OWNER'S MANUAL

SüüüH AUDIO

MONO BLOCKS: SCY-1500D SCY-2000D SCY-3000D SCY-4000D SCY-6000D

MULTI-CHANNELS:

SAX-175.2 SAX-100.4 SAX-150.4

CE

HIGH PERFORMANCE CAR AMPLIFIER

DIGITAL MONOBLOCK FEATURES

- Digital Class-D Linkable Mono Block Amplifier
- Dual MOS-FET PWM Power Supply
- 1 Ohm Stable Load
- 24 dB/Octave Variable Low Pass Filter
- 24 dB/Octave Variable Subsonic Filter

- 9 dB/Octave Variable Bass Boost
- 180 Degree Variable Phase Shift
- 4 Way Protection Circuit (Thermal, Voltage Speaker short and DC Offset)
- Wired Remote Control with Clipping Indicator

DIGITAL MONOBLOCK SPECIFICATIONS

Rated Power Output								
(Tested Voltage 14.4Volts)	SCV-1500D	SCV-2000D	SCV-3000D	SCV-4000D	SCV-6000D*			
- RMS Power - 20hms Linked :	3000W	4000W	6000W	8000W	12,000W			
- RMS Power - 1 ohm Mono :	1500W	2000W	3000W	4000W	6000W			
- RMS Power - 20hm Mono :	800W	1000W	1500W	2000W	3000W			
- RMS Power - 40hm Mono :	400W	500W	750W	1000W	1500W			
Low Pass Frequency Crossover :	35 Hz - 300 Hz (250 Hz*)							
Subsonic Filter :	10 Hz - 60 Hz (50 Hz*)							
Bass Boost - 45Hz :	0 - 9 dB							
Phase Shift Control :	0 - 180 Degree							
Frequency Response (+/- 1dB) :	15 Hz - 270 Hz							
Input Sensitivity ($+/-5\%$) :	6 - 0.2 Volts							
Signal Noise Ratio :	90 dB							
T.H.D - 4ohms :	< 0.1%							
Efficiency - 4ohms :	86%							
Recommended Fuse Rating :	120A	150A	250A	350A	500A			
Unit Length (Inches) :	12.20	16.53	18.89	24.40	26.77			
(8.25 W x 2.32 H) Inches								
(9.13 W x 2.67 H) Inches *								

All features are subject to change in the continuing effort to improve the products without notice.

FULL RANGE DIGITAL & CLASS A/B FEATURES

- Full Range Digital (SAX-175.2 / SAX-150.4)
- Full Range Class A/B (SAX-100.4)
- High Efficiency Multi-Channel Design
- Stable 2ohm Stereo / 4ohm Mono
- 12 dB/Octave Variable Low Pass Filter
- 12 dB/Octave Variable Subsonic Filter

- 12 dB/Octave Variable High Pass Filter
- Crossover Multipliers X1 / X10
- x1, x10 crossover multiply
- Way Protection Circuit (Thermal, Voltage Speaker short and DC Offset)
- Wired Remote Control with Clipping Indicator

FULL RANGE DIGITAL & CLASS A/B SPECIFICATIONS

Rated Power Output	Class AB		Full Range Digital			
(Tested Voltage 14.4Volts)	SAX-100.4		SAX-175.2	SAX-150.	4	
- RMS Power - 40hm Mono :	350W x 2		650W x 1	450W x 2	2	
- RMS Power - 20hm Stereo :	175W x 4		325W x 2	225W x 4	ł	
- RMS Power - 4ohm Stereo :	100W x 4		175W x 2	150W x 4	ł	
Subsonic Frequency Crossover :		10 Hz - 500 Hz				
High Pass Frequency Crossover :	50 Hz - 5 KHz		50 (500) Hz	- 500 Hz (5 KHZ))	
High Pass Frequency Multiplier :	N/A	X1 / X10				
Low Pass Frequency Crossover :	50 Hz - 5 KHz		50 (500) Hz	- 500 Hz (5 KHZ))	
Low Pass Frequency Multiplier :	N/A X1 / X10					
Frequency Response (+/- 1dB) :		20 Hz - 20 KHz				
Input Sensitivity ($+/-5\%$) :		6 - 0.2 Volts				
Signal Noise Ratio :		105 dB				
T.H.D - 4ohms :		< 0.1%				
Efficiency - 4ohms :	65%			70%		
Recommended Fuse Rating :	40A x 2		25A x 2	30A x 2		
Unit Length (Inches) :	16.93		11.02	11.02		
(8.25 W x 2.32 H) Inches						

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POWER CONNECTIONS



+12V Battery

You will need to connect a power wire to the vehicle's positive battery terminal. This connection must be tight and secure to ensure proper connectivity. This wire has to be fused appropriately (see each amplifier's fuse rating under specifications) within 12 to 16 inches for safety. You will then need to connect the power wire to the 12 + terminal of the amplifier with a Phillips screw driver. Do not install the fuse until installation is complete.

Ground Connection

The ground connection must be made to the vehicle's chassis and should be kept as short as possible, while accessing a solid piece of sheet metal in the vehicle. The surface should be sanded at the contact point to clean rust, paint or grime so a metal-to-metal connection between the chassis and the termination of the ground wire is effective. You will then need to connect the ground wire to the GND terminal of the amplifier with a Phillips screw driver.

Remote

The + 12V remote turn-on wire is typically controlled by the source unit's remote turn-on output. The amplifier will turn on when + 12V is present at its remote (REM) input and turn off when + 12V is switched off. Connect the remote wire using 12 to 16 gauge wire to the REM connection of the amplifier with Phillips screw driver, then connect the other end of the remote wire to either the source unit's turn on output or ignition switch circuit

DIGITAL MONOBLOCK RCA CONNECTION



DIGITAL MONOBLOCK SPEAKER CONNECTIONS





DUAL AMP INPUT CONNECTION (MASTER & SLAVE)

"MASTER UNIT"



"MASTER UNIT"



Using a dual amplifier configuration, the MASTER amplifier has total control over the SLAVE amplifier. When using dual amplifier to operate subwoofer, the positive terminal of the subwoofer's voice coil must be connected to the positive terminal of the MASTER amplifier and the negative terminal of the subwoofer's voice coil must be connected to positive terminal of the SLAVE amplifier. When hooking two amplifiers to it, please check the power handling capabilities of your subwoofers, to may sure you are not exceeding it.

FULL RANGE DIGITAL 2 CHANNEL - RCA CONNECTION



FULL RANGE DIGITAL 2 CHANNEL - SPEAKER CONNECTIONS



SAX-175.2 - 3 Channel Speaker Connection Mode.



FULL RANGE 4 CHANNEL - RCA CONNECTION



FULL RANGE 4 CHANNEL - SPEAKER CONNECTION

SAX-100.4 / SAX-150.4 - 3 Channel Speaker Connection Mode.





SAX-100.4 / SAX-150.4 - 5 Channel Speaker Connection Mode.



TROUBLE SHOOTING

All Sundown Audio amplifiers have multi-layer protection features to prevent damage from misuse or faulty conditions to ensure long lasting life of your investment. If the unit senses excessive heat, short circuited speakers, overload, or voltage fluctuation outside of the working range the protection indicator light will turn red and the unit will turn off. In order to solve this problem, you should turn all levels down, power off the unit, then carefully check the installation for wiring mistakes or shorts. If the amplifier is excessively warm the protection light will not turn on as the unit will turn off to protect itself from overheating. Let the unit cool down for 30 minutes and try again. If the unit works, try moving the amplifier or make sure nothing is covering it so it can vent heat off of the heatsink. Before you remove or uninstall the amplifier, refer to the list below for suggested solutions.

Amplifier Doesn't Turn On or No Output

- * Check the fuse(s), not just visually, but with a continuity meter and all 12+ volt, remote and ground connection. Make sure you have 13+ volts. It is possible for a fuse to have poor internal connections, take the fuse out of the holder for the testing.
- * Check the input signal from the source unit using an AC voltmeter to measure the voltage while it's being played. The voltage should be from 0.2 to 6.0 volts from the RCA cables.
- * Check the output of the amplifier, test for output at the speaker outputs of the amplifier.
- * Check to ensure that the speaker wires are making a good connection to the amplifier and the subwoofers.

Amplifier Goes Into Protection

- * Check shorts on speaker wires or open coil.
- * Check input voltage from RCA, if DC signal is over 4 volts, the amplifier will go into protect. Remove and reset the power to the unit to check if it will turn on.
- * Check impedance to make sure it's over the minimum load. SCV-1500D, SCV-2000D, SCV-3000D SCV-4000D and SCV-6000D have a working impedance of 1 ohm or 2 ohms strapped. SAX-175.2, SAX-100.4 and SAX-150.4 are 20hm stereo or 4 ohm mono load.
- * Check input voltage. SCV-1500D, SCV-2000D, SCV-3000D, SCV-4000D, SCV-6000D, SAX-175.2 and SAX-150.4 have a working range of 8.5 to 15.5 volts. SAX-100.4 is between 8.5 to 16 volts working.
- * Check chassis ground and remote using same ground.

Distorted / Attenuated / Noise Sound

- * Check the chassis ground connections of all audio equipment.
- * Check amplifier controls for errors, input level or crossover setting.
- * Check the speaker wires for a possible short, either between the positive and negative leads or between a speaker lead and the vehicle's chassis ground.
- * Check the nominal load impedance to verify that the amplifier is driving a load equal to or greater than 1 ohm (SCV-1500D, SCV-2000D, SCV-3000D, SCV-4000D and SCV-6000D) or 2 ohm stereo or 4 ohm mono (SAX-175.2, SAX-100.4 and SAX-150.4).
- * Check the input signal and input signal cables to make sure signal is present at the amplifier inputs and the cables are not pinched or loose. It may be helpful to try a different set of cables and / or a different signal source to be sure.
- * Check speaker wiring for reverse polarity.

