

AUDIO Alchemy



Owner's Manual

DDP-1 Preamp/DAC

Contents

Legal notifications	2	Operation	5
Warranty information	2	Powering Up the DDP-1	
Installation and Usage Tips	3	Selecting an Input	
Connections and Controls	3	Adjusting the Volume	
Front panel		Mute	
Rear panel		Using Headphones	
Remote control		Using the DAC	
Connecting the DDP-1 to Your System	4	Display Setup	
Power supply		Setting Startup Volume	
Interconnect cables		Installing the USB Driver	7
12-volt DC trigger output		Maintenance	7
USB programming input		Troubleshooting	8



CAUTION: NO USER SERVICEABLE PARTS INSIDE. Do not open the amplifier chassis or remove any of its screws. Contact Audio Alchemy or your dealer if you have service needs.

WARNING: Do not expose this amplifier to moisture or excessive humidity, and do not use it outdoors. Fire hazard may result.



The lightning flash with arrowhead, within an equilateral triangle, is intended to alert the user to the presence of uninsulated dangerous voltage within the product enclosure that may be of sufficient magnitude to constitute a risk of electrical shock to persons.



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

DDP-1 Limited Warranty

Audio Alchemy warrants the DDP-1 against manufacturing defects and defects in materials for two years from the date of purchase. The warranty must be exercised through an authorized Audio Alchemy dealer, subject to the conditions listed below:

- 1) The warranty covers only new products purchased from an authorized Audio Alchemy dealer.
- 2) The warranty is non-transferable and is valid only for the original purchaser.
- 3) The warranty is valid only if the product has been used according to the instructions in the owner's manual. Damage due to accidents or owner abuse or neglect is not covered.
- 4) All service must be performed by Audio Alchemy or an authorized Audio Alchemy dealer. Damage resulting from service by other parties is not covered under this warranty.
- 5) All products returned for service must be packaged in the original container and must include a photocopy or computer printout of the original purchase receipt. If the original container has been lost or discarded, contact Audio Alchemy for a replacement.
- 6) This warranty covers only defects in Audio Alchemy products. It does not cover incidental or consequential damages, or damage to other products resulting from defects in Audio Alchemy products.
- 7) If the product must be shipped back to Audio Alchemy for warranty service, the customer will pay shipping costs. Audio Alchemy will pay return shipping.
- 8) Before shipping the product to Audio Alchemy for service, the customer must obtain a Return Authorization (RA) number from Audio Alchemy. The RA number must be marked clearly on the package.
- 9) U.S. residents: Depending on which state you live in, you may have other rights not elaborated in this document. For further information, contact Audio Alchemy.
- 10) Residents of other countries: Your authorized dealer bears the direct responsibility for warranty coverage of your amplifier. Please contact your dealer with requests for service under warranty.

For questions on warranty and service matters, contact Audio Alchemy at info@audioalchemy.com. You may also call 805.323.6005, but for faster service we recommend you e-mail.

Legal Notifications

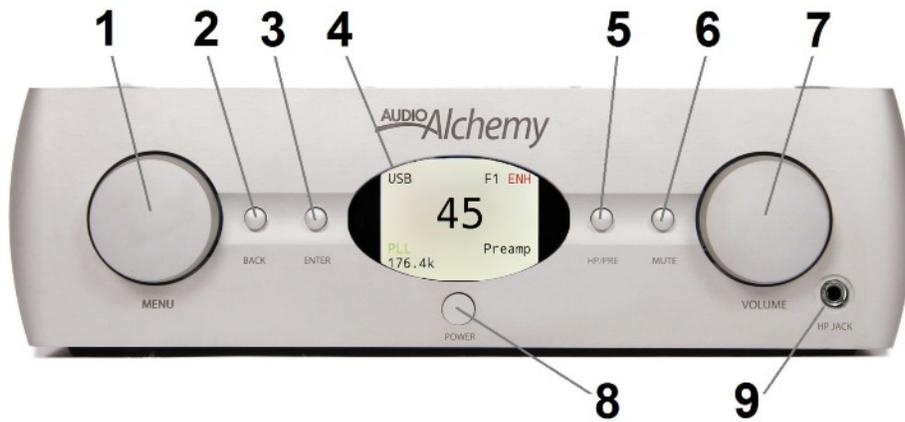
Audio Alchemy is a registered trademark of Audio Alchemy LLC. Information in this manual is subject to change without notice. The information in this manual is the sole property of Audio Alchemy. Any reproduction in whole or part without the expressed written permission of Audio Alchemy is prohibited. No material herein may be transmitted in any way including either electronic or mechanical methods for any purpose without expressed written permission of Audio Alchemy.

Important Guidelines for Installation and Use

- Do not place the power supply on a carpet. It can get warm during operation and some carpets can be damaged by direct contact with warm surfaces. Place the power supply on a solid surface, such as a tabletop, shelf or rack shelf.
- Do not connect the DDP-1's power supply until all audio connections have been made.
- Place the DDP-1 where it will not be exposed to moisture or direct sunlight.
- Install the DDP-1 and its power supply where they can get some ventilation. They don't produce a great deal of heat, but using them in a sealed enclosure with no airflow could have long-term negative effects on the unit's circuitry.
- Use a soft microfiber cloth to clean dust and fingerprints off of the DDP-1's surface. Stubborn fingerprints or dirt may be removed by spraying a small amount of water or window cleaner onto the cloth, then using the moistened cloth to clean the DDP-1. Do not spray any cleaner or other moisture directly onto the DDP-1.
- You will get the best and most reliable performance from the DDP-1 by using high-quality audio cables. We recommend against using the "freebie" cables included with many Blu-ray players, CD players, etc.

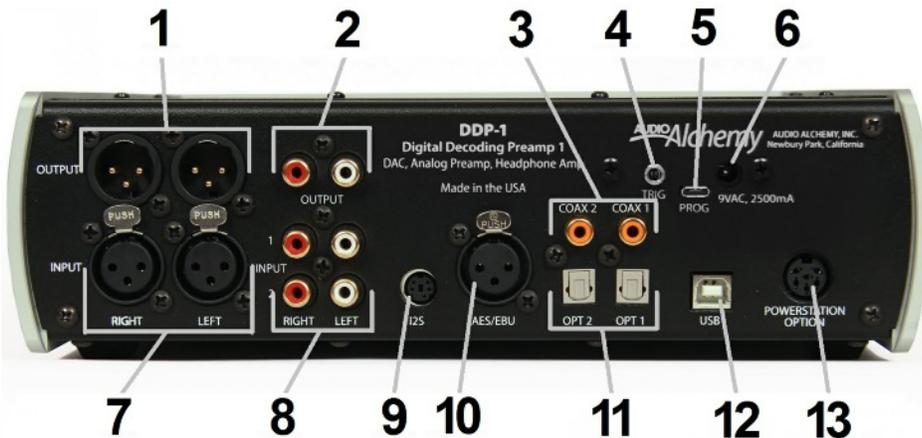
Connections and Controls

Front Panel



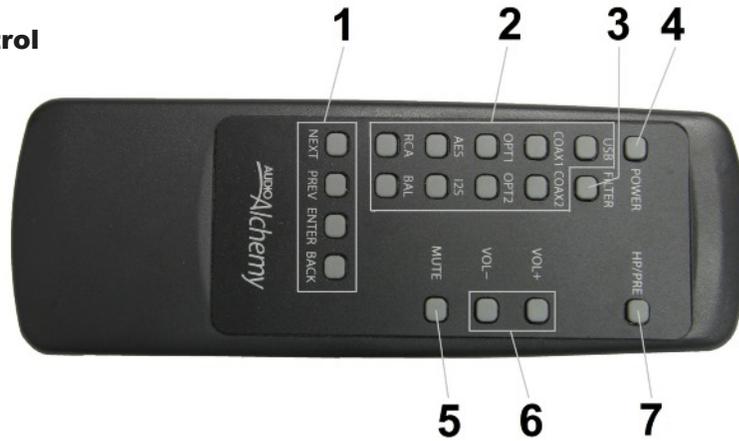
- | | | |
|-----------------------------|------------------------------|-------------------|
| 1. Menu/input selector knob | 4. LCD multifunction display | 7. Volume control |
| 2. Back button | 5. Headphone/preamp selector | 8. Power button |
| 3. Enter button | 6. Mute button | 9. Headphone jack |

Rear Panel



- | | | |
|-------------------------------------|-----------------------------------|--------------------------------------|
| 1. XLR analog output | 6. Standard AC power supply input | 11. Optical (Toslink) digital inputs |
| 2. RCA analog output | 7. XLR analog input | 12. USB digital audio input |
| 3. Coaxial digital inputs | 8. RCA analog inputs | 13. Optional PS-5 power supply input |
| 4. 12-volt DC trigger output | 9. I ² S digital input | |
| 5. USB programming input (no audio) | 10. AES/EBU digital input | |

Remote Control



- | | | |
|-------------------------------------|------------------------|------------------------------|
| 1. Front LCD menu buttons | 4. Power button | 7. Headphone/Preamp selector |
| 2. Input selector buttons | 5. Mute button | |
| 3. Filter/Resolution Enhance button | 6. Volume +/- controls | |

Connecting the DDP-1 to Your Audio System

First, turn your power amp off. Do not connect the DDP-1's power supply until all audio connections have been made.

Power Supply Connection: Stock Power Supply



To connect the stock AC power supply that comes with the DDP-1, connect the power supply's cable to the coaxial AC power input on the upper right corner of the back of the DDP-1. Do not plug the power supply into the AC wall socket until you have finished all audio connections. Do not connect the stock power supply if you are using the PS-5 Power Station.

Power Supply Connection: Optional PS-5 Power Station



If you are using the optional PS-5 Power Station power supply, plug the cable that comes with the power supply into one of the multipin DC outputs on the back of the PS-5, then into the multipin Power Station input near the lower right corner of the DDP-1. Do not plug the PS-5 into the AC wall socket until you have finished making all audio connections. Be sure to disconnect the stock AC power supply before you connect the PS-5 Power Station.

USB Programming Input

The DDP-1 is field-upgradeable, so you can update its firmware to add features and improve operation. This input does not accept audio signals. To update the firmware, check the DDP-1's screen during power-up to find out what firmware version you have, then check the Audio Alchemy website to see if a new version is available. The website explains how to download and install the new firmware. All you need is a computer and a USB cable with a USB-A plug on one end and a USB-micro-B plug on the other. (This cable is commonly available; it's used to charge Android phones and tablets as well as most Bluetooth speakers and headphones.)



Interconnect Cables

Start by connecting the source devices (computer, phono preamp, CD player, etc.) to the DDP-1. In every case, grasp the cables by the plugs/connectors, not by the cable itself, otherwise you could damage the cable or the DDP-1's jack panel. The most critical connection is the one between the DDP-1 and the power amplifier. If your amplifier offers XLR input, we strongly recommend you use XLR cables to connect the DDP-1 to the amplifier. This will minimize noise and interference while providing a more secure connection.

For AES/EBU and XLR input connections, align the pins inside the plug and push it in until it clicks. To remove, press the tab on the top of the jack, above where the plug connects, then pull the plug out. For XLR output connections, follow the same procedure for connections, and press the tab on top of the plug, then pull the plug out. For RCA (coax), optical, USB, and I²S connections, simply grasp the plug and insert it into the jack on the DDP-1.

12-volt DC Trigger Output

This is a 3.5mm (1/8-inch) jack that produces a 12-volt DC control signal when the preamp is on. You can connect it to any amplifier (or other device) that accepts 12-volt DC trigger input. This way, the amp or other connected component will automatically turn on when the DDP-1 is on, and off when the DDP-1 is off.

Operation

Powering Up the DDP-1

Once the power supply is connected, press the Power button on the front of the DDP-1 or on the remote. We recommend you switch on the DDP-1 on before you switch on your power amplifier. Touching the power button will activate a 20-second warm-up. During this time, the DDP-1's circuits will come up to operating temperature, and its motorized volume control will automatically calibrate itself by turning back to 0, then returning to the last volume setting you used. No audio signals will pass through the unit while it's warming up. When the front display shows the two-digit volume readout, the DDP-1 is ready to use.

Adjusting Volume

To adjust volume, press the +/- Volume buttons on the remote or turn the Volume knob on the front panel. The setting will be displayed on the LCD. Minimum volume setting is 00, max is 99.

Selecting an Input

There are two ways to select an input on the DDP-1: either directly with the buttons on the remote, or by using the Menu/Input Select knob on the front panel.

To select an input with the remote, press the button for that input. To toggle between the RCA inputs, press the RCA input. The front LCD will show which is selected. To select an input from the front panel, turn the Menu/Input Select knob in either direction. The input list will be displayed on the LCD. Turn the knob until the input you want appears in bold. (If you don't see the input you want, turn the Menu/Input Select knob until it appears.) Press the Enter button to select the input.

Mute

To mute the audio, press the Mute button on the remote or the front panel. The sound will go quiet, the red Mute indicator will appear in the lower right corner of the display, and the volume readout will turn red and flash. Press either Mute button again to restore the sound.

Using Headphones

To use the DDP-1 as a headphone amp, plug a set of headphones into the 1/8-inch jack on the front panel. An adapter can be used for headphones that have a 1/4-inch (6.2mm) plug. Press the HP/Pre button on the remote or the front panel. The preamp outputs will mute and the front display will show that the DDP-1 is in headphone mode. Press either HP/Pre button again to mute the headphone output and reactivate the preamp outputs.



Using the Digital-to-Analog Converter

The DDP-1 accepts digital signals through its USB, AES/EBU, coax, optical and I²S inputs. The USB input accepts PCM signals up to 24/216 resolution as well as DSD 64 signals. Other digital inputs accept PCM signals up to 24/192. This input works immediately with Mac computers. With Windows PCs, you must install a USB driver. See "Installing the USB Driver" below.

The lower right corner of the LCD shows the sample rate of the signal and the lock status of the PLL jitter reduction. With digital inputs other than USB, the sample rate readout will display "INVALID" if no signal is present, or if the resolution of the signal is higher than the maximum the DDP-1 can handle.



Selecting the Digital Filter and Turning Resolution Enhancement Off/On

The DDP-1 lets you select one of four digital filters and also activate and deactivate resolution enhancement. You can hear the effects of these features by ear; just select whatever sounds best to you. The Filter button on the remote controls these features. Push the Filter button repeatedly to cycle through all eight listening options. The readout at the top right corner of the front LCD shows which filter and enhancement modes are selected.

If the "ENH" indicator is green, resolution enhancement is activated. If it's red, resolution enhancement is deactivated. Next to this indicator is a reading that shows which digital filter is selected (F1 through F4). Here are the descriptions of the filters:

- F1: Linear phase, fast roll-off
- F2: Linear phase, slow roll-off
- F3: Minimum phase, fast roll-off
- F4: Minimum phase, slow roll-off (apodizing)



Setting Default Filter and Resolution Enhancement for Each Input

Besides selecting the digital filter and resolution enhancement from the remote, you can also use the front panel controls and LCD screen to preset the digital filter and resolution enhancement for each digital input. To do this, select the desired digital input using the remote or the front-panel controls and LCD. Now hold the Enter button on the front panel down for 3 seconds. You will see a menu that lets you choose filter, resolution enhancement on/off, and startup volume. Turn the left knob to select among these adjustments. To select the filter, highlight the Filter setting onscreen and push the Enter button repeatedly to switch among the four options. To select resolution enhancement on/off, highlight the Res. Enh. setting onscreen and press the Enter button to change between on and off.



Display Adjustment

The display on the DDP-1 can be set for black-on-white or white-on-black readout. Operation is the same either way, only the look is different. To change the display setting, hold the Enter button on the front panel down for 3 seconds. You will see a menu that lets you choose filter, resolution enhancement on/off, and startup volume. Turn the left knob to select the Display Set adjustment onscreen and push the Enter button to switch among the options.



Setting Startup Volume

The DDP-1 allows you to present the initial volume level of each input. For example, if you preset the volume for the Coax-1 input to 50, the volume setting will automatically go to 50 every time you switch to the Coax-1 input. This will be useful especially for source devices that have unusually high or low output levels.



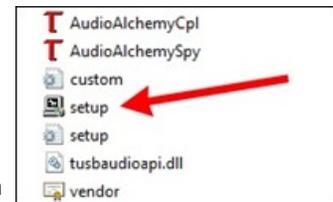
To preset the startup volume for an input, first adjust the volume to the level you want for startup. Now hold the Enter button on the front panel down for 3 seconds. You will see a menu that lets you choose filter, resolution enhancement on/off, and startup volume. Turn the left knob to select the S.Vol adjustment onscreen and push the Enter button to switch between using the current volume setting as startup volume, or deactivating S.Vol (in which case the readout will say "S.Vol: None").



Installing the USB Driver

To use the USB input with a Windows PC, you will need to install a USB driver. This is required for each Windows PC you use with the DDP-1. (If you are using an Apple Mac, no driver is required.)

Start by downloading the driver from www.audioalchemy.com. The driver will be in the form of a ZIP file. Unzip the file and open the folder, which is called Release Driver. Connect a cable from one of the computer's USB ports to the DDP-1's USB digital audio input. (Make sure you don't connect the computer to the DDP-1's USB programming input. Refer to the Connections and Controls: Rear Panel section of this manual if you have any question about which is which.) Now open the Release Driver folder and click on the first file labeled Setup (shown in the screen shot at right).

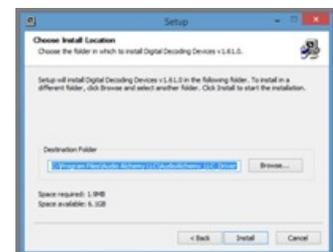


The "Welcome to the Digital Decoding Devices Setup Wizard" dialog box seen at right should appear onscreen. Click Next to begin installation.

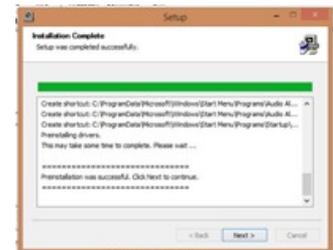


If you see a message box telling you the driver is unsigned, click Run Anyway. The DDP-1's USB driver has been approved by Microsoft, but if your computer does not have an active web connection, it won't be able to confirm the driver signature. Likewise, if you get a "Do you want to allow the following program to make changes to this computer?" dialog box, click Yes.

The "Choose Install Location" dialog box will now appear. If you want to change the location on your computer where the driver is stored, feel free, but the simplest installation we recommend sticking with the default location. Now click Install.



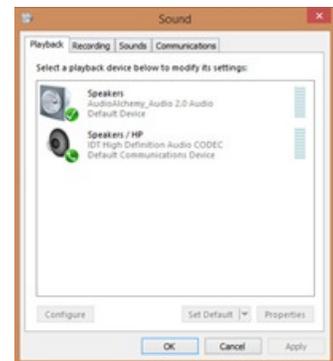
Once the installation of the driver is complete, you will see the "Installation Complete" dialog box shown at right. Click Next.



You will now see a "Completing the Digital Decoding Devices Setup Wizard" dialog box. Click Finish and the driver installation will be completed.

You will now need to select the DDP-1 as your computer's audio playback device. First, open your computer's Control Panel, click on "Hardware and Sound," then click on "Manage Audio Devices" (under "Sound"). You'll see a panel like the one at right, showing all the audio playback devices you have connected.

Place the cursor over "Speakers/AudioAlchemy_Audio 2.0" until it is highlighted onscreen, then right-click. Choose "Enable" to activate the USB connection to the DDP-1. Choosing "Set as Default Communications Device" will automatically default your computer's audio output to the DDP-1 whenever it is connected.



Maintenance

The DDP-1 requires no user maintenance, although it's a good idea to occasionally wipe any accumulated dust off of it. To do this, use a soft microfiber cloth and wipe gently to remove any dust. Stubborn fingerprints or dirt may be removed by spraying a small amount of water or window cleaner onto the cloth, then using the moistened cloth to clean the DDP-1. Do not spray any cleaner or other moisture directly onto the DDP-1.

If the DDP-1 does not seem to be working properly, please contact your dealer. Do not attempt to open the chassis; there are no user-serviceable parts inside.

Troubleshooting

Power Won't Turn On

If pushing the Power button on the front panel or remote doesn't turn the DDP-1's power on, check these things in order:

1. Make sure the stock power supply or the PS-5 is plugged into the wall socket. If you're using a power strip or a line conditioner, make sure the unit is plugged in and turned on. If you are using the PS-5, make sure its AC cord is also plugged into the wall (or power strip or line conditioner) and into the back of the PS-5.
2. If you're using the PS-5, make sure it's turned on and the LED surrounding its front power button is lit.
3. Check to make sure the power supply is firmly connected to the DDP-1.
4. Check your home's electrical box. If the circuit breaker has been tripped, flip it back on.
5. If these steps do not fix the problem, please contact your dealer.

Power Is On But There's No Sound

If the front LCD is illuminated but the system produces no sound, check the following things in order:

1. Make sure the DDP-1's volume is turned up. When the unit powers on, the unit recalibrates its volume to 00.
2. Make sure the DDP-1 is not in mute mode, which is displayed in the lower right corner of the LCD. If it is, press the Mute button on the remote or the front panel.
3. Check to see if the DDP-1 is in the desired playback mode, i.e., preamp or headphones. If it's in the wrong mode, press the HP/Pre button on the remote or the front panel.
4. Check the other components (amplifier, computer, CD player, turntable) to make sure they are powered up and running. Make sure the computer is playing a file, or the turntable's tonearm is lowered, etc.
5. If you are using a digital source, check to make sure the PLL indicator in the lower right corner of the LCD is showing and that a sample rate (i.e., 44.1, 96, 192) is displayed. If not, the file you are trying to play may not be compatible with that input or with the DDP-1.
6. Check the connections between your components to make sure all cables are properly connected. If you suspect any cables are damaged, swap them out with another set of cables. If the sound comes back, replace the damaged cables.
7. If these steps do not fix the problem, please contact your dealer.

Sound Comes From Only One Channel

If only one channel is working, check the following things in order:

1. Check the connections between the sources and the DDP-1, and the connections between the amp and DDP-1 and the amp and the speakers. If any cables are disconnected, reconnect them, and if they appear damaged, replace them.
2. If you are using monoblock amplifiers, make sure both amplifiers are turned on.
3. Try swapping the left and right cables between the amp and the DDP-1, then between the amp and the speakers. If you're using an analog source, try swapping the left and right cables leading from it to the DDP-1. If any of these actions restores the sound in the dead channel and cuts the sound in the other channel, the cable must be replaced.
4. Swap the left and right speakers, without changing the speaker cable connection at the amplifier. If the sound in the dead channel is not restored, that speaker is likely malfunctioning.
5. Check to see if your source devices and amplifier are working correctly. If possible, swap them out with similar devices. If swapping the component restores the sound in the dead channel, the original component is probably defective.
6. If none of these steps restores the sound, consult your dealer.

Sound Is Weak, Distorted or Unnatural

If the sound is on in both channels but seems weak, distorted or unnatural, check the following things in order:

1. If you are using a turntable, make sure you are using a separate phono preamp between the turntable and the DDP-1, or that the turntable has a built-in phono preamp. The DDP-1 does not include a phono preamp feature.
2. If you are using an analog source device (CD player, tape deck, TV, etc.) that has a variable-level audio output, make sure the level on the source device is turned all the way up.
3. Try a different set of interconnects between the amp and the DDP-1, and between any analog source devices and the DDP-1. If a different set of interconnects fixes the problem, replace the original set.
4. If these steps do not improve the sound, please contact your dealer.

For more information about the DDP-1 and other Audio Alchemy products, please visit www.audioalchemy.com.

