MiniView® Ultra+
8-Port Multi Platform KVM Switch

User Manual (GCS1758)

IOGEAR

Thank you for purchasing the Miniview® Ultra+ KVM switch, one of the most versatile KVM switches on the market. The New Miniview® Ultra+ is much more than a simple eight-port KVM switch. The dual interface support allows you to connect both PS/2 and USB computers on the same switch. The multi-platform support allows you to control Windows-based computers, Sun Solaris systems, Linux, or even Macs by a single KVM switch. IOGEAR extended the multi-platform support by supporting the special keys on both Sun and Mac keyboards.

Table of Contents

This package consists of:

1 Miniview® Ultra+ KVM
1 Firmware Upgrade Cable
1 Power Adapter
1 Rack Mount Kit
1 User Manual
1 Quick Start Guide
1 Warranty / Registration Card

Check to make sure that all the components are present and that nothing was damaged in shipping. If you encounter a problem, please contact your dealer.

Overview

IOGEAR's new eight-port Miniview® Ultra+ KVM switch is the ideal tool to help reduce redundant hardware. Eight monitors, mice and keyboards are simply too expensive, bulky and inconvenient for most system administrators. Why bother when you can control all eight, or even up to 512 computers with a single keyboard, monitor and mouse? The added audio support allows you to enjoy music while working. Just think of the time, space and money you'll save, and added fun.

The New Miniview® Ultra+ is much more than a simple eight-port KVM switch. The dual interface support allows you to connect both PS/2 and USB computers on the same switch. The multi-platform support allows you to control Windows-based computers, Sun Solaris systems, Linux, or even Macs by a single KVM switch. IOGEAR extended the multi-platform support by supporting the special keys on both Sun and Mac keyboards. This KVM switch also comes with the IOGEAR VSE technology, which provides excellent video resolution - up to 2048 x 1536. Built-in AutoScan mode lets you conveniently monitor every attached computer for a specified amount of time, while our On Screen Display (OSD) technology allows you to assign a unique name to each computer and access it via a smooth menu-driven interface. With its 1U, 19" rack-mountable casing and status-monitoring LEDs, the Miniview® Ultra+ is the perfect switch for your server room or any other multi-computer environment.

- Dual interface support – supports computers with either PS/2 or USB Keyboard and mouse.
- Multi platform support – Windows, Mac, and Sun Solaris
- Easy to install – just plug the cables in
- Audio support allows sharing multimedia speakers and microphone
- Easy to operate – computer selection via front panel switches, intuitive OSD (on screen display), and Hot Keys
- Security – 2 level password protection for OSD
- Hot Pluggable – both console side and computer side are hot swappable and auto-detect device changes
- LED Display for easy status monitoring
- Auto Scan Mode for monitoring all computers
- Complete keyboard emulation for error free booting
- Superior video quality; 2048 x 1536; support DDC2B.
- Total capacity expandable to support 512 computers via 3 levels of cascading
- Supports special keys on Sun and Mac keyboards
- Firmware upgradeable through flash ROM
- Designed for both desktop and rack mount

System Requirements

Console:
VGA, SVGA, or Multisync monitor capable of the highest resolution that you will be using on any computer in the installation
USB mouse
USB keyboard

Computers:
VGA, SVGA or Multisync card;
Either a Type-A USB port, or PS/2 mouse and keyboard ports.

Cables:
For PS/2 computers, use IOGEAR part number G2L530XP*;
For USB computers, use IOGEAR part number G2L530XU*.

*"X" stands for the length of the cable: "1" is 3', "2" is 6', "3" is 10'.)

Front View
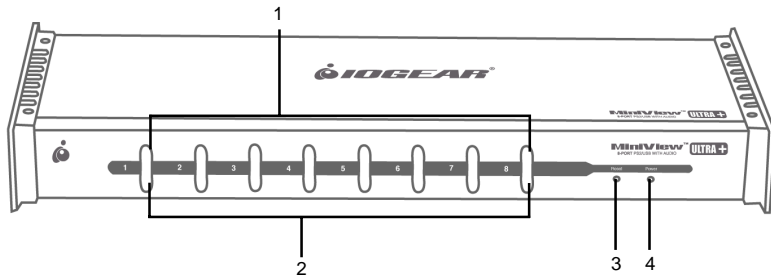
1. Port Selection Switches – Press a switch to access the computer attached to its corresponding port. Pressing Buttons 1 and 2 simultaneously for 2 seconds performs a keyboard and mouse reset. Pressing Buttons 7 and 8 simultaneously for 2 seconds starts *Auto Scan Mode*.

2. Port LEDs – The Port LEDs are built into the Port Selection Switches. The upper ones are the On Line LEDs; the lower ones are the Selected Port LEDs.

The *On Line* LEDs light ORANGE to indicate that the computer attached to the corresponding port is up and running. If the LED is flashing, it indicates that the port is being used for cascading to another MiniView® Ultra+ (see *Two Stage Installation*, p. 12).

The *Selected* LEDs light GREEN to indicate that the computer attached to the corresponding port is the one that has the KVM focus. The LED is steady under normal conditions, but flashes when its port is accessed under *Auto Scan Mode* (see *F7 SCAN*, p. 20).

3. Reset – Use a thin object (such as the end of a paper clip, or a ballpoint pen), to press this recessed switch in to initiate a reset of the unit. Press this briefly for a warm reset. If the switch is kept in for longer than three seconds, a cold reset takes place.

Warm Reset: Will rescan your ports for connections.
Cold Reset: Cycles the power off and clear the internal memory.

4. Power LED – Lights to indicate that the unit is receiving power.

Rear View
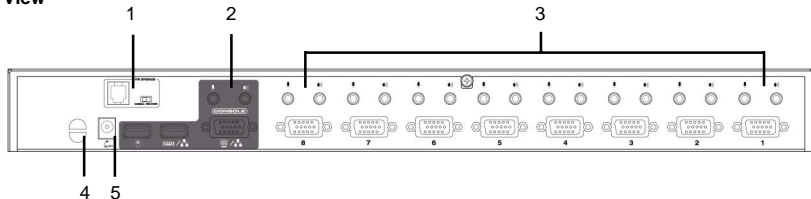
1. Firmware Upgrade Section – Firmware Upgrade Switch : During normal operation and while performing a fimware upgrade, this switch should be in the NORMAL position. See p. 44 for details about the use of this switch.

Firmware Upgrade Port : The Firmware Upgrade Cable that transfers the firmware upgrade data from the administrator's computer to the GCS1758 plugs into this RJ-11 connector. See p. 44 for firmware upgrading details.

2. Console Port Section – Ports to plug in your microphone, speakers, monitor, keyboard and mouse are found here. Each port is marked with an appropriate icon to indicate itself.

3. CPU Port Section – The cables that link the switch to your computers plug in here. Each CPU port is comprised of a microphone jack, speaker jack, and KVM data connector.

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

4. Cable Tie Slot – If you want to use a cable tie to gather the cables, you can run it through this slot to attach it to the unit.

5. Power Jack – The power adapter cable plugs into this jack.

Before you Begin

1. You must unplug the power cords of any computers that does not support hot-plugging feature.

2. To prevent damage to your installation make sure that all devices on the installation are properly grounded.

2. Using a KVM cable set, plug the custom SPDB15 connector into any available CPU Port on the switch and plug the accompanying microphone and speaker cables into the CPU Port's microphone and speaker jacks.

   Note: Be sure that all the plugs are in the same CPU Port sockets (all in Port 1, all in Port 2, etc.).

Single Stage Installation

To set up the single stage installation of GCS1758, refer to the installation diagrams on the following page, and do the steps as indicated:

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

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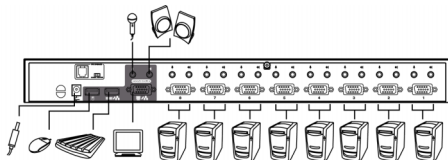
3. At the other end of the cable (the computer end):
   a) For a computer with USB connections, plug the USB, video, microphone and speaker cables into their respective ports on the computer.
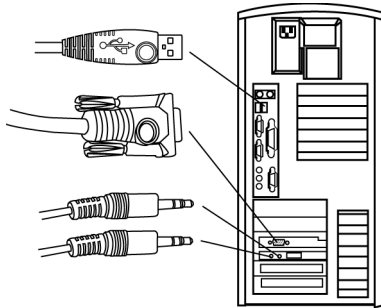
b) For a computer with PS/2 connections, plug the keyboard, mouse, video, microphone and speaker cables into their respective ports on the computer.

4. Repeat steps 2 - 3 for any other computers you are connecting up.
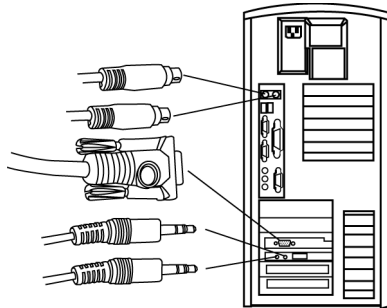
5. Plug the power adapter cable into the switch's Power Jack, then plug the power adapter into an AC power source. This completes the single stage installation, and you can turn on the power to the computers.

Two Stage Installation

To control even more computers, you can connect up to eight additional GCS1758 units cascading to the CPU ports of the first stage unit. As many as 64 computers can be controlled in a complete two stage installation.
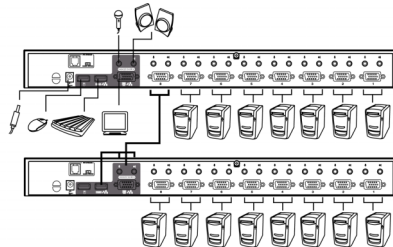
Three Stage Installation

The procedures for setting up a three stage installation are essentially the same as for a two stage installation. With a three stage setup, as many as 512 GCS1758 computers can be controlled in a complete installation. A table showing the relation between the number of computers and the number of switches needed to control them is provided on p. 45.

Switches cannot be cascaded beyond the third level. Once you have finished cabling up (see Two/Three Stage Installation for details, if necessary), power up according to the following sequence:

1. For each Third Stage unit, plug the power adapter cable into the switch's power jack; plug the power adapter into an AC source.

2. For each Second Stage unit, plug the power adapter cable into the switch's power jack; plug the power adapter into an AC source.

3. Plug the First Stage unit's power adapter cable into its power jack, then plug the power adapter into an AC source.

4. Turn on the power to all the computers.

   Note: The Power On sequence requires that all third stage units be powered on first. After they are all on, the Second Stage units must be powered on next. After all the second stage units are on, the first stage unit must be powered on. Only after all the switches have been powered on in this sequence, can the computers be powered on.

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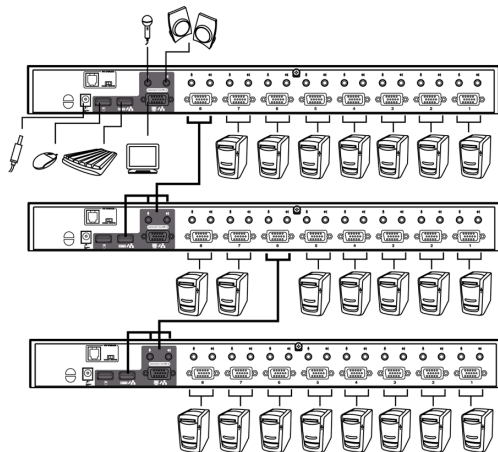
Hot Plugging

The Miniview® Ultra+ supports hot plugging. Components can be removed and added back into the installation by unplugging and replugging their cables from their respective ports without the need to shut the switch down. For hot plugging to work properly, the following procedures must be observed:

Hot Plugging CPU Ports:

When hot plugging cables from the CPU ports:

1. The cable must be plugged back into the *same port* it was removed from.

2. After plugging the cable back in, you must perform a **KVM Reset** on the First Stage unit (by pressing the Reset switch In).

Hot Plugging Console Ports:

The unit supports hot plugging of the keyboard, monitor, and mouse.

Note: If there is no response to mouse and/or PS/2 keyboard input after hot plugging (or at any other time), simultaneously press and hold Port Select buttons 1 and 2 on the First Stage unit for 3 seconds to perform a PS/2 Keyboard and PS/2 Mouse reset.

Powering Off:

If it becomes necessary to power off one of the GCS1758 units, you must do the following:

Shut down all the computers that are attached to the unit which do not support hot plugging feature, such as PS/2 computers or computers with Novell OS, etc.

Port ID Numbering:

Each CPU Port on a GCS1758 installation is assigned a unique *Port ID*. You can directly access any computer on any level of the installation by specifying the Port ID of the CPU port that the computer is connected to - either with the Hotkey port selection method (see p. 20), or with the OSD (see p. 27).

The Port ID is a one, two, or three digit number. It is determined by the Stage Level and CPU Port number of the switch that a computer is connected to.

The first digit represents the CPU Port number of the First Stage unit; the second digit represents the CPU Port number of the Second Stage unit; the third digit represents the CPU Port number of the Third Stage unit.

Operation

´ A computer attached to a First Stage unit has a one digit Port ID (from 1-4 for the CS-1754; from 1-8 for the CS-1758), that corresponds to the CPU Port number that it is connected to.

´ A computer attached to a Second Stage unit has a two digit Port ID. The first digit represents the CPU Port number on the First Stage unit that the Second Stage unit links back to; the second digit represents the CPU Port number on the Second Stage unit that the computer is connected to. For example, a Port ID of **2 3** would refer to a computer that is connected to CPU Port 3 of a Second Stage unit that links back to CPU Port 2 of the First Stage unit.

´ Likewise, a computer attached to a Third Stage unit has a three digit Port ID. As in the previous example, a Port ID of **2 4 1** would refer to a computer that is connected to CPU Port 1 of a Third Stage unit, that links back to CPU Port 4 of a

Second Stage unit, which, in turn, links back to CPU Port 2 of the First Stage unit.

Port Selection:

The Miniview Ultra+ provides three methods to obtain instant access to any computer in your installation: Manual, *Hotkey*, and OSD.

• **Manual -** Simply press the appropriate *Port Selection Switch* on the GCS1758's front panel. After you press the switch, the *Selected* LED lights to indicate that the port has the KVM focus. The OSD (see p. 27) automatically switches to highlight the computer that you have selected.

Note:
1. On a cascaded installation, you must press the Port Selection switch on the GCS1758

Station that connects directly to the computer you want to access.

2. Simultaneously pressing Port Selection buttons 7 and 8 on the First Stage unit initiates the *Auto Scan* feature (see *F7 SCAN*, p. 20), in which all the ports currently selected for *Quick View* scanning (see *Set Quick View Ports*, p. 30), are cycled through. The length of time spent on each port is determined with the *Scan Duration* setting under the OSD's **F3 SET** function (see p. 31).

• **Hotkeys** - allow you to conveniently provide KVM focus to a particular computer from the keyboard, instead of having to manually select them by pressing Port Selection switches. Hotkey operation is discussed in detail beginning on p. 19.

• **OSD -** OSD (On Screen Display), provides a menu driven interface to handle the computer switching procedure to provide instant access to any computer on the installation. OSD operation is discussed in detail beginning on p.27.

• **Manual -** Simply press the appropriate *Port Selection Switch* on the GCS1758's front panel. After you press the switch, the *Selected* LED lights to indicate that the port has the KVM focus. The OSD (see p. 27) automatically switches to highlight the computer that you have selected.

Operation

Hot Key Mode (HKM):

The GCS1758 provides an extensive, easy-to-use, hotkey function that makes it convenient to control and configure your KVM installation from the keyboard. All hotkey operations begin by invoking Hotkey Mode.

To invoke **HKM**, 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
   [Num Lock] + [-]

   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 **HKM**.

When HKM is active, the Caps Lock, and Scroll Lock LEDs flash in succession to indicate that **HKM** is in effect. They stop flashing and revert to normal status when you exit **HKM**. A Command Line appears on the monitor screen. The command line prompt is the word *Hotkey:* in yellow text on a blue background. 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 Hot Key Mode manually, press the **Esc** key, or the **Spacebar**.

Hotkey Port Access:

Hotkey Port Access allows you to select which computer has the KVM focus. The Miniview® Ultra+ provides the following Hotkey Port Access features: Selecting the Active Port and Auto Scan Mode.

Selecting the Active Port:

You can bring the KVM focus to any computer with a hotkey combination that specifies its Port ID (see p. 16 for Port ID Numbering details):

1. Invoke **Hot Key Mode (HKM)** (see p. 19).

2. Key in the computer's Port ID number.
   The Port ID numbers display on the Command Line as you key them in. If you make a mistake, use [Backspace] to erase the wrong number.

3. Press [Enter]. The KVM focus switches to the computer associated with the specified Port ID, and you automatically exit Hotkey Mode.

Auto Scan Mode:

The GCS1758's Auto Scan feature automatically switches among all the active CPU Ports that are accessible to the currently logged on User at regular intervals (see *Scan Mode* of the OSD **F3 SET** function, p. 31), so that he can monitor their activity automatically.
To start Auto Scanning, key in the following Hotkey combination:

1. Invoke **HKM** (see p. 19)

2. Key in [A]. After you press **A**, you automatically exit Hotkey Mode, and enter Auto Scan Mode. To exit Auto Scan Mode, press [Esc] or [Spacebar].

Hotkey Port Control

Note: While Auto Scan Mode is in effect, ordinary keyboard and mouse functions are suspended - only Auto Scan Mode compliant keystrokes and mouse clicks can be input. You must exit Auto Scan Mode in order to regain normal control of the console.

While you are in Auto Scan Mode, you can pause the scanning in order to keep the focus on a particular computer by pressing **P**. During the time that Auto Scanning is paused, the Command Line displays: **Auto Scan: Paused.** Pausing when you want to keep the focus on a particular computer is more convenient than Exiting Auto Scan Mode because when you Resume scanning, you start from where you left off. If, on the other hand, you Exited and restarted, Scanning would start over from the very first computer on the installation. After pausing, to resume Auto Scanning, press any key. Scanning continues from where it left off.

Alternate Hotkey Invocation Keys:

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 **HKM**

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).

   Note: This procedure is a toggle between the two methods. To revert back to the original [Num Lock] [Minus] method, invoke **HKM**, then press and release the **H** key again.

Alternate OSD Invocation Keys:

The OSD activation method can be changed from tapping the Scroll Lock key twice to tapping the Ctrl key twice ([Ctrl] [Ctrl]). To change the OSD Invocation method, do the following:

1. Invoke **HKM** (see p. 19)

2. Press and release the **T** key

   Note:
   1. This procedure is a toggle between the two methods. To revert back to the original [Scroll Lock] [Scroll Lock] method, invoke HKM, then press and release the **T** key again.
   2. For Mac systems we recommend using [Ctrl] [Ctrl] as the OSD invocation keys since Scroll Lock is used to emulate F14 in PC to Mac keyboard emulation (see p. 26).

Keyboard Platform Setup:

The GCS1758's default port settings are for a PC Compatible operating platform, and the US English keyboard language code. You can modify these for each port by bringing the KVM focus to the port you want to change and using the hotkey combinations shown in the table below.

The Hotkey entry method is as follows:

1. Invoke **HKM** (see p. 19)

2. Press and release the appropriate Function key (see table). After completing a setting, you automatically exit **HKM**.

   Note: The brackets indicate the keys you should press. Simply press the indicated keys – do not type the brackets.

Key	Operation
[F1]	Sets the PC Compatible keyboard operating platform for the port that currently has the KVM focus.
[F2]	Sets the Mac keyboard operating platform for the port that currently has the KVM focus.
[F3]	Sets the Sun keyboard operating platform for the port that currently has the KVM focus.
[R][Enter]	Resets the KVM settings back to their defaults.

Miscellaneous:

Hotkeys are also used to reset the USB, and toggle the beeper On and Off. To perform any of these operations, do the following:

1. Invoke **HKM** (see p. 19)

2. Press and release the appropriate action key (see table). After completing a setting, you automatically exit **HKM**.

Key	Operation
[F5]	Performs a USB reset.
[B]	Toggles the Beeper On or Off
[F3]	Sets the Sun keyboard operating platform for the port that currently has the KVM focus.

Hotkey Summary Table:

Note: The brackets indicate the keys you should press. Simply press the indicated keys - do not type the brackets.

[Num Lock] + [-]	[Port ID][Enter]	Switches access to the computer that corresponds to that Port ID.
	[A]	Invokes Auto Scan Mode. When Auto Scan Mode is in effect, [P] or Left Click pauses Auto Scanning. When Auto Scan Mode is paused, pressing Any Key or another Left Click resumes Auto Scanning.
	[H]	Toggles between the default ([Num Lock][-]) and alternate ([Ctrl][F12]) Hotkey invocation keys.
	[T]	Toggles between the default ([Scroll Lock][Scroll Lock]) and alternate ([Ctrl][Ctrl]) OSD invocation keys.
	[F1]	Sets the PC Compatible keyboard operating platform for the port that currently has the KVM focus.
	[F2]	Sets the Mac Compatible keyboard operating platform for the port that currently has the KVM focus.
	[F3]	Sets the Sun keyboard operating platform for the port that currently has the KVM focus.
	[F5]	Performs a USB reset.
	[R][Enter]	Resets the KVM settings back to their defaults.
	[B]	Toggles the Beeper On or Off.

Sun Keyboard

The PC Compatible (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 on the right.

Note: When using [Ctrl] combinatons, press and
release the **Ctrl** key, then press and release the
activation key.
Make sure to set the Sun keyboard operating
platform. See *Hotkey Port Control* P.23.

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
[Ctrl][1]	▭ ◀
[Ctrl][2]	◑ - ◀
[Ctrl][3]	◑ + ◀
[Ctrl][4]	☾
[Ctrl][H]	Help
Compose	App
◆	Win Key

Mac Keyboard:

The PC Compatible (101/104 key) keyboard can emulate the functions of the Mac keyboard. The emulation mappings are listed in the table on the right.

Note: When using key combinatons, press and release the first key (Ctrl or Alt), then press and release the activation key.
Make sure to set the Mac keyboard operating platform. See *Hotkey Port Control* P.23.

PC Keyboard	Mac Keyboard
[Shift]	Shift
[Ctrl]	Ctrl
[Win]	⌘
F12	⏏
[Alt]	L Alt/Option
[Prt_Sc]	F13
[Scroll Lock]	F14
Desktop Menu	=
[Enter]	Return
[Back Space]	Delete
[Ins]	Help
[Ctrl][Desktop Menu]	F15

OSD Overview

The On Screen Display (OSD) is used to handle all computer control and switching procedures. All procedures start from the OSD Main Menu. To pop up the Main Menu, tap the **[Scroll Lock]** key twice.
Note: You can optionally change the Hotkey to the Ctrl key (see *OSD Hotkey*, p.32), in which case you would tap **[Ctrl]** twice. With this method, the [Ctrl] keys must be on the same side (both left, or both right).

The OSD incorporates a two level (Administrator / User) authorization system. Before the OSD Main Screen comes up, a dialog box appears that asks you to provide your Username and Password. If the Password Function has been set (see p. 33), you must provide them in order to access the OSD Main Screen. If this is the first time that the OSD is being run, or if the password function has not been set, simply press **[Enter]** when the authorization dialog

box appears. The OSD Main Screen comes up in Administrator Mode, with access to all functions. When you invoke the OSD, a screen similar to the one below appears:

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Note:

1. The diagram depicts the Administrator's Main Screen. The User Main Screen does not show the **F4 ADM** function.

2. OSD always starts in List view, with the highlight bar at the same position it was in the last time it was closed.

3. Only the ports that have been set accessible by the Administrator for the currently logged in User are visible (see *Set Accessible Ports*, p. 35, for details).

OSD Navigation:

• To dismiss the menu, and deactivate OSD, Click the **X** at the upper right corner of the OSD Window; or press **[Esc]**.

• To Logout, Click **F8** at the top of the Main Screen, or press **[F8]**.

• To move up or down through the list one line at a time, Click the Up and Down Triangle symbols (▲ ▼) or use the Up and Down Arrow Keys. If there are more list entries than what can appear on the Main Screen, the screen will scroll.

• To move up or down through the list one screen at a time, Click the Up and Down Arrow symbols (⬆ ⬇), or use the [Pg Up] and [Pg Dn] keys. If there are more list entries than what can appear on the Main Screen, the screen will scroll.

• To activate a port, Double Click it, or move the Highlight Bar to it then press [Enter].

• After executing any action, you automatically go back to the menu one level above.

OSD Operation

OSD Main Screen Headings:

Heading	Explanation
PN	This column lists the Port ID numbers (see *Port ID Numbering*, p.16), for all the CPU ports on the installation. The simplest method to access a particular computer is move the Highlight Bar to it, then press [Enter].
QV	If a port has selected for Quick View scanning (see *Set Quick View Ports*, p.35), an arrowhead symbol displays in this column to indicate so.
☼	The computers that are powered on and are On Line have a Sun symbol in this column to indicate so.
NAME	If a port has been given a name (see *Edit Port Names*, p.35), its name appears in this column.

OSD Functions:

OSD functions are used to configure and control the OSD. For example, you can: rapidly switch to any port; scan selected ports only; limit the list you wish to view; designate a port as a Quick View Port; create or edit a port name; or make OSD setting adjustments.

To access an OSD function:

1. Either Click a Function Key field at the top of the Main Screen, or press a Function Key on the keyboard.

2. In the Submenus that appear make your choice either by Double Clicking it, or moving the Highlight Bar to it, then pressing **[Enter]**.

3. Press **[Esc]** to return to the previous menu level.

• F1 GOTO:
GOTO allows you to switch directly to a port either by keying in the port's *Name*, or its *Port ID*.

- To use the Name method, key in **1**; key in the port's Name; then press [Enter].
- To use the Port ID method, key in **2**; key in the *Port ID*; then press [Enter].

Note: You can key in a partial Name or Port ID. In that case, the screen will show all the computers that the User has *View* rights to (see *Set Accessible Ports*, p. 35), that match the Name or Port ID pattern, regardless of the current *List* settings. To return to the OSD Main Menu without making a choice, press [Esc].

• F2 LIST:
The LIST function lets you broaden or narrow the scope of which ports the OSD displays (lists) on the Main Screen. Many of the OSD functions only operate on the computers that have been selected for listing on the Main Screen with this function. The choices and their meanings are given in the table below:

Choice	Meaning
All	Lists all of the ports on the installation
QUICK VIEW*	Lists only the ports that have been selected as Quick View Ports (see p. 35).
POWERED ON	Lists only the ports that have their attached computers Powered On.
QUICK VIEW+ POWERED ON*	Lists only the ports that have been selected as Quick View Ports (see p. 35), and that have their attached computers Powered On.

OSD Operation

- These items only show up on the Administrator's
screen, since only he has *Quick View* setting
rights (see p. 30, for details).

Move the Highlight Bar to the choice you want, then
press [Enter]. An icon appears before the choice to
indicate that it is the currently selected one.

After you make your choice and press [Enter], you
return to the OSD Main Screen with the newly
formulated List displayed.

• F3 SET:
This function allows the Administrator and each
User to set up their own working environment. A
separate profile for each is stored by the OSD and
is activated according to the Username that was
provided during Login.

To change a setting:

1. Double Click it; or move the highlight bar to it,
then press **[Enter]**.

2. After you select an item, a submenu with further
choices appears. To make a selection, either
Double Click it; or move the Highlight Bar to it,
then press **[Enter]**. An icon appears before the
selected choice to indicate which one it is. The
settings are explained in the following table:

Setting	Function
OSD HOTKEY	Selects which Hotkey activates the OSD function: [Scroll Lock] [Scroll Lock] or [Ctrl] [Ctrl]. Since the Ctrl key combination may conflict with programs running on the computers, the default is the Scroll Lock combination.
PORT ID DISPLAY POSITION	Allows you to position where the Port ID appears on the screen. The default is the upper right corner, but you can choose to have it appear anywhere on the screen. Use the Arrow Keys plus Pg Up, Pg Dn, Home, End, and 5 (on the numeric keypad with Num Lock off), to position the Port ID display, then press [Enter] to lock the position and return to the Set submenu. Note: The ID display position for each port on the installation is set independently; the choice specified here only applies to the currently active computer.
PORT ID DISPLAY DURATION	Determines how long a Port ID displays on the monitor after a port change has taken place. The choices are: User Defined - which lets you select the amount of time (from 1 - 255 sec.); and Always On - which displays the Port ID at all times. If you select User Defined, key in the number of seconds, then press [Enter]. The default is 3 Seconds.

Setting	Function
PORT ID DISPLAY MODE	Selects how the Port ID is displayed: the Port Number alone (PORT NUMBER); the Port Name alone (PORT NAME); or the Port Number plus the Port Name (PORT NUMBER + PORT NAME). The default is PORT NUMBER + PORT NAME.
SCAN DURATION	Determines how long the focus dwells on each port as it cycles through the selected ports in Auto Scan Mode (see p. 20). Key in a value from 1 - 255 seconds, then press [Enter]. Default is 5 seconds; a setting of 0 disables the Scan function.
SCAN/SKIP MODE	Selects which computers will be accessed under Auto Scan Mode (see p. 20). Choices are: ALL - All the Ports which have been set Accessible (see p. 35); POWERED ON - Only those Ports which have been set Accessible and are Powered On; QUICK VIEW - Only those Ports which have been set Accessible and have been selected as Quick View Ports (see p. 35); QUICK VIEW + POWERED ON - Only those Ports which have been set Accessible and have been selected as Quick View Ports and are Powered On. The default is ALL. Note: The Quick View choices only show up on the Administrator's screen, since only he has Quick View setting rights (see p. 35, for details).
SCREEN BLANKER	If there is no input from the console for the amount of time set with this function, the screen is blanked. Key in a value from 1 - 30 minutes, then press [Enter]. A setting of 0 disables this function. The default is 0.
HOTKEY COMMAND MODE	Enables / Disables the Hotkey function (see p. 19) in case there is a conflict with programs running on the computers. On enables the function, Off disables it. The default is On.

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F4 ADM:

F4 is an Administrator only function. It allows the Administrator to configure and control the overall operation of the OSD. To change a setting Double Click it; or use the Up and Down Arrow Keys to move the highlight bar to it then press **[Enter]**.

After you select an item, a submenu with further choices for you to select from appears. Double Click the choice you want, or move the Highlight Bar to it then press **[Enter]**. An icon appears before the selected choice so that you know which one it is. The settings are explained in the following table:

Setting	Function
SET USERNAME AND PASSWORD	This function is used to set Usernames and Passwords for the Administrator and Users: 1. Usernames and Passwords for one Administrator and four Users can be set. 2. After you select one of the User fields or the Administrator field, a screen that allows you to key in a Username and Password appears. The password may be up to 15 characters long, and can consist of any combination of letters and numbers (A - Z, 0 - 9). 3. For each individual, key in the Username and Password, then press [Enter]. 4. To modify or delete a previous Username and/or Password, use the backspace key to erase individual letters or numbers.
SET LOGOUT TIMEOUT	If there is no input from the console for the amount of time set with this function, the Operator is automatically logged out. A login is necessary before the console can be used again. This enables other Operators to gain access to the computers when the original Operator is no longer accessing them, but has forgotten to log out. To set the timeout value, key in a number from 1 - 180 minutes, then press [Enter]. If the number is 0 [zero], this function is disabled. Default is 0.

OSD Operation

Setting	Function
EDIT PORT NAMES	To help remember which computer is attached to a particular port, every port can be given a name. This function allows the Administrator to create, modify, or delete port names. Note: Only the Ports currently chosen for the LIST view on the main OSD screen (see p. 29), show up here. To Edit a port name: 1. Use the Navigation Keys to move the highlight bar to it, then press **[Enter]**. 2. Key in the new Port Name, or modify/delete the old one. The maximum number of characters allowed for the Port Name is 12. Legal characters include: • All alpha characters: a - z; A - Z • All numeric characters: 0 - 9 • + - / : . and Space Case does not matter; OSD displays the Port Name in all capitals no matter how they were keyed in. 3. When you have finished editing, press **[Enter]** to have the change take effect. To abort the change, press **[Esc]**.
RESTORE DEFAULT VALUES	This function is used to undo all changes - except for the Port Names, Usernames / Passwords, and QUICK VIEW port settings - and return the setup to the original factory default settings.
CLEAR THE NAME LIST	This function is similar to Restore Default Values. The difference is that it also clears the Port Names and QUICK VIEW settings along with undoing all changes and returning the setup to the original factory default settings.
ACTIVATE BEEPER	Choices are Y (for On), or N (for Off). When activated, the beeper sounds whenever a Port is changed; when activating the Auto Scan function (see p. 20); or an invalid entry is made on an OSD menu. The default is Y.

Setting	Function
SET QUICK VIEW PORTS	This function lets the Administrator select which Ports to include as Quick View ports. Note: Only the Ports currently chosen for the LIST view on the main OSD screen (see p. 29), show up here. • To select/deselect a port as a Quick View Port, use the Navigation Keys to move the highlight bar to it, then Press [Enter]. • When a port has been selected as a Quick View Port, an arrowhead displays in the QV column of the LIST on the Main Screen to indicate so. When a port is deselected, the arrowhead disappears. • If one of the Quick View options is chosen for the LIST view (see p. 30), only Ports that have been selected here will show up on the LIST display on the main OSD screen. • If one of the Quick View options is chosen for Auto Scanning (see p. 36), only Ports that have been selected here will be Auto Scanned. The default is for no ports to be selected.
SET ACCESSIBLE PORTS	This function allows the Administrator to define User access to the computers on the installation on a Port-by-Port basis. For each User, select the target Port; then press the [Spacebar] to cycle through the choices: F (Full access), V (View Only) or blank. Repeat until all access rights have been set, then press [Esc]. The default is F for all users on all Ports. Note: A blank setting means that no access rights are granted. The Port will not show up on the User's LIST on the Main Screen.
FIRMWARE UPGRADE	In order to upgrade the CS-1754 / CS-1758's firmware (see p. 38), you must first invoke Firmware Upgrade Mode with this setting.
PORT OS	Specifies the operating platform of the computer attached to each port. For each port, press the [Spacebar] to cycle through the choices (PC Compatible, Sun, and Mac). Repeat until all the ports have been set, then press [Esc]. The default is PC Compatible.

• **F7 SCAN:**

The SCAN function allows you to automatically switch among the available computers at regular intervals so that you can monitor their activity without having to take the trouble of switching manually.

- The selection of computers to be included for Auto Scanning is made with the *Scan Mode* setting under the **F3 SET** function (see p. 31).
- The amount of time that each Port displays for is set with the *Scan Duration* setting under the **F3 SET** function. When you want to stop at a particular location, press the [Spacebar] to stop scanning.
- If the scanning stops on an empty port, or one where the computer is attached but is powered Off, the monitor screen will be blank, and the mouse and keyboard will have no effect. Simply wait – after the *Scan Duration* time is up, the Scan function will move on to the next port.

- As each computer is accessed, an **S** appears in front of the Port ID display to indicate that it is being accessed under *Auto Scan Mode*.
- If you want to temporarily keep the focus on a particular computer, you can pause the scanning either by pressing **P**, or with a Left Click of the mouse. See *Auto Scan Mode*, p. 20, for details.
- When you want to permanently stop scanning at a particular location, press the **[Spacebar]** to stop scanning and exit Auto Scan Mode.

  Note: While Auto Scan Mode is in effect, the console will not function. You must exit Auto Scan Mode in order to regain control of the console.

- To exit Auto Scan Mode, press the [Spacebar] or [Esc].

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OSD Operation

• F8 LOUT:

LOUT (Log out) logs you out of OSD control of the computers, and blanks the Console screen. After using this function you must log in all over again to regain access to the OSD.

This is different from simply pressing **[Esc]** when you are at the Main Screen to deactivate the OSD, where all you have to do to reenter the OSD is tap the OSD Hotkey.

Note:

1. When you reenter the OSD after logging out, the screen stays blank except for the OSD Main Menu. You must input your password before you can continue.

2. If you reenter the OSD after logging out, and immediately use [Esc] to deactivate the OSD without having selected a port from the OSD menu, a Null Port message displays on the screen. The OSD Hotkey will bring up the Main OSD Screen.

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 IOGEAR web site regularly to find the latest packages and information relating to them.

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 our support site and choose the model name that relates to your device (GCS1758) 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.


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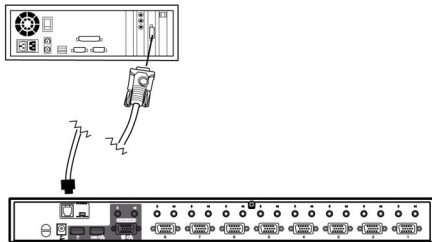
Firmware Upgrade Utility

4. Shut down the non-hot-pluggable computers (such as PS/2 computers) on your GCS1758 installation.

5. From your KVM switch console, bring up the OSD (see p. 27) and select the **F4ADM** function.

6. Scroll down to FIRMWARE UPGRADE. Press [Enter], then press [Y] to invoke Firmware Upgrade Mode For your reference, the current firmware upgrade version displays on the screen.

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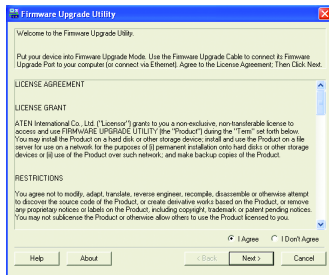
2. Read and *Agree* to the License Agreement (enable the I Agree radio button).

3. Click Next to continue. The Firmware Upgrade Utility main screen appears:
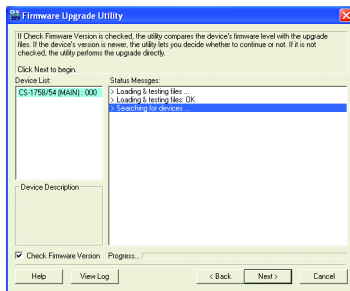
The Utility inspects your installation. All the devices capable of being upgraded by the package are listed in the *Device List* panel.
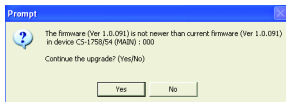
4. As you select a device in the list, its description appears in the *Device Description* panel.
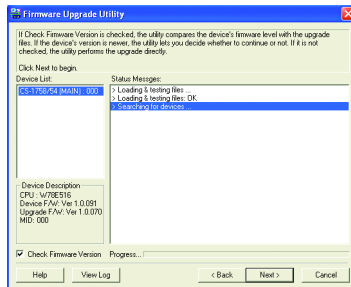
5. After you have made your device selection(s), Click **Next** to perform the upgrade. If you enabled *Check Firmware Version*, the Utility compares the device's firmware level with that of the upgrade files. If it finds that the device's version is higher than the up grade version, it brings up a dialog box informing you of the situation and gives you the option to Continue or Cancel.
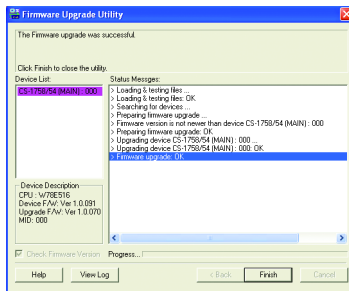
If you didn't enable *Check Firmware Version*, the Utility installs the upgrade files without checking whether they are a higher level, or not. As the Upgrade proceeds status messages appear in

Upgrade Succeeded

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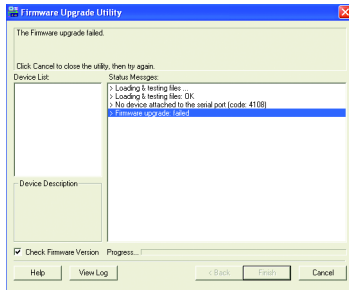appears to inform you that the procedure
was successful:

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

Upgrade Failed

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 two 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.

Note: If one of the cascaded switches fails to upgrade successfully, unplug it from the installation and perform the recovery and upgrade operation independently. After it has been successfully upgraded, plug it back into the installation.
To perform a firmware upgrade recovery, do the following:

1. Unplug the switch's power adapter cable.

2. Slide the *Firmware Upgrade Recovery Switch* (see p. 8) to the **Recover** position.

3. Use the Firmware Upgrade Cable (provided with this unit), to connect to a serial port on your computer with the Firmware Upgrade Port of the switch.

4. Plug the switch's power adapter cable back in.

5. Follow the upgrade procedures that begin with the *Starting the Upgrade* section (p. 39).

6. After the upgrade completes successfully, unplug the switch's power adapter cable, once again.

7. Slide the *Firmware Upgrade Recovery Switch* back to the **Normal** position.

8. Plug the switch's power adapter cable back in. This completes the Firmware Upgrade Recovery operation, and your switch is ready for use.

Miniview® Ultra+ Connection Tables

The following tables indicate the relationship between the number of GCS1758 Units and the number of computers that they control:

KVMs	Computers	KVMs	Computers	KVMs	Computers	KVMs	Computers
1	1 - 8	20	134 - 141	39	267 - 274	58	400 - 407
2	8 -15	21	141 - 148	40	274 - 281	59	407 - 414
3	15 - 22	22	148 - 155	41	281 - 288	60	414 - 421
4	22 - 29	23	155 - 162	42	288 - 295	61	421 - 428
5	29 - 36	24	162 - 169	43	295 - 302	62	428 - 435
6	36 - 43	25	169 - 176	44	302 - 309	63	435 - 442
7	43 - 50	26	176 - 183	45	309 - 316	64	442 - 449
8	50 - 57	27	183 - 190	46	316 - 323	65	449 - 456
9	57 - 64	28	190 - 197	47	323 - 330	66	456 - 463
10	64 - 71	29	197 - 204	48	330 - 337	67	463 - 470
11	71 - 78	30	204 - 211	49	337 - 344	68	470 - 477
12	78 - 85	31	211 - 218	50	344 - 351	69	477 - 484
13	85 - 92	32	218 - 225	51	351 - 358	70	484 - 491
14	92 - 99	33	225 - 232	52	358 - 365	71	491 - 498
15	99 - 106	34	232 - 239	53	365 - 372	72	498 - 505
16	106 - 113	35	239 - 246	54	372 - 379	73	505 - 512
17	113 - 120	36	246 - 253	55	379 - 386		
18	120 - 127	37	253 - 260	56	386 - 393		
19	127 - 134	38	260 - 267	57	393 - 400		

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 specifications (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.
		Unplug the cable(s) from the console port(s), then plug it/then back in.
	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 (see the note at the top of P.8); power off the KVM switch; wait five seconds; then power up.

Specifications

Function		GCS1758
Computer Connection	Daisy Chain or Cascading	512
	Direct	8
Console Connectors	Audio	1
	Keyboard	1 x USB Type A
	Microphone	1
	Monitor	1xHDDB15 Female
	Mouse	1xUSB Type A
CPU Connectors	Audio	8
	Keyboard, Mouse, and Video	8 x HDB15
	Microphone	8
Dimensions	Height	1.75"
	Length	6"
	Width	17"
Emulation	Keyboard	USB
	Mouse	USB
Housing	Case	Metal
LEDs	On Line	8
	Power On	1
	Selectd	8
Port Selection		Push Buttons, Hot Keys, or OSD
Power	Voltage	DC5V
Video Resolution		2048 x 1536; DDC2B
Weight	Package Wt	8.4 Lbs
	Unit Wt.	5.9 Lbs

If you are still experiencing problems after reading Product User Manual and the Troubleshooting section, you may either contact our technical support by phone OR, simply visit our URL address **www.iogear.com** to go to our company website and check the latest version and other information about the product and/or software.

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.

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