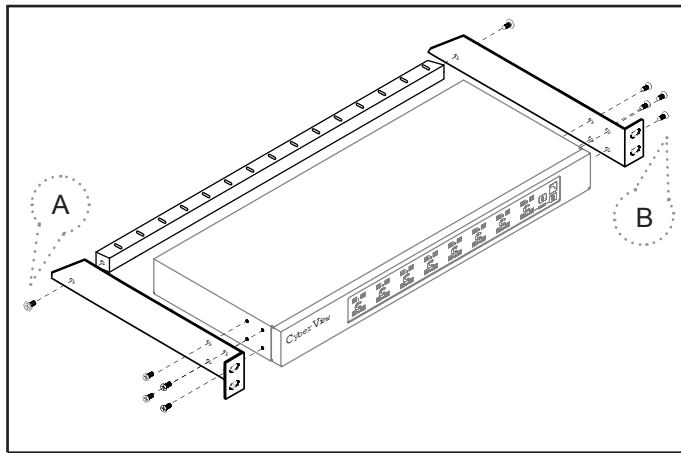


U-1602 / U-3202 Cat5 Two Console KVM

Installation



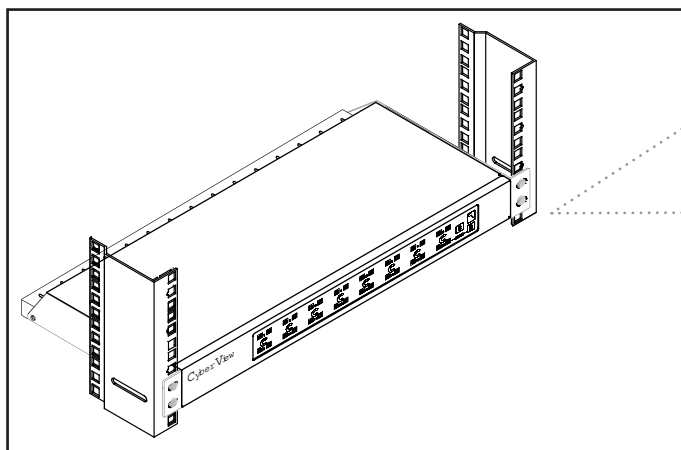
screw A: M3.2 x 4.5 mm



screw B: M4 x 10 mm

- Install each bracket using screws provided shown in **Figure 1**.

Figure 1. Installing the bracket to the KVM.



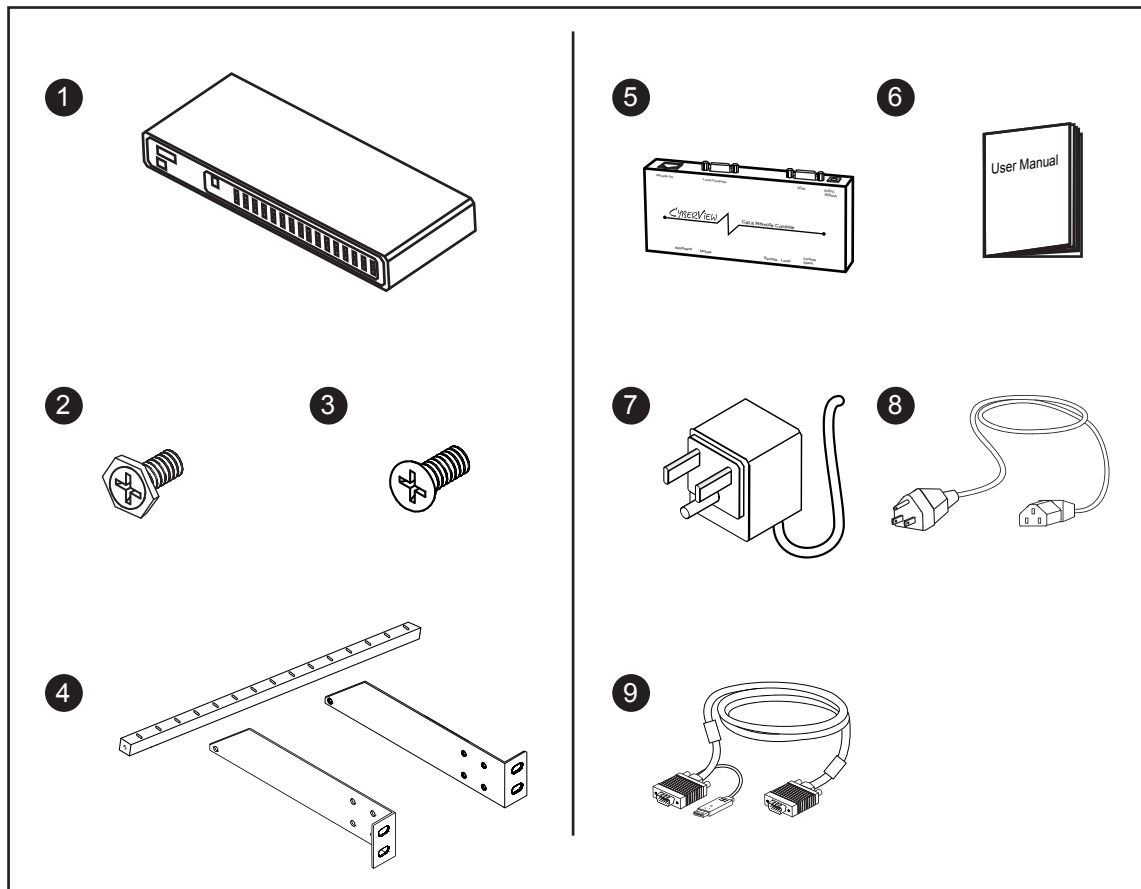
- Fix the KVM into the rack

* Hardware for fixing the mounting bracket to the rack is not provided

Figure 2. Fixing the KVM into the rack.

U-1602 / U-3202 Cat5 Two Console KVM

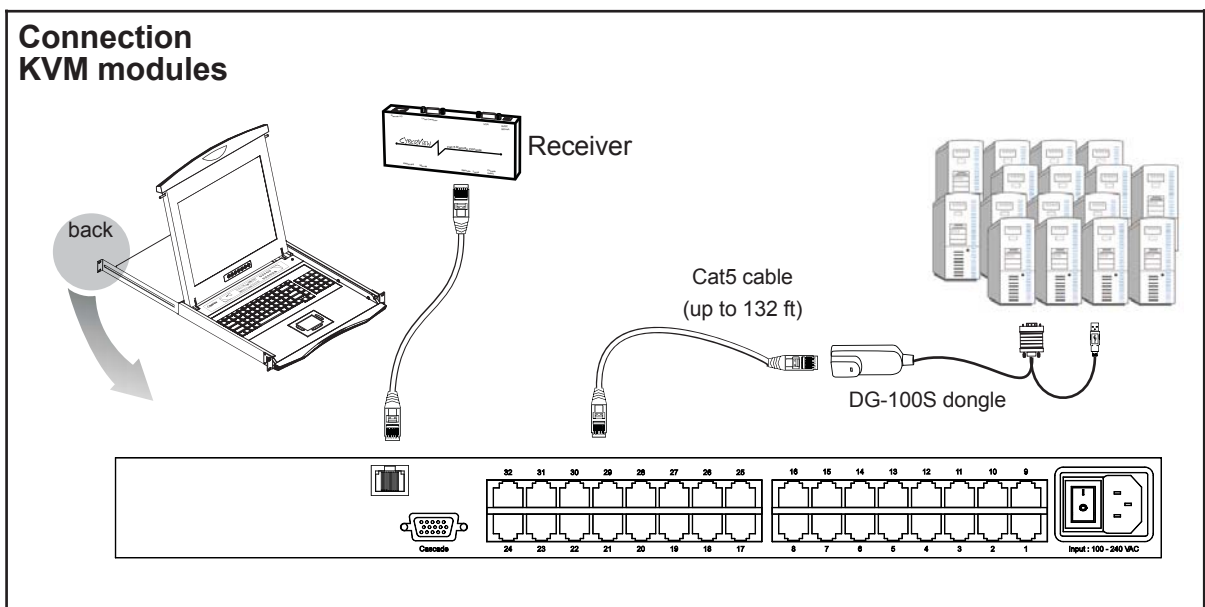
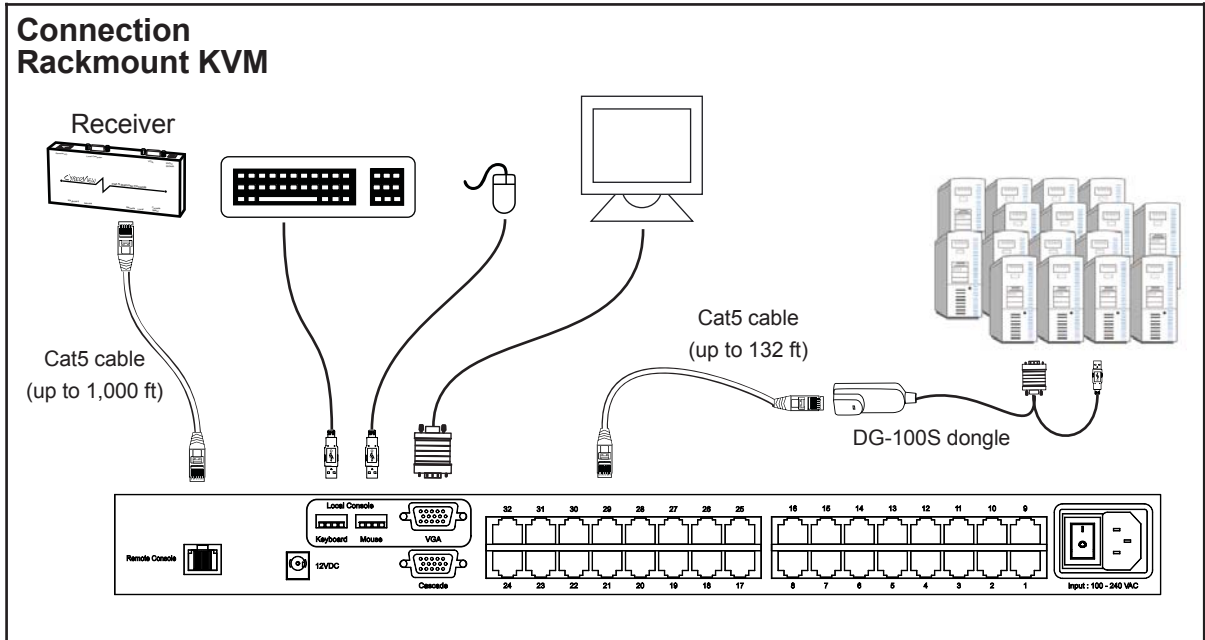
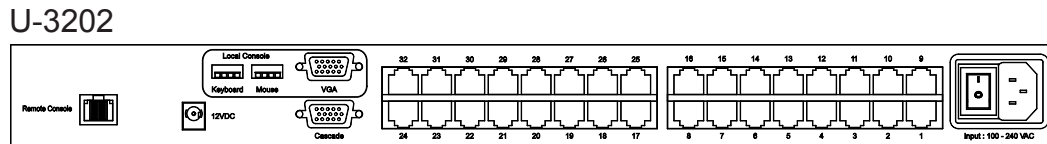
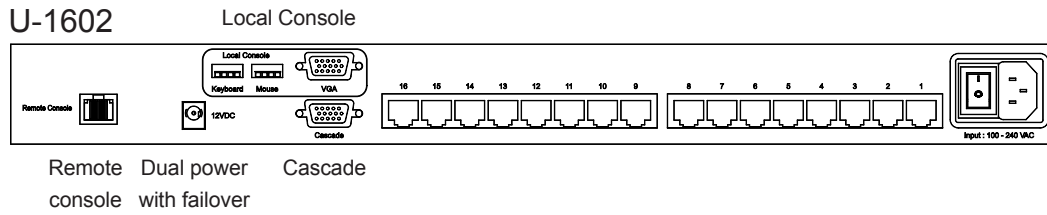
Package Content (only for rackmount KVM)



- ① KVM switch x 1 pc
- ② Screw M3.2 x 4.5mm x 4 pcs
- ③ Screw M4 x 10mm x 8 pcs
- ④ Bracket x 1 set
- ⑤ Receiver x 1 pc
- ⑥ User manual x 1 pc
- ⑦ 9V Power adapter for receiver x 1 pc
- ⑧ Power cord x 1 pc
- ⑨ CB-6 2-in-1 USB KVM cable (for receiver) x 1 pc

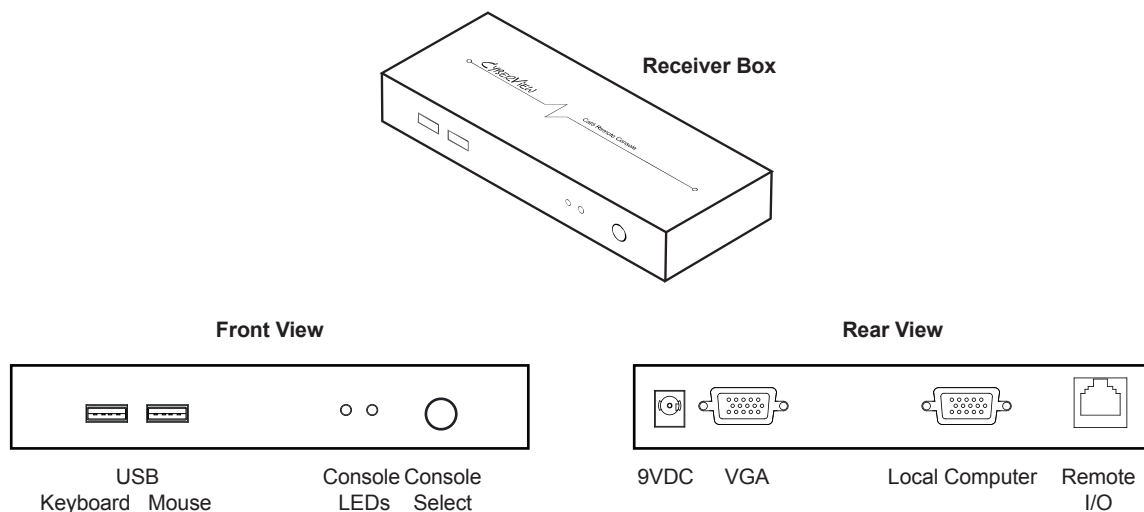
U-1602 / U-3202 Cat5 Two Console KVM

Connection

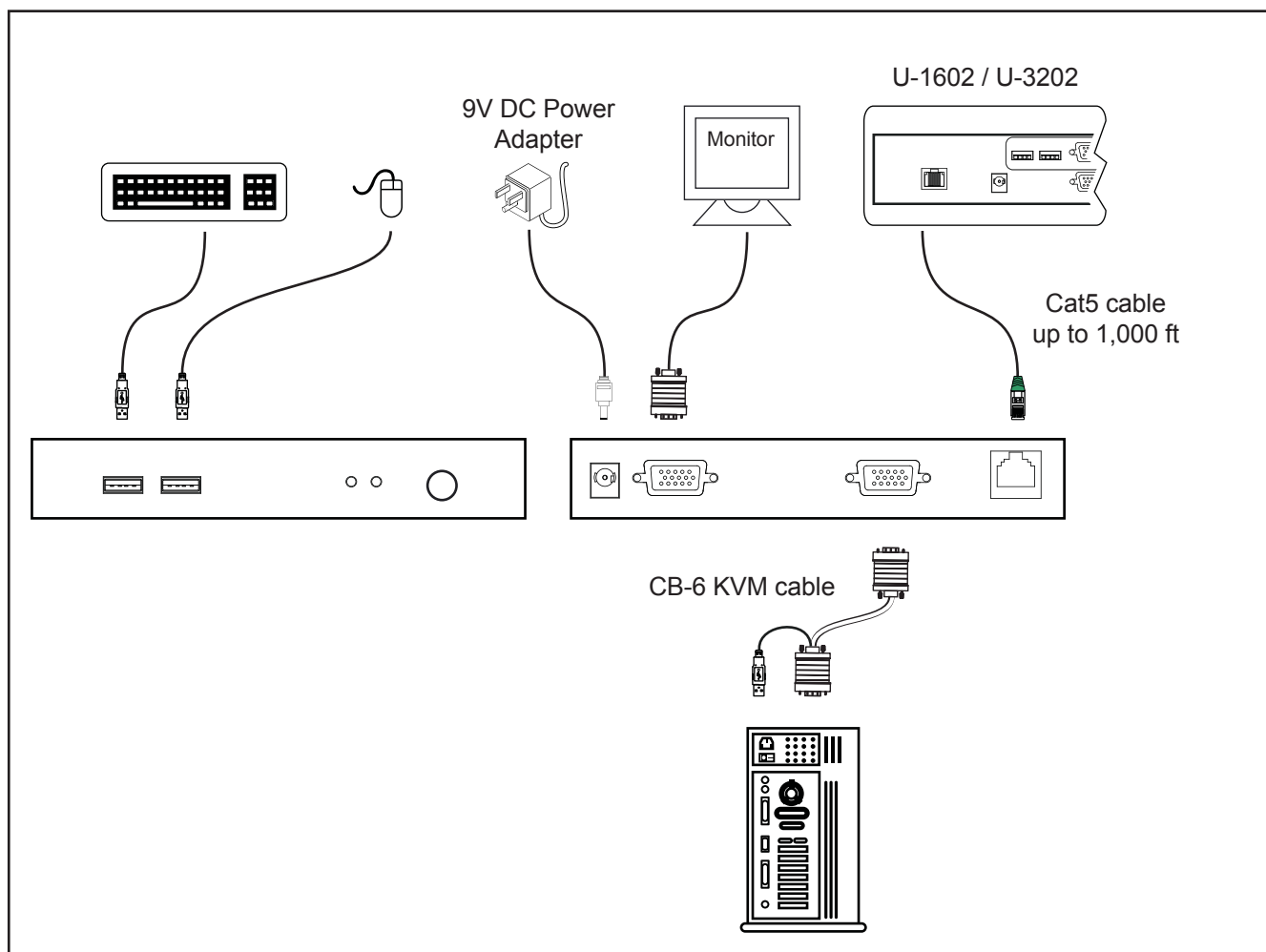


U-1602 / U-3202 Cat5 Two Console KVM

Receiver



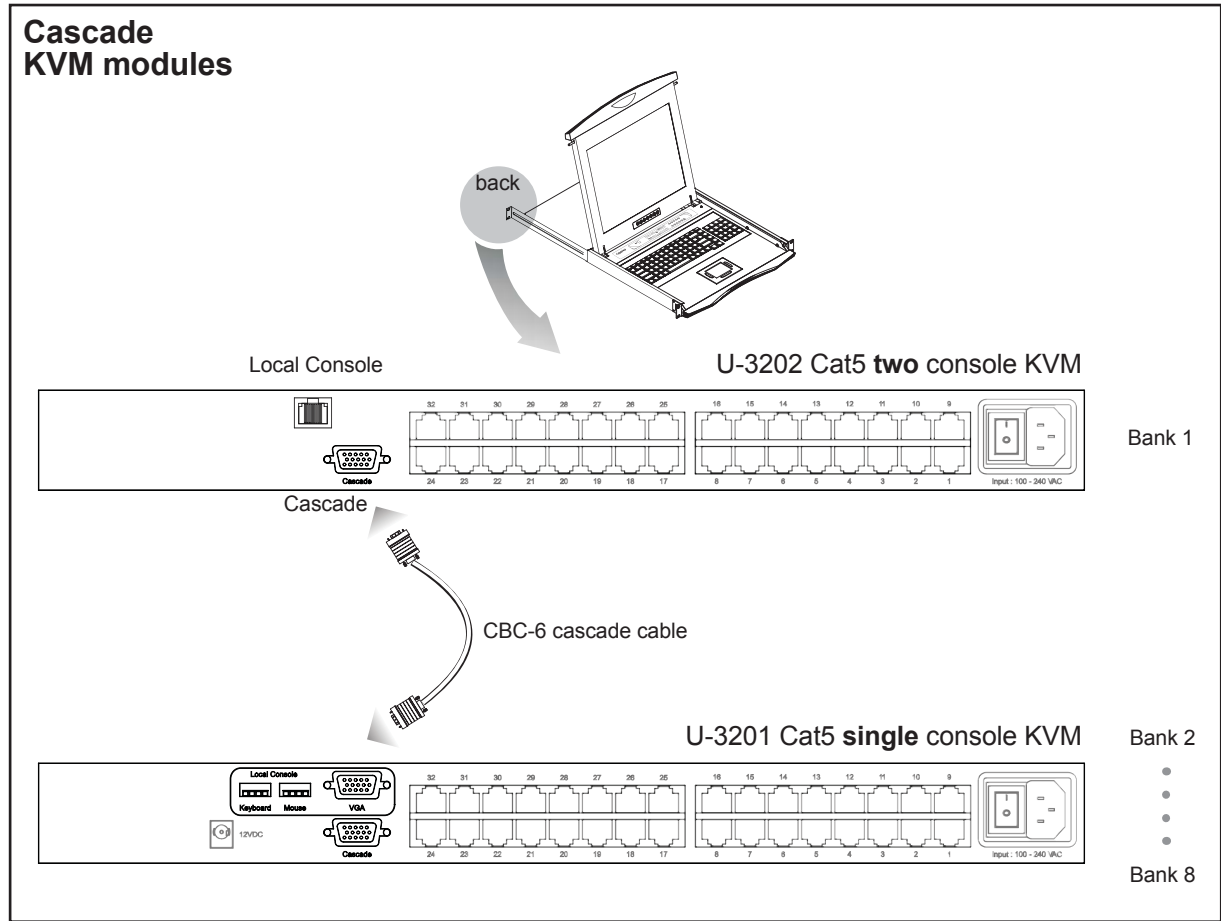
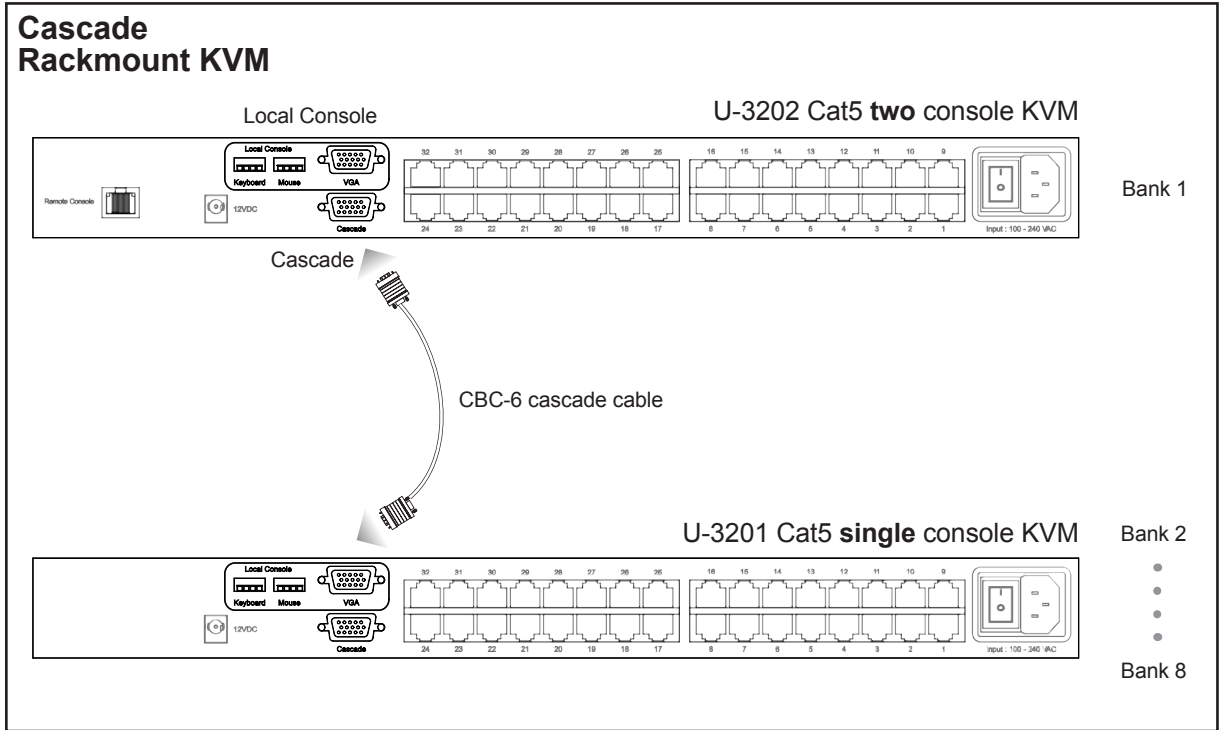
Receiver Connection



U-1602 / U-3202 Cat5 Two Console KVM

Cascade

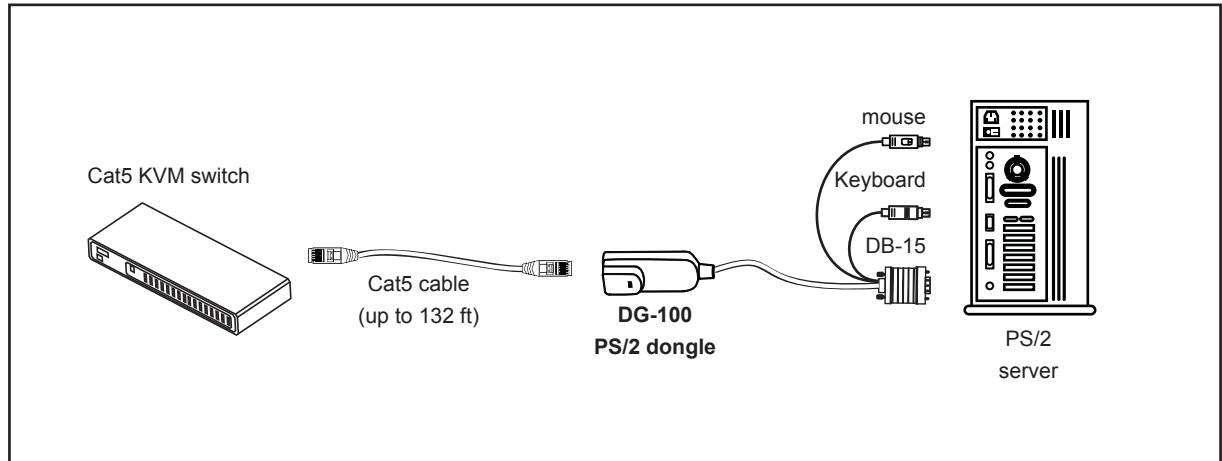
- Cascaded KVM (Bank 2 to 8) must be single console Cat5 KVM - U-1601 / U-3201
- Cascading multiple KVM by CBC-6 cable
- With the U-1602 cascade up to 128 servers. With the U-3202 cascade up to 256 servers.



DG-100 / DG-100S Dongle Connection

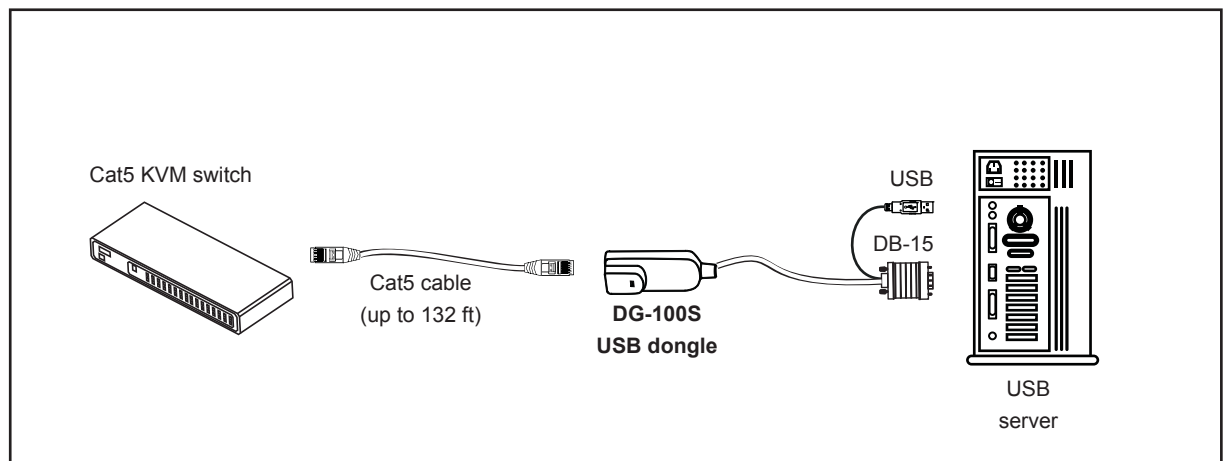
DG-100 PS/2 dongle

- To connect DB-15 connector to the computer's video card
- To connect keyboard connector to the computer's keyboard port
- To connect mouse connector to the computer's mouse port



DG-100S USB dongle

- To connect DB-15 connector to the computer's video card
- To connect USB connector to the computer's USB port



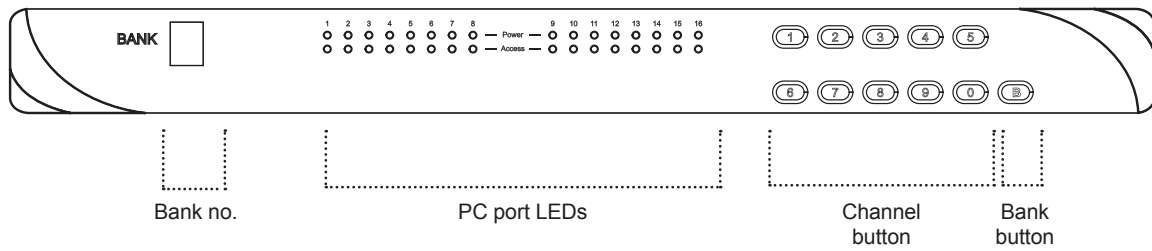
KVM Membranes

Power ON

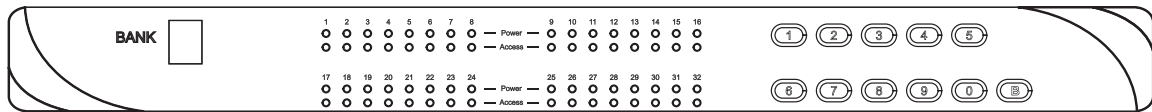
- Turn off all servers and KVM switches
- Make sure all cables / connectors are properly connected
- Recommend Power ON sequence is monitor, KVM switch finally computer

Front Panel - Port LED Indications

16 ports



32 ports



Bank no.	7-Segment BANK LED indication
PC port LEDs	Power : Orange LED on indicating a PC is connecting to the port Access : Red LED on indicating a selected channel
Channel button	Press to select channel from 01 to 32
Bank button	Select the bank from 1 to 8

Password

The password is disabled by default (i.e. There is no password required when you power on the KVM switch for the first time)

■ 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

KVM OSD


OSD Menu

PORT NAME	
BANK : 1	
01☀ SYSTEM 01 	F1 : MENU
02☀ SYSTEM 02	F2 : LOGOUT
03☀ SYSTEM 03	F3 : PREV
04☀ SYSTEM 04	ESC : QUIT
05☀ SYSTEM 05	ENTER : COMPLETE
06☀ SYSTEM 06	↑/↓ : SELECT
07☀ SYSTEM 07	PgUp/PgDn : BANK SELECT
08☀ SYSTEM 08	
	USER : SUPERVISOR
	SCAN TIME : 10 SEC
	FW1V3

OSD operation

 next to the system name	The PC is powered on
 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 Remark: Display port 17 ~ 32 for 32 port model only

F1 Main Menu

MAIN MENU  X	
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

KVM Hotkey

Local Console Hotkey

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 * 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 *Press any key to exit the auto-scan mode
Scroll Lock + Scroll Lock + R	Reset all the KVM settings to factory default *Except User Security settings
Scroll Lock + Scroll Lock + U	Disable and enable password security *Default security is OFF
Scroll Lock + Scroll Lock + L	To enable / disable the screen saving function and 10 mintues auto-logout *Default the screen saving is OFF

Remarks:

- Example of “**Scroll Lock + Scroll Lock + Bank no. + Port no.**”
 - Bank No. : 1 to 8
 - Port No. : 01 to 16
 - e.g. Bank 1 Port 4 : **Scroll Lock + Scroll Lock + 1 + 0 + 4**
 - e.g. Bank 2 Port 16 : **Scroll Lock + Scroll Lock + 2 + 1 + 6**
- You must press the hotkey within 2 seconds
- A beep sound will be heard for successful entering
- The numeric keypad is not supported, while in OSD screen, the arrow keys, PgUp, PgDn, and Enter keys are supports

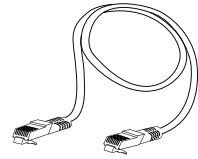
Remote Console Hotkey

Hotkey	Function
Caps Lock + Caps Lock + F1	Show up the Help OSD windows
Caps Lock + Caps Lock + F2	Select Hotkey *Default is Caps Lock
Caps Lock + Caps Lock + C	Toggle switch between remote & local port
Caps Lock + Caps Lock + Q	Turn the buzzer ON & OFF *Default the buzzer is ON
Caps Lock + Caps Lock + S	Activate auto-scan mode for remote & local port *The scan time interval is 5 seconds
Caps Lock + Caps Lock + A	Auto-adjust the video signal

Optional Accessories

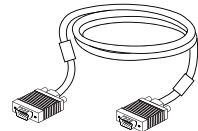
1. Cat5 cable

- 1.1 CU-3 3 feet
- 1.2 CU-6 6 feet
- 1.3 CU-10 10 feet
- 1.4 CU-15 15 feet
- 1.5 CU-33 33 feet
- 1.6 CU-66 66 feet



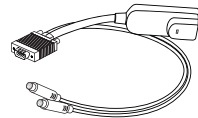
2. Cat5 / USB KVM cascade cable

- 2.1 CBC-6 6 feet



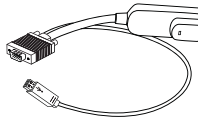
3. PS/2 Dongle for Cat5 KVM

- 3.1 DG-100 PS/2



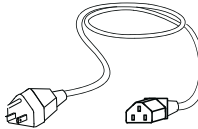
4. USB Dongle for Cat5 KVM

- 4.1 DG-100S USB

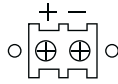


5. Power cord

- 5.1 IEC power cord
- 5.2 NEMA 5-15 power cord (US)
- 5.3 BS 1363 power cord (UK)
- 5.4 CEE 7/4 power cord (German)
- 5.5 AS 3112 power cord (Australia)



DC Power 12V, 24V, 48V Input





Model	12V	24V	48V
Input rating			
Input voltage:	12-Volt	24-Volt	48-Volt
Input range:	9 ~ 18V	18 ~ 36V	36 ~ 75V
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

Specification

U-1602 / U-3202   Cat5	
■ KVM Port	
Number of ports:	16 or 32
Connector:	RJ-45
Connectivity:	DG-100S USB dongle / DG-100 PS/2 dongle up to 132 feet
■ Local Console	
Graphic connector:	HDDB15-pin VGA
Resolution:	Up to 1600 x 1200
Input device:	2 x USB type A for keyboard & mouse
■ Remote Console	
Connector:	HDDB 15-pin, VGA
Resolution:	Up to 1600 x 1200 (500 feet), Up to 1024 x 768 (1000 feet)
Input device:	2 x USB type A for keyboard & mouse
Remote I/O:	RJ45 via Cat5 / Cat5e / Cat6 cable up to 1000 feet
Compensation:	Auto adjust for cable length
■ Expansion:	Up to 256 servers by 8-level cascade
■ Compatibility	
Multi-platform:	Mix PCs, SUNs, IBMs, HPs, DELLs Server
Support:	Windows Vista / 2003 / XP / 2000, Linux, Netware, Unix, DOS
■ Power	
Input:	100 or 240V AC at 50 or 60 Hz via IEC type cord OR AC / DC power adapter 12V@3.3A (optional)
Option DC:	12V / 24V / 48V DC input
Consumption:	Max. 25 Watt
■ Regulatory Approval:	FCC, CE
■ Environmental	
Operating:	0 to 50°C
Storage:	-5 to 60°C
Relative humidity:	90%, non-condensing
Shock:	50G peak acceleration (11ms, half-sine wave)
Vibration:	58~100Hz / 0.98G (11ms / cycle)
■ Product Information	
Dimension (W x D x H):	443 x 180 x 44 mm / 17.3 x 7.1 x 1.73 inch
Net weight:	4 kg / 9 lb
■ Packing Information	
Dimension (W x D x H):	510 x 400 x 77 mm / 20.1 x 15.7 x 3 inch
Gross weight:	7 kg / 15 lb

FAQ

General

- 1. How do the KVM switches allow the user to switch ports?**
There are two ways to switch ports. One is the membrane buttons on the front and the other way is with Hot-key commands.
- 2. What operating systems do the KVMs support?**
The KVMs support multi-platform support allows you to control Windows-based computers, Sun Solaris systems, Linux, or even Macs by a single KVM switch. The KVM switches support multi-platform operating systems including but not limited to DOS, Windows 95/98/ME/NT/2000/XP, Linux, Solaris and Mac OS.
- 3. Do I have to power down the KVMs to add a new server ?**
The KVMs are hot-pluggable and allows servers or devices to be added or removed without powering down the switch, but components of connected devices, such as the servers, may not be hot-pluggable. We suggest that turn off power to all devices before connecting them.
- 4. Why I can't login with default password on KVM switch**
The default username and password for the KVM switch is eight zeros - "00000000". Please check

 - i. The "Num lock" is not turned on. (for notebook type keyboard)
 - ii. The numeric (number) keys on the number pad are not accepted by KVM, only the main number keys.
- 5. Can I disable the KVM password ?**
Yes, for Cat5 KVM, USB KVM, two console PS/2 KVM & IP PS/2 KVM, user can disable/ enable the KVM password by hotkey.
No, for PS/2 KVM, user can't disable the KVM password.
- 6. What do I do if I forget the password?**
If the user change the default password and lose the password, pls contact the supplier for further support.
- 7. How many levels of KVM cascade are supported?**
8 levels are supported.
- 8. Can I cascade the different types KVM switches together ?**
No, only same type KVM can cascade together. (e.g. PS/2 to PS/2, USB to USB,..)
- 9. Why am I getting ghosting images or shadowing?**

 - i. Check that all video cables are inserted properly.
 - ii. Check whether the KVM supports the resolution and refresh-rate on your servers.
 - iii. Check whether the graphics card you are using supports the resolution and refreshrate on your server or not.
 - iv. Connect the monitor directly into the servers you are having trouble with to see if problem still appears.

FAQ

10. The server VGA resolution does not match the resolution of monitor ?

The KVM supports DDC function which will dynamically detect and the DDC data.

The problem may come from the power on sequence.

- For KVM switch
The recommended power on sequence is - monitor, KVM switch and then servers.
- For remote console box
It supports DDC function but does not support hot-plug, the recommend power on sequence is – monitor, remote console box and then servers.

Cat5 KVM

Can I use standard Cat5 cable for Cat5 dongle ?

The Cat5 dongle can support Cat5/5e straight cable. To maximum performance and stability, we strongly recommend applying the Cat5e cable (CU-3 / 6 / 10 / 15 / 33 / 66) from us, we are designed and qualification tested using pre-made (factory made) Cat5e cable assemblies in fixed lengths. Using this type of cable assembly will provide excellent link connections and data communication. As poorly made field cable assemblies can cause damage to the Cat5 KVMs & dongles and result in a poor or intermittent link. The warranties do not apply to damage resulting from user-supplied cable.

Troubleshooting

1. There is no LED display on KVM membrane switch

- i. Make sure the power adapter plugged into the KVM Switch, if the LED's still off, perform soft reset to KVM switch.
- ii. Power cycle KVM switch.

2. I can power on the KVM, but I am not getting any picture at all, how can I solve this?

Switching to another port and checking if this port has the same problem

- a. If you switch to another port, please check the screen resolution is the same.
- b. Check the OSD menu is available on the hot keys "Scroll lock + Scroll lock + space bar".
If the problems persist, please make sure the cables are inserted properly and the boot up sequence is followed.

3. The screen is on but the keyboard and mouse don't work

- i. Check the server by using a different keyboard and mouse.
- ii. For PS/2 servers
The keyboard and mouse are not hot pluggable.
- iii. For USB servers
Unplug and plug allowing a few seconds for the bus emulation process to complete.
- iv. Do not press any keys on the keyboard whilst the server is booting up. This can cause a keyboard error or cause the keyboard not to detect the KVM switch.
- v. Try a different keyboard, but use only 101/102/104-key keyboard
- vi. Avoid moving the mouse whilst switching the KVM ports.

4. There is no LED display on the Cat5 dongle

The LED on the Cat5 dongle will flash when plugged into the USB or USB server. The light will then become steady when the KVM switch has connected. If the LED light is on and not flashing when plugged into server, please unplug the USB or PS/2 and try again. Or try another good Cat5 dongle to verify if problem still appears. If the problem persists, please contact your supplier.