

KVM Switch SC5 User Guide





Contents



Introduction

SC5 features - front and rear	1
What's in the box	5
What you may additionally need	5

Installation

Mounting	6
Connections	7
Local user	8
Remote user (via extender)	9
Computer system (via CAM)	10
Power in connection	11
Cascading multiple units	12
Connecting units in cascade	13
Addressing computers in a cascade	14
Using cascaded computers	14
Multiple video head connections	15
Remote switching control	16

Configuration

Overall initial configuration17	
Configuration menus18	
Configuration menus layout19	
General security and configuration steps	
Registering users (edit user list)	
Registering computers (edit computer list)21	
Video compensation	
Remote user video compensation22	
Remote user skew adjustment23	
Autoscanning25	
Saving and restoring configuration settings	
What to do if the ADMIN password has been forgotten28	
Performing upgrades	
Upgrading SC5 units and CAMs29	

Operation

_C	cal and remote user access	31
	Selecting a computer	31
	User arbitration - simultaneous local and remote users	33
	Logging in and out	34
	Selecting cascaded computers	34
	The confirmation box	35
	The reminder banner	35
	User preferences and functions	36

Further information

Getting assistance	37
Appendix 1 – Configuration menus	
Functions	
User Preferences	40
Global Preferences	41
Setup Options	43
Advanced Options	44
Appendix 2 – Cable and connector specifications	46
Multi-head synchronisation cable	46
Safety information	47
WEEE (Waste of Electrical and Electronic Equipment),	
Recycling of Electronic Products	48
Radio Frequency Energy	49

Index

INSTALLATION

Introduction

Thank you for choosing the LINDY KVM switch C5 range. This compact unit has been created to allow a single operator to take full control of many computer systems.

Like the other models within the highly successful LINDY switch KVM range, this unit takes full advantage of category 5, 5e or 6 structured cabling to provide flexible installation and configuration. Every connected computer can be up to 10m (32 feet) from the SC5, linked by a standard CATx cable and the ingenious CAM (Computer Access Module).

The SC5 directly supports sixteen computers, however, this number can be increased at any time thanks to the ability to connect other SC5 units in cascade to provide a much larger network of controlled computers. The SC5 provides full enterprise level security to restrict access to authorised personnel.

The user console can be either connected directly to the SC5 unit or placed up to 300m (980 feet) away using a User Station extender and, once again, standard CATx cabling. In addition to providing the usual keyboard, video and mouse signals, the SC5 also provides audio output for full feedback where necessary.



LINDY

SC5 features - front and rear

The SC5 units pack a great deal of functionality into a compact space. Both models occupy half of a single 1U rack space and provide most of their connectors at the rear face. The smart front face features the remote user link port and the operation indicators.



Remote user port

This port can either be used to connect a single remote user (with an optional User Station extender module) at a distance of up to 300m or used to connect other SC5 units in cascade.

IMPORTANT: This is not an Ethernet port and must not be connected to any network.

Indicators

These six indicators clearly show the key aspects of operation:

- LOC Keyboard or mouse data are being received from the local console.
- **REM** Keyboard or mouse data are being received from the remote console.
- OSD Indicates that the on screen display is currently active.
- UPG Indicates that the unit is currently in upgrade mode.
- LCK Security mode enabled and no user logged in.
- **PWR** Power input indicator.

• Synchronisation - allows the actions of two or more SC5 switches to be synchronised so that multiple computers/video screens can be switched and accessed.

• Remote control switching - commands can be received that will change the

- Upgrades used to update the internal firmware when necessary by connecting to a computer.
- Transferring configuration settings allows information about the connected computers to be saved and restored



The power supply connects here.

Local user port

Connect a USB keyboard and mouse, plus a video monitor and optional speakers to these connectors. These allow you to perform the initial configuration of the SC5. Additionally, you can use these to locally control the connected computer(s).

Computer ports

Each computer connects to one of these ports via standard category 5, 5e or 6 cabling. At the other end of the cabling a CAM (Computer Access Module) is used to provide the necessary keyboard, video, mouse and optional speaker connections.



channel, as necessary.



INSTALLATION

CONFIGURATION

What's in the box



What you may additionally need



Computer Access Modules

One required per connected computer. There are five different formats, depending on the required computer connections:

PS/2-style

Connectors: Analog video, PS/2-style keyboard and PS/2-style mouse. Part number: 39351

PS/2-style with audio

Connectors: Analog video, PS/2-style keyboard, PS/2style mouse and 3.5mm audio jack. Part number: 39353

USB

Connectors: Analog video and USB keyboard/mouse. Part number: 39352

USB with audio

Connectors: Analog video, USB keyboard/mouse and 3.5mm audio jack. Part number: 39354

Sun with audio

Connectors: Analog video, Sun keyboard/mouse and 3.5mm audio jack. Part number: 39355

Remote User Stations

One required per remote user. Three different versions are available - the User Station C5 Pro and C5 USB-300 have audio and video skew circuitry to overcome extreme video degradation problems. The User Station C5 Audio lacks the skew circuitry and the User Station C5 Junior does not have skew circuitry or audio. Each User Station module is supplied with its own power adapter and country-specific power lead.

User Station C5 Junior

Connectors: Analog video, PS/2-style keyboard and PS/2-style mouse. Part number: 32357

User Station C5 Audio

Connectors: Analog video, PS/2-style keyboard and mouse plus 3.5mm audio jack. Part number: 32359

User Station C5 Pro

Connectors: Analog video, PS/2-style keyboard and mouse plus 3.5mm audio jack. Includes additional skew compensation features. Part number: 32358

User Station C5 USB

Connectors: Analog video, USB type-A keyboard and mouse. Part number: 39357

User Station C5 USB-300

Connectors: Analog video, USB type-A keyboard and mouse plus 3.5mm audio jack. Includes additional skew compensation features.





Call LINDY for details

LINDY

Installation



CONFIGURATION

OPERATION

FURTHER INFORMATION

INDEX

LINDY

Connections

The SC5 provides a great deal of flexibility in its configurations. This chapter details the various connections that can be made to achieve the required installation.



Connections do not need to be carried out in the order given within this guide, however, where possible connect the *power in* as a final step.



LINDY

INSTALLATION

CONFIGURATION

OPERATION

INDEX

Local user

A locally connected video monitor, keyboard (and mouse) are required during the initial configuration. These are also useful during normal use to allow quick local control of any connected computer systems. The SC5 unit directly supports USB style keyboards and mice. An audio port is also provided for locally connected speakers, if required.

LOCAL USER	REMOTE USER
SC:	
CAM	
COMPUTER SYSTEM	

To connect the local user port

- 1 Position a suitable video monitor, keyboard, mouse (and speakers, if required) in the vicinity of the SC5 unit such that their cables will easily reach.
- 2 Attach the video monitor, keyboard, mouse (and speaker) connectors to the sockets, collectively labelled as USER CONSOLE, at the rear of the SC5 unit.



Remote user (via extender)

One user can be placed a maximum of 300 metres (980 feet) from the SC5 unit. The remote user is connected via a User Station extender module and suitable category 5, 5e or 6 cabling (with no crossover).

Note: It is not possible to connect a remote user while the unit is cascaded to another unit.



Cable lengths for remote user locations

The maximum length of cable between the remote user and the SC5 unit can be up to 300 metres (980 feet). However, bear in mind that the overall distance between the remote user and any computer system must not exceed 300 metres (980 feet).



In situations where any computer system will be placed a significant distance from the SC5 unit, ensure that the distance to any remote user is similarly less than 300 metres (980 feet).

To connect a remote user

1 Place a User Station extender unit adjacent to the remote user location.



- 3 Lay a suitable length of category 5, 5e or 6 cabling between the User Station module and the SC5 unit. Please refer to the section *Cable lengths for remote user locations* opposite.
- 4 Attach the connector of the cable run to the socket of the User Station.



5 At the other end of the cable run, attach the cable connector to the socket on the front panel of the SC5 unit.



6 Where necessary, use the in-built video compensation feature of the User Station module to eliminate any effects caused by the cable run.

Computer system (via CAM)

Each computer system is connected to the SC5 unit via a Computer Access Module (CAM) and standard category 5, 5e or 6 cabling. CAMs are available in various formats to suit differing computer system types and their particular connector styles.



Each CAM uses Keep Alive technology to ensure that the keyboard and mouse inputs to the computer remain active, even when

the particular channel is not selected. This action ensures that there are no connection delays or problems as the port is selected.

To connect a computer system

- 1 Ensure that power is disconnected from the SC5 unit and the system to be connected.
- 2 Locate the required CAM (there are five types available) and attach its video, keyboard and mouse (PS/2-style, USB or Sun) and optional audio connectors to the relevant sockets on the computer system.



3 Lay a suitable length of category 5, 5e or 6 cabling between the computer system and the SC5 unit. The maximum length of the cable can be up to 10 metres (32 feet), however, bear in mind that the overall distance between a remote user and any computer must not exceed 300 metres (980 feet).



5 At the other end of the cable run, attach the cable connector to one of the sockets labelled **COMPUTER CONNECTIONS** on the rear panel of the SC5 unit.



Note: Each CAM is specifically shaped so that it can be secured using a cable tie around its middle. In this way, two CAMs can also be neatly joined together, back-to-back. LINDY

CONFIGURATION

OPERATION

Power in connection

The SC5 unit is supplied with a standard 10W power adapter. There is no on/off switch on the unit, so operation begins as soon as a power adapter is connected.



To connect the power supply

1 Attach the output lead from the power adapter to the 5V socket on the rear panel of the SC5.



output lead from power adapter 2 Connect the IEC connector of the supplied country-specific power lead to the socket of the power adapter.



3 Connect the power lead to a nearby main supply socket.

Note: Both the SC5 and its power supply generate heat when in operation and will become warm to the touch. Do not enclose them or place them locations where air cannot circulate to cool the equipment. Do not operate the equipment in ambient temperatures exceeding 40 degrees Centigrade. Do not place the products in contact with equipment whose surface temperature exceeds 40 degrees Centigrade.



INDEX

Cascading multiple units

The SC5 units support up to sixteen *directly* connected computer systems, however, this is by no means the limit. Instead of connecting computers to every output port, you can instead link other SC5 units. Thus each output of the original SC5 unit can link through to many more computers connected to the secondary units.

The combination of SC5 units can be arranged two levels deep forming a tree, or *cascade* arrangement, with computer systems situated at either level within that cascade tree.



See also

- Connecting units in cascade
- Addressing computers in a cascade

LINDY

INSTALLATION

CONFIGURATION

OPERATION

FURTHER

INDEX

Connecting units in cascade

The method for cascading SC5 units is straightforward and requires no hardware settings or lengthy configuration process.

The method of linking SC5 units is the same regardless of the cascade level, or number of devices attached. Put simply:

• A single cascade link is made by connecting a **COMPUTER CONNECTIONS** socket of one unit to the **REMOTE USER PORT** socket of the unit below it.

Please consider the following when making cascade connections between SC5 units.

Tips for successful cascading

- The maximum number of levels for a cascade is two.
- For each cascade link, use a standard category 5, 5e or 6 twisted-pair cable, terminated at each end with an RJ45 connector. There must be no crossover connections within the cable. The cascade link cables can be up to 50m (160 feet) in length. However, remember that the overall length between the remote user (via a User Station extender) and any computer (via a CAM) must not exceed 300m (980 feet) that figure includes the cascade link cables. Also ensure that the total length from the top SC5 to any CAM does not exceed 10m.
- The procedure given opposite may be carried out in any order but for clarity the instruction will begin at the higher level SC5 unit (here called the *upper unit*), i.e. the one that is being fed into by a unit at the cascade level below (here called the *lower unit*). The procedure remains the same regardless of exactly which cascade levels are being connected. The basic rule is that each link is made by connecting a COMPUTER CONNECTIONS port of the upper switch to a CAT_x USER PORTS of the lower switch.

To connect units in cascade

- 1 Ensure that power is disconnected from the SC5 and all other units to be connected.
- 2 Connect one end of the cascade link cable to an appropriate **COMPUTER CONNECTIONS** port on the rear panel of the upper unit.

LINDY

3 Connect the other end of the cascade link cable to the remote user RJ45 socket on the front panel of the lower unit.

4 Repeat steps 2 and 3 for the cascade links between each SC5 unit.

Once the SC5 units and computers have been connected, you can edit their names to make it much easier to locate them. See the <u>To create/edit</u> <u>computer names</u> section in the Configuration chapter for more details.

See also

Addressing computers in a cascade

Computer systems connected within a cascade arrangement are addressed using up to four digits, two for each cascade level. The pairs of digits specify which of the COMPUTER CONNECTIONS ports on each of the SC5 units must be enabled to reach a specific computer. In the diagram given here, a portion of the previous cascade diagram indicates how the routes to two particular computers are formed and addressed.

Each cascade level requires two digits, hence the computer marked in red requires a longer address (1203) as it is situated at cascade level 2, compared to the blue computer at the top level with its two digit port number.

The first time that you make a connection between two SC5 units, the master unit will detect this and ask (via the on screen menu) if you want to automatically add computers. If you choose 'Yes' then the ports on the cascade will be automatically added to the on screen menu.

Using cascaded computers

In use, cascaded computers can be accessed using exactly the same methods as for those connected directly to the SC5. However, by far the easiest way is to use the on screen menu. This is because it displays the computer names and does not require any knowledge of port addresses. See the <u>Selecting cascaded</u> <u>computers</u> section in the Operation chapter for more details.



Multiple video head connections

US

Slave monitor

Two or more SC5 units can be connected together so that they operate in a synchronised manner. Synchronised operation is useful for applications that require multiple video signals to be switched together. This type of operation is usually required where each computer is fitted with multiple video cards or video cards with multiple video heads. Whenever an SC5 channel is switched, it sends an RS232 command out on the serial interface (marked **OPTIONS** on the rear panel). An SC5 will switch its

channel if it receives the same command on the serial interface. Consequently, by linking the serial interfaces, a master unit may

be made to automatically switch one or more slave units as shown in the diagram.

It should be noted that the synchronisation cable deliberately does not have the transmit pin of the Slave End connector linked to the receive pin of the Master End connector. To do so would cause the Slave unit to be able to switch the Master unit. This would setup an endless cyclical switching sequence that would prevent the SC5 devices from operating correctly. For more details about the serial synchronisation cables, see Appendix 2.

REMOTE

USER

US

EMOTE

USER

US





Remote switching control

The port switching functions of the SC5 units can be remotely controlled by an RS232 link to the **OPTIONS** port on the rear panel.

The sending device must use the following RS232 communication settings:

Baud rate:19200 bpsData bits:8Parity:NoneStop bits:1

No handshaking is implemented, however, valid command characters will be echoed back to the sending device.

The value of the byte received via the serial link determines which computer port should be linked through to the user port. The table given here summarises the valid control codes:



Host computer port/channel

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	0 (video off)
10	11	12	13	14	15	16	17	18	19	1A	1B	1C	1D	1E	1F	71

REMOTE

CONTROL

OPERATION 01

LINDY

INSTALLATION

CONFIGURATION

Configuration

Almost all configuration and operational aspects of the SC5 units are controlled via <u>on-screen menu</u> displays.

Overall initial configuration

When setting up a new installation, the following stages are recommended:

1 Enable the general 'Security' option.

With security disabled (default setting), a local or remote user attached to the SC5 will have full and unrestricted access to all computers and all SC5 settings. In larger installations, you are strongly recommended to enable security and set up individual user accounts with access privileges.

2 Create an ADMIN (administration) password

All SC5 units have a fixed user account that cannot be deleted or renamed, called ADMIN. This user account is the only one that is able to make important system changes. If you intend to use security, then it is important to allocate a password to the ADMIN account.

3 Create user accounts and allocate access rights.

Use the ADMIN account to add user profiles, passwords and access rights for each of the system users.

4 Provide names for computers.

When numerous computers are attached, you are strongly advised to provide names for each, to assist with recognition.

5 Configure the required 'Setup Options' and 'Global Preferences'

Use the ADMIN account to determine key SC5 settings and timing characteristics.

Configuration menus

The configuration menus allow you to determine many aspects of the SC5 capabilities. From here you can:

- Create individual user accounts and determine access rights,
- Provide names for all connected computers to allow quick recognition,
- Set individual and global settings for users,
- Run various functions, such as mouse restore operation,
- Save and load SC5 configuration settings, and more.

To access the configuration menu

1 If the main menu is not already displayed, press and hold I and then press M using a keyboard attached to an SC5 user port.

The main menu will be displayed:



2 Press F1 To display the Configuration Menu:

LINDY SC5 Configuration Menu
Functions
Global Preferences
Setup Options
Edit Computer List
Edit Autoscan List
74.84
FI-IVIORE MENUS Enter-Select
Esc-Quit
Firmware Version 1.01b06

Hotkeys

Note: CIM and ALL are the standard hotkeys and can be <u>altered</u> to avoid clashes with other devices or software. If you change the hotkeys, remember to use the new ones in place of CIM and ALL when following the instructions in this guide.

Security

Note: If the security option has been enabled, you will be asked for a valid user name and password before the main menu can be displayed.

LINI	DY SC5
User Name: Password:	+
	Esc-Scr Sa

IMPORTANT: When supplied, SC5 units have their security features disabled, which means that any attached users have access to all connected computers and all SC5 settings. You are strongly recommended to <u>enable the 'Security' feature</u> and set an access password for the ADMIN account.

LINDY

3 Use the \blacksquare and \frown keys to highlight an option, then press \blacksquare to select.

Configuration menus layout

The menu options are arranged as shown here:



For a description of each option within the Configuration menus, see <u>Appendix 1</u> for more details.

General security and configuration steps

To enable general security

- 1 Display the **Configuration menu**.
- 2 Highlight 'Setup Options' and press [].
- 3 Highlight 'Security' and press space to select 'ENABLED'.
- 4 Now create a new password for the ADMIN user account.

To set an ADMIN password

- 1 Display the **Configuration menu**
- 2 Highlight 'Edit User List' and press
- 3 Highlight 'ADMIN' and press []. Press [] again to accept the name 'ADMIN' without change.
- 4 Enter an appropriate password for the ADMIN user account with regard to the following:
 - The password can be up to 12 characters long.
 - The password can use letters, numerals and/or certain punctuation marks.
 - The password is not case sensitive.
- 5 Press]. The 'Edit Access Rights' menu will be displayed. However, as the ADMIN account always has access to all computers, press] again to save the new password.

What to do if the ADMIN password has been forgotten.

To change the hotkeys

SC5 units use corr and At as their standard hotkeys. These can be changed if they clash with other software or hardware within the installation.

- 1 Display the **Configuration menu**.
- 2 Highlight 'Setup Options' and press [].
- 3 Highlight 'Hotkeys' and press <u>space</u> to select the required hotkey combination. The options are: *CRTL+ALT, CTRL+SHIFT, ALT+SHIFT, ALT GR, LEFT ALT+RIGHT ALT, LEFT CTRL+LEFT ALT or RIGHT CTRL+RIGHT ALT.*
- 4 Press \fbox to return to the 'Configuration Menu'.

To create/edit user accounts

- 1 Display the <u>Configuration menu</u>. Note: You must be logged-in as the ADMIN user.
- 2 Highlight 'Edit User List' and press [].

LINDY S	
Edit User List	
admin	
Sam	
Oliver	
Johnny	
Ins-Add	Del-Delete
F1-Clone	Enter-Edit
↑ ↓-Select	
Esc-Quit	

3 Either:

- Create a new account Press is, enter a new user name and press i, or
- *Edit an existing account* Highlight the required user name and press Edit the name, if appropriate, and/or press .
- 4 Enter or edit the password with regard to the following:
 - The password can be up to 12 characters long.
 - The password can use letters, numerals and/or certain punctuation marks.
 - The password field can remain blank to allow open access to this account.

5 Press 🗐 to display the 'Edit Access Rights' menu.



Here you can determine which of the connected computers can be accessed by the selected user account. Only computers that show the '+' marker to the right of the menu box will be accessible to the user account.

Note: Access rights for user accounts to particular computers can also be controlled from the 'Edit Computer List' menu.

- 6 Select and deselect computers as follows:
 - Individual computer Highlight a computer name, then press space to apply, or remove, a '+' marker.
 - Access to all computers Press F1
 - Access to no computers Press F2
- 7 When all settings have been made, press 🗐 to save and exit. Press 🖼 to return to the 'Configuration Menu'.

Registering computers (edit computer list)

To create/edit computer entries

- 1 Display the <u>Configuration menu</u>. Note: You must be logged-in as the ADMIN user.
- 2 Highlight 'Edit Computer List' and press 🗐.

LINDY	SC5
Edit Computer List	
Computer 1	01
Computer 2	02
Computer 3	03
Computer 4	04
Computer 5	05
Computer 6	06
Computer 7	12
Computer 8	0803
Ins-Add	Del-Delete
F1-Clone	Enter-Edit
↑ ↓-Select	F3-Find
Esc-Quit	

3 Either:

- Create a new computer entry Press 🔤 and enter a new name, or
- Edit an existing computer entry Highlight a computer name and press ↓. Press ← (Backspace) to delete existing characters and enter the required new name (up to 16 characters).

Note: Avoid creating two names for the same computer port.

4 Press and the cursor will move to the computer port column on the right side. Change or enter the port address of the computer as required. See the <u>Addressing computers in a cascade</u> section for more details.

5 When the port address is complete, press []. The 'Edit access rights' menu will be displayed.

LINDY Edit access rights admin Sam Oliver Johnny	' SC5 + + + +	Cross markers indicate which users will be granted access to the currently selected computer. To change the permission state: Highlight a user name and press the space bar.
Space-Toggle F1-All	Enter-Save F2-None F3-Find	
Esc-Quit		

Here you can determine which users should have access to the created/ edited computer. Only users that show a '+' marker to the right of the menu box will be granted access to the computer.

Note: Access rights for particular user accounts to computers can also be controlled from the 'Edit User List' menu

- 6 Select and deselect users as follows:
 - Individual user Highlight a user name, then press ______ to apply, or remove, the '+' marker.
 - Allow access for all users Press F1
 - Allow no user access (except ADMIN) Press F2
- 7 When all settings have been made, press 🗐 to save and exit. Press 🔄 to return to the 'Configuration Menu'.

The SC5 units allow a remote user to be extended by a maximum of 300m (980 feet). Such long cable lengths can affect video signals, especially when higher screen resolutions are used. In order to eliminate any video signal degradation, all User Station extenders provide effective software-based video compensation features.

Remote user video compensation

Video compensation for each remote user is provided by their User Station modules, not by the SC5 unit itself. Using the User Station controls you can adjust the picture sharpness and brightness to improve the remote picture quality.

Video compensation is best carried out when viewing high contrast images with vertical edges, such as black lines on a white background. When doing so, if you notice that the screen image is 'fuzzy' or 'dark' then the image controls may not be able to solve this condition.

Note: If the high contrast images exhibit shadows with separate colours, then there may be a skew problem which requires a different image adjustment (provided only by User Station C5 Pro and C5 USB-300 modules) - see the **Remote user skew adjustment** section for details.

To display a suitable high contrast image

The best way to clearly view the effect of sharpness and brightness adjustments is to display a high contrast image, with vertical edges, on the screen.

High contrast

on white

background

black character

- Open a word processor, type the capital letter 'H', or 'M' and increase the point size to 72 or higher. For best results, the background should be white and the character should be black.
- A BLACK shadow on the right of the character indicates UNDER compensation.
- A WHITE shadow on the right of the character indicates OVER compensation.

Note: The Word processor method is accurate and quick. However, for the very finest video compensation, use the latest "skew" test pattern

program which shows both the skew pattern and a section of mixed size Hs (black on white and white on black).

If the image controls cannot provide a crisp image

If, after adjusting the image controls, one or more screen images remain fuzzy or have coloured shadows you may need to use the Skew adjustment feature. Please see <u>Remote user skew adjustment</u> for details (User Station C5 Pro and C5 USB-300 modules only).

continued

Black or bright

white shadow

on the right

the need for

adjustment

indicates

sharpness



INDEX



23

To apply remote user video compensation

1 On the remote user keyboard (connected to a User Station extender), simultaneously, press the hotkeys (by default, cm and sm) along with to enter configuration mode.

The three keyboard indicators ('Num Lock', 'Caps Lock' and 'Scroll Lock') will now begin to flash in sequence. The speed of the sequence indicates the level of the sharpness adjustment currently applied: the slower the rate, the lower the level of sharpness being applied.

- 2 While viewing the displayed screen image, use the following keys to adjust the controls:
- Sharpness: 🗊 🕕 for fine adjustment, 🖃 🖼 for coarse adjustment.

There are 255 sharpness levels (one coarse step jumps 10 levels).

To autoset sharpness (C5 Pro only and C5 USB-300): Press **F** to make the module calculate and apply an automatic compensation level - you can use this as a starting point for your fine tuning.

Note: If the monitor goes blank and switches off (due to oversetting the sharpness adjustment) press the Home key to restore.

Brightness: 🕞 🖻 for adjustment. There are 255 brightness levels.



changes unless the cabling arrangements are altered.

Remote user skew adjustment

The category 5, 5e and 6 cabling supported by the SC5 consists of four pairs of wires per cable. Three of these pairs are used to convey red, green and blue video signals to the remote video monitor. Due to the slight difference in twist rate

12345678

between these three pairs, the red, green and blue video signals may not arrive at precisely the same time. This is visible as separate colour shadows on high contrast screen images and is particularly apparent when using higher screen resolutions and some types of category 5e cables.

To alleviate this situation, the User Station C5 Pro and C5 USB-300 modules provide internal skew adjustment that can help to rectify the situation. The skew adjustment works by delaying or advancing the timing of any of the red, green or blue colour signals so that they are all delivered to the monitor at precisely the same time.

For best results, the "skew" program supplied on the disk is the most accurate way of setting skew as the red, green and blue lines are rendered exactly on the screen as single pixel wide lines. The skew.bmp test pattern can also be used but it is less accurate. Alternatively, you can create your own skew pattern using a standard image creation package.

continued

video signal

video signal

video signa

Green

Blue

INDEX







To use skew adjustment

1 Display a skew pattern on the appropriate computer. You can either use the supplied skew pattern or create your own:

Using the supplied skew pattern

i Insert the supplied Installation CD-ROM into the CD player of the computer.

ii Within Windows, use the *My Computer* option (usually available as a desktop icon or within the Start menu) to view the contents of the CD-ROM. Double-click the *Skew* entry to display the standard test pattern. If necessary, maximise the application window so that the image fills the screen.



The screen will show a series of fine red, green and blue crosses which should all be in line, vertically and horizontally. Skew

affects the horizontal placement of the colours and using this pattern it is much easier to discover which, if any, colours are being adversely affected by the cable link.

Creating a skew test pattern

- i Run any image creation/editing application, such as the Paint program supplied with Windows.
- ii Using the image application create three stacked horizontal rectangles (one red, one green and one blue) that fill the width of the screen.



- iii Draw a vertical black line down across the coloured bars and then repeat this vertical line at intervals along the width of the coloured bars. These lines create breaks across the colours and give you more opportunities to view the horizontal position of each colour relative to the others.
- 2 On the remote user keyboard (connected to a User Station C5 Pro extender), simultaneously, press the hotkeys (by default, and and along with along with to enter configuration mode.

The three keyboard indicators ('Num Lock', 'Caps Lock' and 'Scroll Lock') will now begin to flash in sequence.



3 As appropriate, press either the R, G or B keyboard keys to select the appropriate colour channel. Corresponding keyboard indicators will flash rapidly to show which channel is currently selected for adjustment: Num Lock for Red, Caps Lock for Green and Scroll Lock for Blue.

G



4 Press the ⊢ and ⊐ keys to retard or advance the timing of the selected colour channel respectively. On screen you will see a change in the position of the selected colour crosses (or colour bars) in relation to the other two.



- 5 When the selected colour crosses (or colour bars) are correctly positioned, press [] to exit that colour channel. The keyboard indicators will return to flashing in sequence.
- 6 If required, repeat steps 3 to 5 to select and adjust any colour channel until the vertical lines of the red, green and blue crosses are all aligned.
- 7 When all colours are correctly aligned on all video channels, press [] to exit configuration mode and permanently save all settings.

Note: Once you have made the skew adjustments, it may be necessary to re-adjust the image controls to attain optimum screen images.



CONFIGURATION

OPERATION

FURTHER

INDEX

The SC5 provides an autoscan mode that switches between the connected computers in sequence. This mode is useful to allow users and administrators to sample activity among the connected machines. Three scanning modes are provided:

- *Scan list* Only computers declared within an autoscan list will be viewed. Computers connected to cascaded switches can be included in the autoscan list.
- Active PCs Only computer ports where an active computer is detected will be viewed. This mode avoids blank screens from being displayed and helps to prevent the viewing monitor from entering a power-down state on every scan cycle. Computers connected to cascaded switches will not be viewed in this mode.
- All PCs This mode visits, in turn, each computer that is connected directly to the SC5. This mode should be used with care due to the reasons given in the warning below. Computers connected to cascaded switches will not be viewed in this mode.

The scanning mode is a global setting and hence will be the one viewed by any user who selects $\fbox{\cm}$ $\textcircled{\cm}$ $\r{\cm}$ $\r{\cm}$

WARNING: Many monitors are fitted with automatic power saving relays that switch off after a few seconds when connected to an inactive computer. If you are using such a monitor, do not set the SC5 to the scan 'ALL PCs' mode. Continual switching on and off of the monitor's relay will eventually damage the monitor. If using such a monitor in conjunction with the 'Scan List' option, ensure that all selected computers are active.

There are up to three steps that need to be configured to use autoscanning:

- Select the autoscan mode: Scan List, Active PCs or All PCs.
- *Select the autoscan period*. This is the time that is spent viewing each computer. This step also enables and disables the autoscan feature.
- *Define the autoscan list*. This step is only required when the Scan List option is selected and allows you to select which computers will be scanned.

To select an autoscan mode

- 1 Display the <u>Configuration menu</u>. Note: You must be logged-in as the ADMIN user.
- 2 Highlight 'Global Preferences' and press [].
- 3 Highlight 'Autoscan Mode' and press space until the required option is displayed: SCAN LIST, ACTIVE PCs or ALL PCs.

To select an autoscan period

- 1 Display the <u>Configuration menu</u>. Note: You must be logged-in as the ADMIN user.
- 2 Highlight 'Global Preferences' and press [4].
- 3 Highlight 'Autoscan Period' and press space until the required time to view each computer is displayed, ranging from 2 seconds to 5 minutes.

To define an autoscan list

Note: This stage is required only when the 'Scan List' autoscan mode is selected.

- 1 Display the <u>Configuration menu</u>. Note: You must be logged-in as the ADMIN user.
- 2 Highlight 'Edit Autoscan List' and press . A list of all connected computers will be displayed. Only computers that show a '+' marker to the right of the menu box will be autoscanned.
- 3 Select and deselect computers to scan as follows:
 - Individual computer Highlight a computer name, then press space to apply, or remove, the '+' marker.
 - Mark all computers for scanning Press F1.
 - Unmark all computers Press F2.
- 4 When all settings have been made, press 🗐 to save and exit. Press 📧 to return to the 'Configuration Menu'.

To view autoscan

• At one of the user ports, press Ctrl Att A.

Note: Ctrl and Att are the standard hotkeys and can be <u>altered</u> to avoid clashes with other devices or software. If you change the hotkeys, remember to use the new ones in place of Ctrl and Att when following these instructions.



Saving and restoring configuration settings

The SC5 can store up to 256 computer names and 5 sets of user access rights in addition to the ADMIN user account. Particularly in cascaded configurations, manually re-entering all computer names, port numbers and access rights can be a lengthy process. Therefore, the SC5 provides a method to save and, if required, restore configuration settings using its serial port. Further to this, the saved file can be opened and edited within a text editor or spreadsheet and then restored back to the SC5 – a useful way to make multiple setup changes.

Note: You must be logged-in as the ADMIN user for this procedure.

Preparations for configuration save/load

- Download the Data Transfer utility contact Lindy Technical Support for details.
- Connect the serial port on the rear panel of the SC5, labelled OPTIONS, to a serial port on your computer using the optional serial flash upgrade cable. See <u>Appendix 2</u> for pin-out specifications.



To transfer configuration settings

1 Run the Data Transfer utility on the computer that is connected to the SC5 Options serial port. The utility has a single window:

File to transfer:	C:\Documents and Settings\Windows User\My Docum	Browse
	Unit to File	Help
	File to Unit	Configuration

- 2 Click the Configuration button and ensure that the appropriate serial port of the computer is selected.
- 3 Click the Browse... button to locate or create a text file that will either provide or receive the SC5 data.
- 4 Choose the direction of data flow:
 - Click the Unit to File button to download the existing SC5 configuration to the selected text file, or
 - Click the File to Unit button to upload the contents of the file to the SC5 unit.

A pop-up dialog box will request you to set-up the unit to either send or receive RS232 data.

- 5 Using the local port of the SC5 unit, display the <u>Configuration menu</u>. Note: You must be logged-in as the ADMIN user.
- 6 Select the 'Functions' option.
- 7 Select either 'Send Data to RS232 port' (if you chose the Unit to File button) or 'Read Data from RS232 port' (if you chose the File to Unit button).
- 8 On the computer, click the OK button of the pop-up dialog box to begin downloading or uploading. The process will end automatically when all data have been transferred.

continued



INDEX

To edit the configuration settings

The saved text file can be opened using either a basic text editor or a spreadsheet program. The format of a typical file is shown opposite.

Each entry within the Users section relates to a corresponding entry within the Passwords section and also a column within each row of the Computers section.

Hints for editing

- To grant a user access to a computer, enter the value '1' in the column of the Computers section that relates to the position of the user's name entry, e.g. third name down in the User section = third column along after the computer's port address (in the Computers section).
- To deny a user access to a computer, remove the value '1' from the column of the Computers section that relates to the position of the user's name entry.
- The ADMIN user will always be granted access to all computers regardless of the values entered.





What to do if the ADMIN password has been forgotten

If the ADMIN password becomes mislaid or forgotten, you will not be able to access the SC5 to add or edit users and computer names. This situation may be resolved by performing a complete reset to return the SC5.

IMPORTANT: A complete reset erases all the user names and computer names that you have setup.

To clear a password (and restore factory default settings)

- 1 Remove power from the SC5 unit.
- 2 Connect the SC5 unit to a computer in the same manner as you would to carry out a flash upgrade see <u>Performing flash upgrades</u>.
- 3 Press and hold the reset button on the front panel (requires paper clip or similar).
- 4 Apply power and after 3 seconds release the reset button. The 'UPG' LED should now be iluminated.
- 5 Set the computer serial settings to the following: 57600, n, 8, 1
- 6 Using 'TeraTerm' (recommended) or an alternative terminal program, send "CLEAR<cr>" in UPPER CASE from the keyboard. The SC5 unit should respond with "OK".
- 7 The password is now clear and all factory default settings restored.

Performing upgrades

The SC5 units are fully upgradeable via flash upgrades, as are the individual Computer Access Modules that are used to link all host computers. Such upgrades require a Windows-based computer system to be linked via the **OPTIONS** port.

Upgrading SC5 units and CAMs

The KVM Firmware Uploader utility is available from Lindy technical support and allows you to check the current revision of the SC5 unit firmware as well as every Computer Access Module connected to it.

Items required to use the upgrade utility

- Optional serial upgrade cable (see <u>Appendix 2</u> for pin-out specifications).
- A Windows-based upgrade computer with an RS232 serial port.
- The latest version of the KVM Firmware Uploader and firmware files for the SC5 contact Lindy technical support.

To use the KVM Firmware Uploader utility

1 - Obtain and run the KVM Firmware Uploader.

Download the latest SC5 KVM Firmware Uploader and install it on a Windows-based upgrade computer that will be connected to the SC5 unit. The files are supplied as a compressed ZIP file. Decompress the ZIP file with an appropriate tool such as WinZip (www.winzip.com) and copy all contained files to the same folder on the upgrade computer.

2 - Power off the SC5

Remove the power supply plug from the rear panel of the unit.

3 - Connect the upgrade computer to the SC5

Connect the upgrade computer to the **OPTIONS** port on the rear panel of the SC5 unit using the supplied upgrade cable.

Set the configuration of the computer's serial port to: 19200 baud, 8 data bits, no parity, 1 stop bit.

4 - Power on the SC5 and invoke upgrade mode

Use a straightened out paper clip to press and hold the reset button (small hole adjacent to the front panel connector). Reconnect power and wait for three seconds before releasing.

The UPG indicator should illuminate to show that the SC5 is ready to be upgraded.

5 - Run the KVM Firmware Uploader utility

From that folder, select the KVMUploader icon to run the upgrade utility. The KVM Firmware Uploader dialog will be displayed:

KVM Firmware Up	loader	
ile to upload: Select	upload file	Browse
ntended Target Units:	Upload file unit unknown	Help
ew firmware version:	Upload file version unknown	Advanced
No upíoad file data avail	able	~
nit connected:	Lindy SC5	Query Unit
urrent firmware version:	V1.01	Upload Now
		Abort
Query OK.		

6 - Query the SC5 unit

Click the *Query Unit* button to confirm that communication is possible with the SC5 and to establish the firmware details of the main unit and all connected CAMs.

Note: The computer to which each CAM is connected must be powered before the respective CAM can be accessed.

Note: SC5 units in lower levels of cascade links (and their respective CAMs) cannot be queried or upgraded while remaining in the cascade arrangement.

If the application cannot contact the SC5, re-check the connection cable and click the *Advanced*... button to check that the correct serial port is being used. Change the serial port within the *Advanced* section, if necessary.

continued

INDEX

The results of the unit query will be displayed in the Device/Dongle Selection dialog:



The type and firmware revision of each discovered CAM will be displayed alongside the port number to which it is connected.

7 - Select the items to be upgraded

Using the Device/Dongle Selection dialog you can determine which items should receive a firmware upgrade:

- Use the *Program / Verify Main Unit* option to include or exclude the SC5 unit itself.
- Use the Select All CAMs option to upgrade every discovered CAM.
- Use the *Select All USB / PS2 / Sun CAMs* options to upgrade only CAMs of a certain type.
- Use the individual port options to select particular CAM devices to upgrade.

When the required options have been selected, click OK.

Note: Approximate upgrade times are: SC5 unit = $4\frac{1}{2}$ minutes; each selected CAM = 20 seconds.

8 - Select the upgrade file to be used

From the main KVM Firmware Uploader dialog, click the *Browse…* button and select the upgrade file:

SC5_x.xx.txt

where x.xx is the firmware version.

The upgrade file details will be displayed within the dialog.

IMPORTANT: Check that the 'Intended Target Units' field matches the 'Unit Connected' field. If these fields do not match then you may have an incorrect upgrade file, check with Lindy before proceeding. Check also that the 'New firmware version' is greater than the 'Current firmware version'.



9 - Commence the upgrade

To begin the upgrade process, click the *Upload Now* button. The progress will be shown within the dialog. Should you decide not to continue with the upload at any stage, click the *Abort* button; response to this is usually immediate, however, during an erase command, the upload will not be aborted until the erase is complete (this may take a few seconds).

10 - Cycle the power

Disconnect the power. When the power is re-applied the SC5 will operate using the new firmware.

Issues to consider when performing flash upgrades

The upgrade program rewrites the SC5 firmware code. If the upgrade process is interrupted then the SC5 will have invalid code and will not be able to operate. It is therefore good practice to ensure that the upgrade process is always fully completed. A partial or failed upgrade may be rectified by performing another upgrade. If the upgrade process is interrupted accidentally then you should press and release the front panel reset button without re-powering the unit. Running faulty or partially upgraded code may have unpredictable results and may damage your SC5 or computing equipment.

WARNING: Running faulty or partially upgraded code may have unpredictable results and may damage your SC5 or computing equipment.

OPERATION

FURTHER

Operation

Local and remote user access

Local users (directly connected) and remote users (via a User Station extender) gain access to the SC5 unit in exactly the same way.

To gain access as a local or remote user:

1 From a local or remote keyboard, press any key to display the login prompt:



2 Enter your username and password. Providing you have the correct permissions, the screen will display the main menu, showing you a list of computers for which you have permission to access:



To view this menu at any time: Press and hold the hotkeys (usually Ctrl and Att), then press M and finally release all three keys.

Note: The cm and At keys when pressed in combination are called 'hotkeys' and they signal to the SC5 that you wish to control it, rather than the host computer. However, if these particular hotkeys clash with another device or program, then your administrator may change them to a different combination. If the cm At M combination fails to work, then please contact your system administrator for details.

Selecting a computer

There are three main ways for local and remote users to select a specific computer channel:

- Using hotkeys (as described below) this is a good method if you continually access a small number of computers.
- Using the on-screen menu this is the best method when there are many connected computers.
- Using mouse buttons this is a good method for cycling between a small number of computers.

For all methods (if the <u>confirmation box option</u> is enabled), when the required port is selected, a pop up message will be displayed to confirm the computer name or number, and its status. Alternatively, an error message explaining why a connection is not possible (press is to cancel the latter type of message).

To select a computer using hotkeys

Simultaneously press and hold ctrl and Att.

Note: The cm and At keys when pressed in combination are called 'hotkeys' and they signal to the SC5 that you wish to control it, rather than the computer. However, if these particular hotkeys clash with another device or program, then your administrator may change them to a different combination. If the cm At combination fails to work, then please contact the system administrator for details.

- 2 While still holding ctrl and Att, press the first numeral of the required port address, then:
 - If the port address is a single character, release all of the keys.
 - If the port address is two or more characters, release the first numeral key and press the second repeat this procedure until all of the port address numerals have been entered, then release Ctrl and Att.

Note: The numbers on your keyboard's numeric keypad are not valid, use only the numeral keys above the QWERTY section.

Note: If your user port does not have authorisation to view the selected port then an 'Insufficient user rights' messages will be displayed.

continued

LINDY

INDEX

Standard hotkeys

The range of hotkey combinations are as follows:

Note: If your hotkeys have been changed, substitute them for \Box and A in the examples given here.

Ctrl Alt 1	Selects port 1
Ctrl Alt 2	Selects port 2
•	•
•	•
Ctrl Alt 1 then 0	Selects port 10
	Note: When entering multiple digit addresses as above or for even longer cascaded computers, keep Ctrl and Att pressed down until all other numbers have been entered.
Ctrl Alt Tab	Selects the next available port
Ctrl Alt A	Selects autoscan mode where each (authorised) port is displayed for a period determined by the administrator. To cancel autoscan mode, simply select any fixed channel using any of the suggested methods.
Ctrl Alt O	Switches off the video signal – this will cause a power saving monitor to enter its standby mode. To awaken the monitor, simply select any fixed channel using any of the suggested methods.
Ctrl Alt L	Logs out the current user (if security is enabled) or selects port 0 to disable the video signal (if security is disabled).
Ctri Alt & J, \uparrow , \leftarrow or \rightarrow	Moves the currently displayed on-screen menu around the screen.

To select a computer using the on-screen menu

1 Select the on-screen menu in one of two ways:

- By simultaneously pressing and then releasing $\fbox{\tilde{CH}}$ $\fbox{\tilde{A}t}$ $\fbox{\tilde{M}},$ or
- By pressing the middle and right buttons of a three button mouse. Note: The mouse switching option is usable only if the 'Mouse Switching' option is enabled. See <u>Global preferences</u> for more details.

At this point, depending on the security settings and the current log in situation, one of two things will be displayed, either the login screen, or the Selection menu:

LINE	DY SC5	
Computer	Port	
Computer 1	01	•
Computer 2	02	•
Computer 3	03	•
Computer 4	04	
Computer 5	05	
Computer 6	06	
Computer 7	07	
Computer 8	08	
User		
ADMIN	SHARED USE	
F1-More menus	F3-Find	
Esc-Quit	F4-Logout	

The Selection Menu – here you can select computers by name.

2 Use the I and 1 keys (or the scroll wheel of an IntelliMouse) to highlight the required computer name. Alternatively (for large configurations), press to perform an alphabetical search for a particular port name.

Note: If security has been enabled then only computers to which the current user port has permission will be displayed.

3 Press 🗐 to select the highlighted port.



LINDY®

FURTHER INFORMATION

INDEX

To select a computer using mouse buttons

Note: This procedure works only with three-button or IntelliMouse devices and only if the 'Mouse Switching' option has been enabled by your administrator.

- 1 Hold down the middle button (or scroll wheel) of the mouse.
- 2 Click the left mouse button to select the next computer port. When the correct port is reached, release the middle button.

Note: If security has been enabled then only computers to which you have permission will be displayed.

To select a computer using mouse buttons – Advanced method

- 1 Select the on-screen menu by pressing the middle and right buttons of a three button mouse.
- 2 Use the scroll wheel to highlight the required computer port.
- 3 Then, select either:
 - Shared Use press the left mouse button This standard method allows other users to view the same computer port. Control of the port is given to one user at a time, on a first-come, first-served basis and is relinquished after a certain period of inactivity.
 - *Escape without selecting a port* press the right mouse button.

User arbitration - simultaneous local and remote users

During operation, if both the local and remote user consoles are both connected and being used, the connected video monitors will both continuously receive the output from the selected host system. Control of the selected host system (and switching operations) is arbitrated by the SC5 on a first come, first served basis. In the idle state, control is available to both users and their keyboard indicators both show the current Num Lock, etc. conditions of the host system.

At the moment that a key is pressed or a mouse is moved, the keyboard and mouse of the other user are temporarily locked-out (the video images remain). The keyboard indicators of the locked-out user then begin to flash to confirm their status ⇒

After a period of inactivity (determined by the User Timeout option in Global

Preferences) from the user currently in control, the modules return to their idle condition and re-instate the keyboard indicators of the locked-out user.

LINDY

INDEX

The SC5 features a straightforward security system that helps to prevent unauthorised access to some, or all connected computers.

If the security option has been selected by your administrator then you will be asked to enter a *User Name* and *Password* when you first access a user port. When you have finished using the computer, it is then good practice to logout, forcing any other users to authenticate themselves prior to use.

Note: If the security option has not been enabled then no login is required.

To log in to the SC5

- 1 If it is not already displayed, move the mouse or press any key to display the log in screen.
- 2 Enter your designated User Name and press [].
- 3 Enter your designated *Password* and press []. If both entries are correct then the selected port will be displayed.

Note: If either the User Name or Password are incorrect, the entries will be cleared to allow another attempt.

To log out from the SC5

for details, or

Either:

• Press Ctri Att and L at any time to log out.

or

- 1 Select the on-screen menu in one of two ways:
 - By simultaneously pressing and then releasing <u>Ctrl</u> <u>Att</u> <u>M</u>. Note: The <u>Ctrl</u> and <u>Att</u> hotkeys may have been changed. If the combination fails to work, then please contact the system administrator
 - By pressing the middle and right buttons of a three button mouse.
- 2 Press 🗐. You will be logged out and the login window will be re-displayed.

Selecting cascaded computers

The SC5 is not limited to sharing just sixteen computers. By joining numerous SC5 products together in a tree-like or <u>cascade</u> arrangement, it is possible for each user port to view many more computers. Although you can use exactly the same selection methods to choose any computer, you are strongly recommended to use the on screen menu method for the following reasons:

- The <u>on screen menu</u> this method displays the names of each computer in alphabetical order and also allows you to search for them by name, press – a useful feature in a long list. This really is the best way to access a large number of computers.
- The <u>mouse method</u> this method is fine for small numbers of computers but can take too long to reach the required computer in an extensive configuration.
- The <u>hotkey method</u> depending on their position within the connection structure, each computer can have an address up to four digits long which can be difficult to remember and laborious to type.

INDEX

The confirmation box

The SC5 provides the option of a confirmation box that is displayed on screen for three seconds after a computer is selected. The confirmation box indicates the current user port and your user name, the selected computer and the connection status. You can enable or disable the confirmation box, as required.

To enable/disable the confirmation box

1 Select the on-screen menu in one of two ways:

- By simultaneously pressing and then releasing $\fbox{\teal}$. At $\fbox{\teal}$, or
- By pressing the middle and right buttons of a three button mouse.
- If you are not already logged in, do so now.
- 2 Press F1 to select 'More menus'.
- 3 Highlight the 'User Preferences' option and press 🗐 to select.
- 4 Highlight the 'Confirmation Box' option and press space to select 'ENABLED' or 'DISABLED', as required.
- 5 Press is to save the settings. Press is twice more to return to the computer port and view your changes.

The reminder banner

As many computer screen layouts can appear very similar, the SC5 provides a reminder banner option that indicates which computer port you are currently viewing. The banner is usually displayed at the top of the screen, using white lettering and transparent background. You can:

- Move the banner
- Change the banner colours, and/or
- Disable the banner

To move the reminder banner

- 1 While viewing a computer port, press and hold <u>CH</u> and <u>At</u>. Note: The <u>CH</u> and <u>At</u> hotkeys may have been changed. If the combination fails to work, then please contact the system administrator for details.
- 2 Press the , ↑, ← and → keys to move the banner to the required position.

To change banner colours or disable the banner

- 1 Select the on-screen menu in one of two ways:
 - By simultaneously pressing and then releasing \Box Alt M, or
 - By pressing the middle and right buttons of a three button mouse.

If you are not already logged in, do so now.

- 2 Press F1 to select 'More menus'.
- 3 Highlight the 'User Preferences' option and press 🗐 to select.
- 4 Select the required option:
 - To disable the banner highlight 'Reminder Banner' and press space until 'DISABLED' is shown.
 - To change colours highlight 'Reminder Colour' and press space until the desired colour combination is displayed.
- 5 Press 🔄 to save the settings. Press 🔄 twice more to return to the computer port and view your changes.



INSTALLATION

User preferences and functions

In addition to customising the reminder banner as described earlier, you can also:

- Change the colour of the on screen menu,
- Select the screen saver style,
- Restore mouse operation, or
- Perform power control functions.

All of these options are discussed within <u>Appendix 1</u>.



Further information

LINDY®

INSTALLATION

CONFIGURATION

This chapter contains a variety of information, including the following:

- Getting assistance see right
- Appendices
 - Appendix 1 Configuration menus
 - Appendix 2 Cable specifications
- <u>Safety information</u>
- <u>Radio frequency energy statements</u>

Getting assistance

If you are still experiencing problems after checking the list of solutions in the Troubleshooting section then we provide a number of other solutions:

If you are still experiencing problems after checking the list of solutions in the Troubleshooting section then we provide a number of other solutions:

• LINDY website - www.lindy.com

Check the Support section of our website for the latest solutions and driver files.

• Email	in the UK: in the US: in Australia: in Germany: in France: in Italy: in Switzerland: elsewhere:	postmaster@lindy.co.uk usa@lindy.com info@lindy.com.au info@lindy.de france@lindy.fr italia@lindy.it info@lindy.ch postmaster@lindy.com
• Fax	in the UK: in the US: in Australia: in Germany: in France: in Italy: in Switzerland: elsewhere:	01642 765274 (256) 771-0460 07 3262 9055 0621-4700530 03 88 20 57 74 031 48 06 52 061-3359709 +44 (0)1642 754029
• Phone	in the UK: in the US: in Australia: in Germany: in France: in Italy: in Switzerland: elsewhere:	01642 754000 (256) 771-0660 07 3262 9033 0621-470050 0 825 825 111 031 48 40 11 061-3359700 +44 (0)1642 754020

Appendix 1 – Configuration menus

The SC5 configuration menus allow a range of settings to be made both to the installation as a whole and to parts of the system accessed by each user.

To access the configuration menus

- 1 Select the on-screen main menu in one of two ways:
 - By simultaneously pressing and then releasing $\Box m$, or
 - By pressing the middle and right buttons of a three button mouse.
 - If you are not already logged in, do so now. What to do if the ADMIN password has been forgotten.
- 2 Press F1 to select 'More menus'.
- 3 Use the following keys:

 \fbox and \clubsuit to highlight required options.

Space to change option values.

iso quit and save the changes.

The full set of options are only available to the Admin user. All other users will see a subset of these.

LINDY SC5	
figuration Menu	0
ctions r Preferences	
al Preferences	
p Options	
User List	
Autoscan List	
1	
viore menus Pr-Select	



The Functions menu contains a collection of procedures that affect various aspects of SC5 operation. Only the Admin user is granted access to all functions, other users are offered only the following options:

- Restore Standard Mouse,
- Restore Intellimouse,
- *Power control* only computers to which a user has access rights can be switched.

To get here

- 1 From a local or remote keyboard, log on as a standard (limited options) or 'admin' user.
- 2 Press Ctrl Att M (hotkeys can change).
- 3 Press F1 to select 'More menus'.
- 4 Select 'Functions'.

Restore Standard Mouse

This option is used to resume standard mouse operation if it has ceased to operate, for instance, if it has been connected without rebooting the SC5.

Restore Intellimouse

This option is used to resume Microsoft Intellimouse operation if it has ceased to operate, for instance, if it has been connected without rebooting the SC5.

Clear C5 User Station Password

Available only at the local console connection, this option places any User Station extender that is locked in password mode into configuration mode. The extended user can then clear or re-enter the password, as required.

Reset to Factory Defaults

Returns all key settings within the SC5 to their original states.

WARNING: This function will clear all computer and user lists that are stored within the SC5.

When this option is selected, you must press 🖪 to confirm the action. The internal data will be rewritten and a completion message displayed after a short period.

Restore Standard Mouse

Restore Intellimouse Clear C5 User Station Password Reset to Factory Defaults Send Data to RS232 port Read Data from RS232 port

Enter-Run Function ↑-Up ↓-Down Esc-C

Send Data to RS232 port

This option is used to save SC5 configuration information to a specially connected computer. A temporary link must be made using the **OPTIONS** port at the rear of the SC5 and the computer must run a custom routine available from LINDY. The resulting download file can be optionally edited (using a text editor or spreadsheet) and/or reloaded into the SC5. This option is especially useful in complex cascade arrangements where many computers are attached. See <u>Saving and restoring configuration settings</u> for more details.

Read Data from RS232 port

This option is used to reload configuration information into the SC5 from a specially connected computer. See above for more details.

INSTALLATION

LINDY

User Preferences

The User Preferences are system operating parameters that are independently selectable for each user and affect only their screen.

To get here

- 1 From a local or remote keyboard, log on as a standard (limited options) or 'admin' user.
- 2 Press Ctrl Att M (hotkeys can change).
- 3 Press F1 to select 'More menus'.
- 4 Select 'User Preferences'.

LINDY	SC5
OSD Colour : Reminder Banner : Reminder Colour : Screen Saver type : Confirmation Box :	SCHEME 1 ENABLED BLUE/TRANS MOVING DOT ENABLED
Space-Toggle ↑-Up ↓-Down	Esc-Quit

OSD Colour

Settings: SCHEME 1, SCHEME 2, SCHEME 3

As you toggle between these options you will see the colour of the menu change to show the selected scheme. The menu schemes have been specially chosen to provide a high contrast with the colours that you would normally see on a computer screen.

Reminder Banner

Settings: ENABLED, DISABLED

When the reminder banner is enabled, the name of the currently selected computer will appear in a small reminder banner. This is normally located at the top of the screen in a central position but may be moved as required (see <u>To</u> <u>move the reminder banner</u>).

Reminder Colour

Settings: BLUE/TRANS, PINK/TRANS, BLUE/WHITE, WHITE/RED

You can select the colour of the reminder banner. The BLUE/TRANS and PINK/ TRANS select blue or pink text with a transparent background. The BLUE/WHITE and WHITE/RED settings select blue and white text on solid white and red backgrounds.

Screen Saver Type

Settings: BLANK, MOVING DOT

You can select the type of screen saver. If you select BLANK then the screen will blank completely. If you select MOVING DOT then a moving dot will be displayed on a blank background. The dot regularly changes colour and bounces off the sides of the screen in a zigzag pattern.

Confirmation Box

Settings: DISABLED, ENABLED

When enabled, a confirmation box is displayed on screen for three seconds after a computer is selected. The confirmation box indicates the current user port and user name, the selected computer and the connection status.

Global Preferences

Global preferences are available only to the Admin user and allow settings to be made that affect all users attached to the SC5.

To 1	get here From a local or remote keyboard, log on as a standard (limited options) or 'admin' user.	Screen Saver : Autoscan Mode : Autoscan Period : OSD Dwell Time : User Timeout :	DISABLED SCAN LIST 5 SECONDS 2 SECONDS 2 SECONDS
2	Press Ctri Att M (hotkeys can change).		
3	Press F1 to select 'More menus'.	Space-Toggle	
4	Select 'Global Preferences'.	t-Un ↓-Down	Esc-Ouit

Mouse Switching :

ENABLED

Mouse Switching

Settings: ENABLED, DISABLED

The computer channel can be switched using a three button mouse or IntelliMouse. Pressing the central button or wheel button together with the left hand mouse button will cause the SC5 to switch to the next available computer. When mouse switching is enabled the central mouse button or wheel mouse button is allocated to control the SC5 and is not therefore available for use by computer applications. If you want to use the central mouse button within your applications you will need to disable mouse switching. The rotation action of an IntelliMouse wheel is not affected and is always available to the computer application.

Screen Saver

Settings: DISABLED; 2, 5, 7, 10, 15, 20 & 30 MINUTES

To avoid burning out the phosphor on CRT monitor screens, the SC5 can be set to blank the screen after no keyboard or mouse activity has been detected for a selected timeout period. If preferred, the user can blank the screen manually by selecting channel '0' using the keyboard hotkeys or by pressing ESC from the login screen.

Autoscan Mode

Settings: SCAN LIST, ACTIVE PCs, ALL PCs

The SC5 supports an autoscan mode that automatically scans between the connected computers in sequence. There are three autoscan modes. In the first mode the SC5 will scan all the named computers that are defined in the autoscan list (SCAN LIST). The computers defined in the scan list may be connected to cascaded SC5 units. If you wish to scan the ports on the current SC5 then you may select ALL the available computers or just the available computers that are currently powered on (the ACTIVE computers). Scanning just the active computers avoids blank screens from being displayed and stops the monitor from going into a power down state on every scan cycle.

WARNING - Many modern monitors are fitted with automatic power save relays and will switch off after a few seconds if connected to an inactive PC. If you are using such a monitor you must not set the SC5 to scan ALL ports. Constant switching on and off of your monitor's relay will eventually damage your monitor. If you are using the SCAN LIST option then you should ensure that all the computers are active if you are using one of these monitors.

If you choose to use the SCAN LIST option then you may define the computers to be scanned in the following manner.

To define the autoscan list

Note: Ensure that you are logged in as the ADMIN user.

- 1 From the main on-screen menu press F1 for MORE MENUS.
- 2 Select EDIT AUTOSCAN LIST from the menu. A list of defined computers will appear. Computers affixed with a '+' will be autoscanned during the autoscan cycle. To add/remove a computer to/from the autoscan list, move the selection bar over the computer name and press SPACE BAR. To add all named computers press F1. To remove all named computers press F2.
- 3 When all the computers that you wish to scan are affixed with a '+', press RETURN or ENTER to save the selections. The selected computers will be autoscanned in alphabetical order when you activate autoscan mode (when the SCAN LIST option is selected).

Autoscan Period

Settings: DISABLED; 2, 5, 7, 15, 30 SECONDS, 1, 5 MINUTES

The autoscan time defines the length of time that the SC5 will display video (and play audio) from an autoscanned computer before changing to the next computer. If the DISABLED setting is chosen then no autoscan functions will be available.



Global Preferences (continued)

OSD Dwell Time

Settings: 1, 2, 3, 5, 10 SECONDS

After a successful computer channel change the SC5 will display a confirmation message for a few seconds. The length of time that this confirmation message dwells on the screen may be changed.

User Timeout

Settings: 1, 2, 5, 10, 30 SECONDS, 1, 5, 10 MINUTES

When both a local and remote user wish to use the system, only one can have access at any one time. When no keyboard or mouse data has been received from the active user port for the user timeout period, the SC5 will allow the other user to access the computer. The new port then becomes the active port until it too times out. To avoid confusion between users it is desirable to set the timeout period to be sufficiently long so that user's work is not needlessly interrupted by other users and sufficiently short to ensure good overall system efficiency. The user timeout value also controls the timeout between the local port and remote (extended) user port 1.



Setup Options

Setup options are available only to the Admin user and consist of key settings that are normally made only during the initial installation stage.

To get here

- 1 From a local or remote keyboard, log on as a standard (limited options) or 'admin' user.
- 2 Press Ctrl Att M (hotkeys can change).
- 3 Press F1 to select 'More menus'.
- 4 Select 'Setup Options'.

Security

Settings: DISABLED, ENABLED

With security disabled there is no requirement for users to log-in to the system. All users have full access to all the connected computers and full administration rights. With security enabled, users are required to log-in to the SC5. Each user is allocated access rights to computers by the system administrator and they are only able to see the computers that they have access to on their on-screen menu.

Language

Settings: ENGLISH, FRENCH, GERMAN, SWEDISH

This option specifies the language that is used for the on-screen menu and the keyboard layout that is assumed for the keyboard. When the French option is selected the keyboard is assumed to have an AZERTY format. When the German option is selected the keyboard is assumed to have an QWERTZ format. When the English and Swedish options are selected the keyboard is assumed to have a QWERTY format. The new language settings are enabled when you quit from the SETUP OPTIONS menu. The language option only affects the way that the SC5 interprets the keyboard keys, it does not affect the way that the computers interpret the keyboard. It is advisable to avoid setting a language and you may have difficulty reselecting your original language.

LINDY S	C5
Setup Options	
Security :	ENABLED
Language :	ENGLISH
Hotkeys :	CTRL+ALT
Automatic Logout :	DISABLED
Audio :	ENABLED
Add Computers :	AUTO

oace-Toggle ∙Up **↓**-Down Esc-C

Hotkeys

Settings: CRTL+ALT, CTRL+SHIFT, ALT+SHIFT, ALT GR, L+R ALT, L CTRL+ALT, R CTRL+ALT

The keyboard hotkeys are special combinations of keys that, when used together with certain keyboard "command keys", perform special SC5 functions. For example, pressing the hotkeys together with the "M" key will cause the onscreen menu to be displayed on your monitor. Other hotkey combinations allow you to query which computer you are connected to and to move the on-screen menu around the screen. You can also use the hotkeys together with the port number to select a particular connected computer.

Automatic Logout

Settings: DISABLED, ENABLED

The SC5 enables you to restrict access to your computers on a login basis. If a user forgets to logout when they have finished accessing the SC5 then the user console may unintentionally be left with full access to all the computers. The SC5 can be set to automatically logout unattended user consoles when the screen saver kicks in. This reduces the risk of security problems by preventing user consoles remaining in a permanent "logged-in" state when there is no keyboard or mouse activity. The automatic logout feature is only enabled when the screen saver feature is active (i.e. not disabled).

Audio

Settings: ENABLED, DISABLED

Allows you to enable and disable the audio capabilities of the SC5 unit.

Add Computers

Settings: AUTO, MANUAL

Each time the master switch within a KVM cascade is power cycled, it checks for newly added computers. This option allows you to determine whether such new computers are automatically added to the computer list or whether you would prefer to update the list manually.



Advanced Options

Advanced options are available only to the Admin user and consist of settings that are related to specialist areas such as DDC and USB country code.

To get here

- 1 From a local or remote keyboard, log on as a standard (limited options) or 'admin' user.
- 2 Press Ctri Att M (hotkeys can change).
- 3 Press F1 to select 'More menus'.
- 4 Press 🗊 again to select 'Advanced menus'.
- 5 Select 'Setup Options'.

DDC Options

The options within this section are related to the Display Data Channel features supported by the SC5. DDC is an industry standard format that allows computer systems to be informed of the capabilities of the video monitor connected to them.

DDC Source

Settings: AUTO, LOCAL, REMOTE, DEFAULT

Determines which user port monitor should be interrogated to discover its capabilities. *AUTO* begins with the local user port and if it fails, it then checks the remote port and if that also fails to produce a result, it uses a set of default values. The LOCAL and REMOTE settings force the unit to interrogate only the local and remote monitors respectively, and DEFAULT uses only the pre-programmed settings.

DDC Refresh

Settings: AT START, DISABLED

AT START sets the SC5 to read DDC information from the selected source at power up. When *DISABLED*, no new DDC data is sought and existing information is used. When viewing this menu, press F7 to discover DDC information from the chosen source immediately.

continued

F1-More menus	
Enter-Select	
Encoluit	
ESC-QUIL	

DDC Options USB Country Code



USB Country Code

Some computers query the keyboard to find out its country code and key layout. These computers use this information to configure the way that they interpret the data coming from the keyboard and so it is important for the correct country information to be supplied. Not all keyboards report country information and two different styles of keyboard may be connected to the SC5.

To get here

- 1 From a local or remote keyboard, log on as a standard (limited options) or 'admin' user.
- 2 Press Ctrl Att M (hotkeys can change).
- 3 Press F1 to select 'More menus'.
- 4 Press 🗊 again to select 'Advanced menus'.
- 5 Highlight the USB Country Code option and press Enter.
- 6 Select 'Setup Options'.

Country Code

Settings: AUTO, MANUAL, DISABLED

In AUTO mode the SC5 will attempt to query the keyboard attached to the local port to ascertain a country code. If a country code is not found then the SC5 will use the current value of the Default Country option. In MANUAL mode, the connected local keyboard is not queried for country information and instead the Default Country value is reported to all computers that request country information. In DISABLED mode, no country information is supplied to computers requesting country information.

SC5	
32	
Esc-Quit	
	SC5 AUTO 32 Esc-Quit

Default Country

The codes that may be used within this option are as follows:

Country	Code	Country	Code
Arabic	01	Persian (Farsi)	20
Belgian	02	Poland	21
Canadian-Bilingual	03	Portugese	22
Canadian-French	04	Russian	23
Czech Republic	05	Slovakian	24
Danish	06	Spanish	25
Finnish	07	Swedish	26
French	08	Swiss/French	27
German	09	Swiss/German	28
Greek	10	Switzerland	29
Hebrew	11	Taiwan	30
Hungary	12	Turkish-Q	31
International (ISO)	13	UK	32
Italian	14	US	33
Japan (Katakana)	15	Yugoslavia	34
Korean	16	Turkish-F	35
Latin American	17	Reserved	36-255
Netherlands	18	Not supported	00
Norwegian	19		



Appendix 2 – Cable and connector specifications



RS232 serial flash upgrade cable



Multi-head synchronisation cable



INDEX

Safety information

- For use in dry, oil free indoor environments only.
- Both the SC5 and its power supply generate heat when in operation and will become warm to the touch. Do not enclose them or place them in locations where air cannot circulate to cool the equipment. Do not operate the equipment in ambient temperatures exceeding 40 degrees Centigrade. Do not place the products in contact with equipment whose surface temperature exceeds 40 degrees Centigrade.
- Warning live parts contained within power adapter.
- No user serviceable parts within power adapter do not dismantle.
- Plug the power adapter into a socket outlet close to the module that it is powering.
- Replace the power adapter with a manufacturer approved type only.
- Do not use the power adapter if its case becomes damaged, cracked or broken or if you suspect that it is not operating properly.
- If you use a power extension cord with the SC5, make sure the total ampere rating of the devices plugged into the extension cord does not exceed the cord's ampere rating. Also, make sure that the total ampere rating of all the devices plugged into the wall outlet does not exceed the wall outlet's ampere rating.
- Do not attempt to service the SC5 yourself.



WEEE (Waste of Electrical and Electronic Equipment), Recycling of Electronic Products



United Kingdom

In 2006 the European Union introduced regulations (WEEE) for the collection and recycling of all waste electrical and electronic equipment. It is no longer allowable to simply throw away electrical and electronic equipment. Instead, these products must enter the recycling process.

Each individual EU member state has implemented the WEEE regulations into national law in slightly different ways. Please follow your national law when you want to dispose of any electrical or electronic products.

More details can be obtained from your national WEEE recycling agency.

Deutschland

Die Europäische Union hat mit der WEEE Direktive umfassende Regelungen für die Verschrottung und das Recycling von Elektro- und Elektronikprodukten geschaffen. Diese wurden im deutschen Elektro- und Elektronikgerätegesetz – ElektroG in deutsches Recht umgesetzt. Dieses Gesetz verbietet vom 24.März 2006 an das Entsorgen von Elektro- und Elektronikgeräten über die Hausmülltonne!

B2B Geräte wie dieses sowie LINDY LCD Terminal und LINDY 19" KVM Switches nimmt LINDY kostenlos zurück und führt sie einem geordneten Recycling entsprechend den gesetzlichen Vorgaben zu. Bitte nehmen Sie hierzu Kontakt mit LINDY auf, die Kontaktadressen finden Sie stets auf der LINDY Website www.lindy.com

B2C-Geräte müssen den lokalen Sammelsystemen bzw. örtlichen Sammelstellen zugeführt werden! Dort werden sie kostenlos entgegen genommen. Die Kosten für den weiteren Recyclingprozess übernimmt die Gesamtheit der Gerätehersteller.

France

En 2006, l'union Européenne a introduit la nouvelle réglementation (DEEE) pour le recyclage de tout équipement électrique et électronique.

Chaque Etat membre de l'Union Européenne a mis en application la nouvelle réglementation DEEE de manières légèrement différentes. Veuillez suivre le décret d'application correspondant à l'élimination des déchets électriques ou électroniques de votre pays.

Italia

Nel 2006 l'unione europea ha introdotto regolamentazioni (WEEE) per la raccolta e il riciclo di apparecchi elettrici ed elettronici. Non è più consentito semplicemente gettare queste apparecchiature, devono essere riciclate. Ogni stato membro dell' EU ha tramutato le direttive WEEE in leggi statali in varie misure. Fare riferimento alle leggi del proprio Stato quando si dispone di un apparecchio elettrico o elettronico.

Per ulteriori dettagli fare riferimento alla direttiva WEEE sul riciclaggio del proprio Stato.

LINDY

OPERATION

INDEX

Radio Frequency Energy

A Category 5 (or better) twisted pair cable must be used to connect the units in order to maintain compliance with radio frequency energy emission regulations and ensure a suitably high level of immunity to electromagnetic disturbances.

All other interface cables used with this equipment must be shielded in order to maintain compliance with radio frequency energy emission regulations and ensure a suitably high level of immunity to electromagnetic disturbances.

European EMC directive 89/336/EEC

This equipment has been tested and found to comply with the limits for a class A computing device in accordance with the specifications in the European standards EN55022 and EN55024. These limits are designed to provide reasonable protection against harmful interference. This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instructions may cause harmful interference to radio or television reception. However, there is no guarantee that harmful interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment on and off, the user is encouraged to correct the interference with one or more of the following measures: (a) Reorient or relocate the receiving antenna. (b) Increase the separation between the equipment and the receiver. (c) Connect the equipment to an outlet on a circuit different from that to which the receiver is connected. (d) Consult the supplier or an experienced radio/TV technician for help.

FCC Compliance Statement (United States)

This equipment generates, uses and can radiate radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio communication. It has been tested and found to comply with the limits for a class A computing device in accordance with the specifications in Subpart J of part 15 of FCC rules, which are designed to provide reasonable protection against such interference when the equipment is operated in a commercial environment. Operation of this equipment in a residential area may cause interference, in which case the user at his own expense will be required to take whatever measures may be necessary to correct the interference. Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

Canadian Department of Communications RFI statement

This equipment does not exceed the class A limits for radio noise emissions from digital apparatus set out in the radio interference regulations of the Canadian Department of Communications.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la classe A prescrites dans le règlement sur le brouillage radioélectriques publié par le ministère des Communications du Canada.



© 2008 LINDY Electronics Limited & LINDY Elektronik GmbH All trademarks are acknowledged. Release 1.0b December 2008

Great Britain & N. Ireland

LINDY Electronics Ltd Sadler Forster Way Teesside Industrial Estate Thornaby Stockton-on-Tees TS17 9JY United Kingdom Email: postmaster@lindy.co.uk Tel: 01642 754000 Fax: 01642 765274

Germany

LINDY-Elektronik GmbH Markircher Str. 20 68229 Mannheim Deutschland Email: info@lindy.de Tel: 0621 - 470050 Fax: 0621 - 4700530

International & Eire

LINDY International Ltd. Sadler Forster Way Teesside Industrial Estate Thornaby Stockton-on-Tees TS17 9JY United Kingdom Email: postmaster@lindy.com Tel: +44 (0) 1642 754020 Fax: +44 (0) 1642 754029

France

LINDY FRANCE SA 6 Rue RAPP CS31015 67451 MUNDOLSHEIM CEDEX France Email: france@lindy.fr Tel: 0 825 825 111 Fax: 03 88 20 57 74

North America

LINDY Computer Connection Technology, Inc. 14327 Bledsoe Road Athens, AL 35613 USA Email: usa@lindy-usa.com Tel: (256) 771-0660 Fax: (256) 771-0460

Australia

LINDY Australia Pty Ltd. Unit 2, 43-49 Sandgate Road AU- 4010 Albion Qld

Email: info@lindy.com.au Tel: 07 3262 9033 Fax: 07 3262 9055

Italia

LINDY Italia Srl Via Varesina, 126/B 22079 - Villa Guardia (CO) Italia Email: italia@lindy.it Tel: 031 48 40 11 Fax: 031 48 06 52

Schweiz/Suisse/Svizzera

LINDY-Elektronik AG Florenzstrasse 9 CH 4023 Basel Email: info@lindy.ch

Tel. 061 - 3359700 Fax 061 - 3359709

Index

Α

Access local and remote users 31 Addressing cascaded computers 14 ADMIN forgotten password 28 password 19 Advanced options 44 Assistance from Lindy 37 Autoscanning 25

В

Brackets 5 fitting 6

С

Cable lengths to computers 10 to remote users 9 Cable specifications 46 CAM connection 10 Cascade connections addressing 14 introduction 12 tips for success 13 Cascaded computers selecting 34 Compensation for computer links 22 for remote user links 22

Computer connection 10 name editing 21 ports 4 registering 21 selecting 31 Computer Access Module connection 10 Configuration 17 menus 18,38 overall steps 17 saving and restoring 26 Configuration settings saving and restoring 26 Confirmation box 35 Connections 7 Computer Access Module 10 computer system 10 global user 10 host computer 8 keyboard 8 local user 8 multiple video head 15 power supply 11 remote user 9 Connector specifications 46

D

Daisy chain cable 46 Data Transfer utility 26 DDC options 44,45

Ε

Extender remote user 9

F

Firmware upgrade 28,29 Functions 39,44,45

G

Global preferences 41,44 Global user connection 10

Н

Host computer connection 10 Hotkeys changing 19 selecting computers 31 Hot plugging 28

Indicators 4 Initial configuration 17 IP port connection 10

L

Local connection 31 Local user connection 8 port 4 Logging in and out section 34

Μ

Mounting 6 Multiple video head connections 15

Ν

Network port connection 10

0

Operation 31

Ρ

Parts supplied and extra 5 Password admin 19 forgotten 28 Power supply connecting 11 part number 5

R

Rack mounting 6 Reminder banner 35 Remote user cable lengths 9 connection 9 ports 4 Restoring configuration settings 26 Routing status 35

S

Safety information 47 Saving configuration settings 26 Security enabling 19 general steps 19 Selecting cascaded computers 34 computers 31 with hotkeys 31 with hotkeys 31 with on-screen menu 32 Setup options 39,43 Skew adjustment 23 Supplied items 5

Т

U

Troubleshooting 37

Upgrade firmware 28,29 User list editing 20 User preferences 40,43 User Station extender 9

V

Video compensation 22

FURTHER

NDEX