

# AR-112 SIDEWINDER

## **-WARNING-**

**The AR-112 can produce high sound pressure levels. Hearing protection is advised. The AR-112 MUST be earthed and connected to a correct power source.**

## **-SPECIFICATIONS-**

Tube: 12AX7EH (selected) /7025/5751

Power Amplifier: 100-watt RMS

Speaker: 12" 150-watt Eminence Legend 121, 8 ohms

Dimensions: 19.5" W, 21.5" H, 17" D    Weight 42 lbs.

<u>Power</u>	<u>Voltage</u>	<u>Frequency</u>	<u>Watts</u>	<u>Fuse (slo blow)</u>
US	117 VAC	50/60 Hz	200	2.5 amp
Europe	230 VAC	50/60 Hz	200	1 amp
Japan	100 VAC	50/60 Hz	200	2.5 amp

Fuse Location: The fuse is located in the power inlet module. **Use only recommended fuse rating!**

## -Quick Start Setup-

### Pre-Amp

Gain	4-7	use more for overdrive; less for clean sound
Contour	0-2	Higher numbers remove bass before tube overdrive
Volume	3-7	Lower for smaller rooms; high numbers 7-10 increase tube "hiss", noise and microphonics
Bass	3-7	adjust to preference
Treble	3-7	adjust to preference

### Rotor

Slow	2-3	adjust to preference
Fast	7-8	adjust to preference
Accel	5	higher numbers set faster ramp up/down time

### Reverb

Volume	3-4	adjust to preference
Tone	N	(normal) adjust to preference
	H	high, or brighter reverb tone
	L	low, or mellow reverb tone

## -DESCRIPTION-

The Motion Sound AR-112 SideWinder combines classic guitar amplification and real rotary sound in one convenient amplifier. A real 12AX7 tube pre-amp, spring reverb, and a fully adjustable rotary mechanical drive are implemented with modern technology and provide an incredible array of lush, liquid 3D rotary effects. 100 watts RMS of clean power, a 100 watt 12" Eminence Legend 121 speaker and a built-in microphone to XLR output complete this awesome amplifier.

## -SOUND-

### what to expect

When the rotor is stopped, the sound will radiate mostly from the front, similar to an amplifier with a single 12" speaker. When the rotor is turning, sound is partially deflected through the top, sides, and front of the cabinet and spreads round the room/stage. Ceilings, floors and walls can make each room sound a little different as they reflect the lush 3D sound from the AR-112 around you and your audience.

## -CONTROL PANEL-

The control panel has three sections: the 12AX7 guitar pre-amp, the spring reverb controls and the rotary motor control area.

Input: ¼” unbalanced input accepts signal from typical pickups with a maximum input voltage of 7 volts peak to peak.

Gain: Adjusts the drive level to the 12AX7. The circuit is a unique Motion Sound symmetrical clipping topology, which provides silky smooth sound to massive overdrive. The amount of gain depends on your pickups and knob settings on the guitar.

Pickup Gain: A small screwdriver adjustment to match pickup output to the gain control. Increase “CW” if you need more overdrive.

Contour: This PRE 12AX7 EQ is centered at 800 Hz and cuts highs or lows before the 12AX7 tube, allowing you to set smooth, equal amounts of overdrive up and down the neck. Low cut will stop bass notes from overdriving the 12AX7 too much. You may set the control flat or to remove highs or lows.

Volume: Sets the overall loudness of the AR-112 by controlling the volume of the 100 watt solid state power amplifier. A “line voltage tracking” compressor helps prevent solid state overdrive.

Base and Treble: AR-112 tone controls are classic EQ frequencies and gains commonly used on many guitar amplifiers.

## -REVERB-

Volume: The AR-112 utilizes a classic dual spring reverb tank mounted on isolation foam. The volume is set to preference. Under extreme circumstances, such as the reverb volume at “10” and the AR-112 tilted, there may be some reverb feedback. Try to avoid these extremes.

Tone: This control centered at 700 Hz allows emphasis of the reverb tone to be high or low as needed.

## -ROTOR-

Slow: This sets a range of liquid chorus effects from very slow to modulating midrange. Set the slow control FIRST (the fast speed is added to the slow settings).

Fast: After setting slow, the first speed operates from mid-speed through fast classic rotary tremolo speeds.

Accel: Acceleration (the time it takes to go between the fast and slow settings) is adjustable from a short time = “10” to a longer time = “1”.

## -LED FOOTSWITCH-

Fast/slow: When the LED is “on”, the rotor will accelerate and run at the fast control setting (remember to set “slow” speed FIRST).

Stop: When the LED is on, the rotor will decelerate to a complete stop, providing normal guitar amplifier sound.

Autostop: This built-in feature will always stop the rotor at approximately a 2:00 position and directing most of the speaker's sound forward. When stop is pressed on the footswitch and the rotor slows to a certain speed, the motor will be braked at the 2:00 position.

### **-REAR PANEL CONNECTIONS-**

XLR Microphone Input: This input accommodates most microphones with an input maximum of 1.4 volts. All controls on the 12AX7 pre-amp are also used with the XLR input. Although both ¼ and XLR can be used simultaneously, all controls are global.

XLR Microphone Output: A dynamic microphone element mounted inside the rotor housing is routed to this connector and can be sent directly to the house PA or an XLR microphone board input.

¼ TRS Footswitch: a Motion Sound AR-DL pedal, which is inserted here, controls the rotor functions. (If a pedal is not connected, you can still set a speed using the fast/slow controls on the panel.)

Power Inlet: The AR-112 must be grounded and connected to a correct power source (see specifications). The fuse is located inside the AC power inlet connector (remove cord for access).

### **-TUBES-**

The AR-112 is supplied with a 12AX7EH tube. These tubes are selected by Motion Sound and must meet strict gain and noise specifications. If you change the tube, performance can degrade if the tube does not meet these specifications.

### **-SPEAKERS-**

The AR-112 is supplied with an Eminence 8 ohm 12" Legend 150-watt guitar speaker. The speaker is mounted with steel inserts to accommodate change. All speakers must be 8 ohms and capable of handling 100 watts of power.

### **-SERVICE INFORMATION-**

**\*\*CAUTION: Hazardous voltages are present inside!\*\***

All warranty service must be performed by Motion Sound or an authorized service center. Review Motion Sound Warranty and Service Policy for details.

Access to the 12AX7 tube, motor and speaker is through the bottom. Remove the 4 screws from the bottom cover.

The amplifier is mounted with 4 screws on top and 11 screws on the back of the cabinet. Remove all wires from the PC board and speaker before removing the amp chassis through the rear/top cabinet.

