GeoVision inc
The Vision of Security

GV-Mini System V2 (Rev. B)

User's Manual



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Scan the following QR codes for product warranty and technical support policy:

[Warranty]

[Technical Support Policy]

User's Manual for GV-Mini System V2 (Rev. B)

Welcome to the GV-Mini System V2 (Rev. B) User's Manual.

The Manual provides an overview of the GV-Mini System V2 (Rev. B) and its accessories. It also includes the instructions to guide you through the installation and use of the GV-Mini System V2 (Rev. B):

- **Chapter 1, Introduction**
  Identifies the accessories and options of the GV-Mini System V2 (Rev. B).

- **Chapter 2, Overview**
  Identifies the components of the GV-Mini System V2 (Rev. B).

- **Chapter 3, Getting Started**
  Provides step-by-step instructions on setting up the GV-Mini System V2 (Rev. B).

- **Chapter 4, Troubleshooting**
  Suggests courses of action if the GV-Mini System V2 (Rev. B) doesn't seem to be working properly.

Contents

Safety Instructions ..... **iii**

Chapter 1 Introduction **1**

1.1 Packing List 1

1.2 Options 1

1.3 Supported Software 1

Chapter 2 Overview **2**

2.1 Front View 2

2.2 Rear View 3

Chapter 3 Getting Started **4**

3.1 Basic Installation 4

3.2 Windows Setup Installation 5

3.3 System Restoration 7

3.4 Updating GV-Mini System V2 (Rev. B) 8

3.5 Installation of 2.5-inch HDD/SSD 9

Chapter 4 Troubleshooting **11**

Appendix **13**

A. Frame Rate Limit for GV-NVR / VMS 13

B. Total Frame Rate and Max. No. of Channels Supported for GV-NVR / VMS 13

Safety Instructions

 Observe these safety instructions to help ensure against injury to yourself and damage to the product.

- **Read** all safety and installation instructions before you operate the product.
- **Do not operate** the product in high humidity areas or expose it to water or moisture.
- **Do not place** the product on an unstable, slanted, or vibrating surface.
- **Do not block** any ventilation opening.
- **Do not install** the product near any heat sources such as radiator, heat register or other apparatus that produce heat.
- **Operate** the product using only the type of power source indicated on the marking label.
  - If you are in an area with unstable voltage, make sure to install an automatic voltage regulator (AVR) or a UPS power supply with AVR function, to maintain a constant voltage.
  - All damages to the power supply caused by unstable voltage are not included in the 2-year warranty service.
- **Do not defeat** the safety purpose of the grounding-type plug. A grounding plug has two blades and a third grounding prong. The third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- **Do not overload** wall outlets or extension cords, as this may cause fire or electric shock.
- **Do not use** the product when abnormality occurs, such as emitting smoke from the product, smelling burning, being damaged by drop, invasion of foreign objects inside the product, etc. Be always sure to remove the AC adaptor at once and contact your dealer.
- **Do not use** accessories or attachments not recommended by the manufacturer, as they may cause hazards and void the warranty.
- **Do not attempt** to service the product yourself, as removing the casing may expose you to dangerous voltage and void the warranty.

Chapter 1 Introduction

1.1 Packing List

The GV-Mini System V2 (Rev. B) package includes the following items. If any of the items are missing or damaged, contact your dealer to arrange a replacement.

Important: Please keep the original carton and all packing materials for future shipping need.

1. GV-Mini System V2 (Rev. B)
2. 19V, 120W Power Adapter
3. Power Cord (by region)
4. Download Guide

1.2 Options

Optional devices can expand your system's capabilities and versatility.

VESA Bracket	The bracket allows for mounting the unit on the rear of a computer monitor.
GV-AI Accelerator Module (for GV-VMS V18 / AI Guard)	GV-AI Accelerator Module is equipped with the M.2 M key connector and is compatible with 11th Gen CPUs or later versions. The GV-AI Accelerator Module supports up to 16 channels each for PVD motion detection and basic AI on GV-AI Guard, 8 channels for advanced AI on GV-AI Guard, and 16 channels for PVD motion detection for GV-VMS V18. These limits are determined by testing each feature individually.

1.3 Supported Software

1. GV-NVR
2. GV-VMS
3. GV-ASManager
4. GV-AI FR
5. GV-AI Server
6. GV-AI Guard

Chapter 2 Overview

2.1 Front View

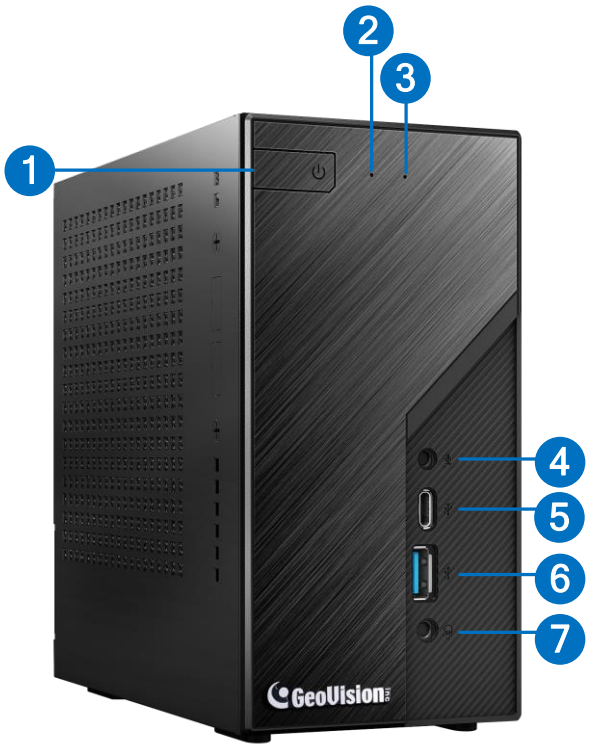


Figure 2-1

No.	Name	No.	Name
1	Power Button	5	USB 3.2 Gen 2 x 2 (Type-C)
2	Power LED	6	USB 3.2 Gen 2 (Type-A)
3	HDD LED	7	Headphone/Headset
4	MIC-In		

2.2 Rear View

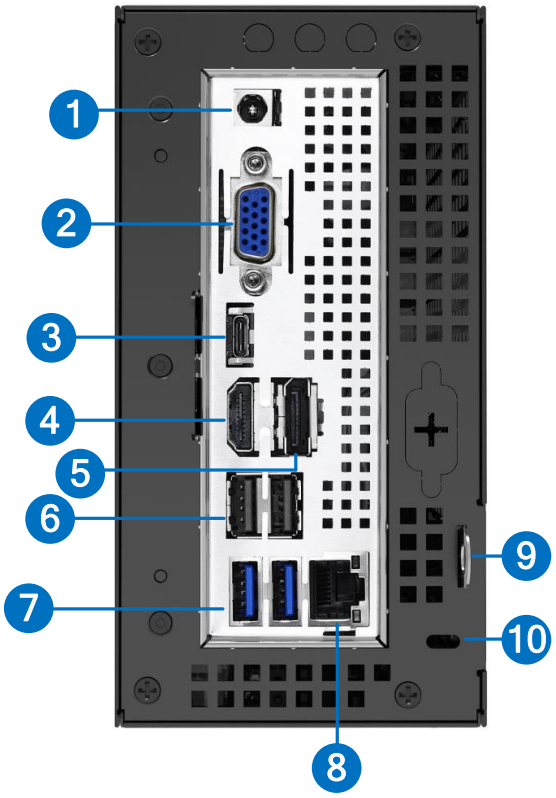


Figure 2-2

No.	Name	No.	Name
1.	DC Jack (for 19V 120W Power Adapter)	6.	USB 2.0 Port
2.	VGA Port	7.	USB 3.2 Gen1 (Type-A)
3.	USB 3.2 Gen 2 Type-C Port (USB-C / DisplayPort alt mode)	8.	2.5 Gigabit LAN port
4.	HDMI Port	9.	Key Lock (Anti-tampering)
5.	DisplayPort 1.4	10.	Kensington Lock (Anti-theft)

Chapter 3 Getting Started

3.1 Basic Installation

This section describes all the equipment required to program and operate the GV-Mini System V2 (Rev. B).

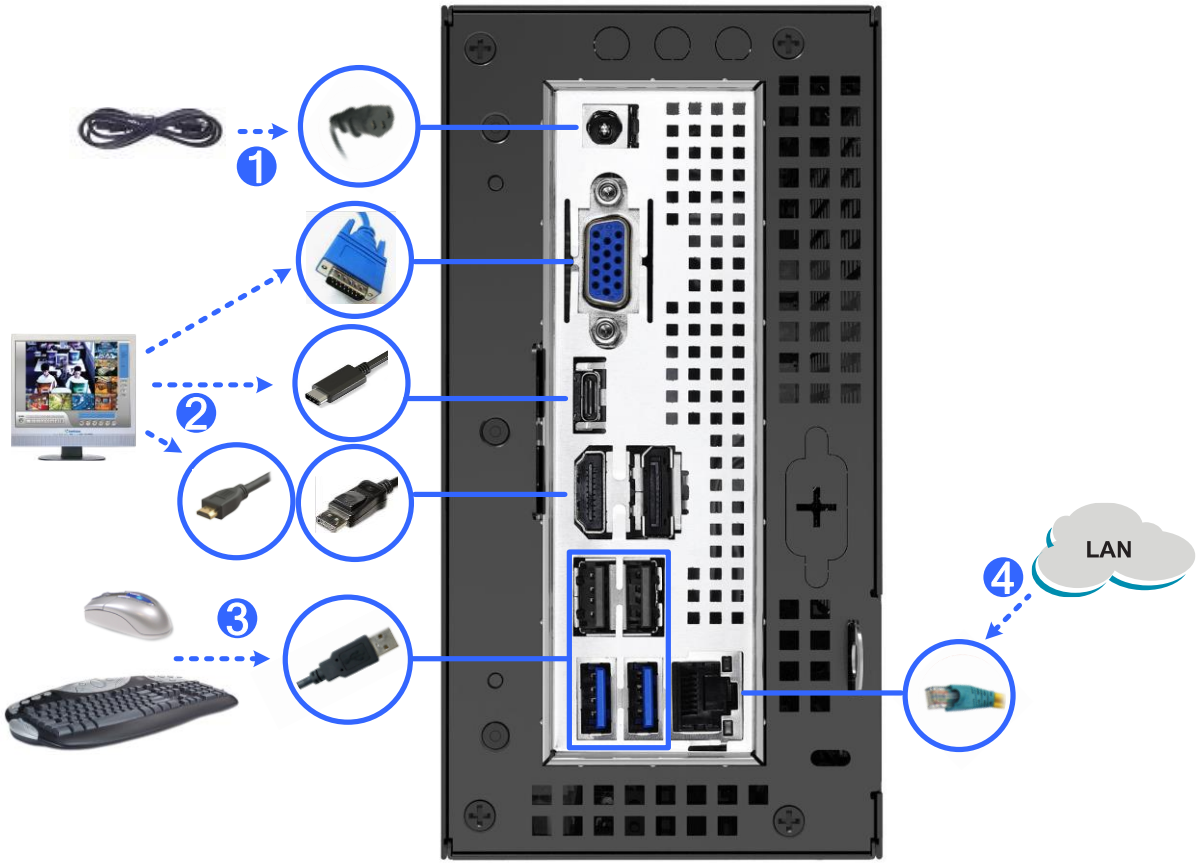


Figure 3-1

1. Using the supplied power cord, connect one end to the AC input and the other end to the power outlet.
2. Using the VGA / DisplayPort / DisplayPort alt mode / HDMI cable supplied by the monitor manufacturer, connect up to 4 monitors for simultaneous displays.
3. Connect the mouse and keyboard to the USB ports.
4. Using the RJ-45 cable, connect one end to the Ethernet port and the other end to Network.

Once the above hardware is properly connected, press the Power button on the front panel to start the system. It takes about 1 minute for startup.

3.2 Windows Setup Installation

The Windows setup is preparing your computer for first use.

1. After the Windows starts, this setup screen appears. Select your language and click **Next** to continue.

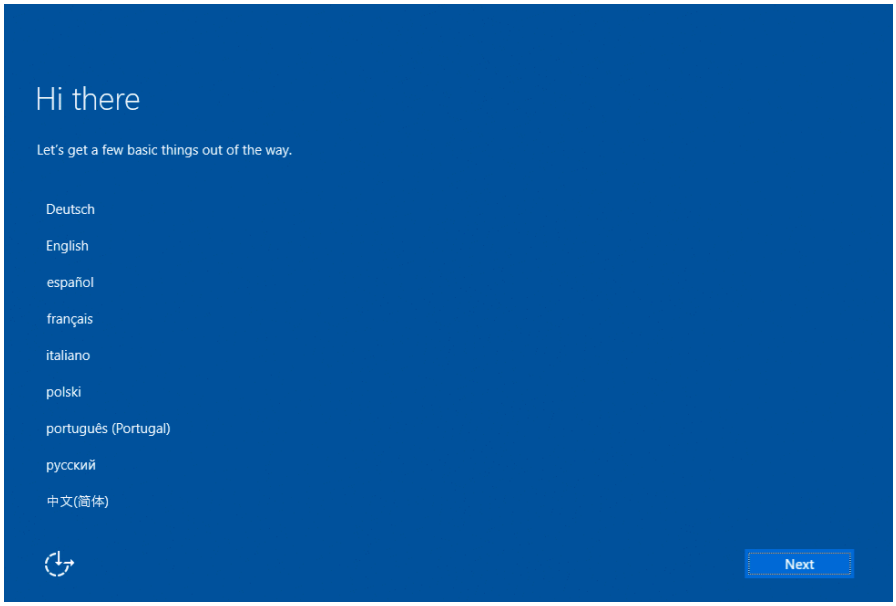


Figure 3-2

2. Select your regional settings and time zone and click **Next** to continue.

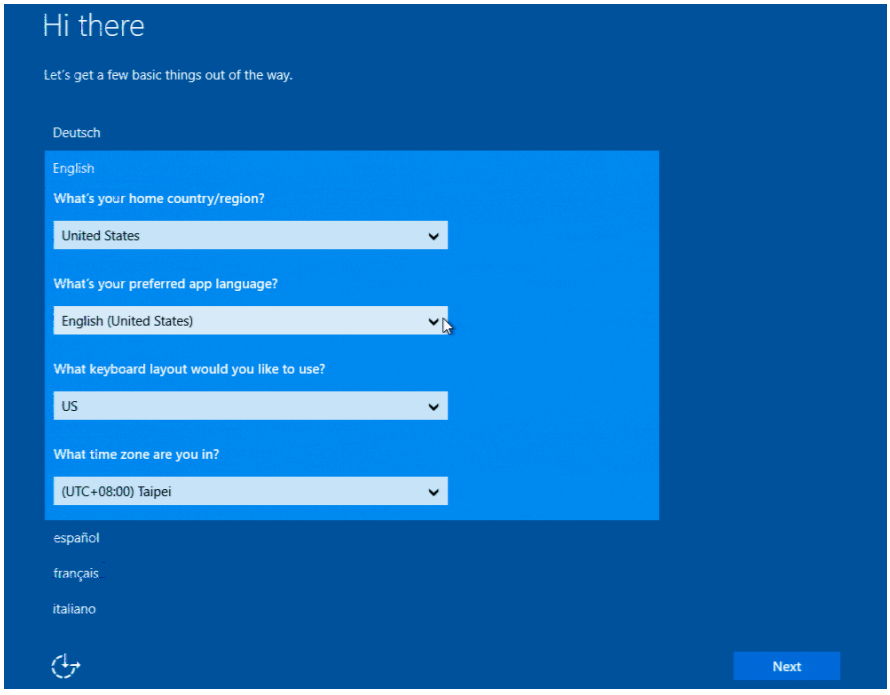


Figure 3-3

3. Click **Accept** to accept Microsoft software license terms.
4. Select between “Customize” and “Use Express settings” for your Windows 10 installation.
5. Type your account name. It is recommended that you create a password for your account and click **Next**.

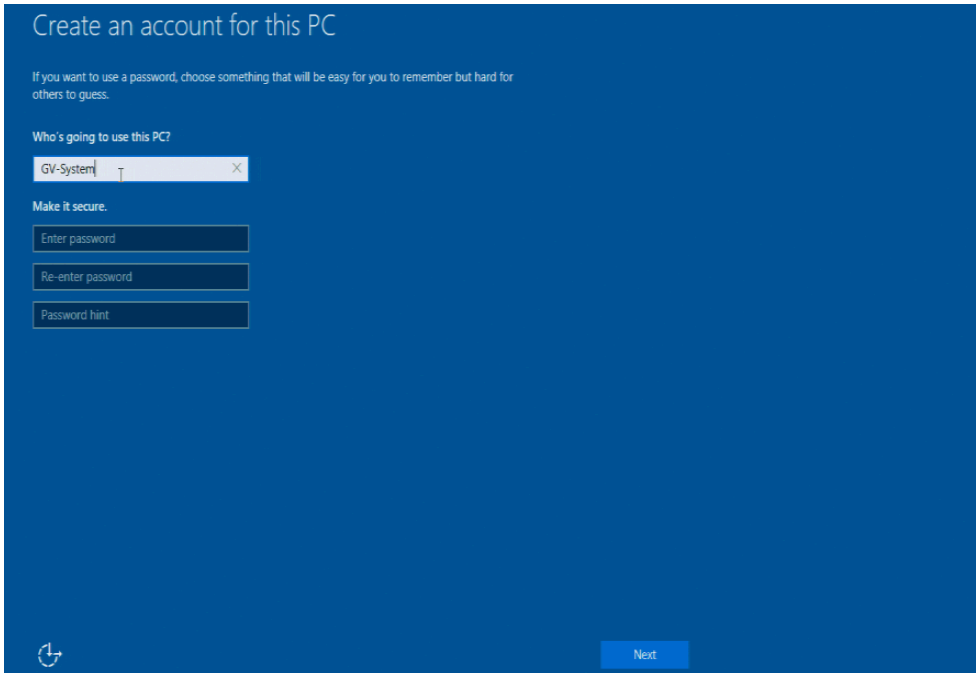


Figure 3-4

6. When the above setup process is complete, Windows will finalize your settings automatically in the background and restart

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IMPORTANT: In case of any problems causing you unable to access Windows operating system, it is highly recommended to back up the OS before you start any settings or operations. For details, see *3.3 System Restoration*.

3.3 System Restoration

You can restore the operating system and system software back-up files using Windows Tool. Refer to the instructions here.

3.4 Updating GV-Mini System V2 (Rev. B)

If you like to update your GV-Mini System V2 (Rev. B), contact your dealer for more information.

Before contacting your dealer, you may check software update news at our website: http://www.geovision.com.tw

3.5 Installation of 2.5-inch HDD/SSD

1. Unscrew the four screws on the back panel. Pull out the motherboard tray.

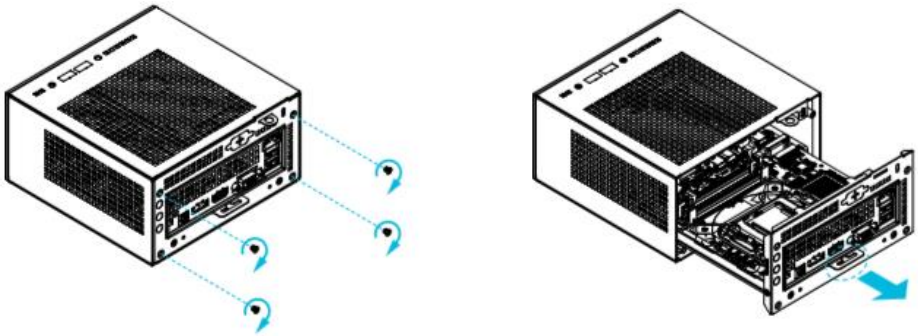


Figure 3-7

2. Remove the motherboard by unscrewing the four screws of each corner.
3. Flip the motherboard over with the reverse side up. Place the HDD/SSD onto trays (A) and (B).

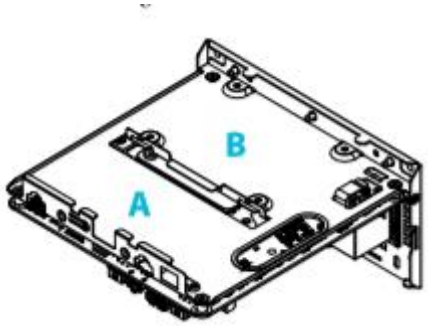


Figure 3-8

4. Secure the HDD/SSD of tray A with the four screws.

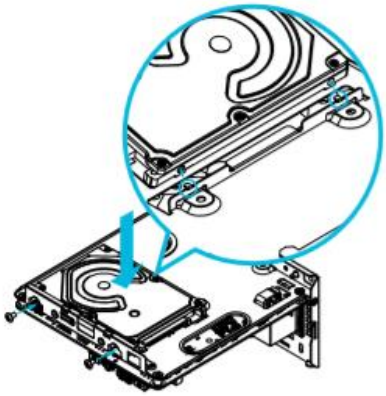


Figure 3-9

5. Flip the motherboard right side up and secure the HDD/SSD of tray B in place.

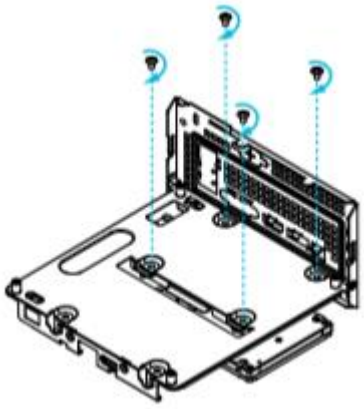


Figure 3-10

6. Ensure the SATA Data and Power Cable is connected to the HDD/SSD.

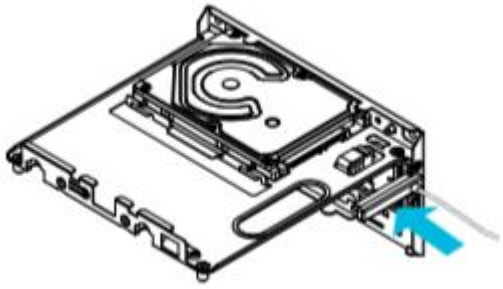


Figure 3-11

7. Connect the ends of the SATA Cables to the SATA Connectors as shown in Figure 3-12.

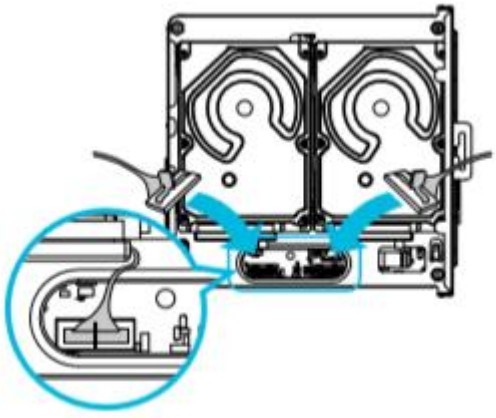


Figure 3-12

Chapter 4 Troubleshooting

GV-Mini System V2 (Rev. B) stops responding (aka “crashed” or “froze”)

1. Check if your mouse and keyboard are working properly.
   - If they cease functioning, following steps 2 and 3 to restart the system.
   - If they work, open the Task Manager (Ctrl+Alt+Del) and end the task of a non-responding program.
2. Push the Power button for 10 to 20 seconds until the GV-Mini System V2 (Rev. B) turns off.
3. Push the Power button again to turn the GV-Mini System V2 (Rev. B) back on.

GV-Mini System V2 (Rev. B) is unable to start.

If your GV-Mini System V2 (Rev. B) is unable to start after you push the Power button, try these steps:

1. Remove the AC power adapter from the DC Jack.
2. Wait for 30 seconds before plugging the AC power adapter back in.
3. Push the Power button to see if the GV-Mini System V2 (Rev. B) can start.

No screen image

If your GV-Mini System V2 (Rev. B) is able to start properly but images cannot be displayed on the connected monitor(s), try these steps:

1. Check if the blue power LED is lit.

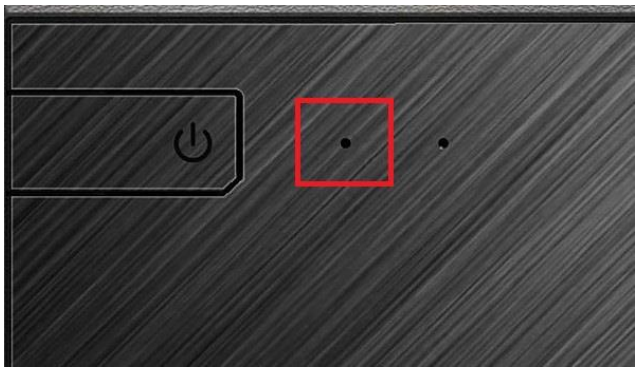


Figure 4-1

2. Use a different monitor output and see if it works.

GV-Mini System V2 (Rev. B) suffers virus attack.

GV-Mini System V2 (Rev. B) is designed and optimized for Windows 10 platform. It may be vulnerable to newly created worms and exploits that attack any of the underlying operating system's previously undocumented flaws. If your GV-Mini System V2 (Rev. B) suffers virus attack, try rebuilding the operating system and the software. Refer to *3.3 System Restoration.*

How can I find more help?

1. Visit our website at http://www.geovision.com.tw/
2. Write us at support@geovision.com.tw

Appendix

A. Frame Rate Limit for GV-NVR / VMS

Refer to the documents below to see the total of recording frame rates that you can assign to a single hard disk for GV-NVR / VMS recording.

- IP Device Integration Notes (H.264 CPU/GPU Decoding, based on GV-VMS V15.10.1.0)
- IP Device Integration Notes (H.265 GPU Decoding, based on GV-VMS V15.11.0.0)

B. Total Frame Rate and Max. No. of Channels Supported for GV-NVR / VMS

Refer to the documents below to see the total frame rate and maximum number of channels supported by GV-NVR when connected to GV-Fisheye cameras and H.265 cameras.

- GV-System V8.7 Supports H.265 GPU Decoding
- GV-Fisheye Camera Integration Notes

Refer to the documents below to see the total frame rate and maximum number of channels supported by GV-VMS when connected to different IP devices.

- IP Device Integration Notes (H.264 CPU/GPU Decoding, based on GV-VMS V15.10.1.0)
- IP Device Integration Notes (H.265 GPU Decoding, based on GV-VMS V15.11.0.0)
- GV-Fisheye Camera Integration Notes