



# DSP3-700 Amplifier



Installation Manual  
DSP3-700

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## Introduction

Thank you for purchasing the DSP3 Series amplifier. At Origin Acoustics, we take pride in providing you with a high quality product. All of Origin Acoustics' products are designed to have excellent sound quality, longevity, and a simple installation process.

This instruction booklet covers the necessary information for a smooth installation, including: the tools you will need, step-by-step instructions for installation, troubleshooting tips for any errors that may occur, and all warranty information. If for any reason you experience problems or if you have installation questions please call us at (844) 674-4461. Hours of operation are 8:00am to 5:00pm (Pacific Time), Monday through Friday.

## Amplifier Presets

PRESET NUMBER	PRESET NAME	SUB MODEL NUMBER	SAT MODEL NUMBER	SYSTEM DESCRIPTION
1	DSP Off	None	None	All DSP Bypassed, All inputs and outputs linked, three mono channels
2	0 LS44	None	LS44	All three channels have the same DSP tuned for LS44
3	0 LS64	None	LS64	All three channels have the same DSP tuned for LS64
4	0 OS54	None	OS54	All three channels have the same DSP tuned for OS54
5	0 OS56	None	OS56	All three channels have the same DSP tuned for OS56
6	0 OS64	None	OS64	All three channels have the same DSP tuned for OS64
7	0 OS66	None	OS66	All three channels have the same DSP tuned for OS66
8	8 LS44	OSUB8	LS44	Sub channel tuned for OSUB8, left and right channels tuned for LS44
9	8 LS64	OSUB8	LS64	Sub channel tuned for OSUB8, left and right channels tuned for LS64
10	8 STA0	OSUB8	None	All three channels tuned for OSUB8 (no satellites)
11	10LS44	OSUB10	LS44	Sub channel tuned for OSUB10, left and right channels tuned for LS44
12	10LS64	OSUB10	LS64	Sub channel tuned for OSUB10, left and right channels tuned for LS64
13	10SAT0	OSUB10	None	All three channels tuned for OSUB10 (no satellites)
14	12LS44	OSUB12	LS44	Sub channel tuned for OSUB12, left and right channels tuned for LS44
15	12LS64	OSUB12	LS64	Sub channel tuned for OSUB12, left and right channels tuned for LS64

## Amplifier Presets

PRESET NUMBER	PRESET NAME	SUB MODEL NUMBER	SAT MODEL NUMBER	SYSTEM DESCRIPTION
16	12 SAT0	OSUB12	None	All three channels tuned for OSUB12 (no satellites)
17	P LS44	OSUB10 Patio	LS44	Sub channel tuned for OSUB10 Patio, left and right channels tuned for LS44
18	P OS54	OSUB10 Patio	LS64	Sub channel tuned for OSUB10 Patio, left and right channels tuned for LS64
19	P SAT0	OSUB10 Patio	None	All three channels tuned for OSUB 10 Patio (no satellites)
20	P OS54	OSUB10 Patio	OS54	Sub channel tuned for OSUB10 Patio, left and right channels tuned for OS54
21	P OS56	OSUB10 Patio	OS56	Sub channel tuned for OSUB10 Patio, left and right channels tuned for OS56
22	P OS64	OSUB10 Patio	OS64	Sub channel tuned for OSUB10 Patio, left and right channels tuned for OS64
23	P OS66	OSUB10 Patio	OS66	Sub channel tuned for OSUB10 Patio, left and right channels tuned for OS66

## Power & Amplifier Sections

Number of Channels	3 Powered Out (L/R/S)
Dynamic Power (6dB Crest Factor)	700 Watts / Channel All Channels Driven into 4 ohm / 70 V 500 Watts / Channel Driven into 8 ohm x 3 Dynamic Power (Peak) 1 kW / Channel x 3
Output Circuitry	Class D - Self-Oscillating PWM Topology; 400kHz Supplied by Independent SMPS
THD @ Rated Power 4 ohm (1kHz)	0.02% (1W), 0.05% (60W), 0.08% (100W)
Dynamic Range	118dB (A-Weighted, AES-17 Filter)
Frequency Response	20Hz - 35kHz $\pm$ 3 dB (1W 4 - 8 ohm Load)
Power Supplies	1 Independent Switch Mode Power Supply
Consumption / Current Draw & Thermal Dissipation @ 230V	11.8W / 0.15A / 40BTU/h (Standby) 88W / 0.55A / 300BTU/h (1/8 Max Power @ 4 ohm)
Protections	Over-Current, Over/Under Voltage, Output DC and Over-Temperature
Analog Input	4 x RCA A/B Unbalanced Max Input 12dBu
Digital Input	1 Stereo Coaxial 1 Stereo Optical

\*All product specifications are subject to change. Please refer to the dealer portal for the latest information.

## What's Included



**Amplifier**



**USB Cord**



**AC Cord**

## Wire Recommendations

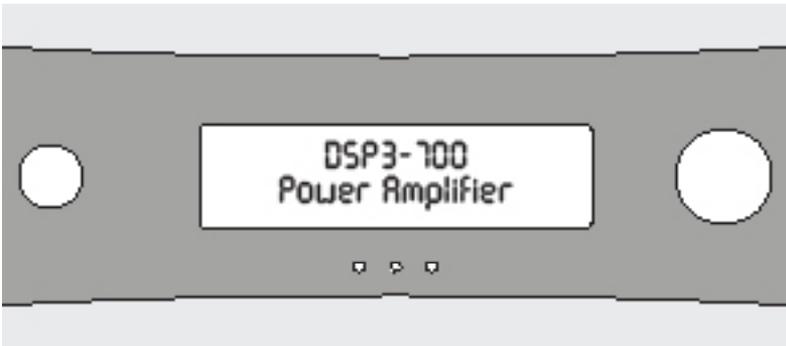
For this setup, use a direct burial, multi-stranded wire designed for amplifier to speakers connections. 70V systems greatly minimize the effect of speaker wire (resistance) which allows you to use a lighter gauge wire. Refer to this chart to select the minimum wire gauge ---Heavier gauge wire is always OK.

Wire Length (Feet)	Recommended Gauge	
	8 Ohm	70V
0-100ft	14	16
100ft+	12	14

## About the DSP3-700

DSP3 amplifiers are highly flexible and intelligent digital audio 3 Channels Class D power amplifiers. The DSP3-700 amplifier delivers up to a total of 2,100W@4Ω or able to drive 70/100V constant voltage lines. All setup parameters for input/output processes and DSP features are accessible by using the remote PC software. Each DSP3-700 comes preloaded with up to 64 DSP presets to optimize it for use with all of Origin Acoustics' speakers and subwoofers assuring peak performance.

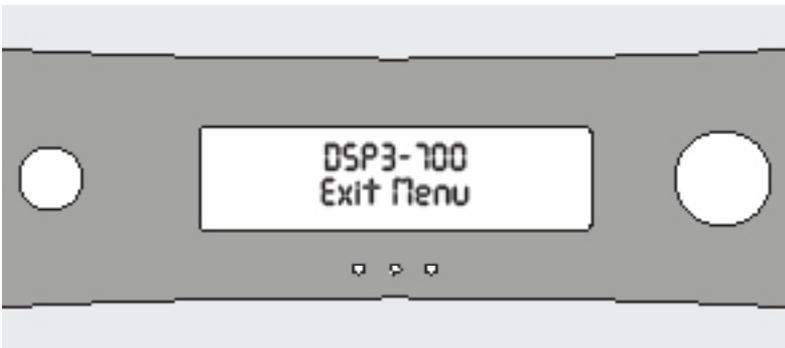
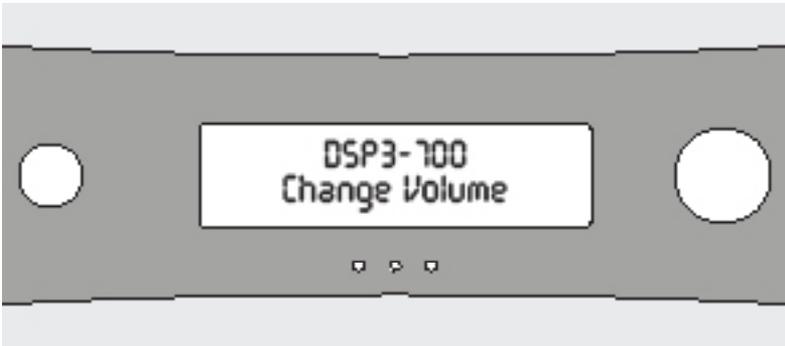
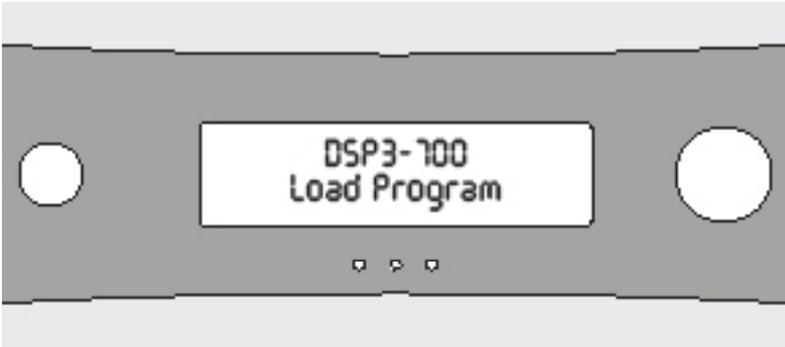
## Startup



After the installation of the device is complete you will see the startup page on the display. If the amplifier is in Standby mode, press and hold the Standby button for a few seconds to exit the Standby Mode to the main page.

We have simplified set-up by limiting front panel adjustments to that of loading internal presets and setting channel levels. All other DSP adjustments require the use of the dedicated software program. To download the dedicated software program refer to the DSP3-700 section under the electronics tab at [www.originacoustics.com](http://www.originacoustics.com)

In order to access the menu, press the dial. Rotate the dial to select either “Load Program,” “Change Volume” or “Exit Menu”



## Loading a DSP Preset

To change a program select the page “Load Program” and press the dial. The IP address and the name of the preset of the device will appear on the display.



Turn the dial to select your desired preset to match your Origin Acoustics Speakers. If you are not sure which preset to use, refer to the “Amplifier Preset” section of this manual. Once you have found the desired program number it will be blinking. Press the dial to select the desired program to load, at which time it will stop blinking. If the number is not blinking while selecting, the display will return to the “Load Program” menu and you will need to restart the process.

## Adjusting the Volume

To change the volume, select the “Change Volume” page from the main page and press the dial to select.



Once selected the volume level will appear on the display. Use the dial to change the volume level (from -60dB to +12dB) and press the dial once again to confirm the volume level selection. The display will start with the Left Output, then to the Right Output, and lastly to the Sub Output. To return to the “Change Volume” page, press the dial again. To exit the menu, select “Exit Menu” and press the dial.

## Troubleshooting

If you have a problem, try isolating it first. For example, if you're playing a DVD and there is no sound, try replacing the DVD with an MP3 player to see if you get sound. If it does work, then the problem is with the television, DVD player, or the cables connecting them. If it doesn't work, the problem will be with the amplifier, speakers, or those cables.

Problem	Possible Cause
No Sound	The volume may be turned down or muted. Check the volume settings on both the amplifier and the television/computer/CD player/etc.
No Sound	Make sure the proper source is selected on the amplifier or receiver.
No Sound	Check the cord connecting the amplifier with the source. The cord may be damaged or plugged into the wrong input or output.
No Sound	Check the wires connecting the amplifier with the speakers. Make sure they're connected properly and not damaged in any way.
Poor Sound Quality	If you hear something like static, or the sound is cutting in and out, check the audio cables. If the problem increases when a cable is being moved, then the cable is most likely faulty or not connected properly.
Poor Sound Quality	Today's audio systems may have several places to adjust the volume, for example your MP3 player may have a volume control, and your amplifier may also have one. Check to be certain that the volume isn't turned up past 80% on any device.
Poor Sound Quality	Try changing sources to be certain that the selection you've chosen is a good quality recording.

## Technical Assistance

If you have any questions or concerns about installing or using this product, you can reach us through one of the following methods:

Phone: (844) 674-4461

Hours of operation: 8:00am - 5:00pm (Pacific Time), Mon - Fri

Email: [techsupport@originacoustics.com](mailto:techsupport@originacoustics.com)

If you are having technical trouble, please include the model number and briefly explain what steps you took to resolve the problem in your email, or be prepared to answer these questions over the phone. If you are considering returning the product, it's required that you contact Origin Acoustics prior to any return attempts. This way we can determine if the issue can be resolved without returning the product, or if needed we can provide instructions and support for the return process.

## 2 Year Limited Warranty

Origin Acoustics warrants to the original retail purchaser only that this Origin Acoustics product will be free from defects in materials and workmanship, provided the speaker was purchased from an Origin Acoustics authorized dealer.

If the product is determined to be defective, it will be repaired or replaced at Origin Acoustics' discretion. If the product must be replaced yet it is no longer manufactured, it will be replaced with a model of equal to or greater value that is the most similar to the original. If this is the case, installing the replacement model may require mounting modifications; Origin Acoustics will not be responsible for any such related costs.

## Requirements & Warranty Coverage

This warranty may not be valid if the product was purchased through an unauthorized dealer. This warranty only applies to the individual that made the original purchase, and it cannot be applied to other purchases. The purchaser must be prepared to provide proof of purchase (receipt). This warranty will not be valid if the identifying number or serial number has been removed, defaced, or altered.

**\*All warranties and warranty conditions are subject to change. Please refer to [www.originacoustics.com](http://www.originacoustics.com) for the latest information.**

## Not Covered by Warranty

- Accidental damage
- Damage caused by abuse or misuse
- Damage caused by attempted repairs/modifications by anyone other than Origin Acoustics or an authorized dealer
- Damage caused by improper installation
- Normal wear, maintenance, and environmental issues
- Damage caused by voltage inputs in excess of the rated maximum of the unit
- Damage inflicted during the return shipment

## Return Process

Before making any return attempts, it is required that you first contact Origin Acoustics. Return product to Origin Acoustics or your dealer, either in person or by mail. It's preferable if the product is returned in the original packaging. If this isn't possible, the customer is responsible for insuring the shipment for the full value of the product.

This warranty is in lieu of all other expressed or implied warranties. Some states do not allow limitations on implied warranties, so this may not apply depending on the customer's location. (For more information, see Magnuson-Moss Warranty Act.)



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