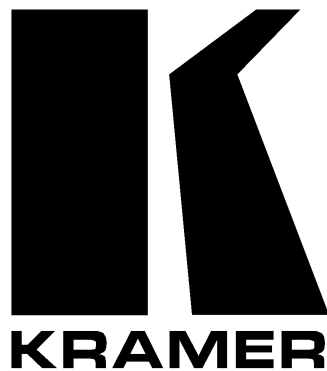


Kramer Electronics, Ltd.



USER MANUAL

Model:

VA-256xl

Audio Delay

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1 Introduction

Welcome to Kramer Electronics (since 1981): a world of unique, creative and affordable solutions to the infinite range of problems that confront the video, audio and presentation professional on a daily basis. In recent years, we have redesigned and upgraded most of our line, making the best even better! Our 500-plus different models now appear in 8 Groups¹, which are clearly defined by function.

Congratulations on purchasing your **VA-256xl** *Audio Delay*, which is ideal for professional audio/video broadcasting and production studios.

The package includes the following items:

- **VA-256xl** *Audio Delay*
- Power adapter (12V DC Input)
- This user manual²

2 Getting Started

We recommend that you:

- Unpack the equipment carefully and save the original box and packaging materials for possible future shipment
- Review the contents of this user manual
- Use Kramer high performance high resolution cables³

2.1 Quick Start

This Quick start chart summarizes the basic steps when connecting the **VA-256xl**:

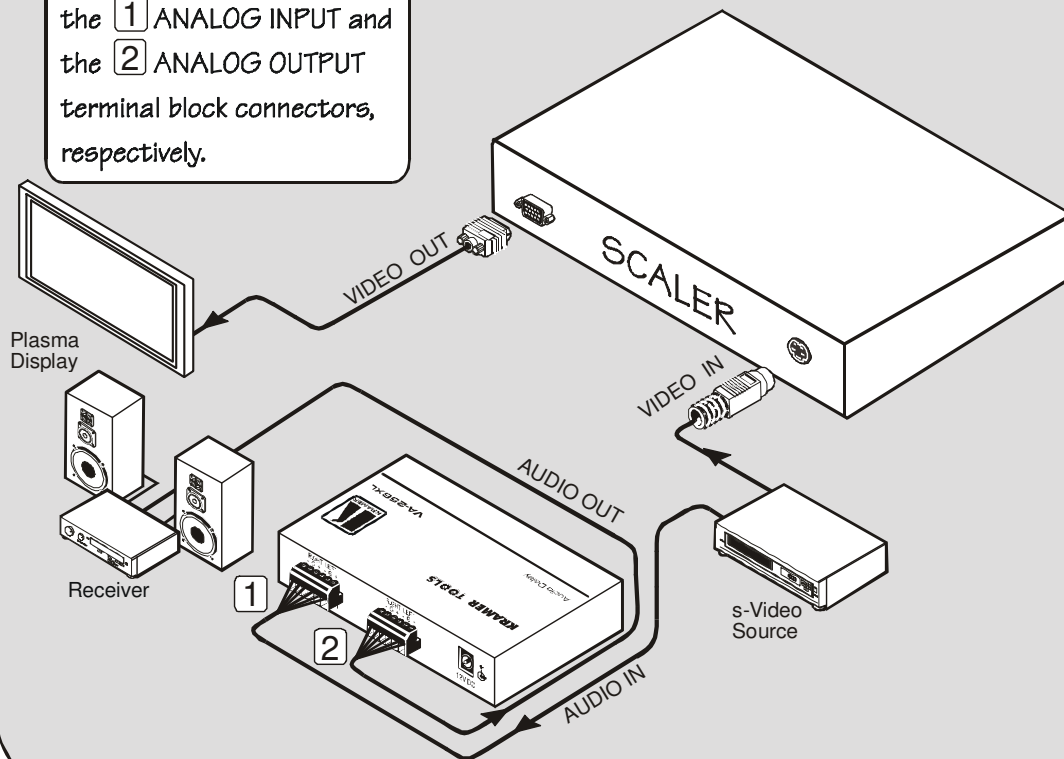
1 GROUP 1: Distribution Amplifiers; GROUP 2: Video and Audio Switchers, Matrix Switchers and Controllers; GROUP 3: Video, Audio, VGA/XGA Processors; GROUP 4: Interfaces and Sync Processors; GROUP 5: Twisted Pair Interfaces; GROUP 6: Accessories and Rack Adapters; GROUP 7: Scan Converters and Scalers; and GROUP 8: Cables and Connectors

2 Download up-to-date Kramer user manuals from the Internet at this URL: <http://www.kramerelectronics.com>

3 The complete list of Kramer cables is on our Web site at <http://www.kramerelectronics.com>

Step 1: Connect the input and the output

Connect the VA-256xl between the audio source and the audio acceptor via the **1** ANALOG INPUT and the **2** ANALOG OUTPUT terminal block connectors, respectively.



Step 2: Turn the power ON

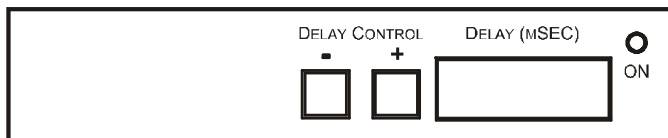
Step 3: Set the unit

SET THE DELAY TIME

Use the DELAY CONTROL + and - buttons to set the delay time in msec

SET THE BRIGHTNESS OF THE DISPLAY

- Press both the + and - buttons continuously for 3 seconds. The buttons illuminate and the display presents the brightness level.
- Press + or - to increase or decrease the brightness level respectively



3 Overview

The Kramer **VA-256xl** is a balanced stereo analog audio delay that:

- Lets you adjust for lip sync errors so that the audio delay will match the video delay¹
- Provides a delay time, ranging from 1msec up to 5.4 seconds in increments of 1msec
- Lets you adjust the display brightness
- Recalls the previously set input delay settings and the display brightness level via its non-volatile memory after powering up
- Is 12VDC fed and is housed in a TOOLS enclosure

To achieve the best performance:

- Connect only good quality connection cables, thus avoiding interference, deterioration in signal quality due to poor matching, and elevated noise- levels (often associated with low quality cables)
- Avoid interference from neighboring electrical appliances and position your Kramer **VA-256xl** away from moisture, excessive sunlight and dust



Caution – No operator-serviceable parts inside unit.

Warning – Use only the Kramer Electronics input power wall adapter that is provided with this unit².

Warning – Disconnect power and unplug unit from wall before installing or removing device or servicing unit.

¹ An example of a TV broadcasting lip sync error is when the sound is heard before the speaker's lips move

² For example: model number AD2512C, part number 2535-000251

4 Your VA-256xl Audio Delay

Figure 1 and Table 1 define the **VA-256xl Audio Delay**:

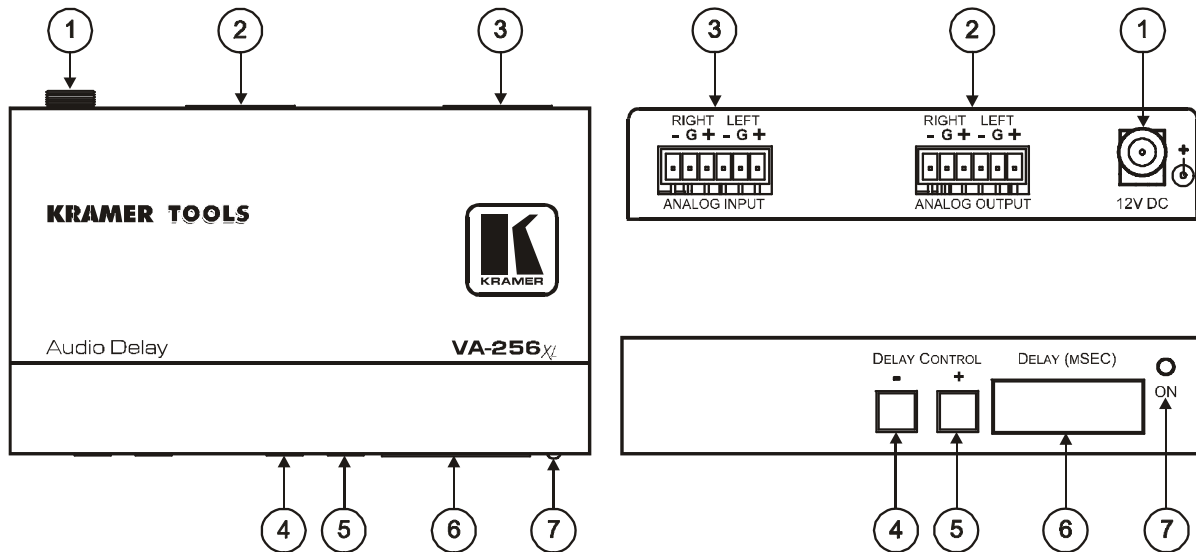


Figure 1: VA-256xl Audio Delay

Table 1: Features and Functions of the VA-256xl Audio Delay

#	Feature		Function
1	12V DC		+12V DC connector for powering the unit
2	ANALOG OUTPUT Terminal Block Connector	RIGHT	Connect to the analog audio acceptor
		LEFT	
3	ANALOG INPUT Terminal Block Connector	RIGHT	Connect to the analog audio source
		LEFT	
4	DELAY CONTROL	- Button ¹	Press to decrease the delay time ²
5		+ Button ¹	Press to increase the delay time ²
6	DELAY (mSEC) 7-segment Display		Displays the delay time ³
7	ON LED		Lights when the unit is powered

¹ For step-by-step response, press and release these button(s) as required. Press continuously for a quicker response

² Also used to set the brightness of the display (see section 5.3)

³ Ranging from 1 to 5400msec in increments of 1msec (see section 5.2)

5 Using the VA-256xl Audio Delay

To adjust a lip sync error (when using a scaler, for example, the Kramer **VP-724xl Seamless Switcher / Scaler**), use the **VA-256xl**, as the example in Figure 2 illustrates:

1. Connect the **VA-256xl**, as follows (see section 5.1):
 - Connect the audio output of the “s-Video Source” to the YC1 AUDIO IN terminal block connector on the **VP-724xl** and then connect the AUDIO OUT terminal block connector of the **VP-724xl** to the ANALOG INPUT terminal block connector on the **VA-256xl**
 - Connect the ANALOG OUTPUT terminal block connector on the **VA-256xl** to an audio acceptor (for example, a receiver).
2. Connect the 12V DC power adapter to the power socket and connect the adapter to the mains electricity.
3. Set the DELAY, as section 5.2 describes.
4. If required, set the display brightness (see section 5.3).

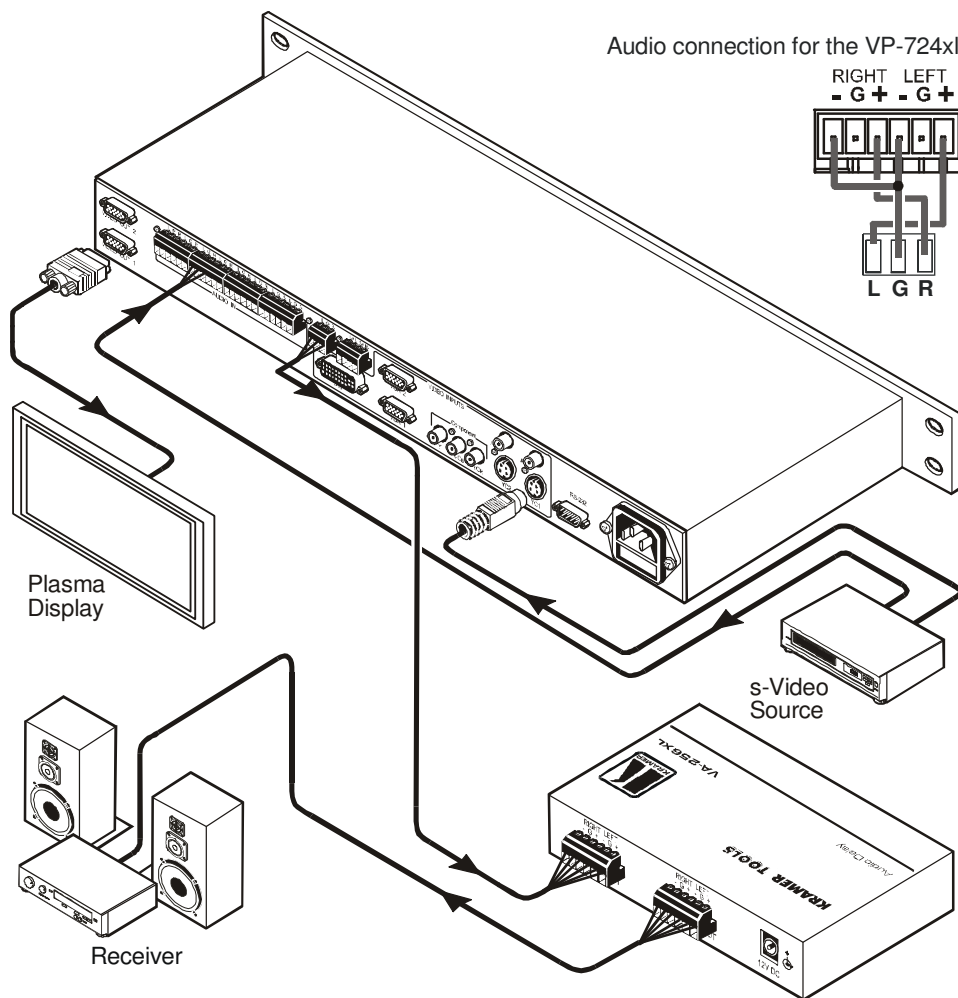


Figure 2: Connecting the VA-256xl Audio Delay

5.1 Connecting the Balanced/Unbalanced Stereo Audio Input/Output

Figure 3 illustrates how to wire a balanced input/output connection:

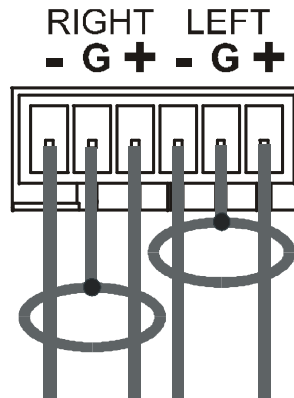


Figure 3: Connecting the Balanced Stereo Audio Input/Output

Figure 4 illustrates how to wire an unbalanced input connection:

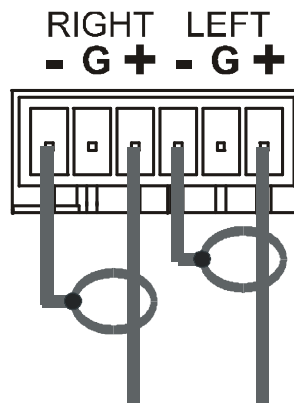


Figure 4: Connecting the Unbalanced Stereo Audio Input

Figure 5 illustrates how to wire an unbalanced output:

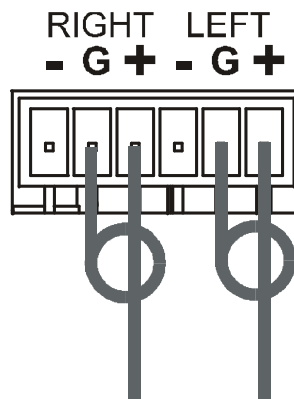


Figure 5: Connecting the Unbalanced Stereo Audio Output

5.2 Setting the Delay Time

Set the delay time via the – and + buttons¹. The delay time is displayed (in msec) on the 7-segment display located next to these buttons.

The maximum delay time is 5.4 seconds

The delay time setting is saved in the non-volatile memory.

5.3 Setting the Display Brightness (Dimmer Setting) Level

Use the dimmer settings to modify the brightness of the two input buttons and the display.

To set the brightness (dimmer setting) level, do the following:

1. Press both the + and – buttons continuously for 3 seconds.
The two input buttons and the + and – buttons illuminate.
The 7-segment display shows the brightness level².
2. Press the + or – button to increase or decrease the brightness level.
The brightness of the four buttons and the display is adjusted accordingly.

The dimmer settings mode time out after 20 seconds and the unit returns to normal operation.

The dimmer setting is saved in the non-volatile memory.

¹ In 1msec steps

² Ranging from 1 to 100

6 Technical Specifications

Table 2 includes the technical specifications:

Table 2: Technical Specifications¹ of the VA-256xl Audio Delay

INPUTS:	4dBu / 30k Ω on a detachable terminal block connector
OUTPUTS:	4dBu / 50 Ω on a detachable terminal block connector
MAX. INPUT/OUTPUT LEVEL:	+12dBu balanced
BANDWIDTH:	20Hz – 20kHz
THD + NOISE:	< 0.01%, +4dBu 1kHz
S/N RATIO:	>90dB unweighted, +10dBu
A/D and D/A CONVERSION:	48kHz, 24 bit
MINIMUM DELAY:	1msec
MAXIMUM DELAY:	5400msec
POWER SOURCE:	12V DC, 500mA
DIMENSIONS:	12 cm x 7.15 cm x 2.76 cm (4.7" x 2.81" 1.09", W, D, H)
WEIGHT:	0.3 kg (0.67 lbs.) approx.
ACCESSORIES:	Power adapter, mounting bracket
OPTIONS:	19" rack adapters: RK-T1, RK-T3

¹ Specifications are subject to change without notice

LIMITED WARRANTY

Kramer Electronics (hereafter Kramer) warrants this product free from defects in material and workmanship under the following terms.

HOW LONG IS THE WARRANTY

Labor and parts are warranted for seven years from the date of the first customer purchase.

WHO IS PROTECTED?

Only the first purchase customer may enforce this warranty.

WHAT IS COVERED AND WHAT IS NOT COVERED

Except as below, this warranty covers all defects in material or workmanship in this product. The following are not covered by the warranty:

1. Any product which is not distributed by Kramer, or which is not purchased from an authorized Kramer dealer. If you are uncertain as to whether a dealer is authorized, please contact Kramer at one of the agents listed in the web site www.kramerelectronics.com.
2. Any product, on which the serial number has been defaced, modified or removed.
3. Damage, deterioration or malfunction resulting from:
 - i) Accident, misuse, abuse, neglect, fire, water, lightning or other acts of nature
 - ii) Product modification, or failure to follow instructions supplied with the product
 - iii) Repair or attempted repair by anyone not authorized by Kramer
 - iv) Any shipment of the product (claims must be presented to the carrier)
 - v) Removal or installation of the product
 - vi) Any other cause, which does not relate to a product defect
 - vii) Cartons, equipment enclosures, cables or accessories used in conjunction with the product

WHAT WE WILL PAY FOR AND WHAT WE WILL NOT PAY FOR

We will pay labor and material expenses for covered items. We will not pay for the following:

4. Removal or installations charges.
5. Costs of initial technical adjustments (set-up), including adjustment of user controls or programming. These costs are the responsibility of the Kramer dealer from whom the product was purchased.
6. Shipping charges.

HOW YOU CAN GET WARRANTY SERVICE

7. To obtain service on you product, you must take or ship it prepaid to any authorized Kramer service center.
8. Whenever warranty service is required, the original dated invoice (or a copy) must be presented as proof of warranty coverage, and should be included in any shipment of the product. Please also include in any mailing a contact name, company, address, and a description of the problem(s).
9. For the name of the nearest Kramer authorized service center, consult your authorized dealer.

LIMITATION OF IMPLIED WARRANTIES

All implied warranties, including warranties of merchantability and fitness for a particular purpose, are limited in duration to the length of this warranty.

EXCLUSION OF DAMAGES

The liability of Kramer for any effective products is limited to the repair or replacement of the product at our option. Kramer shall not be liable for:

10. Damage to other property caused by defects in this product, damages based upon inconvenience, loss of use of the product, loss of time, commercial loss; or:
11. Any other damages, whether incidental, consequential or otherwise. Some countries may not allow limitations on how long an implied warranty lasts and/or do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations and exclusions may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights, which vary from place to place.

NOTE: All products returned to Kramer for service must have prior approval. This may be obtained from your dealer.

This equipment has been tested to determine compliance with the requirements of:

- EN-50081: "Electromagnetic compatibility (EMC);
generic emission standard.
Part 1: Residential, commercial and light industry"
- EN-50082: "Electromagnetic compatibility (EMC) generic immunity standard.
Part 1: Residential, commercial and light industry environment".
- CFR-47: FCC Rules and Regulations:
Part 15: "Radio frequency devices
Subpart B – Unintentional radiators"

CAUTION!

- ⊗ Servicing the machines can only be done by an authorized Kramer technician. Any user who makes changes or modifications to the unit without the expressed approval of the manufacturer will void user authority to operate the equipment.
- ⊗ Use the supplied DC power supply to feed power to the machine.
- ⊗ Please use recommended interconnection cables to connect the machine to other components.





**For the latest information on our products and a list of Kramer distributors, visit our Web site: www.kramerelectronics.com, where updates to this user manual may be found.
We welcome your questions, comments and feedback.**



Caution

Safety Warning:

Disconnect the unit from the power supply before opening/servicing.



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