



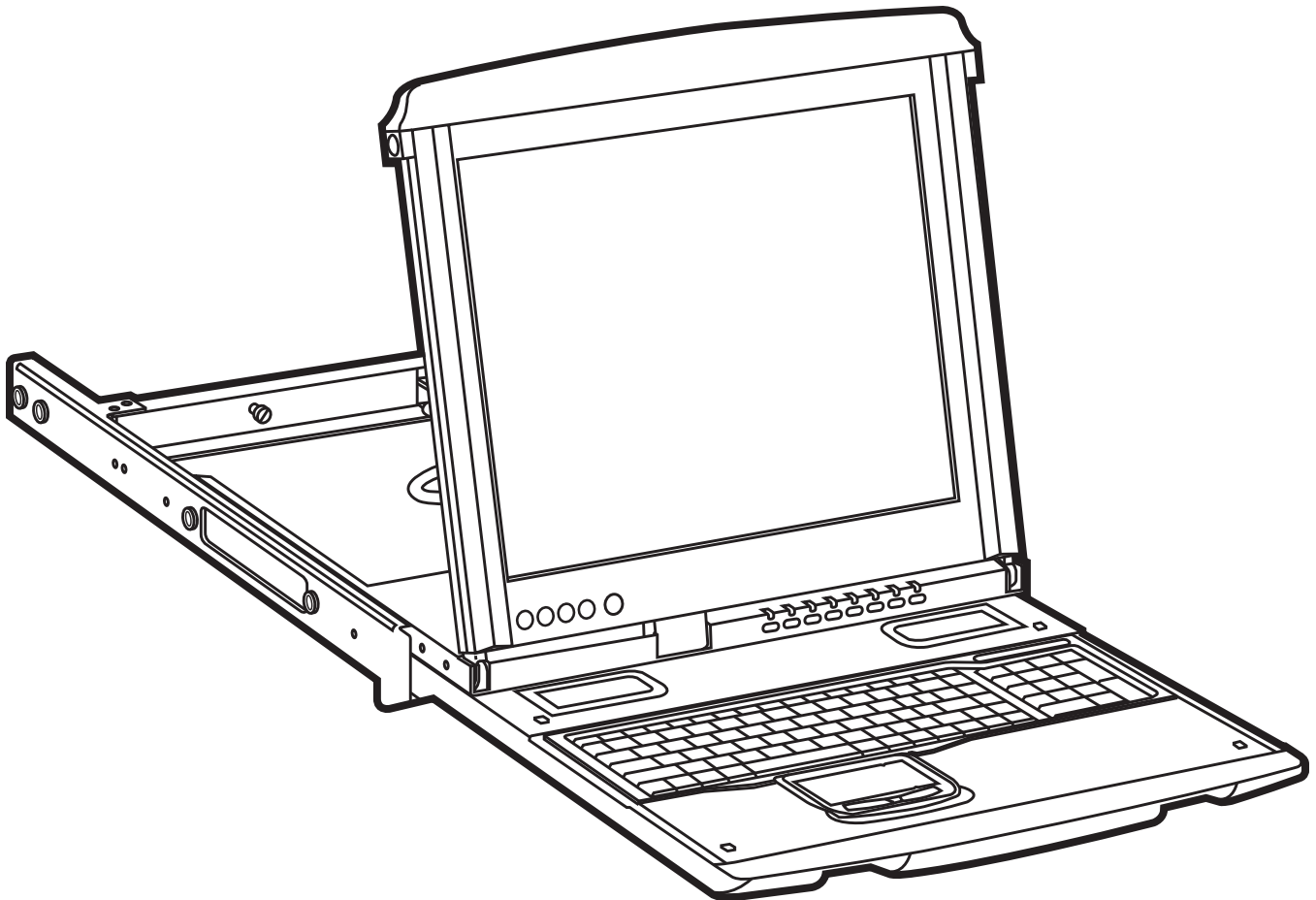
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ServView V KVM Tray



**CUSTOMER
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INFORMATION**

Outside the U.S.: Call **877-877-BBOX** (Inside U.S. call **724-746-5500**)
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**FEDERAL COMMUNICATIONS COMMISSION
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RADIO FREQUENCY INTERFERENCE STATEMENTS**

Class B Digital. This equipment has been tested and found to comply with the limits for a Class B computing device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. However, there is no guarantee that interference will not occur in a particular 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. If this equipment does cause harmful interference to radio or telephone reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

Reorient 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.

Consult an experienced radio/TV technician for help.

CAUTION

To meet FCC requirements, shielded cables and power cords are required to connect this device to a personal computer or other Class B certified device.

This digital apparatus does not exceed the Class B limits for radio noise emission from digital apparatus set out in the Radio Interference Regulation of Industry Canada.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de classe B prescrites dans le Règlement sur le brouillage radioélectrique publié par Industrie Canada.

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1. Specifications

Active Display Area: 10.6"H \times 13.3"W (27 \times 33.8 cm)

Approvals: CE, FCC for the product; UL[®], TUV, CE for power supply

Backlight Unit: 4 CCFLs edge-light (top/bottom)

Brightness (cd/m²): 260 (center)

Contrast Ratio (Typical): 450:1

Display Color (RGB 6-bits + FRC data): 16.2 M

Display Mode: Normal White

Input Signal: RGB analog, H/V separate

Pixel Pitch: 0.264 mm (H) \times 0.264 mm (V)

Plug-n-Play VESA: VESA DDC 1/2B

Resolution: 1280 \times 1024 @ 60 Hz

NOTE

Resolution is 1280 \times 1024.

Viewing Angle (Typical): -80 to +80 (H), -80 to +80 (V)

Connectors: (1) Centronics[®] female

Temperature: Operating: +32 to +122 °F (0 to +50 °C);

Storage: -4 to +140 °F (-20 to +60 °C)

Humidity (Relative): Operating: 8 to 95%;

Storage: Less than or equal to 95%

Power Consumption (Maximum, Typical): 37 Watts

Power: 12 VDC (from external 100-240-VAC power adapter), 47-63 Hz

Size: 1.75"H (1U) \times 17"W \times 19.5" to 39.5"D (4.4 \times 43.2 \times 49.5 to 100.3 cm)

Weight: 23 lb. (10.4 kg)

2. Overview

2.1 Introduction

Each ServView V KVM Tray Kit includes a KVM Tray (KVT517A), a KVM module (KVT4S1UV, KVT4S8PV, KVT4S8UV, KVT4S16PV, or KVT4S16UV), and a universal rear bracket extension kit. This manual describes how to use the ServView V KVM Tray and the rear bracket extension kit, and a separate manual (included with our kit) explains how to use the KVM module.

Control your 4-post-rack- or cabinet-mounted USB or PS/2 server with the compact, easy-to-use ServView V KVM Tray. It consists of a keyboard, mouse, LCD panel, and KVM module housed in an industry-standard 19" 1U-height rack drawer (see Figure 2-1). The unique dual-rail design allows the keyboard and LCD display to slide in and out independently of each other, so you can store the keyboard out of the way when you're not using it.

The ServTray has a 17" LCD panel. It features a full 105-key, low-profile, sturdy keyboard and touch pad with an ergonomically designed hand rest. The KVT517A has a maximum resolution of 1280 x 1024.

Install the ServTray in 4-post racks or cabinets that have rail space of 23.7"D to 45.3"D (60.2 to 115.1 cm).

NOTE

When installing the ServTray, you'll need to use the universal Rear Bracket Extension Kit that's included in our ServTray Kit.

A KVM module is also included with the ServTray. To control more than one USB or PS/2 server, connect the ServTray to a ServSwitch.

The KVM module comes with a universal Centronics® 36-pin connector; use it to connect the module to the console drawer. The module has a barrel connector for power. The small screws listed in **Section 2.2** secure the brackets to the KVM module. The large screws are used in place of 10-32 or 12-24 screws (described in **Chapter 3**, not included) if required by your rack.

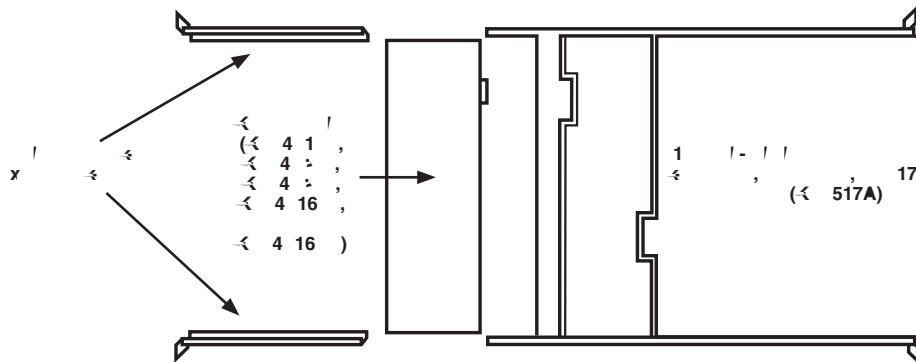


Figure 2-1. ServTray Kit components (left to right): Rear Bracket Extension Kit, KVM Module with power supply, and 1U slide drawer.

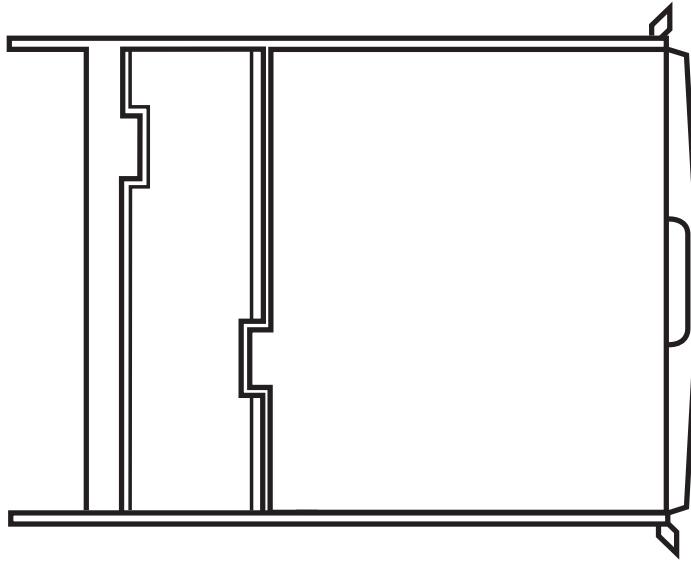


Figure 2-2. ServView V Tray, closed position.

2.2 What's Included

- (1) 1U dual-rail drawer with keyboard, touch pad, and LCD monitor
- (1) KVM module with power supply (based on product code)
- (1) universal rear rail kit
- (10) 0.19" \times 0.43" (0.5 \times 1.1 cm) screws
- (10) 0.12" \times 0.24" (0.3 \times 0.6 cm) screws
- This user's manual

You might also need 12-24 or 10-32 nuts/bolts.

2.3 ServView V KVM Tray Kit Part Numbers

The ServView V KVM Kit includes a ServView V KVM Tray, a PS/2 or USB KVM module, and a universal rear bracket extension kit. Table 2-1 lists the available kits.

Table 2-1. ServView V KVM Tray Kit components..

Kit Part Number	KVM Module P/N	Link	Rail Depths
KVT517A-1UV	KVT4S1UV	1-port VGA USB/PS2	23.7"–45.3"
KVT517A-8UV	KVT4S8UV	8-port VGA USB/PS2	23.7"–45.3"
KVT517A-16UV	KVT4S16UV	16-port VGA USB/PS2	23.7"–45.3"
KVT517A-8PV	KVT4S8PV	8-port VGA PS/2	23.7"–45.3"
KVT517A-16PV	KVT4S16PV	16-port VGA PS/2	23.7"–45.3"

2.4 1U-Height KVM Switch Function Modules

When a 1U KVM switch function module slides into the rear side of the console drawer, the entire setup takes 1U space of a rack or cabinet. Table 2-2 describes available 1U-height modules.

Table 2-2. 1U-height KVM Switch Function Modules.

Part Number	Interface
KVT4S1UV	1-port PS/2 or USB
KVT4S8PV	8-port PS/2
KVT4S8UV	8-port PS/2 or USB
KVT4S16PV	16-port PS/2
KVT4S16UV	16-port PS/2 or USB

2.5 Rear Bracket Extensions

Figure 2-3 shows the rear bracket pair, and Figures 2-4 and 2-5 show the ServTra in its maximum and minimum extension positions.

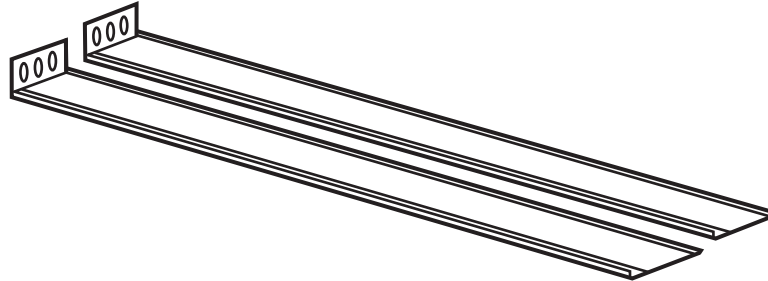


Figure 2-3. Rear bracket pairs.

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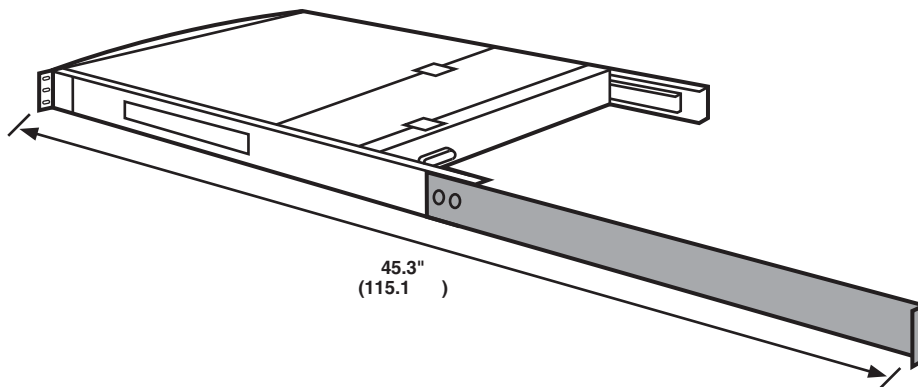


Figure 2-4. The maximum depth of the unit.

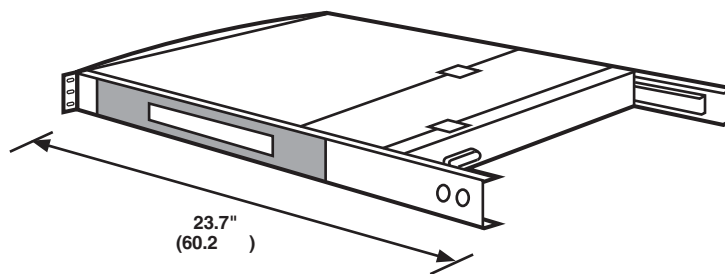


Figure 2-5. The minimum depth of the unit.

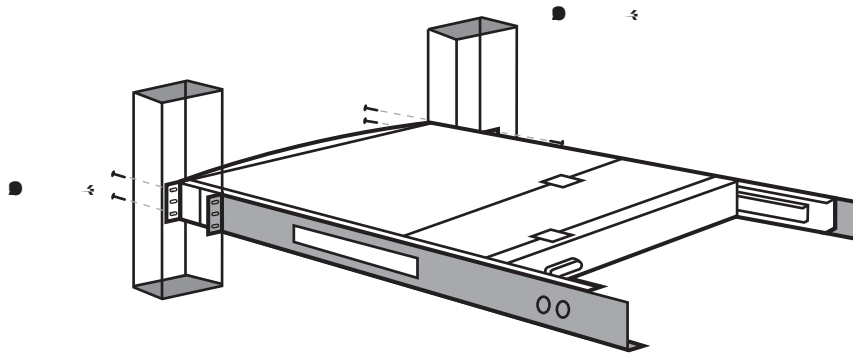


Figure 2-6. ServView V Tray installed on an open rack.

3. Assembly and Installation

3.1 Assembly

1. Choose a proper position in the cabinet for the rack drawer.
2. Using four counter-sunk screws (not included), attach the extensions (included with our ServTra Kit) to both sides of the KVM switch module. See Figures 3-1 through 3-5. The side-edged plastic extension is on the top side (see Figure 3-5).

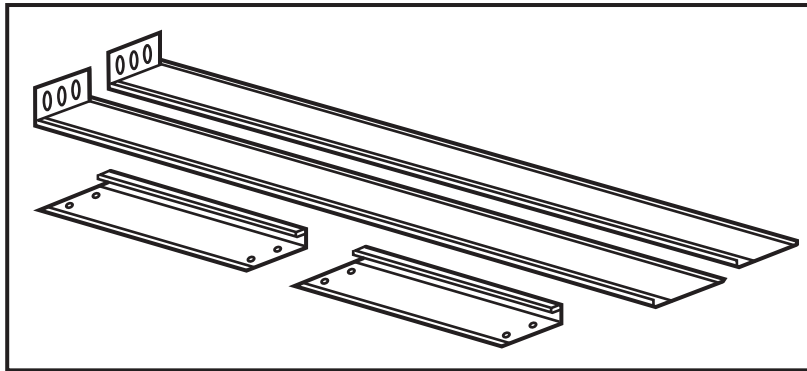


Figure 3-1. Rear brackets and extensions.

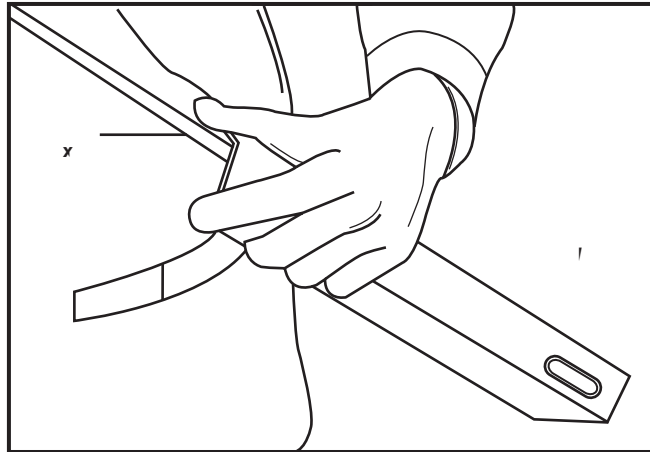


Figure 3-3. Attaching the extensions to one side of the KVM switch module.

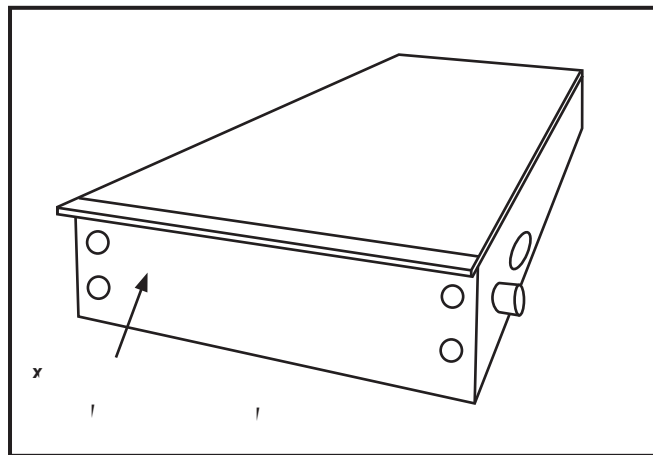


Figure 3-4. KVM switch module with extensions attached.

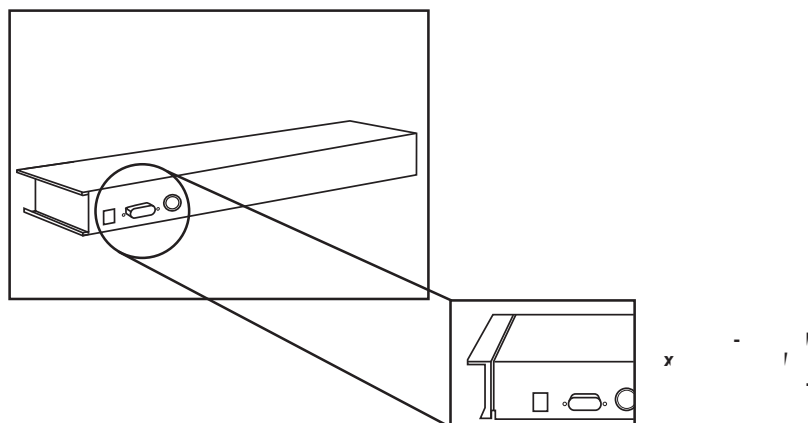


Figure 3-5. Back view of module with extensions attached.

3. Using four cabinet screws (not included), secure the unit onto the rack. See Figures 3-6 and 3-7.

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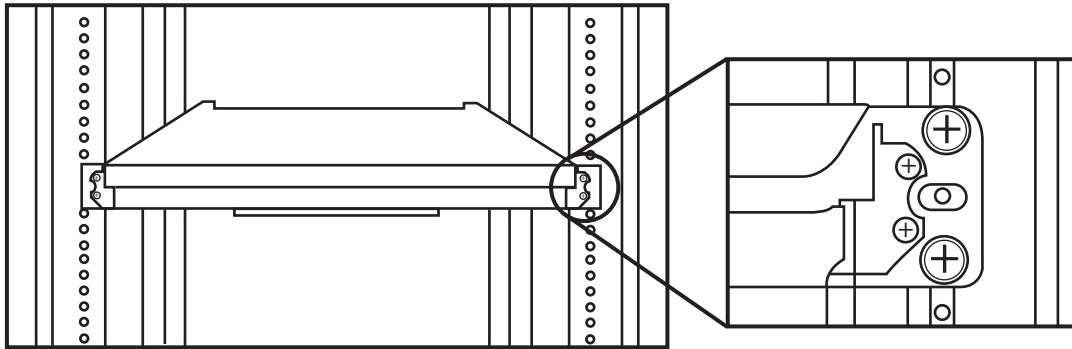
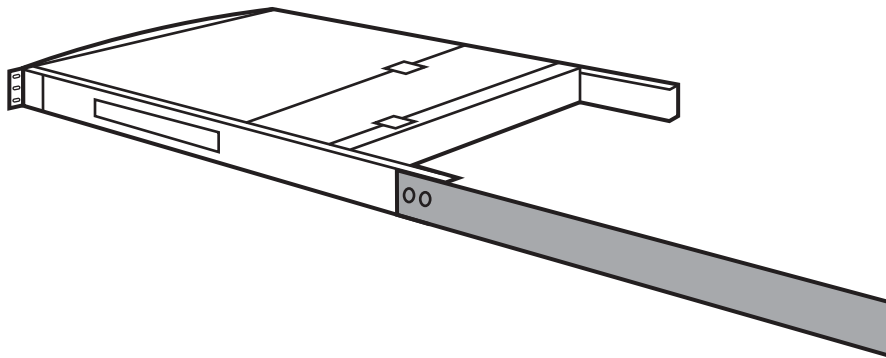


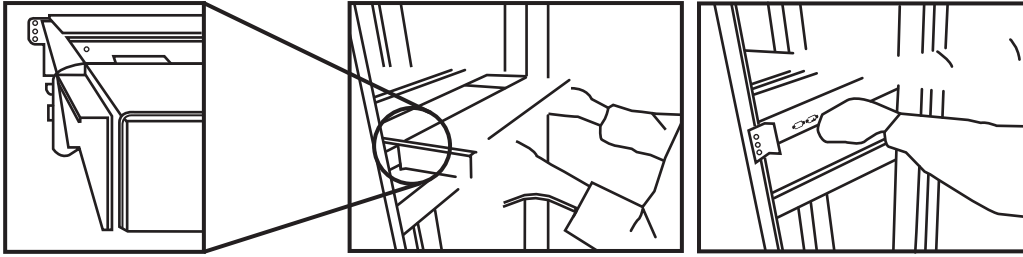
Figure 3-6. Securing the ServView V KVM Tray to the rack.

4. Slide the rear bracket into both sides of the unit. Make sure that the two heels with screws are inside the bracket's track while sliding in the rear bracket. See Figure 3-7.



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5. Push the KVM switch module evenly towards the drawer. See Figure 3-8.



8. Slide out the drawer and then remove the four safety stoppers from the left and right sides in sequence. See Figures 3-11 and 3-12.

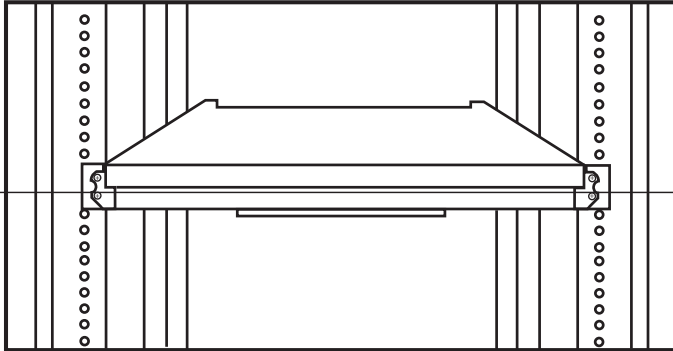


Figure 3-11. Sliding the drawer out.

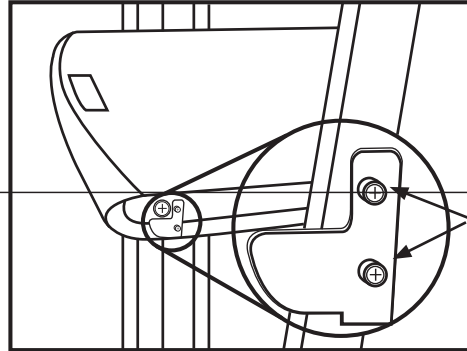
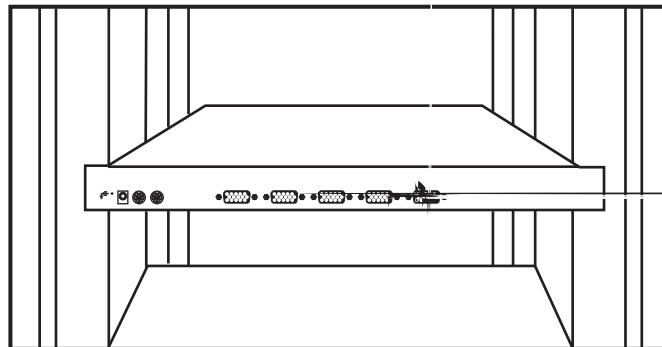


Figure 3-12. Removing the safety stoppers.

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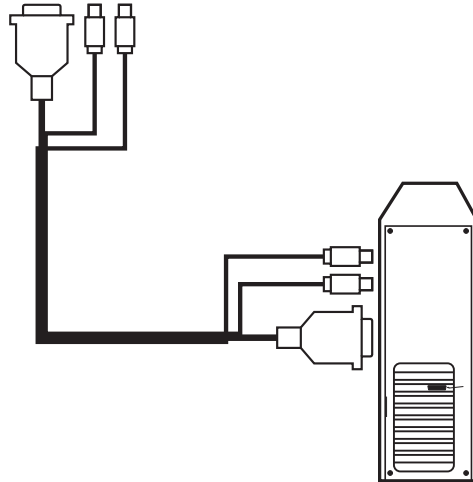
9. Connect the power supply to the power jack on the switch module. See Figure 3-13.



3.2 Installation

To install a non Centronics compatible KVM switch module in the ServTra , refer to the user's manual for that module.

The 1-port PS/2 and USB switch module includes ke board, mouse, and monitor connections as sho n in Figure 3-14.



4. Operation

4.1 KVM Control and Status LEDs

KVM control and status information applies only if an 8- or 16-port KVM switch module (KVT4S8UV, KVT4S16UV, KVT4S8PV, or KVT4S16PV) is installed in the ServView V Tray. It does not apply to the 1-port KVM switch module (KVT4S1UV). Figures 4-1 and 4-2 show the ServView V Tray's LCD monitor function buttons and computer selection buttons. An LED lighting bar is at the edge of the handle. Table 4-1 describes the buttons' and LEDs' functions.

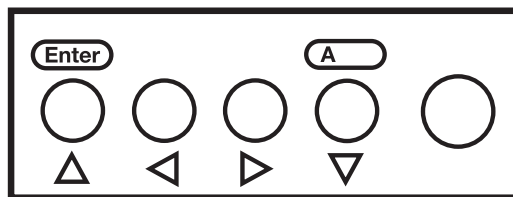


Table 4-1. Front-panel function buttons (operate only if a KVM switch card is installed).

Button or LED	Function	Description
1	Computer selection button (lower)	Press one of these push buttons to select a computer port. For 16-port models, 1–8 represent the lower 8 ports and A–H represent the higher 8 ports. Ports 1 and A share the same push button. If Port 1 is already selected, tap its push button to select Port A. If Port 1 is not selected, press and hold push button 1 for two seconds to select Port 1.
2	Computer selection LED (upper)	When computer Ports 1–8 are selected, this indicator lights red. When computer Ports A–H are selected, the indicator lights flash red.
3	LCD power button	Press this button to turn on power. When power is on, the LCD lights.
4	Auto key	Press this dual-function button to automatically adjust the best setting for the current display signal. When using the OSD menu, press the Auto key to exit. When the unit is operating, turn on the OSD menu to set the LCD panel as an ordinary LCD monitor.
5	+ key	When using the OSD submenu, press this dual-function key to increase the value. When using the OSD menu, press this dual-function key to move to the next item.
6	- key	When using the OSD submenu, press this dual-function key to decrease the value. When using the OSD menu, press this dual-function key to move to the previous item.
7	Enter key	Press this dual-function key to start the OSD function. When using the OSD menu, press this dual-function key to enter the OSD submenu.

4.2 Extra Keyboard and Mouse Control

The ServView V KVM Tray supports all wireless keyboards and mice, so you can extend your keyboard and mouse control without cable. Typically, you can manage all your servers within 30 feet (10 m) of the ServTray.

NOTE

You can even install a wireless transceiver in a hidden compartment for an extra keyboard/mouse. Push and lift the lid as shown in Figure 4-3.

Via a slide switch, choose wireless keyboard and mouse combination or wireless mouse only for a keyboard/mouse transceiver.

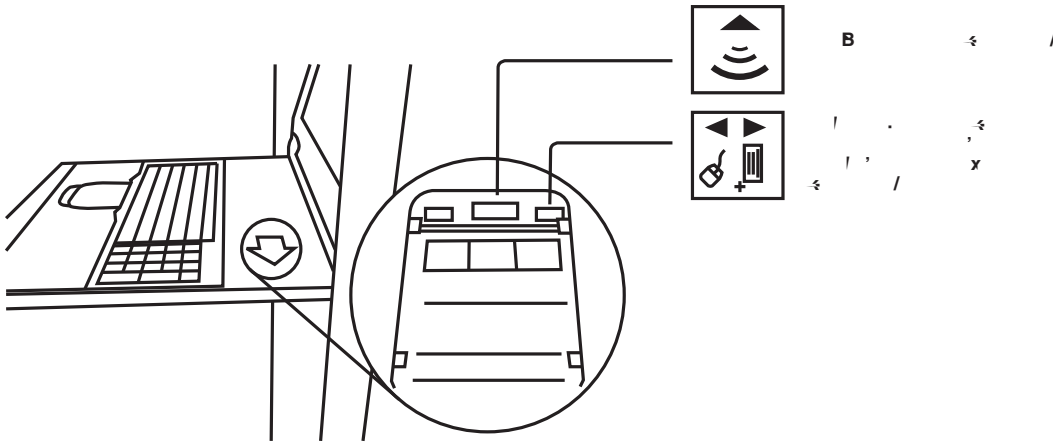


Figure 4-3. Hidden compartment for wireless transceiver.

An expanded USB Type A connector underneath the drawer is shown in Figure 4-3.

Slide the switch to the keyboard and mouse combo position or to the mouse-only position for an expanded keyboard/mouse transceiver. See Figure 4-4.

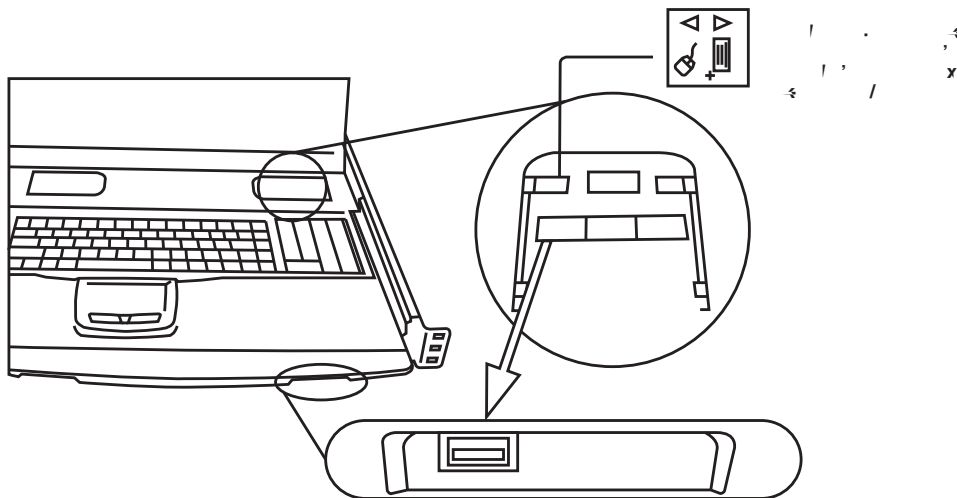
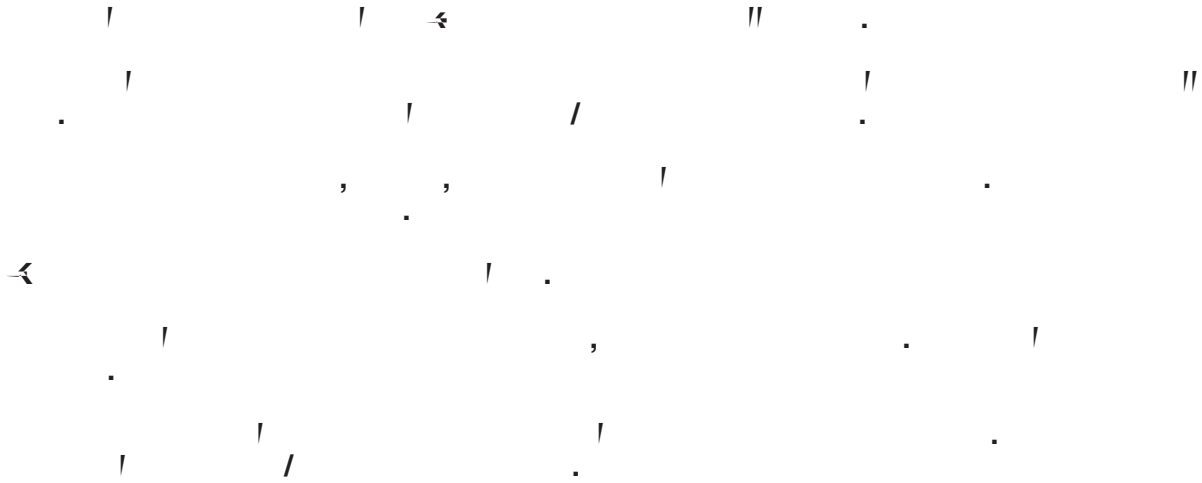


Figure 4-4. USB Type A connector for corded or cordless keyboard and mouse.

4.3 Opening and Closing the Console

The ServView Tra contains two parts: LCD monitor and keyboard/touch pad. You can slide the two parts together or separate them. This enables users to view the LCD monitor without pulling out the keyboard.

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4.3.1 OPENING THE CONSOLE

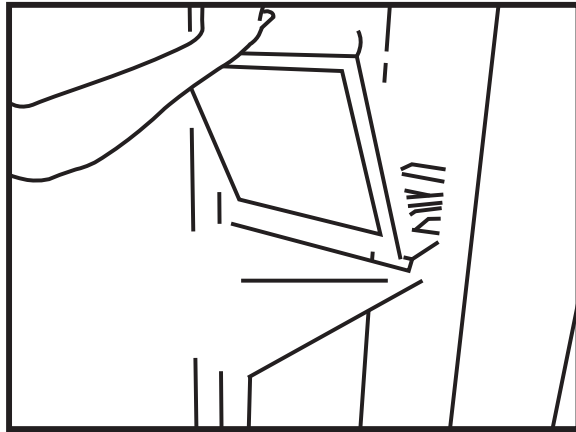
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1. You can pull out the LCD monitor and keyboard/touch pad together. See Figure 4-5.



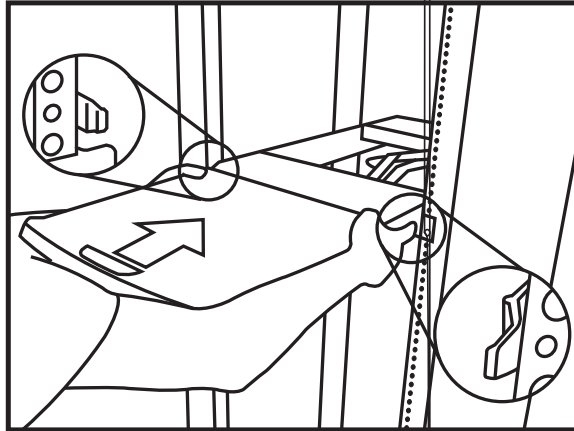
SERVVIEW V KVM TRAY

- When it rests at the position shown, lift out the LCD panel at an angle appropriate for screen display. See Figure 4-6.



4.3.2 CLOSING THE CONSOLE

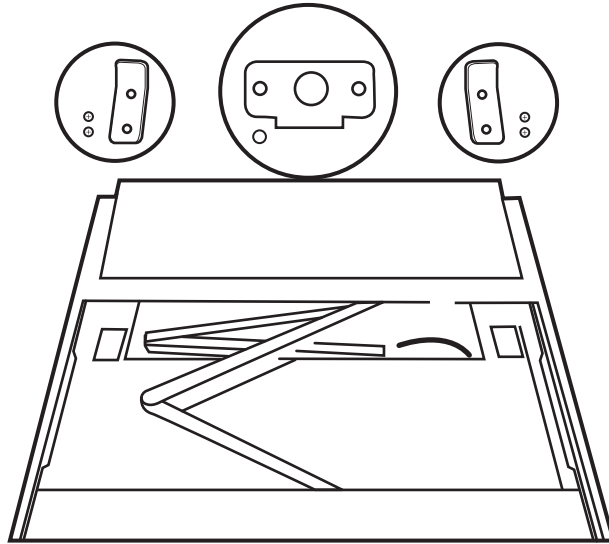
1. Fold the LCD monitor.
2. Holding the handle, push the folded monitor back evenly.
3. Press the two metal plates down together and push the console back slowly and evenly. See Figure 4-8.



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4.3.3 OPENING THE KEYBOARD/TOUCH PAD AND LCD MONITOR INDIVIDUALLY

1. To pull out the keyboard/touch pad independently, you must first remove the two pairs of screws fastened on a bracket at the keyboard's upper cover on the ends of the left and right sides. See Figure 4-9.

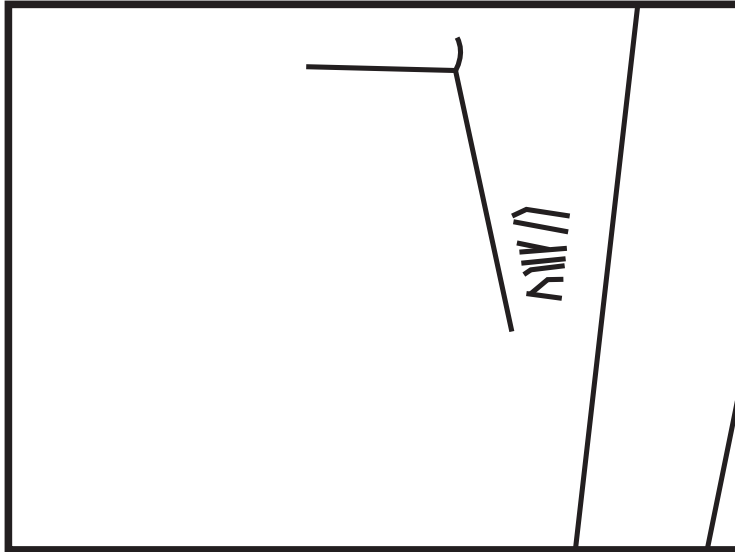


4.4 Replacing the Keyboard and Touch Pad

4.4.1 REMOVING THE KEYBOARD

You can remove the keyboard for a language change or maintenance.

1. Pull the keyboard out to the end and unfold the LCD monitor. See Figure 4-11.



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4.4.2 REPLACING THE KEYBOARD

1. When installing a keyboard, make sure you place the cable flat inside the tray.
2. Hold the keyboard evenly with both hands and place it over the foam. Do not use one hand to squeeze the keyboard inside the tray.
3. Double-check that the USB cable is placed inside the tray without any twist.
4. Plug in the keyboard connector firmly. See Figures 4-13 through 4-17.

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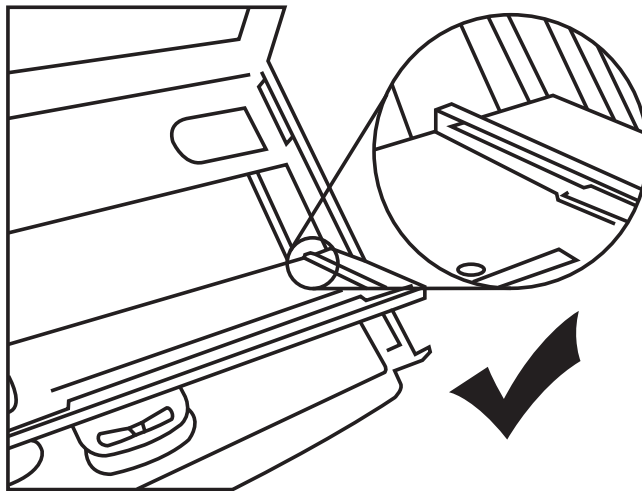
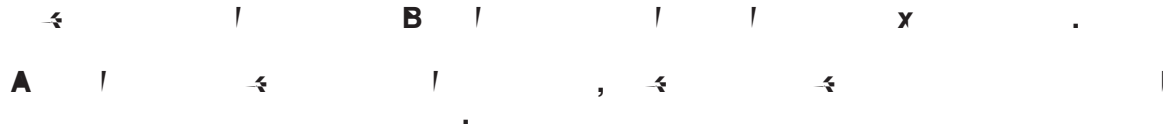


Figure 4-13. Correct way to replace the keyboard, diagram #1.

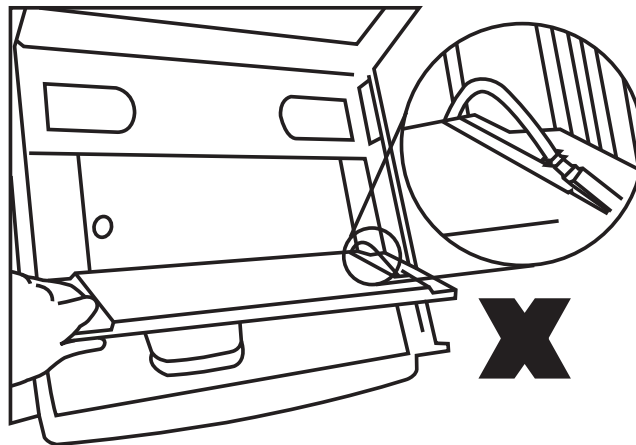


Figure 4-14. Wrong way to replace the keyboard, diagram #1.

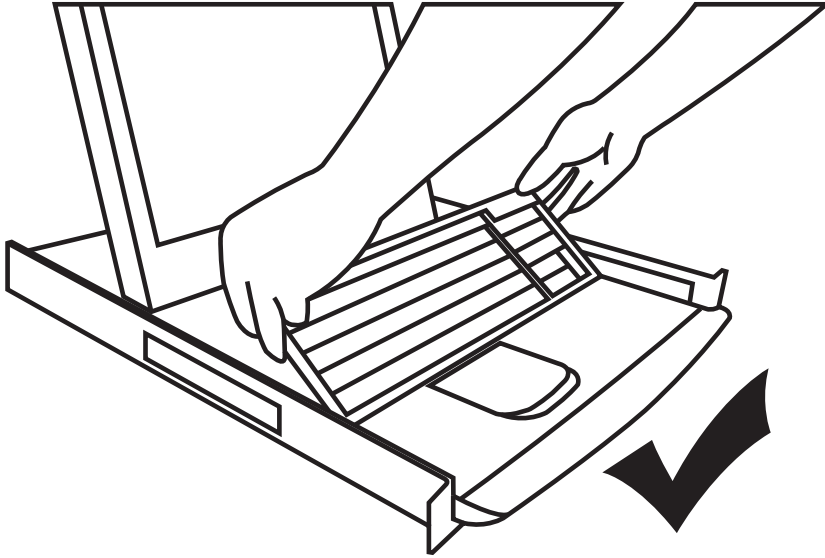


Figure 4-15. Correct way to replace the keyboard, diagram #2.

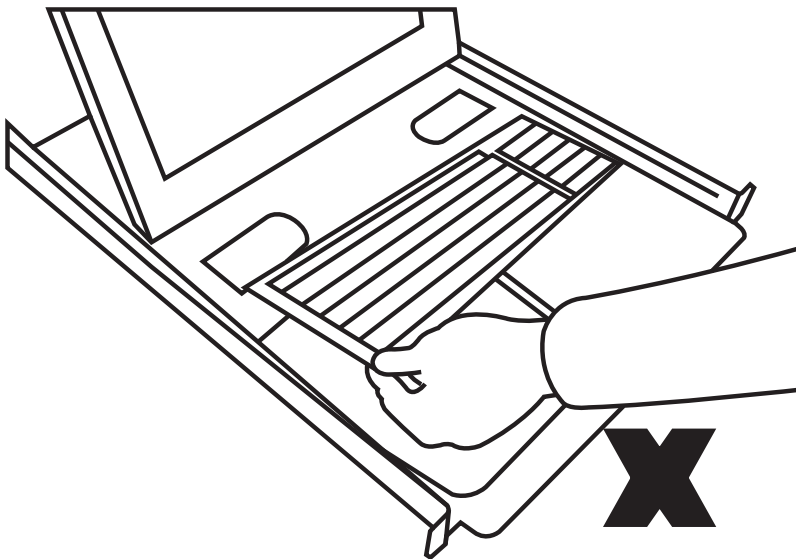
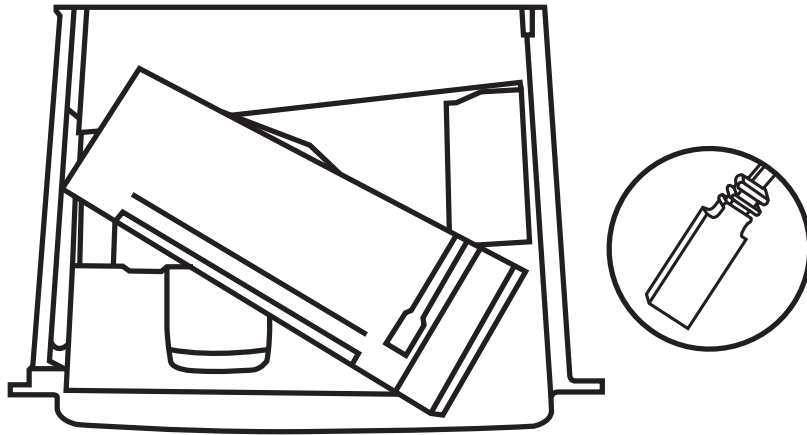


Figure 4-16. Wrong way to replace the keyboard, diagram #2.

SERVVIEW V KVM TRAY



2. Use the included screw tapping screws to fasten the the keyboard and tray together as shown in Figure 4-19.

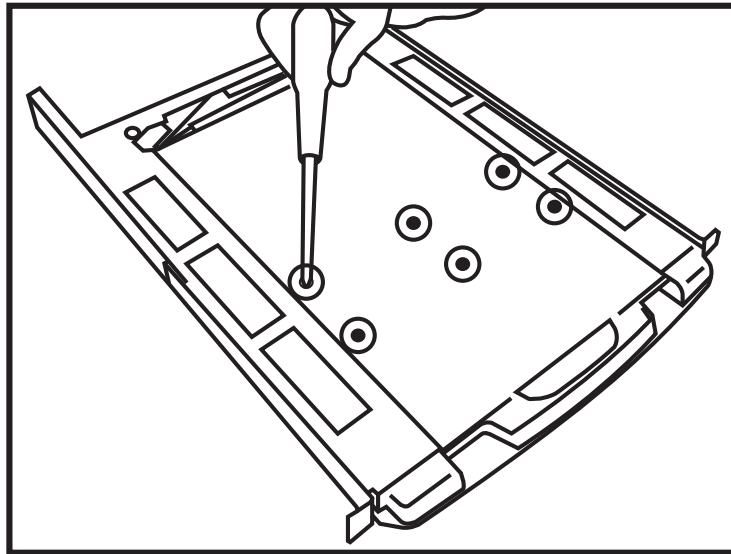
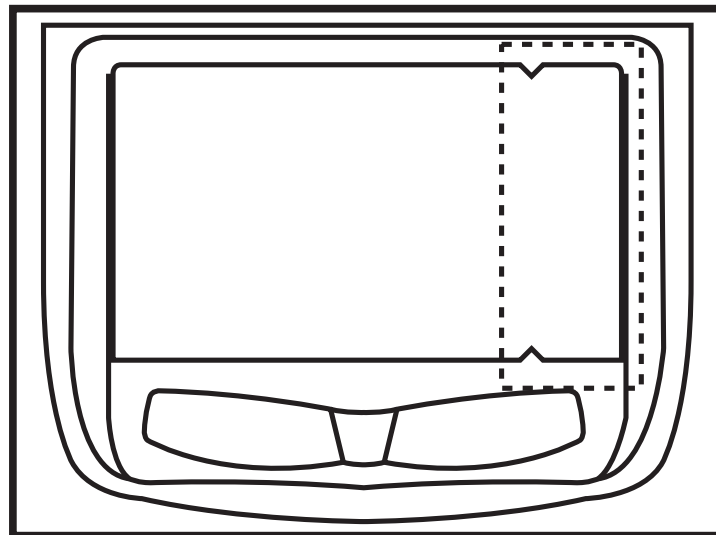


Figure 4-19. Fasten the keyboard and tray together.

4.4.4 REPLACING THE TOUCH PAD

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The right side of the touch pad simulates a heel mouse. When touching this area, you will see two small triangular marks (this is the simulated heel). See Figure 4-20.



1. To remove the touch pad, press the tab underneath it upward to release the latch. See Figure 4-21.

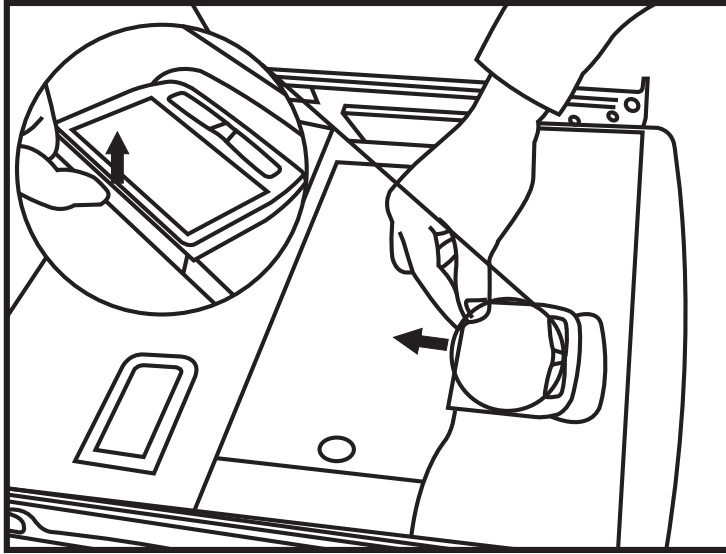


Figure 4-21. Releasing the latch on the touchpad.

2. Then slide the touch pad outward until it is lifted up and is clear from the notches, as shown in Figure 4-22.

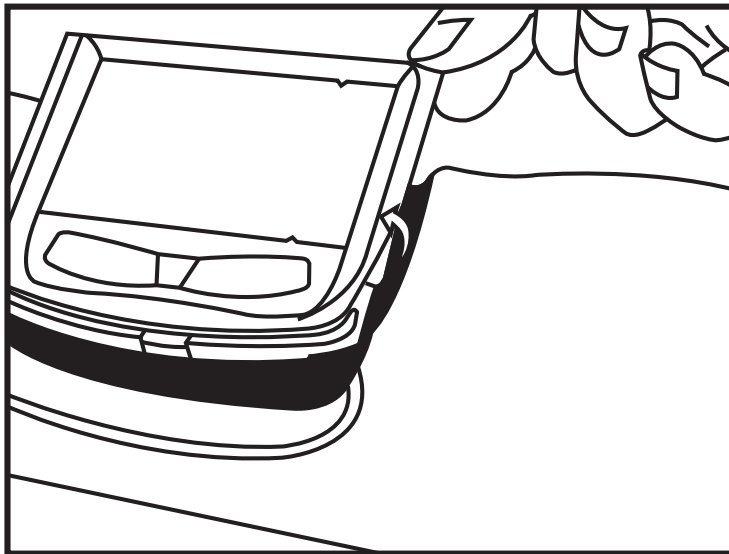


Figure 4-22. Removing the touch pad.

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The touch pad attaches to the tray via a mini-USB cable.

To replace the touch pad, adjust the length of the mini USB cable and slide the touch pad all the way in until you hear a clicking sound that indicates the touch pad is locked into position. See Figure 4-23.

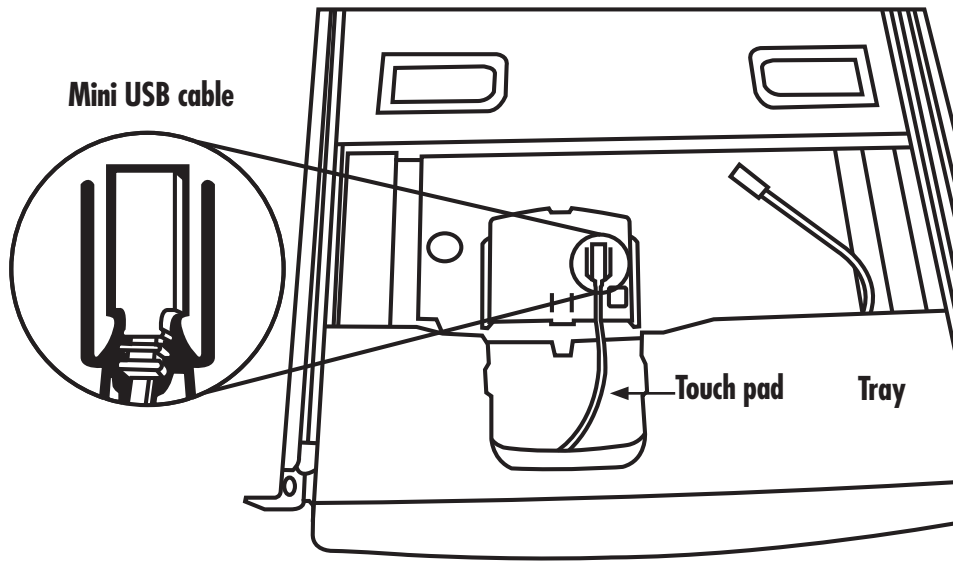


Figure 4-23. Installing the touchpad.

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5. Troubleshooting

5.1 Calling Black Box

If you determine that your ServView V KVM Tray is malfunctioning, do not attempt to alter or repair the unit. It contains no user-serviceable parts. Contact Black Box, at 724-746-5500.

Before you do, make a record of the history of the problem. We will be able to provide more efficient and accurate assistance if you have a complete description, including:

- the nature and duration of the problem.

- when the problem occurs.

- the components involved in the problem.

- any particular application that, when used, appears to create the problem or make it worse.

5.2 Shipping and Packaging

If you need to transport or ship your ServView V KVM Tray :

- Package it carefully. We recommend that you use the original container.

- If you are shipping the ServView for repair, make sure you include everything that came in the original package. Before you ship, contact Black Box, to get a Return Authorization (RA) number.