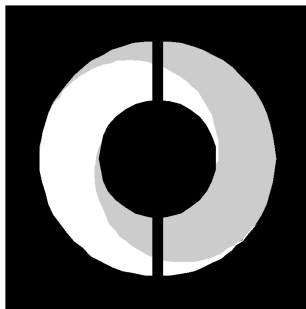


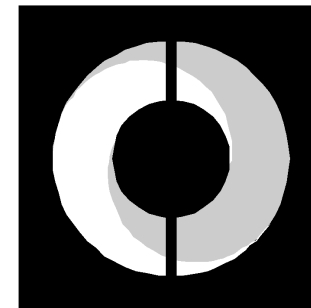
CVD 7176

Scan Converter



C O V I D

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C O V I D

User's Manual

DISCLAIMER

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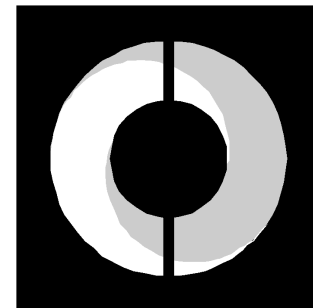
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CVD 7176

Scan Converter

**A Simple Solution for Converting a VGA
Source to a Television Signal**



C O V I D

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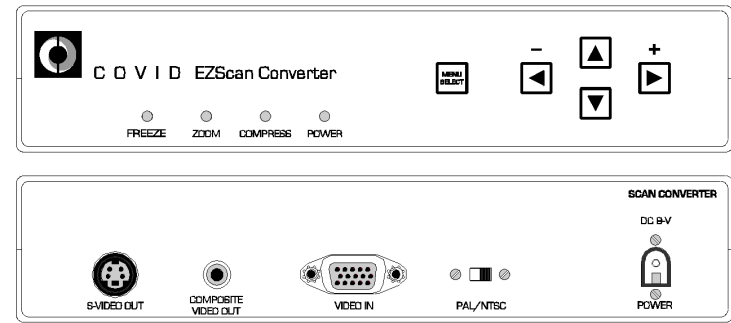
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Introduction

The CVD 7176 converts the video output from your computer into video that can be displayed on a television or recorded to a VCR. CVD 7176 automatically detects VGA and SVGA output frequencies up to 72 Hz and synchronizes it with your television. The result is a high quality, flicker-free television display from your computer.

The CVD 7176 includes the following features:

- Screen position controls
- Easy plug-and-play installation for both Windows 95 and higher, and MacOS platforms
- Compatibility with any size television monitor (NTSC/PAL) with an RCA (composite) or S-Video input connector.
- Support for both 640 x 480 (VGA) and 800 x 600 resolution (SVGA)
- Support for 24-bit color
- 2x image zoom with pan control
- TrueScale image compression that precisely fits the image on your television without dropping lines or altering video resolution
- Monitor pass-through cable, reducing the number of cables necessary for installation
- Kensington Microsaver Lock Port



General Specifications

CVD 7176 SCAN CONVERTER

INPUT:

Signal:	Analog RGBHV
Connectors:	(1) HD-15 Female
Video Impedance:	75 Ohms
Video Level:	0.7 – 1.0 Vpp
Sync Level:	TTL
Sync Polarity:	+ / -

OUTPUT:

Signal:	VGA, Composite, S-Video
Connectors:	(1) Phono Female (RCA Jack) (1) 4-pin mini-DIN Female
Video Impedance:	75 Ohms
Video Level:	1.0 Vpp

RESOLUTION:

Maximum:	1024 x 768
Recommended:	800 x 600
Horizontal Scan Rate:	24 KHz to 80 KHz
Syncs:	TTL, Separate H & V

CONTROL:

Front Panel Keypad

DISPLAYS:

On Screen Display Menu

PHYSICAL SPECIFICATIONS

DIMENSIONS:

	1U High, 1/2 Rack Wide
(in)	1.75 H x 8.50 W x 6.00 D
(cm)	4.45 H x 21.59 W x 15.24 D

ENCLOSURE:

Aluminum, Black, Texture Finish

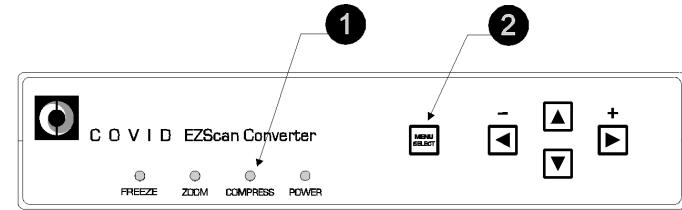
WEIGHT:

Net: 1.2 lbs. / 0.54 kg

POWER:

Input: 110 or 120 VAC Wall Mount,
9 VDC, 1.2A, UL

Panel Descriptions

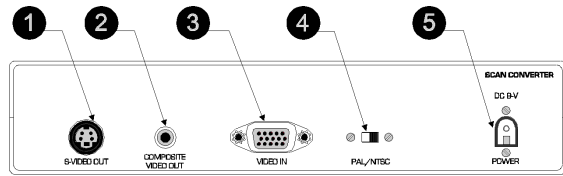


FRONT PANEL LAYOUT

FRONT PANEL

- 1. LED INDICATORS:** The LED indicators show if the unit is powered, in freeze mode, in compression mode, or in zoom mode.
- 2. KEYPAD CONTROL:** Keys control the On Screen Display menu.

Panel Descriptions



CVD 7176 REAR PANEL LAYOUT

REAR PANEL

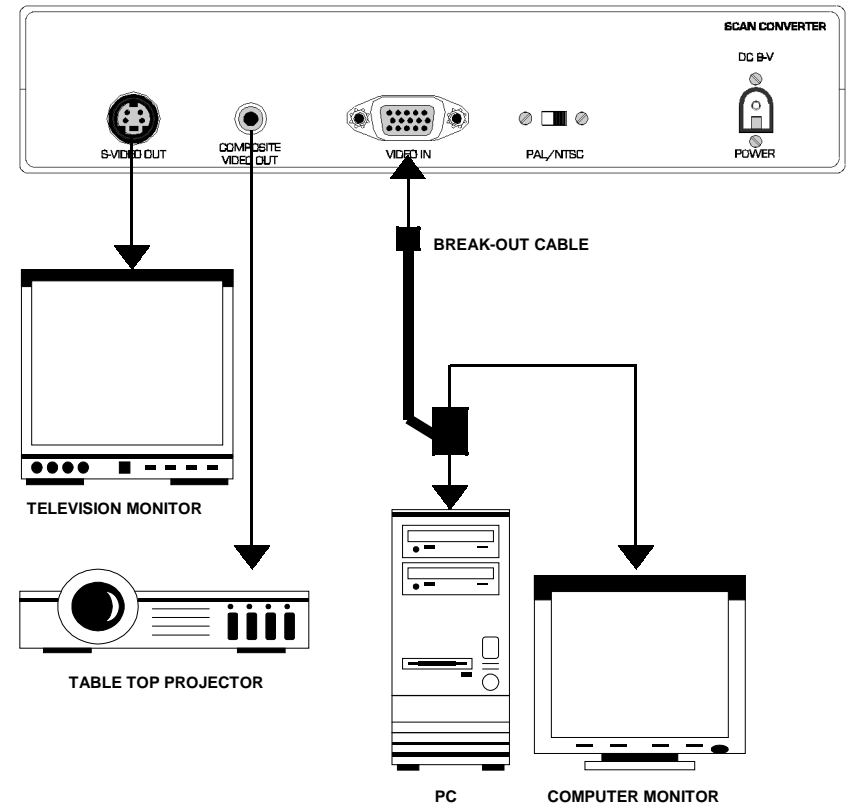
- S-VIDEO OUTPUT:** One 4-Pin Mini-DIN Female connector provided to connect to video display.
- COMPOSITE OUTPUT:** One Phono (RCA) Female connector provided to connect to a video display.
- INPUT:** One HD-15 Female connector provided to connect to the computer video source.
- PAL/NTSC SWITCH:** This switch selects the formats for NTSC or PAL standard video.
- DC IN:** Power input accepts 9 VDC from the wall mount power supply cube.

Flicker, or other distortion on your screen	<ul style="list-style-type: none"> Use of an RF modulator may cause image quality problems. If at all possible, avoid those devices that convert the CVD 7176 signal into an antenna signal.
Colors are poor quality or non-existent	<ul style="list-style-type: none"> Adjust the color and contrast controls on your TV Adjust the brightness control of the CVD 7176 Use of an RF modulator may cause image quality problems. If at all possible, avoid those devices that convert the CVD 7176 signal into an antenna signal
TV Image overshoots or fails to fill the screen	<ul style="list-style-type: none"> Use the on-screen control to adjust size and positioning. Adjust the vertical and horizontal size controls on your TV.
Red power LED does not light	<ul style="list-style-type: none"> Check power connections Possible power supply or CVD 7176 failure.
CVD 7176 failure	<ul style="list-style-type: none"> Inspect the CVD 7176 unit externally for signs of damage (i.e. broken pins, severed wires, etc.). Do not open the metal chassis for safety reasons and to maintain the product's warranty.

Troubleshooting Tips

Problem	Possible Causes
<p>No video from the CVD 7176</p>	<ul style="list-style-type: none"> • Check the connection from the computer's video output port to the monitor in port at the rear of the CVD 7176 unit. • Check the connection from the comp video out port or S-Video out port to the input on your monitor or VCR. • Ensure that the TV or VCR is on. • Check the connection from the power supply. Is the unit plugged in? Is the red power LED ON? • Ensure that your television or VCR has been configured to accept auxiliary video input. • Ensure that the unit is connected to the appropriate video connector on your TV or VCR. At the TV or VCR end, the cable should be connected to the VIDEO, VIDEO IN, or AUX port.
<p>Picture Rolls</p>	<ul style="list-style-type: none"> • Ensure that your secondary monitor and computer monitor size are supported by the CVD 7176 • Check and adjust vertical hold and horizontal hold controls on your TV/Monitor

Typical Configuration



Modes of Operation

The CVD 7176 has ability to operate in three separate modes:

- Presentation Mode: Display the same image on your computer VGA (or compatible) monitor and television simultaneously.
- Television Only Mode: Use the television as your only display.
- Video Record Mode: Record your video image directly to video tape.

Suggested Uses for the CVD 7176

The CVD 7176 can be used for many purposes. For example:

- Bring sales or other multimedia presentations from a laptop to a large TV
- Create training tapes or outfit a training room
- Demonstrate a new software package using a large screen TV
- Project computer games onto a TV screen
- Cruise the Internet on a television
- Conferencing via TV
- E-Mail
- Collaborating with others on computer-based projects

On-screen Display

Main Menu

When you press the Menu/Select button for the first time, the Main Menu appears on the screen. If you want to exit the Main Menu, press the Menu/Select button again.

The Main Menu icon open the menus for the following functions:

- TV Setup
- Computer Setup
- Picture Setup
- Reset

Using the Setup Menus

The CVD 7176 comes with all of its functions preset. You are able, however, to readjust all of these functions. If you like, you may reset the CVD 7176 back to its original defaults by entering the Reset menu and either choosing to reset to user settings or to factory default.

Connecting to a VCR Using an RF Modulator

If you do not have a VCR with composite video or S-Video inputs, you will need a special adapter called an RF Modulator. This device converts the Composite Video signal from the CVD 7176 unit to an antenna signal. The RF Modulator is not supplied. Covid Technical Support recommends using the Radio Shack RF Modulator (Radio Shack part number 15-1283).

To Connect the CVD 7176 to your VCR using the RF Modulator, perform the following steps:

1. Connect the RF Modulator to the coaxial cable input at the rear of the VCR.
2. Connect one end of the composite video cable to the port labeled "Comp Video" at the rear of the CVD 7176 unit.
3. Connect the other end of the composite video cable to the RF Modulator's composite input and then to the rear of the VCR.
4. Turn on the VCR.
5. Plug the RF Modulator power supply into a wall outlet or power supply.
6. Turn on your television and tune it to channel 3 or 4.
7. Turn on the CVD 7176.
8. Turn on your computer.
9. Find a button on the front of the VCR called "Line," "TV/Video," "Video Input," or something similar. Press the button. If the cables have been connected correctly, the image from the computer monitor should now appear on the television screen.

Operational Setup

This section describes the information you should know before installing and connecting the CVD 7176 hardware, and the steps required to perform the installation.

System Requirements:

Before installation, the following are system requirements for the operation of the CVD 7176:

IBM (or compatible)

- Personal or multimedia computer with a 486 or higher processor
- Microsoft Windows 95 or higher
- VGA or higher-resolution video adapter {SVGA recommended}

Macintosh (or compatible)

- Macintosh Performa or PowerMac with a 68020 or higher processor
- MacOS System Software 7.1 or higher
- VGA/MacVGA or higher-resolution video output
- A TV/Monitor, VCR or any video device that can display or record NTSC video

Note: In order to see the video output on both the computer monitor and TV simultaneously, you will need to be using an Apple 12", 13", or 14" monitor. If your monitor is larger than 14", it must be multi-sync (capable of running at various frequencies).

Connecting the CVD 7176 to an IBM PC or Macintosh Computer

This section describes the steps to connect your CVD 7176 to a television or VCR. The following sections describe how to connect to IBM PCs, Macintosh PCs, IBM PC laptops and Notebooks, and Macintosh PowerBooks.

Notes:

1. Before performing the steps to connect the CVD 7176 to a laptop computer, you must turn on the external video connector. This is accomplished by using a particular key sequence on the keyboard (for example: FN + F11) or through the BIOS setup program. Refer to your laptop owners manual to determine how the external video connector is turned on.
2. Not all Macintosh PowerBook computers have a connector for an external monitor. In order to use these laptops with the CVD 7176, you must buy a third-party add-on to output external videos.

Connecting the CVD 7176 to a VCR

In certain configurations, the video will be run to a VCR. By connecting the CVD 7176 unit to a VCR, you will be able to record the computer screen to videotape.

To Connect your CVD 7176 to a VCR, perform the following steps:

1. Connect one end of the supplied composite video cable or S-Video cable to the port at the rear of the CVD 7176 labeled either "Comp Video" or "S-Video".
2. Connect the other end of the composite cable or S-Video cable to the port at the rear of your VCR labeled "Video Input" or "AUX-IN," or "S-VIDEO IN."
3. Turn on the VCR.
4. Turn on your television and tune it to channel 3 or 4.
5. Turn the CVD 7176 unit on.
6. Turn the computer on.
7. Find a button on the front of the VCR called "Line," "TV/Video," "Video Input," or something similar. Press the button. If the cables have been connected correctly, the image from the computer monitor should now appear on the television screen.

Note: If your VCR does not have a button specifying video-in, use your VCR's remote control to find an on-screen programming system. Using the programming system, set the VCR to receive external video. If you are unsure about how to do this, refer to the VCR owner's manual.

Connecting to the Television Using an RF Modulator

If you do not have a television with composite video or S-Video, you will need a special adapter called an RF Modulator. This device converts the Composite Video signal from the CVD 7176 unit to an antenna signal. The RF Modulator is not supplied.

Note: When using an RF Modulator, the TV may have to be set to a particular channel (for instance, 3 or 4) to accept the CVD 7176's video. Or, in some cases, you may have to specify input using the TV's on-screen programming feature. If you are unsure about how to set your television to accept external video through the Antenna-In, refer to the television owner's manual.

To connect the CVD 7176 to your television using the RF Modulator, perform the following steps:

1. Connect the RF Modulator to the coaxial input at the rear of the television.
2. Connect one end of the composite video cable to the port labeled "Comp Video" at the rear of the CVD 7176 unit.
3. Connect the other end of the composite video cable to the RF Modulators Composite input at the rear of the television.
4. Plug RF Modulator into wall outlet or surge protector
5. Turn your computer on
6. Turn the CVD 7176 on.
7. Turn the television on. If the cables have been connected correctly, the image from the computer monitor should now appear on the television screen.

Perform the following steps to connect the CVD 7176 to a PC or Macintosh Desktop or Laptop

1. Turn the computer and monitor off.

**The computer must be off when connecting the CVD 7176. Connecting with the power on could result in static damage to your computer and video equipment!*

2. Disconnect the current monitor cable from the "Monitor Out" port at the rear of the computer.
3. Connect the male DB-15 end of the supplied cable to the port at the rear of the CVD 7176 labeled "Video In."
4. For an IBM PC or compatible, connect the pass-through end of the cable to the "monitor out" port at the rear of the computer, the same port from which you disconnected the current monitor cable in step 2. For a Macintosh or compatible, connect the supplied Macintosh to VGA adapter to the Macintosh Video Output port located at the rear of the computer, the same port from which you removed the current monitor cable in step 2.
 - *Steps 5 and 6 facilitate the use of the CVD 7176 in the Presentation Mode.*
5. Connect the male end of your computer's monitor cable to the video pass through port on the cable. This port is located on the cable itself, at the end of the cable that is connected to the "Monitor out" port on the computer.
6. Connect the female end of the monitor cable to the monitor.
7. Connect the power adapter to the rear of the CVD 7176. Plug the adapter into the nearest wall outlet. The red power LED at the front of the unit will illuminate, indicating the CVD 7176 is ON.

**Use AC power to the laptop when using the CVD 7176. If you use battery power, your video output may be interrupted to conserve power.*

Connecting the CVD 7176 to a Television

The next step in connecting your system is to connect to the television. (If you are planning to connect to a VCR, see “Connecting to a VCR”.) There are two possible ways to connect to a television:

- Using a composite video connection
- Using an s-video connection

Composite Video Connection

Composite video is a connection type used by most televisions, VCRs, DVD players, and certain LCD panels. The connectors on a composite video cable have an RCA-type plug. The plug has a long metal pin projecting from its center and plugs into the composite video-in port at the rear of the television.

To determine if your television supports composite video, look for a port on your television that matches the composite video out port at the rear of the CVD 7176 unit.

Note: The composite video port on the television may or may not be labeled “video-in”.

S-Video Connection:

S-Video is a high-quality video connection used by some video cameras and VCRs. The connector on an S-Video cable has a round plug with several small metal pins. It plugs into the S-Video output port at the rear of the CVD 7176 unit.

To determine if your television supports s-video, look for a port at the rear of the television that matches the s-video output port at the rear of the CVD 7176 Unit.

Note: The s-video port on the television may or may not be labeled “S-Video in”.

When you are looking at the television to make these connections, you may see an input labeled ANT IN. This input is used by cable TV companies and uses a different type of video than that used by CVD 7176. It is not possible to connect directly to this input. If this is the only input available, and you do not have a VCR, this input can be used with an RF modulator. See below for further information.

To connect the CVD 7176 unit to your television, perform the following steps:

1. Connect one end of the supplied composite video cable or s-video cable to the port at the rear of the CVD 7176 labeled either “Comp Video” or “S-Video.”
2. Connect the other end of the composite cable or s-video cable to the Comp Video in or S-Video in port at the rear of the television.
3. Turn the television on
4. Turn the CVD 7176 on
5. Turn your computer on. If the cables have been connected correctly, the image from the computer monitor should now appear on the television screen.

Note: Because the port may not be labeled, you will need to match the port to the connector you are using.