



## Paragon® II

### Quick Installation and Setup Guide

Congratulations on your purchase of Paragon II devices comprising of analog Keyboard/Video/Mouse (KVM) switches and accessory devices that enable users to access and control multiple servers from a set of keyboard, mouse and monitor. The document provides instructions for basic installation, initial login and channel access. For more detailed information on the Paragon II products, consult the User Guide accessible from the accompanying *User Manuals and Quick Setup Guides* CD or Raritan website's **Firmware and Documentation webpage** (<http://www.raritan.com/support/firmware-and-documentation/>).

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Note: The Ethernet port on the Paragon switch is hard coded (not configurable) and supports only 10-BaseT/half duplex.

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Paragon II cover 4 basic types of devices:

#### Main Switching Unit (Main Unit)

Models: P2-UMT242, P2-UMT442, P2-UMT832M, P2-UMT1664M



#### Stacking Unit

Models: P2-UMT832S, P2-UMT1664S



#### User Station

Models: P2-UST, P2-EUST, P2-EUST/C



#### Computer Interface Module (CIM)

Models: P2CIM-APS2, P2CIM-AUSB, P2CIM-ASUN, and more



## Package Contents

### Paragon Main Unit (P2-UMT242, P2-UMT442, P2-UMT832M, or P2-UMT1664M):

- Main Unit x 1
- 20-ft. (6.1-m) Cat5 test cable x 2
- 6-ft. (1.8-m) AC power cord x 1
- Rackmount kit (including brackets and associated screws) x 1
- Cat5 admin cable x 1
- Raritan's *User Manuals & Quick Setup Guides* CD x 1
- Quick Setup and Installation Guide x 1

### Paragon Stacking Unit:

- Stacking Unit x 1
- RUMT-1U-LM304 or RUMT-2U-LM304 rackmount kit x 1
- 6" stacking cable(s)—the number of cables vary depending on the model you purchased
  - P2-UMT832S: Stacking cable x 1
  - P2-UMT1664S: Stacking cable x 2
- AC power cord x 1

### Paragon user station (P2-UST, P2-EUST or P2-EUST/C):

- User-station module x 1
- 6-ft. (1.8-m) AC power cord x 1
- 6-ft. (1.8-m) AC power-extension cord for the connected monitor x 1
- 16.4-ft. (5-m) DB9 male-to-female serial administration cable x 1

### Paragon IP-enabled user station (P2-USTIP1/2):

- IP-enabled user-station module x 1
- 6-ft. (1.8-m) AC power cord x 1
- 16.4-ft. (5-m) DB9 male-to-female serial administration cable x 1

## Rack Mount

Paragon II user stations and most KVM switches can be mounted in 1U (1.75", 4.4 cm) of vertical space in a standard 19" equipment rack, except that P2-UMT1664M switch shall be mounted in 2U (3.5", 8.9 cm) of space. To rack-mount a Paragon switch, use the brackets and screws that came with the device. To rack-mount a user station, use Raritan's RUST-LM304 rackmount kit. You can mount a Paragon switch or user station facing the front of the rack or facing the rear.

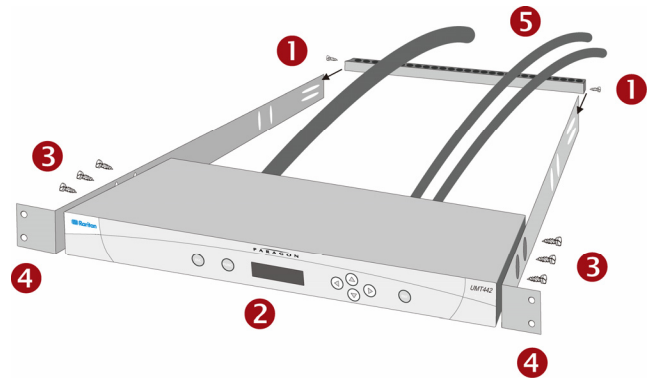
Note: If you lose or damage a switch's brackets, replace them with the RUMT-1U-LM304 kit for any 1U switch or RUMT-2U-LM304 for a P2-UMT1664M.

## Forward Mount

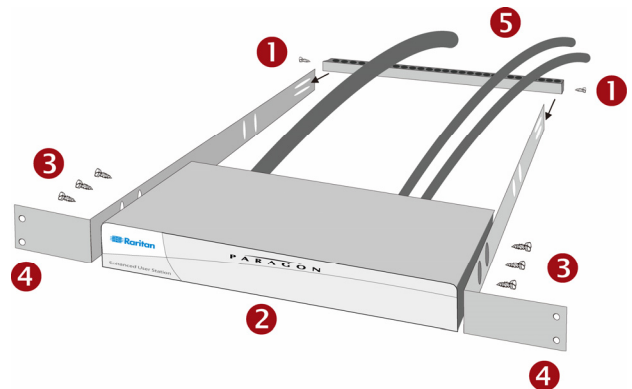
The steps correspond to the numbers shown in the front rackmount diagrams.

1. Secure the cable-support bar to the back end of the side brackets using two of the included screws.
2. Slide the user station or KVM switch between the side brackets, with its rear panel facing the cable-support bar, until its front panel is flush with the "ears" of the side brackets.
3. Secure the user station or switch to the side brackets using the remaining included screws (three on each side).
4. Mount the entire assembly in your rack and secure the side brackets' ears to the rack's front rails with your own screws, bolts, cage nuts, and so on.
5. When connecting cables to the rear panel of the user station or switch, drape them over the cable-support bar.

### Front rackmount of a Paragon switch



### Front rackmount of a Paragon user station

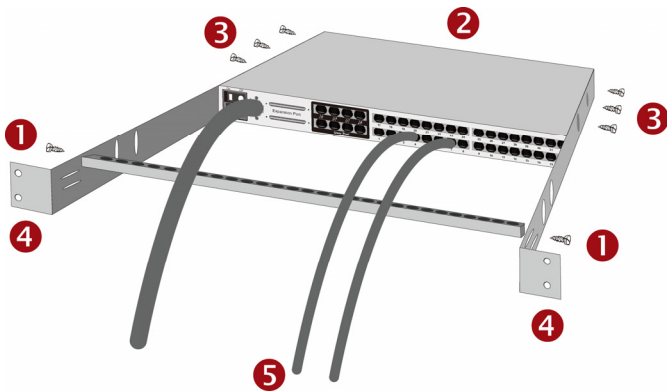


## Rear Mount

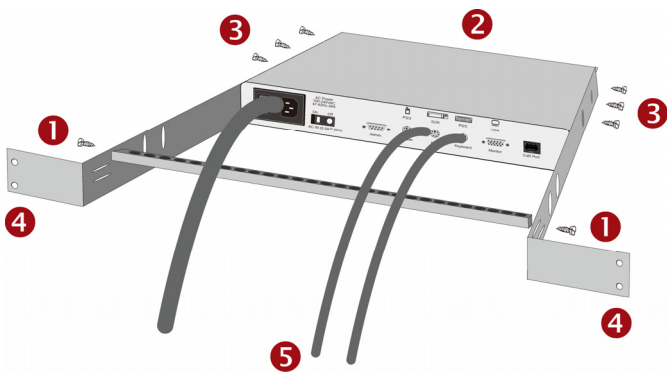
The steps correspond to the numbers shown in the rear rackmount diagrams.

1. Secure the cable-support bar to the front end of the side brackets, near the side brackets' "ears," using two of the included screws.
2. Slide the user station or KVM switch between the side brackets, with its rear panel facing the cable-support bar, until its front panel is flush with the back edges of the side brackets.
3. Secure the user station or switch to the side brackets using the remaining included screws (three on each side).
4. Mount the entire assembly in your rack and secure the side brackets' ears to the rack's front rails with your own screws, bolts, cage nuts, and so on.
5. When connecting cables to the rear panel of the user station or switch, drape them over the cable-support bar.

### Rear rackmount of a Paragon switch



### Rear rackmount of a user station



## Basic Installation

Ensure that you have turned OFF all servers and Paragon II devices prior to installation. Installing a basic Paragon II system involves these steps.

- **Step (A): Connect Stacking Units to a Main Unit (Optional)**
- **Step (B): Connect User Stations to the Main Unit**
- **Step (C): Connect Servers to Paragon II Main and Stacking Units**

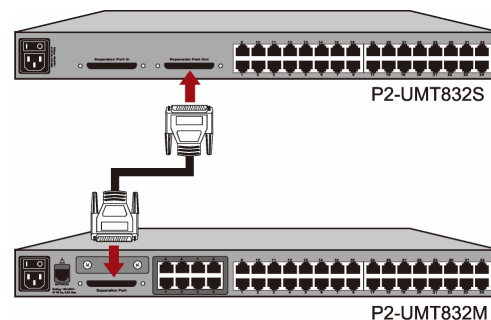
Note: Users and servers can be located up to 1000 feet (304 m) apart. However, try to limit the cable length between the CIM and Paragon II switch to less than 100 feet (30.5 m) for optimal video quality, and if possible, limit the total cable length between the user and target server to less than 500 feet (152 m) for good video quality.

### Step (A): Connect Stacking Units

If your Main Unit supports the use of Stacking Units, such as P2-UMT832M, you can connect compatible Stacking Units to expand the number of channel ports in the system.

#### ► To connect one or more Stacking Units

1. Connect the power cord to the Main Unit.
2. Connect the power cord to the Stacking Unit.
3. Depending on the Stacking Unit you purchased, use one or two stacking cables to connect the Stacking Unit to the Main Unit.
  - a. For connecting P2-UMT832S to P2-UMT832M:
    - Plug one end of a stacking cable into the port—Expansion Port Out—on the Stacking Unit.
    - Plug the other end of the cable into the port—Expansion Port—on the Main Unit.



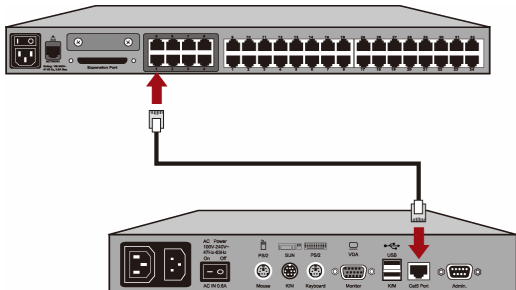
- b. For connecting P2-UMT1664S to P2-UMT1664M:
    - Plug one end of the stacking cable into "Expansion Port Out A" on the Stacking Unit and the other end of the cable into the lower "Expansion Port In" on the Main Unit.
    - Plug one end of the other stacking cable into "Expansion Port Out B" on the Stacking Unit and the other end of the cable into the upper "Expansion Port In" on the Main Unit.
4. (Optional) You can cascade up to three P2-UMT832S Stacking Units for a P2-UMT832M Main Unit. To add more Stacking Units, follow this procedure:
    - a. Plug one end of a stacking cable into the port—Expansion Port In—on the last Stacking Unit connected to the Main Unit.
    - b. Plug the other end of the cable into the port—Expansion Port Out—on the newly added Stacking Unit.
    - c. Connect a power cord to the newly added Stacking Unit.

- d. Repeat Steps a to c if you want to add one more Stacking Unit.
5. Turn on all Paragon II devices.
6. Set the total number of connected Stacking Units on the front panel of the Main Unit.
  - a. Press the **FUNC** button to activate the Function Menu.
  - b. Press the  $\Delta$  and  $\nabla$  buttons to select "Stacking Support."
  - c. Press the **ENT** button to confirm your selection.
  - d. Press the  $\Delta$  and  $\nabla$  buttons to select the total number of Stacking Units—3 maximum for P2-UMT832M or 1 maximum for P2-UMT1664M.
  - e. Press the **ENT** button to save the setting.
7. Set a unique Stacking Unit ID on the front panel of each Stacking Unit.
  - a. Press the **FUNC** button to activate the Function Menu.
  - b. Press the  $\Delta$  and  $\nabla$  buttons to select "Set Stack ID."
  - c. Press the **ENT** button to confirm your selection.
  - d. Press the  $\Delta$  and  $\nabla$  buttons to assign the numeric ID. The guideline of ID assignment is:
    - Assign 1 as the ID for the first Stacking Unit, which is directly connected the Main Unit.
    - Assign 2 as the ID for the second Stacking Unit, which is connected to the first Stacking Unit.
    - Assign 3 as the ID for the third Stacking Unit, which is connected to the second Stacking Unit.
  - e. Press the **ENT** button to save the setting.
8. Turn OFF all Paragon II devices.
9. Turn on the Stacking Unit first. If there are multiple Stacking Units, turn on the Stacking Units from the last one to the first one in sequence.
10. Turn on the Main Unit.

### Step (B): Connect User Stations

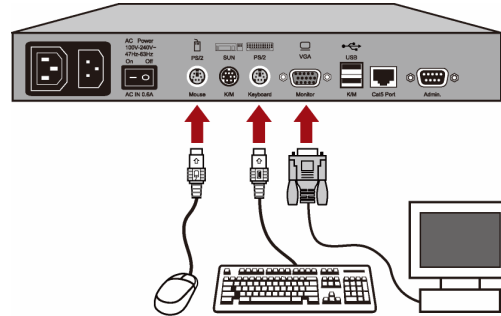
#### ► To connect one or more user stations

1. Connect a user station to the Main Unit.
  - a. Plug one end of a Cat5 UTP cable into User Port number 1 on the back of the Main Unit.
  - b. Plug the other end of the cable into the RJ45 port on the back of the user station.



2. Connect a power cord to the user station and turn it on.

3. Connect a PS/2 or USB keyboard, mouse, and a VGA monitor to the user station.



Note: P2-EUST/C provides USB ports only for keyboard and mouse.

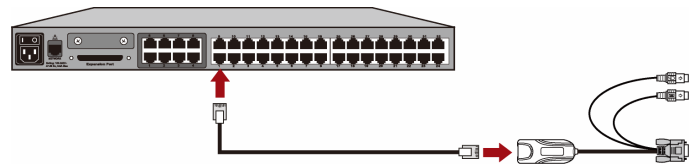
4. Turn on the monitor.
5. Repeat Steps 1 to 4 for all other user stations you want to connect to remaining User Ports.

The user station does not support the use of a VGA-to-DVI converter.

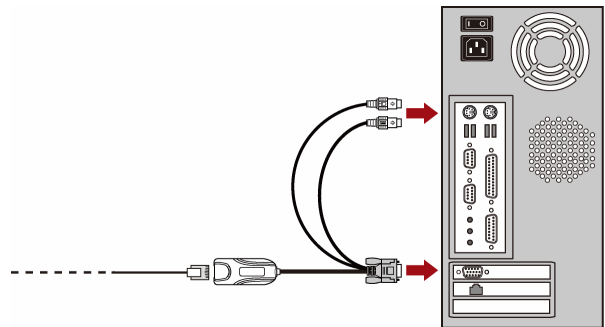
### Step (C): Connect Servers

#### ► To connect one or more servers

1. Connect a Paragon II CIM to the Main or Stacking Unit.
  - a. Plug one end of a Cat5 UTP cable into Channel Port number 1 on the back of the Main Unit or any connected Stacking Unit.
  - b. Plug the other end of the cable into the RJ45 port of the CIM.



2. Depending on the CIM model you purchased, plug the connectors of the CIM into a server's PS/2 or USB keyboard, mouse, and VGA ports.



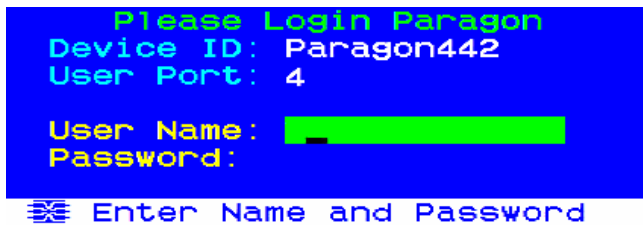
Tip: If the server provides a DVI-D connector instead of a VGA port, Raritan recommends that you connect the CIM to the server using a Smart View DVI-to-VGA (female to female) converter (DV-101). Note that currently only the Smart View DVI-to-VGA converter has been tested and is officially supported by Raritan for use with Paragon II.

3. Turn on the server.
4. Repeat Steps 1 to 3 for all other servers you want to connect to remaining Channel Ports.

### Initial Verification

► **To verify that the server connected to the Paragon system can be operated:**

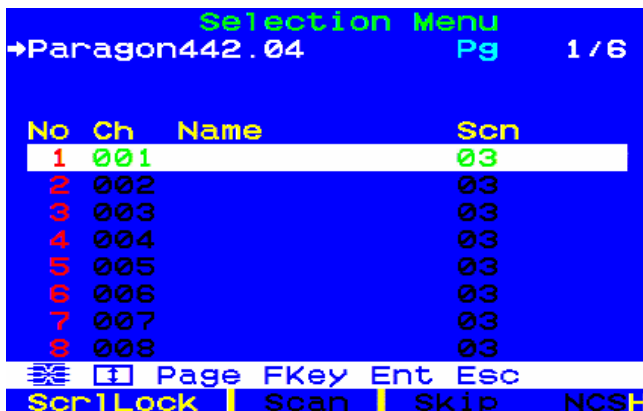
1. Turn on all devices in the Paragon II system.
2. The Login screen of the On-Screen User Interface (OSUI) is displayed on the monitor connected to the user station.



3. Type your user name and password in the appropriate fields and press **Enter**. For example, if you are the administrator:
  - a. Type `admin` in the **User Name** field and press **Enter**.
  - b. Type `raritan` (the default password; all lowercase) in the **Password** field and press **Enter**. Note the password is case-sensitive.

Tip: You can also type any user name for regular users. The factory-default user names for regular users are **user01** through up to **user15**, depending on the model of your Main Unit. By default, there are no passwords for these user names.

4. The Selection Menu appears.



Channels connecting to servers appear in green. At first there are no names for any servers so all **Name** fields are blank.

Note: The only exception is IBM BladeCenter chassis. Paragon II shows a default name "IBM-Blade" for the device.

5. Press **↓** or **↑** on the keyboard to move the highlight to one of the green channels and press **Enter**.
6. Now you can view and control the chosen server with the keyboard and mouse.
7. Press the **Scroll Lock** key twice QUICKLY to activate the OSUI, and do one of the following:
  - To choose another green channel for verification, repeat Step 5.
  - To log out of the system, press **F9**.

### Video Gain Adjustment

A video-gain adjustment is available to focus the video image, which can be especially useful if you are using an LCD flat-panel monitor. Please note that you must access each channel individually to adjust that channel's video gain.

► **To make the video-gain adjustment**

1. Press the hot key (default: **Scroll Lock**) twice QUICKLY to activate the Selection Menu.
2. Press the + and - (plus- and minus-sign) keys on the keypad of your keyboard to adjust the video image until it appears to be in focus.
  - For P2-UST, the video-gain range is -15 to +15.



- For P2-EUST or P2-EUST/C, the video-gain setting is named "AGC," and its range is 0 to +6.



3. Press **Esc** or **Enter** to quit the OSUI and save the video setting.
4. To adjust another channel's video-gain setting, access it and then repeat Steps 1 to 3.

### Multi-Platform CIM Table

#### PS/2 CIMs

CIM model	PS/2 connector	VGA connector	Local ports
P2CIM-APS2	V	HD15	
P2CIM-APS2DUAL	V	HD15	
P2CIM-APS2-B	V	HD15	

CIM model	PS/2 connector	VGA connector	Local ports
UKVMC	V	HD15	V

#### USB CIMs

CIM model	USB connector	VGA connector	Local ports
P2CIM-AUSB*	V	HD15	
P2CIM-AUSB DUAL*	V	HD15	
P2CIM-AUSB-B	V	HD15	
P2CIM-AUSB-C*	V	HD15	

\* These USB CIMs also support Sun servers via the SUN USB ports.

#### Serial CIMs

CIM model	Serial (RS-232) connector	VGA connector	Local ports
P2CIM-SER	V	HD15	
P2CIM-SER-EU	V	HD15	
AUATC	V	HD15	V
P2CIM-PWR (for the power strip)	V	HD15	

#### SUN CIMs

CIM model	SUN MINI DIN8 connector	VGA connector	Local ports
P2CIM-ASUN	V	HD15	
USKVMC	V	13w3/ HD15	V

#### CIMs with Special Functions

CIM model	Automatic skew compensation	Support for IBM Blade servers	Support for card reader
P2CIM-APS2	V		
P2CIM-APS2D UAL	V		

CIM model	Automatic skew compensation	Support for IBM Blade servers	Support for card reader
P2CIM-APS2-B	V	V	
P2CIM-AUSB	V		
P2CIM-AUSB D UAL	V		
P2CIM-AUSB-B	V	V	
P2CIM-AUSB-C	V		V
P2CIM-ASUN	V		