



# LCD KVM Console (T1700/T1900 )

**User Guide**  
Release 1.1

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#### FCC Information

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a commercial installation. 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. Operation of this equipment in a residential environment may cause harmful interference.

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Raritan is not responsible for damage to this product resulting from accident, disaster, misuse, abuse, non-Raritan modification of the product, or other events outside of Raritan's reasonable control or not arising under normal operating conditions.



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# Important Safeguards

Read all these instructions carefully before you use the device. Save this manual for future reference.

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## 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:
  - Accident, misuse, neglect, fire, water, lightning, or other acts of nature, unauthorized product modification, or failure to follow instructions supplied with the product.
  - Repair or attempted repair by anyone not authorized by us.
  - 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.

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## Safety Instructions

- 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° Celsius (104° 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 drawer 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 irreparably 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.

# Chapter 1 Introduction

The User Guide introduces the Raritan LCD KVM Console, a 1U rackmount LCD KVM drawer for use with the KVM switch or server in the data center, server room or the like. There are two types of the product: T1700 and T1900. These models are identical in almost every aspect except that T1700 comes with a 17" LCD monitor and T1900 comes with a 19" one.

## In This Chapter

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Structure Diagram .....	2

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## Package Content

Raritan LCD KVM Console comes with the standard parts shown in this section. Check and make sure they are included and in good condition. If anything is missing, or damage, contact the supplier immediately.

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### T1700

1. LCD KVM drawer x 1 pc
2. Fasteners for rear L-bracket x 4 pcs
3. Rear mounting L-bracket x 1 pair  
\*T1700 series mounting depth-adjustable from 395 to 880mm
4. Single or "one man" installation slides x 1 package
5. 3-in-1 KVM cable x 1 pc
6. Power cord x 1 pc

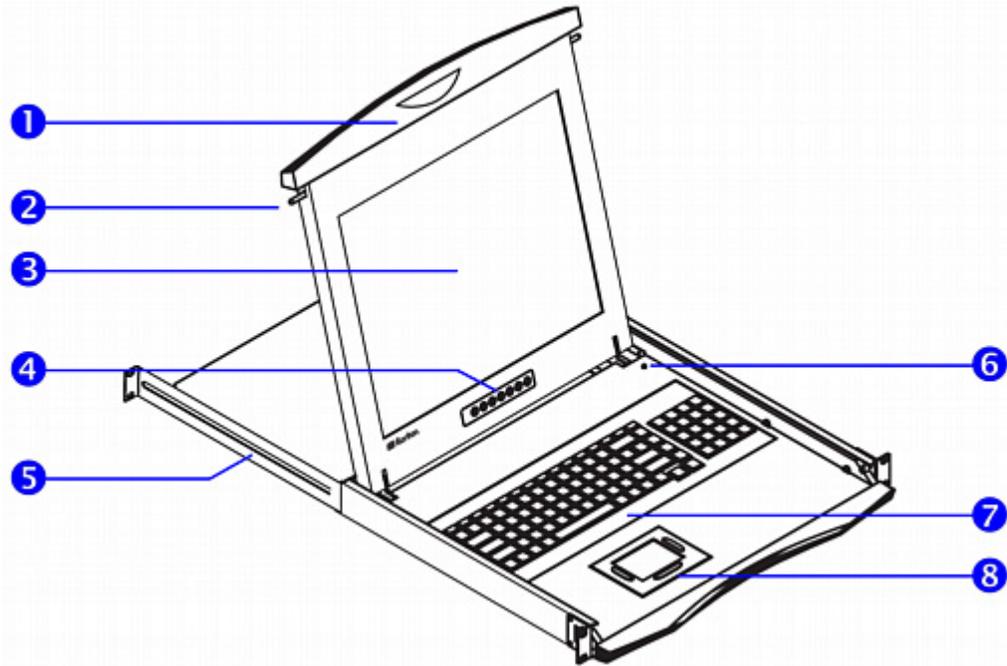
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### T1900

1. LCD KVM drawer x 1 pc
2. Fasteners for rear L-bracket x 4 pcs
3. Rear mounting L-bracket x 1 pair  
\*T1900 series mounting depth-adjustable from 315 to 880 mm
4. Single or "one man" installation slides x 1 package
5. 3-in-1 KVM cable x 1 pc
6. Power cord x 1 pc

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## Structure Diagram



1. Carry handle to release the 2-pt lock
2. 2-point lock
3. LCD screen
4. LCD membrane
5. Adjustable rear mounting L-bracket
6. Micro switch for screen auto power off
7. Keyboard
8. Touchpad

## Chapter 2 Installation

### In This Chapter

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### Before Installation

- It is very important to locate the LCD KVM Console in a suitable environment.
- The surface for placing and fixing the LCD KVM Console should be stable and level or mounted into a suitable cabinet.
- Make sure the place has good ventilation, is out of direct sunlight, away from sources of excessive dust, dirt, heat, water, moisture, and vibration.
- Convenience for connecting the LCD KVM Console to the related facilities should be well considered too.

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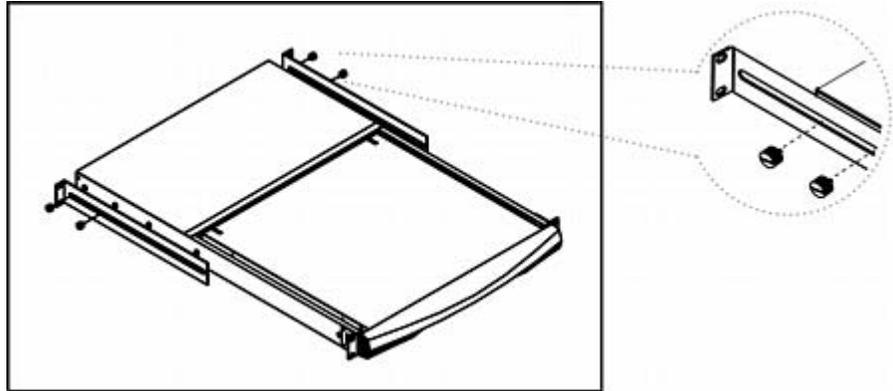
### Rack-Mounting the LCD KVM Console

There are three major steps to rack-mount the LCD KVM Console.

1. Install the rear L-bracket to the LCD KVM Console.
2. Align the rear L-brackets to a suitable length for the rack.
3. Fix the LCD KVM Console into the rack.

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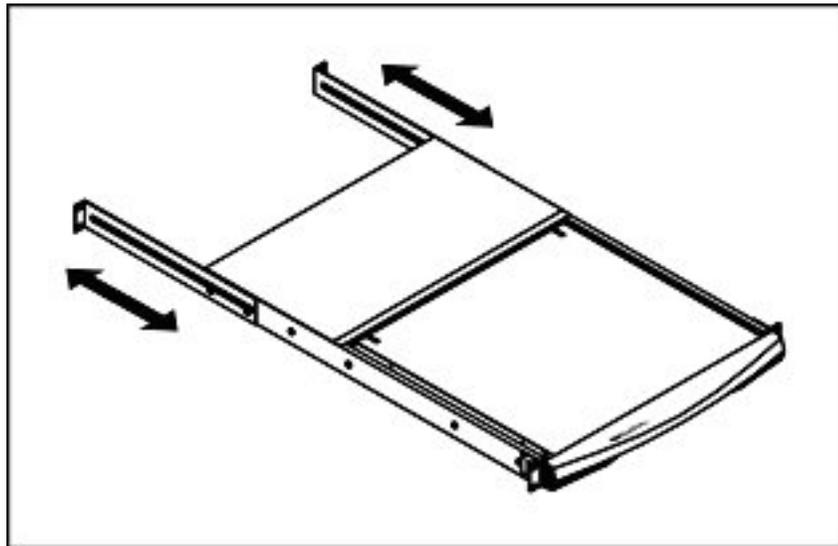
### 1. Installing the Rear L-bracket



- a. Install each rear L-bracket using two fasteners shown in the diagram.
- b. Leave the fasteners slightly loose.

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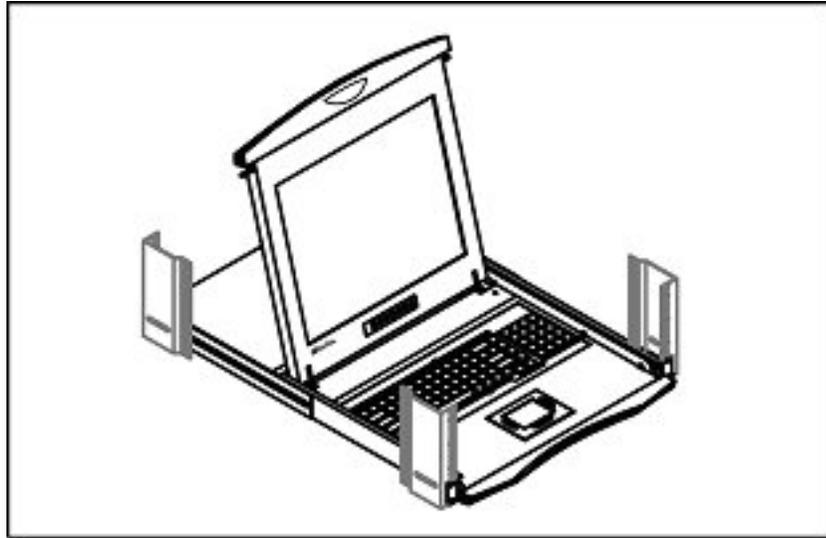
### 2. Aligning the Rear L-brackets



- a. Measure the front and rear mounting depth of the rack.
- b. Align each rear L-bracket to a suitable length and tighten the fasteners shown in the diagram.

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### 3. Fixing the LCD KVM Console into the Rack



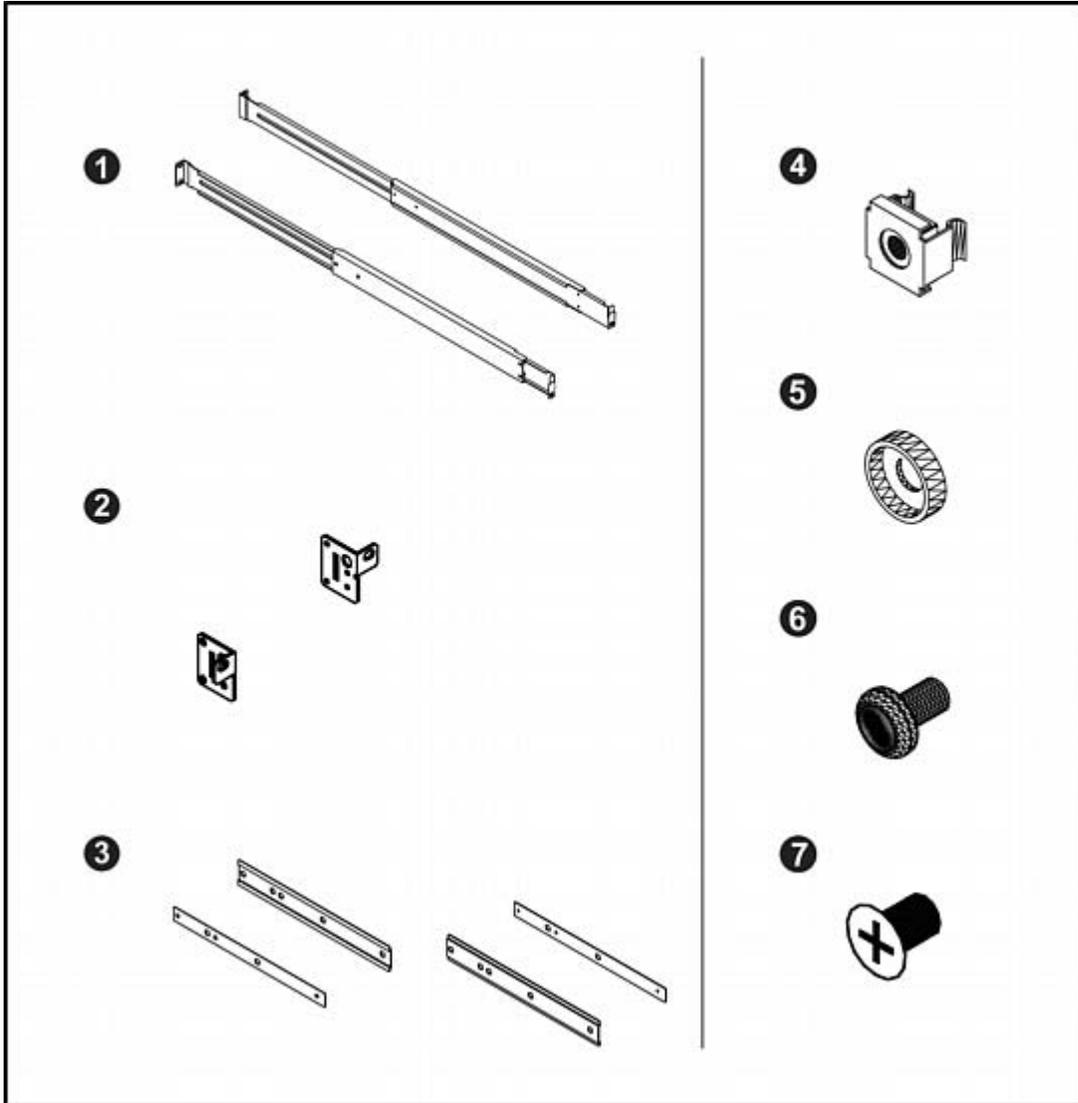
- Fix the LCD KVM Console into the rack.

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*Note: Hardware (screws and cage nuts) for fixing the mounting bracket into the rack is not provided.*

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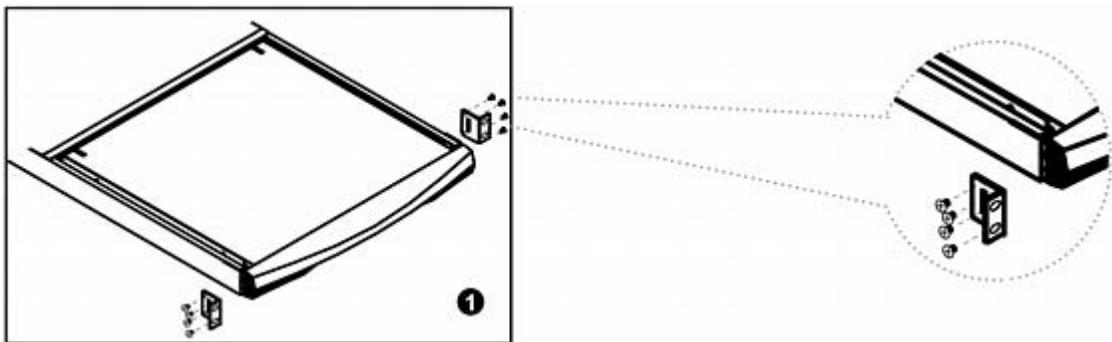
## How to Install "One Man" Installation Slides



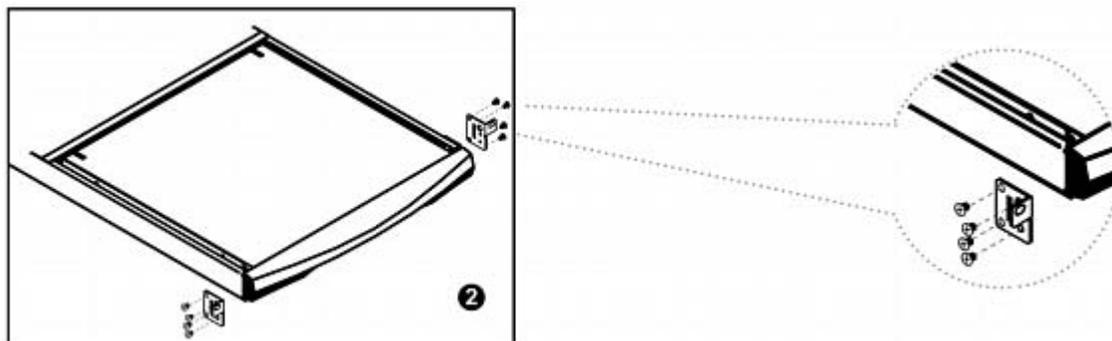
Component list	
1	Mounting bracket x 2 pcs
2	Front mounting ear (left & right) x 2 pcs
3	Support bracket x 4 pcs
4	M6 cage nut x 6 pcs
5	M6 washer x 8 pcs
6	M6*15mm screw x 8 pcs
7	M3.2*4.5mm screw x 14 pcs

**Installing the Front Mounting Ear x 2 pcs**

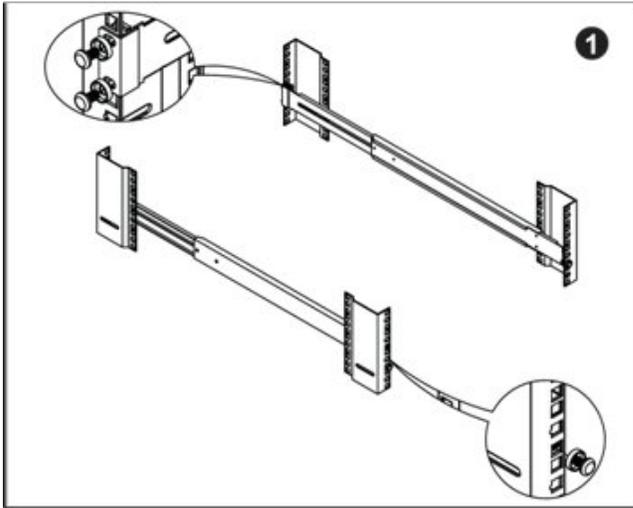
1. Disassemble the standard front mounting ears carefully.



2. Install the optional front mounting ears with M3.2\*4.5 mm screw x 8 pcs.

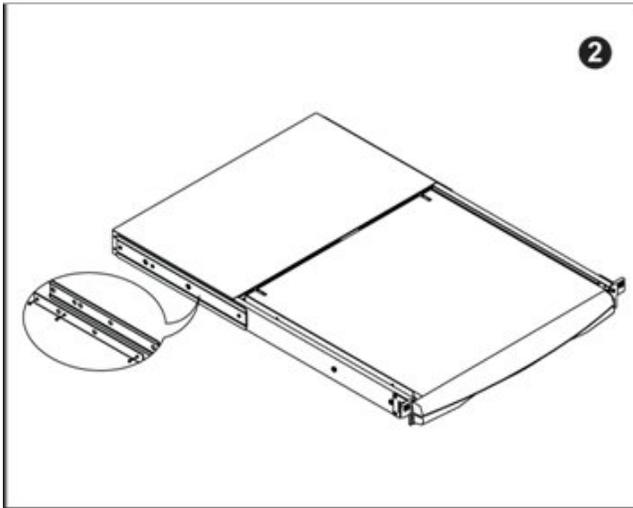


**Installing into Rack**

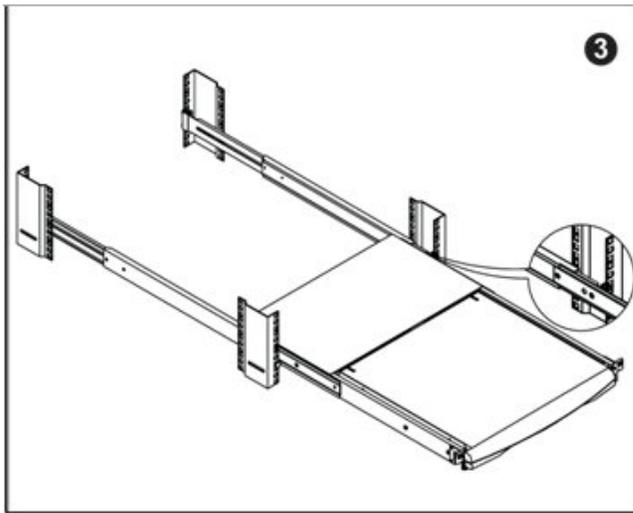


- Attach the mounting bracket to vertical mounting rails.
- Adjust the rear mounting bracket to fit your rack.
- Repeat the above steps for the other side.

**Caution:** Leaving the screws slightly loose (not release).

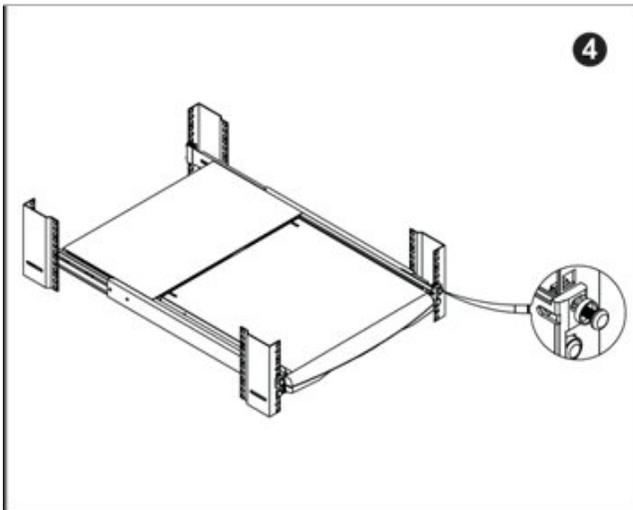


- Attach support brackets to chassis with M3.2\*4.5mm screw x 3 pcs.
- Repeat the above step for the other side.

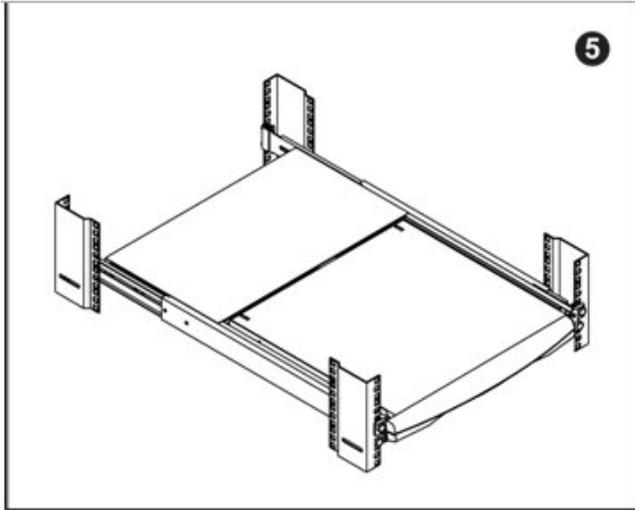


- Pick up the chassis.
- Insert inner members of slides into the already mounted internal slide members in the rack.
- Push the white-arrow button on each slide that is installed on the LCD keyboard drawer to unlock (Push at the same time).

**Caution:** Be careful when pushing the chassis into the left and right slides. Avoid pressing the red button located on either side of the slide.



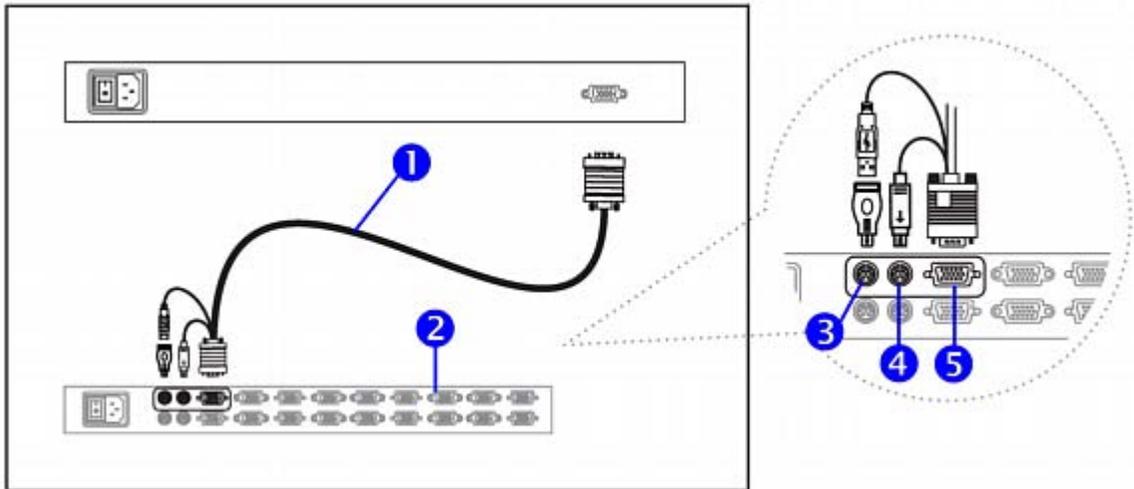
- Hold down the white-arrow button and push the chassis to the end.
- Attach left and right mounting ears to vertical mounting rails.
- Tighten the screws on both sides.



- Installation completed.

### Connecting to the KVM Switch via PS/2 Interface

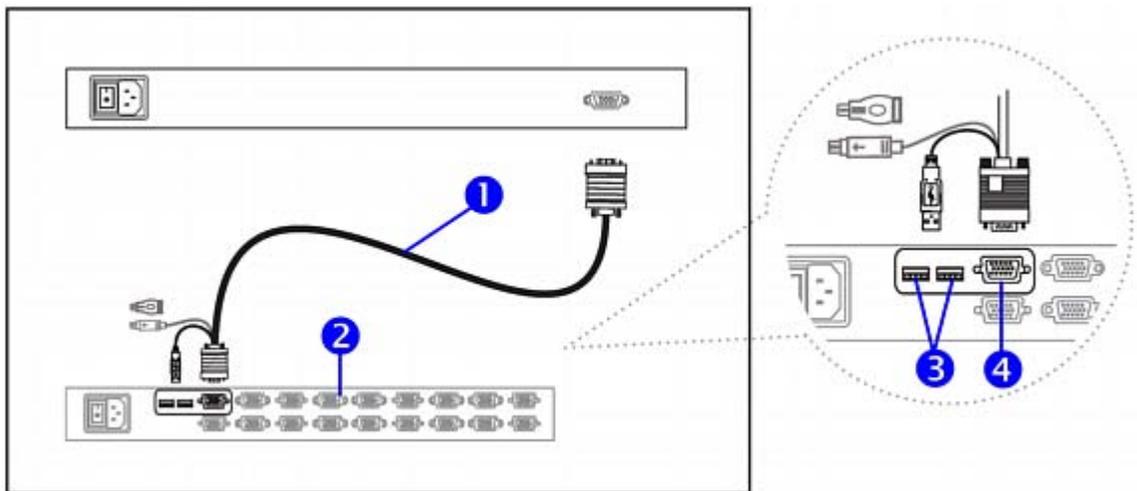
This is an illustration of connecting the 3-in-1 KVM cable to the KVM switch via PS/2 Interface.



1. 3-in-1 KVM cable
2. KVM switch
3. Keyboard port
4. Mouse port
5. VGA port

**Caution:** The LCD KVM Console is hot-pluggable, but components of connected devices, such as the servers and KVM switch, may not be hot-pluggable. Plugging and unplugging cables while servers and KVM switches are powered on may cause irreversible damage to the servers, KVM switches and LCD KVM Console. Before attempting to connect anything to the product, we suggest turning off the power to all devices. Apply power to connected devices again only after the LCD KVM Console is receiving power. The company is not responsible for damages caused in this way.

### Connecting to the KVM Switch via USB Interface

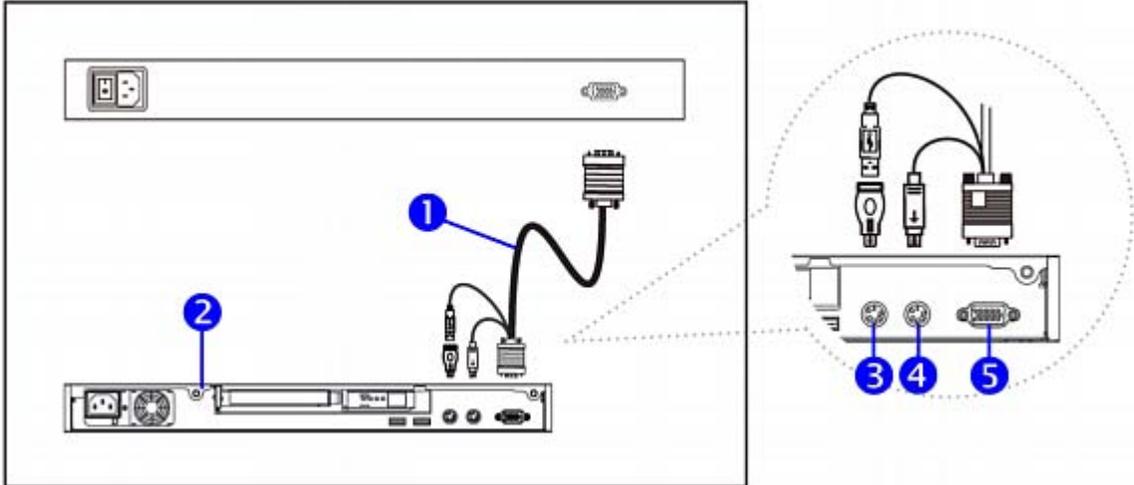


1. 3-in-1 KVM cable
2. KVM switch
3. USB ports
4. VGA port

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## Connecting to the Server via PS/2 Interface

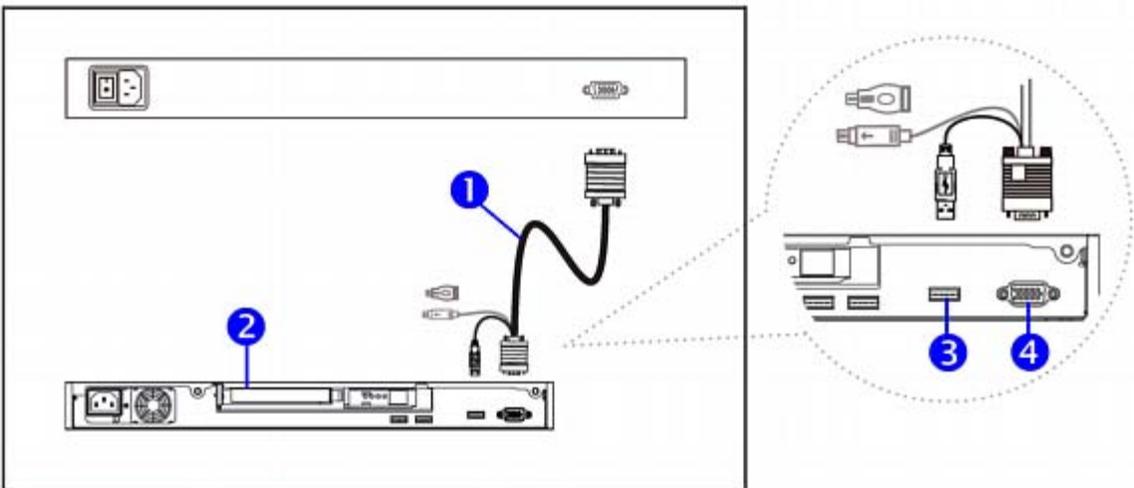
This is an illustration of connecting the 3-in-1 KVM cable to a server via PS/2 interface.



1. 3-in-1 KVM cable
2. Server
3. Keyboard port
4. Mouse port
5. VGA port

---

## Connecting to the Server via USB Interface



1. 3-in-1 KVM cable
2. Server
3. USB port
4. VGA port

## Chapter 3 Operation

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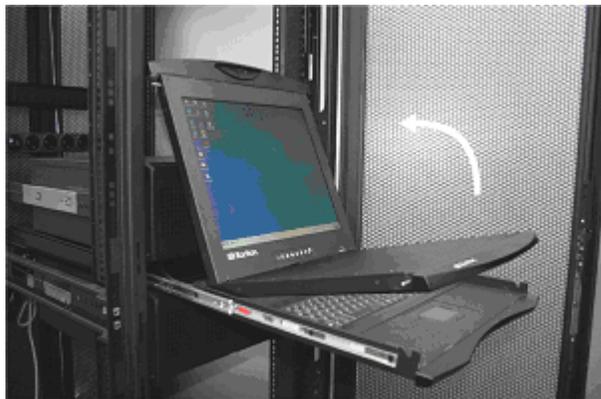
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### How to Use the LCD KVM Console

1. Gently pull the tab toward the front of the LCD.



2. Flip up the LCD to a suitable angle.

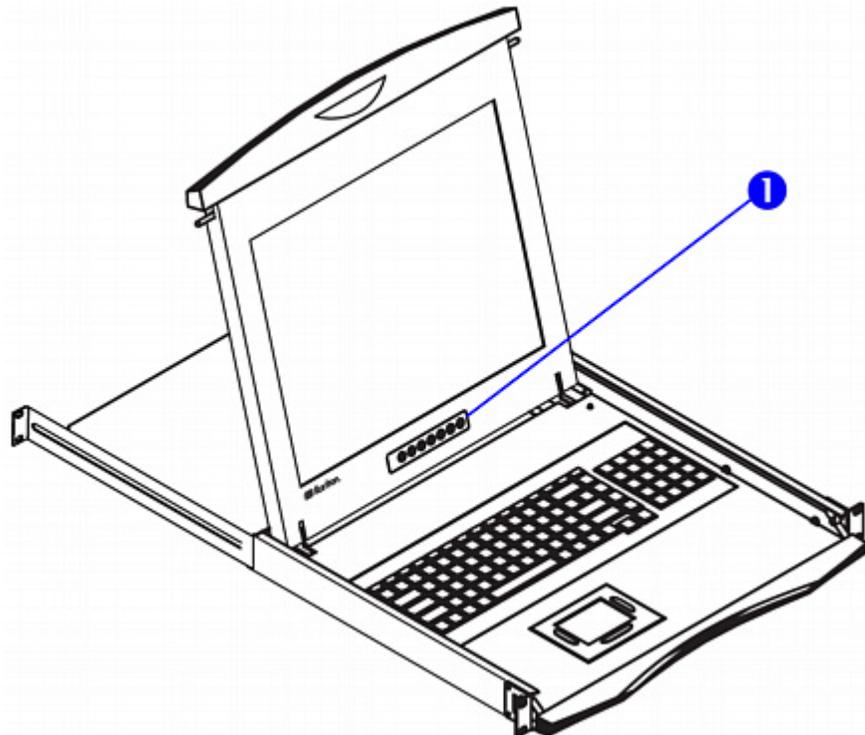


3. Operate the LCD KVM Console. For information on LCD membrane buttons and onscreen menu, see **Onscreen Display Operation** (on page 15) and **Onscreen Menu** (on page 16).



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### Onscreen Display Operation



1. LCD membrane

Membrane button or LED	Function
	Light off = Power off Blue = Power on
	Power on/off LCD
	Display the OSD menu
	Scroll through menu options and adjust the display control
	Exit the OSD screen. Shortcut key to auto-adjustment by pressing the button for 5 seconds or toggle analog, digital & video connection (DVI-D and video options only).

**Onscreen Menu**



#### **BRIGHTNESS / CONTRAST**

- Brightness: Adjust background black level of the screen image.
- Contrast: Adjust the difference between the image background (black level) and the foreground (white level).

#### **AUTO ADJUST**

- Auto Adjust: Fine tunes the video signal to eliminate waviness and distortion. A "Adjusting" message is displayed during the process.
- Auto Tune: Optimize phase, clock, position and size. An "Adjusting" message is displayed during the process.

#### **PHASE/CLOCK**

- Phase/Clock: To enter into the phase & clock sub menu

#### **H/V POSITION**

- H/V Position: Align the screen image left or right and up or down.

#### **MISC**

- Information: Display the current resolution, refresh rate and frequency information on the screen.
- OSD Timer: Set the time duration in seconds that the OSD is visible after the last button is pressed. The factory default is 10 seconds.
- Color: Select the screen color - 5500K, 6500K & 9500K. The factory default is 9500K.
- Language: Select the language in which the OSD menu is displayed - English, Chinese, Japanese, German, French, Spanish, and Italian.

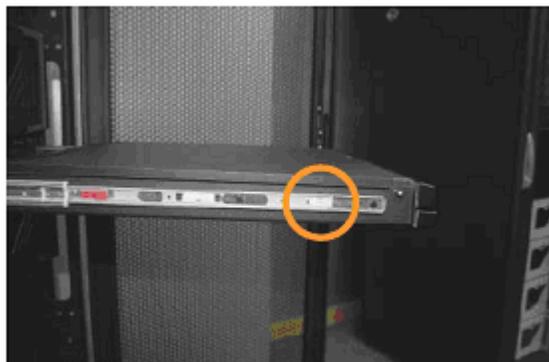
#### **Reset**

- Restore the settings to factory defaults.

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### **How to Use the Slides**

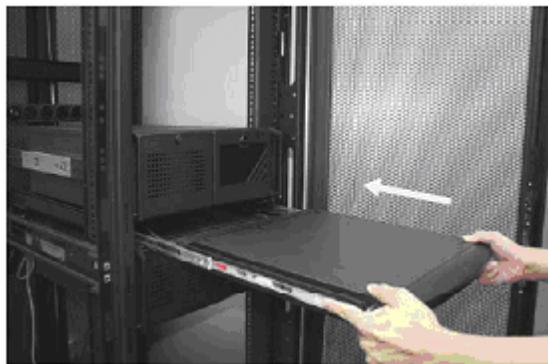
1. Locate a white-arrow release button on the outside of each slide.



2. Push the white-arrow buttons together at both sides before pushing the LCD KVM Console into place. Avoid pushing the red button located on each slide.



3. Keep pushing the white-arrow buttons until the LCD KVM Console is placed into the rack.



# Appendix A Standard Specifications

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### Specifications

Item	Description	
	T1700	T1900
<b>Form Factor</b>	1U rack mounting on slide-out rails	
<b>Diagonal Size</b>	17" TFT	19" TFT
<b>Max. Resolution</b>	1280 x 1024	
<b>Brightness (cd/m<sup>2</sup>)</b>	300	
<b>Color Support</b>	16.2 Mil.	16.7 Mil.
<b>Contrast Ratio (typ.)</b>	700:1	1000:1
<b>Viewing Angle (H/V)</b>	150° x 135°	
<b>Display Area (mm)</b>	337 x 270	376 x 301
<b>Tr Response Time (ms)</b>	2	1.3
<b>LCD Panel MTBF (hrs)</b>	N/A	50,000
<b>VGA Signal Input</b>	Analog RGB, 0.7Vp-p	
<b>Sync. Type</b>	Separate H/V, Composite, SOG	
<b>Resolution</b>	640 x 350, 70Hz	
	720 x 400, 70Hz	
	640 x 480, 60 / 72 / 75Hz	
	800 x 600, 60 / 70 / 72 / 75Hz	
	1024 x 768, 60 / 70 / 72 / 75Hz	
	1152 x 864, 60 / 70 / 75Hz	
	N/A	1152 x 900, 66 / 76Hz
	1280 x 1024, 60 / 70 / 75Hz	
<b>Plug &amp; Play DOC</b>	EDID 1.3	
<b>Console Port (Combo)</b>	3-in-1 DB-5 connector for VGA / keyboard / mouse Support USB & PS2 servers or KVM switches	
<b>Power Input</b>	Auto-sensing 100 to 240VAC, 50 / 60Hz	
<b>Power Consumption</b>	Max. 40 Watt, Standby 5 Watt	
<b>Compatibility</b>	Multi-platform - Mix PCs, SUNs, IBMs, HPs & DELLs.	
<b>Regulation Approval</b>	FCC, CE, UL	

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## Dimension

Model	Product Dimension (W x D x H)	Packing Dimension (W x D x H)	Net Weight	Gross Weight
<b>T1700</b>	442 x 650 x 44 mm	589 x 826 x 168 mm	16 kg	23 kg
	17.4 x 25.6 x 1.73 inch	23.2 x 32.5 x 6.6 inch	35 lb	51 lb
<b>T1900</b>	442 x 650 x 44 mm	589 x 826 x 168 mm	17 kg	23 kg
	17.4 x 25.6 x 1.73 inch	23.2 x 33.7 x 6.6 inch	37 lbs	51 lbs

## Appendix B Troubleshooting

- **How do I adjust the resolution?**

To change monitor resolution, click Start -> Control Panel -> Display. Select the Setting tab to adjust the monitor resolution in Desktop Area. The available resolutions, including "640 x 480", "800 x 600", "1024 x 768", "1152 x 864", and "1280 x 1024", are determined by the display card in your computer.

- **Is interference signal appeared on LCD normal when shutting down the computer?**

In rare cases, interference may appear on the monitor. This may be caused by signal rate of VGA card and is considered normal. The image quality can be improved by adjusting the phase or pixel rate automatically or manually.

- **The membrane button power light is not ON**

- Press the power On / Off button on the LCD membrane to check if the monitor is in the ON mode.
- Check the power cord is properly connected to the LCD KVM Console and power outlet.

- **Screen image is not centered or sized properly**

- Press the  button for two seconds to automatically adjust the image.
- Adjust the H-position and V-position settings via the onscreen menu.

- **Is the Raritan LCD KVM Console hot-pluggable?**

The LCD KVM Console is hot-pluggable, but components of connected devices, such as the servers and KVM switches, may not be hot-pluggable. We suggest turning off the power to all devices before connecting them. Apply power to connected devices again only after the LCD KVM Console receives power.



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