK OF ELECTRIC SHOCK DO NOT OPEN</p> 	 <p>This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.</p>
<p><b>THIS UNIT CONTAINS HIGH VOLTAGE INSIDE!</b>      <b>REFER SERVICING TO A QUALIFIED TECHNICIAN</b></p>		

### IMPORTANT! FOR YOUR PROTECTION, PLEASE READ THE FOLLOWING:

**POWER SOURCES:** The SCx1118A 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.  
**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 SCx is guaranteed against failure for 5 YEARS, except for failure due to overpowering or normal wear and tear. 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 CORP. SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

### SERVICE

In the USA go to [www.carvinaudio.com](http://www.carvinaudio.com).  
Outside the USA, contact your dealer or go to [www.carvinaudio.com](http://www.carvinaudio.com) and click on "Dealers" for your nearest service center. Include a written description of the problem with serial number and date of purchase.

### 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.