

# USER MANUAL

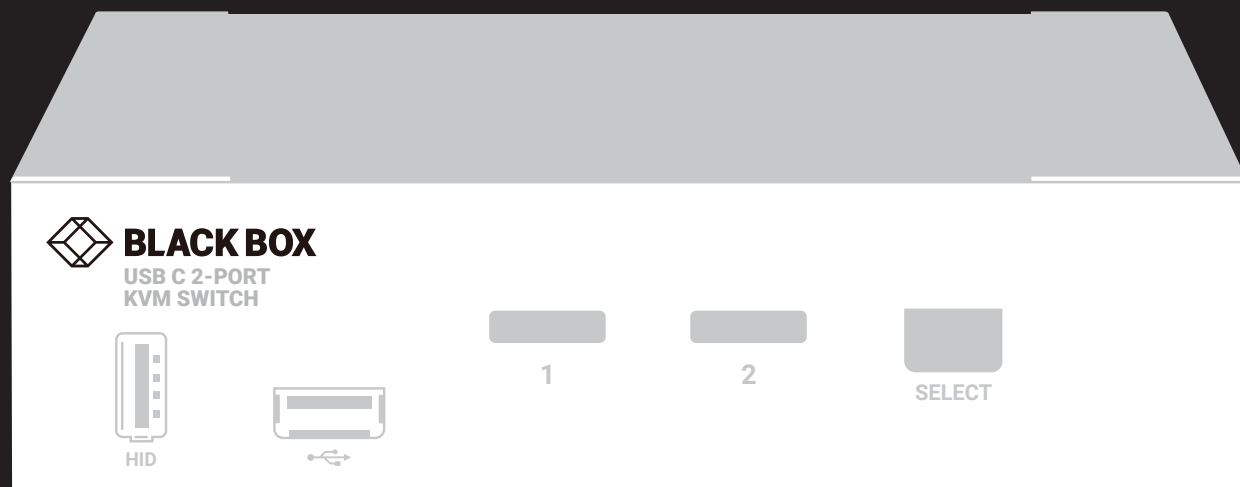
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KVMC4K-2P

# 4K 2-PORT KVM SWITCH, USB C, DISPLAYPORT

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24/7 TECHNICAL SUPPORT AT 1.877.877.2269 OR VISIT [BLACKBOX.COM](http://BLACKBOX.COM)



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# CHAPTER 1: SPECIFICATIONS

**TABLE 1-1. SPECIFICATIONS**

<b>SPECIFICATION</b>	<b>DESCRIPTION</b>
Approvals	FCC, CE, VCCI, RoHS
Video Resolution (Maximum)	3840 x 2160 @ 60 Hz (4:4:4)
Connectors	Computer Interface (Video and USB input): (2) USB Type C; Console Interface: USB 3.0 Port: (1) USB Type A (front), (1) USB Type A (rear); USB HID Port: (1) USB Type A (front), (3) USB Type A (rear); Video Output: (1) DisplayPort
Indicators	(4) LEDs: (2) Computer Ready LEDs (green); (2) Computer Selected LEDs (red)
User Controls	(1) Pushbutton (for selection); (1) Mode Switch: 4K @ 60 Hz + U2 (picture oriented); 4K @ 60 Hz (4:2:0) +U3 or 4K @ 30 Hz (4:4:4) + U3 (USB speed oriented); Keyboard Hotkeys
Automatic Scan Interval	3, 8, 15, 30 seconds
Power Supply	9 to 12 VDC
Dimensions	1.6" H x 8.7" W x 5.2" D (4 x 22 x 13 cm)
Weight	1.35 lb. (0.615 kg)

**NOTE:** Switch between 3G and 6G modes ONLY when power is NOT connected.

## CHAPTER 2: OVERVIEW

### 2.1 INTRODUCTION

The 4K 2-Port KVM Switch with USB-C, DisplayPort allows two USB-C enabled computers to share multiple USB peripherals (four HID devices plus two USB 3.0 devices).

### 2.2 FEATURES

- ◆ Allows two Type-C (DP Alt Mode) Devices to share USB Console and Peripherals ([4] HID devices + [2] USB 3.0 devices)
- ◆ Supports maximum resolution of 3840 x 2160 @ 60 Hz (4:4:4)
- ◆ Enables Keyboard and mouse plug and play without drivers
- ◆ Has front-panel buttons/hotkey for easy computer selection and auto-scan function
- ◆ Offers selectable scan time function
- ◆ Supports Windows and Mac with no software required
- ◆ Select between 4K 6 G + USB 2.0 (picture oriented) and 4K 3G + USB 3.0 (USB oriented)
- ◆ Features front USB/USB HID design for easy access of USB devices

### 2.3 WHAT'S INCLUDED

- ◆ (1) KVM Switch
- ◆ (1) power adapter with necessary AC cord or (1) plug-in power adapter
- ◆ (1) set of foot pads

### 2.4 SYSTEM REQUIREMENTS

Console side:

- ◆ (1) DisplayPort monitor
- ◆ (1) USB Keyboard
- ◆ (1) USB mouse

Computer side:

- ◆ (1) USB-enabled computer
- ◆ (1) USB Type-C cable



## CHAPTER 2: OVERVIEW

### 2.5 HARDWARE DESCRIPTION

Figures 2-1 and 2-2 show the front and back panels of the 4K 2-Port KVM Switch with USB-C, DisplayPort. Tables 2-1 and 2-2 describe their components.

#### 2.5.1 FRONT PANEL

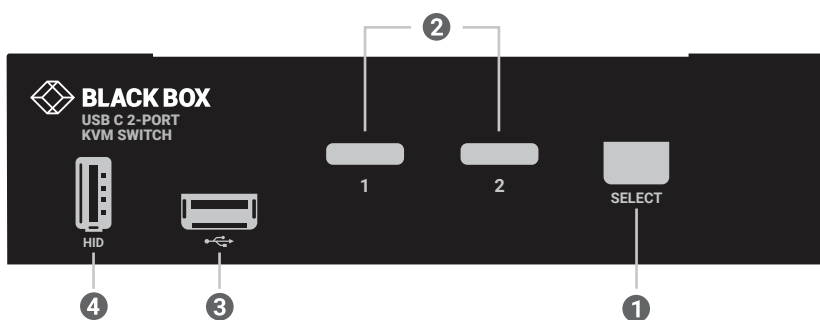


FIGURE 2-1. FRONT PANEL OF THE KVMC4K-2P

TABLE 2-1. FRONT-PANEL COMPONENTS

NUMBER IN FIGURE 2-1	COMPONENT	DESCRIPTION
1	Port Selection button	Press the button to select a computer
2	Port Status LEDs	Green: Computer connected (Power On); Red: Computer selected (Power On)
3	USB 3.0 port	Links to USB 3.0 device
4	USB HID port	Links to USB HID device (keyboard, mouse, etc.)

## CHAPTER 2: OVERVIEW

### 2.5.2 BACK PANEL

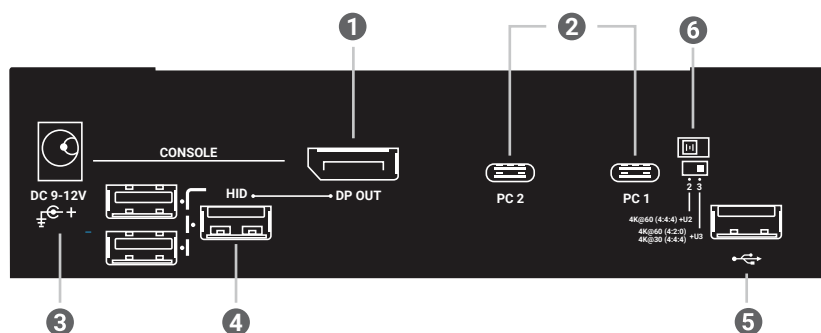


FIGURE 2-2. BACK PANEL OF THE KVMC4K-2P

TABLE 2-2. BACK-PANEL COMPONENTS

NUMBER IN FIGURE 2-2	COMPONENT	DESCRIPTION
1	Console Video port	Connects to DisplayPort monitor
2	USB Type C port	Connect to PC's Type C port
3	Power supply	Apply appropriate 12 VDC power to KVM switch
4	USB HID port	Links to USB HID device (keyboard, mouse, etc.)
5	USB 3.0 port	Links to USB 3.0 device
6	Mode Select switch	Switch between 3G + USB 3.0 and 6G + USB 2.0

NOTE: Switch between 3G and 6G modes ONLY when power is NOT connected.

## CHAPTER 3: INSTALLATION

Before installation, power off all devices that will be connected to this system.

- Make sure that all devices you will connect are properly grounded.
- Place cables away from fluorescent lights, air conditioners, and machines that are likely to generate electrical noise.

### 3.1 CONSOLE CONNECTION

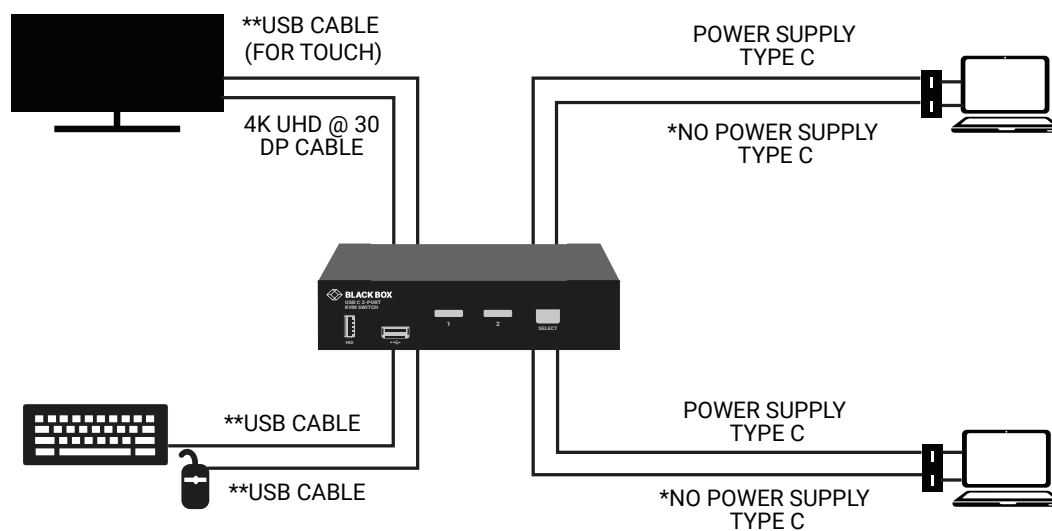
1. Plug the monitor(s) into the Console Video port; plug a USB keyboard and USB mouse into the corresponding USB HID ports on the Console.

### 3.2 COMPUTER CONNECTION

1. Use Type-C cable(s) to connect the computer and the unit's PC side.
2. Plug the power adapter from an appropriate DC power source to the switch power port.

### 3.3 CONNECTION PATTERN

Figure 3-1 shows a typical installation of the 4K 2-Port KVM Switch with USB-C, DisplayPort.



\*KVM'S TYPE C CONNECTOR DOES NOT SUPPLY POWER.

POWER SUPPLY IS REQUIRED FOR MAC PRO.

\*\*REQUIRES 10 GB USB C CABLES

FIGURE 3-1. TYPICAL INSTALLATION

# CHAPTER 4: HOTKEYS

## 4.1 HOTKEY CONTROL

TABLE 4-1. HOTKEY CONTROL

KEY SEQUENCE	FUNCTION
"Ctrl" + "Ctrl" + "1-2"	Selects the computer at port 1 - 2
"Ctrl" + "Ctrl" + "F1"	Start Auto Scan
"Ctrl" + "Ctrl" + "F2"	Start Manual Scan: Allows users to manually switch back and forth between powered-on computers. Press the up-arrow or down-arrow key to select the previous or the next computer.
"Ctrl" + "Ctrl" + "F3"	Adjust Scan Rate: The KVM switch generates 1 to 4 beeps indicating duration of scan time for 3, 8, 15 and 30 seconds respectively.
"Ctrl" + "Ctrl" + "F7"	Turn ON/OFF the USB-Port Rule (USB device follows selected computer or not)

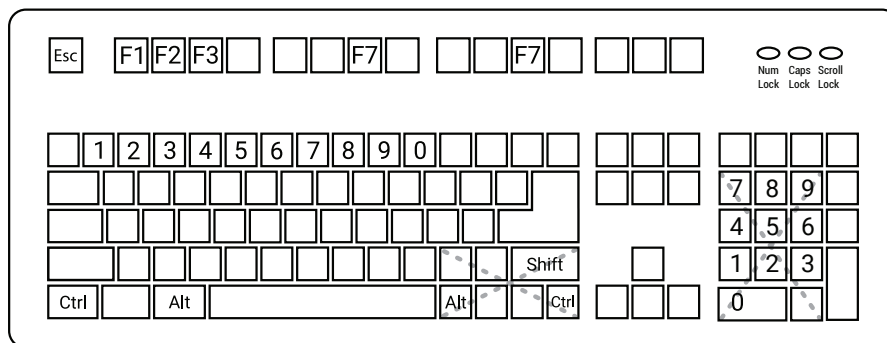


FIGURE 4-1. SAMPLE KEYBOARD

NOTE: Do not use the keypad on the right of the keyboard.



## CHAPTER 4: HOTKEYS

### 4.2 ALTERNATIVE HOTKEY COMMANDS

In addition to the Left Ctrl + Left Ctrl hotkeys, there are two alternative hotkey sequences available.

1. For the following operations, users may press Scroll Lock twice instead of pressing Left Ctrl twice.

- ◆ To select a computer:

Press "Scroll Lock" + Press "Scroll Lock" + Press "1"

(Example: Select the computer at port 1.)

Press "Scroll Lock" + Press "Scroll Lock" + Press "2"

(Example: Select the computer at port 2.)

2. For those keyboards do not have or support Scroll Lock, press and HOLD the Left Shift and press Num Lock twice instead of pressing Left Ctrl twice.

- ◆ To select a computer:

Hold Left "Shift" + Press "Num Lock" + Press "Num Lock" then release shift + Press "1"

(Example: Select the computer at port 1.)

Hold Left "Shift" + Press "Num Lock" + Press "Num Lock" then release shift + Press "2"

(Example: Select the computer at port 2.)

**NOTE:** Do not use the keypad on the right of the keyboard.

## APPENDIX A: REGULATORY INFORMATION

### A.1 USA FEDERAL COMMUNICATIONS COMMISSION STATEMENT

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 designated to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy. If it is not installed and used in accordance to the instructions, it may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case users will be required to take whatever measures necessary to correct the interference at their own expense.

Properly shielded and grounded cables and connectors must be used in order to meet FCC emission limits. Dell Networking is not responsible for any radio or television interference caused by using other than recommended cables and connectors or by unauthorized changes or modifications in the equipment. Unauthorized changes or modification could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.



## APPENDIX A: REGULATORY INFORMATION

### A.2 NOM STATEMENT

1. Todas las instrucciones de seguridad y operación deberán ser leídas antes de que el aparato eléctrico sea operado.
2. Las instrucciones de seguridad y operación deberán ser guardadas para referencia futura.
3. Todas las advertencias en el aparato eléctrico y en sus instrucciones de operación deben ser respetadas.
4. Todas las instrucciones de operación y uso deben ser seguidas.
5. El aparato eléctrico no deberá ser usado cerca del agua—por ejemplo, cerca de la tina de baño, lavabo, sótano mojado o cerca de una alberca, etc.
6. El aparato eléctrico debe ser usado únicamente con carritos o pedestales que sean recomendados por el fabricante.
7. El aparato eléctrico debe ser montado a la pared o al techo sólo como sea recomendado por el fabricante.
8. Servicio—El usuario no debe intentar dar servicio al equipo eléctrico más allá a lo descrito en las instrucciones de operación. Todo otro servicio deberá ser referido a personal de servicio calificado.
9. El aparato eléctrico debe ser situado de tal manera que su posición no interfiera su uso. La colocación del aparato eléctrico sobre una cama, sofá, alfombra o superficie similar puede bloquea la ventilación, no se debe colocar en libreros o gabinetes que impidan el flujo de aire por los orificios de ventilación.
10. El equipo eléctrico deber ser situado fuera del alcance de fuentes de calor como radiadores, registros de calor, estufas u otros aparatos (incluyendo amplificadores) que producen calor.
11. El aparato eléctrico deberá ser conectado a una fuente de poder sólo del tipo descrito en el instructivo de operación, o como se indique en el aparato.
12. Precaución debe ser tomada de tal manera que la tierra física y la polarización del equipo no sea eliminada.
13. Los cables de la fuente de poder deben ser guiados de tal manera que no sean pisados ni pellizcados por objetos colocados sobre o contra ellos, poniendo particular atención a los contactos y receptáculos donde salen del aparato.
14. El equipo eléctrico debe ser limpiado únicamente de acuerdo a las recomendaciones del fabricante.
15. En caso de existir, una antena externa deberá ser localizada lejos de las líneas de energía.
16. El cable de corriente deberá ser desconectado del cuando el equipo no sea usado por un largo periodo de tiempo.
17. Cuidado debe ser tomado de tal manera que objetos líquidos no sean derramados sobre la cubierta u orificios de ventilación.
18. Servicio por personal calificado deberá ser provisto cuando:
  - A: El cable de poder o el contacto ha sido dañado; u
  - B: Objetos han caído o líquido ha sido derramado dentro del aparato; o
  - C: El aparato ha sido expuesto a la lluvia; o
  - D: El aparato parece no operar normalmente o muestra un cambio en su desempeño; o
  - E: El aparato ha sido tirado o su cubierta ha sido dañada.

## APPENDIX A: REGULATORY INFORMATION

### A.3 CE MARK

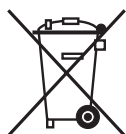
This product conforms to European Standard EN 55032, EN 55024, EN 61000-3-2, EN 610003-3.

### A.4 JAPAN VCCI COMPLIANCE FOR CLASS A EQUIPMENT

この装置は、情報処理装置等電波障害自主規制協議会（VCCI）の基準に基づくクラスA情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。

This is a Class A product. In a domestic environment this product may cause radio interference, in which case the user may be required to take corrective actions.

### A.5 ROHS



You must recycle or discard this product according to applicable local and national regulations. Black Box encourages owners of information technology (IT) equipment to responsibly recycle their equipment when it is no longer needed.

#### Waste Electrical and Electronic Equipment (WEEE) Directive for Recovery, Recycle and Reuse of IT and Telecommunications Products

This product is labeled in accordance with European Directive 2002/96/EC concerning waste electrical and electronic equipment (WEEE). The Directive determines the framework for the return and recycling of used appliances as applicable throughout the European Union. This product is not to be thrown away, but rather reclaimed upon end of life per this Directive.

## APPENDIX B: DISCLAIMER/TRADEMARKS

### B.1 DISCLAIMER

Black Box Corporation shall not be liable for damages of any kind, including, but not limited to, punitive, consequential or cost of cover damages, resulting from any errors in the product information or specifications set forth in this document and Black Box Corporation may revise this document at any time without notice.

### B.2 TRADEMARKS USED IN THIS MANUAL

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# NOTES

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