# Unity Wall-Mount 35-watt Stereo Power Amp with Digital Input and Subwoofer Out



P/N 18512

**User's Manual** 

#### CONTENTS

SAFETY WARNINGS AND GUIDELINES	
INTRODUCTION	4
FEATURES	4
CUSTOMER SERVICE	4
PACKAGE CONTENTS	5
PRODUCT OVERVIEW	5
Front Panel	5
Rear Panel	6
THERMAL PROTECTION	6
SHORT CIRCUIT PROTECTION	7
INSTALLATION	7
TV SETTINGS	9
IR LEARNING MODE	9
POWER LED OPERATION	10
TECHNICAL SUPPORT	10
SPECIFICATIONS	
REGULATORY COMPLIANCE	
Notice for FCC	
Notice for Industry Canada	

# 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.
- Prior to operation, check the unit and power cord for physical damage. Do not use if physical damage has occurred.
- 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.
- 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.

## INTRODUCTION

Thank you for purchasing this Unity Wall-Mount Stereo Power Amp! This 2-channel power amplifier features a stereo speaker output, with support for 4-ohm and 8-ohm speakers, and a line-level subwoofer output. It includes RCA stereo analog inputs, as well as 24bit/96kHz S/PDIF digital optical and digital coaxial inputs for maximum flexibility. Its builtin IR learning feature allows you to use not only the included remote control, but also any other remote control for the volume and mute functions. The panel-mounted IR sensor is augmented by an external IR sensor, which allows you to hide the amp behind a television or inside a cabinet.

### **FEATURES**

- Class-D amplifier providing 35-watts/channel (RMS) into 8-ohm loads
- 24-bit/96kHz S/PDIF digital optical and digital coaxial inputs
- 4-pole speaker detachable screw connector and line level RCA subwoofer output
- IR Learning for basic volume control and muting
- Small footprint with wing mounting options for discreet installations
- Built-in thermal and short circuit protection circuits

### **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 35-watts/channel stereo power amplifier
- 1x AC power adapter
- 1x AC power cord (NEMA 1-15 to IEC 60320 C7)
- 1x Infrared remote control
- 1x IR receiver
- 1x User's manual

#### **PRODUCT OVERVIEW**

#### **Front Panel**



- 1. Power Switch: Turns the amplifier on and off.
- 2. **Power LED:** Illuminates when power is applied. The LED can be disabled, but will still illuminate whenever there is a fault and for the first 2 minutes after power is applied.
- 3. Power Input: DC barrel connector for attaching the included AC power outlet.
- 4. **Speaker Output:** Removable Phoenix connector for attaching the speaker wires. It supports speaker wire up to 14 AWG.
- 5. Subwoofer Output: Line level output for an external powered subwoofer.

#### **Rear Panel**



- 6. Analog Line Input: Stereo line-level analog RCA input jacks.
- 7. Digital Optical Input: 24-bit/96kHz S/PDIF digital optical input.
- 8. Digital Coaxial Input: 24-bit/96kHz S/PDIF digital coaxial RCA input.
- 9. IR Receiver: Infrared remote control receiver.
- 10. IR Input: 3.5mm jack for use with the included external IR receiver.
- 11. **IR Confirm LED:** Provides a visual indication that the amplifier is receiving IR signals when in IR learning mode only.
- 12. **IR Learning Button:** Press and hold the button for 2 seconds to enter IR Learning mode. Press and hold the button for at least 10 seconds during power up to toggle the use of the Power LED during normal operation.

# THERMAL PROTECTION

The amplifier monitors its temperature and will activate the thermal protection circuit if the temperature exceeds a safe limit. This can occur if the amp has been operated at high volumes for an extended period of time, if it has inadequate ventilation, or if the speaker load is below the minimum impedance of 4 ohms. The amp will shut down when the Thermal Protection circuit engages. You must turn off the amp's power switch and wait until the amp cools down, then power the amp back on to clear the fault.

# SHORT CIRCUIT PROTECTION

If the amplifier detects a short circuit on one or both speaker outputs, the **Power LED (2)** will glow orange and output will be disabled. If this occurs, turn off the amplifier and check the speakers and speaker wires for a short circuit.

### INSTALLATION

- 1. Ensure that all equipment to be connected is powered off and unplugged from its power source prior to making any electrical or audio connections.
- 2. Place or mount the amplifier in its intended location.
- Using a 1/8" flat head screwdriver, loosen the four screws on the speaker Phoenix Connector (4) to open the speaker wire clamps.
- 4. Using a two-conductor speaker wire (not included), insert the negative lead into the L- connector, then tighten the screw to lock it in place. Give the wire a gentle tug to ensure it is securely attached to the connector. Repeat for the positive lead and the L+ connector.



- 5. Connect the negative lead of the speaker wire to the negative input on your left channel speaker, then connect to the positive lead to the positive input.
- 6. Using a second two-conductor speaker wire, repeat steps 4 and 5 for the **R-** and **R+ connectors**, and the right channel speaker.
- (Optional) Using a single conductor analog RCA coaxial audio cable (not included, plug one end into the input on your subwoofer, then plug the other end into the Subwoofer Output (5).
- 8. Perform ONE of the following steps to connect an audio source to the amplifier:
  - a. Using a stereo RCA cable (not included), plug the left and right connectors into the L and R connectors on the **Analog Line Input (6)**, then plug the other end into the analog stereo outputs on your preamplifier, television, or other audio source device.
  - b. Using a digital coaxial RCA cable (not included), plug one end into the Digital Coaxial Input (8), then plug the other end into the digital coaxial output on your preamplifier, television, or other audio source device.
  - c. Using a digital optical audio cable (not included), plug one end into the Digital Optical Input (7), then plug the other end into the digital optical output on your preamplifier, television, or other audio source device.
- 9. (Optional) Plug the included **External IR Receiver** into the **IR Input (10)**, then position the receiver so that it can receive signals from your remote control.
- 10. Ensure that the **Power Switch (1)** is in the O/Off position.
- 11. Plug the DC barrel connector on the included AC power adapter into the **Power Input (3)**.
- 12. Plug the included AC power cord into the AC power adapter, then plug the other end into a nearby AC power outlet.
- 13. Plug in and power on your audio source device.
- 14. Flip the **Power Switch (1)** to the I/On position.
- 15. Start audio playback on your source device. You should hear audio playing on your speakers. Use the included remote control to adjust the volume.

# **TV SETTINGS**

If you are using your television as the audio source, you might need to make a few adjustments to your television's configuration. Refer to your television's user's manual for details on how to make the following changes:

- Disable TV speakers since you will be using the amp and connected speakers instead.
- If using digital audio, ensure that the TV is configured to use stereo PCM for the audio output.

### **IR LEARNING MODE**

Rather than using the included volume remote control, you can teach the amplifier to understand signals from a remote control that you already use, such as that of your television or a universal remote control, by performing the following steps.

- Press and hold the IR Learning Button (12) for about 2 seconds. The IR Confirm LED (11) will begin to blink slowly.
- Hold your remote control about 3-4 inches from and aiming directly at the IR Receiver (9).
- 3. Press the Volume + button on your remote control. The IR Confirm LED (10) will blink for about 1 second.
- 4. Press the **Volume -** button on your remote control. The **IR Confirm LED (10)** will blink for about 1 second.
- 5. Press the **Mute** button on your remote control. The **IR Confirm LED (10)** will blink for about 1 second, then will extinguish, indicating that IR learning is complete.
- 6. Confirm the proper operation of your remote by adjust the volume up and down and enabling/disabling volume mute. If one function does not operate properly, you will need to repeat the entire IR learning process, from step 1.

# POWER LED OPERATION

In some installations, such as in a bedroom, it may be desirable to disable the **Power LED** (2) so that it is not a distraction in a darkened room. Perform the following steps to toggle Power LED Operation on or off.

- 1. Ensure that the amplifier's **Power Switch (1)** is in the O/off position.
- 2. Press and hold the **IR Learning Button (12)** with one hand, then flip the Power Switch to the I/On position.
- 3. Continue holding the IR Learning Button (12) for about 10 seconds until the IR Confirm LED (11) blinks. The LED will blink twice when changing the Power LED (2) from Enabled to Disabled or will blink once when changing from Disabled to Enabled. Once the Confirm LED (11) blinks, release the IR Learning Button (12).

Note: Even when the **Power LED (2)** is disabled, it will still illuminate for 2 minutes after power is applied and will illuminate to indicate if a fault occurs.

### **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	18512
Audio Inputs	Stereo analog RCA, S/PDIF digital optical, and
	S/PDIF digital coaxial
# of Output Channels	2.1 (stereo + subwoofer)
Output Power	35 watts/channel into 8 ohms
Minimum Output Impedance	4 ohms
Frequency Response	20 Hz ~ 20 kHz ±3dB
Signal-to-Noise Ratio	> 90dB (1kHz)
THD+N	< 1%
Input Impedance	> 22 ohms
Subwoofer Low-Pass Filter Frequency	120Hz
Input Power	24 VDC, 3.75A
AC Adapter Input Power	100 ~ 240 VAC, 50/60 Hz, 1.5A
Dimensions	7.2" x 85" x 1.2" (184 x 216 x 30 mm)
Weight	1.5 lbs. (0.7 kg)

# **REGULATORY COMPLIANCE**

Notice for FCC



This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Modifying the equipment without Monoprice's authorization may result in the equipment no longer complying with FCC requirements for Class B digital devices. In that event, your right to use the equipment may be limited by FCC regulations, and you may be required to correct any interference to radio or television communications at your own expense.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

#### Notice for Industry Canada

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.