

# **Dual Rail Console with Modular KVM Switch**

## **User's Manual**

**Rev 1.0**

## **Packing List**

The complete 15 / 17 / 19" dual rail console with modular KVM switch package consists of:

- One 1U 19" rack mount console
- Two rails with front and rear bracket
- Two brackets A.
- One 1.8 m KVM cable. (HDDDB-15 / VGA + PS/2 x 2)
- One AC to DC power adapter
- One user manual CD
- One quick installation guide
- Two keys
- Six flat screws. (for rail mount to console body)
- Two screws. (for combine bracket A and console)

Check to make sure that the unit was not damaged in shipping. If you encounter a problem, contact your dealer.

Please read this manual thoroughly, and follow the installation and operation procedures carefully to prevent any damage to the product, and / or any of the devices that connect to it.

## Safety Instructions

1. Please read these safety instructions carefully.
2. Please keep this User's Manual for later reference.
3. Please disconnect this equipment from AC outlet before cleaning. Don't use liquid or sprayed detergent for cleaning. Use moisture sheet or clothe for cleaning.
4. For pluggable equipment, the socked-outlet shall be installed near the equipment and shall be easily accessible.
5. Please keep this equipment from humidity.
6. Lay this equipment on a reliable surface when install. A drop or fall could cause injury.
7. Do not leave this equipment in an environment unconditioned, storage temperature above 60 °C, it may damage the equipment.
8. The opening on the enclosure is for air convection hence the equipment from overheating. **DO NOT COVER THE OPENING.**
9. Make sure the voltage of the power source connect the equipment to the power outlet.
10. Please keep the power cord such a way that people can not step on it. Do not place anything over power cord. The power cord must rate for the voltage and current marked on the product's electrical ratings label. The voltage and current rating of the cord should be greater than the voltage and the current rating marked on the product.
11. All cautions and warning on the equipment should be noted.
12. If the equipment is not in use for long time, disconnect the equipment from mains to avoid being damaged by transient over-voltage.
13. Never pour any liquid into ventilation openings; this could cause fire or electrical shock.
14. Never open the equipment. For safety reason, qualified service personnel should only open the equipment.
15. If one of the following situations arises, get the equipment checked by service personnel.
  - The Power Cord or plug is damaged.
  - Liquid has penetrated into the equipment.
  - The equipment has been exposed to moisture.
  - The equipment has not worked well or you can not get it work according to User's Manual.

- The equipment has dropped and damaged.
- If the equipment has obvious signs or breakage.

## Index of Contents

Packing List .....	I
Safety Instructions .....	II
Index of Contents .....	IV
1. General Information .....	1
1.1 Feature .....	1
1.2 Benefits .....	1
1.3 Advantage .....	2
1.4 Product Specification .....	3
1.4.1 15" Dual Rail Console with Modular KVM Switch Specification ..	3
1.4.2 17" Dual Rail Console with Modular KVM Switch Specification ..	5
1.4.3 19" Dual Rail Console with Modular KVM Switch Specification ..	7
2. Panel Controls and OSD Function .....	9
2.1 Auto Tune .....	9
2.2 Input Source .....	10
2.3 Brightness .....	10
2.4 Contrast .....	11
2.5 Color .....	11
2.6 Position .....	12
2.7 Language .....	13
2.8 Recall .....	13
2.9 Exit .....	14
2.10 Power Indicator .....	14
3. Installation .....	15
3.1 Install Console into Cabinet .....	15
3.1.1 Notes .....	15
3.1.2 Hardware Kits Contents .....	15
3.1.3 Install Console Step .....	16
3.2 Installing the Video Card and Video Driver .....	18
3.2.1 Configuring the Display Settings .....	18
3.2.2 Connecting the Console .....	19
3.3 Turning on the Console .....	19
3.4 Testing the Console .....	19

## 1. General Information

Patented Dual Rail consoles offer industrial level input solution to optimize your space utilization by controlling your systems in just 1U. With the unique modular design, you can easily integrate more than 14 models of KVM switches with different functions and expand the connections up to 8 levels of the KVM switches.

### 1.1 Feature

- Patented Dual Rail design for independent Panel and Keyboard drawer
- Hidden handle for keyboard drawer
- 15, 17 & 19" LCD panel for option
- Support Sun native resolution (17" & 19")
- Support 17 various keyboard languages ( increasing)
- Bright Active TFT display
- OSD function for LCD display and KVM switch
- Durable keyboard ( touchpad, cherry keyboard or optical trackball)
- Panel protected by tempered glass
- Integration with more than 14 models of KVM switches
- DC power, DVI, USB, Touch panel (optional)
- Sun keys (optional)

### 1.2 Benefits

1. Feature rich solution: With our unique design and all the options, you can easily suffice the demand for your customer.
2. Time to serve your customer: With the modular KVM, you can easily turn single port console into 8 / 16 / 32 ports console to serve your customer well.
3. Keep low inventory: From the 3 models of consoles and 14 models of KVM switches, you can create total 45 models. It is the best solution for inventory control.
4. Easy to maintain: Once the defective comes from the KVM switch, you can just swap the KVM switch module without asking your customer to send the whole console back to you.
5. Save freight cost: Since you have to keep only 3 models of consoles and generate new models by yourself, you can ship all the goods by sea instead of

by air. In case, you run out of the KVM switch stock, it is much cheaper to ship the KVM switch modules by air.

### **1.3 Advantage**

#### **Patented Dual Rail design:**

The user can leave the LCD flip over , push back the keyboard drawer, and close the cabinet door)

#### **Hidden handle:**

After pushing the keyboard drawer back, the handle of the keyboard drawer can also be hidden and offer a flat surface for the cabinet.

#### **Patented extension bracket:**

With the patented extension bracket, the console body can extend 13cm. Even there is big server handle or patch panel above the console, our console can have over 90 degrees viewing angle. ( compared with 4~5 cm from our competitors and less than 90 degrees in the same condition)

#### **Modular KVM switches:**

The user can use console as single port console or through some simple action and few screws to be 8 / 16 even 32 ports KVM consoles.

#### **Various keyboard language support:**

To fit the demand of each individual countries.

#### **Most LCD size available in the market:**

We offer 15 / 17 / 19" LCD for console.

#### **LG A-grade panel along:**

We never shop around the panel on the market. We buy only the LG A-grade panel.

## 1.4 Product Specification

### 1.4.1 15" Dual Rail Console with Modular KVM Switch Specification

Model name	15" dual rail console with modular KVM switch
Number of ports	1
Dimension	459.6 x 448.3 x 44 mm / 18.1 x 17.6 x 1.7 inches
Package Dimension	606 x 551.5 x 230 mm / 23.9 x 21.7 x 9.0 inches
Net Weight	12 Kg / 26.46 lbs
Gross Weight	19.5 Kg / 43.0 lbs
Display Size	15 inches
Panel Type	Active Matrix TFT LCD
Resolution Capabilities	Maximum Resolution up to 1024 x 768 (XGA)
Pixel Pitch	Supports 0.297 mm x 0.297 mm
Viewing Angle (CR>10)	Right-Left view 130°(Typ) Up-Down View 100°(Typ)
Contrast Ratio	400 : 1
Brightness	White 250 cd/m2
Back Light	Dual Lamps for Back Light
Supported Colors	16.7M Colors (8-bit with FRC)
Response Time	Rising Time 5 ms, Decay Time 11 ms
Operating System	Dos, Windows (3.1, 9x, 2000, NT4, ME, XP, 2003 Server) Linux, Novell 3.12-6, HP UX, SUN
Multi Platform	Support PS/2 and USB
System Cables	VGA + PS/2 x 2 or VGA + USB x 1 cable
Keyboard Mouse	106 key PS/2 keyboard with touch pad
Sync	45 ~ 80 KHz
Power Source	100 ~ 240 VAC input
Power Consumption	16W, 10.41W for Panel
Temperature	Operate 0 ~ 50°C / 32 ~ 122°F Storage -20 ~ 60°C / -4 ~ 140°F
Humidity	10% ~ 90% RH
Chassis Construction	Heavy duty steel materials
Keyboard Language	USA, UK, German, French, Spanish, Italian, Portuguese, Dutch, Swiss, Belgium, Swedish, Norwegian, Danish, Japan, Taiwan, Russian, Hebrew
Certification	CE / FCC, UL / CUL / C-Tick, GOST

**Table 1-1. 15" Dual Rail Console with Modular KVM Switch Specification**

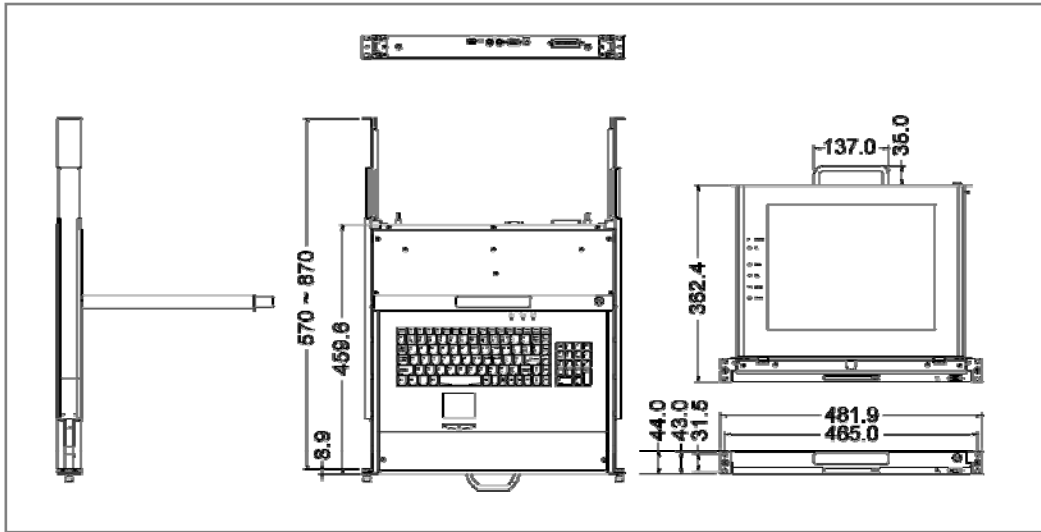


Figure 1-1. 15" Dual Rail Console with Modular KVM Switch Dimension

### 1.4.2 17" Dual Rail Console with Modular KVM Switch Specification

Model name	17" dual rail console with modular KVM switch
Number of ports	1
Dimension	459.6 x 448.3 x 44 mm / 18.1 x 17.6 x 1.7 inches
Package Dimension	606 x 551.5 x 230 mm / 23.9 x 21.7 x 9.0 inches
Net Weight	13 Kg / 28.7 lbs
Gross Weight	20.5 Kg / 45.2 lbs
Display Size	17 inches
Panel Type	Active Matrix TFT LCD
Resolution Capabilities	Maximum Resolution up to 1280 x 1024 (SXGA)
Pixel Pitch	Supports 0.264 mm x 0.264 mm
Viewing Angle (CR>10)	Right-Left view 60° ~ 70°(Typ) Up-Down View 45° ~ 60°(Typ)
Contrast Ratio	450 : 1
Brightness	White 250 cd/m <sup>2</sup>
Back Light	Four Lamps for Back Light
Supported Colors	16.7M Colors (8-bit with FRC)
Response Time	Rising Time 2 ms, Decay Time 14 ms
Operating System	Dos, Windows (3.1, 9x, 2000, NT4, ME, XP, 2003 Server) Linux, Novell 3.12-6, HP UX, SUN
Multi Platform	Support PS/2 and USB
System Cables	VGA + PS/2 x 2 or VGA + USB x 1 cable
Keyboard Mouse	106 key PS/2 keyboard with touch pad
Sync	45 ~ 80 KHz
Power Source	100 ~ 240 VAC input
Power Consumption	25W, 19.05W for Panel
Temperature	Operate 0 ~ 50°C / 32 ~ 122°F Storage -20 ~ 60°C / -4 ~ 140°F
Humidity	10% ~ 90% RH
Chassis Construction	Heavy duty steel materials
Keyboard Language	USA, UK, German, French, Spanish, Italian, Portuguese, Dutch, Swiss, Belgium, Swedish, Norwegian, Danish, Japan, Taiwan, Russian, Hebrew
Certification	CE / FCC, UL / CUL / C-Tick, GOST

**Table 1-2. 17" Dual Rail Console with Modular KVM Switch Specification**

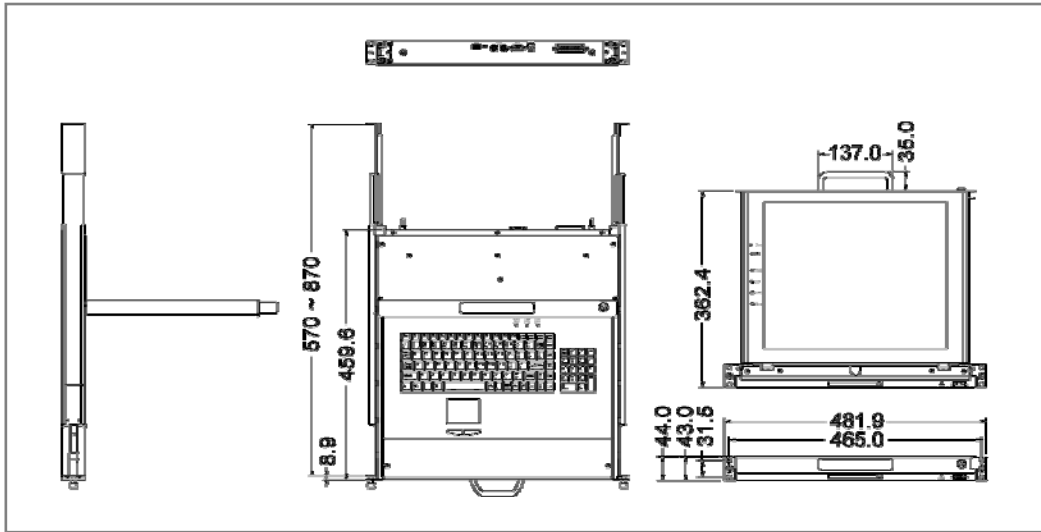


Figure 1-2. 17" Dual Rail Console with Modular KVM Switch Dimension

### 1.4.3 19" Dual Rail Console with Modular KVM Switch Specification

Model name	19" dual rail console with modular KVM switch
Number of ports	1
Dimension	539.6 x 448.3 x 44 mm / 21.2 x 17.6 x 1.7 inches
Package Dimension	606 x 551.5 x 230 mm / 23.9 x 21.7 x 9.0 inches
Net Weight	14 Kg / 30.9 lbs
Gross Weight	21.5 Kg / 47.4 lbs
Display Size	19 inches
Panel Type	Active Matrix TFT LCD
Resolution Capabilities	Maximum Resolution up to 1280 x 1024 (SXGA)
Pixel Pitch	Supports 0.098 mm x 0.294 mm
Viewing Angle (CR>10)	Right-Left view 140°(Typ) Up-Down View 140°(Typ)
Contrast Ratio	500 : 1
Brightness	White 250 cd/m <sup>2</sup>
Back Light	Four Lamps for Back Light
Supported Colors	16.7M Colors (8-bit with FRC)
Response Time	Rising Time 2 ms, Decay Time 10 ms
Operating System	Dos, Windows (3.1, 9x, 2000, NT4, ME, XP, 2003 Server) Linux, Novell 3.12-6, HP UX, SUN
Multi Platform	Support PS/2 and USB
System Cables	VGA + PS/2 x 2 or VGA + USB x 1 cable
Keyboard Mouse	106 key PS/2 keyboard with touch pad
Sync	45 ~ 80 KHz
Power Source	100 ~ 240 VAC input
Power Consumption	25W, 21.05W for Panel
Temperature	Operate 0 ~ 50°C / 32 ~ 122°F Storage -20 ~ 60°C / -4 ~ 140°F
Humidity	10% ~ 90% RH
Chassis Construction	Heavy duty steel materials
Keyboard Language	USA, UK, German, French, Spanish, Italian, Portuguese, Dutch, Swiss, Belgium, Swedish, Norwegian, Danish, Japan, Taiwan, Russian, Hebrew
Certification	CE / FCC, UL / CUL / C-Tick, GOST

**Table 1-3. 19" Dual Rail Console with Modular KVM Switch Specification**

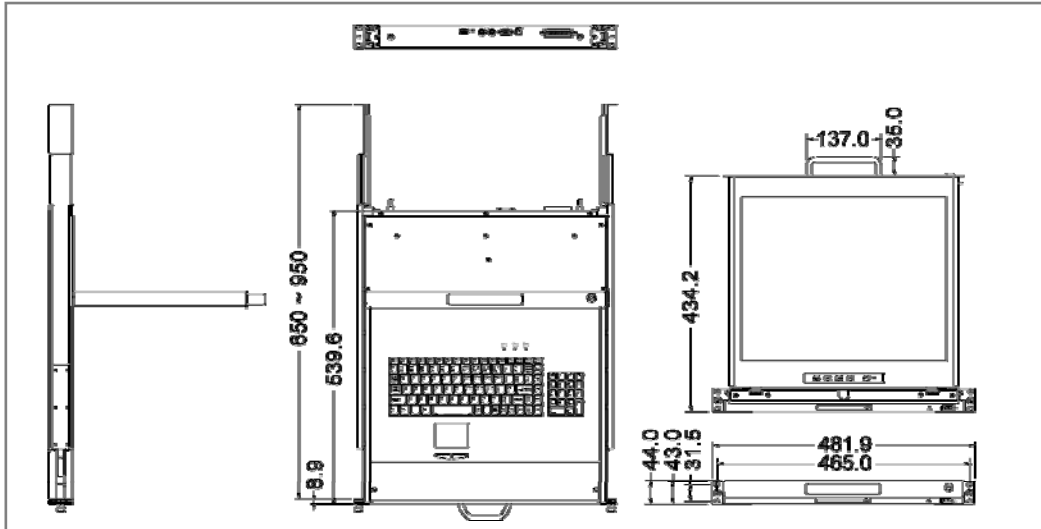


Figure 1-3. 19" Dual Rail Console with Modular KVM Switch Dimension

## 2. Panel Controls and OSD Function


Controls	Description
	Soft power on/off button. Adjacent LED is lit when on.
<b>Auto</b>	Auto-synchronize and scale down display to any valid factory preset timings.
<b>Up▲</b>	Press to scroll the function you want to adjust.
<b>Down▼</b>	Press to scroll the function you want to adjust.
<b>Menu</b>	To access the main menu. This button also acts as the "Enter" button.

Table 2-1. Panel Controls


- Status
- 
- Auto
- Up
- Down
- Menu

Figure 2-1. 15 / 17" Dual Rail Console with Modular KVM Switch OSD Control Bar

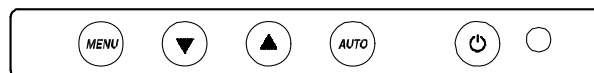


Figure 2-2. 19" Dual Rail Console with Modular KVM Switch OSD Control Bar

### 2.1 Auto Tune

Press the "auto tune" button. The panel will adjust the display size automatically and also tune the panel to its best condition.

## 2.2 Input Source

1. Press the “menu” button.
2. Use the “Down” and “Up” button to scroll.

Auto tune.

**Input Source**

Brightness

Contrast

Color

Position

Language

Recall

Exit

3. Press the “menu” button to enter, and you will see:

VGA / DVI

4. Use the “Down” and “Up” button to select the input source of signal.
5. Press the “menu” button to enter

## 2.3 Brightness

1. Press the “menu” button.
2. Use the “Down” and “Up” button to scroll.

Auto tune.

Input Source

**Brightness**

Contrast

Color

Position

Language

Recall

Exit

3. Press the “menu” button to enter.
4. Use the “Down” and “Up” button to adjust the brightness of the display.
5. Press the “menu” button to enter.

## 2.4 Contrast

1. Press the “menu” button.
2. Use the “Down” and “Up” button to scroll.

Auto tune.

Input Source

Brightness

**Contrast**

Color

Position

Language

Recall

Exit

1. Press the “menu” button to enter.
2. Use the “Down” and “Up” button to adjust the contrast of the display.
3. Press the “menu” button to enter.

## 2.5 Color

1. Press the “menu” button.
2. Use the “Down” and “Up” button to scroll.

Auto tune.

Input Source

Brightness

Contrast

**Color**

Position

Language

Recall

Exit

3. Press the “menu” button to enter. And you will see:

Icon	Description
9300°K	To set CIE coordinates at 9300°K color
7500°K	To set CIE coordinates at 7500°K color
6500°K	To set CIE coordinates at 6500°K color
User	To set user defined CIE
Auto color	To auto adjust color
Return	To exit and return to the previous page

Table 2-2. Icon Description

4. Use the “Down” and “Up” button to adjust the color of the display.

5. Press “menu” to enter.

## 2.6 Position

1. Press the “menu” button.

2. Use the “Down” and “Up” button to scroll.

- Auto tune.
- Input Source
- Brightness
- Contrast
- Color
- Position**
- Language
- Recall
- Exit

3. Press the “menu” button to enter. And you will see:

Icon	Description
Image Pos	To adjust the position of the image.
OSD Pos	To adjust the position of the OSD.
Return	To exit and return to the previous page

Table 2-3. Icon Description

4. Use the “Down” and “Up” button to scroll.
5. Press the “menu” button to enter.

## 2.7 Language

1. Press the “menu” button.
2. Use the “Down” and “Up” button to scroll.
  - Auto tune.
  - Input Source
  - Brightness
  - Contrast
  - Color
  - Position
  - Language**
  - Recall
  - Exit
3. Press the “menu” button to enter. And you will see:
  - English**
  - German
  - French
  - Italian
  - Spanish
4. Use the “Down” and “Up” button to scroll.
5. Press the “menu” button to enter.

## 2.8 Recall

1. Press the “menu” button.
2. Use the “Down” and “Up” button to scroll.
  - Auto tune.
  - Input Source
  - Brightness
  - Contrast
  - Color
  - Position
  - Language
  - Recall**

Exit

3. Press the “menu” button to enter, and you will see:

**Yes/ No**

4. Select “Yes” button then ‘Menu” button to recall the factory setting.

Select “No “ to return to the previous page.

## 2.9 Exit

Press the “exit” button to quit OSD menu.

## 2.10 Power Indicator

- ◆ GREEN ON
- ◆ RED STANDBY
- ◆ RED SUSPEND
- ◆ RED OFF



.....  
**OSD** – On Screen Display  
.....

### 3. Installation

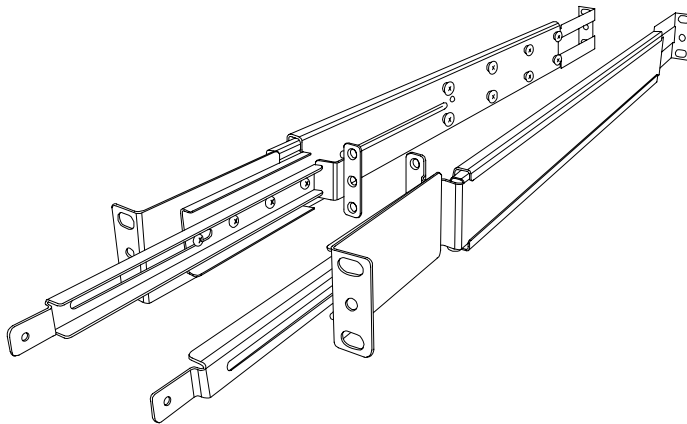
#### 3.1 Install Console into Cabinet

##### 3.1.1 Notes

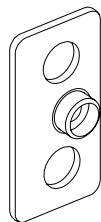
1. Please check all peripherals according the list before installation. To make sure that the whole unit was not damaged and lost during shipping process. If you encounter any problem, please contact your dealer.
2. Before installation, make sure all peripherals and computer have been turned off.
3. Reliable earthing of rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit.

##### 3.1.2 Hardware Kits Contents

1. Rail with front and rear bracket x 2.



2. Bracket A x 2



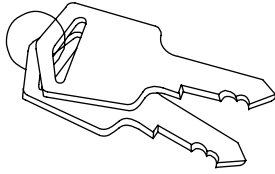
3. Screw x 2



4. Screw (length = 6 mm) x 6

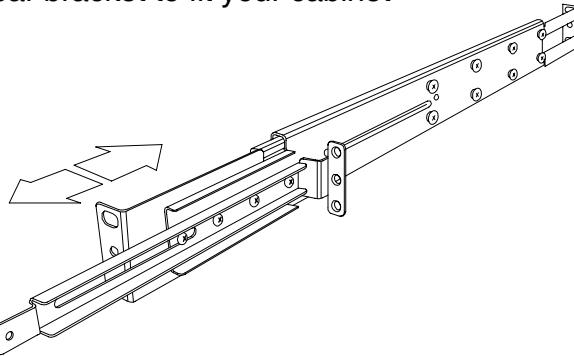


5. Key x 2

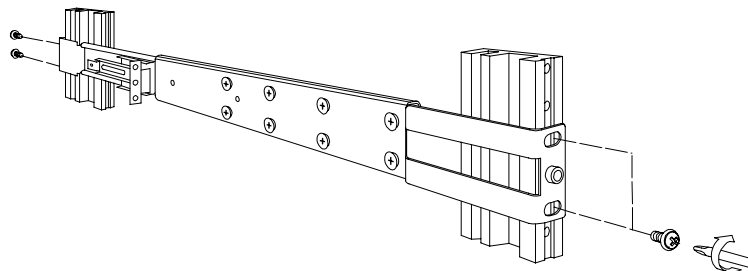


### 3.1.3 Install Console Step

1. Adjust rail with rear bracket to fit your cabinet

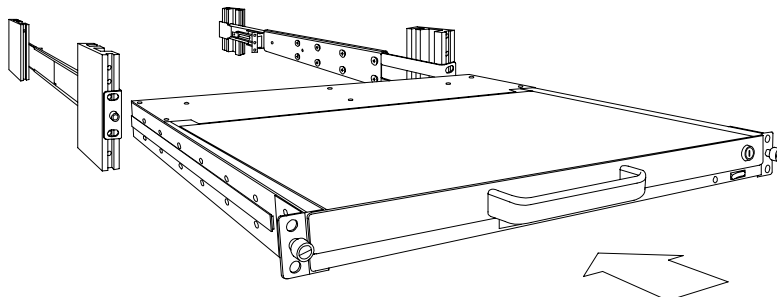


2. Install front and rear bracket on cabinet.

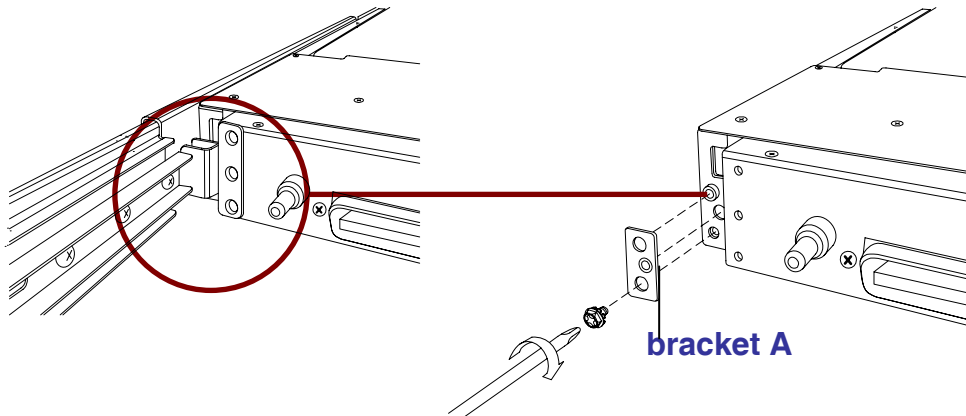


3. Repeat step 1~2 for the other side.

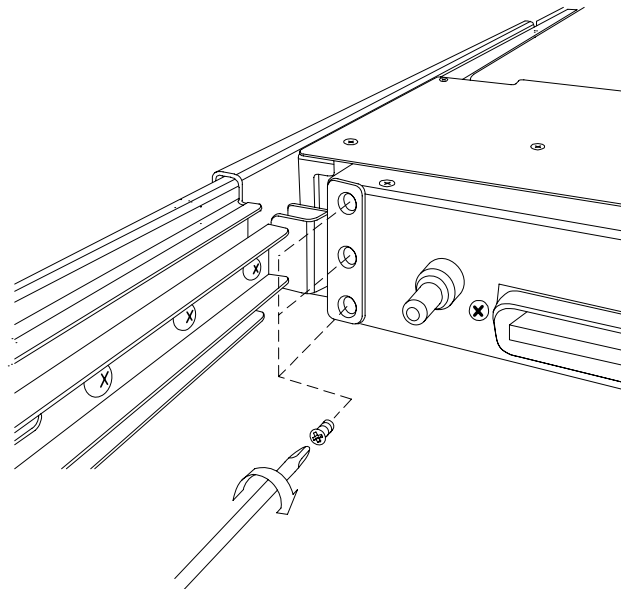
4. Push console into rails and push it to the end.



5. Install a screw to combine bracket A and console. (Both sides)



6. Install three screws (length = 6 mm) in rear of the console (Both sides) and finish installation.



## 3.2 Installing the Video Card and Video Driver

Before connecting the LCD console, make sure your computer has a video card already installed for the monitor. After you connect the console, install the video software driver. The video driver is supplied by the video card manufacturer and may be found on the CD-ROM that came with your computer. If you need information on installing a video card or video driver, refer to the manual that came with your video card.

### 3.2.1 Configuring the Display Settings

After connecting the console and turning on your computer, you may need to configure one or more of the following display settings:

- Display mode (also called desktop area or video resolution)
- Refresh rate (also called vertical scan rate or vertical sync)
- Color depth (also called color palette or number of colors)

Each video card has several controls that let you adjust the display settings. However, the software and driver for each video card is unique. In most cases, you adjust these settings by using a program or utility provided by the manufacturer of the video card. Most video cards use the Windows Display Properties control panel to configure the display. To open the Windows Display Properties, click the right mouse button in a blank area of the Windows desktop and then select **Properties**. The Settings tab usually lets you change the Color Palette and the Desktop Area (*x by y pixel resolution*).

Some video cards integrate additional features into the Windows Display Properties control panel to give you an exceptional setup that is flexible and easy to use. For example, the control panel may include an Advanced Properties button, an Adjustment tab, or a Refresh tab for changing other settings. Other video cards have a separate utility for setting display properties.

Whenever you change the resolution, color, or refresh rate, the image size, position, or shape may change. This behavior is normal. You can readjust the image using the monitor on-screen controls. For more information on the monitor on-screen controls, refer to Chapter 2. For more information on configuring the display settings, refer to the manual that came with your video card.

### 3.2.2 Connecting the Console

To connect an LCD console to a computer, perform the following steps



Figure 3-1. The rear view of LCD console

1. Turn off your computer. You should always turn off your computer before connecting or disconnecting a device.
2. Connect the video (VGA) connector of the KVM cable to the video card connector on the rear panel of your computer.
3. Identify and connect the PS/2 mouse and PS/2 keyboard connector to the correct PS/2 ports on the rear panel of your computer. Or you can use USB interface to connect your computer. (Use PS/2-USB switch to select your interface. The switch has to be on PS/2 side when you use PS/2 interface connector.)



.....  
Please don't plug PS/2 and USB cables at the same time  
.....

4. Connect the AC to DC power adapter to the power inlet on the console and then to a power outlet.

### 3.3 Turning on the Console

Make sure all cables and the AC to DC power adapter are connected properly. Be sure to tighten all connector screws. Using two hands, grasp the rear of the console, lift the tab and pull the panel up and forward. This will disengage the momentary on / off switch and the unit should power on. The LED on the left or under of the monitor panel should turn from orange to green, verifying that the unit is operational.

### 3.4 Testing the Console

To test that the console is working properly, perform the following steps:

1. Power up the console, and then turn on your computer.
2. Make sure the video image is centered within the screen area. Use the OSD controls to adjust the image (see note below) or press the Auto button on the right

hand side of the monitor.



.....  
If the unit does not power up when the panel is pulled up, try pushing the soft power on/off button on the left or under side of the monitor panel to power up the unit.  
.....



.....  
You can adjust the horizontal and vertical position, contrast, and brightness to better suit your video card and your personal preference. Refer to Chapter 2 for more information on using the on-screen menu to adjust the video display.  
.....

Before you begin, make sure that powers to all the devices you will be connecting up have been turned off. To prevent damage to your installation due to ground potential difference, make sure that all the devices on the installation are properly grounded. Consult your direct vendor for any technical issues if necessary.  
.....