



MANUAL PART NUMBER: 400-0174-001

DA2000TM

1-IN, 1-OUT TABLE MOUNT COMPUTER VIDEO + AUDIO LINE DRIVER USER'S GUIDE

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PRECAUTIONS / SAFETY WARNINGS 1

Please read this manual carefully before using your **DA2000TM**. Keep this manual handy for future reference. These safety instructions are to ensure the long life of your **DA2000TM** and to prevent fire and shock hazard. Please read them carefully and heed all warnings.

1.1 GENERAL

- Unauthorized personnel shall not open the unit since there are high-voltage components inside.
- Qualified ALTINEX service personnel, or their authorized representatives must perform all service.

1.2 INSTALLATION

- For best results, place the on a flat, level 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 **DA2000TM** 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 **DA2000TM** carefully. Dropping or jarring can damage internal components.
- Never install the **DA2000TM** in the same enclosure with high voltage wires or their associated components, such as power sockets, dimmers or switches. Always use proper isolation techniques to ensure that the **DA2000TM** is never installed in an enclosure that has high voltages within it.

1.3 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.

1.4 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, 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.
- 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 DA2000TM 2

The **DA2000TM** is a computer video + stereo audio line driver designed for mounting under a table or to other surfaces in tight spots. Its extremely compact form promotes inconspicuous attachment, yet still allows for active components necessary to drive high-resolution computer signals a distance of up to 100 feet or more.

The **DA2000TM** offers a female VGA-type 15-pin HD input connector and a stereo audio mini jack on its front panel. The rear panel offers three terminal block connectors for the connection of RGBHV, balanced stereo audio and low voltage power (9V DC). This unit is compatible with VGA, SVGA, XGA, SXGA, UXGA, and QXGA signal formats.

The **DA2000TM** provides fully buffered, amplified outputs. Also, the **DA2000TM** converts an incoming unbalanced stereo audio signal to balanced stereo audio on the output.

ALTINEX offers optional adhesive A/V label sheets, allowing the inputs to be labeled as needed. All accessories, including the power adapter and the input cable, must be ordered separately.

TECHNICAL SPECIFICATIONS 3

FEATURES/DESCRIPTION	DA2000TM
GENERAL	
Inputs	
Computer Video Input Connector	15-pin HD Female
Audio Input Connector	3.5mm stereo audio
Outputs	
Video Output Connector	10-pin terminal block
Audio Output Connector	5-pin terminal block
Power	
9VDC 500mA supply	2-pin terminal block
Compatibility	
VGA/SVGA/XGA/UXGA MAC/SUN/SGI and other analog computer video sources	

Table 1. **DA2000TM** General

MECHANICAL	DA2000TM
Depth (inches)	4.1 in. (105mm)
Width (inches)	1.5 in (39mm)
Height (inches)	2.1 in. (54mm)
Weight (pounds)	1 lb. (.45kg)

Ship Weight (pounds)	1.6 lb. (.73kg)
Material	Steel
Finish	Black Zinc
Front Panel	White or Ivory
T° Operating	10°C -35°C
T° Maximum	50°C
Humidity	90% non-condensing
MTBF (calculations)	40,000 hrs.

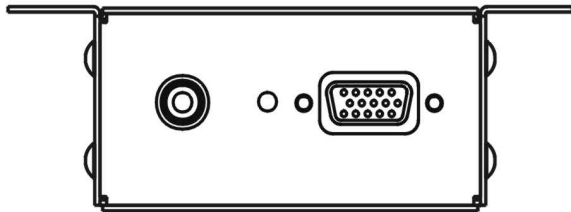
Table 2. **DA2000TM** Mechanical

ELECTRICAL	DA2000TM
Input Video Signal	
Level	1.7V max
Impedance	75 ± 1% (terminated)
Input Sync Signals	
Horizontal & Vertical	TTL (+/-)
Impedance	10k Ohms
Output Video Signals	
Level	1.7V p-p max (terminated)
Impedance	75Ohms
Equalization	Optimized for 75ft of high resolution coax
Output Sync Signals	
Composite, Horizontal, & Vertical	TTL (+/-)
Impedance	22Ohms
Frequency Compatibility	
Horizontal	15-130kHz
Vertical	25-180Hz
Minimum Video Bandwidth	-3dB @ 350MHz
Cross talk	-20dB @ 100MHz
Audio Input	
Impedance	10k
Max Level	0dBu
Audio Throughput	
Gain	+6dB balanced, 0dB unbalanced
Frequency Response	10Hz to 20kHz (+/- 0.05 dB)
Noise Floor	-98dB @ 20kHz
CMRR	<40dB, 10Hz to 20kHz
Audio Output	
Impedance	50 unbalanced, 100 balanced
Drive	>10dBu
Power	
External Power	9VDC 500mA supply

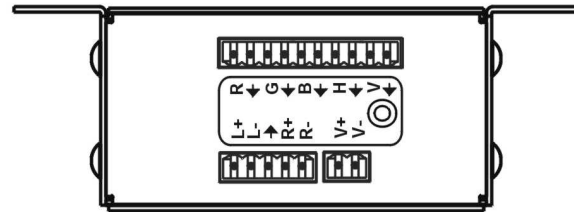
Table 3. **DA2000TM** Electrical

PRODUCT DESCRIPTION

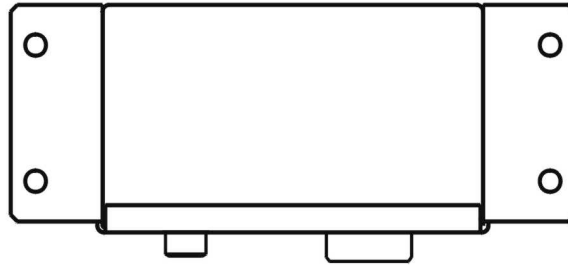
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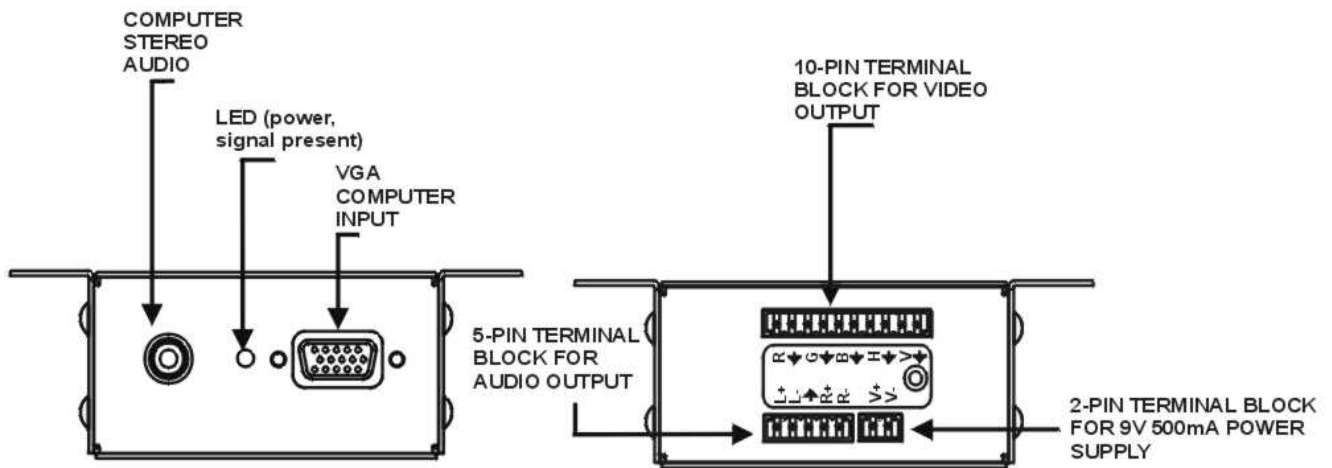
Front View



Back View



Side View



PRODUCT DESCRIPTION (CON'T)

4.1 VIDEO INPUT

The VGA computer input 15-pin HD connector on the front of the **DA2000TM** is connected to the video output of a desktop computer. The **DA2000TM** may be used with a six foot Male to Male VGA input cable (ALTINEX part # **CB3706MR**) and a six foot audio cable (ALTINEX part # **CB1206AU**).

PIN No.	Input signals on 15-pin HD female connector
1	RED
2	GREEN
3	BLUE
4	ID2
5	SCL/SDA REF
6	SIGNAL RETURN
7	SIGNAL RETURN
8	SIGNAL RETURN
9	VESA POWER INPUT
10	SIGNAL RETURN
11	IDØ
12	SDA
13	HORIZONTAL
14	VERTICAL
15	SCL

Table 4. The **DA2000TM**'s input pin-outs

4.2 VIDEO OUTPUT

The **DA2000TM** offers a buffered video output through a 10-pin terminal block on the back of the unit. The **DA2000TM** Line Driver allows a connection to different types of projectors or monitors using ALTINEX cables.

PIN No.	OUTPUT SIGNAL ON 10-PIN MALE TERMINAL BLOCK
1	RED
2	GROUND
3	GREEN
4	GROUND
5	BLUE
6	GROUND
7	HORIZONTAL
8	GROUND

PIN No.	OUTPUT SIGNAL ON 10-PIN MALE TERMINAL BLOCK
9	VERTICAL
10	SIGNAL RETURN

Table 5. 10-pin Male terminal block for video output

4.3 AUDIO INPUT & OUTPUT

The **DA2000TM** accepts computer audio input and offers balanced stereo output through a terminal block connector on the back panel. There is a 3.5mm jack for computer audio input, which may be returned to an amplifier. A 5-pin terminal block is available for stereo audio transmission to the main sound system. These connectors are easily adaptable to stereo mini or RCA type connectors.

PIN No.	OUTPUT SIGNAL ON 5-PIN MALE TERMINAL BLOCK
1	L+IN (Left Channel)
2	L-IN (Left Channel)
3	SIGNAL RETURN
4	R+IN (RIGHT Channel)
5	R-IN (RIGHT Channel)

Table 6. 5-pin Male terminal block for audio output

4.4 POWER INPUT CONNECTOR

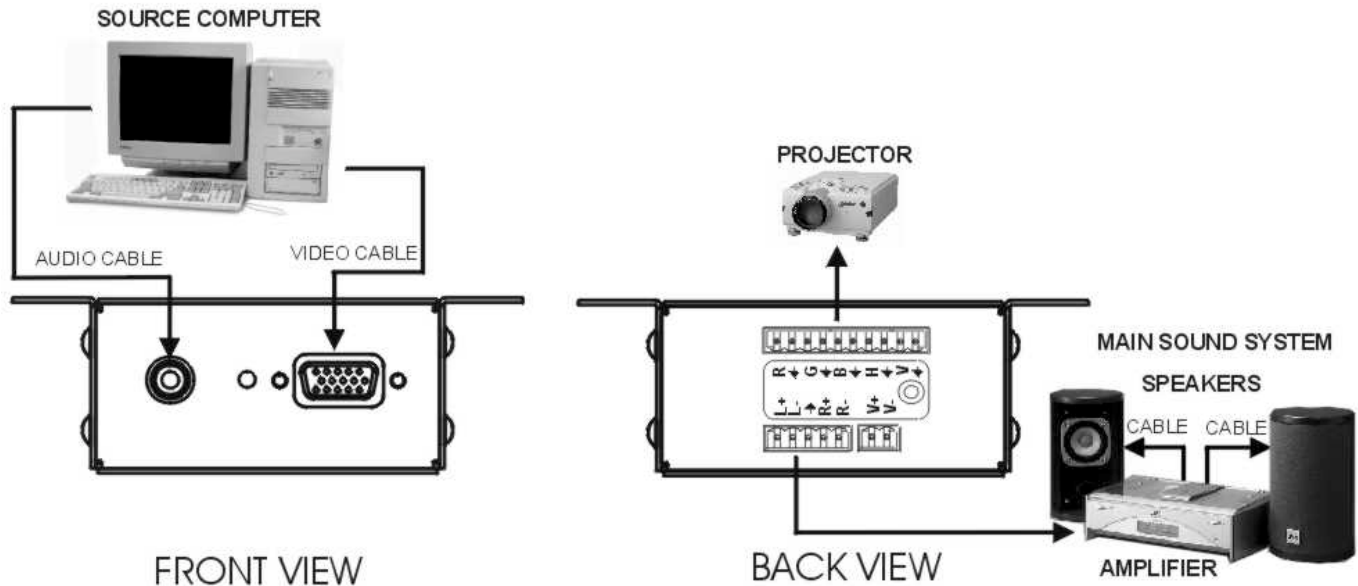
The **DA2000TM** has a 2.5mm DC power jack for connection to a 9V 500mA power external adapter. The power regulation is provided inside the unit. A selection of several power adapters is available for different countries from 110 VAC to 240 VAC.

4.5 POWER/SIGNAL PRESENT INDICATOR

The **DA2000TM** has an LED on the front panel, which provides feedback to the user. When power is connected to the **DA2000TM**, the LED will turn red. When a computer video source is connected to the **DA2000TM**, the LED will turn green, indicating that the unit is receiving a signal by sensing the presence of the sync portion of the signal.

APPLICATION DIAGRAM

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INSTALLING YOUR DA2000TM

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- Step 1.** Mount the **DA2000TM** to the underside of a table and apply 9VDC power to the unit. The LED should turn red, indicating power but no incoming video signal.
- Step 2.** Connect an active video source to the front of the **DA2000TM**. The LED should turn green. If the **DA2000TM** is connected to a display, you should see an image.
- Step 3.** Connect an active audio source to the front of the **DA2000TM**. If the **DA2000TM** is connected to an audio amplifier with speakers, you should hear sound.

OPERATION

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The **DA2000TM** will operate successfully as long as all cables are attached properly and other technical specifications are followed.

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ACCESSORIES 8

Model No.	Description
INPUT CABLES	STANDARD 15-PIN VGA MALE TO MALE (COAXIAL TYPE CABLE INTERNALLY)
CB3703MR	3 ft
CB3706MR	6 ft
CB3715MR	15 ft
CB3725MR	25 ft
CB1206AU	3.5mm cable for audio
STANDARD 15-PIN VGA MALE TO FEMALE (COAXIAL TYPE CABLE INTERNALLY)	
CB3903HR	3 ft
CB3906HR	6 ft
CB3915HR	15 ft
CB3925HR	25 ft
HIGH RESOLUTION MULTI-CHANNEL COAX	
CB4203MR	3 ft
CB4206MR	6 ft
CB4212MR	12 ft
CB4225MR	25 ft
CB4250MR	50 ft
CB4275MR	75 ft
CB42100MR	100 ft
CB42150MR	150 ft
POWER SUPPLIES	
PS5502US	9V 500mA Power Supply for US
PS5512UK	9V 500mA Power Supply for UK
PS5522AU	9V 500mA Power Supply for Australia
PS5532GR	9V 500mA Power Supply for Germany
PS5542JP	9V 500mA Power Supply for Japan

FREQUENTLY ASKED QUESTIONS 9

No:	Question	Answer
1	How many feet of cable can I use with the DA2000TM ?	The DA2000TM is optimized for 75ft, but longer or shorter lengths may be used.
2	Is the input cable type important when I use the DA2000TM ?	The DA2000TM may be used with two types of input cables — VGA Y-type cables and straight VGA Male to Male cables. We recommend straight input VGA cables for best results.
3	What are the resolutions of input computer signals that can pass through the DA2000TM ?	The resolutions of input computer signals that can pass through the DA2000TM are as follows: a) 1280x1024 – UXGA b) 1024x768 – XGA c) 800x600 – SVGA d) 640x480 – VGA
4	May I use cat 5 cable instead of coaxial cable?	No, you can not use cat 5 cable instead of coaxial cable because the quality of the received signal will be lost.

TROUBLESHOOTING GUIDE 10

We have carefully tested and have found no problems in the supplied **DA2000TM** unit; however, we would like to offer the following suggestions:

- Make sure that the display equipment is compatible with the source equipment.
- Please make sure that input amplitude of the video analog signal is less than 1.5V and is at TTL level for SYNC signal.
- Please use the ALTINEX provided external AC adapter, which supplies 9V DC at 500mA.
- Please make sure that the proper quality of cables with coaxial component for video and audio channels is used. 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.

ALTINEX POLICY 11

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 or (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 shall have been repaired or altered outside of company's factory in any way so as, 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 meets your expectations. In the unlikely event, that an ALTINEX product needs to be returned please follow the policy 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 a 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

ALTINEX, INC.

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