## User Manual

## Legal Information

First English printing, October 2002
Information in this document has been carefully checked for accuracy; however, no guarantee is given to the correctness of the contents. The information in this document is subject to change without notice. We are not liable for any injury or loss that results from the use of this equipment.

## Safety Instructions

## Please read all of these instructions carefully before you use the device. Save this manual for future reference.

■ Unplug equipment before cleaning. Don't use liquid or spray detergent; use a moist cloth.

- Keep equipment away from excessive humidity and heat. Preferably, keep it in an air-conditioned environment with temperatures not exceeding $40 \circ$ Celsius (104ㅇ Fahrenheit).
- When installing, place the equipment on a sturdy, level surface to prevent it from accidentally falling and causing damage to other equipment or injury to persons nearby.
- When the equipment is in an open position, do not cover, block or in any way obstruct the gap between it and the power supply. Proper air convection is necessary to keep it from overheating.
- Arrange the equipment's power cord in such a way that others won't trip or fall over it.
- If you are using a power cord that didn't ship with the equipment, ensure that it is rated for the voltage and current labeled on the equipment's electrical ratings label. The voltage rating on the cord should be higher than the one listed on the equipment's ratings label.
- Observe all precautions and warnings attached to the equipment.
- If you don't intend on using the equipment for a long time, disconnect it from the power outlet to prevent being damaged by transient over-voltage.
- Keep all liquids away from the equipment to minimize the risk of accidental spillage. Liquid spilled on to the power supply or on other hardware may cause damage, fire or electrical shock.
- Only qualified service personnel should open the chassis. Opening it yourself could damage the equipment and invalidate its warranty.
- If any part of the equipment becomes damaged or stops functioning, have it checked by qualified service personnel.


## What the warranty does not cover

- Any product, on which the serial number has been defaced, modified or removed.
- Damage, deterioration or malfunction resulting from:
$\square$ Accident, misuse, neglect, fire, water, lightning, or other acts of nature, unauthorized product modification, or failure to follow instructions supplied with the product.
$\square \quad$ Repair or attempted repair by anyone not authorized by us.
$\square \quad$ Any damage of the product due to shipment.
Removal or installation of the product.
Causes external to the product, such as electric power fluctuation or failure.
Use of supplies or parts not meeting our specifications.
Normal wear and tear.
Any other causes which does not relate to a product defect.
- Removal, installation, and set-up service charges.


## Regulatory Notices Federal Communications Commission (FCC)

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.
Any changes or modifications made to this equipment may void the user's authority to operate this equipment. 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 communications.
However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Re-position or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.


## Contents

< Part 1 > Combo DB-15 IP KVM Kit
KP802 KP1602
1.1 Package contents ..... P. 1
1.2 KVM port connection ..... P. 2
1.3 IP console connection ..... P. 2
1.4 IP console setting ..... P. 3
1.5 KVM Cascade ..... P. 4
1.6 Specifications ..... P. 5
< Part 2 > Combo DB-15 2-console KVM Kit
KV802 KV1602
2.1 Package contents ..... P. 6
2.2 KVM port connection ..... P. 7
2.3 Remote console connection ..... P.7-8
2.4 KVM Cascade ..... P. 9
2.5 Specifications ..... P. 10
< Part 3 > Combo DB-15 KVM Kit
KVS801 KVS1601
$3.1 \quad$ Package contents ..... P. 11
3.2 KVM port connection ..... P. 12
3.3 KVM Cascade ..... P. 13
3.4 Specifications ..... P. 14
< Part 4 > Usage
4.1 KVM Button ..... P. 15
4.2 Password ..... P. 16
4.3 KVM OSD ..... P. 17
4.4 KVM Hotkey \& Remote Console Hotkey ..... P. 18
4.5 DC power 12V, 24V, 48V Input ..... P. 19

KP802
KP1602
KVM Rear Kit


The power of the KVM rear kit may be changed to external power design based on the LCD console drawer series and model.

KP802 Tr


## KP1602



## < 1.2 > KVM port connection

- 6 / 10 / 15 ft Combo KVM cable
- Support PS/2 or USB server


Combo KVM port
Drawer KVM Rear Kit


## $<1.3>$ IP console connection



## < 1.4 > IP console setting

After the cable connection, please take the following steps to configure the IP KVM :

1. Download IPKVMsetup.exe
2. Double click IPKVMsetup.exe to configure the IP KVM by device setup as below.

3. Click Refresh Device to search the connected IP KVM
4. Select the M.A.C. address, which you want to setup, then click Query Device
5. Enter Super user login. The default is super
6. Enter Super user password. The default is pass
7. Enter the new super user password
8. Re-enter the new password
9. Change the desired IP address / Subnet mask / Gateway, then click Setup Device to confirm the setting to IP KVM
10. The default address is as below:--

- The single IP KVM model, such as KP-1602 - http://192.168.1.22

11. Open Internet Explorer ( I.E. ), version 6.0 or above
12. Enter the IP KVM address into the address bar

- For Single IP - http://192.168.1.22

13. Enter username ( default is super )

Password ( default is pass )

14. After successful login to IP KVM, the user will enter the main page of IP KVM

## < 1.5 > KVM Cascade

- Cascade up to 8 levels, 128 servers
- Cascading multiple KVM with CBC-6 cascade cable.

Cascaded KVMs from level 2 to 8 must be the models of KVS801 / KVS1601.

When multiple combo DB-15 KVMs cascade together, the master KVM at level 1 will take all control of other slave KVM switches (e.g. level 2 to 8).


- 6ft Combo KVM cascade cable


## < 1.6 > Specifications

KP802 KP1602

- KVM Port

Number of ports: $\quad 8$ or 16
Connector: Combo connector
Connectivity:
Combo 4-in-1 KVM cable, up to 6, 10 \& 15 feet
Local Console
Nil for LCD console drawer version

- IP Remote Console

| Connector: | RJ45 Ethernet |
| :--- | :--- |
| User management: | 15-user login, $1 \times$ active user |
| Network protocol: | DHCP / BOOTP / DNS |
| Security: | SSL v3, RSA, AES, HTTP / HTTPs, CSR |
| Resolution: | Up to $1600 \times 1200$ |
| Browser: | IE, Firefox, Safari, Netscape |

Expansion: Up to 128 servers by 8-level cascade

- Compatibility

| Multi-platform: | Mix PCs, SUN and Mac G3 / G4 Mac / iMac |
| :--- | :--- |
| Support: | Windows 7 / Vista / 2003 / XP, Linux, Unix |

Power
Input: $\quad 100$ or 240 V AC at 50 or 60 Hz via IEC type cord
Option DC: $\quad 12 \mathrm{~V} / 24 \mathrm{~V} / 48 \mathrm{~V}$ DC input
Consumption: Max. 24 Watt, Standby 5 Watt
Regulatory Approval: FCC, CE

## Environmental

Operating:
0 to $50^{\circ} \mathrm{C}$
Storage:
Relative humidity:
Shock:
Vibration:
-5 to $60^{\circ} \mathrm{C}$
90\%, non-condensing
50G peak acceleration ( 11 ms , half-sine wave)
$58 \sim 100 \mathrm{~Hz} / 0.98 \mathrm{G}$ (11ms / cycle)

KV802/1602

- Receiver box for remote console x 1
- Power adapter w/ power cord ( for receiver ) x 1
- 6 ft Combo KVM cable for receiver box x 1


The power of the KVM rear kit may be changed to external power design based on the LCD console drawer series and model.

KV802
Remote


Cascade

KV1602


## < 2.2 > KVM port connection

- $6 / 10 / 15 \mathrm{ft}$ Combo KVM cable
- Support PS/2 or USB server



## Combo KVM port

Drawer KVM Rear Kit


## PS/2 Servers

E0

< 2.3 > Remote console connection


How to use a receiver to connect a remote console


## < 2.4 > KVM Cascade

- Cascade up to 8 levels, 128 servers
- Cascading multiple KVM with CBC-6 cascade cable.

Cascaded KVMs from level 2 to 8 must be the models of KVS801 / KVS1601.

When multiple combo DB-15 KVMs cascade together, the master KVM at level 1 will take all control of other slave KVM switches (e.g. level 2 to 8).


- 6ft Combo KVM cascade cable


## < 2.5 > Specifications

## KV802 KV1602

- KVM Port
Number of ports:
8 or 16
Connector: Combo connector
Connectivity: Combo 4-in-1 KVM cable, up to 6,10 \& 15 feet



## < 3.1 > Package Contents

KVS801
/1601
KVM Rear Kit


The power of the KVM rear kit may be changed to external power design based on the LCD console drawer series and model.

KVS801


KVS1601


## < 3.2 > KVM port connection



## < 3.3 > KVM Cascade

- Cascade up to 8 levels, 128 servers
- Cascading multiple KVM with CBC-6 cascade cable.

Cascaded KVMs from level 2 to 8 must be the models of KvS801/KvS1601.

When multiple combo DB-15 KVMs cascade together, the master KVM at level 1 will take all control of other slave KVM switches (e.g. level 2 to 8).


- 6ft Combo KVM cascade cable


## < $3.4>$ Specifications

## KVS801 <br> KVS1601

■ KVM Port
Number of ports: 8 or 16
Connector: Combo connector
Connectivity: $\quad$ Combo 4-in-1 KVM cable, up to 6, 10 \& 15 feet

- Local Console Nil for LCD console drawer version
- Management

Multilingual OSD: English, France, German, Spanish, Italian, Russian, Simplified Chinese, Japanese
Hotkey combination: Scroll-lock, Cap-lock, Num-lock, Alt, Ctrl \& Win
Security: Password enable \& disable, up to 8 users profile for port access
PC Selection: Front button, OSD menu \& hotkey

- Expansion: Up to 128 servers by 8-level cascade
- Compatibility

Multi-platform: $\quad$ Mix PCs, SUN and Mac G3 / G4 Mac / iMac
Support: Windows 7 / Vista / 2003 / XP, Linux, Unix

- Power

Input: $\quad 100$ or 240 V AC at 50 or 60 Hz via IEC type cord
Option DC: $\quad 12 \mathrm{~V} / 24 \mathrm{~V} / 48 \mathrm{~V}$ DC input
Consumption:
Max. 24 Watt, Standby 5 Watt
Regulatory Approval: FCC, CE
Environmental
Operating: $\quad 0$ to $50^{\circ} \mathrm{C}$
Storage: $\quad-5$ to $60^{\circ} \mathrm{C}$
Relative humidity: $\quad 90 \%$, non-condensing
Shock: 50G peak acceleration (11ms, half-sine wave)
Vibration: $\quad 58 \sim 100 \mathrm{~Hz} / 0.98 \mathrm{G}$ (11ms / cycle)

## Part 4. Usage

### 4.1 KVM Button

## Power ON

- Turn off all servers and KVM switches
- Make sure all cables / connectors are properly connected
- Recommend Power ON sequence is monitor, KVM switch finally computer


## Front Panel - Port LED Indications

8 ports


16 ports


Bank no. 7-Segment BANK LED indication

| PC port LEDs | Online : Blue LED on indicating a PC is connecting to the port |
| :--- | :--- |
|  | Active : Green LED on indicating a selected channel |
| Channel button | Press to select channel from 01 to 16 |
| Bank button | Select the bank from 1 to 8 |

## < 4.2 > Password

The password is enabled by default, the default password is "00000000" eight zeros (Do not use "0" on number pad)

## ■ Enable password

1. Press the KVM hotkey Scroll Lock + Scroll Lock + U
2. Logout the KVM by pressing the hotkey Scroll Lock + Scroll Lock + P
3. In SUPERVISOR level, enter "00000000" eight zeros in user name \& password field (Do not use " 0 " on number pad)
4. In USER level, press Space bar + Enter in user name \& password field Remark: Automatic logout after 10 minutes of inactivity

## ■ Set your own user name \& password

1. Login the KVM in SUPERVISOR level by pressing "00000000" eight zeros in user name \& password field
2. Call KVM OSD menu by pressing the KVM hotkey Scroll Lock + Scroll Lock + Space Bar
3. Press F1 to the MAIN MENU
4. Select "USER SECURITY"
5. Set password in SUPERVISOR \& USER level
a. In the left-top row "S" (SUPERVISOR), press Enter to set your own user name \& password b. In the row 1 to 8 (USER), press Enter to set your own user name \& password
6. Press Enter to save the setting or press Esc to cancel the editing without any change

Remark: a. Blank has underscore, while SPACE doesn't have
b. Press any alphanumeric key to move to next input item. SPACE is treated as a valid character

## ■ Change your password

1. Login the KVM in SUPERVISOR level by pressing your own user name \& password
2. Call KVM OSD menu by pressing the KVM hotkey Scroll Lock + Scroll Lock + Space Bar
3. Press F1 to the MAIN MENU
4. Select "USER SECURITY"
5. Change password in SUPERVISOR \& USER level
a. In the left-top row "S" (SUPERVISOR), press Enter to change your user name \& password
b. In the row 1 to 8 (USER), press Enter to change your user name \& password
6. Press Enter to save the setting or press Esc to cancel the editing without any change

Remark: a. Blank has underscore, while SPACE doesn't have
b. Press any alphanumeric key to move to next input item. SPACE is treated as a valid character

## ■ Disable your password

1. Press the KVM hotkey Scroll Lock + Scroll Lock + U
2. Logout the KVM by pressing the KVM hotkey Scroll Lock + Scroll Lock + P
3. You don't need user name \& password to access the KVM OSD menu

## - Forget your password

Please contact your supplier for further support

## Remark:

- You must press the KVM hotkey within 2 seconds

■ A beep sound will be heard for successful entering KVM hotkey

## $<4.3>$ KVM OSD

| OSD Menu | PORT NAME |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | F1: MENU <br> F2: LOGOUT F3: PREV ESC : QUIT ENTER : COMP - / : SELECT PgUp/PgDn: BANK SELECT |  |
|  |  |  | USER: <br> SUPERVISOR <br> SCAN TIME : <br> 10 SEC |  |
| OSD operation |  |  |  |  |
| \% next to the system name | The PC is powered on |  |  |  |
| En next to the system name | The PC is selected |  |  |  |
| F1 | Access F1 MAIN MENU |  |  |  |
| F2 | Logout the OSD menu |  |  |  |
| F3 | Previous menu |  |  |  |
| Esc | Cancel / Quit |  |  |  |
| Enter | Complete / Switch to selected port |  |  |  |
| -/ | Switch to previous or next port |  |  |  |
| PgUp/PgDn | Switch to previous bank or next bank |  |  |  |
| 1/2/3/4 | Display port 01~08/09~16/17~24/25~32 <br> Remark: Display port $17 \sim 32$ for 32 port model only |  |  |  |

## F1 Main Menu

| MAIN | MENU |
| :--- | :--- |
| SELECT OPTION : |  |
| 01 | LANGUAGE |
| 02 | PORT NAME EDIT |
| 03 | PORT SEARCH |
| 04 | USER SECURITY |
| 05 | ACCESS LIST |
| 06 | HOTKEY |
| 07 | TIME SETTINGS |
| 08 | OSD MOUSE |


| 01 | LANGUAGE | OSD language change |
| :--- | :--- | :--- |
| 02 | PORT NAME EDIT | Define port name |
| 03 | PORT SEARCH | Quick searching by port name |
| 04 | USER SECURITY | Change password |
| 05 | ACCESS LIST | Define user access authority |
| 06 | HOTKEY | Change hotkey |
| 07 | TIME SETTINGS | Modify scan display time interval |
| 08 | OSD MOUSE | Modify OSD mouse speed |

## < 4.4 > KVM Hotkey \& Remote Console Hotkey

| Local Console Hotkey | Function |
| :---: | :---: |
| Scroll Lock + Scroll Lock + Space Bar | Calling OSD menu |
| Right-button mouse + Esc | Calling OSD menu |
| Scroll Lock + Scroll Lock + - | Switch to previous port |
| Scroll Lock + Scroll Lock + | Switch to next port |
| Scroll Lock + Scroll Lock + PgUp / PgDn | Switch to previous bank or next bank |
| Scroll Lock + Scroll Lock + Bank no. + Port no. | Switch to specific port |
| Scroll Lock + Scroll Lock + B | Turn the buzzer ON and OFF <br> * Default the buzzer is ON |
| Scroll Lock + Scroll Lock + P | Logout the KVM if password security is ON. Show up the status windows |
| Advance hotkeys (for Supervisor login only) |  |
| Scroll Lock + Scroll Lock + S | Activate auto-scan mode for connected servers <br> *Press any key to exit the auto-scan mode |
| Scroll Lock + Scroll Lock + R | Reset all the KVM settings to factory default <br> *Except User Security settings |
| Scroll Lock + Scroll Lock + U | Disable and enable password security *Default security is ON |
| Scroll Lock + Scroll Lock + L | To enable / disable the screen saving function and 10 minutes auto-logout *Default the screen saving is OFF |
| Remarks: <br> Example of "Scroll Lock + Scroll Lock + Bank no. + Port no." <br> - Bank No.: 1 to 8 <br> - Port No. : 01 to 16 <br> - e.g. Bank 1 Port 4 : Scroll Lock + Scroll Lock + $\mathbf{1}+\mathbf{0}+4$ <br> - e.g. Bank 2 Port 16 : Scroll Lock + Scroll Lock $+2+1+6$ |  |


| Remote Console Hotkey | Function |
| :--- | :--- |
| Scroll Lock + Scroll Lock $+\mathbf{C}$ | Toggle switch between remote \& local port |
| Scroll Lock + Scroll Lock $+\mathbf{Q}$ | Turn the buzzer ON \& OFF <br> *Default the buzzer is ON |
| Scroll Lock + Scroll Lock $+\mathbf{S}$ | Activate auto-scan mode for remote \& local port <br> *The scan time interval is 5 seconds |
| Scroll Lock + Scroll Lock + A | Auto-adjust the video signal |

## < 4.5 > DC Power 12V, 24V, 48V Input

|  | $0 \stackrel{+-}{\oplus+}+\underset{\sim}{\oplus} \oplus$ | $0 \stackrel{+-}{\oplus+}+\underset{\sim}{\oplus} \oplus$ | $0 \stackrel{+--}{+\stackrel{-}{\oplus} \oplus}$ |
| :---: | :---: | :---: | :---: |
| Model | 12V | 24V | 48V |
| Input rating |  |  |  |
| Input voltage: | 12-Volt | 24-Volt | 48-Volt |
| Input range: | $9 \sim 18 \mathrm{~V}$ | 18 ~ 36V | $36 \sim 75 \mathrm{~V}$ |
| Input current |  |  |  |
| - No load | 50 mA | 50 mA | 50 mA |
| - Full load | 4950 mA | 2450 mA | 1220 mA |
| Output rating |  |  |  |
| Output voltage: | 12-Volt | 12-Volt | 12-Volt |
| Output current: | 4.16A | 4.16A | 4.16A |
| Efficiency | 84\% | 85\% | 85\% |

## Remarks:

- Package does not include power cord

