#### Video/Computer Interface Operating Instructions

CI-1000



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### **Owner's Record**

Model No. CI-1000 Refer to these numbers whenever you call upon your Sony dealer regarding this product. Record these numbers in the spaces provided below. The model and serial numbers are located on the bottom of the product. Serial No.

#### Warning

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

# Radio and Television Interference

Part 15 of FCC rules. These specifications are designed to provide reasonable Class B computing device in accordance with the specifications in Subpart J of reception. This equipment has been tested and complies with the limits for a instructions in this manual, it may cause interference to radio and television energy. If not installed and used properly, that is, in strict accordance with the protection against such interference in a residential installation. The equipment described in this manual generates and uses radio-frequency

reception, try to correct the interference using one or more of the following turning it off. If the interference stops, it was probably caused by the Vbox interface. If the Vbox interface does cause interference to radio or television measures. You can determine whether your Vbox interface is causing interference by

- Reorient the television or radio antenna.
- Relocate the Vbox interface with respect to the television or radio.
- Move the Vbox interface away from the television or radio.
- Plug the Vbox interface into an outlet that is on a different circuit from the
- television or radio.

is available from the US Government Printing Office, Washington, DC 20402. for additional suggestions. You may find helpful the following booklet prepared by the Federal Communications Commission: "How to Identify and Resolve Radio-TV Interference Problems" (stock number 004-000-00345-4). This booklet If necessary, consult your dealer or an experienced radio/television technician

and CONTROL-S cables supplied) must be used with this equipment to comply with the limits for a computing device pursuant to Subpart J of Part 15 of FCC The shielded interface cables recommended in this manual (the ViSCA, LANC,

## Notice for the customers in Canada

in Radio Interference Regulations. This apparatus complies with the Class B limits for radio noise emissions set out

Notice

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trademark of Microsoft Corporation. UNIX is a registered trademark of AT & T Company Commodore and Amiga are registered trademarks of Commodore Business Machines. and Macintosh are registered trademarks of Apple Computer, Inc. IBM is a registered trademark of International Business Machines Corporation. MS-DOS is a registered Sony, Vbox, VISCA, Betamax, and Handycam are trademarks of Sony Corporation. Apple

#### Contents

Chapter 4	Chapter 3	Chapter 2	Chapter 1
Chapter 4 Additional Information  Precautions	Operation Setting up your Vbox interface	Getting Started Unpacking Taking a closer look Required computer hardware Compatible video devices Required software	Chapter 1 Introduction  Overview of the CI-1000 Vbox Video/Computer Interface
15 16 17	13 9	8 8 8 7 6	4 70

# Overview of the CI-1000 Vbox Video/Computer Interface

This Vbox<sup>TM</sup> Video/Computer Interface is the key to integrating video cameras, recorders, and display devices into the personal computer environment. By implementing Sony's ViSCA<sup>TM \*1</sup> machine control protocol, the Vbox interface allows you to create a multimedia network. You can use the Vbox interface to connect Sony video products to your computer. Then, with an application software package that is compatible with the ViSCA protocol, you can cue and control your video peripherals, bringing the power of multimedia to your desktop.

The Vbox interface contains an 8-bit proprietary microprocessor that converts ViSCA commands generated by your application software into instructions your video peripherals can understand.

The Vbox interface is equipped with the following ports:

- ViSCA in Used to connect the Vbox interface to your computer.
- ViSCA Out Used to connect the Vbox interface to another Vbox interface in a daisy chain.
- LANC Used to connect the Vbox interface to Sony video devices with a LANC \*2, CONTROL-L, or REMOTE port.
- CONTROL-S Used to connect the Vbox interface to Sony video devices with a CONTROL-S \*3 port.

One important feature of the Vbox interface is its ViSCA Out port. Using this port, you can daisy-chain up to seven Vbox interfaces together, creating an extensive multimedia network of many video devices that you can control from your application software.

The Vbox interface is platform independent. In order to control the video peripherals you connect using the Vbox interface, you must have an application software package that supports the ViSCA protocol. This application software is not included with the Vbox interface.

The Vbox interface can be connected to Sony consumer video products that feature a LANC port (also labeled as **\( \mathbb{C}\)**, CONTROL-L, or REMOTE) or a CONTROL-S port.

- \*1 ViSCA is Sony's Video System Control Architecture.
- \*2 LANC is Sony's Local Application Control bus, a bi-directional wired command protocol designed by Sony to control video devices.

  LANC ports may also be labeled as **4**, CONTROL-L or REMOTE ports.
- \*3 CONTROL-S is the wired version of Sony's infrared remote contro bus used in monitors, AV selectors, and other video equipment.

4

### How to use this manual

This manual is divided into the following four chapters: Introduction. Getting Started, Operation, and Additional Information.

Chapter 1, "Introduction" provides an overview of the Vbox interface and this manual.

Chapter 2, "Getting Started" includes the basic information you need to get started with the Vbox interface.

Chapter 3, "Operation" explains how to set up the Vbox interface with your computer and video devices (LANC or CONTROL-S).

Chapter 4, "Additional Information" includes a troubleshooting section and a glossary. If you have any problems in setting up or operating the Vbox interface, refer to this section first before calling your local Sony dealer.

For the operating instructions of the computer and video equipment to be connected using the Vbox interface, refer to the manuals provided with them.

### **Getting Started**

#### Unpacking

The first thing to do is make sure you have the Vbox interface as well as the accessories you need to set up the Vbox interface. Take all the items unpacked and verify that you have everything shown below. In addition to the items listed below, your Vbox interface package should include an Owner Registration Card, a list of Vbox compatible Sony products, and a warranty card. Be sure to fill out the Owner Registration Card and mail it in.

CONTROL-S cable (Mini-Plug) ......(1)



LANC cable (5-pin Mini-DIN/5-pin Mini-DIN) .....

3





LANC cable (5-pin Mini-DIN/Mini-Plug) ......(1)



ViSCA cable (8-pin Mini-DIN/8-pin Mini-DIN) .....

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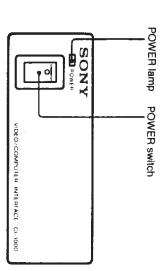
AC power adaptor .....(1)



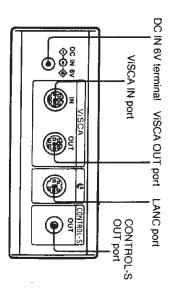
### Taking a closer look

Now that you have your Vbox interface unpacked, take a closer look so you're familiar with its parts. Everything you connect to the Vbox interface attaches to connectors, or ports, on its back panel. These are discussed in more detail in chapter 3, "Operation."

#### Front view



#### Rear view



# Required computer hardware

- A host computer with a serial port, such as an Apple<sup>®</sup> Macintosh<sup>®</sup>, IBM<sup>®</sup> PC, IBM-compatible machine, or Commodore<sup>®</sup> Amiga<sup>®</sup>. The minimum system configuration required is determined by the application software you choose.
- An RS-232C/8-pin Mini-DIN cross cable will be necessary if you're connecting the Vbox interface to a computer other than an Apple Macintosh computer, and it must be purchased separately.
- A video conversion board may be necessary, depending on your software, and must be purchased separately. The Vbox interface will operate with any video conversion board that is compatible with your application software.

### Compatible video devices

Video equipment and peripherals

- Sony video devices with a LANC, CONTROL-L, or REMOTE port.
- 8mm format VCRs
- VHS format VCRs
   Betamax™ VCRs
- 8mm Camcorders
- Sony video devices with a CONTROL-S port.
- AV selectors
- Monitors

Through the Vbox interface, you can control the major functions of video devices with a LANC port and a limited number of functions—such as input select, volume, and channel select—on video devices with a CONTROL-S port.

The types of functions you can control with the Vbox interface may vary depending on your video device. Consult the compatibility card found in this package or call Sony's Customer Information Center at (201) 930-SONY (7669), (708) 250-7669, or (714) 821-7669 for details. When your video device is part of a Vbox system, it may appear that your video device can perform functions not listed in its user manual. Executing unsupported commands may cause damage to tape or your video device itself.

### Required software

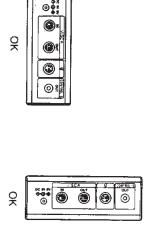
 ViSCA-compatible application software
 You can use any application software that is compatible with the ViSCA protocol.

Operation

# Setting up your Vbox interface

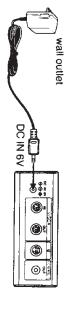
Before connecting the Vbox interface to your computer, check whether your video device has a LANC port or CONTROL-S port or both. If your device has both, you should use the LANC port connection. Moreover, if you wish to link several Vbox interfaces, refer to the section "Using the daisy chain connection" on page 13.

The Vbox interface can function properly flat or on its side

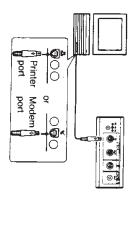


Connect the supplied AC power adaptor.

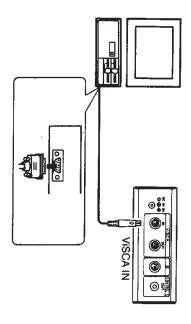
Plug the socket end of the power adaptor into the DC power input on the back of the Vbox interface. Plug the other end of the adaptor into a wall outlet. Before plugging in your Vbox interface, make sure the power switch is in the OFF position.



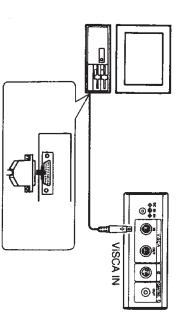
- 2. Connect the computer to the Vbox interface.
- If you have an Apple Macintosh computer, connect either end
  of the ViSCA cable to the printer port or modem port on the
  back of the Macintosh. Connect the other end to the ViSCA In
  port on the Vbox interface.



 If your computer is equipped with a DB9 (9-pin D-sub) serial port, you need to use a cross-type DB9 RS-232C/8-pin Mini-DIN cable. This cable must be purchased separately.



 If your computer is equipped with a DB25 (25-pin D-sub) serial port, you need to use a cross-type DB25 RS-232C/8-pin Mini-DIN cable. This cable must be purchased separately.

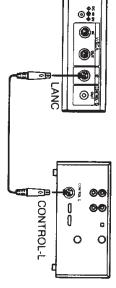


**Note:** If your printer and modem ports are already being used, you must disconnect to one of these devices in order to use the Vbox interface.

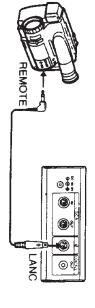
- 3. Connect the video device(s) to the Vbox interface. You may connect both a LANC device and a CONTROL-S device to your Vbox interface and operate them simultaneously.
- a) Connecting LANC devices

LANC devices are those Sony video devices that are equipped with a LANC, **(CONTROL-L**, or REMOTE port.

 If your video device is equipped with a round 5-pin DIN LANC port, use the round 5-pin Mini-DIN/5-pin Mini-DIN LANC cable. Connect either end of the LANC cable to the LANC port on your video device. Connect the other end to the LANC port on the Vbox interface.



 If your video device is equipped with a mini-plug LANC port, as are many Sony camcorders, use the supplied 5-pin Mini-DIN/Mini-plug LANC cable. Connect the mini-plug end to the video device and the round DIN end to the LANC port of the Vbox interface.



Note: Some LANC devices have an S/M or SLAVE/MASTER position setting feature. When connecting one of these devices to your computer using the Vbox interface, be sure to set the device to the S or SLAVE position. This allows the device to receive command signals from the Vbox network. (Refer to your video device user's manual for details.)