PLTV-32

32" Liquid Crystal Display

User’s Manual

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Ontario, CA 91761

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**Product Cautions**

**TO PREVENT POSSIBLE DANGER, ELECTRIC SHOCK, AND OTHER INJURIES WHEN HANDLING YOUR DISPLAY, PLEASE BE AWARE OF ALL WARNINGS AND SAFETY PRECAUTIONS LISTED BELOW.**

Never spill any liquid of any kind on the display.

Never insert anything into the display where objects can come into contact with high voltage nodes or damage internal components.

Do not attempt to service the display yourself. Opening or removing covers exposes high voltage nodes and other hazards. Refer all servicing to qualified service personnel.

Do not touch the display or antenna during thunderstorms. Unplug the display during thunderstorms or if it will not be used for extended periods. Failure to do so may result in electric shock or fire.

Before cleaning the display, unplug it from the wall. Use a damp cloth for cleaning. Never use liquid or aerosol cleaners.

To prevent overheating and ensure reliable operation, place the display only in a well ventilated location. Avoid cramped or inadequately ventilated locations. Place the display at least 10 cm (4") from walls or other objects. Always keep the vent clean. Never place the display upside down.

**Note:** Read all safety and operating instructions before operating your new display.
Conformity and Compliance

FCC Compliance Statement
This equipment has been tested and found to comply with the limits for a Class B 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 residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception (this can be determined by turning the device off and on), the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Caution:
To comply with the limits for an FCC Class B computing device, the user should use the shielded signal cable and power cord supplied with the unit. The FCC warns that changes or modifications of the unit not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment.

Radio Frequency Interference Statement

Warning:
This is a Class B product. In a domestic environment this product may cause radio interference, in which case the user may be required to take adequate measures.

Canadian DOC Notice for Class B Computing Devices
This digital apparatus does not exceed the Class B limits for radio noise emissions from a digital apparatus as set out in the Radio Interference Regulations of the Canadian Department of Communications.

CE Marking and Declaration of Conformity
This device complies with the requirements of related European standards, which include the following:

- Emission: EN 55022, EN 61000-3-2, EN 61000-3-3
- Immunity: EN 50082-1
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Introduction

Congratulations on purchasing your new Protron 32" Liquid Crystal Display!

You can use your new display as a television, in a home theater system, or even as a computer monitor. With component, composite, and S-Video video inputs, you can connect numerous devices to your display, including DVD players, VCRs, HDTV receivers, video game systems, camcorders, and so on.

The component video inputs on your display give you the highest quality video available, allowing you to view crystal-clear DVDs and HDTV. With a resolution of 1366 x 768, your display gives you plenty of high-resolution screen real estate when connected to a computer.

Features

- 32" viewable display area
- Analog TV tuner with coax input
- RCA component video input
- D4 component video input
- RCA composite video input
- S-Video input
- 2 RCA audio inputs
- VGA and DVI computer video inputs
- 1/8" stereo audio input jack for computer audio
- Resolution of 1366 x 768 pixels
- Wide viewing angle
- Large tilt angle
- Digital character smoothing
- Versatile, functional, and user-friendly On-Screen Display (OSD)
- VESA DPMS-compliant power saving—automatically turns off the display after a configurable period of inactivity
- Windows 95/98/2000/XP Plug and Play compliant
- Conforms to VESA standards and supports the DDC1 and DDC2B specifications
Unpacking Your New Display

Before using your new display, you should unpack the contents of the box and check to make sure everything is present and undamaged.

To unpack the display:
1. Set the box upright near the intended display location.
2. Open the top set of flaps.
3. Remove the Accessories Box and set it aside.
4. Remove the styrofoam pad from the front of the display.
5. Pull the display out with the left and right styrofoam pads and set it down.
6. Remove the left and right styrofoam pads.
7. Remove the plastic bag and plastic screen protector.

The Accessories Box should contain the items indicated below. If any items are missing or damaged, contact the seller immediately.

- Remote Control
- VGA Cable
- RCA Cables
- PC Audio Cable
- DC Power Adapter
- 2 x AAA Battery
- Power Cord
Setting Up the Display

The display requires a stable, level, and clean surface near a power outlet, 10 cm (4") away from walls or other large objects. The rear ventilation grid should be unobstructed, and the display should not be exposed to water or heat. Before setting up the display, prepare such a space.

To set up the display:
1. Remove the power cord and DC power adapter from the accessories box.
2. Insert the appropriate end of the cord into the power connector on the DC power adapter, then insert the other end into a free power outlet. The blue light on the DC power adapter should come on. If it doesn’t, check that the cord is securely connected and that the power outlet works properly.
3. Insert the DC power adapter’s cord into the power connector on the bottom of the display.

Note: Make sure you plug the power connector into the display with the arrow on top. Failure to do so will cause a short circuit.

Connecting to a TV Signal Source

A TV signal may come from a cable box, satellite receiver, antenna, or similar device.

To connect a TV signal source to the display:
1. Connect a coax cable between the antenna jack on the bottom of the display and the signal source (that is, the cable box, satellite receiver, or antenna).

Note: If you would like to be able to record the TV signal with a VCR or similar device, connect the signal source to the input of the recording device with one cable, then connect the output of the recording device to the antenna jack on the display with another cable.
Setting Up the Display

**Accessing the Connector Panel**

All audio and video connections other than those for a television signal or a PC are located on the connector panel. To access the jacks on the panel, remove the cover as shown below—release the two tabs to the right, then pull the cover out.

![Image of connector panel]

**Connecting to Composite Video Output Devices**

Many video devices, such as VCRs, DVD players, video game systems, and camcorders, have composite video outputs. Composite video uses one RCA cable to transmit video information and generally provides lower quality than S-Video and component video (see below).

**Note:** The composite video and S-Video inputs share an audio input.

**To connect a composite video source to the display:**

1. Remove the connector panel cover from the rear of the display.
2. Using the included RCA cables (shown on page 2), connect the composite video output (yellow) on the source device to the VIDEO-IN jack on the connector panel.
3. Connect the right (red) and left (white) audio outputs on the source to the corresponding AUDIO-IN jacks next to the VIDEO-IN jack.
4. Replace the connector panel cover.
Connecting to S-Video Output Devices

Many video devices that have composite video outputs also have S-Video outputs. S-Video uses a single four-wire cable to transmit video information. Two of the wires are used to transmit video. Because it splits the video signal into two components, S-Video generally provides higher quality than composite video, but lower quality than component video (see below).

**Note:** The composite video and S-Video inputs share an audio input.

**Note:** The pins used in S-Video connectors are somewhat fragile. Take care to avoid bending the pins, as a bent or broken pin can cause loss of color information or total signal loss.

To connect an S-Video source to the display:

1. Remove the connector panel cover.
2. Using an S-Video cable, connect the S-Video output on the source device to the S-Video jack on the connector panel.
3. Using two RCA cables, connect the right (red) and left (white) audio outputs on the source to the corresponding AUDIO-IN jacks next to the VIDEO-IN jack.
4. Replace the connector panel cover.
Setting Up the Display

**Connecting to Component Video (Progressive Scan) Output Devices**

High-quality video devices, such as HDTV receivers and high-end DVD players, have component video outputs. Component video uses three RCA connections to transmit video information. Because the information is split into three signals, component video offers higher quality than either composite video or S-Video.

Progressive scan component video uses three signals labeled Y, Pb, and Pr. Use this procedure only for progressive scan video (video formats 480p, 525p, 720p, and so on). See the next section for information on connecting interlaced component video signals to the display.

**Note:** The two component video inputs (RCA and D4) share an audio input.

**To connect a progressive scan component video source to the display:**

1. Remove the connector panel cover.
2. Using the included D4-to-RCA cable (shown on page 2), connect the three component video outputs (Y, Pb, and Pr) on the output device to the D4 jack on the connector panel. On the output device, connect the green RCA connector to Y, the blue connector to Pb, and the red connector to Pr. Then connect the D4 connector to the D4 jack on the connector panel.
3. Using two RCA cables, connect the right (red) and left (white) audio outputs on the source to the corresponding AUDIO-IN jacks next to the component inputs on the connector panel.
4. Replace the connector panel cover.
Connecting to Component Video (Interlaced) Output Devices

Interlaced component video uses three signals labeled Y, Cb, and Cr. Use this procedure only for interlaced video (video formats 480i, 525i, 720i, and so on). See the previous section for information on connecting progressive scan signals to the display.

**Note:** The two component video inputs (RCA and D4) share an audio input.

**To connect an interlaced component video source to the display:**

1. Remove the connector panel cover.
2. Using three RCA cables, connect the three component video outputs (Y, Cb, and Cr) to the corresponding jacks on the connector panel.
3. Using two RCA cables, connect the right (red) and left (white) audio outputs on the source to the corresponding AUDIO-IN jacks next to the component inputs on the connector panel.
4. Replace the connector panel cover.

Connecting to a PC

Your display can be used as a computer monitor for any computer with a VGA or DVI video output. In addition, the computer’s audio output can be connected to the display and played through the display’s speakers.

**To connect a PC to the display:**

1. Set the video resolution on the computer to 1280 x 1024 or less before connecting to the display.

   In Windows, right-click on the desktop and select **Properties** to bring up the Display Properties window. Select the **Settings** tab. Adjust the **Screen resolution** as needed, select **Apply**, then select **OK**.
Setting Up the Display

In Mac OS X, select **System Preferences** under the Apple menu. Open the **Displays** panel and select the **Display** tab. Select the desired resolution from the list.

2. If your computer has a DVI output, connect a DVI cable between the DVI output on the computer and the DVI input on the bottom of the display.
   If your computer has a VGA output only, connect the VGA cable included in the Accessories Box between the VGA output on the computer and the VGA input on the display.

3. (OPTIONAL) Using the audio cable included in the Accessories Box, connect the computer's audio output (LINE OUT) to the audio input on the bottom of the display (LINE IN).
Operating the Display

Turning the Display On and Off
Once the DC power adapter is connected properly to the display and the wall outlet, the display may be turned on and off from the top of the display or the remote.

To turn the display on or off:
1. Press the POWER button.

Selecting the Video and Audio Source
The signal source may come from any of the inputs on the connector panel or the bottom of the display. The SOURCE button cycles through these.

To change the audio/video source:
1. Press the SOURCE button until the correct source is selected.
   The SOURCE button cycles through the following sources:
   • TV
   • HDTV (D4)
   • VGA
   • DVI
   • COMP (Component Video)
   • SV (S-Video)
   • AV (Composite Video)

Adjusting the Volume
The audio volume may be adjusted from the remote or the top of the display.

To change the volume:
1. Press the VOL ▲ and VOL ▼ buttons.

Selecting the Channel
The channel may be selected from the remote or the top of the display.

To change the channel:
1. Ensure the source is set to TV.
2. Press the CH ▲ and CH ▼ buttons.

To change to a particular channel directly:
1. Ensure the source is set to TV.
2. Enter the desired channel number on the remote keypad.
Operating the Display

**Accessing the On-Screen Display**

The On-Screen Display allows you to configure the operation of the display. You can change video and audio settings, activate and configure picture-in-picture (PIP) and closed captioning, select television channels, control access to mature programming, and configure other general display behavior. See “Configuring the Display” on page 15 for more information.

**To access the OSD**

1. Press the **MENU** button.
Using Your Display for the First Time

When you turn on your LCD for the first time, you will need to set up the display for proper operation by scanning the television spectrum for available channels.

Setting up Television Channels
If you are connecting directly to a wall jack or antenna (that is, if you are not using a cable box or satellite receiver), you should scan the signal spectrum to weed out channels with insufficient signal strength once the television signal is connected to the display. This will make it much easier to navigate through the channels.

To scan the signal spectrum:
1. Turn the display on using the **POWER** button.
2. Change the signal source to “TV” by repeatedly pressing the **SOURCE** button until “TV” shows in the top right corner of the screen.
3. Press the **MENU** button to bring up the On-Screen Display (OSD).
4. Press the **CH ▼** button until **TV SETUP** is highlighted, then press **SET** to enter the menu.
5. Press the **CH ▼** button until **BAND** is highlighted, then press the **VOL ▼** button until the appropriate selection shows: “AIR” for an antenna, “CATV” for cable TV.
6. Press the **CH ▼** button until **SCAN** is highlighted, then press the **SET** button to start scanning channels. The menu will display “SCAN” until the scan is complete.
7. Once the scan is complete, press **MENU** twice to exit the OSD.
Using the Remote Control

The remote control can be used to control every aspect of the display’s operation and includes more functionality than the controls on top of the display.

The following is a list of all buttons on the remote and their functions:

<table>
<thead>
<tr>
<th>Button</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>PWR</td>
<td>Turns the display on and off</td>
</tr>
<tr>
<td>Source</td>
<td>Selects the signal source: TV, HDTV, VGA, DVI, COMP, SV, AV</td>
</tr>
<tr>
<td></td>
<td>Used to enter numbers on the display and to select the television channel</td>
</tr>
<tr>
<td>RECALL</td>
<td>Returns to the previous channel</td>
</tr>
<tr>
<td>+100</td>
<td>Gives access to channels over 100. To use, press +100, then enter the last two digits of the desired channel number.</td>
</tr>
<tr>
<td></td>
<td>Selects the television channel</td>
</tr>
</tbody>
</table>
## Using the Remote Control

<table>
<thead>
<tr>
<th>Button</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>🎧</td>
<td>Adjusts the audio volume</td>
</tr>
<tr>
<td>VOL</td>
<td>Switches between three display formats: Aspect (4:3), Panorama (15:9), and Fill (16:9)</td>
</tr>
<tr>
<td>ZOOM</td>
<td>Selects the PIP mode: Off, Standard PIP, PNP1, or PNP2</td>
</tr>
<tr>
<td>PIP</td>
<td>Mutes the audio</td>
</tr>
<tr>
<td>SLEEP</td>
<td>Sets the display sleep timer. The timer can be turned off or set to 30, 60, or 90 minutes.</td>
</tr>
<tr>
<td>DISPLAY</td>
<td>Displays current source and television channel information</td>
</tr>
<tr>
<td>SOUND</td>
<td>Selects the sound enhancement mode: Off, Stereo Simulation, Surround 1, or Surround 2</td>
</tr>
<tr>
<td>BRID +</td>
<td>Adjusts the display brightness</td>
</tr>
<tr>
<td>SET</td>
<td>Selects the highlighted item or confirms the current adjustment</td>
</tr>
<tr>
<td>MENU</td>
<td>Brings up the On-Screen Display</td>
</tr>
<tr>
<td>SOURCE</td>
<td>When PIP is active, selects the signal source used for the secondary PIP window</td>
</tr>
<tr>
<td>POS</td>
<td>When PIP is active and set to Standard PIP mode, this button adjusts the position of the secondary PIP window.</td>
</tr>
<tr>
<td>SIZE</td>
<td>When PIP is active and set to Standard PIP mode, this button adjusts the size of the secondary PIP window.</td>
</tr>
<tr>
<td>SWAP</td>
<td>When PIP is active, swaps the primary and secondary sources</td>
</tr>
</tbody>
</table>

**Note:** If there is no signal connected to the secondary source, the PIP secondary window will not appear when in Standard PIP mode.
Using the Remote Control

The signal sources available for the PiP secondary window depend on the currently selected primary source (that is, the source displayed in the main window). For example, if TV is selected as the primary source, you can set the secondary window to display video from the HDTV, VGA, or DVI source, but not from the TV, Comp, SV, or AV sources.

The table below gives all possible PiP primary/secondary source combinations.

<table>
<thead>
<tr>
<th>Secondary Video Source</th>
<th>TV</th>
<th>HDTV</th>
<th>VGA</th>
<th>DVI</th>
<th>Comp</th>
<th>SV</th>
<th>AV</th>
</tr>
</thead>
<tbody>
<tr>
<td>TV</td>
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<td>•</td>
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<tr>
<td>HDTV</td>
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<td>•</td>
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<tr>
<td>VGA</td>
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<td>•</td>
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<td>•</td>
<td>•</td>
<td>•</td>
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<tr>
<td>DVI</td>
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<td>•</td>
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<tr>
<td>Comp</td>
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<td>SV</td>
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<tr>
<td>AV</td>
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</tr>
</tbody>
</table>
The On-Screen Display (OSD) allows you to configure the operation of the LCD. You can change video and audio settings, activate and configure picture-in-picture (PIP) and closed captioning, select television channels, control access to mature programming, and configure other general display behavior.

The menu structure varies depending on the selected signal source. The table below gives the available options for each source.

<table>
<thead>
<tr>
<th></th>
<th>TV</th>
<th>HDTV</th>
<th>VGA</th>
<th>DVI</th>
<th>Comp</th>
<th>SV</th>
<th>AV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Video Adjust</td>
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<td>•</td>
<td>•</td>
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<tr>
<td>Audio Adjust</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Language Setup</td>
<td>•</td>
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<td>•</td>
<td>•</td>
<td>•</td>
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<td>•</td>
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<tr>
<td>Closed Caption</td>
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<td>•</td>
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<tr>
<td>V-Chip Block</td>
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<tr>
<td>TV Setup</td>
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<tr>
<td>Reset</td>
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</tbody>
</table>

To use the OSD:
1. Press the MENU button on the remote or the top of the display.
2. Once the OSD appears, use the CH ▲ and CH ▼ buttons to navigate the menu items.
3. Press the SET button on the remote or the ENTER button on the top of the display to select the desired item.
4. If an arrow is displayed to the right of the item name, a sub-menu will appear upon pressing SET. Repeat steps 2 and 3 to navigate the sub-menu.
5. If the selected item is an adjustable parameter, use VOL ▲ and VOL ▼ to adjust the parameter and then press SET to accept.
6. Press MENU to return to the previous menu and, finally, exit the OSD.
Configuring the Display

**Video Adjust**
The Video Adjust menu allows you to change the parameters used in displaying video.

The menu structure varies depending on the selected signal source. The table below gives the available options for each source.

<table>
<thead>
<tr>
<th>Display</th>
<th>HDTV</th>
<th>VGA</th>
<th>DVI</th>
<th>Comp</th>
<th>SV</th>
<th>AV</th>
</tr>
</thead>
<tbody>
<tr>
<td>TV</td>
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<td>Color</td>
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<tr>
<td>Image</td>
<td>⋅</td>
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<td>⋅</td>
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<tr>
<td>Zoom</td>
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<td>⋅</td>
<td>⋅</td>
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<tr>
<td>Position</td>
<td>⋅</td>
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<tr>
<td>Sub-Picture</td>
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</tr>
</tbody>
</table>

**Display**
A sub-menu used to adjust display parameters. The parameters are

- **Brightness**—Adjusts the brightness of the image
- **Contrast**—Adjusts the variation between light and dark

**Color (Source: TV, HDTV, Comp, SV, AV)**
A sub-menu used to adjust the color space used for motion picture video. The parameters are

- **Hue**—Adjusts the range of colors available
- **Saturation**—Adjusts the intensity of the colors displayed
Configuring the Display

Color (Source: VGA, DVI)
Used to adjust the color space used for computer video. The options are

- **sRGB**—Turns standard RGB color on and off. When this is on, the other menu items are disabled.
- **Gamma**—Adjusts the intensity correction used by the display. The options are 1.8, 2.2, 2.4. This menu item is disabled when Temperature is set to User.
- **Temperature**—Sets the color temperature used for white. The options are 6500K, 9300K, User (VGA only), and Off (DVI only).
- **Red** (VGA Only)—When Temperature is set to User, this sets the amount of red in the display's white.
- **Green** (VGA Only)—When Temperature is set to User, this sets the amount of green in the display's white.
- **Blue** (VGA Only)—When Temperature is set to User, this sets the amount of blue in the display's white.

Image (Source: TV, HDTV, Comp, SV, AV)
A sub-menu used to set options regarding processing of motion picture images to remove artifacts and noise. The options are

- **Noise Reduction**—Sets the amount of noise reduction used to filter out static. The options are Off, Low, Med, and High.
- **Angle Filtering**—Turns anti-aliasing on and off. This feature removes jagged lines from video images for a better picture.
- **Sharpness**—Adjusts image sharpness
- **Film Mode**—Removes artifacts from 2:2 and 3:2 pulldown material

Image (Source: VGA)
Used to set VGA image display options. The parameters are

- **Auto Adjust**—Adjusts automatically to the incoming VGA signal
- **Phase**—Adjusts the clock phase used to read the incoming signal
- **Clock**—Adjusts the clock frequency used to read the incoming signal
Configuring the Display

**Zoom (Source: TV, HDTV, Comp, SV, AV)**
Sets the display format used, using the following parameters:

- **Zoom**—Zooms in on the image. To zoom in, select IN with the VOL \( \uparrow \) button and press SET. To zoom out, do the same with OUT.
- **Horizontal Pan**—Moves the zoom window right and left. This menu item will only appear when Zoom is set to IN. To use, select the desired direction with the VOL \( \uparrow \) and VOL \( \downarrow \) buttons and press SET to move the window.
- **Vertical Pan**—Moves the zoom window up and down. This menu item will only appear when Zoom is set to IN. To use, select the desired direction with the VOL \( \uparrow \) and VOL \( \downarrow \) buttons and press SET to move the window.

**Position (Source: VGA)**
A sub-menu used to adjust the VGA image position. The parameters are

- **Horizontal**—Adjusts the horizontal position of the image.
- **Vertical**—Adjusts the vertical position of the image.

**Sub-Picture**
A sub-menu used to adjust the position of the PIP sub-picture. The parameters are

- **Horizontal**—Adjusts the horizontal position of the sub-picture.
- **Vertical**—Adjusts the vertical position of the sub-picture.

**Audio Adjust**
This menu sets audio playback parameters, as follows:

- **Balance**
  Adjusts the relative volumes of the left and right speakers.
- **Bass**
  Sets the volume of low frequencies.
- **Treble**
  Sets the volume of high frequencies.
Configuring the Display

**Language Setup**
This menu sets the language used for information displayed on the screen. The options are as follows:

- **English**
- **French**
- **Spanish**

**Closed Caption**
(Source: TV, Comp, SV, AV)
The Closed Caption menu turns closed captioning on and off and allows you to set options used in displaying it. Closed captioning is a system used to broadcast text, such as subtitles and other information, along with video.

**Mode**
Sets the closed captioning mode used. The options are

- **Off**—No closed captioning
- **Caption**—Used for subtitles. This mode displays only a few lines of text at the bottom of the screen.
- **Text**—Displays more detailed textual information broadcast with the video. This mode displays text across most of the screen.

**Data**
Selects the closed captioning channel displayed on the screen. The options are

- **CH1**—Closed caption channel 1
- **CH2**—Closed caption channel 2
Configuring the Display

**V-Chip Block**
(Source: TV, Comp, SV, AV)

The V-Chip blocks access to mature programming unless a password is entered to bypass it. The V-Chip Block menu allows you to change the password and select which content should be blocked.

Upon entering the V-Chip Block menu, the display asks for the current password. Once the password is entered, you may adjust the V-Chip settings. The factory default password is ‘1234’.

Upon leaving the menu, the display will ask for a new password. Either enter a new password or press MENU to exit and leave the password as is.

The sub-menus are as follows:

**MPAA**

- **G**—General audiences (all ages)
- **PG**—Parental guidance suggested (some material may not be suitable for children)
- **PG-13**—Parents strongly cautioned (some material may not be suitable for children under 13)
- **R**—Restricted (minors under 17 require an accompanying parent or adult guardian)
- **NC-17**—No one under 17 admitted
- **X**—Adults only (no one under 17 admitted)
Configuring the Display

**TV Guidelines**
This sub-menu allows you to block mature content by its TV Parental Guideline rating. The information is displayed in a table, where ‘U’ means unblocked and ‘B’ means blocked. The rows represent rating categories, and the columns represent specific types of mature content that may be blocked for each rating category. When a rating is blocked, all higher ratings will automatically be blocked as well.

The rows are:
- **Unblock**—Blocks or unblocks all rating levels
- **TV-Y**—All children
- **TV-Y7**—Children 7 years and older
- **TV-G**—General audience
- **TV-PG**—Parental guidance suggested
- **TV-14**—Parents strongly cautioned
- **TV-MA**—Mature audience only

The columns are:
- **All**—All content types
- **FV**—Fantasy violence
- **V**—Violence
- **S**—Sexual situations
- **L**—Coarse language
- **D**—Suggestive dialog

**TV Setup**
(Source: TV)
The TV Setup menu allows you to adjust television reception and display parameters, including which channels are available for viewing. The options are as follows:

**Band**
Selects the type of TV signal connected to the display. The options are:
- **Air**—TV signal received by an antenna
- **CATV**—Cable TV
- **CATV-HRC**—A form of cable TV mainly used on the west coast of the US
- **CATV-IRC**—A form of cable TV mainly used on the east coast of the US
Configuring the Display

**Scan**
Scans all television channels for those with strong signals and disables the rest.

**Adjust Ch**
Allows you to adjust the television channel without exiting the OSD.

**Fine Tune**
Adjusts the center frequency used for the current channel. This feature can help improve reception on channels with weak reception.

**Add/Delete**
Adds or removes the currently selected channel from the group available for viewing. The options are:
- **Add**—The current channel is available for viewing.
- **Delete**—The current channel is not available for viewing.

**Sound**
Selects which broadcast sound channel the display plays back. The options are:
- **Mono**—One-channel sound
- **Stereo**—Two-channel sound (left and right)
- **SAP**—Secondary Audio Programming. Used mainly for foreign language broadcasts

**Blanking**
Determines which color is used to flood the screen when a channel contains nothing but static. The options are:
- **Blue**
- **Black**

**Reset**
This menu resets display options to their factory settings. Two options are available:
- **Factory Reset**
  Resets all display settings to factory defaults
- **Color Reset**
  Resets the color space to the factory default
# Troubleshooting

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Possible Cause</th>
<th>Resolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>No picture (power indicator does not light up)</td>
<td>Power cord(s) not securely connected</td>
<td>Make sure the power cable from the DC Power Adapter is firmly inserted into the socket on the display. Make sure the power cord from the wall is connected securely to the DC Power Adapter and wall outlet.</td>
</tr>
<tr>
<td>No picture (power indicator is amber)</td>
<td>Power outlet is off or not working</td>
<td>If the power outlet is working, the blue light on the DC Power Adapter will come on when it is plugged in. If it doesn’t, try plugging a different device into the outlet and see if it turns on. If not, check that the outlet is on or use a different outlet.</td>
</tr>
<tr>
<td>No picture (power indicator is red)</td>
<td>The display is in power-saving mode</td>
<td>If in VGA or DVI mode, press a key on the keyboard or move the mouse. Otherwise, press a button on the remote.</td>
</tr>
<tr>
<td></td>
<td>The display is off</td>
<td>Press the <strong>POWER</strong> button on the remote or on top of the display.</td>
</tr>
<tr>
<td>No picture (power indicator is green)</td>
<td>No signal</td>
<td>Make sure the proper source is selected. If there is still no picture, check the signal cable(s) and signal source.</td>
</tr>
<tr>
<td></td>
<td>Contrast or brightness too low</td>
<td>Adjust the contrast and/or brightness until picture appears.</td>
</tr>
<tr>
<td></td>
<td>Signal cable(s) not securely connected</td>
<td>Make sure the signal cable(s) are firmly connected.</td>
</tr>
<tr>
<td></td>
<td>Signal source is off</td>
<td>Make sure the device supplying the video signal is on and operational.</td>
</tr>
<tr>
<td></td>
<td>Poor TV signal</td>
<td>Check the TV signal. If using an antenna, adjust the position for better signal. If using cable or satellite TV, contact your service provider.</td>
</tr>
</tbody>
</table>
### Troubleshooting

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Possible Cause</th>
<th>Resolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unclear or noisy picture</td>
<td>Signal cable(s) not securely connected</td>
<td>Make sure the signal cable(s) are firmly connected.</td>
</tr>
<tr>
<td>Poor TV signal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Radio interference</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Displayed color is incorrect</td>
<td>Incorrect color settings</td>
<td>Adjust the settings in the <strong>Display</strong>, <strong>Color</strong>, and <strong>Image</strong> sub-menus under the <strong>Video Adjust</strong> menu in the OSD (see “Configuring the Display” on page 15).</td>
</tr>
<tr>
<td>No sound</td>
<td>Audio cable(s) not securely connected</td>
<td>Make sure the audio signal cable(s) are firmly connected.</td>
</tr>
<tr>
<td></td>
<td>Headphones plugged in</td>
<td>Unplug the headphones.</td>
</tr>
<tr>
<td></td>
<td>Audio muted</td>
<td>Unmute the audio by pressing the <strong>MUTE</strong> button on the remote.</td>
</tr>
<tr>
<td>Display is too dark or too bright</td>
<td>Contrast or brightness too low or too high</td>
<td>Adjust the contrast and/or brightness to desired setting.</td>
</tr>
<tr>
<td>Display not centered</td>
<td>Position incorrectly adjusted in OSD</td>
<td>Adjust the image position in the <strong>Position</strong> sub-menu under the <strong>Video Adjust</strong> menu in the OSD (see “Configuring the Display” on page 15).</td>
</tr>
<tr>
<td>Image vibrating</td>
<td>Signal cable(s) not securely connected</td>
<td>Make sure the signal cable(s) are firmly connected.</td>
</tr>
<tr>
<td></td>
<td>Power voltage too high or too low</td>
<td>Check the power source to make sure it matches the display specification. Try a different power outlet on a different circuit.</td>
</tr>
<tr>
<td>After-image remains on screen after display is turned off</td>
<td>Inherent LCD characteristics</td>
<td>This is characteristic of an LCD. The after-image will disappear after a few minutes.</td>
</tr>
<tr>
<td>Distorted image</td>
<td>Display format set incorrectly</td>
<td>Check that the correct display format is selected by pressing the <strong>ZOOM</strong> button on the remote.</td>
</tr>
</tbody>
</table>
## Troubleshooting

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Possible Cause</th>
<th>Resolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;Not support mode&quot; message on screen</td>
<td>VGA or DVI input signal is not in a supported mode</td>
<td>Adjust the resolution and refresh rate on the PC to match a supported mode, listed in the <em>Specifications</em> section.</td>
</tr>
<tr>
<td>Red, green, blue, or white dots on screen</td>
<td>Inherent LCD characteristics</td>
<td>This is characteristic of an LCD and will not cause a malfunction.</td>
</tr>
<tr>
<td>Remote control not functioning</td>
<td>Batteries inserted improperly</td>
<td>Make sure the batteries are inserted and oriented properly.</td>
</tr>
<tr>
<td></td>
<td>Batteries low on energy</td>
<td>Replace the batteries.</td>
</tr>
<tr>
<td></td>
<td>A button is stuck</td>
<td>Jog any stuck buttons on the remote to unstick them.</td>
</tr>
<tr>
<td></td>
<td>Obstacle between remote and display</td>
<td>Remove the obstacle.</td>
</tr>
<tr>
<td></td>
<td>The remote is too far from the display</td>
<td>Move closer to the display.</td>
</tr>
</tbody>
</table>

**Note:** Further troubleshooting information may be found on the Protron website at [www.protronusa.com](http://www.protronusa.com).

### Support Information

Do not return this product to your retailer until you have performed the steps laid out in the Easy Setup Instructions and contacted the customer service center. Merchandise may not be returned to Protron without a return form authorization.

Before contacting Protron customer service, please record the following information, which may be found on the back of your display:

- Model Number
- Serial Number
- Date of Manufacture

The Protron customer service center may be contacted 24 hours a day, 7 days a week at the following number:

**1-888-257-8899**
### Specifications

#### General

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions</td>
<td>40.5”W × 20.5”H × 11”D w/ stand and speakers</td>
</tr>
<tr>
<td>Weight</td>
<td>38.8 lbs</td>
</tr>
<tr>
<td>Panel Type</td>
<td>Active Matrix TFT LCD</td>
</tr>
<tr>
<td>Screen Size</td>
<td>32” wide-screen (16:9)</td>
</tr>
<tr>
<td>Color Range</td>
<td>24 bits (16.7 million colors)</td>
</tr>
<tr>
<td>Max. Resolution</td>
<td>1366 × 768</td>
</tr>
<tr>
<td>Pixel Pitch</td>
<td>0.51075mm (H) × 0.51075mm (V)</td>
</tr>
<tr>
<td>Sync Range</td>
<td>Horizontal: 30–80kHz</td>
</tr>
<tr>
<td></td>
<td>Vertical: 50–75Hz</td>
</tr>
<tr>
<td>Contrast Ratio</td>
<td>800:1</td>
</tr>
<tr>
<td>Brightness</td>
<td>500 cd/m²</td>
</tr>
<tr>
<td>Viewing Angle</td>
<td>Vertical: +/-85°</td>
</tr>
<tr>
<td></td>
<td>Horizontal: +/-85°</td>
</tr>
<tr>
<td>Response Time</td>
<td>Rise: 6ms</td>
</tr>
<tr>
<td></td>
<td>Fall: 10ms</td>
</tr>
<tr>
<td>Inputs</td>
<td>1 x component video (RCA)</td>
</tr>
<tr>
<td></td>
<td>1 x component video (D4)</td>
</tr>
<tr>
<td></td>
<td>1 x composite video (RCA)</td>
</tr>
<tr>
<td></td>
<td>1 x S-Video</td>
</tr>
<tr>
<td></td>
<td>2 x stereo audio (RCA)</td>
</tr>
<tr>
<td></td>
<td>1 x SVGA (15-pin D-Sub)</td>
</tr>
<tr>
<td></td>
<td>1 x DVI-D (single link)</td>
</tr>
<tr>
<td></td>
<td>1 x stereo audio line in, 0 dBV nominal (1/8” TRS)</td>
</tr>
<tr>
<td>Outputs</td>
<td>1 x headphone (1/8” TRS)</td>
</tr>
<tr>
<td>TV Tuner</td>
<td>NTSC-M, CATV, 181 channels</td>
</tr>
<tr>
<td>TV Formats Supported</td>
<td>SDTV: 480i</td>
</tr>
<tr>
<td></td>
<td>EDTV: 480p</td>
</tr>
<tr>
<td></td>
<td>HDTV: 720p, 1080i</td>
</tr>
<tr>
<td>TV Audio</td>
<td>MTS (mono, stereo, SAP), SRS</td>
</tr>
<tr>
<td>Parental Controls</td>
<td>V-Chip (TV PG, MPAA)</td>
</tr>
<tr>
<td>Picture-In-Picture</td>
<td>PIP</td>
</tr>
<tr>
<td>Closed Captioning</td>
<td>CC1–2, TEXT1–2</td>
</tr>
<tr>
<td>Speakers</td>
<td>2 x 10W</td>
</tr>
<tr>
<td>Plug and Play Compliance</td>
<td>VESA DDC1/DDC2B</td>
</tr>
<tr>
<td>DC Power Adapter</td>
<td>Input: 100–240VAC, 50–60Hz</td>
</tr>
<tr>
<td></td>
<td>Output: 12/16VDC</td>
</tr>
<tr>
<td>Power Consumption</td>
<td>100W typ.</td>
</tr>
<tr>
<td></td>
<td>120W max.</td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>0 to 60°C</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>5 to 35°C</td>
</tr>
</tbody>
</table>
### Supported VGA Timing Modes

<table>
<thead>
<tr>
<th>Display Resolution</th>
<th>Vertical Frequency (Refresh Rate) Hz</th>
<th>Horizontal Frequency kHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>640 × 350</td>
<td>60.00</td>
<td>31.47</td>
</tr>
<tr>
<td></td>
<td>70.00</td>
<td>31.47</td>
</tr>
<tr>
<td></td>
<td>85.08</td>
<td>37.86</td>
</tr>
<tr>
<td>640 × 400</td>
<td>70.00</td>
<td>31.47</td>
</tr>
<tr>
<td></td>
<td>85.00</td>
<td>37.86</td>
</tr>
<tr>
<td>640 × 480</td>
<td>60.00</td>
<td>31.50</td>
</tr>
<tr>
<td></td>
<td>72.80</td>
<td>37.86</td>
</tr>
<tr>
<td></td>
<td>75.00</td>
<td>37.50</td>
</tr>
<tr>
<td></td>
<td>85.00</td>
<td>43.27</td>
</tr>
<tr>
<td>800 × 600</td>
<td>56.30</td>
<td>35.15</td>
</tr>
<tr>
<td></td>
<td>60.32</td>
<td>37.90</td>
</tr>
<tr>
<td></td>
<td>72.19</td>
<td>48.08</td>
</tr>
<tr>
<td></td>
<td>75.00</td>
<td>46.90</td>
</tr>
<tr>
<td></td>
<td>85.06</td>
<td>53.70</td>
</tr>
<tr>
<td>832 × 624</td>
<td>74.53</td>
<td>47.71</td>
</tr>
<tr>
<td>1024 × 768</td>
<td>60.00</td>
<td>48.08</td>
</tr>
<tr>
<td></td>
<td>70.00</td>
<td>56.50</td>
</tr>
<tr>
<td></td>
<td>75.00</td>
<td>60.00</td>
</tr>
<tr>
<td></td>
<td>85.00</td>
<td>68.70</td>
</tr>
<tr>
<td>1152 × 876</td>
<td>75.06</td>
<td>68.68</td>
</tr>
<tr>
<td>1280 × 768</td>
<td>60.00</td>
<td>47.70</td>
</tr>
<tr>
<td>1280 × 1024</td>
<td>60.02</td>
<td>63.98</td>
</tr>
<tr>
<td></td>
<td>70.00</td>
<td>74.62</td>
</tr>
<tr>
<td></td>
<td>75.03</td>
<td>79.98</td>
</tr>
<tr>
<td></td>
<td>85.02</td>
<td>91.15</td>
</tr>
<tr>
<td>1600 × 1200</td>
<td>60.00</td>
<td>75.00</td>
</tr>
</tbody>
</table>
Limited Warranty

Protron warrants this product to be free from manufacturing defects in material and workmanship under normal use for the period listed at the bottom of this section.

How to obtain service:

- Call the Protron Customer Support line at 1-888-257-8899. If the issue cannot be resolved over the phone, a service tag number will be issued, and the nearest authorized Protron Service Center will be identified for you.
- For televisions with screen sizes of 26" or less, you will be requested to bring your unit into the authorized service center and pick up when repairs are complete.
- For televisions with screen sizes 27" and above, you may request in-home service from an authorized Protron Service Center, provided that your television is located within the geographic territory covered by an authorized Protron Service Center. If in-home service is not available in your area, you must take your television to the Service Center location at your own expense, or pay for the additional cost that the Service Center may charge to transport your television to and from your home.
- Proof of purchase in the form of a bill of sale or receipted invoice with product name, model and/or serial #, which provides evidence that the product is within the warranty period, must be presented to obtain warranty service.

This warranty does not cover:

- Physical or cosmetic damages.
- Damage caused by abuse and/or neglect.
- Ordinary adjustments as outlined in the owners manual that can be performed by the customer.
- Damage to equipment not properly connected to the product.
- Any cost incurred in shipping the product for repair.
- Signal reception problems caused by external antenna, cable systems or interference.
- Incompatibility due to a change in TV/CATV broadcast systems after the product was sold.
- Batteries.
- Images burnt on to the screen.
- Initial installation and related adjustments.
- Power surge and/or damage by lightning.
- Force majeure or uncontrollable external force damage.
- Product shipped for service with inadequate packaging or packaging materials.

What we will do:

- Protron will reimburse an authorized Protron Service Center the labor charges to repair your television.
- Protron will reimburse an authorized Protron Service Center for the new, or at our discretion, refurbished replacement parts required to repair your television.
Limited Warranty

This warranty is void if:

- Product is used in a commercial application or rental.
- Damaged through misuse, negligence or abuse.
- Modified or repaired by anyone other than authorized PROTRON service center.
- Damaged because it is improperly connected to any other equipment.
- If the original proof of purchase cannot be supplied.
- If the identifiable markings on the TV such as Serial # are defaced, unrecognizable, or missing.
- The product is used outside the country in which it was originally sold.

This warranty is not transferable and only applies to the original purchase. Any implied warranties, including the warranty of merchantability, are limited in duration to the period of this expressed warranty and no warranty whether expressed or implied shall apply to the product thereafter. Under no circumstance shall PROTRON be liable for any loss or consequential damage arising out of the use of this product. This warranty gives specific legal right. However, you may have other rights that may vary from state/province to state/province. Some states/provinces do not allow limitations on implied warranties or exclusions of consequential damage. Therefore these restrictions may not apply to you.

26" and below: 1 year parts/labor Depot Warranty
27" and above: 1 year parts/labor In-home Warranty