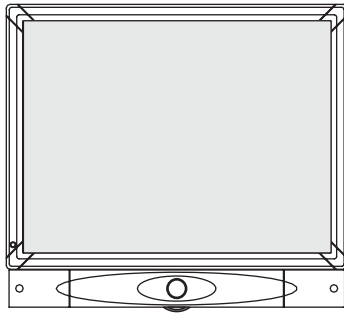


GE
Security

Public View Monitor User Manual



imagination at work

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Introduction

This is the *GE Public View Monitor User Manual* for model PVM-20HS. This document includes detailed instructions explaining:

- how to install;
- how to program; and
- how to operate.

There is also information describing how to contact technical support if you have questions. To use this document effectively, you should meet the following minimum qualifications:

- a basic knowledge of electrical wiring and low-voltage electrical connections; and
- a basic knowledge of CCTV systems and components.

Read these instructions and all ancillary documentation entirely before installing or operating this product. Refer to *Online publication library* on page 54 for instructions on accessing our online publication library.

Note: A qualified service person, complying with all applicable codes, should perform whatever hardware installation is required.

Conventions used in this manual

The following conventions are used in this document:

Bold	Menu items and buttons.
<i>Italic</i>	Titles of books and various documents.
	Emphasis of an instruction or point; special terms
	Windows, panes, tabs, fields, variables, and other GUI elements.
Monospace	Text that displays on the computer screen.
	File names, path names, or coding sequences.
<i>Blue italic</i>	Hyperlinks to cross-references, related topics, and URL addresses.

Safety terms and symbols

These terms may appear in this manual:



Improper use may cause equipment damage.

Caution statements identify conditions or practices that may result in damage to the equipment or other property.



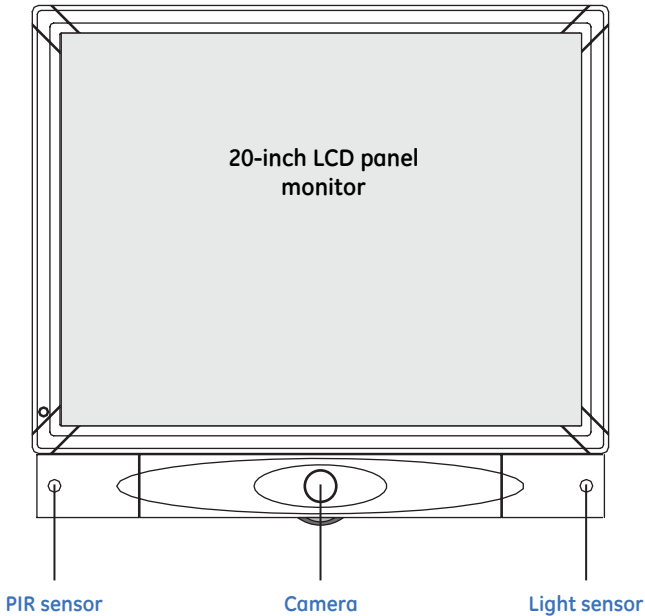
Improper use could cause equipment damage or serious personal injury.

Warning statements identify conditions or practices that could result in equipment damage or serious personal injury.

Overview

The Public View Monitor is a surveillance system that also shares your advertising and multimedia presentations with your customers. It comes equipped with a 20-inch LCD panel, built-in camera, PIR sensor, light sensor, and multimedia card. You program the display to switch between your presentations and surveillance video when human motion and body heat triggers the PIR. A light sensor can be used to put the monitor into a sleep mode when room lights are turned off.

Figure 1. Front view of the Public View Monitor



Product contents

The Public View Monitor system consists of the following:

- 20-inch LCD flat panel monitor and camera assembly (with integrated PIR sensor, light sensor, and multimedia drive)
- remote controller
- standard AC power cord
- manual

Inspect the package and contents for visible damage. If any components are damaged or missing, do not use the unit; contact the supplier immediately. If the unit needs to be returned, it must be shipped in the original box.

Customer-supplied parts

Required

- Appropriate mounting fasteners that support the weight of the unit, the mount or bracket, and any structural or environmental vibration according to local codes

Optional

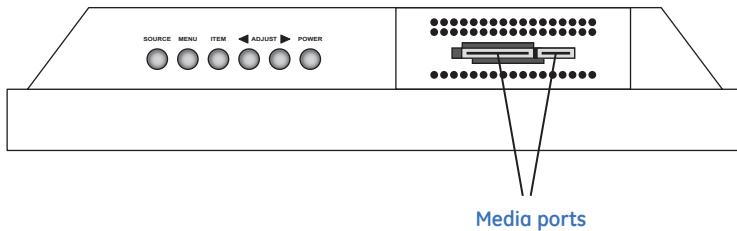
- Mounting bracket (sold separately)
- Standard coaxial video cable terminated with BNCs, if needed for additional video inputs/outputs
- Standard audio cable terminated with RCAs, if needed for audio inputs/outputs
- Standard S-Video (Y/C) cable terminated with 4-pin DIN connectors (auto termination for looping output cable), if needed for S-Video (Y/C) input/output
- Regulated direct plug-in UL listed power supply marked Class 2 or LPS (limited power source) of output rating 500 mA, if needed to power additional cameras

Acceptable multimedia

You can transfer media files to your system from a variety of media sources, such as digital cameras, camcorders, MP3 players, and computers. The various flash cards, except the IBM Micro Drive card, are hot-swappable. Which means that you do not have to turn the system off to insert or remove the cards. In general, handle flash cards as follows:

- Gently insert the appropriate card into the appropriate socket. There are two sockets. See *Figure 2*.
- Ensure that the card is seated. Cards do protrude from the top of the monitor when properly seated.
- When removing the cards, pull them straight up and out.

Figure 2. Media ports in the top of the monitor



There are two multimedia ports in the top of the monitor. One is significantly smaller than the other. They accept the following flash memory card types:

- CompactFlash™ I/II (CF)
- SmartMedia™ (SM)
- Secure Digital Card (SD)
- MultiMediaCard (MMC)
- Memory Stick™ (MS)
- Memory Stick Pro™ (MS Pro)
- IBM Micro Drive (Using an IBM Micro drive requires that you turn off the LCD monitor before removing the drive to avoid damaging the memory card.)

Installation

The Public View Monitor system can be a standalone surveillance system with its integrated camera, monitor, PIR, and light sensor, or you can attach additional devices and expand its functionality to provide multimedia, digital recording, audio, and additional video inputs. See [Basic system cabling](#) on page 11 and [Advanced system cabling](#) on page 13.

The Public View Monitor needs to be mounted to a wall or ceiling using an appropriate mount to stabilize and support it. See [Figure 4](#) and [Figure 5](#).

Install the mount and unit

See [Figure 3](#), [Figure 4](#), and [Figure 5](#) and do the following:

1. Using the base of the wall ([Figure 4](#)) or ceiling ([Figure 5](#)) mount, or the dimensions given in [Figure 3](#) as a template, mark the position of the mounting holes and cable entry hole (if necessary) on the mounting surface.
2. Following all building and fire codes, drill the mounting holes and cut a cable entry hole (if necessary).
3. Adjust the length of the mount.
 - For the wall mount, attach the universal joint and none, one, or two arm extensions between the monitor plate and wall bracket using the bolts and locking washers provided.
 - For the ceiling mount, remove the screw that secures the two telescoping sections, collapse or extend the telescoping sections, and reinstall the screw.
4. Feed the unit's cables through the cable entry hole and the mount.

5. Attach the mount to the mounting surface with the appropriate fasteners.

If fasteners were provided, use them. Fasteners must support the weight of the unit (20 pounds (9 kg)), the mount, and any structural or environmental vibration according to local codes.

6. Attach the back of the monitor to the monitor plate.

If fasteners were provided, use them. Fasteners must support the weight of the unit (20 pounds (9 kg)) and any structural or environmental vibration according to local codes.

Figure 3. Mounting holes on the back of the unit

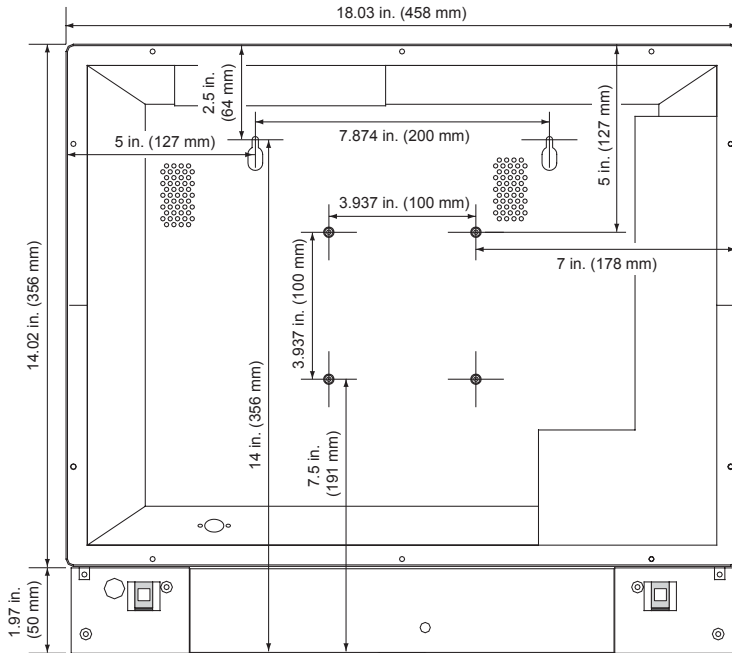


Figure 4. Wall mount

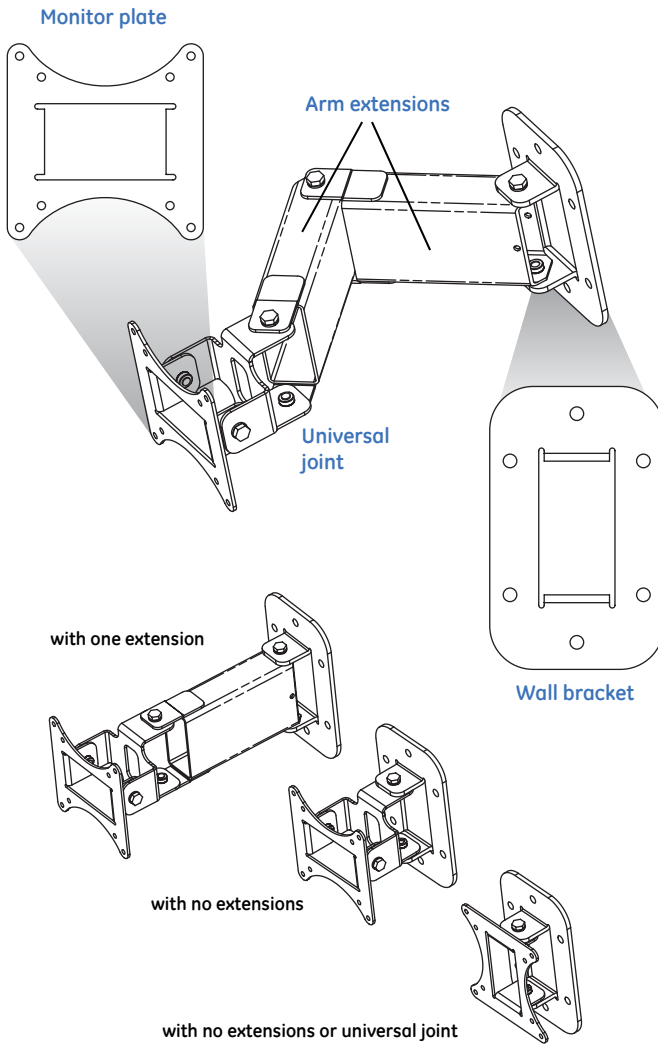
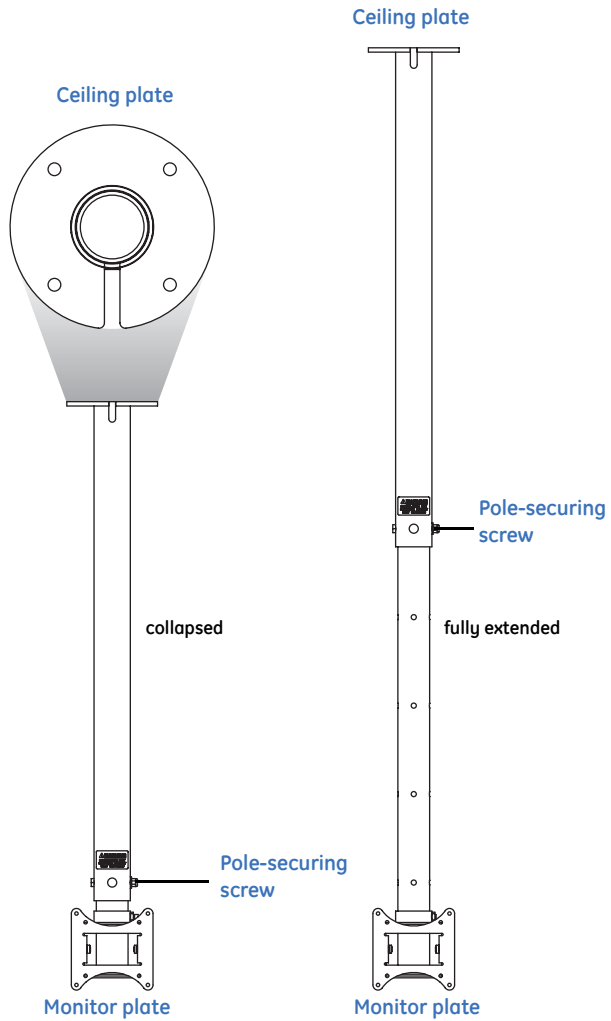


Figure 5. Ceiling mount



Connect the cables

Connect the basic cabling for all systems. With the basic cabling, you can operate your system as a standalone surveillance system with the integrated camera and monitor. See *Basic system cabling* on page 11. Connect additional devices, as described in *Advanced system cabling* on page 13, to expand your system's multimedia, audio, ancillary, and digital recording functionalities.

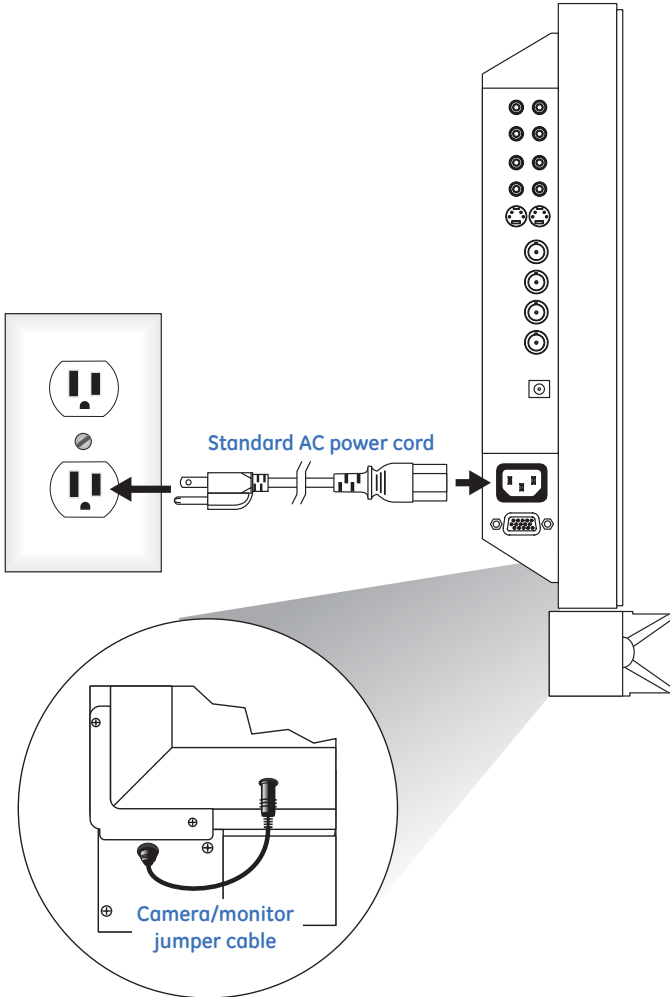
Basic system cabling

The basic system provides you with a standalone surveillance system that contains an integrated camera, monitor, PIR, and light sensor. It also contains two internal speakers that provide audio within the immediate area. You can amplify the internal speakers or attach additional speakers. See *Advanced system cabling* on page 13.

See *Figure 2* and do the following:

1. Ensure that the camera/monitor jumper cable is still securely attached. It is located on the back of the system in the lower left-hand corner.
2. Connect the standard AC power cord (provided) to the system power connector.
3. Connect the system to an approved power source.

Figure 6. Basic system cabling



Advanced system cabling

The advanced system expands your standalone surveillance system by attaching multimedia, audio, digital recording, and ancillary video devices.

The internal camera and multimedia drive have priority over other devices that you may connect to the AUX1 and AUX2 ports. You must remove the camera/monitor jumper cable to access video from the AUX1 ports. You must remove all flash cards from both multimedia drive card slots to access video from the AUX2 ports.

There are several ways you can enter your multimedia into the system: the computer VGA input, the S-Video Y/C input, and the CompactFlash card input. When using the VGA input, your LCD monitor clearly displays all of your computer programs, unlike typical CCTV monitors.

When supplying your own 500 mA power supply for additional cameras that you may attach to your system, comply with the following precaution.

**CAUTION**

Use regulated direct plug-in UL listed power supplies marked Class 2 or LPS (limited power source) of the required output rating as listed on the unit.

*Direct plug-in refers to a power supply that has prongs to plug directly into the power source.

See *Figure 7* on page 14 and *Figure 8* on page 15, and do the following:

1. Ensure that the camera/monitor jumper cable is still securely attached, unless you will be using the AUX1 ports for other video devices. The jumper cable is located on the back of the system in the lower left-hand corner. See *Figure 6*.
2. Connect the standard AC power cord (provided) to the system power connector.

3. Connect the system to an approved power source.
4. If additional cameras are attached to the system, connect the recommended power supply to power them.
5. Connect all ancillary cameras, monitors, VCRs, DVD players, digital recorders, or computer where shown.

Figure 7. Advanced system cabling (left side and miscellaneous connections)

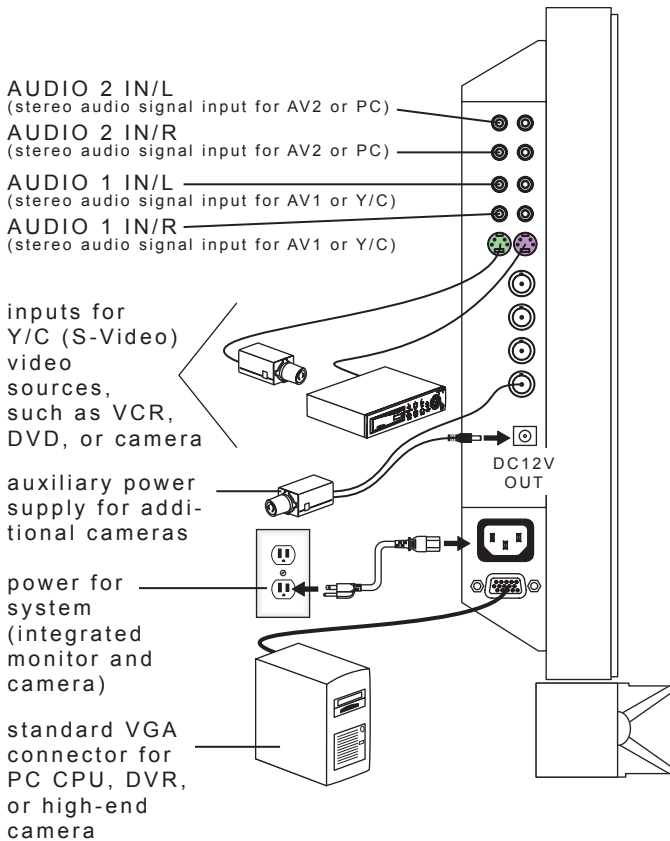
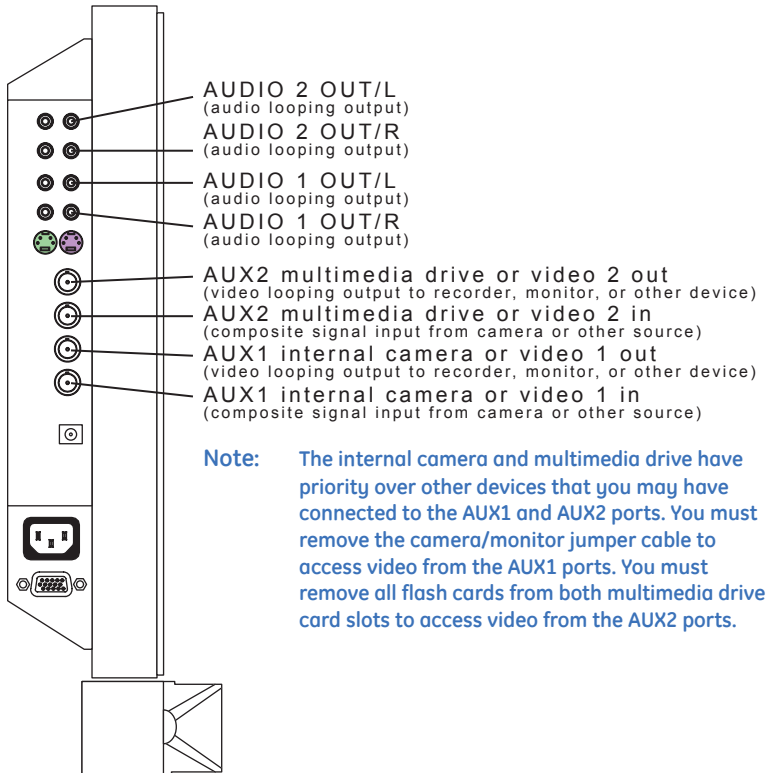


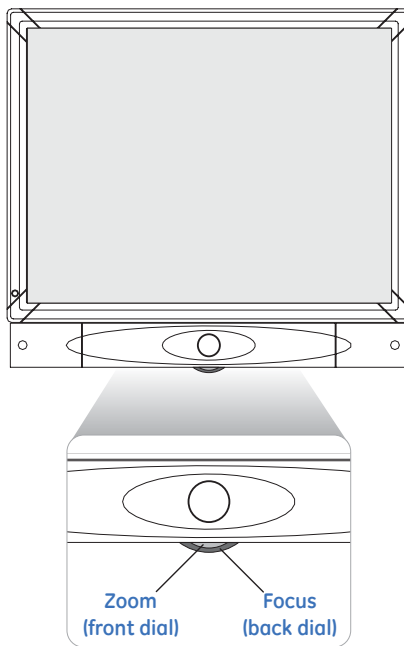
Figure 8. Advanced system cabling (right side connections)



Adjust the camera

You can easily adjust the zoom and focus of the camera with the two dials that are located directly below the camera lens underneath the system. See *Figure 9*. First adjust your zoom, then the focus. Simply turn the dials one way or the other.

Figure 9. Adjustment dials for the camera's zoom and focus



After installation is complete, the system is ready to operate with its defaults, which are optimized for typical applications. When power is supplied to the system, the surveillance video displays first. If you want your system to operate with multimedia and human detection, see *Programming* on page 17.

Programming

If you want to customize the default programming for your system, you actually have two systems that you can customize: the surveillance system and the multimedia system. Each has a separate OSD (onscreen display) programming interface. Each system comes with default settings that provide optimized performance for typical applications. You can, however, modify any of the system's defaults. There is a third OSD for the integrated multimedia drive, but it appears only when multimedia flash cards are inserted. See *Operating with two multimedia cards* on page 45.

See *Figure 10* for the main menu of the surveillance system OSD and see *Figure 11* for the main menu of the multimedia system OSD.

Figure 10. Main menu of the surveillance system OSD

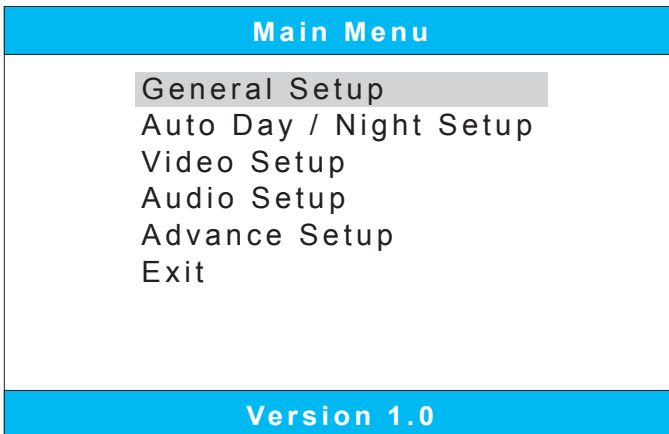
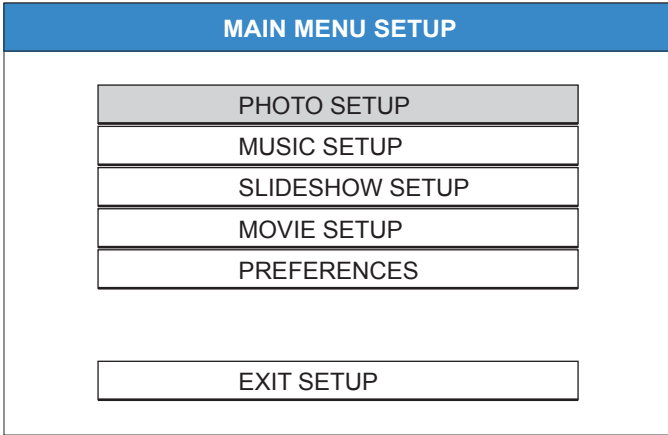


Figure 11. Main menu of the multimedia system OSD



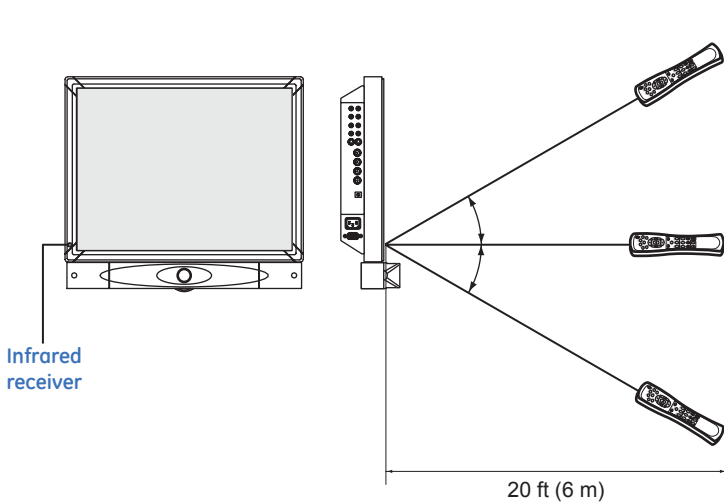
Navigating the OSDs

The multimedia OSD can only be accessed by the remote controller. The surveillance OSD can be accessed by the remote controller or the control buttons on the top of the monitor. The following sections describe how you use the remote controller and the control buttons.

Using the remote controller

The remote controller accesses and programs both OSDs, and operates the system remotely. Point the end with the infrared transmitter toward the receiver on the monitor. You can stand up to 20 feet (6 m) from the unit at an angle of 30° above or below the receiver.

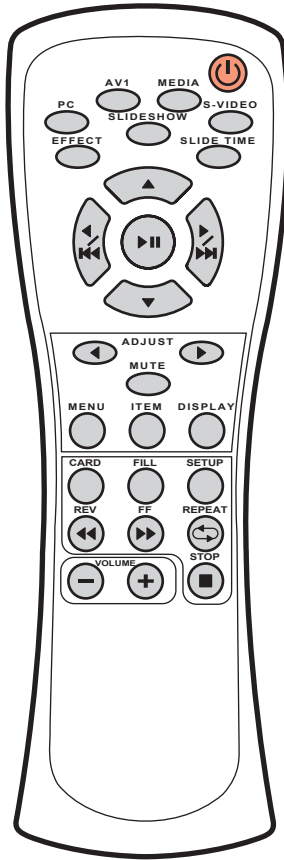
Figure 12. Remote control range



If the system does not respond, move closer to the receiver or check the batteries in the remote controller. If the batteries are weak, the remote controller will not give a strong enough signal to control the system.

Figure 13 on page 20 shows the remote controller. Descriptions of its buttons follow the figure.

Figure 13. Remote controller













Power

The power button turns the system on and off. It functions the same as the POWER button on top of the monitor.

PC

The PC button displays video from the PC/VGA video input.

AV1	The AV1 button displays video from the AV1/AUX1 surveillance video input. The internal camera has priority over other devices that you may have connected to the AUX1 ports. You must remove the camera/monitor jumper cable to access video from the AUX1 ports. See <i>Figure 8</i> on page 15.
MEDIA	The MEDIA button displays video from the AV2/AUX2 multimedia video input. The internal multimedia drive has priority over other devices that you may have connected to the AUX2 ports. You must remove all flash cards from both multimedia drive ports to access video from the AUX2 ports. See <i>Figure 8</i> on page 15.
S-VIDEO	The S-VIDEO button displays video from the S-Video (Y/C) video input.
EFFECT (flash media card function)	The EFFECT button is used with the multimedia drive's OSD to change the transition used between photos when they sequence.
SLIDESHOW (flash media card function)	The SLIDESHOW button is used with the multimedia drive's OSD to automatically start a slideshow of the photos in a selected photo folder.
SLIDETIME (flash media card function)	The SLIDE TIME button is used with the multimedia drive's OSD to change the time that each photo appears during a slideshow.
 (flash media card function)	The  button is used with the multimedia drive's OSD to navigate between items.
 (flash media card function)	The  button is used with the multimedia drive's OSD to navigate between items.
 (flash media card function)	The  button is used with the multimedia drive's OSD to navigate between items.
 (flash media card function)	The  button is used with the multimedia drive's OSD to navigate between items.
PLAY/PAUSE () (flash media card function)	The  button is used with the multimedia drive's OSD to stop, pause, or display as full screen photos, slideshows, or movies.

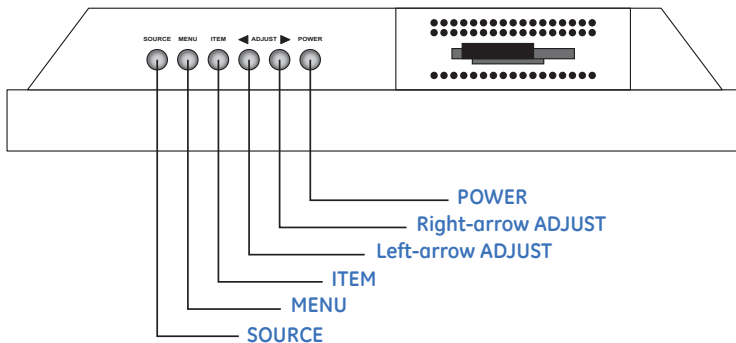
ADJUST (◀)	The left-arrow ADJUST button decreases item values or toggles between ON and OFF options. It functions the same as the left-arrow ADJUST button on top of the monitor.
ADJUST (▶)	The right-arrow ADJUST button increases item values or toggles between ON and OFF options. It functions the same as the right-arrow ADJUST button on top of the monitor.
MUTE	The MUTE button toggles the speakers off and on. It functions the same as the Mute feature under the Audio Setup menu of the surveillance OSD.
MENU	The MENU button displays the surveillance OSD Main Menu and scrolls among the Main Menu's items. Pressing the MENU button will return you to the Main Menu from anywhere in the OSD menus. It functions the same as the MENU button on top of the monitor.
ITEM	The ITEM button selects items from the Main Menu and scrolls among the submenu items. You can also press and hold this button for 5 seconds to disable the Key Lock feature, if it has been enabled. It functions the same as the ITEM button on top of the monitor.
DISPLAY	The DISPLAY button toggles on and off the display of the name of the video source (AUX1, AUX2, S-Video, or VGA) on the monitor screen in the upper right-hand corner. It functions the same as the Display feature under the General Setup menu of the surveillance OSD.
CARD (flash media card function)	The CARD button is used with the multimedia drive's OSD to return to the card selection screen.
FILE (flash media card function)	The FILE button is used with the multimedia drive's OSD to locate the file directory of the desired flash media presentation.
SETUP	The SETUP button accesses and exits the multimedia OSD.

REV (Reverse)	The REV button plays backwards the media that is playing.
FF (Fast Forward)	The FF button plays fast forward the media that is playing.
REPEAT	The REPEAT button replays the media that is playing.
VOLUME (-)	The VOLUME minus (-) button decreases the volume level of the audio. It functions the same as the Volume feature under the Audio Setup menu of the surveillance OSD.
VOLUME (+)	The VOLUME plus (+) button increases the volume level of the audio. It functions the same as the Volume feature under the Audio Setup menu of the surveillance OSD.
STOP (■)	The STOP button has two functions. It can stop the play of the flash media card or it can exit the OSD menus.

Using the control buttons

The control buttons access and operate only the surveillance OSD. Use them as described in *Figure 14*.

Figure 14. Control buttons on the top of the monitor



SOURCE	The SOURCE button toggles between source inputs (AUX 1, AUX 2, S-Video, and VGA). When you first toggle the inputs, you will see a black screen searching for the next input. Then, if there is no cable connected or multimedia made available for AUX 2, S-Video, or VGA, you will see a blue screen with the message VIDEO LOSS followed by a NO MEDIA DETECTED MESSAGE on a gray screen or a NO SIGNAL message on a black screen. If there should be media or a signal detectable, go to Troubleshooting on page 52.
MENU	The MENU button displays the surveillance OSD Main Menu and scrolls among the Main Menu's items. Pressing the MENU button will return you to the Main Menu from anywhere in the OSD menus. It functions the same as the button on the remote controller.
ITEM	The ITEM button selects items from the Main Menu and scrolls among the submenu items. It functions the same as the button on the remote controller. You can also press and hold this button for 5 seconds to disable the Key Lock feature, if it has been enabled.
ADJUST (left arrow)	The left-arrow ADJUST button decreases item values or toggles between the ON and OFF options. It functions the same as the button on the remote controller.
ADJUST (right arrow)	The right-arrow ADJUST button increases item values or toggles between the ON and OFF options. It functions the same as the button on the remote controller.
POWER	The POWER button turns the system on and off.

Surveillance system programming

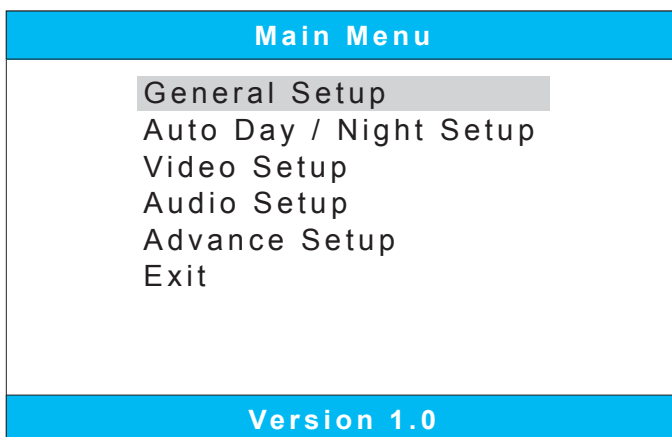
Use the remote controller (see *Using the remote controller* on page 19) or the control buttons on the top of the monitor (see *Using the control buttons* on page 23) to access and operate the surveillance OSD. Use the following sections to program the specific settings that you need to customize for your surveillance video. The first screen that you will see is the Main Menu (*Figure 15*).

Note: Be prepared with your programming plan, because the menus time out quickly.



Be careful while exploring and experimenting with the features. You do not get to confirm changes before they are saved to the system. Any changes that you make will be saved, whether the OSD times out or is exited.

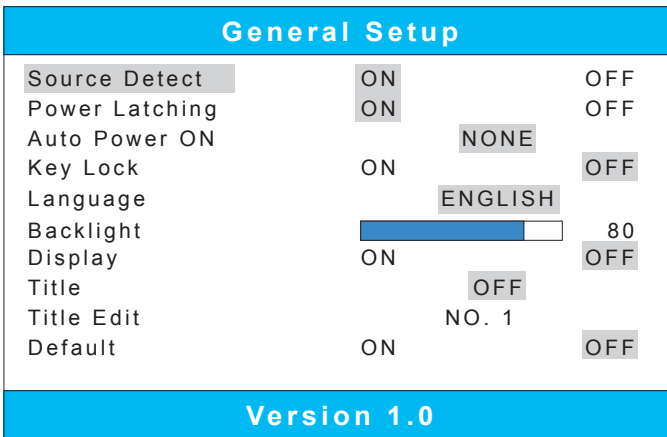
Figure 15. Main menu of the surveillance system OSD



General setup

The General Setup menu (*Figure 16*) programs features that control general system operation, such as a title (greeting or warning), the OSD's language, system accessibility, and power management.

Figure 16. General Setup menu



Source Detect

Upon power-up, the Source Detect feature automatically detects all connected video inputs and displays the highest priority video input, if several are connected. AUX1 is by default the highest priority of the AUX1, AUX2, S-Video, and VGA video signal input sources. AUX1 is the surveillance input; AUX2 is the multimedia input; S-Video is an additional video input (camera, DVD, etc.); and VGA is a computer input.

Choices are ON and OFF. Default is ON.

- Power Latching** The Power Latching feature turns the monitor back on after a power failure. Select ON to automatically turn the monitor on after a power failure or select OFF to leave the monitor off after a power failure.
Choices are ON and OFF. Default is ON.
- Auto Power ON** The Auto Power ON feature sets which video input will be displayed when the power is turned on. Choices are NONE, AUX1, AUX2, S-Video, and VGA. AUX1 is the surveillance input; AUX2 is the multimedia input; S-Video is an additional video input (camera, DVD, etc.); and VGA is a computer input. Default is NONE.
- Key Lock** The Key Lock feature locks all of the buttons (keys) on the top of the monitor to prevent access to the system by unauthorized users. Select ON to disable the buttons or select OFF to enable them. If someone tries to use the buttons on the top of the monitor when they are locked, a KEY LOCK message will appear in the upper left corner of the monitor screen. Authorized users can disable the Key Lock feature by pressing and holding the **ITEM** button for five seconds.
Choices are ON and OFF. Default is OFF.
- Language** The Language feature sets which language the surveillance OSD uses to display its content and your entries.
Currently, only English is available. Default is English.
- Backlight** The Backlight feature illuminates the display so that the foreground appears sharper in contrast with the background. Lower settings increase the life of the LCD.
Choices range from 0 to 100. Default is 80.

Display	<p>The Display feature displays the name of the video source (AUX1, AUX2, S-Video, or VGA) on the monitor screen in the upper right-hand corner.</p> <p>Choices are ON and OFF. Default is OFF.</p>
Title	<p>The Title feature enables the display of the system's title, which is a greeting or warning. It will continuously appear (as solid or flashing) in the upper left-hand corner of the monitor screen, whether surveillance or multimedia video is showing. Use the Title Edit feature to add the greeting or warning.</p> <p>Choices are ON, FLASH, and OFF. Default is OFF.</p>
Title Edit	<p>The Title Edit feature allows you to enter a greeting or warning that the Title feature can then display on the monitor screen. The OSD shows you the character currently selected for the first (number one) position in the title. When using the control buttons, the left-arrow ADJUST button scrolls through the alphanumeric characters in each character position in the title, while the right-arrow ADJUST button scrolls through the character positions in the title. When using the remote controller, refer to Using the remote controller on page 19. Examples of greeting or warning titles are "Welcome to ACME" and "SURVEILLANCE IN PROGRESS." There is a 25-character limit.</p>
Default	<p>The Default feature returns just the features of this submenu to their default settings. The features revert to their defaults upon the selection of ON. Be careful. There is no confirmation.</p> <p>Choices are ON and OFF. Default is OFF.</p>

Auto day/night setup

The Auto Day/Night Setup menu (*Figure 17*) programs features that control the light sensor and the day and night modes of the monitor.

Figure 17. Auto Day/Night Setup menu

Auto Day/Night Setup		
Auto Day/Night	<input checked="" type="checkbox"/> ON	<input type="checkbox"/> OFF
Auto Level	<input type="range" value="50"/>	50
Auto Dim Delay	<input type="range" value="5"/>	5
Video Loss Sleep	<input checked="" type="checkbox"/> ON	<input type="checkbox"/> OFF
V-Loss Sleep Time	<input type="range" value="1"/>	1
Default	<input checked="" type="checkbox"/> ON	<input type="checkbox"/> OFF

Version 1.0

Auto Day/Night

The Auto Day/Night feature automatically turns the monitor off and on based on the light sensor's light readings. For example, when the light sensor senses that the facility lights have been turned off, this feature turns the monitor off. As the facility lights are turned back on, this feature turns the monitor back on. If you enable this feature, also set the light level at which the monitor is turned off and on with the Auto Level feature.

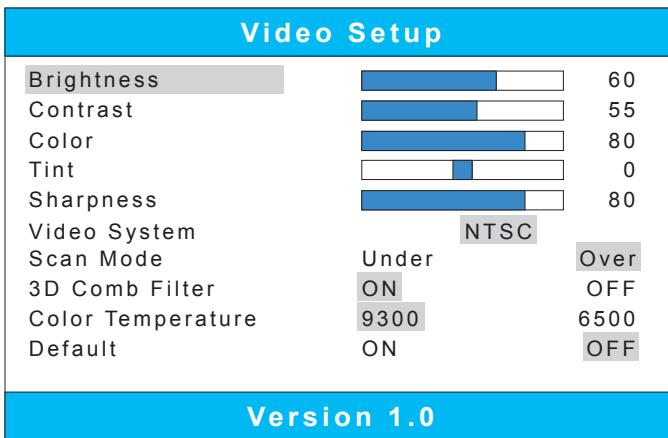
Choices are ON and OFF. Default is ON.

Auto Level	<p>The Auto Level feature sets the light level at which the monitor is turned off and on, if the Auto Day/Night feature has been enabled. If the sensed light level is below the set level, the monitor is turned off. If the sensed light level is above the set level, the monitor is turned on.</p> <p>Choices range from 1 (for darker environments) to 100 (for brighter environments). Default is 50.</p>
Auto Dim Delay	<p>The Auto Dim Delay feature sets the delay time that the Auto Day/Night feature waits before activating. If the light sensor maintains the needed light level for the duration of the set delay time, then the Auto Day/Night feature will activate.</p> <p>Choices range from 0 to 100 seconds. Default is 5 seconds.</p>
Video Loss Sleep	<p>The Video Loss Sleep feature turns off the monitor after video has been lost. This is a power saving feature. For the causes and solutions of video loss, see Troubleshooting on page 52.</p> <p>Choices are ON and OFF. Default is OFF.</p>
V-Loss Sleep Time	<p>The V-Loss Sleep Time feature sets the delay time that the Auto Sleep Mode feature waits before activating.</p> <p>Choices range from 1 to 10 minutes. Default is 1.</p>
Default	<p>The Default feature returns all of the features in this submenu to their default settings. The features revert to their defaults upon the selection of ON. Be careful. There is no confirmation.</p> <p>Choices are ON and OFF. Default is OFF.</p>

Video setup

The Video Setup menu (*Figure 18*) programs features that control video performance.

Figure 18. Video Setup menu



Brightness

The Brightness feature adjusts the background black level.

Choices range from 0 to 100. Default is 60.

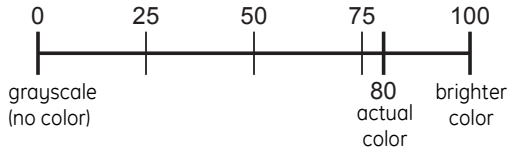
Contrast

The Contrast feature adjusts the foreground white level.

Choices range from 0 to 100. Default is 55.

Color

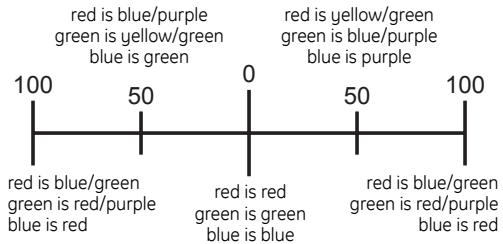
The Color feature adjusts the saturation, which is how vivid or washed out the color is. The scale points are as follows:



Choices range from 0 to 100. Default is 80.

Tint

The Tint feature changes the RGB (red, green, blue) colors that you see. You can change blue objects to appear as red, green, or purple objects. The scale points are as follows:



Choices range from 100 through 0 to 100. Default is 0.

Sharpness

The Sharpness feature adjusts the clarity. Choices range from 0 to 100. Default is 80.

Video System

The Video System feature automatically detects and lists the video signal format for the system. There are no choices. NTSC or PAL will be displayed depending upon your region's format. NTSC will be displayed in North America.

Scan Mode

The Scan Mode feature sets the type of video scanning performed by the camera. Underscan means that the scanned video signal does not reach the edges of the monitor screen. Therefore, a black border surrounds the video image, but you see the entire image. Overscan means that the scanned video signal extends beyond the edges of the monitor screen. Therefore, there is no black border because the video image fills the monitor screen, but you do not see the entire image. The far edges of the image that extend beyond the screen cannot be seen.

Choices are Under and Over. Default is Over.

3D Comb Filter

The 3D Comb Filter feature reduces the color noise and sharpens the vertical and horizontal edges of the image.

Choices are ON and OFF. Default is ON.

Color Temperature

The Color Temperature feature sets the baseline color reference for the monitor.

Choices are 9300 (cooler) and 6500 (warmer).
Default is 9300.

Default

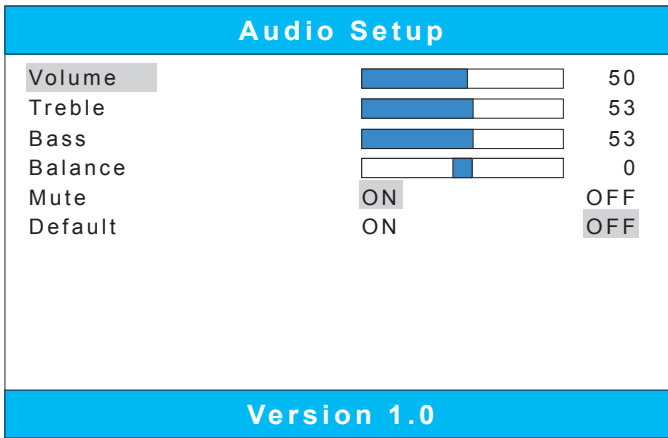
The Default feature returns all of the features in this submenu to their default settings. The features revert to their defaults upon the selection of ON. Be careful. There is no confirmation.

Choices are ON and OFF. Default is OFF.

Audio setup

The Audio Setup menu (*Figure 19*) programs features that control audio performance.

Figure 19. Audio Setup menu



- Volume** The Volume feature adjusts the volume level of the audio. Choices range from 0 to 100. Default is 50.
- Treble** The Treble feature adjusts the high tones of the audio. Choices range from 0 to 100. Default is 53.
- Bass** The Bass feature adjusts the low tones of the audio. Choices range from 0 to 100. Default is 53.
- Balance** The Balance feature proportionally adjusts the volume between the left and right speakers. Choices range from 0 to 100. Default is 0.
- Mute** The Mute feature turns off the speakers. Choices are ON and OFF. Default is ON.

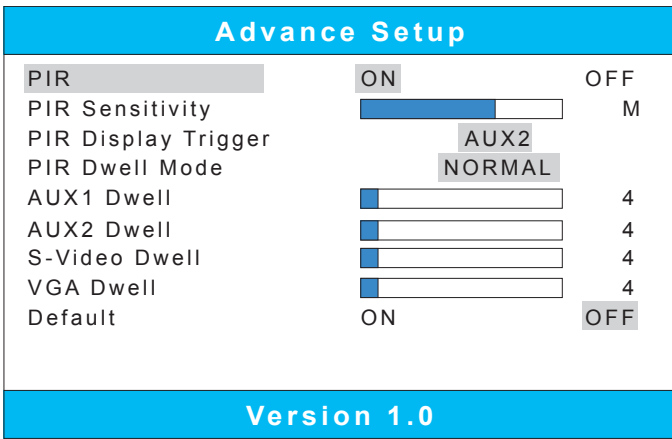
Default

The Default feature returns all of the features in this submenu to their default settings. The features revert to their defaults upon the selection of ON. Be careful. There is no confirmation. Choices are ON and OFF. Default is OFF.

Advance setup

The Advance Setup menu (*Figure 20*) programs the features that control the motion and heat detection features of the system.

Figure 20. Advance Setup menu



PIR

The PIR feature controls the passive infrared (PIR) human motion and heat detector in the system. If you wish your system to detect humans and display surveillance video of them on the monitor, turn this feature on.

Choices are ON and OFF. Default is ON.

PIR Sensitivity

The PIR Sensitivity feature sets the PIR's detection sensitivity, as follows.

PIR Performance		
Sensitivity setting	Detectable movement	Detectable distance
L (low)	larger	6.5 feet (2 m)
M (medium)	medium	10 feet (3 m)
H (high)	smaller	16 feet (5 m)

Choices are L (low), M (medium), and H (high). Default is M (medium).

PIR Display Trigger

The PIR Display Trigger feature sets which multimedia video input will be displayed, in addition to the surveillance video input, when a human is detected.

Choices are AUX2, S-Video, and VGA. Default is AUX2.

PIR Dwell Mode

The PIR Dwell Mode feature sets whether the monitor displays surveillance or multimedia video first after detecting a human.

Choices are NORMAL and REVERSE. Normal is when the monitor displays surveillance video first (from AUX 1) and then the customer's multimedia message from the video input set under PIR Dwell Source. Reverse is when the monitor first displays the multimedia message and then surveillance. Default is NORMAL.

AUX1 Dwell

The AUX1 Dwell feature sets how long the AUX1 input displays on the monitor, if selected as the PIR Dwell Source.

Choices range from 0 to 100 seconds. Default is 4.

AUX2 Dwell

The AUX2 Dwell feature sets how long the AUX2 input displays on the monitor, if selected as the PIR Dwell Source.

Choices range from 0 to 100 seconds. Default is 4.

S-Video Dwell	<p>The S-Video Dwell feature sets how long the S-Video input displays on the monitor, if selected as the PIR Dwell Source.</p> <p>Choices range from 0 to 100 seconds. Default is 4.</p>
VGA Dwell	<p>The VGA Dwell feature sets how long the VGA input displays on the monitor, if selected as the PIR Dwell Source.</p> <p>Choices range from 0 to 100 seconds. Default is 4.</p>
Default	<p>The Default feature returns all of the features in this submenu to their default settings. The features revert to their defaults upon the selection of ON. Be careful. There is no confirmation.</p> <p>Choices are ON and OFF. Default is OFF.</p>

Exit

The exit feature saves all changes made to features (without confirmation) and exits the OSD.

Multimedia system programming

Use the remote controller (see *Using the remote controller* on page 19) to access and operate the multimedia OSD. Use the following sections to program the specific settings that you need to customize for your multimedia presentations. The first screen that you will see is the Main Menu (*Figure 21*).

Be aware that you commit your changes in the multimedia OSD at the time that you make them. There is no general save or cancel of all changes at the end of your programming session.

To enter and navigate the multimedia OSD:

1. Make sure that you have media in the system.
2. Press the **MEDIA** button to access the multimedia input.

3. Press the **SETUP** button to access the multimedia OSD.
4. Use these buttons for basic navigation:
 - Press ▼ to navigate down to the next feature. Press again to move again.
 - Press ▲ to navigate up to the next feature. Press again to move again.
 - Press ► to navigate right.
 - Press ◀ to navigate left.
 - Press ▶|| to select, play, and pause.
 - To return to the Main Menu, you can press **SETUP** twice or you can navigate to the MAIN PAGE item and press ▶||.
 - To exit the multimedia OSD, press **SETUP**.

Figure 21. Main menu of the multimedia system OSD

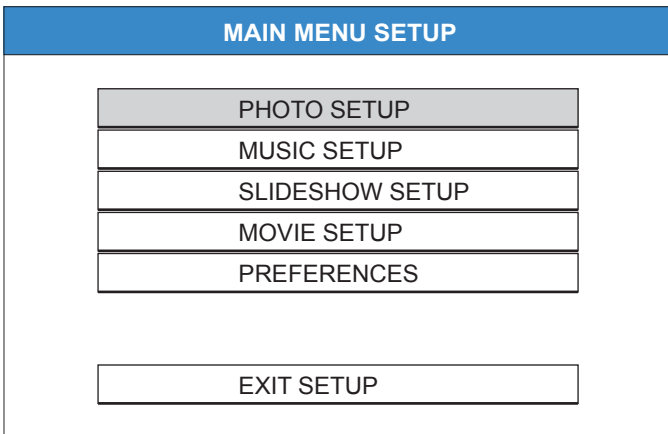
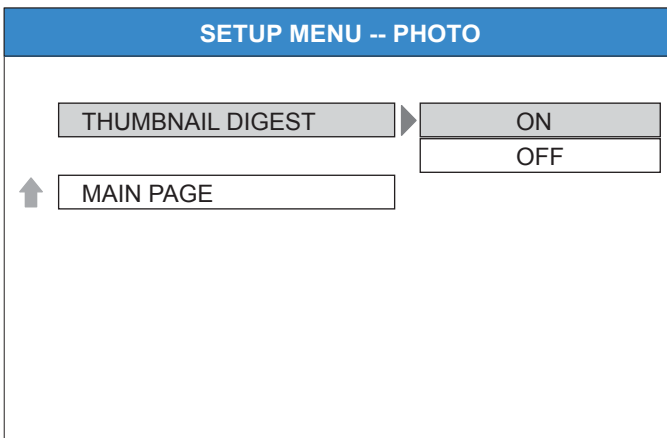


Photo setup

The Photo Setup menu allows you to display faster loading thumbnails of your multimedia images.

Figure 22. Photo Setup menu



Thumbnail Digest

The Thumbnail Digest feature enables the display of faster loading thumbnails of your multimedia images.

Choices are ON and OFF. Default is ON.

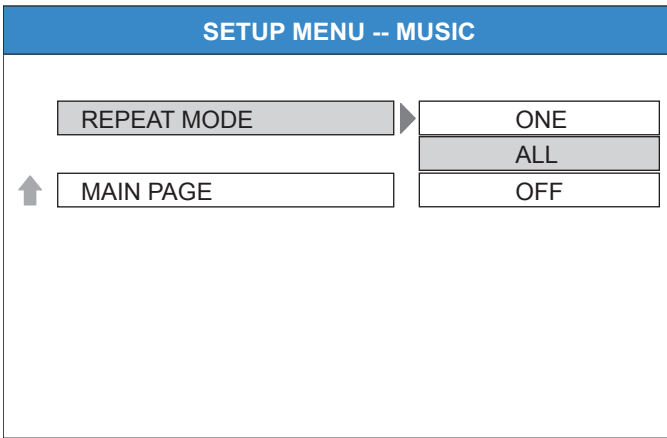
Main Page

The Main Page feature returns you to the Main Menu.

Music setup

The Music Setup menu provides playing options for the song portion of your multimedia presentations.

Figure 23. Music Setup menu



Repeat Mode

The Repeat Mode feature controls which songs will play with your multimedia.

Choices are ONE (repeats the selected song), ALL (repeats all songs), and OFF (repeats no songs). Default is ALL.

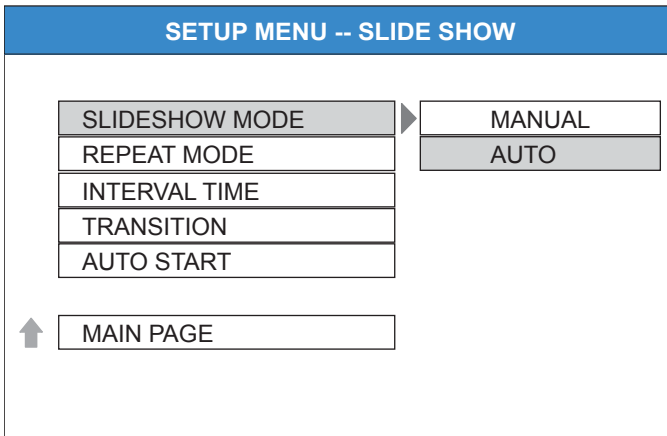
Main Page

The Main Page feature returns you to the Main Menu.

Slideshow setup

The Slideshow Setup menu controls the display options of your multimedia slideshows.

Figure 24. Slideshow Setup menu



Slideshow Mode

The Slideshow Mode feature sets whether the slideshow starts automatically or manually by using the slideshow buttons on the remote controller.

Choices are MANUAL and AUTO. Default is AUTO.

Repeat Mode

The Repeat Mode feature sets whether the photo images in the selected folder are shown only once or played as a continuous loop.

Choices are ON (for played as a continuous loop) and OFF (for shown once). Default is ON.

Interval Time

The Interval Time feature sets how long each photo image is displayed.

Choices are 1, 3, 5, 10, and 30 seconds. Default is 10 seconds.

Transition

The Transition feature sets what transition effect is used when changing between photo images.

Choices are:

- FULL SCREEN: Images appear full screen
- TOP TO BOTTOM: Images roll in from the top of the screen.
- BOTTOM TO TOP: Images roll in from the bottom of the screen.
- T/B TO CENTER: Images roll in from both the top and bottom and meet in the center of the screen.
- CENTER TO T/B: Images roll out from the center to the top and bottom of the screen.
- BLIND (T to B): Images in the form of bands (or blinds) roll in from the top to the bottom of the screen.
- LEFT TO RIGHT: Images roll in from the left to the right of the screen.
- RIGHT TO LEFT: Images roll in from the right to the left of the screen.
- L/R TO CENTER: Images roll in from both the left and right and meet in the center of the screen.
- CENTER TO L/R: Images roll out from the center to the left and right of the screen.
- IMplode: Images close to a center point.
- BLIND (L to R): Images in the form of bands (or blinds) roll from the left to the right side of the screen.
- RANDOM: All transitions are used and appear randomly.

Default is FULL SCREEN.

Auto Start

The Auto Start feature sets whether media on a media card plays automatically when the card is inserted into the system.

Choices are ON and OFF. Default is OFF.

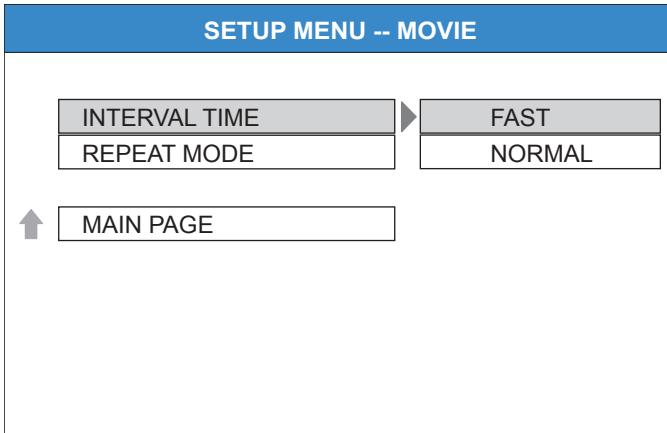
Main Page

The Main Page feature returns you to the Main Menu.

Movie setup

The Movie Setup menu controls the display options of your multimedia movies.

Figure 25. Movie Setup menu

**Interval Time**

The Interval Time feature sets how much of the movie plays in thumbnail view.

Choices are FAST (only a short preview of the movie is played in thumbnail view) and NORMAL (the entire movie is played in thumbnail view). Default is FAST.

Repeat Mode

The Repeat Mode feature controls which movies will play as your multimedia presentation.

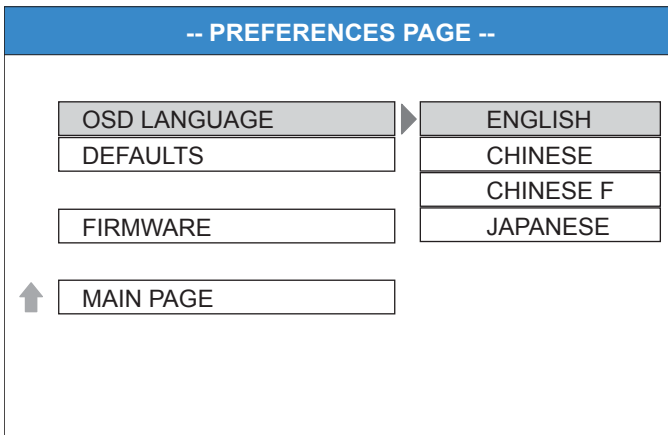
Choices are OFF (plays no movies), ONE (plays the selected movie in a continuous loop), and ALL (plays all movies in a continuous loop). Default is ALL.

Main Page The Main Page feature returns you to the Main Menu.

Preferences setup

The Preferences Page menu resets your system's default settings, assigns the language that the OSD appears in, and provides for updating the multimedia player firmware.

Figure 26. Preferences Setup menu



OSD Language The OSD Language feature sets which language the multimedia OSD uses to display its content. Choices are English, Chinese, Chinese F, and Japanese. Default is English.

Defaults The Defaults feature returns all of the multimedia features in this submenu to their factory default settings. The features revert to their defaults upon the selection of RESET. Be careful. There is no confirmation or undo.

Firmware This feature is not available at this time.

Main Page The Main Page feature returns you to the Main Menu.

Operation

General system operation

After you have installed and powered up your system, it will operate automatically with its programming (default or customized). The system shows you the surveillance from your surveillance camera first, then continues as programmed.

You can, however, override the automatic operation of the system by using the remote controller to remotely control your system. All of the system's features can be controlled remotely. See *Using the remote controller* on page 19.

Your system will also notify you of a loss of the video signal by displaying a blue screen and the warning `Video Loss`. See *Troubleshooting* on page 52.

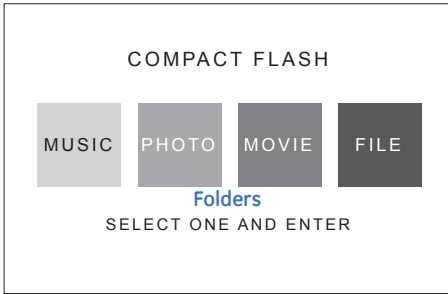
If you need to separate the camera/monitor assembly, see *Separating the camera from the monitor* on page 50.

Operating with two multimedia cards

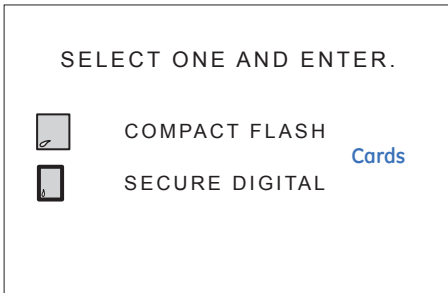
Besides the system's surveillance and multimedia OSDs, there is a third OSD for the integrated multimedia drive. But it appears only when multimedia flash cards are inserted. You will see one screen if only one flash card is inserted into the multimedia drive and another screen if you have two cards inserted into it. See *Figure 27*. The multimedia drive OSD has the same basic features as the multimedia OSD, but fewer of them.

If you are not seeing your media or one of its two OSD screens, make sure that you have pressed the **MEDIA** button on your remote controller.

Figure 27. Multimedia player OSD screens



Compact Flash screen: appears when one card is inserted or after one of two cards is selected



Card selection screen: appears when two cards are inserted or when CARD is pressed

Like the surveillance and multimedia OSDs, this OSD is programmed with the remote controller. See [Using the remote controller](#) on page 19.

See [Acceptable multimedia](#) on page 5 for a list of the flash media card types that your system accepts.

Here are some reminders for playing media:

- In general:
 - Make sure that the monitor is on.
 - Make sure that the **MEDIA** button has been pressed.
- When navigating **cards** and **folders**:
 - From the card selection screen, press ◀ to select the desired media card.
 - Press ▶|| to play the media on the selected card.
 - Press ◀ and ▶ to select a folder (MUSIC, PHOTO, MOVIE, and FILE).
 - Press ▶|| to view the folder's contents.
 - Press **CARD** to return to the card selection screen.
- When viewing **photos**:
 - From the card selection screen, press ◀ to select the desired media card.
 - Press ▶ to select the PHOTO folder.
 - Press ▶|| to view the folder's contents. The Photo thumbnail folder opens.
 - Press ▲, ▼, ◀, and ▶ to view the various photos.
 - Press ▶|| to view the photos as full screen images.
 - Press **CARD** to return to the card selection screen.
- When playing **music**:
 - From the card selection screen, press ◀ to select the desired media card.
 - Press ◀ to select the MUSIC folder.
 - Press ▶|| to play the folder's contents. The Music Library folder opens and begins playing automatically.
 - Press ▲ and ▼ to hear the various songs.
 - Press ▶|| or ■ to stop playing the music.

- Press **CARD** to return to the card selection screen.
- When viewing **slideshows**:
 - From the card selection screen, press ◀ to select the desired media card.
 - Press ▶ to select the PHOTO folder.
 - Press ► to view the folder's contents. The Photo thumbnail folder opens.
 - Press ▶ to select **SLIDESHOW**. The slideshow begins automatically.
 - Press ▶ to select **SLIDE TIME** to change the time delay between the slides.
 - Press ▶ to select **EFFECT** to change the selected transition effect between the slides.
 - Press ► to pause the slideshow.
 - Press ► or ■ to stop the slideshow.
 - Press **CARD** to return to the card selection screen.
- When viewing **movies**:
 - From the card selection screen, press ◀ to select the desired media card.
 - Press ▶ to select the MOVIE folder.
 - Press ► to view the folder's contents. The Photo thumbnail folder opens.
 - Press ► to play the movie.
 - Press ▲, ▼, ◀, and ▶ to view the various movies.
 - Press ► to view a movie as full screen images.
 - Press ► or ■ to stop the movie.
 - Press **CARD** to return to the card selection screen.
- When viewing **all files**:
 - From the card selection screen, press ◀ to select the desired media card.

- Press ► to select **FILE** folder or press **FILE** on the remote controller. The Photo thumbnail folder opens.
- Press ►|| to view the folder's contents. The File Library folder opens.
- Press ▲ and ▼ to the various folders.
- Press ►|| to view the folder's contents.
- Press ►|| to view the files as full screen images.
- Press ■ to return to the File Library folder.
- Press **CARD** to return to the card selection screen.

Maintenance

Maintaining the monitor of your system will help prolong its life. Follow these suggestions.

Cleaning the monitor

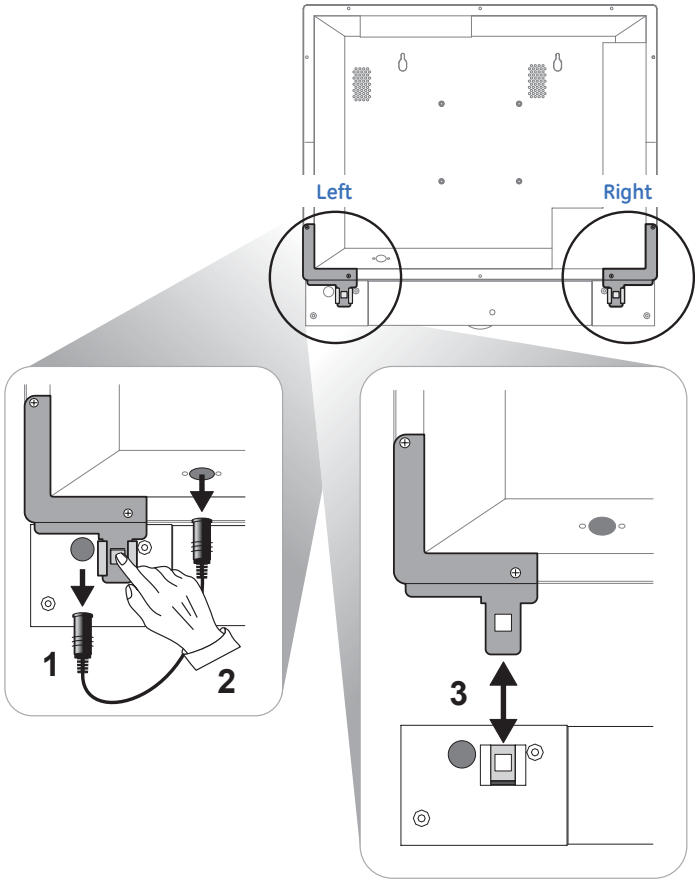
- Use a soft, clean, cotton cloth and wipe gently.
- Do not apply pressure to the screen while wiping.
- Do not use any water or chemical cleaners. These might damage the surface.
- If needed, you may use specialized LCD flat panel computer screen cleaners or optical lens cleaners.

Separating the camera from the monitor

If for any reason you need to separate the camera from the monitor, see *Figure 28* on page 51 and do the following:

1. Disconnect and remove the camera/monitor interconnect cable.
2. Press the plastic tabs on the right and left sides of the camera base to release the monitor's two metal brackets.
3. Separate the monitor from the camera base.

Figure 28. Separating the camera from the monitor



Troubleshooting

This section will help you troubleshoot common problems. For more information on troubleshooting, contact Technical Support.

Why doesn't the video appear on the monitor?

- Check the power cable and replace it, if necessary.
- Check the power outlet and make sure that the power switch has been pressed.

Why does the monitor display “Video Loss” on a blue screen?

- There are several video sources (AUX1, AUX2, S-Video, and VGA) for the system. Make sure that you have activated the one that you want to display.
- If the correct source is displayed while the Video Loss blue screen is displayed, check to see if the video source has lost its video signal or its coaxial cable connection.
- A camera or the CompactFlash card could have failed or the recorder (digital or analog) could have stopped recording. Check the video cables to make sure that they are properly connected and functioning.

Why doesn't remote controller activate the system?

- Make sure that you are pointing the end of the infrared transmitter toward the receiver on the monitor.
- Make sure that you are standing within 20 feet (6 m) from the unit at an angle no greater than 30° above or below the receiver.
- Make sure that the batteries in the remote controller are strong enough power it.

Why doesn't my multimedia display?

- Make sure that you have activated the correct video source that you want to display (AUX1, AUX2, S-Video, and VGA).
- Ensure that the flash card is correctly seated.
- Try turning the system off and on to reset the internal multimedia drive.
- Check another flash card to see if the first one has possibly failed.

Why don't I hear the audio?

- Make sure that the audio has not been muted.
- Adjust the volume on the remote control.
- Adjust the volume on the LCD monitor.
- Check the audio cabling, speakers, or amplifier.

Contacting technical support

For assistance installing, operating, maintaining, and troubleshooting this product, refer to this document and any other documentation provided. If you still have questions, you may contact technical support and sales 24 hours a day, 7 days a week.

For sales and technical support assistance, we provide customers with several options (see *Table 1*). Our support phone number is available Monday through Friday (excluding holidays) between the hours of 6 a.m. and 5 p.m. Pacific Time.

Table 1. Sales and support contact information

	Sales	Technical support
Phone:	800-469-1676	800-469-1676 (Mon. – Fri. 6 a.m. to 5 p.m. Pacific Time)
	541-754-9133	541-740-3589 (all other times)
E-mail	cvovideosales@ge.com	generaltech@ge.com
Fax	541-754-7162	541-752-9096 (24 hours/day)

Note: Be ready at the equipment before calling for technical support.

Online publication library

Another great resource for assistance with your GE product is our online publication library, available to all of our customers. To access the library, go to our website at the following location:

<http://www.gesecurity.com>

In the **Tools** area at the top, click the *Publication Library* link then select *Video Surveillance*. After you register and log on, search through our online library for the documentation you need.

