

 **LINDY**®

COMPUTER CONNECTION TECHNOLOGY

**Multi-Platform
KVM Converter Cable**

User Manual

English



LINDY No. 42867



Important information

- For use in dry, oil free indoor environments only
- Your USB converter cable contains no user-serviceable parts
- For connection only to the following standard computer system and KVM switch connectors: PS/2 style keyboard and mouse, SVGA analogue video connections and USB ports
- SUN users: please in any case refer to the important notes for SUN users on the next page!

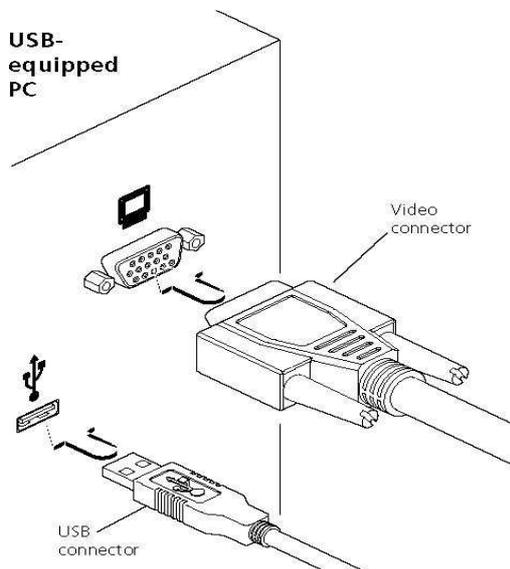
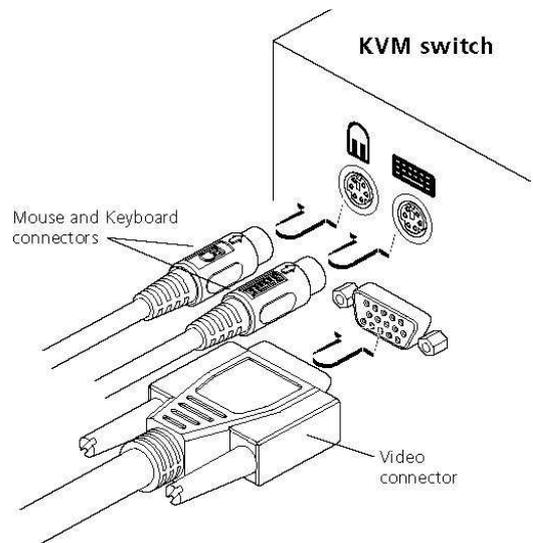
Connecting the LINDY USB converter cable

The LINDY USB converter cable is primarily designed for use with a USB-enabled computer and a traditional Keyboard, Video and Mouse (KVM) switch unit.

Note: It is technically possible to connect your PS/2-style keyboard, PS/2-style mouse and monitor directly to the cable. However, you would first need to purchase separate gender changers for the PS/2 keyboard and mouse connectors (LINDY No. 70342) and possibly one also for the video connector (LINDY No. 70094).

To connect the USB converter cable

1. If possible, switch off your computer(s) and KVM switch.
2. At the end of the cable that has three plugs, connect the keyboard, mouse, and video plugs to the relevant sockets on your KVM switch.



3. At the other end of the converter cable with two plugs, connect the video and USB plugs to the relevant sockets on your computer.
4. Switch on your computer(s) and KVM switch, and operate in the usual manner.

Note: If you are connecting to a Sun computer then it may be necessary to report a keyboard country code to the system before correct operation can occur. Please refer to the section 'Software upgrades and keyboard emulations' for more information on downloading the necessary files.

Your USB converter cable emulates the presence of a keyboard and mouse (via the USB connector) to the computer at all times. This means that there will be no delay in response when switching to this channel.



Keyboard emulations and software upgrades

The internal software of the LINDY USB converter cable can be upgraded to fulfil two main functions.

- Utilize the latest features and functionality
- Emulate particular styles of USB keyboards so that **extra keys** may be supported. Keyboard styles supported include the Microsoft® Office keyboard, the Microsoft® Natural Pro keyboard and Sun® workstation keyboard. Additionally for Sun® systems, the converter cable can be made to declare a country code.

IMPORTANT FOR SUN USERS

The internal software of the cable “as supplied” does NOT enable the advanced PS/2 to SUN keyboard mapping, for the special SUN keys, which are not available on a PC keyboard. The firmware default setup is optimized for use with PCs, servers, notebooks and Mac computers. To access the advanced SUN key press equivalents and to change or set SUN keyboard country code reporting you must flash the firmware of the converter cable. However this is not necessary if you are using the cable with a LINDY CPU Switch Dual Multi Platform.

This guide covers all of the steps needed to perform such changes, which are arranged into four main stages:

- Stage one Download upgrade files from the LINDY website.
- Stage two Create a startup diskette.
- Stage three Copy the files and edit the control file.
- Stage four Reconnect the USB converter cable and reboot.

The necessary upgrade and keyboard files will be made available within the downloads section of the LINDY website - www.lindy.com. Full instructions for performing an upgrade/keyboard emulation are included with the files from the website.

Keypress equivalents

The tables below provide equivalent keypresses on a standard PC (PS/2-style) keyboard that emulates special keys found on Apple®, Microsoft® or Sun® keyboards.

Note: To use the below Sun® equivalents you must first download the relevant files from the download section of the LINDY website (www.lindy.com).

PS/2 Keyboard

Left Ctrl
Left Win Start (⊞)
Left Alt
Right Alt or Alt Graph
Right Win Start (⊞)
Right Ctrl
Windows Application Key
no equivalent

Apple keyboard

Left Control
Left Command (⌘)
Left Option (alt)
Right Option (alt)
Right Command (⌘)
Right Control
No equivalent
On / off key

PS/2 Keyboard

Right-[Ctrl] [F1]
Right-[Ctrl] [F2]
Right-[Ctrl] [F3]
Right-[Ctrl] [F4]
Right-[Ctrl] [F5]
Right-[Ctrl] [F6]
Right-[Ctrl] [F7]
Right-[Ctrl] [F8]
Right-[Ctrl] [F9]
Right-[Ctrl] [F10]
Right-[Ctrl] [1]
Right-[Ctrl] [2]
Right-[Ctrl] [3]
Right-[Ctrl] [4]
Right-[Ctrl] [H]

Sun Keyboard

Stop
Again
Props
Undo
Front
Copy
Open
Paste
Find
Cut
Mute
Volume –
Volume +
Power *
Help

* Certain PS/2 keyboards have a power key which will be mapped to perform the same function for a sun system



Software Updates

Stage one – Download the upgrade files

To download the files

1. Access the LINDY website (www.lindy.com), and select the downloads, drivers section. Select Part No. 42867 from the item list to commence downloading.
2. You will need to decompress the file you have just downloaded to a suitable location on your computer. Depending on the chosen option, there will be a collection of suitable files. As a minimum, there should be the following files:
 - AUTOEXEC.BAT – instructs the computer to run the driver update and firmware upgrade programs.
 - PS2USB.EXE – this is the upgrade program that causes upgrade data to be sent to the USB converter cable from your PC.
 - A keyboard definition file that has the extension “.S19“, such as: “STANxxx.S19“. *Where xxx is the upgrade version number.*

Stage two – create a startup diskette

For this stage you will need a 3½” floppy diskette that is either blank or has existing contents that are no longer required. The write protect tab must be moved to the ‘unprotected’ position. Depending on your operating system, use one of the following to create a startup disk:

To create a startup disk in Windows XP

1. Insert a diskette into the floppy disk drive.
2. Select ‘Start’ and then ‘My Computer’.
3. Right mouse click on the ‘3½” Floppy (A:)’ icon and select ‘Format’.
4. Check the ‘Create an MS-DOS startup disk’ box and select ‘Start’.

To create a startup disk in Windows 95/98/ME

1. Insert a formatted diskette into the floppy disk drive.
2. Select ‘Start’, then ‘Settings’ and then ‘Control Panel’.
3. Double click on the ‘Add/Remove Programs’ icon.
4. Select the ‘Startup Disk’ tab.
5. Click ‘Create Disk’ and follow the instructions.

To create a startup disk in Windows 95/98 (alternative method)

1. Insert a diskette into the floppy disk drive.
2. Right mouse click on the ‘3½” Floppy (A:)’ icon and select ‘Format’.
3. Select the ‘Full format’ option and ensure that the ‘Copy system files’ box is checked.
4. Select ‘Start’ to format the disk.



To create a startup disk from MS-DOS or a DOS window within Windows 95/98

1. Insert a diskette into the floppy disk drive and check that the drive is configured as drive A (it usually is).
2. At the DOS prompt (C:\>) type: **FORMAT A: /S**
And follow the instructions given by DOS.

Stage three – Copy the files and edit the control file

In order to choose the appropriate upgrade/keyboard emulation options, you now need to copy the downloaded files to the diskette and then edit the AUTOEXEC.BAT control file.

1. Using Windows Explorer or the My Computer option, copy the downloaded and decompressed files from your computer to the floppy diskette.
2. Using a text editor, such as Notepad or Wordpad, open the AUTOEXEC.BAT file on the floppy diskette (A:). The file will contain a command line similar to the one shown here:

```
PS2USB STAN101.S19 /C21
```

The command line above relates to the USB keyboard that you wish to emulate to the connected system. There are two parts to the line:

- The STAN101.S19 entry sends a new keyboard profile (in this case the standard driver with a version number 1.01). A list of keyboard profiles is provided below. If necessary, change this entry to match the required keyboard file.
 - The /C21 suffix optionally sets a country code that will be reported to the USB-connected system(s). This is required only for Sun workstation systems, which require the country layout of the keyboard to be reported. A full list of country codes is provided opposite. The country code is not required for other kinds of computers and can be removed.
3. When all the required changes have been made, save the AUTOEXEC.BAT file. Do not change the name otherwise it will not be recognized by the system.

USB keyboard drivers

- STANxxx.S19 – This is the standard driver that is suitable for most systems and is loaded by default into the USB converter cable.
- OFFxxx.S19 – This driver supports the extra keys found along the top of Microsoft Office Keyboards
- NRPOxxx.S19 – This driver supports the extra keys found along the top of Microsoft Natural Pro keyboards
- SUNxxx.S19 – This driver supports the extra keys found on Sun-style keyboards. Sun systems also require a country code to be specified – see previous page for details.

The last three of these drivers provide support for the extra keys of these specialist keyboards and allow you to emulate them using combination key presses on a standard PS/2 style keyboard (a list of emulation key presses for a Sun keyboard are provided on the next page).



English Manual

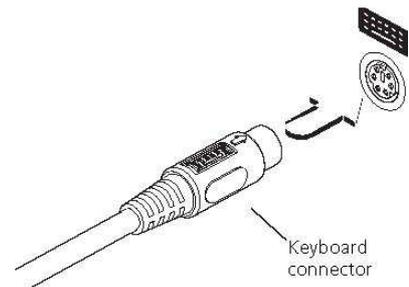
SUN Keyboard country codes

Country	nn code	Country	nn code
Arabic	01	Persian (Farsi)	14
Belgian	02	Poland	15
Canadian-Bilingual	03	Portugese	16
Canadian-French	04	Russian	17
Czech Republic	05	Slovakian	18
Danish	06	Spanish	19
Finnish	07	Swedish	1A
French	08	Swiss/French	1B
German	09	Swiss/German	1C
Greek	0A	Switzerland	1D
Hebrew	0B	Taiwan	1E
Hungary	0C	Turkish-Q	1F
International (ISO)	0D	UK	20
Italian	0E	US	21
Japan (Katakana)	0F	Yugoslavia	22
Korean	10	Turkish-F	23
Latin American	11	Reserved	24-FF
Netherlands	12	Not supported	00
Norwegian	13		

Stage four – Reconnect USB converter cable and reboot

On the Windows based computer from which you will run the upgrade, ensure that its BIOS settings will allow it to boot from the floppy diskette drive, rather than booting immediately from the hard drive.

1. Switch off the computer and remove the keyboard connector.
2. Disconnect your USB converter cable (if connected) from its computer and KVM switch.
3. At the end of the converter cable that has three plugs, locate the keyboard plug (purple with a  icon) and connect it to the keyboard socket of the Windows-based computer. This is the reverse of the usual connection method and the cable will automatically detect this to prepare itself for the upgrade procedure.



4. With the upgrade diskette installed in the drive, switch on the computer. The computer must boot from the floppy diskette and will then automatically perform the upgrade/apply the keyboard & country code. The upgrade process should take no more than two to three minutes and a progress indicator will be displayed on screen. Once the upgrade is complete, switch off the computer and disconnect the USB converter cable.
5. Reconnect the USB converter cable between the USB-equipped computer and the KVM switch.



SUN system keypress equivalents

IMPORTANT FOR SUN USERS

The internal software of the cable “as supplied” does NOT enable the advanced PS/2 to SUN keyboard mapping, for the special SUN keys, which are not available on a PC keyboard. The firmware default setup is optimized for use with PCs, servers, notebooks and Mac computers. To access the advanced SUN key press equivalents and to change or set SUN keyboard country code reporting you must flash the firmware of the converter cable. However this is not necessary if you are using the cable with a LINDY CPU Switch Dual Multi Platform.

Once the Sun keyboard emulator has been downloaded, you can emulate the extra keys on a Sun keyboard using the following PS/2 key press combinations.

PS/2 Keyboard

Right-[Ctrl] [F1]
Right-[Ctrl] [F2]
Right-[Ctrl] [F3]
Right-[Ctrl] [F4]
Right-[Ctrl] [F5]
Right-[Ctrl] [F6]
Right-[Ctrl] [F7]
Right-[Ctrl] [F8]
Right-[Ctrl] [F9]
Right-[Ctrl] [F10]
Right-[Ctrl] [1]
Right-[Ctrl] [2]
Right-[Ctrl] [3]
Right-[Ctrl] [4]
Right-[Ctrl] [H]

Sun Keyboard

Stop
Again
Props
Undo
Front
Copy
Open
Paste
Find
Cut
Mute
Volume –
Volume +
Power *
Help

** Certain PS/2 keyboards have a power key which will be mapped to perform the same function for a SUN system.*



Your warranty

LINDY warrants that this product shall be free from defects in workmanship and materials for a period of three years from the date of original purchase. If the product should fail to operate correctly in normal use during the warranty period, LINDY will replace or repair it free of charge. Any faulty items are to be returned to LINDY at the owner's expense. No liability can be accepted for damage due to misuse or circumstances outside LINDY's control. Also, LINDY will not be responsible for any loss, damage or injury arising directly or indirectly from the use of this product. LINDY's total liability under the terms of this warranty shall in all circumstances be limited to the replacement value of this product. This warranty goes on top of any applicable legal regulation and does not limit any customer rights compared to the legal regulations.

Regulatory information

This equipment should be used with high quality shielded LINDY cables only. Failure to use unshielded cables may result in the complete system not meeting EMC requirements.



FCC statement

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 communications. 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 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.

