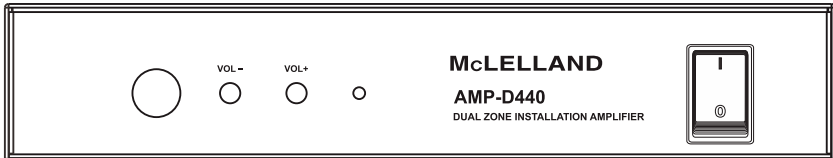


AMP-D440

User's Manual

4 Channel Digital Amplifier



1. Read these instructions – All the safety and operating instructions should be read before this product is operated.
2. Keep these instructions – The safety and operating instructions should be retained for future reference.
3. Heed all warnings – All warnings on the appliance and in the operating instructions should be adhered to.
4. Follow all instructions – All operating and use instructions should be followed.
5. Do not use this apparatus near water – The appliance should not be used near water or moisture – for example, in a wet basement or near a swimming pool, and the like.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding plug. A polarized plug has two blades with one wider than the other. A grounding plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at the plugs, convenience receptacles, and at the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart or rack is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug the apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified personnel. Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. CAUTION: These servicing instructions are for use by qualified service personnel only. To reduce the risk of electric shock, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so.
16. Do not install this equipment in a confined or building-in space such as a book case or similar unit, and remain a well ventilation conditions at open site. The ventilation should not be impeded by covering the ventilation



openings with items such as newspaper, table-cloths, curtains etc.

17. WARNING: Only use attachments/accessories specified or provided by the manufacturer (such as the exclusive supply adapter, battery etc).

18. WARNING: To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture. The apparatus shall not be exposed to dripping or splashing and that objects filled with liquids, such as vases, shall not be placed on apparatus.

19. WARNING: The mains plug is used as disconnect device, the disconnect device shall remain readily operable.

20. This equipment is a Class II or double insulated electrical appliance. It has been designed in such a way that it does not require a safety connection to electrical earth.

21. Correct Disposal of this product. This marking indicates that this product should not be disposed with other household wastes throughout the EU. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmental safe recycling.

22.



- This lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of non-insulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock.

- Warning: To reduce the risk of electric shock, do not remove cover (or back) as there are no user-serviceable parts inside. Refer servicing to qualified personnel.

- The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance instructions in the literature accompanying the appliance.

DESCRIPTION

The McLELLAND AMP-D440 is the perfect companion for today's more discrete home audio installations. With its many inputs and outputs, combined with a thin and compact form factor, the AMP-D440 is equally at home behind a flat screen television as it is mounted in a rack. It is perfect for small home theater or multi-room installations, or as a compliment to our 12 channel power amplifiers. Fantastic sound quality from a superior form factor, get ready to put music in places you only dreamed.

IMPORTANT SAFETY INSTRUCTIONS

Never expose the amplifier to any kind of moisture. This product should not be used outdoors, near bathtubs, sinks, wet basements or swimming pools. This product is meant for indoor use only.

Avoid placing this amplifier near heat sources such as radiators, heat registers or stoves.

This amplifier should not be used in direct sunlight.

Before connecting any cables to the amplifier, the power switch must be in the OFF position.

Locate the amplifier where there is adequate ventilation to the sides of the amplifier. If the amplifier is used in a cabinet an additional cooling fan might be necessary.

Make sure that the speakers that will be connected to this amplifier can handle the output power from the amplifier.

Do not use this amplifier with a power receptacle or extension cord that is not adequately rated to handle the power requirements of the amplifier, or that will not allow the blades of the plug to be fully inserted to prevent blade exposure.

INCLUDED IN THE BOX

- (1) AMP-D440 Amplifier
- (1) Power Cord
- (1) Remote Control
- (2) Mounting Brackets with Screws

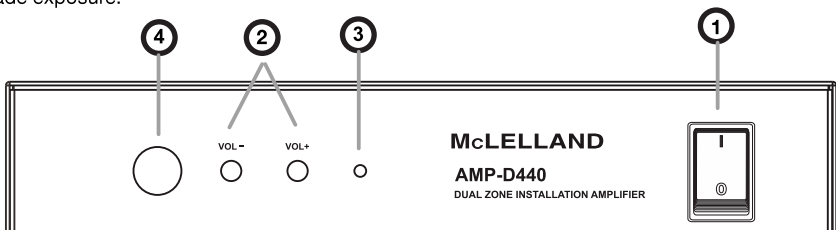
GENERAL INFORMATION AND FEATURES

The AMP-D440 amplifier includes many useful features such as A/B switching including speaker level inputs, an optical input for digital stereo decoding, the option to have most inputs either fixed or variable, and outputs that track with the main volume so you can use them to link multiple AMP-D440's or for a powered subwoofer. Both zones can be bridged for 80W of power. A convenient remote control is included, as well as a remote IR sensor so you can mount the amplifier out of sight and still control it remotely.

The AMP-D440 uses efficient digital amplifier modules and saves additional power by optionally going to sleep when not in use. It can be woken using the remote or a 12V trigger signal.

FRONT PANEL (1) Power Switch: Used to turn the main power to the amplifier on or off.

(2) VOL+ VOL- Buttons: Used to increase or



decrease the volume when the input source is set to VAR. The volume is controlled across both output zones and cannot be controlled individually for each zone. As the volume level is changed, the indicator light on the front of the amplifier will blink blue rapidly. When the upper volume limit is reached the indicator light will hold solid blue. When the lower volume limit is reached the indicator light will hold solid green.

(3) Power Indicator LED: Displays the status of the amplifier.

Green (solid): Amplifier has been turned off using the remote. Amplifier is set to mute and waiting for a 12V signal.
There is a problem internally with the amplifier.

Green (briefly solid): Lower volume limit has been reached.

Indigo Blue: Amplifier has gone to sleep.

Blue (solid): Amplifier is on and functioning correctly.

Blue (flashing): Volume is being changed either up or down.

Blue (briefly solid): Upper volume limit has been reached.

Off: Main power switch has been turned off.
The amplifier is not plugged in or is not receiving power.
The fuse has blown and needs to be replaced.

(4) IR Window: Receives IR signals from the remote control

REAR PANEL

(1) Power Cord Socket: Use only the included power cord or an equivalently rated power cord. The socket also contains both the 3.15A/250V fuse, as well as a spare fuse.

(2) OUTPUT RCA Connectors: The right and left OUTPUT RCA connectors output a line level signal similar to the ZONE 1 speaker level output signal. It tracks proportionally with volume so that it can be used to provide signal for a powered subwoofer or other amplified device. It can also be used to link 2 or more AMP-D440's together to use the same input source.

(3) INPUT 1A RCA Connectors: Stereo audio inputs for Zone 1

(4) INPUT 1A Optical Input: Optical TOSLINK connector for Zone 1. The AMP-D440 will automatically decode an available optical audio signal and processes it to stereo. This conversion is done automatically, regardless if the optical signal is stereo, 5.1 surround, or other audio signal bitstream.

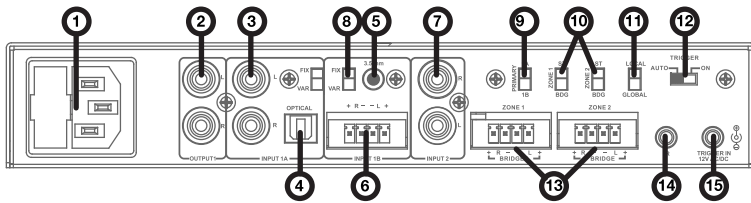
(5) INPUT 1B 3.5mm Input: Stereo audio input for Zone 1

(6) INPUT 1B Phoenix Connector: Speaker level stereo audio input for Zone 1. This input can be used to seamlessly combine an existing home audio install with additional audio sources.

(7) INPUT 2 RCA Connectors: Stereo audio inputs for Zone 2

(8) FIX/VAR Switches: The FIX/VAR switches for INPUT 1A and 1B are used to define how the volume is controlled for the different audio sources. In the FIX position the volume control on the AMP-D440 is set to MAXIMUM and volume for the audio source must be controlled at the source component. In the VAR position the volume control on the AMP-D440 is active and can be controlled using either the front panel controls or the included remote control.

(9) PRIMARY Switch: The PRIMARY switch is used to determine which input block, either 1A or 1B, is the



overriding input during A/B switching. For example, if the PRIMARY switch is set to 1A and a source is connected and detected at both input block 1A and 1B, only the source connected to input block 1A will be played.

(10) ZONE 1 / ZONE 2 Switches: The ZONE switches are used to switch each zone between stereo (ST) and bridged (BDG) output. If a stereo source is connected and the switch for that zone is set to ST then the source will be played normally. If the switch is set to BDG, only the right channel from the source will be played. In order to benefit from the increased amplifier wattage when set to BDG, the speaker must only be connected to the outermost ports on the Phoenix connector for the zone. If the speakers are connected normally then the output will be mono from the right channel input at normal wattage.

(11) LOCAL / GLOBAL Switch: This switch determines which input is used for zone 2. If the switch is set to LOCAL then the ZONE 2 RCA inputs will be used. If the switch is set to GLOBAL then the input from zone 1 will be used.

(12) TRIGGER Switch: Setting the TRIGGER switch to ON means that the amplifier is always active (ON) and never goes into sleep mode. When set to TRIGGER the amplifier is always inactive (OFF) unless an appropriate 12V signal is detected. In the AUTO position the amplifier will go to sleep after several minutes of no source being detected at any input, and wake automatically when a source is detected for a few seconds.

(13) ZONE 1 / ZONE 2 Phoenix Connectors: These connectors are used to connect the speakers. Pay

attention to the proper polarity and connection order for each speaker. When connecting a pair of speakers the connection order (from left to right) is R+, R-, L-, L+. Use this connection in conjunction with the ZONE switch set to ST for stereo playback. For bridged playback connect a single speaker across the outermost ports of the connector with the positive wire to the left.

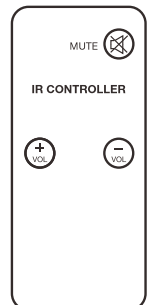
(14) IR Port: The included cabled IR sensor can be connected to this port if the AMP-D440 is to be mounted where the front panel IR window is not visible from the listening position. For example, if the amplifier is mounted behind a television you can connect the included IR sensor to this port and place the sensor end where it will be visible and able to receive the infrared signal from the remote control.

(15) TRIGGER IN Port: This port is used to trigger the amplifier to wake when a 12V trigger signal is present. It uses a standard 3.5mm mono jack. The 12V signal can be DC.

REMOTE CONTROL

Mute Button:

Pressing the mute button will silence the amplifier. Pressing again will resume normal operation. While muted, the auto-trigger function is inoperable, the amplifier will not automatically turn on/off.



Volume Buttons: Used to control volume of the amplifier remotely. The buttons can be held down to quickly increase or decrease the volume. As the volume level is changed the indicator light on the front panel will blink blue rapidly. When the upper volume limit is reached the indicator light will hold solid blue. When the lower volume limit is reached the indicator light will hold solid green.

A/B SWITCHING

The AMP-D440 features A/B switching for zone 1. The zone 1 inputs are divided into two blocks of inputs, block 1A and 1B. Only one input should be connected per block, but both blocks may have one connected input.

The PRIMARY switch is used to designate which input block is the primary input in the event that both input blocks have an active source connected. If only one source is connected to either input block it does not matter how the PRIMARY switch is set because the AMP-D440 will automatically choose it to be amplified. If both input blocks have a connected source, but only one source is active, the active source will automatically be chosen to be amplified.

If the PRIMARY switch is set to 1A, and active source is in the 1A block, it will continue to be amplified, even if the source connected to block 1B becomes active. However, if the active source is in the block not designated as PRIMARY and a second source from the PRIMARY block becomes active, the AMP-D440 will automatically switch to the primary source. If the primary source is turned off and the secondary source continues to play, the AMP-D440 will automatically switch back to the secondary source. This switching can sometimes take as much as 30 seconds to complete.

Connecting a Subwoofer: Because the RCA outputs track with the volume of the source being played they are ideal to use with a powered subwoofer for a 2.1 stereo system. When connecting a subwoofer to the outputs, be sure that the receiver or source outputs a full range stereo signal.

Stereo (Bridged) Mode: You can use the AMP-D440 as a 2x80W stereo amplifier by bridging both zones and setting the LOCAL/GLOBAL switch to LOCAL. To do so you must use the RCA connection for both zones and send the right channel signal to input 1A right channel and the left channel signal to input 2 right channel. Both outputs must be wired correctly for bridged output with the right speaker connected to the ZONE 1 output and the left speaker connected to the ZONE 2 output.

Wall Using Screws: The AMP-D440 is designed to be easily wall mounted in any orientation. Use the included template to install three (3) appropriately

sized screws 7.75" apart, leaving the heads of the screws approximately .25" loose for hanging the amplifier using the cross-shaped keyholes on the underside of the amplifier chassis.

Wall Using the Supplied L Brackets: Connect the L-shaped brackets to the sides of the amplifier chassis using the included screws through the small holes in the brackets. Using appropriate hardware you can now mount the amplifier to the wall or other surface using the slots in the brackets.

GENERAL MAINTENANCE AND SERVICE

Occasional dusting or cleaning with a damp soft cloth is all that is necessary to clean your amplifier. Do not use any kind of cleaning solution other than water to dampen the cleaning cloth.

DO NOT attempt to open or dismantle the amplifier. This will void your warranty. If for some reason the amplifier needs to be repaired please contact MCM Electronics immediately and we will assist you in returning and/or repairing your damaged product. This unit should not be shipped back to MCM Electronics without a MCM Electronics issues Return Authorization number.

TROUBLESHOOTING

Amplifier does not power on.

- 1. The power switch is not ON or the power cable is not firmly connected.*
- 2. The outlet is not "live" and is not providing power to the amplifier.*
- 3. The main fuse has failed and needs to be replaced.*

No sound or output for more than 30 seconds.

- 1. The amplifier has been turned mute using the remote.*
- 2. The TRIGGER switch is not set correctly or the amplifier is not receiving a 12V signal.*
- 3. One or more cables are improperly connected.*
- 4. There are loose strands of wire making unwanted electrical connections.*
- 5. The speaker cables or input cables are damaged and need to be replaced.*

Hum coming from the speakers.

- 1. There is a ground potential difference between connected components.*
- 2. One or more cables or components are defective.*
- 3. Signal wiring has been run too close to power wiring and is not adequately shielded.*

Sound is distorted on one or more channels at normal volume.

- 1. The speakers are wired incorrectly for the ST/BDG setting.*
- 2. The speakers are wired out of phase with each other.*
- 3. The input source quality is poor or the volume is too low.*

AMPLIFIER SPECIFICATIONS

Channels: 4 Channels, 2 Zones

Power Output, Continuous: 40W @ 8 Ohms

Power Output, Bridged: 80W @ 4Ohms

Total Harmonic Distortion: 0.01%

Channel Separation: >-50dB

Signal to Noise Ratio: >-90dB (A Weighted)

Frequency Range: 6Hz-51kHz@-3dB

Efficiency: 86%

Input Impedance (All): 14k Ohms

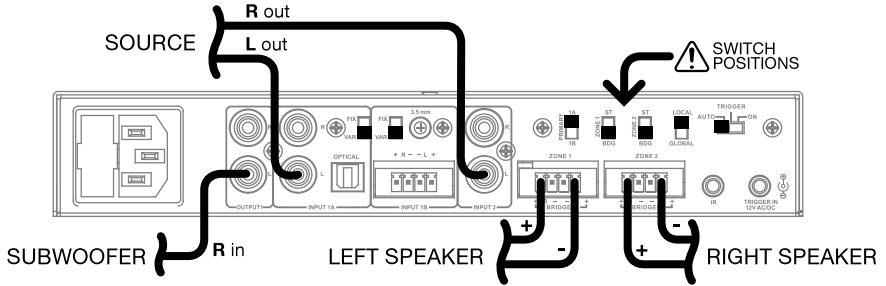
Input Power: 115VAC, 60 Hz / 230VAC, 50Hz

Trigger IN:

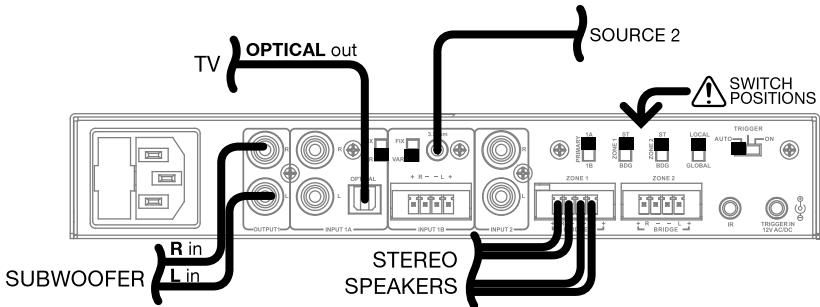
Dimensions: W 8.9", D 12.6", H 1.6"

Weight: 7.16 lbs

STEREO (BRIDGED) WITH SUB



TV AMPLIFIER WITH A/B SWITCHING



TWO ZONE

