


MiniView™ Extreme Multimedia KVMP Switch

User Manual (GCS1732/1734)







Thank you for purchasing one of the most feature rich KVM and peripheral sharing switch on the market. IOGEAR's MiniView™ Extreme Multimedia KVMP Switch brings extra value to conventional KVM switches by offering USB peripheral sharing capabilities, audio and microphone support, and multi-platform support for Mac, Sun, USB and PS/2. You can save money and space by eliminating the need for multiple monitors, keyboards, mice, and peripheral devices such as printers, scanners, zip drives, and more. Up to 127 different USB devices can be daisy chained from this KVMP switch. Sharing speakers and a microphone also offers extra value and convenience for the users.

USB and KVM technology together makes cross-platform management easy. A single USB console can control a PC and a Mac, or even a Sun workstation, and share peripherals and audio devices between the computers. Any USB-enabled computers, using any USB-compatible operating system, can benefit from the efficiency, expense reduction and convenience of IOGEAR's Miniview Extreme KVMP switch.

We hope you enjoy using your Miniview™ Extreme Multimedia KVMP switch, yet another first-rate connectivity solution from IOGEAR.

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Table of Contents

Package Contents	02
Overview	03
Features	04
Requirements	05
Introduction	06
Installation	10
Operation	13
Hotkey Configuration for Mac and SUN	23
The Firmware Upgrade Utility	25
Appendix	33
Specification	34
Technical Support	36
Radio & TV Interference Statement	37
Limited Warranty	38

This package contains:

- 1 MiniView™ Extreme Multimedia KVMP Switch (GCS1732 or GCS1734)
- 2 or 4 bonded KVM Cables (2 for GCS1732, 4 for GCS1734)
- 1 Power Adapter
- 1 Firmware Upgrade Cable
- 1 User Manual
- 1 Quick Start Guide
- 1 Warranty/Registration Card

If any items are damaged or missing please contact your dealer.

Overview

Overview

IOGEAR's new MiniView™ Extreme Multimedia KVMP Switch brings extra value to conventional KVM switches by offering USB peripheral sharing capabilities, audio and microphone support, and multi-platform support for Mac, Sun, USB and PS/2. You can save money and space by eliminating the need for multiple monitors, keyboards, mice, and peripheral devices such as printers, scanners, zip drives, and more. Up to 127 different USB devices can be daisy chained from this KVMP switch. Sharing speakers and a microphone also offers extra value and convenience for the users.

USB and KVM technology together makes cross-platform management easy. A single USB console can control a PC and a Mac, or even a Sun workstation, and share peripherals and audio devices between the computers. Any USB-enabled computers, using any USB-compatible operating system, can benefit from the efficiency, expense reduction and convenience of IOGEAR's Miniview™ Extreme Multimedia KVMP switch.

Features

- Multi functional switch allows multiple USB or PS/2 (additional cables needed) computers to share one USB console and two USB peripheral devices such as printers and scanners, as well as speakers and a microphone
- User can conveniently switch USB peripheral devices from one computer to another using Hot Keys
- USB peripheral devices and USB consoles can be switched asynchronously from one computer to another using Hot Keys
- Fully compliant with USB 1.1 specifications and delivers a 12 Mbps data transmission rate
- Complete keyboard and mouse emulation for error free booting
- Support special keys on Mac and Sun keyboard
- Allows PC keyboards to simulate Mac and Sun special keys through Hotkeys Features AutoScan mode to monitor all computers
- Features AutoScan mode to monitor all computers
- LED display for easy status monitoring
- Superior video quality - supports resolutions up to 2048 x 1536
- Extra convenience offered through sharing of speakers and microphone
- Easy installation: no software required, hot swappable
- Compact design for easy placement

Requirements

System Requirements

- Computers with USB or PS/2 connections (additional cables needed for PS/2 computers)
- Windows 98, 98SE, ME, 2000, XP
- Mac OS 8.6 or greater
- Sun Solaris work station
- Linux, UNIX and other USB supported systems*

*Additional drivers and support may be needed

Accessories

- PS/2 KVM Cable (G2L5302P)
- USB KVM Console Extender (GCE700)

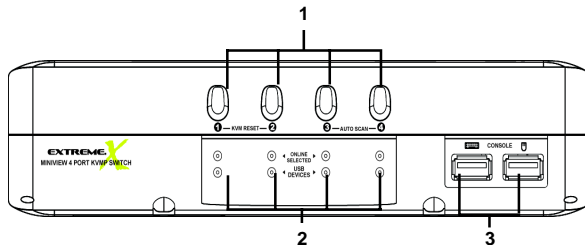
Front View

1. Port Selection Buttons

Pressing the port selection buttons to access the computer connected to its corresponding port.

Pressing Buttons 1 and 2 simultaneously for 2 seconds performs a keyboard and mouse reset.

Pressing Buttons 3 and 4 simultaneously for 2 seconds starts *Auto Scan Mode*. See p.18 for details.



2. Port LEDs

The Port LEDs are built into the Port Selection Switches. The upper ones are the KVM Port Status LEDs; the lower ones are the USB Peripheral Selected LEDs:

KVM Status LEDs: Lights DIM ORANGE to indicate that the computer attached to the corresponding port is up and running (On Line); lights BRIGHT ORANGE to indicate that the computer attached to its corresponding port is the one that has the KVM focus (Selected); flashes to indicate that the computer attached to its corresponding port is being accessed under Auto Scan mode.

Introduction

USB Peripheral Selected LEDs: Lights to indicate that the computer attached to its corresponding port is the one that has access to the USB peripherals.

3. USB Console Ports

Your USB keyboard and USB mouse plug in here.

Back View

1. Console Audio Jacks

The cables from your microphone and speakers plug in here. Each jack is marked with an appropriate icon to indicate itself.

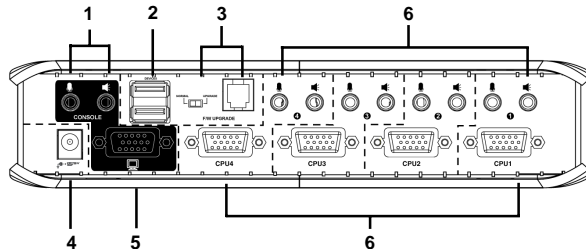
2. USB Peripheral Section

USB peripherals (printers, scanners, etc.) plug in here.

3. Firmware Upgrade Section

- Firmware Upgrade Recovery Switch:
During normal operation and while performing a firmware upgrade, this switch should be in the NORMAL position. See Pg. 33 for details about the use of this switch.

- Firmware Upgrade Port:
The Firmware Upgrade Cable that transfers the firmware upgrade data from the administrator's computer to the GCS1732 / GCS1734 plugs into this RJ-11 connector. See Pg. 25 for firmware upgrading details.



4. Power Jack

The power adapter cable plugs into this jack.

5. Monitor Port

The video cable from your monitor plugs in here.

6. CPU Port Section

The cables that link the switch to your computers plug

Introduction

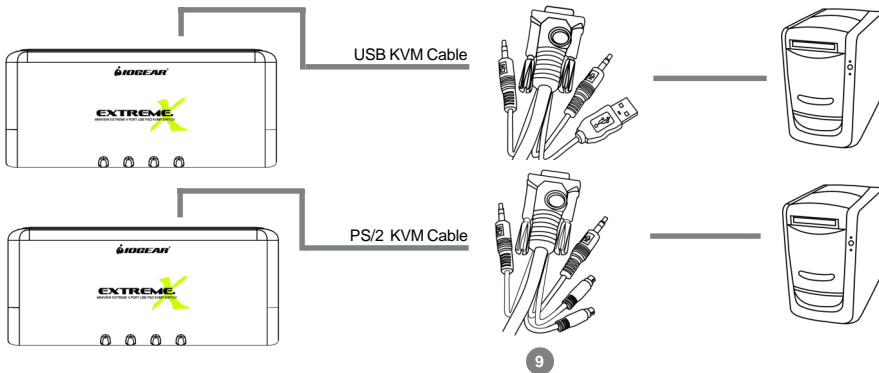
in here. Each CPU port is comprised of a microphone jack, speaker jack, and KVM data connector.

Note: The shape of these 15-pin KVM data connectors has been specifically modified so that only KVM cables designed to work with this switch can plug in (see the Cables section for details). Do **NOT** attempt to use ordinary 15 pin VGA connector cables to link these ports to the computers

Cable

The USB KVM Cables are included in the package. DB-5 KVM data cable.

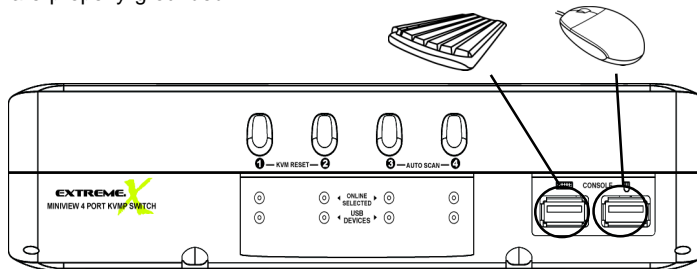
If you need some PS/2 KVM cable, please order G2L5302P (not included in this package).



Setup and Installation

Before you Begin

1. Make sure that power to all the devices you will be connecting up have been turned off. You must unplug the power cords of any computers that have the *Keyboard Power On* function. Otherwise, the switch will receive power from the computer.
2. To prevent damage to your installation make sure that all devices on the installation are properly grounded.



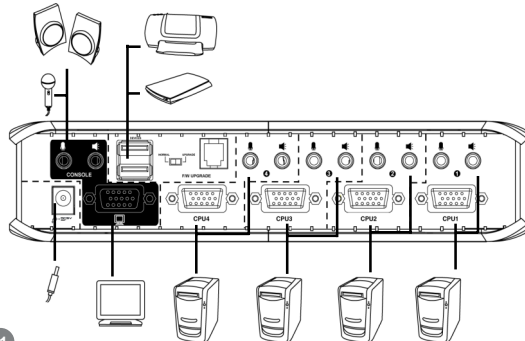
Installation

Setup and Installation

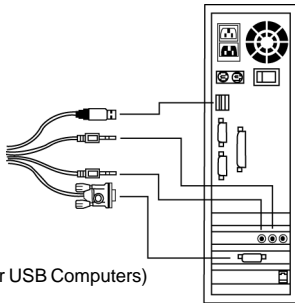
1. Plug your USB keyboard and USB mouse into the USB Ports located on the unit's front panel. Plug your monitor into the Console monitor port located on the unit's rear panel.

Note: For computers with older operating systems, such as Windows ME or prior, you may have to load the USB driver. Keep your OS CD ROM handy during installation. If it is the first time you load the USB driver on this type of computers, there is a big chance that you may need to keep the old keyboard and mouse on that computer until the driver is loaded.

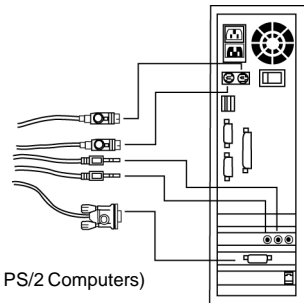
2. Plug the custom SPDB15 connector of the KVM cables into any available CPU ports on the switch and plug the accompanying microphone and speaker cables into the CPU port's microphone and speaker jacks.
3. Plug the other end of the KVM cable to the respective ports on the computer.
For a PS/2 connection, you will need to purchase the PS/2 KVM cable (IOGEAR Part No. G2L5302P), plug the keyboard, mouse, video, microphone and speaker cables into their respective ports on the computer.



- Repeat steps 3 and 4 for any other computers you are connecting up.
- Plug the power adapter cable into the switch's Power Jack, then plug the power adapter into an AC power source.
- Turn on the power to the computers.



(Connection for USB Computers)



(Connection for PS/2 Computers)

Operation

Hot Plugging

The MiniView™ Extreme supports USB hot plugging – components can be removed and added back into the installation by unplugging their cables from the CPU ports without the need to shut the unit down.

Powering Off and Restarting

If it becomes necessary to power off the MiniView™ Extreme unit, before starting it back up you must do the following:

1. Shut down all the computers that are attached to the switch.

Note: You must unplug the power cords of any computers that have the *Keyboard Power On* function that are connected to the shut down switches. Otherwise, the switches will still receive power from the computers.

2. Unplug the switch's power adapter cable.
3. Wait 10 seconds, then plug the switch's power adapter cable back in.
4. After the switch is up, power on the computers.

Port ID Numbering

Each CPU port on the Miniview™ Extreme switch is assigned a port number (1 or 2 for the GCS1732; 1 to 4 for the GCS1734). The port numbers are marked on the rear panel of the switch.

The Port ID of a computer is derived from the CPU port number it is connected to. For example, a computer connected to CPU port 3 has a Port ID of 3.

The Port ID is used to specify which computer gets the KVM focus and USB peripheral access with the Hotkey port selection method.

Hot Key Operation

The Miniview™ Extreme provides an extensive, easy-to-use, hotkey function that makes it convenient to control and configure your KVM installation from the keyboard.

Basic Hotkeys to switch ports

The most basic hotkey operation allows you to hotkey switch the KVM focus and USB peripheral access from the port that currently has the KVM focus to the next port on the installation (1 to 2; 2 to 1 for the GCS1732; 1 to 2; 2 to 3; 3 to 4; 4 to 1 for the GCS1734), without having to invoke Hotkey Mode.

To perform this basic hotkey, tap the **Scroll Lock** key twice. When you do this, two port switching changes occur:

- The KVM focus switches from its current port, to the next port.
- The USB focus switches to the port with the new KVM focus so that they are both synchronized.

After the port switching takes place, you automatically exit Hotkey Mode.

For some people such as Mac users, pressing [Scroll Lock] is either not feasible or not convenient. There are other ways to switch ports, such as using [Ctrl] [Ctrl]. The following section will discuss how to use these choices.

Advanced Hotkey Operations

The advanced Hotkeys allow you to switch to a specific port, and also allow you to switch console and USB peripherals to different computers, perform hotkey beeper control, change basic hotkey to [Ctrl] [Ctrl], emulating special keys on Mac and Sun keyboards is also included.

Invoking Hotkey Mode

To invoke Hotkey Mode, do the following:

1. Press and hold down the **Num Lock** key
2. Press and release the **minus [-]** key
3. Release the **Num Lock** key

Note:

1. The minus key must be released within one half second, otherwise Hotkey invocation is canceled.
2. There is an alternative key combination to invoke Hotkey Mode. See Pg. 20 for details.

Hotkey Mode Considerations:

When Hotkey Mode is active, the Caps Lock, and Scroll Lock LEDs flash in succession to indicate that Hotkey Mode is in effect. They stop flashing and revert to normal status when you exit Hotkey Mode.

Operation

When Hotkey Mode is active, ordinary keyboard and mouse functions are suspended - only Hotkey compliant keystrokes and mouse clicks (described in the sections that follow), can be input.

At the conclusion of some hotkey operations, you automatically exit Hotkey Mode. With some operations, you must exit manually. To exit Hotkey Mode manually, press the **Esc** key, or the **Spacebar**.

Switch the KVM focus to another computer along with the USB peripherals:

You can bring the KVM focus plus USB device access (synchronous switching) to any computer with a hotkey combination that specifies its Port ID (See Pg. 14 for Port ID details):

1. Invoke Hotkey Mode (See Pg. 16).
2. Press and release the computer's Port ID number (1, 2, 3, or 4).
3. Press [Enter].

The KVM focus and USB peripheral access switch to the computer associated with that Port ID, and you automatically exit Hotkey Mode.

Switch the KVM focus to another computer and let USB peripherals remain on the current computer:

You can bring only the KVM focus (asynchronous switching, without changing the USB device access) to any computer with the following hotkey combination:

1. Invoke Hotkey Mode (See Pg. 16).
2. Press and release the **K** key
3. Press and release the computer's Port ID number (1, 2, 3, or 4).
4. Press [Enter].

The KVM focus switches to the computer associated with that Port ID; the USB peripheral access remains on the port where it was; and you automatically exit Hotkey Mode.

The major value of this hotkey is to allow you asynchronously switch KVM focus and USB peripherals. For example: you are working on computer 1 and printing a large graphic file which will take 15 minutes to finish. Instead of waiting on computer 1, you can use this hotkey to switch KVM focus to another computer to do work on some other projects.

Operation

Audio Port Selection

Audio ports are switched along with the console port. When you switch console to any computer, the audio ports will be switched simultaneously.

Auto Scan Mode

The MiniView™ Extreme's Auto Scan feature automatically cycles through the computer ports at regular 5 second intervals. This allows you to monitor the computer activity without having to take the trouble of switching from port to port manually. To start Auto Scan Mode:

1. Invoke Hotkey Mode (See Pg. 16)
2. Press and release the **A** key

Once scanning begins, it continues until you press [Esc] or [Spacebar] to exit Auto Scan Mode. The Port that is active at the time scanning stops remains active.

Note:

1. While Auto Scan Mode is in effect, ordinary keyboard and mouse functions are suspended. You must exit Auto Scan Mode by pressing [Esc] or [Spacebar] in order to regain normal control of their use.
2. Pressing [Esc] or [Spacebar] exits both Auto Scan Mode and Hotkey Mode.

Alternate Hotkey Invocation Keys and Alternative Basic Hotkey

An alternate set of Hotkey Invocation keys is provided in case the default set conflicts with programs running on the computers.

To switch to the alternate Hotkey Invocation set, do the following:

1. Invoke Hotkey Mode (See Pg. 16)
2. Press and release the **H** key

The Hotkey Invocation keys become the Ctrl key (instead of Num Lock) and the F12 key (instead of minus). You automatically exit Hotkey Mode following this procedure.

Note: This hotkey is a toggle between the two invocation methods. To revert back to the original Hotkey Invocation methods, invoke Hotkey Mode with the [Ctrl] and [F12] keys, then press and release the **H** key. The Hotkey Invocation keys revert back to [Num Lock] and [-], and the Skip Mode activation method reverts back to [Scroll Lock] [Scroll Lock].

Operation

The Basic Hotkey Operation can be changed from tapping the Scroll Lock key twice to tapping the Ctrl key twice by doing the following:

1. Invoke Hotkey Mode (See Pg. 16)
2. Press and release the **T** key

You automatically exit Hotkey Mode after this procedure.

Note: This hotkey is a toggle between the two invocation methods. To revert back to the original Hotkey Invocation methods, invoke Hotkey Mode, then press and release the **T** key. The basic Hotkey reverts back to `[[Scroll Lock][Scroll Lock]`.

Hotkey Beeper Control

The Beeper can be hotkey toggled On and Off. To toggle the Beeper, do the following:

1. Invoke Hotkey Mode. (See Pg. 16)
2. Press and release the **B** key.

The Beeper toggles On or Off. The Command Line displays *Beeper On* or *Beeper Off* for one second; then the message disappears and you automatically exit Hotkey Mode.

Hot Key Configuration for Mac and SUN

The MiniView™ Extreme's default port configuration is for a PC Compatible keyboard operating platform, and a US English keyboard language code.

If your requirements call for different port settings (you have a Mac or Sun attached to a port, e.g.), you can change them by bringing the KVM focus to the port and using the hotkey combinations shown below. By setting the particular port to either Sun or Mac, you will be able to use Sun and Mac keyboards and all the special keys on Sun and Mac keyboard will be passed to the connected computer. You can even use a PC keyboard to emulate these special keys (refer to the next section).

The Hotkey entry method is as follows:

1. Invoke Hotkey Mode (See Pg. 16)
2. Press and release the appropriate Function key (see the table below).

After completing a setting, you automatically exit Hotkey Mode.

Function Key	Operation
[F1]	Sets the PC Compatible keyboard operating platform.
[F2]	Sets the Mac keyboard operating platform.
[F3]	Sets the Sun keyboard operating platform.
[F5]	Performs a USB console reconnect.

Hotkey Configuration for Mac and SUN

Keyboard Emulation:

Sun Keyboard

The PC (101/104) key keyboard can emulate the functions of the Sun keyboard when the Control key [Ctrl] is used in conjunction with other keys. The corresponding functions are shown in the table below. **But make sure you set this port to Sun first (refer to the above section).**

Note: When using [Ctrl] combinations, press and release the **Ctrl** key, then press and release the activation key.

PC Keyboard	Sun Keyboard
[Ctrl] [T]	Stop
[Ctrl] [F2]	Again
[Ctrl] [F3]	Props
[Ctrl] [F4]	Undo
[Ctrl] [F5]	Front
[Ctrl] [F6]	Copy
[Ctrl] [F7]	Open
[Ctrl] [F8]	Paste
[Ctrl] [F9]	Find
[Ctrl] [F10]	Cut
F12	☾
[Ctrl] [H]	Help

Hotkey Configuration for Mac and SUN

Mac Keyboard

The keyboard emulation mappings from the Mac keyboard to the PC keyboards (101 key and 104 key), are listed in the table below. **But make sure you set this port to Mac first (refer to the above section).** These hotkeys are designed for Mac OS X or later, for OS9.X or previous version, only part of the keys are supported.

Note: When using key combinations, press and release the first key (Ctrl or Alt), then press and release the activation key.

PC	Mac Keyboard
[Shift]	Shift
[Ctrl]	Ctrl
[Win]	⌘
[Ctrl] [4]	⬆
[Alt]	L Alt/Option
[Prt_Sc]	F13
[Scroll Lock]	F14
[Desktop Menu]	=
[Enter]	Return
[Back Space]	Delet
[Ins]	Help
[Ctrl] [Win]	F15

The Firmware Upgrade Utility

The Windows-based Firmware Upgrade Utility (FWUpgrade.exe) provides a smooth, automated process for upgrading the KVM switch's firmware.

The Utility comes as part of a Firmware Upgrade Package that is specific for each device. New firmware upgrade packages are posted on our web site as new firmware revisions become available. Check the web site regularly to find the latest packages and information relating to them:

<http://www.iogear.com/support/download.php>

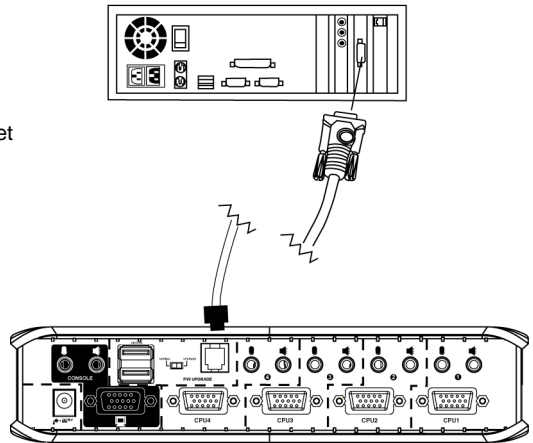
Before You Begin

To prepare for the firmware upgrade, do the following:

1. From a computer that is not part of your KVM installation, go to the IOGEAR support site and select the product part number (GCS1732 or GCS1734) to get a list of available Firmware Upgrade Packages.
2. Choose the Firmware Upgrade Package you want to install (usually the most recent), and download it to your computer.
3. Use the *Firmware Upgrade Cable* provided with this unit, to connect a COM port on your computer to the *Firmware Upgrade Port* of your switch.

The Firmware Upgrade Utility

4. Shut down the computers on your MiniView™ Extreme installation and make sure the firmware upgrade switch is set to “Upgrade”.
5. Make sure the power plugged into the KVM.
6. Once the power is plugged in and the switch is set to upgrade, all of the amber lights on the KVM will flash once per second. Now you are ready to run the firmware upgrade utility.



The Firmware Upgrade Utility

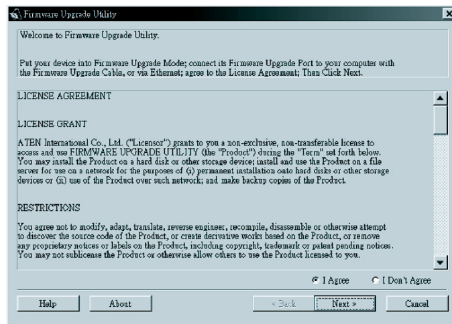
Starting the Upgrade

To upgrade your firmware:

1. Run the downloaded Firmware Upgrade Package file - either by double-clicking the file icon, or by opening a command line and entering the full path to it.

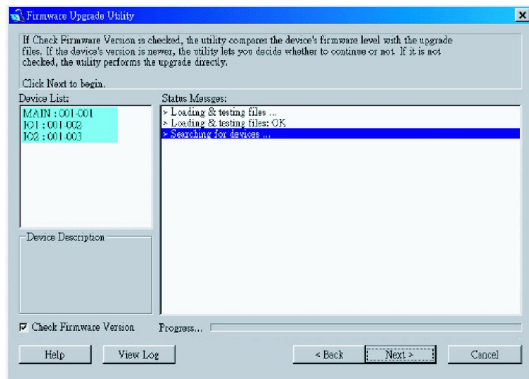
The Firmware Upgrade Utility *Welcome* screen appears:

2. Read and *Agree* to the License Agreement (enable the I Agree radio button).



The Firmware Upgrade Utility

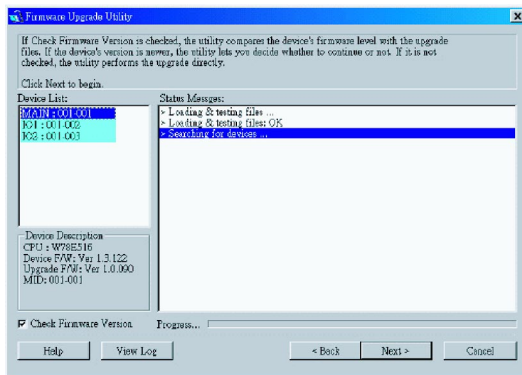
3. Click Next to continue. The Firmware Upgrade Utility main screen appears:



The Utility inspects your installation. All the devices capable of being upgraded by the package are listed in the *Device List* panel.

The Firmware Upgrade Utility

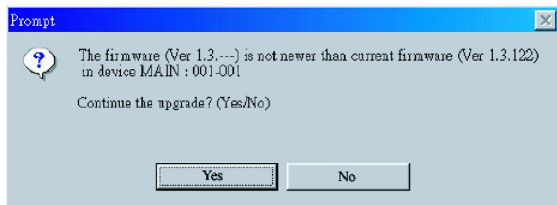
4. As you select a device in the list, its description appears in the *Device Description* panel.



The Firmware Upgrade Utility

5. After you have made your device selection(s), Click **Next** to perform the upgrade.

If you enabled *Check Firmware Version*, the Utility compares the device's firmware level with that of the upgrade files. If it finds that the device's version is higher than the upgrade version, it brings up a dialog box informing you of the situation and gives you the option to continue or cancel.

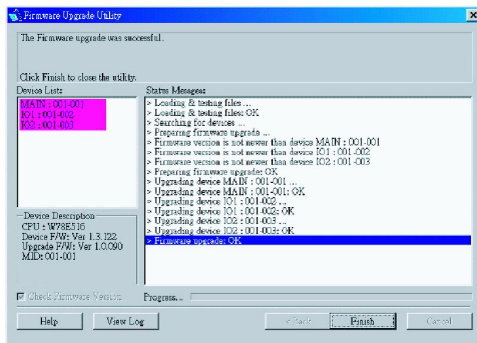


If you didn't enable *Check Firmware Version*, the Utility installs the upgrade files without checking whether they are a higher level, or not.

The Firmware Upgrade Utility

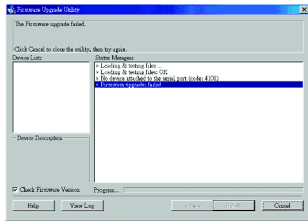
As the Upgrade proceeds status messages appear in the Status Messages panel, and the progress toward completion is shown on the *Progress* bar.

After the upgrade has completed, a screen appears to inform you that the procedure was successful:



Click **Finish** to close the Firmware Upgrade Utility.

If the upgrade failed to complete successfully a dialog box appears asking if you want to retry. Click **Yes** to retry. If you click **No**, the *Upgrade Failed* screen appears:



Click **Cancel** to close the Firmware Upgrade Utility. See the next section, *Firmware Upgrade Recovery*, for how to proceed.

Firmware Upgrade Recovery

There are basically three conditions that call for firmware upgrade recovery:

- When you begin a firmware upgrade, but decide not to proceed with it.
- When the Mainboard firmware upgrade fails.
- When the I/O firmware upgrade fails.

To perform a firmware upgrade recovery, do the following:

1. Slide the *Firmware Upgrade Recovery Switch* (see p. 8 drawing) to the **Recover** position.
2. Power off and restart the switch.
3. Slide the *Firmware Upgrade Recovery Switch* back to the **Normal** position.
4. Repeat Step 2.

Appendix

Troubleshooting

Symptom	Possible Cause	Action
Erratic behavior	Unit not receiving enough power	Use a DC 5V power adapter if you are not already using one. If you are already using a power adapter, check that it matches the system specification (DC 5V), and that it is plugged in and functioning properly.
Keyboard and/or Mouse not responding	Keyboard and/or mouse need to be reset	Press and hold port selection switches 1 and 2 for two seconds. (GCS1734 only.)
		Unplug the cable(s) from the console ports(2), then plug it/them back in.
USB devices not responding	No connection to the computer	Check the cable from the switch to the computer to make sure it is properly connected.
	KVM switch needs to be reset	Power off all devices on the installation; power off the KVM switch; wait five seconds; then power up.
		Unplug the device's USB cable from the USB port on the switch's rear panel, then plug it back in.
		Use the USB Reset hotkey combination, to reset the USB ports.

Function		GCS1732	GCS1734
Computer Connections		2	4
CPU Port Selection		Front Panel Switches; Hotkey	
USB Port Selection		Hotkey	
LEDs	On Line	2 (Orange)	4 (Orange)
	USB Link	2 (Green)	4 (Green)
Console Connecters	Keyboard	1 x USB Type A	
	Mouse	1 x USB Type A	
	Video	1 x HDB - 15 female	
	Audio	1 x Stereo port 1 x Microphone port	
CPU Connecters	KVM data	2 x SPDB = 15 female	4 x SPDB = 15 female
	Audio	2 x Stereo ports 2 x Microphone ports	4 x Stereo ports 4 x Microphone ports
USB Peripherals		2 x USB TypeA	

Specification

Function	GCS1732	GCS1734
Firmware Upgrade	1 x RJ- 11 socket	
Power Adapter	1 x DC 5V jack	
Scan Interval	5 secs.	
Resolution	Up to 2048 x 1440	
Power Consumption	Bus Powered	
Operating Temperature	5 - 40°C	
Storage Temperature	-20 - 60°C	
Humidity	0 - 80% RH	
Housing	Metal/Plastic	
Weight	.75 lb (0.5 kg)	1.1 lb (0.7 kg)
Dimensions (L x W x H)	3.5" x 1.7" x 5.2" (90mm x 47mm x 135mm)	3.5" x 1.7" x 8" (90mm x 47mm x 205mm)

If you need technical support, please check out our IOGEAR Tech Info Library (T.I.L.) at **www.iogear.com/support** for the latest tips, tricks, and troubleshooting. The IOGEAR T.I.L. was designed to provide you with the latest technical information about our products. Most of the answers to your questions can be found here, so please try it out before contacting technical support.

Technical support is available Monday through Friday from 8:00 am to 5:00 pm PST and can be reached at (949) 453-8782.

Radio & TV Interference Statement

WARNING!!! This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause interference to radio communications. This equipment has been tested and found to comply with the limits for a Class B computing device pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case the user at his own expense will be required to take whatever measures may be required to correct the interference.

IN NO EVENT SHALL THE DIRECT VENDOR'S LIABILITY FOR DIRECT, INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THE PRODUCT, DISK, OR ITS DOCUMENTATION EXCEED THE PRICE PAID FOR THE PRODUCT.

The direct vendor makes no warranty or representation, expressed, implied, or statutory with respect to the contents or use of this documentation, and especially disclaims its quality, performance, merchantability, or fitness for any particular purpose.

The direct vendor also reserves the right to revise or update the device or documentation without obligation to notify any individual or entity of such revisions, or updates. For further inquiries please contact your direct vendor.



Contact info.

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