

voice. Note that number. The target setting will be one about halfway between the two settings. As you gain more experience you will find the settings more quickly, and you will be more sensitive to finding the most perfect setting. You will also probably notice that not only will different sources need different settings, but the program material itself often is different enough to require optimizing the settings.

We have included the Monster ISF calibration DVD with your DDL4/D.DaD purchase to make setting the correct delay for your DVD player easier. Watch the disc from the beginning, and you will come to a test using a “Producer’s Slate” to produce an audible “click” which must synchronize with the visual indication. Try it; you will quickly become familiar with how things “feel” when properly synchronized. . . . it won’t help you set any of your other inputs, but you will get a feel for how good it can be!

Play around with the settings until you zero in on the one that makes you happy.

The display is brightly illuminated while you are making adjustments, but once you stop, it will decrease in brightness and eventually go dim to reduce light pollution in your screening room. You can “wake it up” by pressing any button.

Enjoy!

Advanced Features

RS232 connector – A three-pin 3.5mm mini jack RS232 interface is provided for use in automation systems, or for future software upgrades. If you need more information on the use of this jack, please email our customer service department.

Optional stealth IR detector – If you wish to keep your unit someplace that is out of range or not in line of sight of the remote (say, hidden in a cabinet) , use the rear 3.5mm IR sensor port to connect an optional wired IR LED receiver (available from a number of companies, i.e. Xantech). Contact us for the wiring of this connector and for extension cables with wired IR receivers. See the Advanced Features Chart to disable the front detector and enable the stealth IR detector port.

Duplicate the functionality of the Alchemy² remote with your favorite remote

Beside being controlled by the Alchemy² RM-4 Remote, we’ve designed the DDL4/D.DaD to learn commands from your favorite “donor” remote so *that* remote can control all its functions. Besides the convenience of “one remote does it all,” there is a functional advantage to having the same inputs of various components switched on by the same remote signal simultaneously.

Even after programming the DDL4/D.DaD to operate by your donor remote, it can still be operated by the included Alchemy² RM-4 Remote.

When you are ready to configure the DDL4/D.DaD to work with YOUR donor remote, use the display and buttons on the front panel of the DDL4/D.DaD, and follow the instructions in the Advanced Features Chart. The basic procedure overview is: 1. Put the DDL4/D.DaD into learn/teach mode, 2. Get the display to show and blink the desired operation, 3. Then press the selected button on the donor remote, and watch the display say **OK**. You can continue with additional configurations, or after 15 seconds with no activity, the unit will revert to play mode.

Start at the top of the Advanced Features Chart, and then work your way across and down. You’ll see that the operations are divided into three groups. You can immediately advance from group to group by pressing the DELAY/BYPASS button. You can quickly rotate up or down through the selections within a group by pressing the “+” or “-” buttons. It’s easy, but if you need some help, call our support line.

Advanced Features Chart: Teaching the DDL4/D.DaD to operate with your “donor” remote’s commands

To enter Configuration Mode, connect power to the unit while pressing the DELAY/BYPASS button on the front panel of chassis. Keep button held down until display flashes C F I G.

Aim your remote at front or stealth IR detector on DDL4/D.DaD (depending on your selection; front is factory default). Once display shows desired mode, press the button once on donor remote you want learned, wait for OK, then confirmation of selection. Then advance to next selection to be learned. If no selection is made for 15 seconds, unit will revert to normal play mode.

	Display on chassis blinks:	Then, on DONOR REMOTE, press button once:	Display changes to:	Pressing “+” or “-” buttons on chassis:	Pressing DELAY/BYPASS button on chassis:
INPUTS GROUP	IN - J	Select button for INPUT #1	OK, then IN - J solid	Rotate thru INPUT GROUP selections	Advances to CONTROL GROUP
<i>Follow the same procedure for the rest of INPUT GROUP (INPUTS #2 thru #4)</i>					
CONTROL GROUP	MODE	Select button for DELAY/BYPASS	OK, then MODE solid	Rotates thru CONTROL GROUP selections	Advances to TEACH/PRESETS GROUP
	INCR	Select button for DELAY +	OK, then INCR solid	Rotates thru CONTROL GROUP selections	Advances to TEACH/PRESETS GROUP
	dECR	Select button for DELAY-	OK, then dECR solid	Rotates thru CONTROL GROUP selections	Advances to TEACH/PRESETS GROUP
	BASE	Select button for FRAME/TIME	OK, then BASE solid	Rotates thru CONTROL GROUP selections	Advances to TEACH/PRESETS GROUP
TEACH/PRESETS GROUP	LRN	Select button for LEARN MODE	OK, then LRN solid	Rotates thru TEACH/PRESETS selections	Advances to IR DEFAULT SETTING
	PR - J	Select button for PRESET 1	OK, then PR - J solid	Rotates thru TEACH/PRESETS selections	Advances to IR DEFAULT SETTING
<i>Follow the same procedure for the rest of TEACH/PRESETS GROUP (PRESETS #2 thru #10)</i>					
<i>Changing the IR detector setting, advance from TEACH/PRESETS group</i>					
	To change IR DETECTOR default:	Display on chassis shows:	Pressing “+” button on chassis:	Selection blinks, display changes to:	Pressing DELAY/BYPASS button on chassis:
IR DEFAULT SETTING	FRONT ↔ REAR	IR - d	Toggles IR - F ↔ IR - R	OK, then setting	Advances to INPUTS GROUP

Specifications

Signal format	S/Pdif
Signal type	PCM, Dolby® Digital, DTS®
Frequency response	no effect on incoming signal
Signal-to-noise ratio	no effect on incoming signal
THD	parity or reduced THD (depending on source unit connected)
Jitter Reduction	<20 pS RMS (D.DaD)
DDL4/D.DaD size (LxWxH)	5.25" x 4.25" x 2.125"
DDL4/D.DaD weight	1 lb
Delay range	up to 1.0 Second @ any sample rate
Power supply size (LxWxH)	3.25" x 1.75" x 1.25"
Power supply weight	0.25 lb
Connectors	(2) RCA input (2) Optical input (2) RCA output (2) Optical output (1) 2.5mm DC power jack (1) 3.5mm IR extension port (1) 3.5mm mini-jack RS232 port
Power consumption	6 Watts
Warranty	1 year P&L
Designed and Assembled in the United States by Alchemy ^{2™}	

DELAY+ Allows you to INCREASE the delay time from 0 up to 999ms (or 0 to 30.2 frames)

DELAY- Allows you to DECREASE the delay time from 999 down to 0ms (or 30.2 to 0 frames)

Selecting Inputs

To use the DDL4/D.DaD you first select the input you wish to use. The display will rotate from one to the next with each press of the INPUT select button and indicate either "in1", "in2", "in3" or "in4". You can also use the remote control to directly select an input.

If you have selected a valid input with an active digital audio signal, the display will soon indicate the sample rate of the incoming signal. The possibilities are **32, 44.1, 48, 88.2, 96** or **192** (kHz). The characters "???" will show if the selected input has no valid signal on it, or if it is out range of the expected sample rates. If you get "???", try changing inputs to see if you made an error in which jack you used. You could also have a loose connector, a bad cable, the wrong output from your source component, or the source output disabled. Check for a switch on the back of the component, or maybe a menu item to enable/disable the digital output. On occasion we see that source devices are off-frequency slightly (and show question marks) and yet play just fine; thus no cause for concern.

Shortly after showing sample rate, the display changes to indicate the selected delay amount. If this is the first time you have used the DDL4/D.DaD this number will be a "0". Pressing **DELAY+** will increase the number, while pressing **DELAY-** will decrease it. (You cannot go below 0, however.) With the supplied remote control you can also change the delay settings up and down using the buttons with the same names.

TIP: To eliminate the need to separately switch inputs for each your DDL4/D.DaD (audio) AND your receiver/processor (audio & video), your DDL4/D.DaD can be configured to switch its inputs simultaneously with those of your receiver/processor (by learning the other unit's remote button codes.) See **Advanced Features** section.

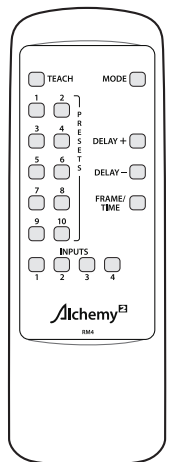
Programming Remote Delay Presets

DDL4/D.DaD can also be programmed with 10 preset delay amounts to be selected from the remote control. Presets are programmed as follows: set the amount of delay you wish, press the **TEACH** button on the remote, and then press the **PRESET** number (1–10) you wish to assign it to. Any preset can be reprogrammed whenever you want by using the same technique. Presets are selected by pressing one of the 1–10 buttons.

Operation

Use of DDL4/D.DaD is simple: select the input on DDL4/D.DaD you wish to listen to, be sure your A/V receiver/surround sound processor is switched to the input DDL4/D.DaD is connected to, and you're on.

To find the best delay setting for a particular input we suggest using source material with simple dialog. Focus on the movement of the performer's lips rather than the voice. Very quickly you will notice even the smallest changes in settings. By increasing and decreasing the delay time you will be able to go beyond "right" to the point where now the voice lags the picture. Make note of the setting you first notice that happening. Then decrease the setting until you first notice the picture lags the



Alchemy²

DDL4 Digital Delay Line



D.DaD De-jitter Digital Delay Line



For FAQ, reviews, and more alchemist insight, call (805) 647-7849
or visit www.alchemy2.com



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"DTS" is registered trademark of Digital Theater Systems, Inc.
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Connection & Operation Instructions

DDL4 Digital Delay Line

D.DaD De-jitter Digital Delay Line

Connection & Operation Instructions

We are very proud to have you as an owner of a DDL4/D.DaD Digital Delay Line unit. With it, you will no longer need to suffer from the "lip sync" problem in your home theater system. The DDL4/D.DaD can be operated by the remote provided, or it can be taught to respond to your favorite remote. The D.DaD has the additional function of reducing jitter which is found on many of today's audio video source components. Installation and use of the either unit is exactly the same and is very simple. Please take a few minutes to look over this instruction sheet, after which you can probably just file it away.

Connection

First, attach the non-slip feet which you'll find in the shipping carton.

Then insert the DDL4/D.DaD between your digital audio sources and the surround-sound processor or A/V receiver. Thus, the optical or coaxial digital cable from your set-top box, DVD player and other source devices should be plugged into the corresponding optical or coaxial digital inputs of the DDL4 & D.DaD. For every input source connected to the DDL4/D.DaD, you'll need a corresponding output connected to your A/V receiver. Please remember that DDL4/D.DaD can only accept PCM, Dolby® Digital, DTS® encoded material or anything else that can be transmitted in the S/Pdif format. Digital audio is provided to all of the optical and coaxial outputs simultaneously.

IMPORTANT: Don't try to feed it an analog audio signal or a video signal of any type. It won't work and just might damage something expensive. (Plus, we'll know you did it, and you will have to pay to get it fixed.)

Next, attach the DDL4 & D.DaD's power supply to the jack on the back of DDL4/D.DaD and plug the line cord into an AC receptacle. During periods of inactivity DDL4/D.DaD will reduce its power consumption to a very low level, so it can remain powered if you wish. Or, using a switched outlet is fine, since DDL4/D.DaD remembers all of its settings when powered off.

That's it.

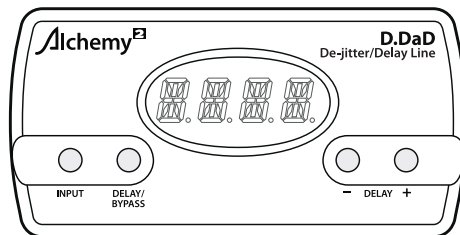
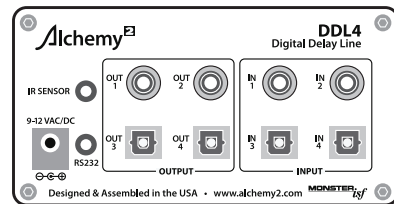
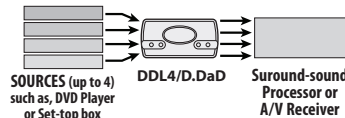
The Controls

On the front of DDL4/D.DaD there is a four-character alpha-numeric display to show delay selection. Settings range from 000 to 999 in milliseconds. Alternately, for you hardcore film buffs it can display delay in frames (or fractions thereof from 0 to 30.2 frames) depending on the setting you make from the remote.

Also, there are four control buttons that function as follows:

INPUT rotates through the four inputs.

DELAY/BYPASS toggles between delay ON at the selected delay time and delay of 0 (bypassed. Indicated by "----" on the display.)



Warranty/Service

There are two things you must do to ensure trouble-free service in the event you need warranty repairs.

1. Keep your original sales receipt in a safe place. A copy of the receipt will be required to obtain warranty service.
2. Be sure your retail dealer has written the date, the model number, and the serial number (if applicable) of the Product on the receipt. To give yourself an extra measure of protection, make a separate record of the information about your purchase and keep it in a safe place. In the event you misplace the sales receipt, your dealer may be able to give you a copy. Take a moment now to read the terms of your warranty. Check to be sure your sales receipt is dated and has the Product model number and serial number (if applicable) on it. Then put it away in a safe place. When shipping a product in for service:

- Email or call Alchemy² for the proper ship to address for servicing and an RMA (return merchandise copy of your original sales receipt that has the date, the Product model number and serial number (if applicable) written on it. You must place your RMA number on the shipping label of any unit returned to Alchemy² for service.
- Always ship Products in the complete original packing material.
- Avoid shipping Products via the Postal service. If you must use the Postal service, be sure to register and insure the package.

Alchemy² Limited Warranty

Alchemy² warrants to the original consumer purchaser of the Alchemy² Products described in this manual, that the Product will be free from defects in materials and workmanship for a period of one (1) year after the date of purchase. Alchemy²'s sole obligation under this warranty shall be to provide, without charge, parts and labor necessary to remedy the defects, if any, that appear during the warranty period. This warranty is the sole and exclusive express warranty given with respect to the Product. All other express warranties are hereby excluded. Neither Alchemy² nor the authorized dealer who sells the Product is responsible for indirect, incidental, or consequential damages. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights and you may also have other rights, which vary from state to state.

IMPORTANT – Keep your original sales receipt. Be sure the retail dealer has written on it the date, model number, and serial number (if applicable) of the Product. This information is required for warranty service.

This warranty is limited to:

- Products purchased from authorized Alchemy² retail dealers in North America. Alchemy² will supply a list of authorized dealers on request.