CITATION AMP

What can I do with it?

Amplify the sound of your TV

Add a subwoofer or a pair of wireless surround speakers to your TV Or both.

Power your traditional wired loudspeakers

Power in-wall or in-ceiling speakers

Upgrade your wired speakers with streaming functionality

Control your system through Control4

Create audio systems for commercial spaces



CITATION AMP

Digital Loop Amplifier (DLA) technology

Digital Loop Amplifier technology corrects the natural errors and distortion anomalies that occur in digital amplification, restoring audio quality to the way it was meant to be heard.

Although digital feedback loops are not unique in the market, DLA is a first-in-class technology with its full audio bandwidth feedback loop taken from after the output filters and converted at ultra-high speeds.

With DLA, Harman Kardon solves all audio performance limitations inherent in traditional class-D amplifiers and brings a product to market that allows passive loudspeakers to sound and perform their best, creating a new benchmark for extremely accurate, high fidelity, and musical signal reproduction in consumer audio amplifiers.



AMP APPLICATION GUIDE

Using the supplied remote extender **Use case:**

I want to hide all the A/V equipment out of sight, and control the system with the universal infrared (IR) remote control

Solution:

The Citation AMP includes an IR remote extender. Simply plug in the extender into the IR REMOTE IN input on the back panel, and place it in a visible location in the room.

The Citation AMP also includes IR remote learning allowing the installer to program the Citation AMP to respond to TV remote control IR commands such as volume, mute and power.



AMP APPLICATION GUIDE

Wall-mounting the Citation AMP (optional bracket) **Use case:**

I want to mount the Citation AMP to a wall or behind a TV set

Solution:

You can mount the Citation AMP to a wall with approved wall-mount accessories. For more information about the Citation AMP wall mount, please visit our partners at www.soundxtra.com



AMP APPLICATION GUIDE

Rack-mounting the Citation AMP **Use case:**

I want to mount the Citation AMP in a custom electronics equipment rack

Solution:

You can locate the Citation AMP in a 2U standard electronics rack. The Citation AMP can fit 2 units per rack space.



AMP APPLICATION GUIDE

Streaming music to different rooms **Use case:**

I want to stream music wirelessly to different rooms at the same time

Solution:

You can stream music to different rooms with Google Chromecast, Airplay or Bluetooth.

With the Google Home app, you can group several Citation AMPs together for bigger rooms.



harman/kardon^{*}

AMP APPLICATION GUIDE

Large audio zone
Use case:

I have a large room or listening area for which I need more than 2 speakers (an outdoor patio or a large dining room)

Solution:

The Citation AMP can drive four 8-Ohm speakers to provide an even sound coverage in a large area.

The Citation AMP can also support 4-Ohm impedance load. The installer can connect two 8ohm speakers per speaker terminal using standard speaker wire (parallel connection).



Speaker — HDMI — Analog

AMP APPLICATION GUIDE

Very large audio zone **Use case:**

I have a very large room or listening area for which I need more than 4 speakers (large hall, patio, commercial space)

Solution:

The Citation AMP can be connected to a separate power amplifier to drive more speakers. The installer can connect the Citation AMP Line Out to the external amplifier audio input.

The Citation AMP features an audio Line Out with Fixed or Variable level setting. <u>Fixed mode</u>: changing volume on the Citation AMP will NOT change the volume of the Line Out <u>Variable mode</u>: changing volume on the Citation AMP also changes the volume of the Line Out



AMP APPLICATION GUIDE

Optimizing a wired subwoofer **Use case:**

I have a pair of passive speakers and a wired selfamplified subwoofer

Solution:

The Citation AMP features an adjustable subwoofer crossover (50Hz-120Hz) allowing you to properly integrate a subwoofer to accompany a pair of passive speakers. The main channels will remain full-range (large speakers); the crossover will adjust the low-pass filter to the subwoofer only.

If the subwoofer has local crossover settings, you can choose to set the crossover settings to Mono Full Range Out mode. In this condition the Sub out is full range, and the subwoofer manages the crossover.



Speaker — HDMI — Analog

AMP APPLICATION GUIDE

Optimizing a wireless subwoofer **Use case:**

I have a pair of passive speakers and a wireless Citation SUB or SUB S subwoofer

Solution:

You can tune the crossover settings so the subwoofer is matched to the passive speakers. The Citation AMP features adjustable subwoofer crossover from 50-120Hz.

The main channels will remain full-range (large speakers). When a Citation subwoofer is connected, the default crossover point is 80Hz. You can adjust the crossover to better match with full-range speakers.



AMP APPLICATION GUIDE

Synchronizing an external device **Use case:**

I have a device that must work in sync with the sound (an external amplifier, fan or other device)

Solution:

The Citation AMP features a 12V trigger output. This can be used to synchronize the power on and standby function of another device.

When Citation AMP is ON, then the trigger triggers another device to switch ON. When Citation AMP enters standby, then the trigger will turn the external device OFF.



AMP APPLICATION GUIDE

Control system integration **Use case:**

I want to control the whole-home audio/video, lighting and climate systems with a touch-panel or app

Solution:

The Citation AMP is compatible with major 3rd party control systems including Control4 and Crestron*. This offers many opportunities to integrate the Citation AMP in a variety of applications.

The installer can download 3rd party control drivers from harmankardon.com.



AMP APPLICATION GUIDE

Setting a maximum volume **Use case:**

I don't want the volume to exceed a certain limit. For example, a commercial installation like a café

Solution:

The Citation AMP features maximum volume setting to limit the level. You can apply the maximum volume to the desired limit in the Advanced Settings.





Speaker

AMP APPLICATION GUIDE

Dual Mono output **Use case:**

The Left and Right speakers are placed very far apart. The sound is strange because the stereo mix is not designed for this application

Solution:

The Citation AMP features a Dual Mono mode, which combines the Left and Right channel so each speakers plays back the same mono mix.

This is a preferred setting when speakers are located more than 10 feet apart.

You can access Dual Mono mode in the Advanced Settings.





Speaker

AMP APPLICATION GUIDE

Automatic analog playback **Use case:**

I want the amp to power up automatically when a vinyl player or other analog source starts playing

Solution:

The Citation AMP features Aux-in sensing input. If the analog source turns on and starts playing audio, then the Citation AMP will wake up and playback the music.

The Aux in sensing will wake up Citation AMP from standby. Aux sensing will not break in over actively playing sources like TV or streaming.



Speaker

Analog

AMP APPLICATION GUIDE

Adjusting the analog input **Use case:**

I have a device connected to the Aux-in and the volume is lower compared to other sources

Solution:

Many devices have low Aux output levels. Devices like laptops and PC may require some level compensation to be to be the same as the TV input.

The Citation AMP Aux-in defaults at 2V input sensitivity (line level). If the Aux-in volume is too low, you can adjust the Aux Input Boost Level in the Advanced Settings.





Speaker

Analog

AMP APPLICATION GUIDE

Adjust the built-in tone controls **Use case:**

The listening space requires EQ adjustments due to speaker location and/or room acoustics

Solution:

The Citation AMP features bass and treble tone controls to optimize audio performance based on your individual room or location.

If only passive speakers are connected, then the Bass EQ will effect the speakers. If a subwoofer is connected, then the Bass EQ will adjust the subwoofer level.

Bass control can be found on the remote control and in the Advanced Settings. Treble control is available only in the Advanced Settings.



CITATION AMP

Advanced Settings

Why are these settings only available through and IPaddress?

Actually this is a benefit.

Installers want to be sure that users don't go into settings and change or disrupt the installation configuration. Installers want to exclusively manage the system settings - if there is a problem, installers expect the owner to call so the installer can come fix the problem. By making the settings more exclusive, the installer can be assured that the user won't make unnecessary changes.

Installers shouldn't have an issue finding the IP address to go to the advanced settings. They will be thankful that it is harder for users to access.

Other CI brands totally lock out the consumer - it is common that only the installer exclusively has access to the installation configuration.



CITATION AMP

Rear panel connections

