



his symbol is intended to alert the user to the rerence of uninsulated “dangerous voltage” rithin the product’s enclosure that may be f sufficient magnitude to constitute a risk of lectric shock to persons.

**CAUTION**  
RISK OF ELECTRIC SHOCK  
DO NOT OPEN



**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 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. 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.

**SERVICE**  
In the USA, please call 800-235-2235 for a RMA # (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.

**HELP SECTION**

- 1) AMP WILL NOT TURN ON**  
Check the power to the amp. Check for tripped circuit breakers, unplugged extension cords or power-strip switches that may be turned off.
- 2) SX200/H AMP SHUTS OFF WHILE PLAYING**  
Check the rear SPK IPM switch to make sure it is set properly. Switch to the 4Ω position if you are unsure where to set it. If the problem continues, contact our service technicians.
- 3) NO OUTPUT with POWER light ON**  
Make sure that your speaker is functioning and not blown. Check input, cables & effects connected to the effects loop, and extension speaker cables for defects & connections.  
a) Also verify the effects loop is working by inserting a 1/4” stereo plug into the return jack and short the tip and ring. If the amp works by doing this, the effects loop jack is defective.
- 4) KEEP YOUR AMP LOOKING NEW**  
Try to keep your amplifier free from dust and moisture. To clean, use a damp cloth to wipe the controls chassis panel and wipe the vinyl covering. Use a dry cloth to be sure the moisture is removed.



**CAUTION**  
RISK OF ELECTRIC SHOCK

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

06-11906	4 EACH	WSH METRIC 9MM CHROME SHIMWOOD
06-30035	4 EACH	WSH FLANGED #10 BLACK OXIDE
06-40070	2 EACH	TERMINAL .25"TAB/.156"LUG/.032
06-50030	8 EACH	NUT KEP #6-32 BLACK OXIDE
06-50053	4 EACH	NUT RETAINER U-TYPE #10 SCREW
07-00105B	11 EACH	KNOB SX BLACK W/WHITE NUMBERS
07-00106	1 EACH	KNOB SX FEATURE BLACK W/WHITE
10-03150	1 EACH	CHASSIS SX50/100C
25-31350	1 EACH	SWITCH DPST ROCKER BLACK POWER
76-00001	1 EACH	WARRANTY CARD "CARVIN"
77-10000	1 EACH	LABEL AMP PROD ID TAG
77-03102	1 EACH	LABEL OUTPUT JACKS SX100/50C
77-03204	1 EACH	LABEL SERIAL NUMBER SX AMPS
87-10120	1 EACH	CABINET ASSY SX100
<b>SX200 COMBO 2x12" &amp; SX200H</b>		
<b>COMPONENT</b>	<b>QTY/BILL U/M</b>	<b>DESCRIPTION</b>
03-01200	1 EACH	STRAIN RELIEF .625 CHS/.35 CBL
03-18190	1 EACH	CABLE TIE 4"LX .10"W 7/8 BNDLE
03-21800A2	EACH	MICA INSULATOR TO-218 0.002"
03-44319	1 EACH	WASHER NYLON .157IDx.315Dx.197
03-49553	2 EACH	TAPE W/ADHSVE 3M .375 X .375
03-52221	1 EACH	GROMMET RUBBER .375" DIAMETER
03-60043	1 EACH	SIL PAD W/ADHESIVE 9 MIL

## REPLACEMENT PARTS LIST

<b>SX50/100C</b>	<b>SX-AMP COMBO 12" 100W</b>	
<b>COMPONENT</b>	<b>QTY/BILL U/M</b>	<b>DESCRIPTION</b>
<b>For SX50:</b>		
80-03150-50	1 EACH	PCB ASSY MAIN SX50 SMT PCB
<b>For SX100:</b>		
80-03150-100	1 EACH	PCB ASSY MAIN SX100 SMT PCB
<b>Hardware For SX50 &amp; SX100:</b>		
03-01200	2 EACH	STRAIN RELIEF .625 CHS/.35 CBL
03-21800A2	EACH	MICA INSULATOR TO-218 0.002"
03-44319	1 EACH	WASHER NYLON .157IDx.315Dx.197
03-49553	2 EACH	TAPE W/ADHSVE 3M .375 X .375
03-60043	1 EACH	SIL PAD W/ADHESIVE 9 MIL
03-77704	1 EACH	LENS METAL RED THREADED
05-00111	1 EACH	CABLE SPKR 24" 16AWG QUICK CON
05-01605	1 EACH	PWR AC 16AWG SJT 8' W/125MM ST
05-46020	1 EACH	SPADE CONNECT 16AWG BLK 203MM
05-48025	1 EACH	SPADE CONNECT 18AWG BLK 254MM
05-64410	1 EACH	CABLE RIBBON 24A 4P/4" W/HDR
05-68415	1 EACH	CABLE RIBBON 24A 8P/6" W/HDR
05-68430	1 EACH	CABLE RIBBON 24A 8P/12" W/HDR
05-96545	1 EACH	SPADE CONNECT 16AWG GRN/YEL 5"
06-09252	11 EACH	NUT FOR POT 71-09252C
06-10070	8 EACH	MS PPH 6-32X .500 BLACK
06-10174	4 EACH	SMS POH #10X 1.25 TYPE A BLACK
06-11120	1 EACH	NUT METRIC 12MM KUNMING BLACK
06-11905	4 EACH	NUT METRIC 9MM CHROME SHIMWOOD



**SX SERIES** Classic Tube Emulation, awesome digital effects, rich black vinyl covering and the brass red jewel light continue to make the AMERICAN MADE SX Series one of the hottest amps on the market today!

**EMULATION OR MODELING?** Unlike other “modeling” amps, the SX doesn’t just copy the sounds of other amplifiers – it actually emulates 12AX7 tube circuitry. The SX waveforms successfully “emulates” real tube waveforms that breathe and express warmth from a mild soft-clip to a full power soaked sustain. Pro players and industry gurus have stated that the SX Tube Emulator actually sounds better than many tube amps!

**TWO CHANNELS** – Clean and Distortion. Each channel has its own independent volume control for setting up equal levels quickly and easily. The **SX200** and **SX200H** adds true “DUAL CHANNEL 1 & 2” capabilities allowing both channels to be played at the same time.

**ACTIVE TONE CONTROLS** All models feature **BASS, MID** and **TREBLE** controls on both channels. The **SX200** and **SX200H** goes even further by adding a **PRESENCE** control to each channel for more high-end.

**24-BIT EFFECTS** Once you have your tone, add in just the right amount of lush REVERBS, rich CHORUSES, thick textured FLANGING and pristine ECHOES using fully adjustable parameters for damping, decay, depth, speed, time and regeneration–up to 256 24-BIT effects. The **SX200** and **SX200H** adds a second digital processor dedicated to creating a lush, concert-hall reverb at the push of a button.

**SX MODELS** The 50 watt **SX50** with one heavy-duty 12” speaker is perfect for any venue. The **SX100, SX200** and **SX200H** feature a full 100 watts RMS – plenty for most situations. All combos & stacks feature the heavy-duty speakers that provides awesome guitar reproduction – from clean to blues to scream’n metal. The **SX200** features two 12” speakers for an even bigger

sound. The **SX200H** head can be paired with either a 4x12 half stack or 8x12 full stack.

**REAR PANEL CONNECTIONS** All back panels feature a voiced **LINE OUT** for recording or running a slave amp, **HEADPHONE** jack, **EXTENSION SPEAKER** jack and a **FOOT SWITCH** jack for the optional **FS22** (for remotely changing channels and turning on/off the effects). The extra dedicated reverb on the **SX200 & SX200H** is controlled by a front panel switch. The **SX200 & SX200H** also adds SEND/RETURN jacks for your own external effects. A 4, 8, 16Ω impedance switch is featured for matching speakers.

**RUGGED CONSTRUCTION** SMT surface mount electronics ensure consistent, reliable performance and are nearly impervious to bumps and vibrations. Strong, lightweight plywood cabinet (not particle board), aluminum chassis, steel grille and corners deliver one of the lightest, yet most rugged amps available.

**RECEIVING INSPECTION—read before getting started**  
INSPECT YOUR AMP FOR ANY DAMAGE which may have occurred during shipping. If any damage is found, please notify the shipping company and CARVIN immediately.  
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.

### SX SERIES SPECIFICATIONS:

Speakers:	<b>SX50, SX100, SX200 12"</b>
Power:	<b>SX50:</b> 50 watts @ 8Ω <b>SX100:</b> 100 watts @ 8Ω <b>SX200/SX200H:</b> 100 watts @ 4, 8, 16Ω
Output Impedance:	4-16 ohms switchable
Power Amp:	THD: Less than 1%
Input Impedance:	100k ohms
Channels:	2—switching
Tone Controls:	BASS: 80Hz MID: 600Hz TREBLE: 8k Hz
<b>Drive Channel</b>	PRESENCE: 11k Hz (SX200 only)
<b>Clean Channel</b>	BASS: 90Hz MID: 575Hz TREBLE: 9k Hz PRESENCE: 8-11k Hz (SX200 only)
Ch 1 Sensitivity:	1mV for clipping, dynamic range 72dB
Ch 2 Sensitivity:	75mV for full output
Line Out:	1.5 VAC @ full power
Power:	<b>SX50/SX100:</b> 90-250VAC, 50-60Hz, 125VA <b>SX200/SX200H:</b> 120V or 240V model
Fuse:	5 amp 250V internal
Cabinet Size:	<b>SX50/SX100:</b> 19.5W x 10.25D x 17.5"H <b>SX200:</b> 26W x 10.25D x 17.5"H <b>SX200H:</b> 24.5W x 9.5D x 10.5"H
Cabinet:	Plywood—no particle board
Net Weight:	<b>SX50/SX100:</b> 30 lbs, <b>SX200:</b> 44 lbs, <b>SX200H:</b> 24 lbs
Warranty:	One Year
Options:	<b>FS22</b> footswitch, <b>CV211</b> cover SX100 & SX50 <b>CV3212</b> cover SX200 <b>CV3200</b> cover SX200H

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

Serial No. \_\_\_\_\_ Invoice Date \_\_\_\_\_



# SX50, SX100, SX200 & SX200H FRONT & REAR PANEL CONTROLS

## GETTING STARTED QUICKLY

If you are like most players, you probably want to plug in your new amp and get started playing right away. You can read the rest of the manual later to learn the finer points of operating your amp. In order to get started you will need your SX AMP, a 120 or 230 AC grounded power outlet, your instrument, and a standard guitar cord. With the amp turned off, you may now plug it into the proper AC voltage.

Now turn all the volume and overdrive controls off and set tone controls at their mid center position. If you have purchased the FS22 foot switch, plug it into the rear foot switch jack for switching the channels and effects. Note: The CH SELECT SWITCH must be in the OUT position (CH 1) for the FS22 to function (only CH 2 will function if it's in the wrong position).

Now, turn the POWER SWITCH ON. Gradually raise the volume and overdrive controls. Check the BLUES SWITCH setting before adjusting the tone controls.

## FRONT PANEL

### 1. INPUT 1 (INPUT 1/2 ON SX200 & SX200H)

Connect a 1/4" guitar cable to this input. The 1/2 CH SELECT SWITCH will toggle between channel 1 and 2. Use a professional quality 1/4" plug shielded guitar cord (Carvin SH25) no longer than 25 feet. A long cable will reduce the overall treble response from your pickups. **Note: For remote footswitching leave the 1/2 CH SELECT SWITCH in the "out" (CH 1) position when connecting the FS22 footswitch.**

### 2. INPUT 2 (DUAL CHANNELS SX200 & SX200H ONLY)

To use the true dual channel feature of the SX200 and SX200H, plug a second guitar into INPUT 2. When a guitar is plugged into both inputs, the channels become independent of each other and can be played simultaneously.

### 3. CHANNEL SELECT

Set the channel switch to the desired channel. The LED's next to the CHANNEL 1/2 will let you see which channel is functioning. Use CH 1 for overdrive/lead. Use CH 2 for clean playing. For the FS22 footswitch to function, set the CH SELECT to the "OUT" or "CH 1" position.

### CHANNEL 1 DRIVE

### 4. CHANNEL 1 INDICATOR

The RED LED will illuminate when the OVERDRIVE channel is selected.

### 5. CHANNEL 1 VOLUME

The volume of the drive channel is to be used as a master level control. For partial clean output, set the VOLUME control to 10 and turn the DRIVE nearly off.

### 6. CHANNEL 1 DRIVE

The drive channel delivers 12AX7 tube saturation and EL34 power tube compression. This channel incorporates a dual section lead DRIVE control with a 72 dB dynamic range

so you can get shimmering clean, a fabulous blues tone or soft clipping to full blown overdrive with total tube warmth. For mild 12AX7 tube emulation, set the DRIVE control between 2 & 3. For some of the best saturation, set the control between 4 & 6. For full blown drive, set the control between 6 and 10 (your guitar volume should be turned all the way up). Because the SX AMP has a lot of gain in the DRIVE control, you can get guitar feedback. If feedback is a problem, reduce the amount of DRIVE or move the guitar away from the speakers.

### 7. BLUES SWITCH

The exclusive BLUES SWITCH adds the critical mid tones in the 525 Hz range that is so important to great sounding blues-rock tone. However, when the BLUES SWITCH is not used (OUT), the SX delivers a great "scooped" sound for hard rock metal players. It is important that you pre-select this switch for your style of playing before adjusting the tone controls.

### 8. CHANNEL 1 BASS, MID & TREBLE

These active tone controls develop the heart of your sound. It is important that you start at the mid point (5) on each control. The total range of these controls are a substantial 20 dB (±10 dB) with a center frequency at 80 Hz for BASS, 600 Hz for MIDS and 8k Hz for the TREBLE. These controls are very powerful in their effect so take time with the different settings for your ultimate sound.

### 9. CHANNEL 1 PRESENCE (SX200/H ONLY)

Channel 1 features its own PRESENCE for added treble. It's frequency range is at the very high end of the guitar spectrum (11k Hz) for shimmering, glassy harmonics. If your sound is too bright with single coil pickups, you may want to adjust the PRESENCE control and TREBLE control.

## CHANNEL 2 CLEAN

### 10. CHANNEL 2 CLEAN INDICATOR

The GREEN LED will illuminate when the CLEAN channel is selected.

### 11. CHANNEL 2 CLEAN VOLUME

Channel switching from the Drive channel into CHANNEL 2 gives you crisps, clean sounds. Thanks to special mud-cutting circuits that work between the frequencies of 550 and 700 Hz, your guitar tones will be full and vibrant.

### 12. CHANNEL 2 BASS, MID & TREBLE CONTROLS

To start, set the BASS, MID & TREBLE controls at their center (5) position. These controls are most likely to be set according to the type of pickups used (dual or single coil). Most musicians like to reduce the MIDS deeper bass and crisper highs.

### 13. CHANNEL 2 CLEAN PRESENCE (SX200/H ONLY)

For added clarity, the CH 2 PRESENCE control increases the highest guitar harmonics in the

8-11k Hz range. A normal bright switch works only in the 3-5k Hz range leaving your sound somewhat flat. Single or dual coil pickups will determine the level of this control.

## DSP EFFECTS SECTION

### 14. SMART EFFECTS™ ADJUST (PARAMETER) CONTROLS

The 24-BIT processor provides a host of great sounding effects including FLANGE, REVERB, ECHO, & CHORUS. Turn up the LEVEL control to 5 as a starting position. Turn the LEVEL higher if more effect signal is desired. Use the SELECT and the ADJUST controls to get the desired effect. Each channel now has its own effects. Move the EFFECTS ADJUST and SELECT controls to the desired effect for each channel. Smart Effects™ will automatically store your last selected effect settings for each channel and will recall them when you switch between channels. As you select each channel, notice that the 1/2 LED next to the LEVEL control changes color to match the channel LED color to indicate that the effects has been changed. The settings are stored in memory even when the amp has been turned off. To change the stored effect, simply select a new effect. **Note: The SELECT and the ADJUST controls do not rotate to their stored settings. Make note of your favorite effect settings.**

### 15. EFFECT PARAMETERS

Each of the four effects has a variable parameter that can be easily adjusted. Each "SELECT" & "PARAMETER" is described below.

A) ECHO: SELECT the amount of the regeneration (repeating). Now select the ADJUST control for the shortest or longest delay time between the original signal and the echo.

B) REVERB: SELECT the amount of presence (high frequencies) in the reverb. Now turn the ADJUST control to provide the minimum or maximum decay.

C) CHORUS: SELECT the amount of reverb with your chorus. Now turn the ADJUST control to increase the depth.

D) FLANGE: SELECT the amount of speed with your flange (phasing effect). Now turn the ADJUST control to increase the depth.

### 16. SX200 & SX200H ALTERNATE REVERB SYSTEM

The SX200 & SX200H also features an alternate reverb system that is independent from the Smart Effects™ system. By pushing in the REVERB SWITCH, you have a modest amount of reverb added to both channels to enhance your sound. The FS22 footswitch does not externally control this reverb, which allows you to have reverb on at all times whether Smart Effects™ are ON or OFF.

### 17. EFFECTS OUTPUT LEVEL CONTROL

The effects LEVEL control is used to set the amount of effects you want blended into your guitar. This control affects the overall effect levels including the alternate reverb system featured on the SX200. **Note: The effects level is not controlled by the Smart Effects™ memory so you must manually change it if you need different levels between channels.**

### 18. POWER ON/OFF SWITCH & PILOT LIGHT

The front power switch will turn on the power to the amplifier. The brass jeweled red pilot light illuminates when the amp is powered on.

## REAR PANEL

### 19. FOOTSWITCH

Carvin's FS22 dual footswitch is recommended for remote channel switching and DSP effects ON/OFF switching. Most foot pedals with 2 switches featuring a stereo plug will work. For channel switching, be sure that the 1/2 CHANNEL select switch between the channels is in the "OUT" position. If only CH 2 works, the 1/2 channel select switch is in the wrong position.

### 20. HEADPHONE

The stereo HEADPHONE 1/4" jack is "CABINET VOICED" to prevent excessive highs. This greatly reduces ear fatigue.

### 21. CABINET VOICED LINE OUT OUTPUT

The voiced 1/4" LINE OUT gives the same response as if you were mic'ing the speaker. Special equalization reduces the harsh highs that are normally associated with a line out signal.

### 22. SPEAKER OUTPUT

A 1/4" SPEAKER OUTPUT is featured to operate an extension speaker system. The minimum impedance of an extension speaker for the SX50, SX100 is 8Ω. The SX200 and SX200H has a switchable impedance of 4, 8 and 16 ohms. Set this accordingly when adding additional speakers. **IMPORTANT: TO INSURE THAT THE SX200 DOES NOT SHUT OFF (PROTECTION MODE), PLEASE SELECTED THE PROPER SPEAKER IMPEDANCE ON THE REAR. IF YOUR SX200/H TURNS OFF DURING A PERFORMANCE, SET THE IMPEDANCE TO 4Ω.**

Speaker	Switch Setting
1x 4Ω	- 4Ω
2x 8Ω	- 4Ω
1x 8Ω	- 8Ω
2x 16Ω	- 8Ω
1x 16Ω	- 16Ω

The following are settings to be used with Carvin cabinets loaded with 12" speakers. **Note: these settings may not be suitable for cabinets with different speakers.**

AMP MODEL	CABINET	SWITCH SETTING
SX200	Combo 2x12	8Ω
SX200	2x12 ext. cabinet (total 4x12)	4Ω
SX200H	4x12	8Ω
SX200H	8x12	4Ω

### 23. EFFECTS LOOP (SEND & RETURN) (SX200/H ONLY)

Although the SX200 has built-in effects, you may want to use its separate effects loop. For the lowest noise from a pedal effect, use this effects loop instead of plugging the guitar into the effects and then into the amp. To use the EFFECTS LOOP, plug the input of your effects into the SEND jack and the output of your effects into the RETURN jack. Use shielded cables.

### 24. AC POWER & FUSE

The AC POWER CORD is designed to operate with any voltage from 90-250VAC, 50-60Hz. Plug the cord into a grounded "3" prong" power source. No attempt should ever be made to defeat or use the amp without the ground connected.

The internal FUSE is located inside the chassis. This is not user serviceable. Contact Carvin's Service Department at 800-854-2235 or [carvin.com](http://carvin.com)

