

USER MANUAL

USBC2000-4KDUAL

USB-C DOCKING STATION - 4K, DUAL

24/7 TECHNICAL SUPPORT AT 1.877.877.2269 OR VISIT BLACKBOX.COM



BLACK BOX®

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SAFETY INSTRUCTIONS

SAFETY INSTRUCTIONS

Always read the safety instructions carefully:

- ♦ Keep this User Manual for future reference.
- ♦ Keep this equipment away from humidity.
- ♦ Indoor use only.
- ♦ The equipment is only suitable for mounting at heights ≤ 6.5 feet (2 m).
- ♦ The marking information is located at the bottom of apparatus.

If any of the following situation arises, get the equipment checked by a service technician:

- ♦ The equipment has been dropped and damaged.
- ♦ The equipment has obvious sign of breakage.
- ♦ The equipment has not been working well or you cannot get it to work according to the User Manual.

CHAPTER 1: OVERVIEW

1.1 OVERVIEW

The Black Box USB-C Docking Station - 4K, Dual (USBC2000-4KDUAL) with PD/Alt mode/KVM sharing for Laptops/Desktops/Tablets* merges cutting-edge technology and high-quality hardware with innovative design elements.

With the KVM sharing features, the docking station allows the user to switch the display (HDMI/DP/DP) monitors/USB – peripherals via multi-switch mode, with a dual host (desktop/laptop/tablet*) at the same time and move the mouse/touchpad cursor between different hosts.

* NOTE: Some tablets and smartphones may not work properly with docking due to the constraints of OS and HW devices. Visit <https://support.displaylink.com/> for more information. For best experience, we recommend connecting a docking station only with a desktop or laptop.

NOTE: The Docking Wizard software is for Windows® and macOS® only.

1.2 SYSTEM REQUIREMENTS

Operating System:

- ◆ Windows 11, 10, and 8.1,
- ◆ macOS 10.14 or above

Host Computer:

- ◆ An available USB Type-C 3.2 Gen 1x1 or above port with DP Alt mode function
- ◆ Compatible with Thunderbolt 3 or above

NOTE: Not all USB-C Ports support the full functionality of the USB-C standard.

Ensure that the Host Computer's USB-C port supports DP Alt Mode, as well as USB Power Delivery.

Display (connect to two displays at one time: either [2] DP or [1] DP and [1] HDMI):

- ◆ One HDMI Display
- ◆ Two DisplayPort™ Displays

NOTE: A 4K-capable display is required to achieve 4K x 2K resolution (4K is also known as 4K x 2K).

- ◆ The behavior of Alt Mode depends on the compatibilities between Host and Monitor.
- ◆ In a multi-display configuration, set the same refresh rates on each of your connected monitors. Otherwise your monitors might not display properly. Video output capabilities are dependent on the video card and hardware specifications of your connected host laptop.

Cables:

Cables must contain the E-marker chip inside to support 5A, 20V power delivery and will depend on the port configuration of the connected Host Computer.

- ◆ USB Keyboard/Mouse
- ◆ USB-A Cables
- ◆ USB-C Cables (E-Marker Chipset inside with cable supporting 5A, 20V rating)
- ◆ HDMI Cable
- ◆ DisplayPort Cables
- ◆ CAT5e/CAT6 Cable



CHAPTER 1: OVERVIEW

Optional Accessories:

- ◆ Laptop Lock
- ◆ Microphone
- ◆ Speakers
- ◆ Headset



CHAPTER 2: QUICK INSTALLATION/SETUP

2 QUICK INSTALLATION/SETUP

2.1 KEY FEATURES

- ◆ USB 3.2 Gen 2X1 Data Transfer Rate
- ◆ KVM - (Keyboard & Mouse) Sharing & Display Switch
- ◆ (2) USB C to C cables with E-marker chip inside (Rating 5A, 20V)
- ◆ LED Indicator
- ◆ Power on/off switch
- ◆ (1) KVM Switch/KVM **Host switch by Hot Key (111/211/222/122)
- ◆ (2) DP Ports 4K/ 60Hz with x 1 HDMI - 4K/ 60Hz (When DP 1.4 is supported)
- ◆ (2) Type-C Ports Support Dual 100W Power Delivery to the Hosts
- ◆ (1) Security lock slot (K-slot)
- ◆ (1) Docking station VESA mounting bracket

2.2 WHAT'S INCLUDED

- ◆ (1) USB-C Triple Video Docking Station W/PD
- ◆ (2) USB-C to C Cable
- ◆ (1) Power Adapter, 230 W (20 V/11.5 A)
- ◆ (1) Docking Station VESA Mount

2.3 I/O DESCRIPTION

2.3.1 FRONT PANEL



FIGURE 2-1. FRONT PANEL

TABLE 2-1. FRONT-PANEL COMPONENTS

NUMBER IN FIGURE 2-1	COMPONENT	DESCRIPTION
1	(1) Power LED indicator	Lights ON or OFF for Power
2	(1) A/B switch button	Switches different displays, Ethernet, audio, and downstream ports between host computers 1 and 2
3	(2) USB Type A connectors	Link to USB 2.0 keyboard and mouse
4	(2) Audio IN/OUT connectors	Connect to microphone and audio
5	(2) USB Type A downstream ports	Link to USB 3.2 Gen. 2 peripherals
6	(1) USB Type C connector	Attaches to USB 3.2 Gen. 2 peripheral

2.3.2 BACK PANEL

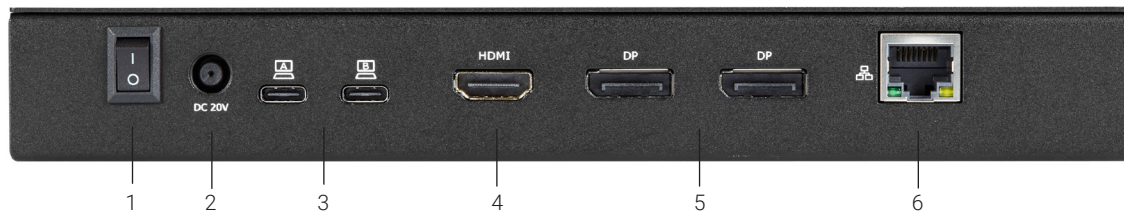


FIGURE 2-2. BACK PANEL

TABLE 2-2. BACK- AND SIDE-PANEL COMPONENTS

NUMBER IN FIGURE 2-2	COMPONENT	DESCRIPTION
1	(1) I/O switch	Powers on/off the docking station
2	(1) Power jack	Links to 20 VDC
3	(2) USB Type C connectors	Attach to source computers (Upstream port A: HOST1; port B: HOST2)
4	(1) HDMI female connector	Links to HDMI display
5	(2) DisplayPort™ female connectors	Connect to DisplayPort displays
6	(1) RJ-45 Gigabit LAN port	10/100/1000 Mbps Ethernet
7	(1) Lock slot (on side panel, not shown)	Used in combination with a laptop lock to secure the docking station

CHAPTER 2: QUICK INSTALLATION/SETUP

2.4 HARDWARE INSTALLATION

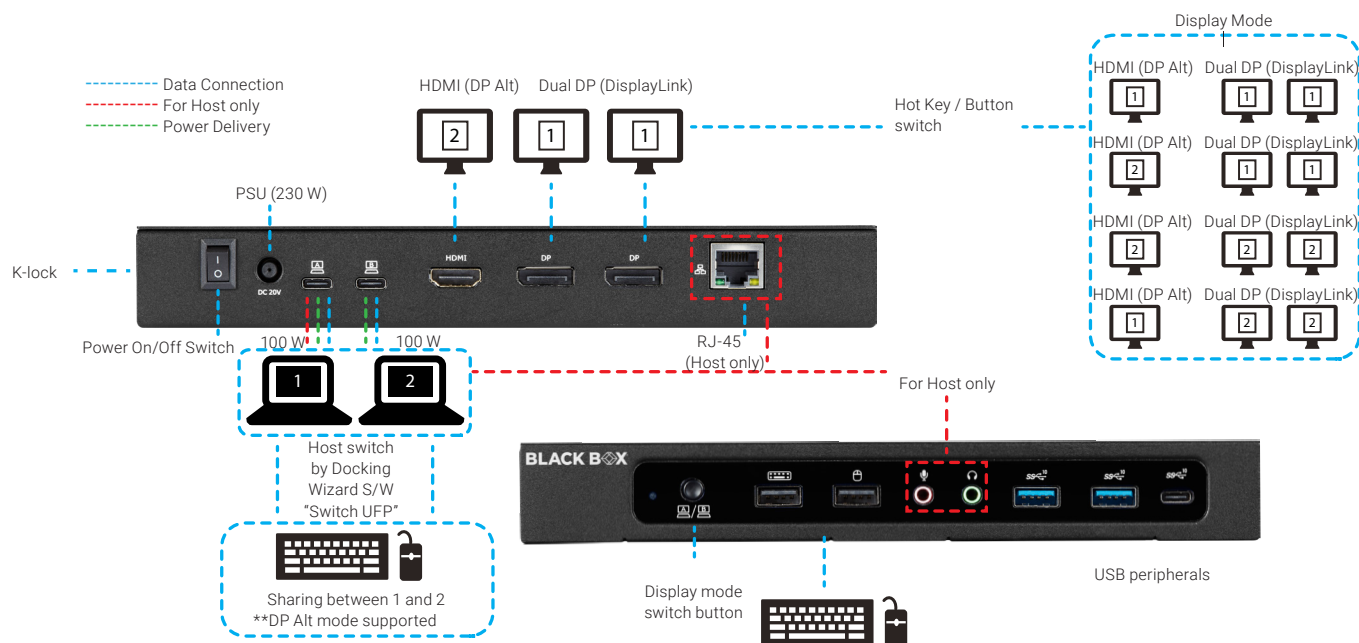


FIGURE 2-3. HARDWARE INSTALLATION

1. To download the software, go to blackbox.com. Enter USBC2000-4KDUAL in the search box. Click on the product on the "Products" page. Then click on the "Support" tab and select the Docking Wizard software. You may download the latest drivers for Windows®, macOS®, and Android OS from the following link: <http://www.displaylink.com/downloads/>
2. Connect the power adapter (PSU) to the DC jack on the docking station.
3. Connect the attached (2) USB-C to C cable to USB-C (upstream) ports (host 1/2) on the docking station and then to an available USB-C port on host 1/2.
4. Connect your DisplayPort™ and HDMI displays to the corresponding ports on the docking station.
5. Connect any other devices to the docking station, including an RJ-45 (Gigabit) device for network connection/USB peripherals/speakers and microphones.
6. Power on the docking station. It is now ready to use.

CHAPTER 2: QUICK INSTALLATION/SETUP

2.5 HOST (DISPLAY) SWITCH MODE

You can switch hosts to displays in three ways:

1. Switch by button: Press the button to switch to next host+ display mode (Mode: A)
2. Switch by Hotkey: Press "Shift" (Default) two times = Switch to next host+ display mode (Mode: A)
3. Switch by Docking Wizard software: Select "Switch UFP" (Upstream Facing Port) = Switch to different hosts (Mode: B)

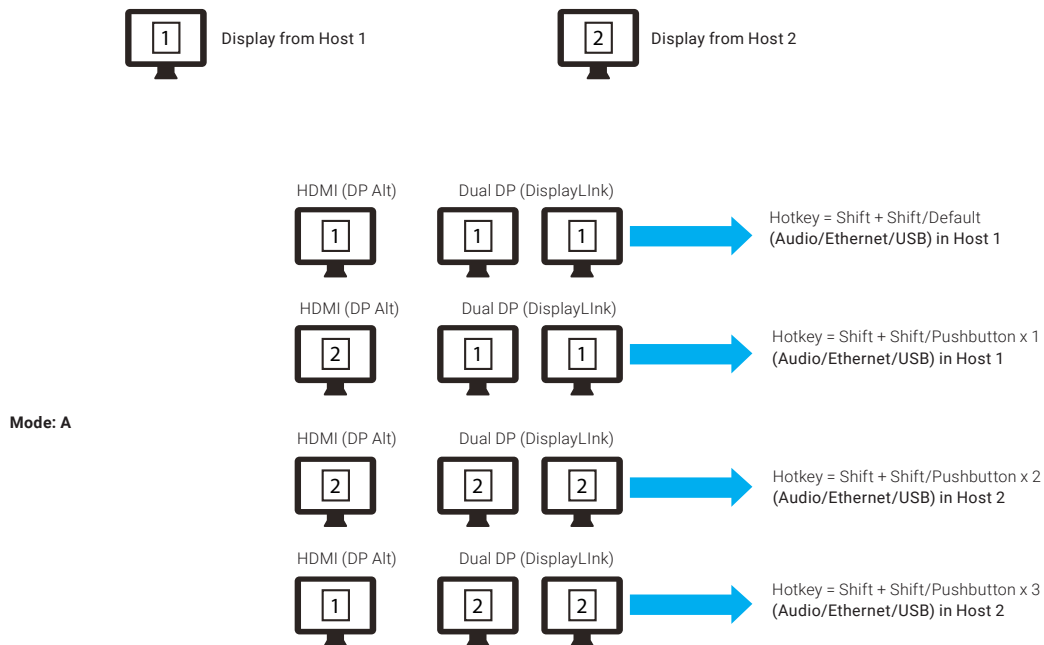


FIGURE 2-4. HOST+ DISPLAY SWITCH MODE

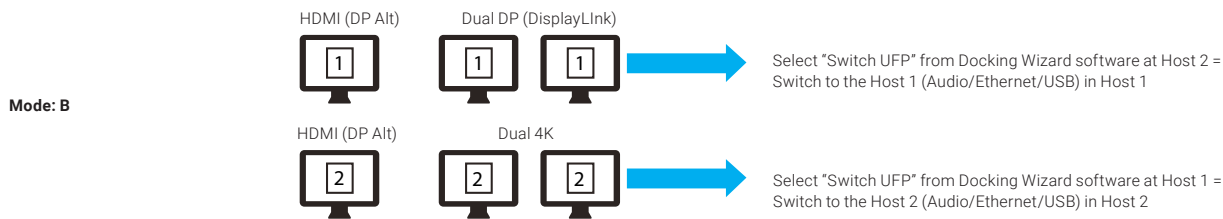


FIGURE 2-5. HOST SWITCH MODE BY "SWITCH UFP" UTILITY

CHAPTER 2: QUICK INSTALLATION/SETUP**TABLE 2-3. SPECIFICATIONS**

SPECIFICATION	DESCRIPTION
Interfaces	
Input	(2) USB 3.2 Gen 2 Type C female; (2) USB 2.0 Type A; (1) RJ-45 Network Connection
Output	(2) USB 3.2 Gen 2 Type A female; (1) USB 3.2 Gen 2 Type C female; (1) HDMI female; (2) DisplayPort™ female; (2) 3.5-mm Bidirectional Audio
Data Transfer Rate	10 Gbps
Maximum Resolution	
HDMI	4096 x 2160 at 30 Hz (when supported by host and display)
DisplayPort	4096 x 2160 at 60 Hz
Power	(2)100 W PD from 230 W Power supply
Operating Systems Supported	Windows 8.1 and later; Mac OS X 10.14 or above
Environments	
Operating Temperature	32 to 140° F (0 to 60° C)
Storage Temperature	-4 to +140° F (-20 to +60° C)
Operating Humidity	Less than 90% RH (no condensation)
Physical	
Dimensions	3.5" H x 8.6" W x 1.3" D (8.9 x 21.8 x 3.3 cm)
Weight	1.5 lb. (0.7 kg) unit only; 1.6 lb. (0.7 kg) power supply only
Regulatory Approvals	
Certifications	FCC Part 15, CE, WEEE; IEC 62368-1, ROHS, REACH



CHAPTER 3: DRIVER INSTALLATION

3. DRIVER INSTALLATION

Download the latest drivers (Installation Tool) for Windows® and macOS® from the following link: <http://www.displaylink.com/downloads/>

Supported operating systems include the following:

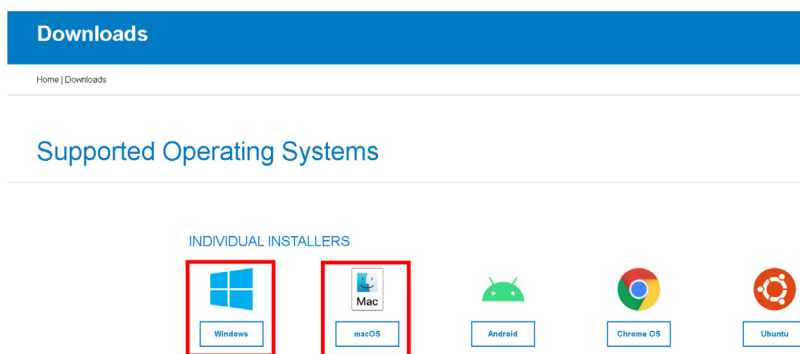


FIGURE 3-1. SUPPORTED OPERATING SYSTEMS

3.1 DISPLAYLINK DRIVER - WINDOWS

Download the latest official drivers from the DisplayLink website.



FIGURE 3-2. WINDOWS DRIVERS

3.2 DISPLAYLINK DRIVER - MAC OS

Download the latest official drivers from the DisplayLink website.



FIGURE 3-3. MAC OS DRIVERS

Follow the instructions to finish the installation process.

CHAPTER 3: DRIVER INSTALLATION

3.3 DISPLAYLINK USB GRAPHICS SOFTWARE

3.3.1 INTRODUCTION

The DisplayLink USB Graphics software enables you to easily connect extra monitors to your laptop or desktop PC's USB port.

The connected monitors can be configured to either mirror your main screen, or extend the Windows desktop allowing visibility of more applications at the same time. The DisplayLink USB Graphics devices can also be configured to be the primary display.

DisplayLink's Graphics Host Software allows full configuration of all additional USB displays, including:

- ◆ Support for Windows 8.1 and later
- ◆ Support for up to 6 additional USB Displays
- ◆ Resolutions up to 4K/60 Hz (product dependent)
- ◆ Rotation
- ◆ Layout of displays

DisplayLink software also provides drivers for Audio and Ethernet.

3.3.2 PC REQUIREMENTS

DisplayLink software can be used any ultrabooks, Windows tablets, notebooks/laptops, or desktops.

Software performance depends on the processing power available, as well as the operating system in use. More capable systems will provide better performance.

You can find detailed information about the minimum and recommended system specifications needed to run this software in the DisplayLink <http://support.displaylink.com/knowledgebase/articles/524951>

3.3.3 INSTALLATION – WINDOWS 8.1/10/11 SETUP

Step 1. Connect the Docking Station to your Laptop.

NOTE: We recommend that you download the latest drivers from the DisplayLink support website at: www.displaylink.com/support

Step 2. Run the Setup File which is download from the DisplayLink website:



FIGURE 3-4. DOWNLOAD SETUP FILE

CHAPTER 3: DRIVER INSTALLATION

Step 3. Follow the screen instructions until the installation is complete.

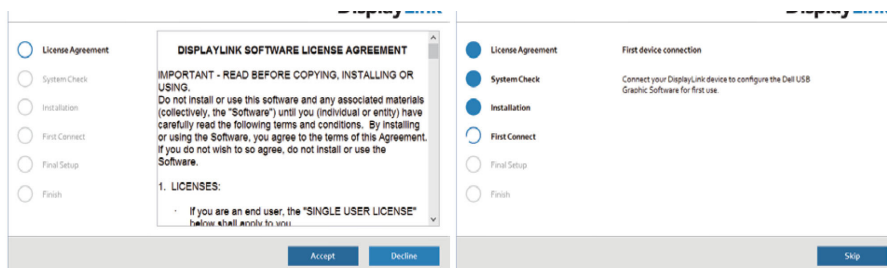


FIGURE 3-5. COMPLETE INSTALLATION

Step 4. Connect your Docking Station and peripherals to your PC (Host).

3.3.4 INSTALLATION

MacOS® 10.14 or above

DisplayLink software can be downloaded and installed from the DisplayLink website following the steps below.

Select the "DisplayLink Software Installer" to begin installation of the DisplayLink driver on your Mac.

This will run a standard Mac installer and will require a reboot once it has completed.



FIGURE 3-6. DISPLAYLINK INSTALLER SCREEN

CHAPTER 4: DOCKING WIZARD UTILITY (WINDOWS)

4. DOCKING WIZARD (KM SHARING) UTILITY (WINDOWS)

4.1 LIMITATION

1. The Docking Wizard Utility does not support a VM simulation system.
2. The Docking Wizard only works on USB 3.0/USB 3.1 host ports.
3. If the Docking Wizard is operating abnormally on one PC/MAC caused by entering sleep, suspend or restart, unplug both upstream ports, restart the software on both PC and MAC, and re-plug both upstream ports to restore the Docking Wizard's functionality.

4.2 SETUP AND INSTALLATION

Follow these steps for installation.

- a. Connect the Host 1 upstream port "A" (on the docking station) to the USB-C port of Host 1, and connect the Host 2 upstream port "B" (on the docking station) to the USB-C port of Host 2.
- b. Double-click the Black Box AppInstall.exe to start the installation, as shown below.

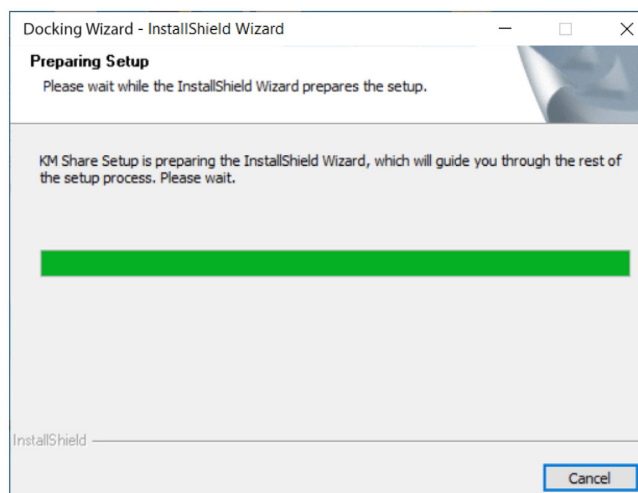


FIGURE 4-1. INSTALLER WIZARD SCREEN

- c. If this PC has already installed the previous version of App, the App will ask the user to uninstall it. Uninstall the previous version, and go back to this step to reinstall this version.

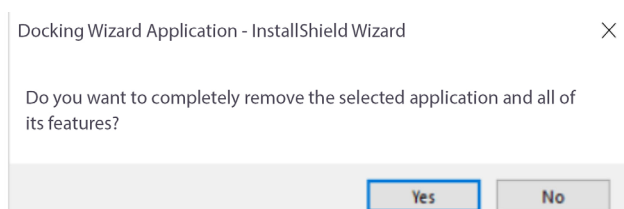






FIGURE 4-2. REMOVE APPLICATION SCREEN

CHAPTER 4: DOCKING WIZARD UTILITY (WINDOWS)




- d. After the installation is completed, double click the Docking Wizard icon  to start the application.
- e. If “User Account Control” (UAC) is shown, click “Yes.”
- f. Run the same steps on another PC. If another PC is a Mac, refer to the Mac user guide.
- g. If the hub doesn’t connect to the two PCs, or the software is not executed, a gray icon  in the taskbar indicates NOT connected.
- h. If the two PCs are running different versions of software, a red icon  indicates that the device is NOT able to run.
- i. A blue icon  indicates that the connection is completed.

4.3 FUNCTIONS

4.3.1 MOUSE AND KEYBOARD

After the connection is successfully built up, the mouse on both PCs or on the docking station can move between two PCs, and the keyboard can input on the PC that the mouse is focused on.

Users can right-click the blue icon , under the “Calibrate Mouse Switching option,” to set up the relative position of the PCs. This helps to set up the mouse moving to the edge of the monitors.

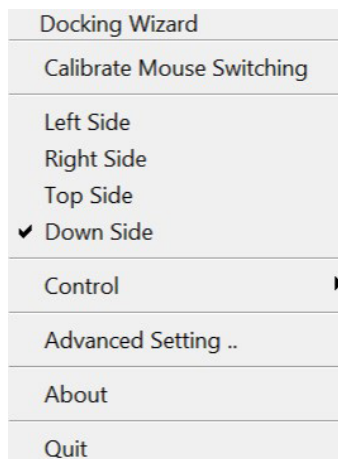


FIGURE 4-3. SET UP RELATIVE POSITION OF PCS

CHAPTER 4: DOCKING WIZARD UTILITY (WINDOWS)

4.3.2 SWITCH UFP

When a docking station connects to two PCs, devices under the docking station will be recognized and enumerated by the master host; for example, the storage devices will only be shown on the master PC, and the other PC is a slave PC. The Switch UFP function allows users to switch the roles of master and slave PCs.

Under “Switch UFP” option, the HDMI and two DPs will display the same outputs from the Host, and HDMI output shows the master PC’s desktop. (Mode B; FIGURE 2-5)

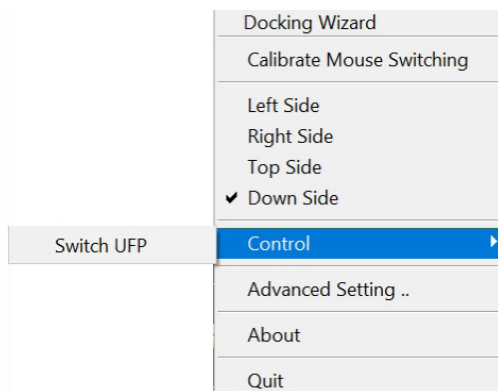


FIGURE 4-4. SWITCH UFP SCREEN

4.3.3 ADVANCED SETTING

You can set the hotkey in different combinations to switch UFP (Mode: A, Figure 2-4), and this key enables you to switch the roles of hosts.

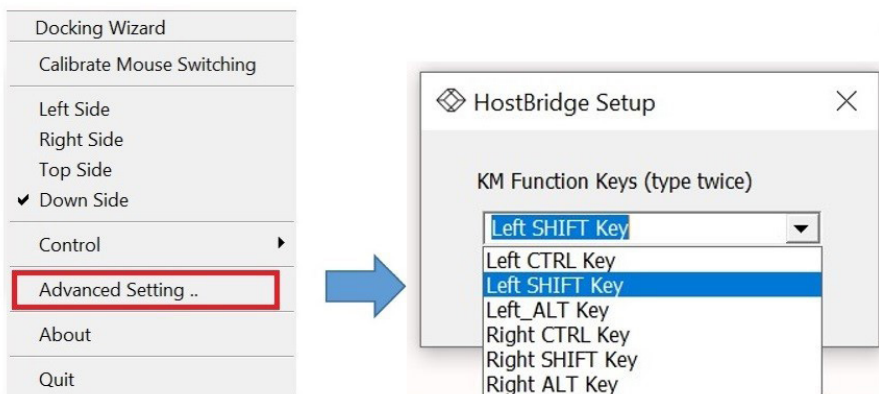


FIGURE 4-5. ADVANCED SETTING

4.3.4 ABOUT

The About option provides Software Information.

CHAPTER 5: DOCKING WIZARD UTILITY (MAC OS)

5. DOCKING WIZARD (KM SHARING) UTILITY (MAC OS)

5.1 LIMITATION

1. The Docking Wizard Utility does not support a VM simulation system.
2. The Docking Wizard only works on USB 3.0/USB 3.1 host ports.
3. If Docking Wizard is operating abnormally on one PC/MAC caused by entering sleep, suspend or restart, unplug both upstream ports, restart the software on both PC and MAC, and re-plug both upstream ports to restore.

5.2 SETUP AND INSTALLATION

Follow the steps below for the installation.

- a. Connect the Host 1 upstream port (on the docking station) to the USB-C port of Host 1, and connect the Host 2 upstream port (on the docking station) to the USB-C port of Host 2
- b. Click on Docking Wizard to start the installation, as shown below.

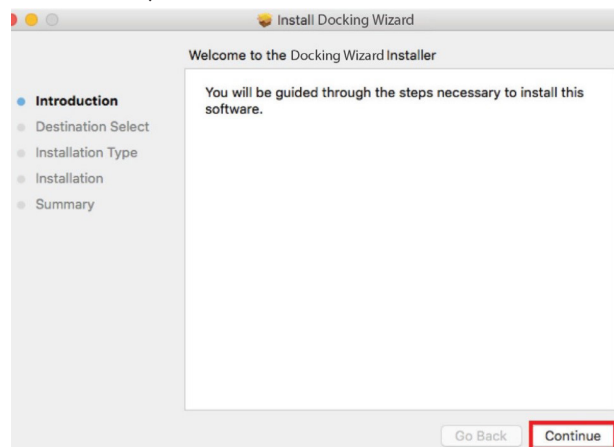


FIGURE 5-1. WELCOME SCREEN

- c. Click on "Continue."

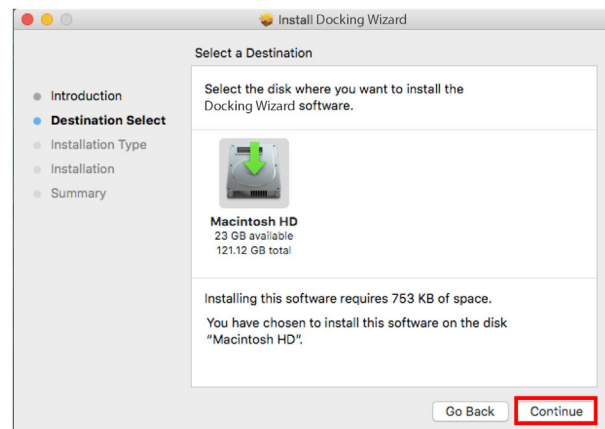


FIGURE 5-2. SELECT A DESTINATION SCREEN

CHAPTER 5: DOCKING WIZARD UTILITY (MAC OS)

d. Click on "Continue."

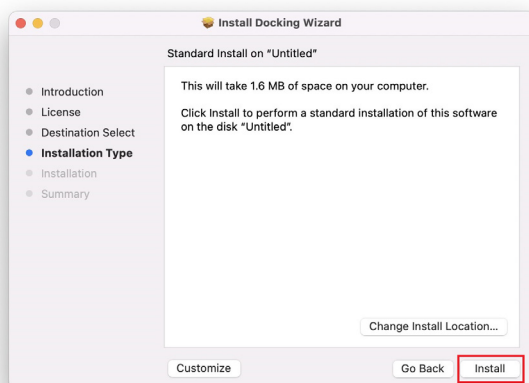


FIGURE 5-3. STANDARD INSTALL ON MAC

e. Click on "Install."

f. Enter the User Name and Password. Then click on the "Install Software" button.

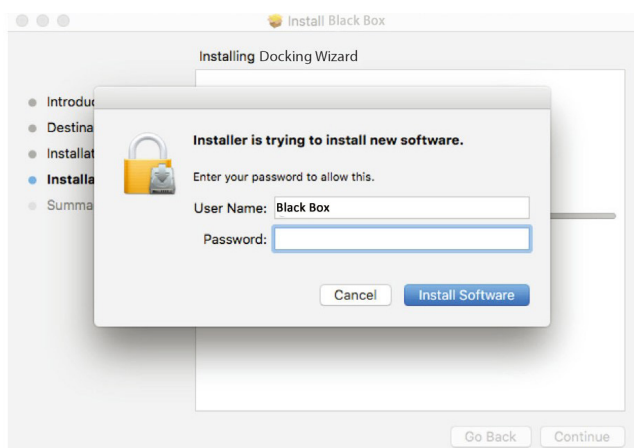


FIGURE 5-4. INSTALL SOFTWARE

g. Click on the "Open System Preferences" button.

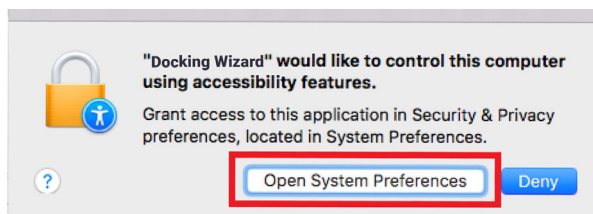


FIGURE 5-5. OPEN SYSTEM PREFERENCES SCREEN

h. Click on the "Lock" button.

CHAPTER 5: DOCKING WIZARD UTILITY (MAC OS)

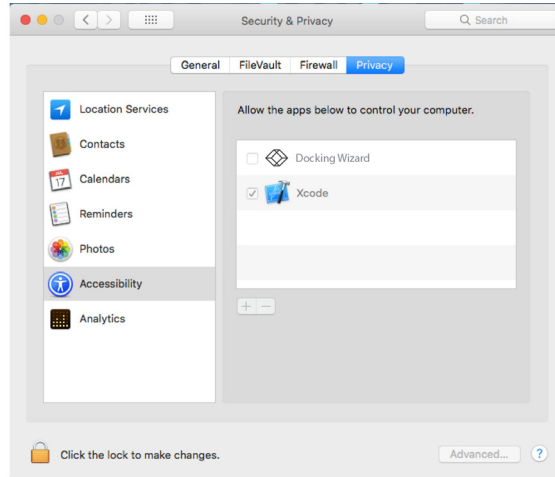


FIGURE 5-6. PRIVACY SETTINGS

i. Enter the User Name and Password. Then click on the "Unlock" button.

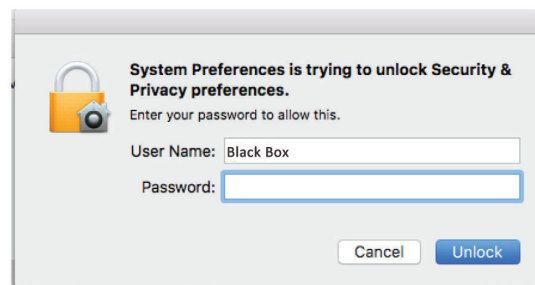


FIGURE 5-7. UNLOCK PRIVACY SETTINGS

j. Click on "Docking Wizard" and then close the window.

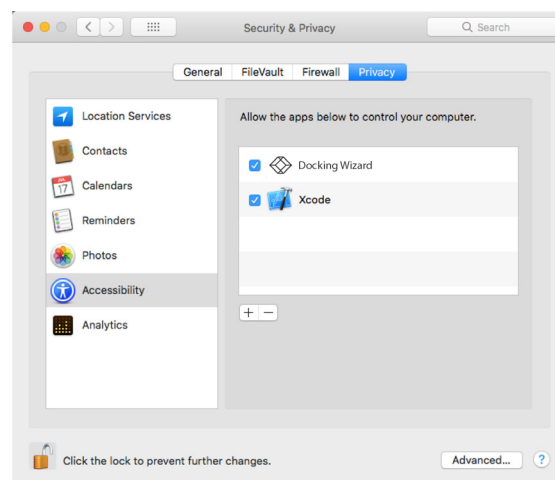


FIGURE 5-8. CLICK DOCKING WIZARD

CHAPTER 5: DOCKING WIZARD UTILITY (MAC OS)

5.3 READY TO USE

Click on “Go” -> “Applications.”

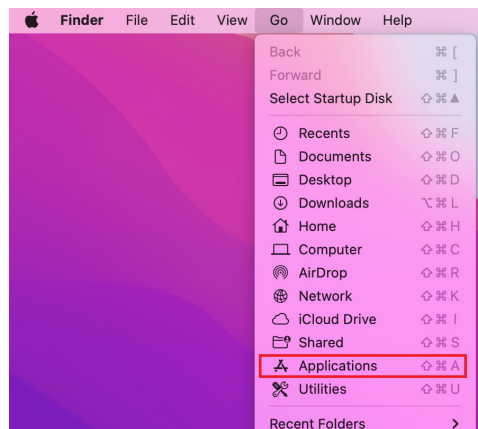


FIGURE 5-9. APPLICATIONS

Start “Docking Wizard.”

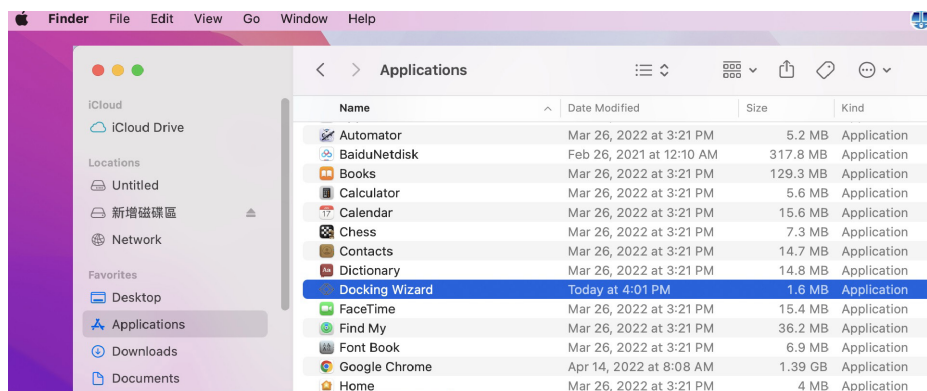





FIGURE 5-10. DOCKING WIZARD

5.4 FUNCTIONS

When Docking Wizard is started, there are four statuses:

- ◆ Gray icon: If the hub doesn't connect to the two PCs, or if the software is not executed, a gray icon  in the taskbar indicates NOT Connected.
- ◆ Blue icon : Indicates Connected
- ◆ Red icon : Indicates Error, which may be caused by mismatched hardware and software

CHAPTER 5: DOCKING WIZARD UTILITY (MAC OS)

a. Calibrate Mouse Switching

After a connection is successfully made, you can move the mouse on both computers or on the docking station between two computers, and you can use the keyboard to enter data on the computer that the mouse focuses on.

Under the “Calibrate Mouse Switching” utility, you can set up the relative positions of the PCs. This helps to set up the mouse moving to the edge of the monitors.

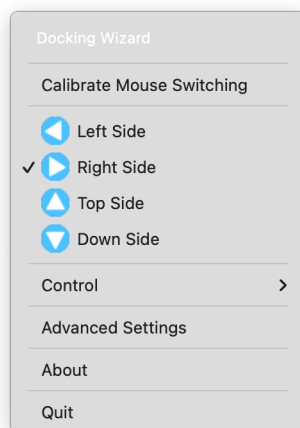


FIGURE 5-11. CALIBRATE MOUSE SWITCHING

b. Switch UFP

When a docking station connects to two PCs, devices under the docking station will be recognized and enumerated by the master host; for example, the storage devices will only be shown on master side, and the other side is the slave or client host. The “Switch UFP” function enables you to switch the roles of master and client host.

Under the “Switch UFP” option, the HDMI and two DPs will display the same outputs from the Host, and HDMI output shows the master PC’s desktop. (Mode: B; Figure 2-5)

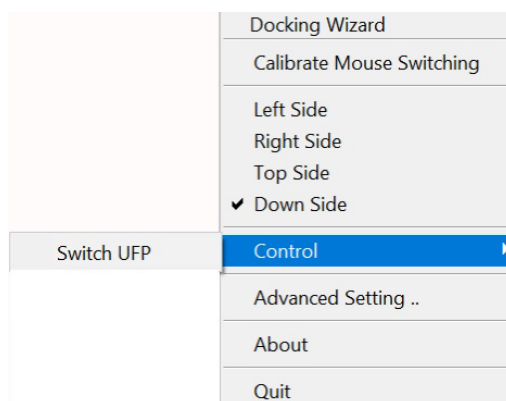


FIGURE 5-12. SWITCH UFP

CHAPTER 5: DOCKING WIZARD UTILITY (MAC OS)

c. Advanced Settings

UFP Switch Hotkey Setting

You can set a hotkey in different combinations to switch UFP (Mode: A, Figure 2-4). Click this key twice to switch the roles of hosts.

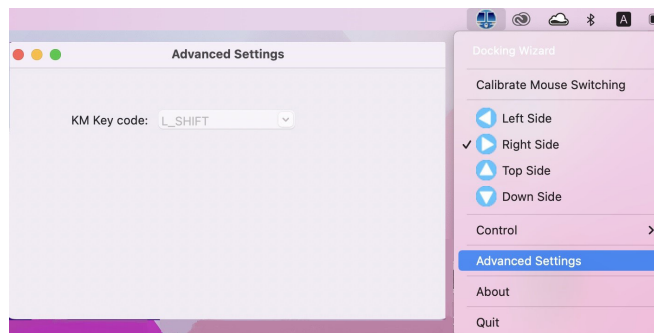


FIGURE 5-13. UFP SWITCH HOTKEY

d. About

The About option provides Software Information.

6. TROUBLESHOOTING

Problem: The Display Mode Switch is not functioning.

Solution: Unplug the switch from Host 1/2, wait 10 seconds, and then reconnect.

Problem: "Utility" is disconnected or shows abnormal information.

Solution: Close the Utility and reactivate it again.

Problem: There is no video on the monitor that is attached to the dock.

Solutions:

1. Check the video connection cables.
2. Unplug the power, wait 10 seconds, and then reconnect.
3. Check to make sure the latest version of the DisplayLink drivers are installed.

Problem: The video on the attached monitor is distorted or corrupted.

Solutions:

1. Check the video connection cables.
2. Check the video resolution under Control Panel -> Display -> Change Display Setting.

Problem: The video on the attached monitor is not displaying in extended mode.

Solutions:

1. Press the Windows logo key and P.
2. Toggle the display mode.

Problem: The audio jacks are not functioning.

Solution:

1. Right-click the Sound icon in the System Tray.
2. Select Playback devices.
3. Right-click and check both "Show Disconnected Devices" and "Show Disabled Devices".
4. Right-click USB Audio device and select "Set as default."

Problem: USB ports are not functioning on the dock.

Solution: Turn off the dock and unplug from the power, wait 10 seconds, turn on the power, and then reconnect again

Problem: DisplayLink Driver is not able to install.

Solution: You can download the latest DisplayLink driver from: <http://www.displaylink.com/downloads/>

CHAPTER 6: TROUBLESHOOTING

Problem: Laptop failed to wake up from the Ethernet port.

Solution: Check the settings under BIOS Items to make sure the laptop supports wake-up-from-the Ethernet port function.

** For other issues on the Display, refer to DisplayLink Troubleshooting: General:

<https://support.displaylink.com/knowledgebase/topics/80206-troubleshooting-general>

Problem: Hosts are not powered from docking station.

Solutions:

1. The docking station can still connect to the hosts with a USB-C port that doesn't support Power Delivery (must still support DP Alt Mode). In this configuration, the docking station will not provide power to your host.
2. Use the USB Type-C cable that we provided or make sure that your USB Type-C cable has the E-marker chip inside and supports a 5A-20V power rating.

Problem: There is no video out from HDMI.

Solution:

Not all USB-C Ports from source support the full USB-C functionality. Ensure that your Host Computer's USB-C port supports DP Alt Mode function. Otherwise, the docking station will not work properly.



APPENDIX A: REGULATORY INFORMATION

A.1 FCC STATEMENT

This equipment has been tested and found to comply with the regulations for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed 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 and, if not installed and used in accordance with this Quick Installation Guide, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case, the user will be required to correct the interference at his/her own expense.

A.2 CE STATEMENT

This is a Class B product in a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

A.3 WEEE INFORMATION

For EU (European Union) member users:

According to the WEEE (Waste electrical and electronic equipment) Directive, do not dispose of this product as household waste or commercial waste. Waste electrical and electronic equipment should be appropriately collected and recycled as required by practices established for your country. For information on recycling of this product, contact your local authorities or your household waste disposal service.

APPENDIX A: REGULATORY INFORMATION

A.4 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 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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