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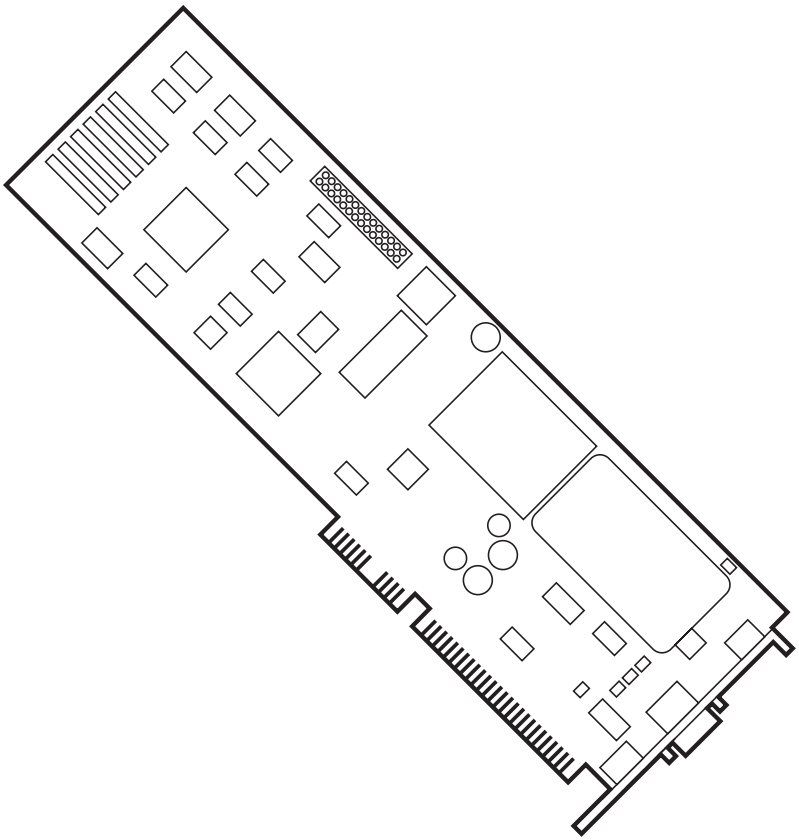
AC452C

Computertop TV-II



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Contents

1. SPECIFICATIONS 3

2. INTRODUCTION 4

3. INSTALLATION 5
   - 3.1 Jumpers 5
   - 3.2 VGA Feature Connector 5
   - 3.3 Hardware Installation 6
   - 3.4 Software Installation 9
     - 3.4.1 DOS Software Installation 9
     - 3.4.2 Windows Software Installation 9

4. OPERATION 10
   - 4.1 Windows Test Drive 10
     - 4.1.1 Computertop TV Window Controls 12
     - 4.1.2 Pop-Up Control Panel—Audio Controls 13
     - 4.1.3 Pop-Up Control Panel—Video Controls 14
     - 4.1.4 Pop-Up Control Panel—TV Controls 14
     - 4.1.5 Edit Channel Dialog Box 15
     - 4.1.6 Pop-Up Control Panel Exit 15
   - 4.2 DOS Test Drive 16
     - 4.2.1 Audio Controls 17
     - 4.2.2 Video Controls 19
     - 4.2.3 TV Channel Controls 20

5. TROUBLESHOOTING 22

1. Specifications

System Bus —	IBM® PC AT or compatible 286/386/486, 8 or 16-bit slot
System Requirements —	DOS 3.1 or higher, or Microsoft® Windows 3.0 or higher
Monitor Support —	VGA
Amplifier Power —	4 watts (2 watts/channel max.)
TV Channels —	122 channels covering broadcast and cable VHF and UHF channels.
Video Inputs —	NTSC composite
Stereo speakers —	8 ohms
CD-ROM inputs —	Accepts external and internal connections for stereo audio inputs from CD players or CD-ROM drivers
Stereo Audio Inputs —	Accepts line-level stereo audio inputs.
TV Antenna Inputs —	Adapters supplied to connect with 75-ohm coaxial cable or 300-ohm flat antenna cable
Size —	4.2"H x 0.8"W x 9.6"L (10.7 x 2 x 24.4 cm)
Weight —	2 lb. (0.9 kg)

2. Introduction

The Computertop TV-II card requires an AT® compatible computer (80286 or higher) with a minimum of 512K of RAM, a color VGA monitor and a hard disk, running MS-DOS® 3.3 (or later) or Windows™ 3.0 (or later). Full-screen TV or video can be viewed in VGA (640 x 480) and SVGA modes (800 x 600 and 1024 x 768). A TV or video window can be viewed only in standard VGA mode (640 x 480).

The Computertop TV-II board has no requirements for system memory, interrupts, or DMA. It does not slow down the system when displaying real-time TV or video. The Computertop TV software for both DOS and Windows occupies less than 500K or hard disk space.

Before you begin installation, check the contents of your package. You should have the following items:

- (1) Computertop TV-II Card
- (2) stereo speakers, with cables
- (1) VGA Loopback Cable
- (1) Feature Connector Cable
- (1) Coaxial Cable Adapter (for antenna cable)
- (1) 75/300 ohm adapter (for twin-wire antennas)
- (2) "Y" cables
- (1) 5.25" Diskette

If anything is missing, call Black Box.

3. Installation

3.1 Jumpers

The Computertop TV-II card has two jumpers, JP13 and JP14. These jumpers select the I/O address for the Computertop TV-II card in your system. You can install the Computertop TV-II card without changing the factory jumper settings. However, be prepared to change the jumper settings and reinstall the card and software in case there is an I/O address conflict in your system.

JP13	JP14	I/O Address
IN	IN	250H
OUT	OUT	220H
IN	OUT	280H
OUT	IN	350H

NOTE

"IN" means that the jumper is installed, "OUT" means that the jumper has been removed.

3.2 VGA Feature Connector

The VGA Feature Connector is a card-edge connector or 26-pin header located on your VGA board (or on your motherboard if your system has VGA on the motherboard). The supplied Feature Connector Cable should be connected between the VGA Feature Connector and the Feature Connector Cable Header on the Computertop TV-II card. See Figure 3-1.

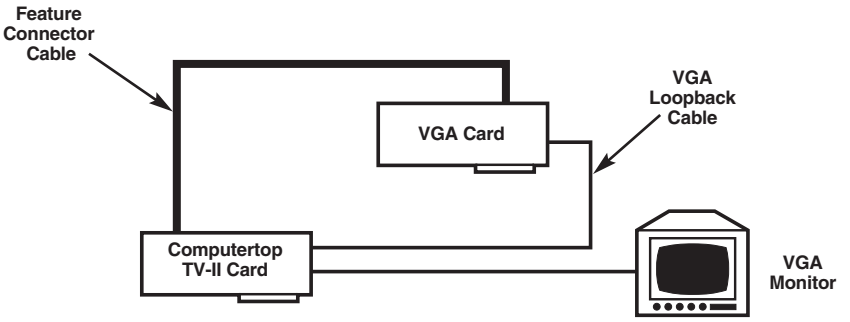

Figure 3-1. Connecting the VGA Feature Connector and the Computertop TV-II Card.

3.3 Hardware Installation

CAUTION

Be sure to ground yourself before touching the Computertop TV-II or the inside of your computer. Static electricity can permanently damage computer equipment. You can ground yourself by briefly touching the metal case of your computer.

Be sure to properly connect all cables to the Computertop TV-II Card. Otherwise, the card and your audio/video equipment may be damaged. Only shielded cables should be used to connect the Computertop TV-II card to external devices.

1. Check the System Requirements in Chapter 1. Be sure you have a VGA adapter and color VGA monitor, set to run in standard VGA mode (max. 640 x 480). Higher resolution VGA modes will show TV or live video only on the full screen, but not in a window.

2. Select the correct Computertop TV-II jumper settings, as discussed in Section 3.1.

3. Turn off the computer and open it.

CAUTION

It is very important that the computer power be off while you are installing the card. Your computer and the Computertop TV-II board can be permanently damaged if installation is attempted with the power on.

4. Install the Computertop TV-II card in any 8- or 16-bit slot. You may have to first remove the blank back plate by removing a screw; the same screw should be used to secure (and) ground the Computertop TV-II card. Insert the card firmly into the slot.

5. Locate the VGA Feature Connector on your VGA card or on the motherboard. If you cannot locate the VGA Feature Connector, see Chapter 5.

6. Connect one end of the Feature Connector Cable to the Computertop TV-II card and the other end to the VGA Feature Connector. The Feature Connector Cable provided with the Desktop TV-II card has a single 26-pin female connector at one end to connect to the Computertop TV-II card. The other end has *both* a card-edge and pin connector to connect to the VGA Feature Connector. Choose the one that fits your VGA Feature Connector; the other connector is not needed. The connectors on the Feature Connector Cable are “keyed” to prevent incorrect installation.

7. Disconnect the VGA monitor cable from the VGA card, and reconnect it to the Computertop TV-II card.

8. Connect the VGA Loopback Cable between the VGA card (or VGA OUT connector on your computer) and the Computertop TV-II card.

9. Connect the TV antenna to the Computertop TV-II card. Two types of adapters are supplied with the Computertop TV-II card: (a) A coaxial adapter is supplied for use with any TV cable. First, screw the TV cable into the coaxial adapter, then *firmly* insert the adapter into the TV Tuner. (b) If your TV antenna has a flat 300 ohm twin cable, then use the 75/300-ohm adapter suppled. Connect the two wires to the 75/300-ohm adapter, screw the connector into the coaxial adapter, and *firmly* insert the coaxial adapter into the TV tuner. Be sure that the coaxial adapter is *fully* inserted into the TV tuner on the Computertop TV-II card, for good TV reception.

10. Connect the stereo speakers to the AUDIO OUT jack. To connect stereo speakers different from those supplied, connect the *left* speaker to the *red* connector, and the *right* speaker to the *black* connector on the STEREO AUDIO OUT "Y" cable. The Computertop TV-II card has an amplifier which can deliver up to 4 watts of audio power per channel, at maximum volume. It is possible to overdrive speakers with excessive volume; the card will cut out temporarily in this case to protect the amplifier.

11. (Optional). If you have an internal CD-ROM drive, and wish to use the on-board amplifier and other audio features of the Computertop TV-II card for CD-ROM audio output, connect a cable from the CD-ROM to the 4-pin connector on the Computertop TV-II card. The CD-ROM drive should have an internal connection cable with a flat 4-pin connector which matches the header on the Computertop TV-II card. (This header follows the Mitsumi standard CD-ROM line-out specifications.) A cable with a 4-pin connector should be supplied with your CD-ROM drive; if not, contact the CD-ROM drive supplier.

NOTE

CD-ROM audio is selected as EXTERNAL audio only if there is nothing physically plugged into the Computertop TV-II card's STEREO AUDIO IN jack, as described below.

NOTE

To connect external audio and video devices to the Computertop TV-II card, you must use shielded audio and video cables with male "RCA" plugs. These are to be plugged into the female "RCA®" jacks on the ends of the "Y" cables supplied with the Computertop TV-II board.

12. (Optional) An *external video source*, such as a VCR, camcorder, or laserdisc player can be connected to the *black* connector on the VIDEO IN/OUT "Y" cable. *Be careful not to connect any external video input to the red connector.*

13. (Optional) To connect a VCR or other device to record *video output* from the Computertop TV-II card's TV tuner, you can connect it to the *red* connector on the VIDEO IN/OUT "Y" cable. To record the *audio output* from the Computertop TV-II card's TV tuner to the VCR, connect the STEREO AUDIO OUT to the AUDIO IN connectors on the VCR. *Be sure to set the Computertop TV-II volume control to a low setting.* The VCR expects a line-level audio output, not amplified audio. The VCR can be damaged if its input audio level is too high.

14. (Optional) To connect a *stereo audio input* (such as an audio CD player), connect the *left* channel to the *red* connector, and the *right* channel to the *black* connector on the STEREO AUDIO IN "Y" cable. A typical audio input would be the "LINE OUT" audio signal from a CD player or VCR. If nothing is plugged into the STEREO AUDIO IN jack then the CDROM AUDIO INPUT is switched in as EXTERNAL AUDIO.

15. Check that all connections are firmly in place, and that the cables are all properly connected, and close the computer.

16. Turn the computer ON. It should boot-up normally. (If not, see Chapter 5.)

3.4 Software Installation

Software for operation in DOS and Windows is supplied with the Computertop TV-II card. Check the System Requirements in Chapter 1 before installation.

In the following instructions, we are assuming that you are copying the software from a 5-1/4" floppy, called Drive "A" or "B," to a hard disk called "C". If your hard disk is called "D", substitute "D" for "C".

Check your MS-DOS and Windows manuals if you have doubts about naming drives or how to copy from a floppy drive to a hard disk.

3.4.1 DOS Software Installation

The DOS Computertop TV-II software can be installed from DOS or from Windows (see the next section for installation from Windows).

To install the DOS Software for the Computertop TV-II:

1. Place the Computertop TV diskette in Drive A or Drive B.
2. From the C: prompt, type **A:\dinstall or B:\dinstall**

   Installation is automatic. You are asked to reply to some questions for your specific computer. If you are not sure, just accept the default values (The default values should work for most computers).

3.4.2 Windows Software Installation

1. Place the Computertop TV-II diskette in Drive A or Drive B.
2. From the C: prompt, type A:\winstall or B:winstall
3. Installation is automatic. You will be asked to reply to some questions for your specific computer. If you are not sure, just accept the default values (they should work for most computers). You will be given the choice of installing both the DOS and Windows Computertop TV-II software, or only the Windows Computertop TV-II software. When installation is complete, you will see the Computertop TV-II icon in a new window titled "Computertop TV."

4. Operation

Now that you have completed the Computertop TV-II installation, let's take a "Test Drive" to get familiar with the features of your Computertop TV-II card.

The Windows Test Drive follows. If you want to start with the DOS Test Drive, go to Section 4.2.

4.1 Windows Test Drive

From within Windows, double-click on the Computertop TV-II icon to start the program. You will see the Computertop TV-II window. Until you are tuned to a good TV channel, it may not show anything but noise (as with any TV set). Hit the PgUp or PgDn keys to change channels, until you find a good "live" TV channel. Adjust the volume with the + and - keys. Try out the hot keys. Switch back and forth between the TV window and full-screen TV by hitting the ESC key.

From the Computertop TV-II window, you can change the audio volume up or down by clicking on the buttons on either side of the MUTE button. You can turn the sound ON or OFF by clicking on the MUTE button. Change TV channels by clicking on the buttons on either side of the Channel Number window. Access the other controls on the Pop-Up Control Panel by clicking on the SET button. You can also minimize the Computertop TV-II window to an icon.

You can move the Computertop TV-II window by clicking on the title bar and dragging it. You will notice that there are some areas (near the center of the screen) which it will avoid. This is normal. Note that the cursor "disappears" behind the Computertop TV-II window. This is also normal.

Now return to the Computertop TV-II window. Click on the SET button to open the Pop-Up Control Panel.

At this point, you can tell the Computertop TV-II card to memorize all of the "live" TV channels in your area by clicking on the AUTO SCAN button (this takes several minutes). Once AUTO SCAN is completed, you will be able to jump directly from one active TV channel to the next active channel using the PgUp and PgDn keys. Run AUTO SCAN now if you like, and when it is finished, click on the DONE button to return to the main Computertop TV-II window.
Keep in mind that the hot keys are activated only when the Computertop TV-II window is active (has input focus). The hot keys will not be active if the Pop-Up Control

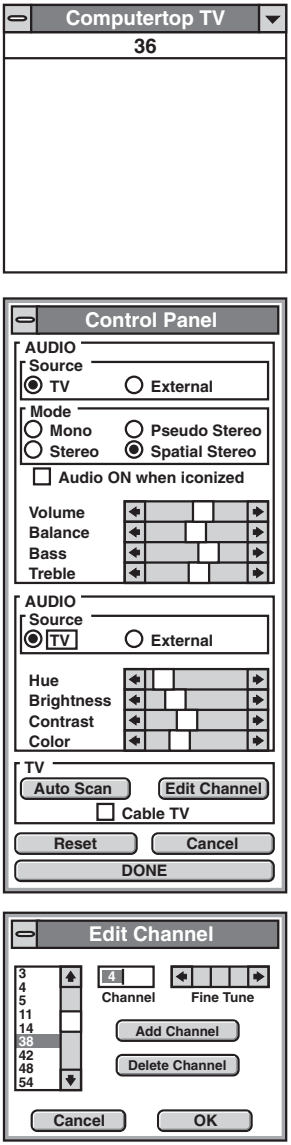

Figure 4-1. Computertop TV-II Screen for Windows.

Panel is open, or if any other application has input focus.

To "freeze" the Computertop TV-II window, position the cursor inside the Computertop TV-II window so that it disappears, then click the LEFT mouse button. Click again to switch between "live" and "freeze-frame." It is possible to "freeze-frame" only in the Computertop TV-II window. You cannot "freeze frame" when the Computertop TV-II card is displaying full-screen TV or video.

Similarly, you can resize the Computertop TV-II window: Position the cursor inside the Computertop TV-II window so that it disappears, then click the RIGHT mouse button. Click again to switch between 1/9 and 1/16 size Computertop TV-II window. To switch between the Computertop TV-II window and full-screen TV or video, hit the ESC key.

4.1.1 Computertop TV-II Window Controls

At the top of the Computertop TV-II window are the usual Windows controls to Open and Close the window, and to minimize it to an icon. These function normally, as with any other Windows program.

- **CLOSE WINDOW —** To close the Computertop TV-II window, click on the button in the upper left corner and select Close. You will then be asked if you wish to save all Computertop TV-II settings. Click on "Yes" or "No", as desired.
- **MOVE WINDOW —** Click on the title bar, hold the left mouse button down and drag the window to a new location (this is a standard Windows operation). You will notice that the Computertop TV-II window will only accept locations away from the center of the screen. This is normal.
- **WINDOW TO ICON —** To reduce the window to an icon, click on the minimize button in the upper right corner of the Computertop TV-II window.
- **ICON TO WINDOW —** To return from an icon to a window, double click on the Computertop TV-II icon, or click once and select Restore.
- **WINDOW TO/FROM FULL SCREEN —** To change from the Computertop TV-II window to full-screen Computertop TV-II display, or vice-versa, hit the ESC key.

4.1.2 Pop-Up Control Panel—Audio Controls

The upper part of the CONTROL PANEL contains the audio controls. They are listed as they appear on the menu from top to bottom:

- **AUDIO SOURCE (TV OR EXTERNAL) —** Click on the button you wish to select. Clicking "TV" causes the audio to play from the on-board TV tuner. Clicking "External" switches the audio to play from an external source (such as CD player) which is connected to the AUDIO IN connector on the Computertop TV-II card. When EXTERNAL AUDIO is selected, the Computertop TV-II card plays audio from the source connected to the STEREO AUDIO IN jack. If nothing is physically connected to this jack, then the CD-ROM audio signals from the 4-pin header are switched in as EXTERNAL AUDIO.

- **AUDIO MODE —** This gives you a choice of audio enhancements which may make your audio sound much better. With the sound on, switch between the different modes: MONO, STEREO, PSEUDO STEREO, and SPATIAL STEREO.

- **AUDIO SETTINGS —** The four slider bars let you click on the arrows or drag the button in order to control:

  VOLUME

  BALANCE

  BASS

  TREBLE

  Normal settings are near the center on all of these slider bars except volume, where normal is about 3/4 the way to the right.

NOTE

The Computertop TV-II supports full stereo sound, but most TV broadcasts are mono, which plays through the left channel. You will not hear anything if you are set for STEREO or PSEUDO STEREO sound and have BALANCE set to the RIGHT. To correct this, you can either change the BALANCE setting to the center, or change the mode to MONO or SPATIAL STEREO. In SPATIAL STEREO mode, you get the effect of full stereo, even with mono TV sources.

- **AUDIO ON/OFF WHEN ICONIZED —** Click the box to turn it on and off. If you select this option, you will hear sound when the Computertop TV-II window is reduced to an icon. You can monitor the sound while you work on the PC and restore the Computertop TV-II window when you hear something interesting.

4.1.3 Pop-Up Control Panel— Video Controls

- **VIDEO SOURCE (TV OR EXTERNAL) —** Click on the box you want to select. Clicking "TV" switches the video to the on-board TV tuner. Clicking "EXTERNAL" switches the video to an external source (such as VCR, laserdisc player or video camera) connected to the *black* connector on the VIDEO IN/OUT "Y" cable.

- **VIDEO SETTINGS —** The four slider bars let you either click on the arrows or drag the button and control the following:

  HUE — Normally set to the far left, as low as possible.

  BRIGHTNESS — Normally set near the middle.

  CONTRAST— Normally set near the middle.

  COLOR — Normally set near the middle.

4.1.4 Pop-Up Control Panel- TV Controls

From the Pop-Up Control Panel, you can control the Computertop TV-II card's TV tuner. You can choose Broadcast TV or Cable TV reception, execute the Autoscan function, and also edit the list of active TV channels scanned by the Autoscan function.

- **AUTOSCAN —** This is an important feature of the Computertop TV-II card which lets it automatically scan the "live" TV channels in your area. When you click on the AUTOSCAN button, it checks each channel and prepares a list of "active" channels which have a good TV signal. At the same time, it automatically fine tunes to each channel. This takes several minutes to complete. You can run AUTOSCAN at any time (for example if you connect a better antenna, you may want to see which new channels now become available, and set them up also). You can also add or delete channels manually from the channel list (see the EDIT CHANNEL instructions, which follow).

Connect a good TV antenna to the Computertop TV-II card, and run AUTO SCAN now (if you have not already done so).

NOTE

In order to retain the AUTOSCAN channel list for the future, you must respond "Yes" when you close the Computertop TV-II window and you are asked if you want to save settings.

- **EDIT CHANNEL —** When you click on this button, an Edit Channel dialog box opens. This is described further below.

- **CABLE TV —** Choose this option if you are watching cable-TV instead of "off-the-air" broadcast TV. If this box is checked, the Computertop TV-II card will tune to cable-TV channels. Otherwise, it will receive broadcast TV channels.

4.1.5 Edit Channel Dialog Box

This dialog box lets you manually add or delete TV channels from the Computertop TV-II channel list.

- **TO ADD A CHANNEL —** In the Channel box, type in the channel number you wish to add to the Computertop TV-II channel list. Then click on the ADD CHANNEL button. This will add the desired channel to the Computertop TV-II channel list, and also tune to it immediately.

- **TO DELETE A CHANNEL —** Click on the channel number in the Active List Box so that it is highlighted, then click on the DELETE CHANNEL button. The highlighted channel will be deleted. (If you delete one by accident, you can ADD it back, as described in the previous paragraph.)

- **TO FINE-TUNE A CHANNEL—** Adjust the Fine Tune slider bar. The Computertop TV-II card allows you to individually fine-tune each channel in its channel list. The fine-tuning settings are also saved together with the channel list when you respond "Yes" to the query at the time the Computertop TV-II window is closed.

4.1.6 Pop-Up Control Panel Exit

- **RESET —** All settings are restored to factory defaults.

- **CANCEL —** Current changes to the Control Panel settings are ignored.

- **DONE —** Returns to the Computertop TV-II window; current changes are retained.

If you have not done so yet, try the hot key controls . These keys are active only when you have selected the Computertop TV-II window (so that you can use the same keys normally within other Windows programs). The hotkeys allow you to control volume, channel, and many other settings directly from the keyboard. To try them, first select the Computertop TV-II window (click on the title bar of the

Computertop TV-II window to select it). Many of the hotkeys will continue to increase or decrease if you hold them down; for example, try out the hot keys for volume (+ and -) by hitting them once and then by holding them down for a longer time. The hot keys work in full-screen TV mode and also in TV window mode; they are not case-sensitive.

4.2 DOS Test Drive

Once the DOSPCTV.EXE software has been installed, do the following:

1. Choose the subdirectory in which DOSPCTV.EXE is located.

2. Type **DOSPCTV**.

3. The DOS Computertop TV menu screen should appear, together with TV or video in a window. See Figure 4-2.

4. You can select any choice on the screen by hitting the hot keys highlighted in color on the Computertop TV menu. Notice that the menu is divided into three areas: AUDIO, VIDEO and TV CHANNEL controls. Try hitting the PgUp and PgDn keys to see how the channel setting moves up and down. Select a channel which is active in your viewing area. Try hitting the + and - keys to see how the volume increases and decreases, respectively. Hit SPACEBAR a few times to see how MUTE works.

5. To switch between different video window sizes or to switch to full-screen TV, hit the ESC key repeatedly. You will switch between 1/16 size TV window, 1/4 size TV window, and full-screen TV, then return back to the Computertop TV menu screen. Use the arrow keys to move the TV window. It is normal for the TV window to "jump" between locations.

6. Now use AUTOSCAN to search active TV channels in your viewing area. Hit **Ctrl-A** to start AUTOSCAN; it may take a few minutes. Once AUTOSCAN is completed, you can directly jump between active TV channels using PgUp and PgDn.

Once this is complete, you can see the effect by hitting the PgUp and PgDn keys. Your PC can remember these active channel settings, so you don't have to repeat AUTOSCAN unless you want to.

NOTE

When you quit the Computertop TV program, you will be asked whether you want to "Save Settings". Be sure to respond "Yes" if you want to save the Autoscan results.

7. You can now DELETE CHANNELS from memory by hitting the D key. You will be asked to enter the channel to be deleted.

8.You can ADD CHANNELS to memory by hitting the A key. You will be asked to enter the channel to be added.

9.Once you have selected a live TV channel and have both audio and video playing, you can test the other hotkeys.

NOTE

Most HOTKEYS (such as the + key) will continue to change the settings if you hold them down, so release them as soon as you have the right setting. Either upper-case or lower-case letters can be used (for example, either "C" or "c" will have the same effect).

4.2.1 Audio Controls

The X and U keys permit you to select between EXTERNAL AUDIO and TV AUDIO. This is useful if you have an external audio source, such as a VCR or CD player connected to the AUDIO IN connector.

NOTE

When EXTERNAL AUDIO is selected, the Computertop TV board plays audio from the source connected to the STEREO AUDIO IN jack. If nothing is physically connected to this jack, then the CD-ROM audio signals from the 4-pin header are switched in as EXTERNAL AUDIO.

The **F1** key toggles between the AUDIO MODE settings (MONO, STEREO, SPATIAL STEREO and PSEUDO STEREO). Try hitting the **F1** key a few times, listening to the difference each time. Notice that the selected MODE is indicated in the AUDIO part of the screen. Choose the setting that sounds best. PSEUDO STEREO and SPATIAL STEREO modes are enhanced stereo modes delivered by the Computertop TV card's built-in hi-fi stereo processor.
The + and - keys control the AUDIO VOLUME, as you have already seen. If you hold the key down, the volume will continue to increase or decrease until you let go. Avoid overloading the amplifier and speakers with too much volume. If you do so, the sound may go off for a short time,until the system recovers. This "cut-out" feature is intended to prevent permanent damage to the Computertop TV-II card.

The **N** and **Ctrl N** keys change the BALANCE from left to right. Hitting **N** moves the balance to the left speaker; hitting **Ctrl-N** (holding down the **Ctrl** key while you hit the **N** key) moves the balance to the right speaker.

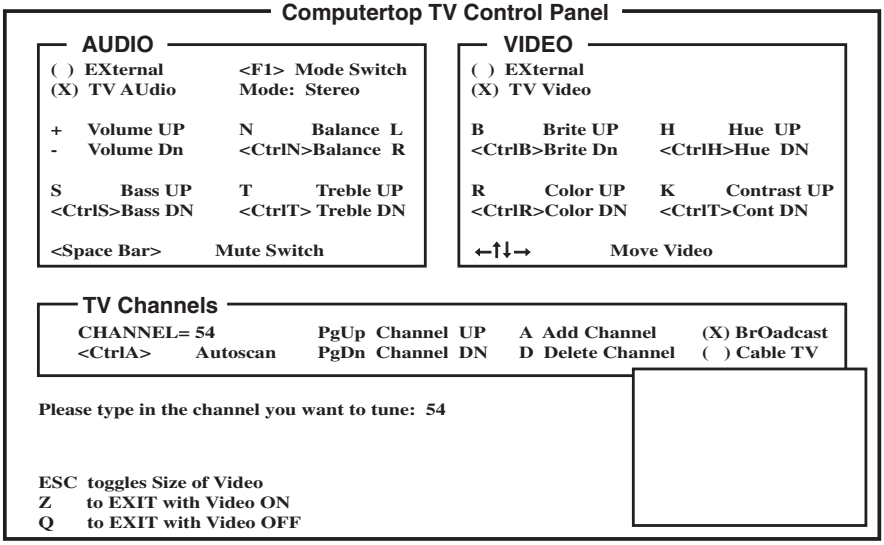

Figure 4-2. Computertop TV Menu Screen for DOS.

NOTE

The Computertop TV-II supports full stereo sound, but most TV broadcasts are mono, which plays through the left channel. You will not hear anything if you are set for STEREO or PSEUDO STEREO sound and have BALANCE set to the right. To correct this, you can either change the BALANCE setting to the center, or change the mode to MONO or SPATIAL STEREO. In SPATIAL STEREO mode, you get the effect of full stereo, even with mono TV sources.

The **S** and **Ctrl-S** keys change the BASS settings. Hitting **S** increases bass; hitting **Ctrl-S** (holding down the **Ctrl** key while you hit the **S** key) decreases bass.

The **T** and **Ctrl-T** keys change the TREBLE settings. Hitting **T** increases treble; hitting **Ctrl-T** (holding down the **Ctrl** key while you hit the **T** key) decreases treble.

The **SPACEBAR** turns Mute ON and OFF. (When Mute is on, the sound is off).

4.2.2 Video Controls

The **E** and **V** keys permit you to select between External Video and TV Video. (This is useful if you have an external video source, such as a VCR or Laserdisc player, connected to the VIDEO IN connector on the "Y" cable.)

The **B** and **Ctrl-B** keys change the BRIGHTNESS settings. Hitting **B** increases brightness; hitting **Ctrl-B** (holding down the **Ctrl** key while you hit the **B** key) decreases brightness.

The **H** and **Ctrl-H** keys change the Hue settings. Hitting **H** increases hue; hitting **Ctrl-H** (holding down the **Ctrl** key while you hit the **H** key) decreases hue.

The **R** and **Ctrl-R** keys change the COLOR settings. Hitting **R** increases color; hitting **Ctrl-R** (holding down the Ctrl key while you hit the R key) decreases color. ("Color" is also called "Saturation" or "Color Saturation".)

The **K** and **Ctrl-K** keys change the CONTRAST settings. Hitting **K** increases contrast; hitting **Ctrl-K** (holding down the **Ctrl** key while you hit the **K** key) decreases contrast.

4.2.3 TV Channel Controls

The current channel number appears in this area of the screen.

You may have already used AUTOSCAN, which is activated by hitting **Ctrl-A**. This selects the active TV channels. It takes a few minutes to scan all the active TV channels in your viewing area.

The **PgUp** and **PgDn** keys increase or decrease the selected channel number.

The **A** and **D** keys are used to add and delete channels, as explained earlier.

The **O** and **C** keys are used to select broadcast or cableTV reception.

The **ESC** key is used to switch between different TV window sizes, display full-screen TV, or return back to the DOS menu screen.

The **Q** key is used to quit and return to DOS.

NOTE

It is recommended that you save changes, especially after running AUTO SCAN.

The **Z** key is used to quit and return to DOS, with the TV window active. For audio monitoring only, hit **ESC** to not display a TV window, then hit **Z.** First make all your Computertop TV selections in the DOS menu screen, position the TV window where you want it, then hit **Z**. You can then run any other DOS application with the Computertop TV window active.

Table 4-1 lists the hot keys. The hot keys will work in DOS only when DOSPCTV.EXE is running, or in Windows only when the Computertop TV window has been selected and the pop-up Control Panel is not open. To select the Computertop TV window, click the left mouse button on the title bar of the Computertop TV window. Most hot keys will repeat if you hold them down. Unless indicated otherwise, the same hot keys work in DOS as well as Windows.

We have tried to anticipate the most common problems and mistakes that users might make in installing and using the Computertop TV Card. Please read this section before calling Black Box.

Problem

Computer won't start up ("boot") normally after the Computertop TV card is installed.

Solution

a. Check whether the power cord is plugged in.

b. Check whether the VGA monitor cable is connected properly to the Computertop TV card (*not* to the VGA card).

c. Check whether the VGA Loopback Cable is properly connected between the Computertop TV card and the VGA card.

d. If all of the above is OK, then turn your computer off and repeat the Hardware Installation, checking to be sure that the Feature Connector Cable is properly installed.

e. If you still have a boot-up problem, it is most likely an I/O address conflict. Change jumper settings on the Computertop TV card and re-install the Computertop TV software.

Table 4-1. Hot Keys.

Command	Hot Key
Mute	[Spacebar] (Toggles on/off)
Volume Up	+
Volume Down	-
Switch Audio Mode	[F1] (Toggles through 4 modes) (DOS only)
Switch to External Audio	x or X (DOS only)
Switch to TV Audio	u or U (DOS only)
Increase Bass	s or S
Decrease Bass	Ctrl-s or Ctrl-S
Increase Treble	t or T
Decrease Treble	Ctrl-t or Ctrl-T
Balance-Left	n or N
Balance-Right	Ctrl-n or Ctrl-N
Switch to External Video	e or E (DOS only)
Switch to TV Video	v or V (DOS only)
Brightness up	b or B
Brightness down	Ctrl-b or Ctrl-B
Hue up	h or H
Hue down	Ctrl-h or Ctrl-H
Color up	r or R
Color Down	Ctrl-r or Ctrl-R
Contrast Up	k or K
Contrast Down	Ctrl-k or Ctrl-K
TV Channel Up	[PgUp]
TV Channel Down	[PgDn]
Add Channel to Memory	a or A (DOS only)
Delete Channel from Memory	d or D (DOS only)
Select Broadcast TV	o or O (DOS only)
Select Cable TV	c or C (DOS only)
Autoscan	Ctrl-a or Ctrl-A
Desktop TV Window/ Full Screen Switch	[ESC] (DOS only)
Quit (Exit to DOS with DTV OFF)	q or Q (DOS only)

5. Troubleshooting

Problem

Can't find the VGA Feature Connector.

The VGA Feature Connector is a 26-pin connector which provides digital VGA signals to the Computertop TV card. This connector is located on the VGA card (or on the motherboard if the VGA chip is located on the motherboard). This is usually a "card-edge connector," but some VGA cards have a "header connector." Some VGA cards and PCs may not have a VGA Feature Connector, even though standards for VGA cards require it.

Solution

If your VGA card does not have a VGA Feature Connector, then the Computertop TV Card will display video or TV only on the full screen, but not in a window.You may want to replace your VGA card with another VGA card that has a VGA Feature Connector.

Problem

Windows runs properly, but the Computertop TV window does not come up when you type **WIN WINPCTV** from the DOS prompt, or the Computertop TV window does not come up when you double-click on the Computertop TV icon in Windows.

Solution

a. Repeat the Computertop TV Windows Software Installation. If this does not help, you may have an I/O address conflict, and need to change I/O jumper settings.

b. Make sure that the VGA Feature Connector is enabled (refer to your VGA card's documentation) and your VGA is in 640 x 480 mode.

Problem

The Computertop TV window appears when you run the program, but it shows only a blank screen or static in the window.

Solution

a. Switch to full screen mode by hitting the ESC key. If you now see live video, your computer is not set to Standard VGA mode (640 x 480) or there is a Feature Connector problem. Return to Windows Setup and select 640 x 480 VGA resolution, if necessary.

b. If you do not see live video in full-screen mode either, see the Solution to the next Problem.

Problem

No video, or just static, appears in full-screen TV mode or in the video window.

Solution

a. Check that your antenna is connected and that you are tuned to a good TV channel for your area.

b. Check the Control Panel to see that have selected CABLE TV (if you *are* connected to Cable) or unselected CABLE TV, (no "X" in the box on the Control Panel) if you are *not* connected to Cable).

c. Check that you have selected the source of video that you want to see (TV or EXTERNAL) on the Control Panel. See Chapter 4 section for instructions on how to make this selection.

d. Be sure you are in one of the Standard VGA or SVGA modes supported by the Computertop TV card (see System Requirements in Chapter 1).

e. See your Windows manual for instructions on setting the VGA mode, or ask your dealer if you are not sure.

Problem

No sound.

Solution

a. Check that your speakers are connected to the AUDIO OUT connector. If you are using an external audio source, check that it is connected properly to the AUDIO IN jack.

b. Click the MUTE button or press the SPACEBAR a few times to see if you may have muted the sound.

c. Check the Control Panel to be sure that you have selected the proper AUDIO SOURCE (TV or EXTERNAL).

d. Move the Volume control on the Control Panel (or hit the + key) to increase the volume.

e. Move the BALANCE controL Set the BALANCE to the center or change the audio mode setting to MONO or SPATIAL STEREO.

f. Change TV channels, to be sure there is sound coming in.

Problem

Unusual colors (blue skin, etc).

Solution

a. Use the hotkeys (H and Ctrl-H for Hue, R and Ctrl-R for Color) or go to the Control Panel and change the HUE and COLOR settings. Reduce Hue to the lowest value (far left on the slider).

b. Once HUE is reduced to a minimum, reducing the Color level may display more normal colors.

Problem

"Smearing" or too much contrast in the video picture.

Solution

Use the hotkeys (K and Ctrl-K for Contrast, B and Ctrl-B for Brightness, R and Ctrl-R for Color) or go to the Control Panel and reduce the settings for CONTRAST, BRIGHTNESS, or COLOR. If you can't fully adjust using the Control Panel, use the adjustments on the VGA monitor first to get the best image, then fine tune using the Computertop TV Control Panel.

Problem

No video when EXTERNAL VIDEO source is connected (such as VCR or laserdisc).

Solution

a. Check that the external video is connected to the correct VIDEO IN connector on the "Y" cable (the black one, not the red one).

b. On the Control Panel, check that EXTERNAL is selected as the VIDEO SOURCE.

c. Check that the external video source is properly connected and that it is turned on.

Problem

No audio when EXTERNAL AUDIO source is connected (such as CD, VCR, or laserdisc).

Solution

a. Check that the external audio is connected to the correct AUDIO IN connector.

b. On the Control Panel, check that EXTERNAL is selected as the AUDIO SOURCE.

c. Check that the External Audio cable is connected to the correct AUDIO OUT connectors on your audio source. Check that the external audio source is turned on.

If the audio source is mono, rather than stereo, be sure to select either MONO or SPATIAL STEREO as the Computertop TV AUDIO MODE.

Problem

AUDIO cuts out at high volume.

Solution

The audio amplifier can deliver 4 watts of power and is designed to cut out temporarily if the volume is set too high. To get sound back, reduce the volume level slightly and wait a few seconds. If sound does not return, turn the computer off for a short time and restart.

Problem

The TV and external video signals both appear on the screen at the same time.

Solution

You have the External VIDEO IN cable wrongly connected to the VIDEO OUT (red) connector. Reconnect it to the VIDEO IN (black) connector on the "Y" cable.

Problem

The hot keys don't work properly in Windows.

Solution

You must first select the Computertop TV (by clicking on the Computertop TV window title bar), to activate the hot keys.

Problem

The CD-ROM cable is connected to the four-pin header on the Computertop TV card, but can't get CD-ROM audio output.

Solution

To listen to CD-ROM audio, you must first select EXTERNAL audio source and also make sure that no connector or Y cable is plugged into the Computertop TV AUDIO IN jack. This switches in CD-ROM audio 4-pin header as the EXTERNAL audio source.

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