

SWA-400 400-watt Subwoofer Amplifier with DSP and Presets



P/N 31029

User's Manual

CONTENTS

SAFETY WARNINGS AND GUIDELINES	3
FEATURES.....	5
CUSTOMER SERVICE.....	5
PACKAGE CONTENTS	6
PRODUCT OVERVIEW	6
Front Panel.....	6
Rear Panel.....	7
SAMPLE CONNECTION DIAGRAMS	8
CHANGING VOLTAGE	10
RACK MOUNTING	11
DSP MENU OPERATION.....	11
DSP MENU MAP.....	12
DSP MENU DETAILS	13
TROUBLESHOOTING	14
TECHNICAL SUPPORT	15
SPECIFICATIONS.....	15

SAFETY WARNINGS AND GUIDELINES

Please read this entire manual before using this device, paying extra attention to these safety warnings and guidelines. Please keep this manual in a safe place for future reference.

- This device is intended for indoor use only.
- Do not expose this device to water or moisture of any kind. Do not place drinks or other containers with moisture on or near the device. If moisture does get in or on the device, immediately unplug it from the power outlet and allow it to fully dry before reapplying power.
- Do not touch the device, the power cord, or any other connected cables with wet hands.
- Do not expose this device to excessively high temperatures. Do not place it in, on, or near heat sources, such as a fireplace, stove, radiator, etc. Do not leave it in direct sunlight.
- This device ventilates excessive heat through the slots and openings in the case. Do not block or cover these openings. Ensure that the device is in an open area where it can get sufficient airflow to keep from overheating.
- Do not place or install this device in an area where it can be exposed to excessive amounts of dust, humidity, oil, smoke, or combustible vapors.
- Prior to operation, check the unit and power cord for physical damage. Do not use if physical damage has occurred.
- Before plugging the unit into a power outlet, ensure that the outlet provides the same type and level of power required by the device.
- This device uses a grounded power cord and requires a ground connection for safe operation. Ensure that the power source has a proper ground connection. Do not modify the plug or use a "cheater" plug to bypass the ground connection.
- Power off and unplug the amplifier from the power source before changing the operating voltage level.
- Disconnect the unit from the power source when replacing the fuse. Replace the fuse only with the same type, unless changing the operating voltage level.

- If the operating voltage level is changed, the fuse must be changed to ensure continued protection.
- Unplug this device from the power source when not in use.
- Take care to prevent damage to the power cord. Do not allow it to become crimped, pinched, walked on, or become tangled with other cords. Ensure that the power cord does not present a tripping hazard.
- Never unplug the unit by pulling on the power cord. Always grasp the connector head or adapter body.
- Ensure that power is turned off and disconnected before making any electrical connections.
- Remove the batteries from the controller if it will go unused for a lengthy period of time.
- Clean using a soft, dry cloth only. Do not use chemical cleaners, solvents, or detergents. For stubborn deposits, moisten the cloth with warm water.
- This device has no user serviceable parts. Do not attempt to open, service, or modify this device.
- In the event of serious operating problem, stop using the unit immediately.

FEATURES

- 400 watts (RMS) / 1000 watts (Peak) power output into a 4 ohm load
- 60 ~ 150 Hz adjustable low-pass filter
- -12dB ~ -48dB adjustable roll-off/crossover slope
- 0 ~ 180° variable phase control in 45° increments
- Built-in thermal protection
- Selectable operating voltage
- Can accept and pass-through line level and speaker level inputs
- Can accept and pass-through 12V trigger signals
- Can be set for 12V trigger, audio sensing, or front panel power switch operation
- Built-in digital signal processor (DSP) with three user-defined memory storage locations
- Includes rack mount ears

CUSTOMER SERVICE

The Monoprice Customer Service department is dedicated to ensuring that your ordering, purchasing, and delivery experience is second to none. If you have any problem with your order, please give us an opportunity to make it right. You can contact a Monoprice Customer Service representative through the Live Chat link on our website

www.monoprice.com during normal business hours (Mon-Fri: 5am-7pm PT, Sat-Sun: 9am-6pm PT) or via email at **support@monoprice.com**

PACKAGE CONTENTS

Please take an inventory of the package contents to ensure you have all the items listed below. If anything is missing or damaged, please contact Monoprice Customer Service for a replacement.

1x SWA-400 400-watt Subwoofer Amplifier

2x Rack Mount Ears

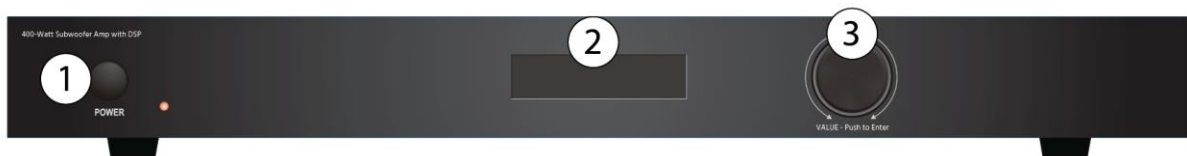
6x Rack Mount Ear Screws

1x AC Power Cord

1x User's Manual

PRODUCT OVERVIEW

Front Panel



1. **POWER:** Press the **POWER** switch to turn the amplifier on or off.
2. **LCD DISPLAY:** The 16-character, 2-row LCD display shows the amplifier's status, menus, and settings, and works in conjunction with the **NAVIGATION CONTROL**.
3. **NAVIGATION CONTROL:** Use the push and turn control to scroll through the display menus, change settings, and program the DSP controller.

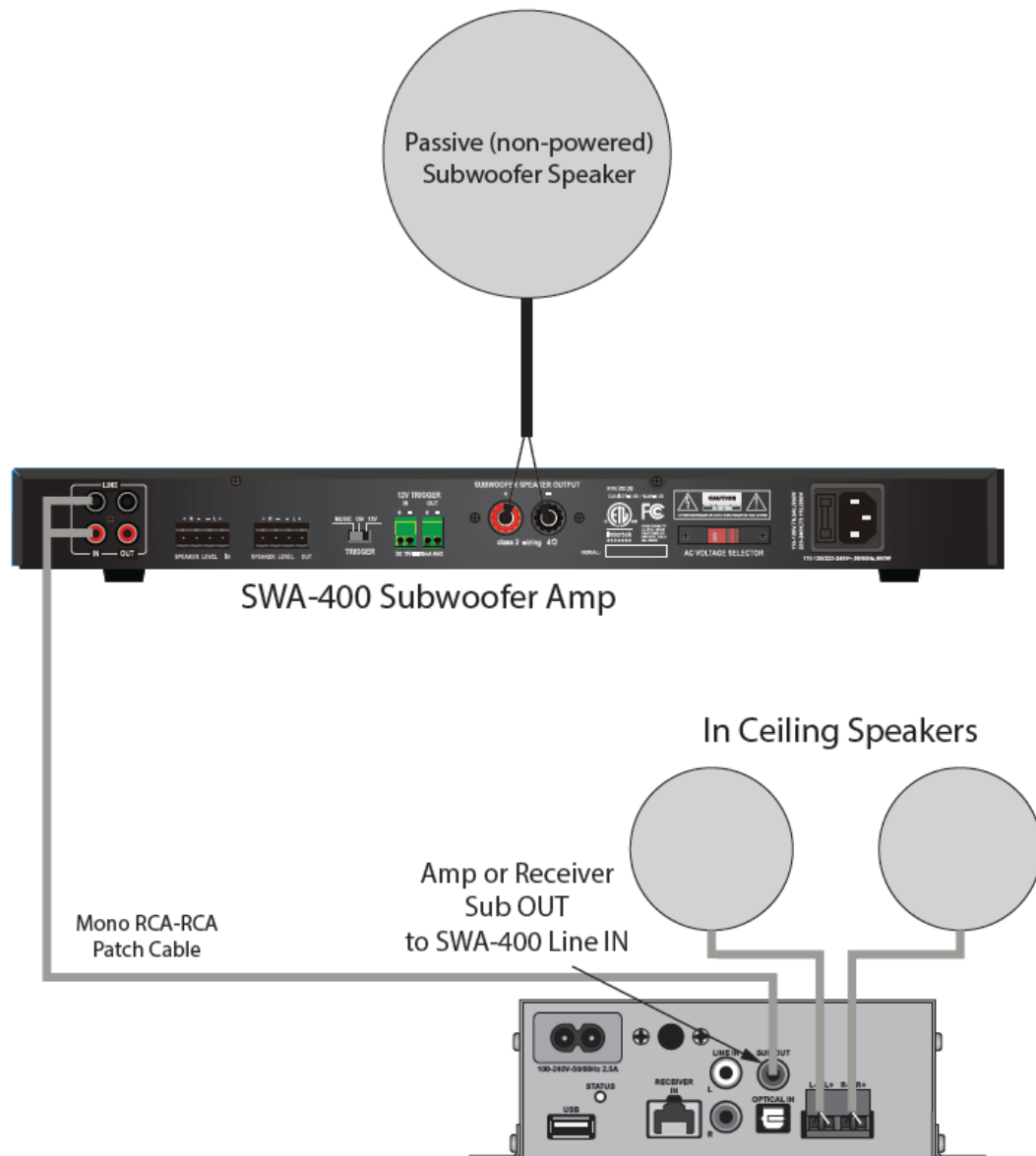
Rear Panel

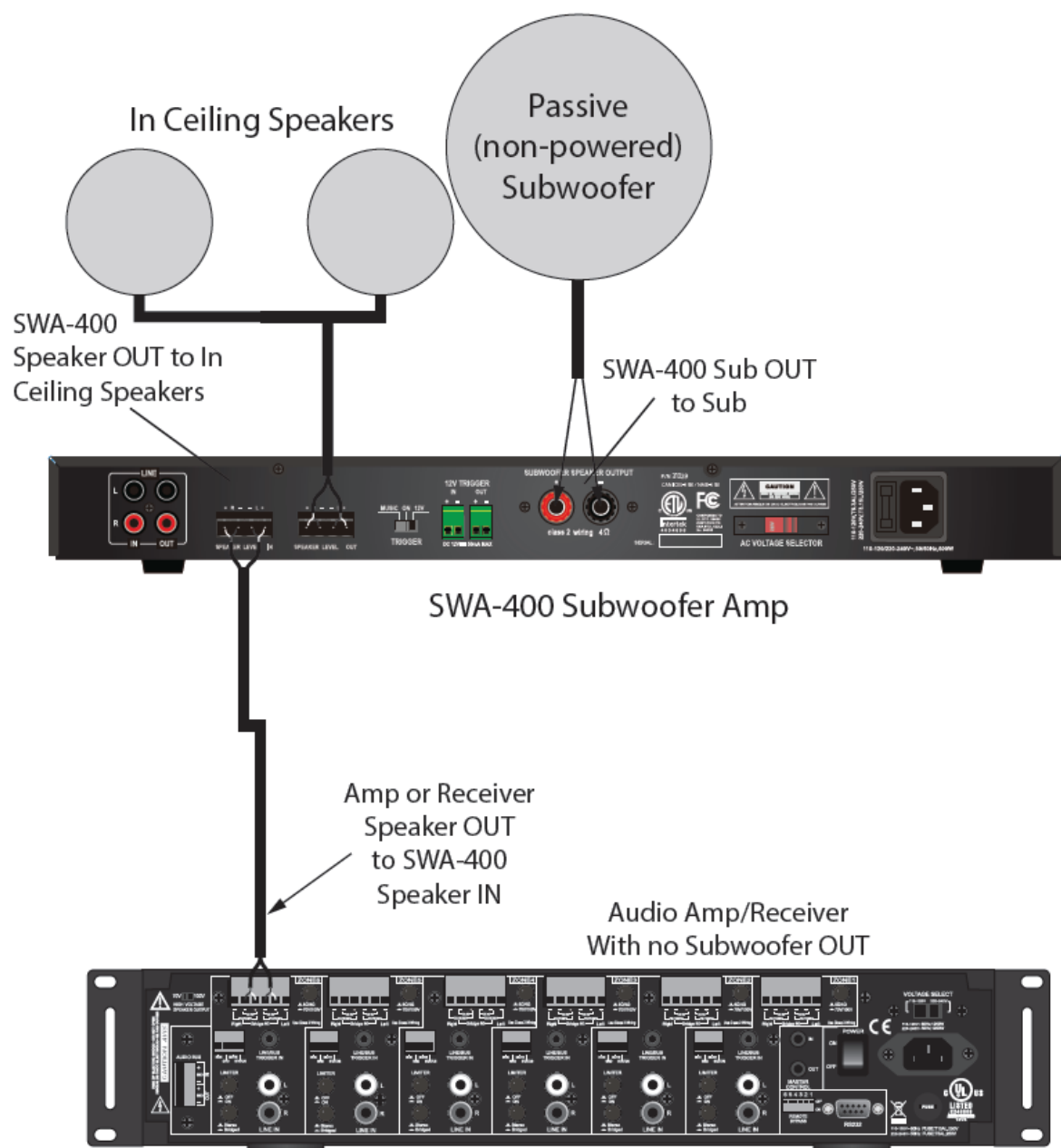


1. **LINE IN/OUT:** Two RCA jacks for accepting line level or LFE inputs. The output RCA jacks carry the original input signal for connecting an amplifier or other line level device.
2. **SPEAKER LEVEL IN/OUT:** Speaker wire connectors for accepting a speaker level input. The output connector carries the original input signal for connecting passive speakers or a speaker level input on another device.
3. **12V TRIGGER:** The **TRIGGER** switch enables or disables the 12V trigger and the input and output connectors allow you to connect a trigger source and another device that can respond to a 12V trigger signal. When in the **MUSIC** position, the amplifier will power on when an audio signal is detected on the input. When in the **12V** position, the amplifier will turn on and off with an external 6-12 volt trigger signal. Note that once trigger mode is enabled, the amplifier cannot be turned on without a trigger signal. To disable the 12V trigger, ensure that the **POWER** switch is in the on position, then press and hold the **NAVIGATION CONTROL**. **TRIGGER** mode will be disabled and the amplifier will power on.
4. **SUBWOOFER SPEAKER OUTPUT:** 5-way binding posts for connecting a subwoofer. The minimum signal load is 4 ohms. Multiple subwoofers can be connected, as long as the combined load is 4 ohms or greater.
5. **AC VOLTAGE SELECTOR:** The switch allows selection of 110-120 or 220-240 VAC 50/60 Hz. The switch is protected from accidental activation with a plastic cover. To change the voltage, remove the plastic cover, change the switch position, then reattach the cover. Note that if the voltage is changed, the fuse must also be changed to ensure protection at the new voltage level. See the *CHANGING VOLTAGE* section for details.
6. **AC INPUT:** IEC 60320 C14 panel connector for attaching the AC power cord.

7. **FUSE HOLDER:** The FUSE HOLDER houses the power fuse, as well as a replacement fuse. See the *CHANGING VOLTAGE* and *SPECIFICATIONS* sections for details about the fuse.

SAMPLE CONNECTION DIAGRAMS





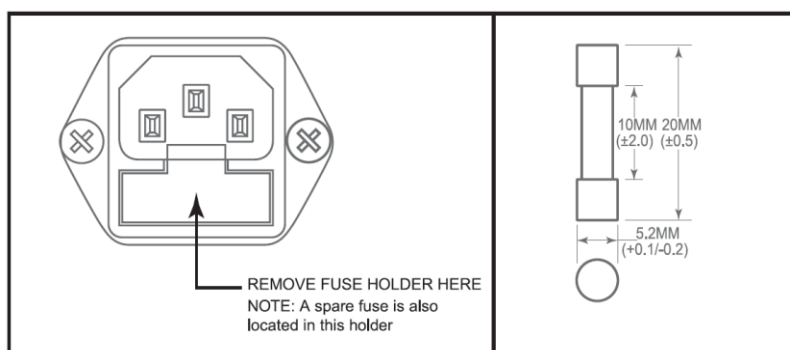
CHANGING VOLTAGE

The amplifier features the ability to operate with either 120 or 240 VAC nominal line voltage level. A switch on the rear panel allows you to select which voltage level it operates at.

To change the operating voltage, first power off and unplug the amplifier from the power source. Next, use a Phillips screwdriver to remove the screws that hold the plastic cover in place. Slide the switch to the desired position, then reattach the cover to prevent accidental activation.

Next, remove the **FUSE HOLDER** and replace the fuse with one appropriate for the new voltage level. The following table shows the correct fuse for each voltage level.

Voltage Level	Fuse Type
110-120 VAC, 50/60 Hz	T6.3AL/250V
220-240 VAC, 50/60 Hz	T3.15L/250V



Note that when changing voltage, you may also need to change the AC power cord to fit the power receptacle in your country. This should be a standard grounded IEC cable rated for 10A.

RACK MOUNTING

The amplifier includes two rack mount ears and screws to attach them to the sides. Note that, due to the weight of the amplifier, it is recommended that rear supports be secured to the rear rack rails. Hardware to do this is not supplied because it is specific to the type and depth of rack being used.

Note that you can remove the rubber feet from the bottom of the amplifier when mounting it in a rack. To do so, use a Phillips screwdriver to remove the screws securing the feet to the bottom of the amp.

DSP MENU OPERATION

To operate the DSP menu system, use the **NAVIGATION CONTROL** on the front panel. When the amplifier is powered on, the LCD screen will display the Home Screen, which is also the Master Volume menu page. While this menu page is displayed, turn the control to change the volume level.

After 30 seconds of inactivity, the menu screen will go dark. After 5 minutes of inactivity, the menu system will return to the Home Page/Master Volume menu page.

Note that you must save the settings to one of the three memory storage locations or they will be lost when the amp is powered off. When the amp is powered on, it will revert to either the last preset or memory setting.

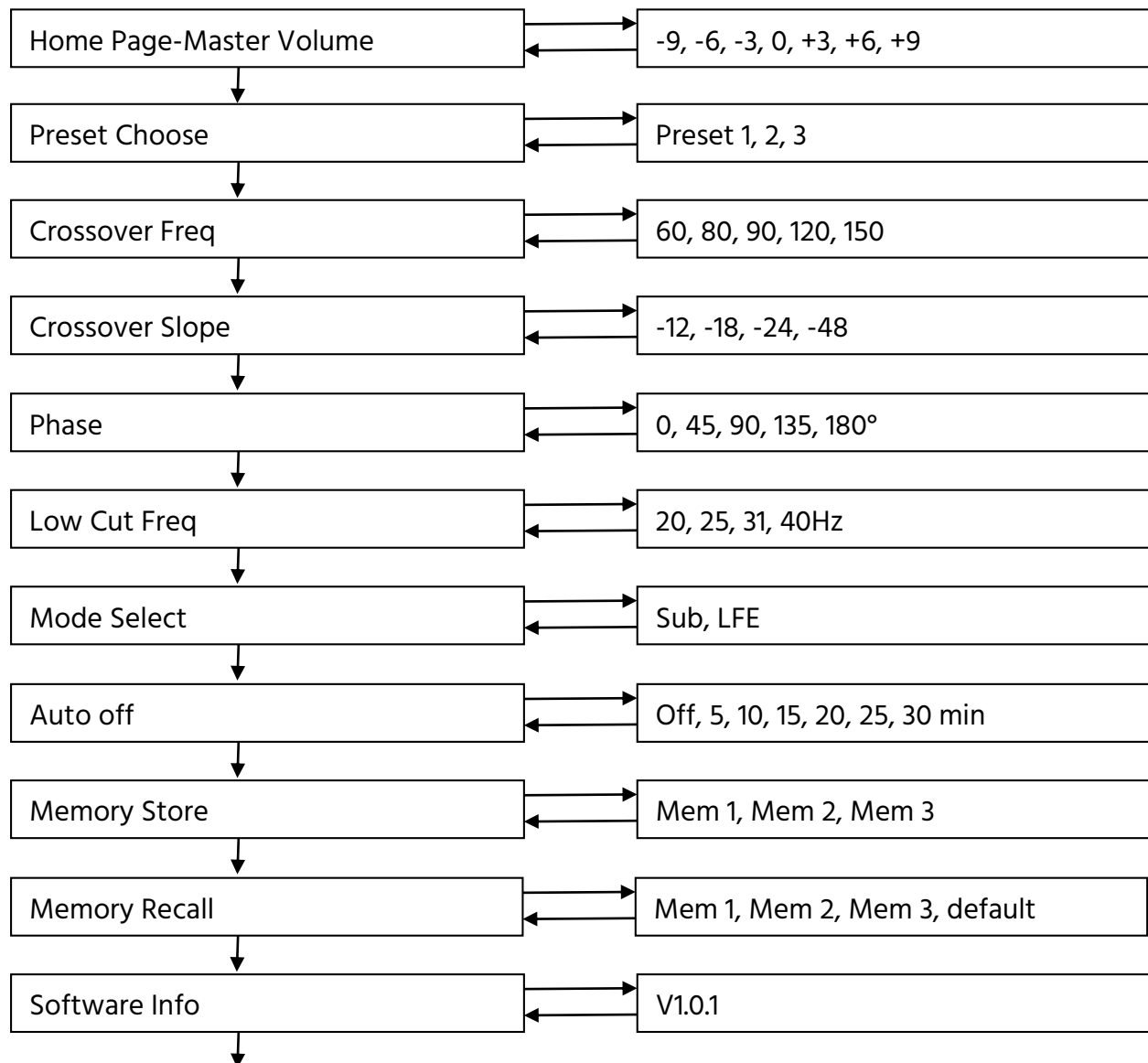
Perform the following steps to navigate the DSP menu system.

1. Repeatedly push the **NAVIGATION CONTROL** to switch to the next menu page until the desired menu page is displayed.
2. Turn the **NAVIGATION CONTROL** to set the parameter to the desired value.
3. Push the **NAVIGATION CONTROL** to switch to the next menu page and save the set value.

Refer to the *DSP MENU MAP* section below to see a visual representation of the menu pages and parameter options. Refer to the *DSP MENU DETAILS* section for detailed explanations of each menu page function and parameters.

DSP MENU MAP

The following table shows the various menu options and the available parameters for the DSP menu.



DSP MENU DETAILS

Master Volume: Sets the overall subwoofer output in relation to the main speakers. Values range from -9dB to +9dB, selectable in 3dB increments. The volume should be set to achieve an even balance between full-range program and subwoofer output.

Preset Choose: Selects one of 3 presets. Preset 1 is optimized for 8" in-wall subs, Preset 2 is optimized for 10" in-wall subs, and preset 3 is optimized for 12" subs

Crossover Freq: Selects the highest frequency cut-off point to the subwoofer. If you are using larger main speakers use lower frequencies below 100Hz. A smaller main speaker will require more reinforcement from the subwoofer, so the crossover should be set to higher frequencies above 100Hz. A good starting place is the lower limit of the frequency response of the main speakers.

Crossover Slope: Also known as roll-off, the slope refers to how abruptly the high frequencies are cut off. The SWA-400 offers 4 slopes from -12dB to -48dB. This setting refers to how many decibels above the selected Crossover Freq are attenuated (turned down) per octave. A gradual slope of -12dB allows more bleed of higher frequencies to pass through the subwoofer. This is useful with smaller or cheaper main speakers that are less efficient at reproducing bass. Higher slopes are more effective when used with high efficiency and bigger main speakers that do produce sufficient bass.

Phase: This puts a slight delay on the signal sent to your subwoofer. Since the main amplifier drives the main speakers with full-range sound, the main speakers are reproducing bass frequencies along with the sub. If you have a front firing sub that is in the same plane as the mains, then the phase can be set to 0°. Down-firing, rear-ported, or subs placed away from the mains will smear the bass tones and the frequencies will cancel each other out as they bounce around the room. Try different settings and walk around your listening area for the optimum setting.

Low Cut: Selects the lowest frequency that the amp will reproduce. This is useful for smaller subs, 10" and below. Since smaller speakers cannot reproduce extreme low frequencies, it is best to limit the system to what they can reproduce. This will maximize the efficiency of the subwoofer system and minimize over-extension and

speaker failure. Please check with your subwoofer manufacture's manual and specs for speaker limitations.

Mode Select: Selects between Sub and LFE modes. The Sub setting is the normal operating mode for the SWA-400. LFE mode bypasses the Crossover Freq function of the SWA-400. Use this mode if you are connecting the SWA-400 to the LFE output of your amplifier or AV receiver.

Auto Off: If no audio signal is present for an extended period of time, the SWA-400 can be switched into standby mode to conserve electricity. Choose from 5-30 minutes in 5 minute increments or turn the function off.

Memory Store: Once the system is set to your liking, save your settings to one of three memory storage locations. Different settings for music, movies, and night time are a good use for memory storage positions.

Memory Recall: Loads one of the three user-defined memory storage locations.

Software Info: Displays current software version.

TROUBLESHOOTING

Q1: There is no sound from any connected subwoofer(s).

A1: Check that the amplifier is plugged into an AC power outlet, has power, and is turned on. Ensure that the subwoofer(s) is/are connected properly. Ensure that there is an audio signal from the pre-amp or receiver.

Q2: There is sound from one connected subwoofer, but not from the other.

A2: Ensure that all wires are properly connected. Verify that all connections are complete and secure, with no stray wires contacting other terminals. Check each individual subwoofer.

TECHNICAL SUPPORT

Monoprice is pleased to provide free, live, online technical support to assist you with any questions you may have about installation, setup, troubleshooting, or product recommendations. If you ever need assistance with your new product, please come online to talk to one of our friendly and knowledgeable Tech Support Associates. Technical support is available through the online chat button on our website www.monoprice.com during regular business hours, 7 days a week. You can also get assistance through email by sending a message to tech@monoprice.com

SPECIFICATIONS

Model	31029
Maximum Power Output (RMS)	400 watts @4 ohms
Maximum Power Output (Peak)	1000 watts @4 ohms
Total Harmonic Distortion	< 1%
Adjustable Low-Pass Filter	60 ~ 150 Hz
Adjustable Slope (Roll Off)	-12dB ~ -48dB
Line Input Sensitivity	190mV
Phase Control	0 - 180°
Auto Power-On Sensitivity	3mV @50Hz
Thermal Protection	Yes
Input Power	110-120 VAC, 50/60Hz or 220-240 VAC, 50/60 Hz
Maximum Power Consumption	600 watts
Fuse Type	110-120 VAC: T6.3AL/250V 220-240 VAC: T3.15A/250V
Dimensions	17.1" x 1.8" x 9.4" (435 x 45 x 240 mm)
Weight	7.6 lbs. (3.46 kg)