



MANUAL PART NUMBER: 400-0014-004
PRODUCT REVISION: 2

DA1706SV

1-IN, 6-OUT VIDEO/S-VIDEO

DISTRIBUTION AMPLIFIER

USER'S GUIDE

DISTRIBUTION AMPLIFIERS

INTRODUCTION

Thank you for purchasing the **DA1706SV** Distribution Amplifier. We are sure you will find it a reliable and useful product.

Superior performance for the right price backed by solid technical and customer support is what we have to offer.

The product you are holding in your hands is designed using state-of-the-art technology and is superior to anything available on the market. You will find this and our other products reliable, long lasting, and simple to operate.

We are committed to providing our customers with solutions to the most demanding audio-visual installations at very competitive pricing.

We appreciate your selection of our products and are confident that you will join the ranks of our many satisfied customers throughout the world.

This manual covers:

DA1706SV - 1-in, 6-out Video/S-Video Distribution Amplifier.

TABLE OF CONTENTS

	Page
PRECAUTIONS / SAFETY WARNINGS	2
GENERAL	2
RACK-MOUNT SAFETY GUIDELINES	2
INSTALLATION	2
CLEANING	2
FCC / CE NOTICE	2
ABOUT YOUR DISTRIBUTION AMPLIFIER	3
TECHNICAL SPECIFICATIONS	3
DESCRIPTION OF DA1706SV	4
POWER	4
APPLICATION DIAGRAM	5
INSTALLING YOUR DISTRIBUTION AMPLIFIER	6
OPERATION	6
ACCESSORIES	6
FREQUENTLY ASKED QUESTIONS	7
TROUBLESHOOTING GUIDE	7
ALTINEX POLICY	8
LIMITED WARRANTY	8
RETURN POLICY	8
CONTACT INFORMATION	8

DISTRIBUTION AMPLIFIERS

PRECAUTIONS / SAFETY WARNINGS 1

Please read this manual carefully before using your **DA1706SV** Distribution Amplifier. Keep this manual handy for future reference. These safety instructions are to ensure the long life of your **DA1706SV** and to prevent fire and shock hazard. Please read them carefully and heed all warnings.

1.1 GENERAL

- Do not open the unit because there are no user serviceable parts.
- Only qualified Altinex service personnel or their authorized representatives must perform all or any service, since there are high-voltage components inside.

1.2 SAFETY GUIDELINES FOR THE RACK-MOUNTING OF THE DA1706SV

- Maximum operating ambient temperature is 45 (degrees C).
- Never restrict the airflow through the devices' fan or vents.
- When installing equipment into a rack, distribute the units evenly. Otherwise, hazardous conditions may be created by an uneven weight distribution.
- Connect the unit to a properly rated supply circuit.
- Reliable Earthing (Grounding) of Rack-Mounted Equipment should be maintained.

1.3 INSTALLATION

- For best results, place the **DA1706SV** Distribution Amplifier on a flat, leveled surface in a dry area away from dust and moisture.
- To prevent fire or shock, do not expose this unit to rain or moisture. Do not place the **DA1706SV** Distribution Amplifier in direct sunlight, near heaters or heat radiating appliances, or near any liquid. Exposure to direct sunlight, smoke, or steam can harm internal components.
- Handle the **DA1706SV** Distribution Amplifier carefully. Dropping or jarring can damage internal components.
- Do not place heavy objects on top of the **DA1706SV**. If the **DA1706SV** is to be mounted

to a table or wall, use only Altinex made mounting accessories, such as the rack mount shelf (**DA1293FC**, **DA1294FC**) and cables for optimum setup.

- To turn off the main power, be sure to remove the cord from the power outlet. The power outlet socket should be installed as near to the equipment as possible, and should be easily accessible.
- Do not pull the power cord or any cable that is attached to the **DA1706SV** Distribution Amplifier.
- If the **DA1706SV** Distribution Amplifier is not used for an extended period, disconnect the power cord from the power outlet.

1.4 CLEANING

- Unplug the **DA1706SV** power cord before cleaning. Clean surfaces with a dry cloth. Never use strong detergents or solvents, such as alcohol or thinner. Do not use a wet cloth or water to clean the unit.

1.5 FCC / CE NOTICE

- This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
- This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, it may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

DISTRIBUTION AMPLIFIERS

- Any changes or modifications to the unit not expressly approved by Altinex, Inc. could void the user's authority to operate the equipment.

ABOUT YOUR DISTRIBUTION AMPLIFIER 2

The **DA1706SV** Distribution Amplifier is designed to allow the connection of one Composite Video to up to six Composite Video displays, such as monitors and/or projectors. At the same time, it allows the connection of one S-Video source to six compatible displays.

The **DA1706SV** will allow the connection of both Composite Video and S-Video simultaneously while being a distribution amplifier for Composite Video and S-Video signals. The **DA1706SV** does not provide Video to S-Video decoding or S-Video to Video encoding.

The **DA1706SV** Distribution Amplifier is a state-of-the-art product with a video bandwidth of 350 MHz, enabling it to remain transparent to the video signal passing through it. Each output is individually buffered so it is not affected by the loading of other output. The **DA1706SV** can pass NTSC, PAL or SECAM type video signals. While the output is pre-compensated for up to 100 feet, the **DA1706SV** can actually drive a signal up to 250 feet or more when it is used with high quality 75 Ohms coaxial cable.

For Composite Video signals, the **DA1706SV** uses female BNC type connectors for the input as well as all outputs. For S-Video signals, the **DA1706SV** has female 4-pin mini Din type connectors for all inputs and outputs. If necessary, the 4-pin mini Din connector may be adapted to 2 BNC connectors using an optional adapter cable.

TECHNICAL SPECIFICATIONS 3

FEATURES/DESCRIPTION	DA1706SV
GENERAL	
No. of Inputs	2
C-Video Input Connector	Female BNC
S-Video Input Connector	Female 4-pin mini-DIN
No. of Outputs	6
C-Video Output Connector	Six Female BNC
S-Video Output Connector	Six Female 4-pin mini-

	DIN
Compatibility	Composite Video or S-Video (NTSC/ PAL/ SECAM), Monochrome Video

Table 1. **DA1706SV** General

MECHANICAL	DA1706SV
Material	0.1" Al
Finish	Gray
Front Panel, Back Panel	Lexan
Height (inches)	1.75in (44mm)
Width (inches)	8.50in (216mm)
Depth (inches)	4.73in (121mm)
Weight (pounds)	2.0lbs (0.91kg)
Ship Weight (pounds)	3.2lbs (1.45kg)
T° Operating	10°C-45°C
T° Maximum	50°C
Humidity	90% non-condensing
MTBF (calculations)	40,000 hrs

Table 2. **DA1706SV** Mechanical

ELECTRICAL	DA1706SV
Input C-Video Signal	
Analog Signal	1.5V p-p max
Impedance	75 Ohms
Input S-Video Signal	
Analog Signal	1.5V p-p max
Impedance	75 Ohms
Output C-Video Signals	
Analog Signal	Gain of 1.05 (+/-5%)
Fall/Rise Time (ns)	1.4
Impedance	75 Ohms
Output S-Video Signal	
Analog Signal	Gain of 1.05 (+/-5%)
Fall/Rise Time (ns)	1.4
Impedance	75 Ohms
Frequency Compatibility	
Horizontal	15-200 kHz
Vertical	47-180 Hz
Minimum Video Bandwidth	350 MHz @ -3dB
Typical Video Bandwidth	380 MHz @ -3dB
Coupling	
	DC
Power	
Internal Power Supply	100-240VAC, 50/60Hz
Input Voltage Selection	Automatic
Power Consumption	
	10 watts max

Table 3. **DA1706SV** Electrical

DISTRIBUTION AMPLIFIERS

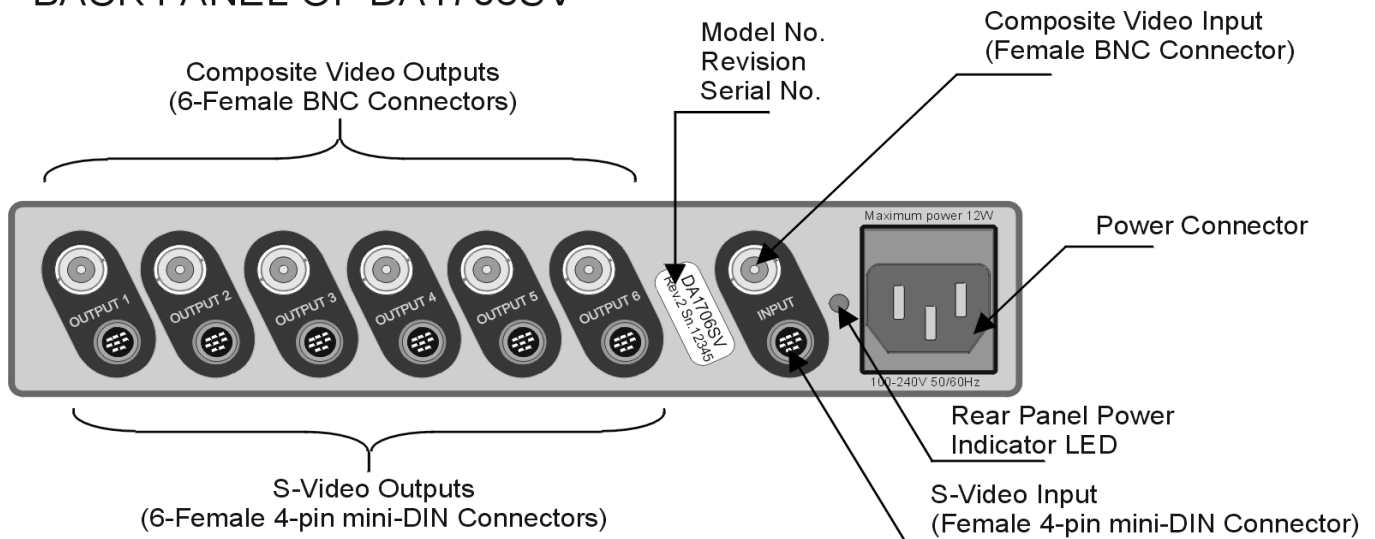
DESCRIPTION OF DA1706SV

4

FRONT PANEL OF DA1706SV



BACK PANEL OF DA1706SV



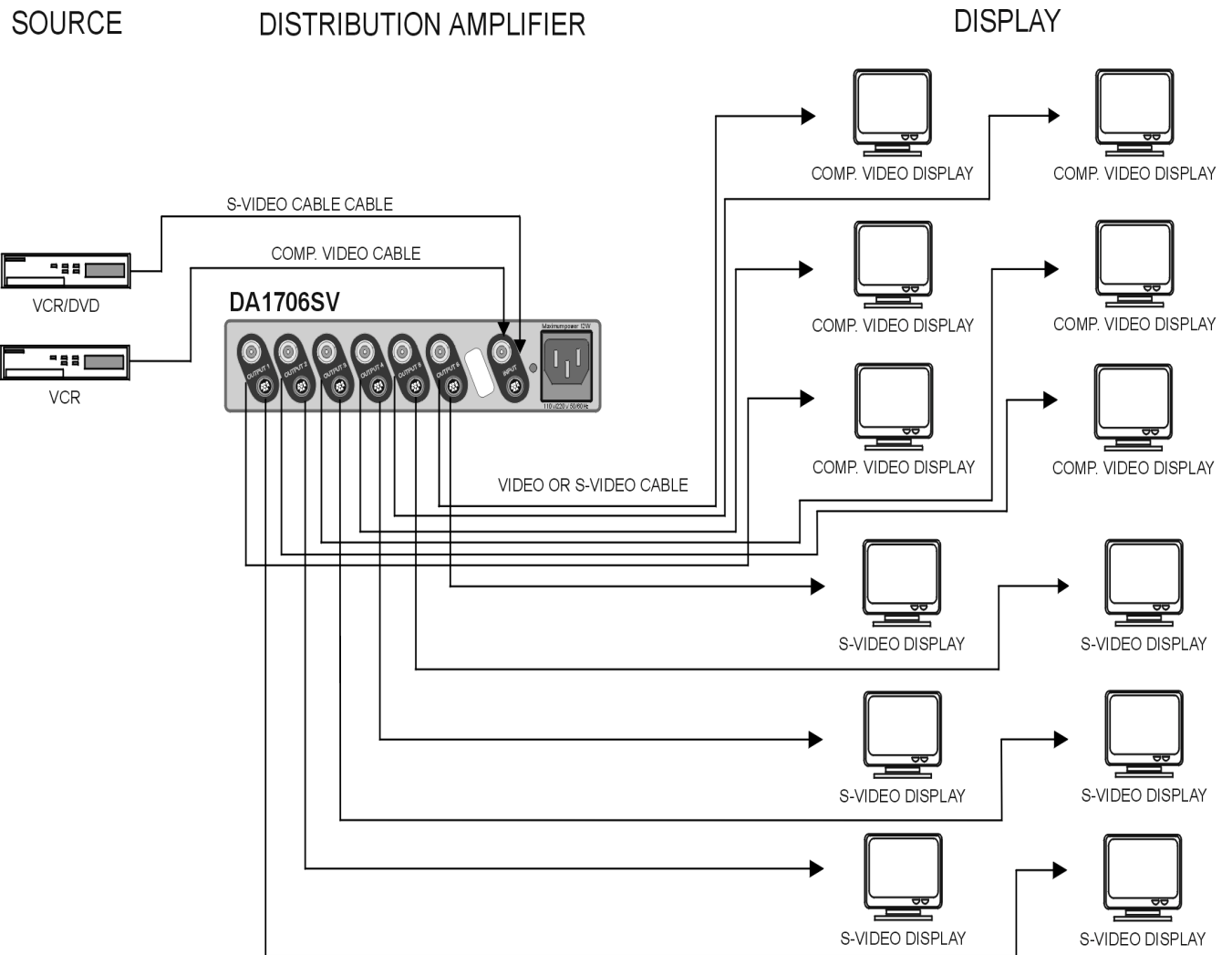
4.1 POWER

The **DA1706SV** is designed to operate at 100-240 Volts, 50/60 Hz. This unit has a universal power supply so there is no need to select voltage.

DISTRIBUTION AMPLIFIERS

APPLICATION DIAGRAM

5



5

DISTRIBUTION AMPLIFIERS

INSTALLING YOUR DISTRIBUTION AMPLIFIER 6

Step 1. Connect the Female end of the supplied power cord to the **DA1706SV** and the other end into the power outlet. Make sure that the correct power cord is used to match the outlet for the country of usage. The power indicator LED on both the front and the back panels will light. This indicates that the unit is now operational.

Step 2. Connect the cable from the video source (VCR, Document Camera, etc.) to the input connectors of the **DA1706SV**. Make sure that good quality cables are used. Connect the output connectors of the **DA1706SV** to the display devices (monitors or projectors). Make sure that only Composite Video sources are connected to compatible displays and S-Video sources are connected to S-Video compatible displays. This unit does not provide S-Video to Composite Video encoding or Composite Video to S-Video decoding.

CONGRATULATIONS! YOU ARE DONE.

If you experience any problems, please call
1-800-258-4623 or 1-714-990-2300 for
international calls.

OPERATION 7

The **DA1706SV** Distribution Amplifier will operate successfully as long as cables are attached properly and other technical specifications are followed.

ACCESSORIES 8

Model No.	Description
	TABLE MOUNT BRACKETS
TM1271	1 U High, ½ Rack-Wide
TM1272	1 U High, ½ Rack-Wide with 15-pin HD connector plate
TM1273	1 U High, ½ Rack-Wide with SNAP-IN connectors
TM1274	1 U High, ½ Rack-Wide with SNAP-IN and power connectors
	RACK MOUNTING BRACKETS
DA1293FC	19" - 1U Rack Mount Shelf for tandem 2- Units
DA1294FC	19"- 1U Rack Mount Ears for single unit
	S – VIDEO TO 2 BNC ADAPTERS
MS8132MG	4-pin mini DIN Male to 2 BNC Male, 12"
MS8133MG	4-pin mini DIN Female to 2 BNC Male, 12"
	HIGH RESOLUTION MULTI-CHANNEL COAX CABLE length XX = 3, 6, 12, 25, 50, 75, 100, 150 feet
CB41XXMR	4 BNC to 4 BNC
CB42XXMR	5 BNC to 5 BNC
	SUPER HIGH RESOLUTION MULTI-CHANNEL COAX CABLE length XX = 3, 6, 12, 25, 50, 75, 100, 150 feet
CB43XXMR	4 BNC to 4 BNC
CB44XXMR	5 BNC to 5 BNC
	PLENUM-FLEX MULTI-CHANNEL COAX CABLE length XXX = 3, 6, 12, 25, 50, 75, 100, 150, 200, 250 feet
CB5000PL-5BM0XXX5BM	5 BNC to 5 BNC, high resolution coax cable
CB5100PL-5BM0XXX5BM	5 BNC to 5 BNC, super high resolution coax cable
	POWER CABLES
PC5301US	Power cable for US
PS5302UK	Power cable for England
PS5303AU	Power cable for Australia
PS5304GR	Power cable for Germany

DISTRIBUTION AMPLIFIERS

FREQUENTLY ASKED QUESTIONS 9

No:	Question	Answer
1	What is a Distribution Amplifier?	A Distribution Amplifier is a device that allows you to connect a single video source to multiple display devices.
2	When do I use the DA1706SV ?	In some cases, when there is a need of connecting a single Composite Video source or a single S-Video source to as many as six different display or recording devices, the DA1706SV is needed.
3	Which signal formats can pass through the DA1706SV ?	The DA1706SV can pass NTSC, PAL, SECAM type video signals or high resolution monochrome computer signals.
4	What if I don't need to use all of the outputs?	All outputs of the DA1706SV are completely independent, so it is not necessary to terminate unused outputs.
5	Can I use both Composite Video and S-Video simultaneously?	Yes, you may use Composite Video and S-Video signals simultaneously, but the DA1706SV does not provide Composite Video to S-Video decoding or S-Video to Composite Video encoding.

TROUBLESHOOTING GUIDE 10

- Please make sure that the input amplitude level of the analog signal is less than 1.5 volts.
- Make sure to use the correct power cable with the appropriate connector for the country in which it is being used.
- If the image quality is poor, please make sure that a high quality of cables is used. Make sure that the cables used for input and output are of coaxial type with matched impedance. Also, check to see if the pins of the connector are in good condition and the cable connector fits snugly into unit's Female connector. We recommend Altinex made cables for best results.
- If a problem arises after continuous usage at higher voltage, higher temperature, higher humidity, or at other extreme environmental conditions, please correct the problem.
- Make sure that you have Composite Video sources connected to Composite Video compatible displays and S-Video sources connected to S-Video compatible displays only.

11.1 LIMITED WARRANTY

Altinex warrants that its products and cables are free from defects in materials under normal use and service. This warranty is limited to repairing at company's factory any part or parts of the product, which upon company's examination shall disclose to be, thus defective. Products considered defective should be returned to company with transportation charges pre-paid within 2 years (90 days for cables) from date of shipment to the purchaser. The warranty is expressly instead of all other warranties expressed or implied. Altinex neither assumes nor authorizes any other person to assume for it any other liability in connection with the sale of the products. This warranty shall not apply to any product that has been repaired or altered outside of company's factory in any way. Therefore in its judgment, to affect its stability or reliability, or that has been subject to misuse, negligence, or accident.

11.2 RETURN POLICY

It is very important to Altinex that you receive the products that you have ordered and that this product fulfills your needs. In the unlikely event that an Altinex product needs to be returned, please follow the policies below:

Altinex will accept product returns for a period of 30 days from authorized Altinex dealers. Products must be returned in an unopened package.

If the product has been opened, the restocking fees will apply. For the restocking fee amount, please contact an Altinex Sales Representative.

If the product is in your possession for more than 30 days, the restocking fees will apply.

Altinex will not accept any returns on cables or custom products.

If your product is in warranty and needs service, contact the Altinex Sales Department for an RMA (Return Material Authorization). Products returned without an RMA number may experience a delay in service.

If your product is out of warranty and needs service, contact the Altinex Sales Department for an RMA (Return Material Authorization). Products returned without an RMA number may experience a delay in service. The service charges will be quoted to you before the actual repairs are done.

11.3 CONTACT INFORMATION

Sales Department

Phone: 714-990-2300

Fax: 714-990-3303

Accounting Department

Phone: 714-990-6088

Fax: 714-990-5778