

High-Definition A/V Docking Station

User's Manual

ABOUT THIS MANUAL

This manual is designed for use with the High-Definition A/V Docking Station. Information in this document has been carefully checked for accuracy; however, no guarantee is given to the correctness of the contents. The information in this document is subject to change without notice. The manufacturer does not make any representations or warranties (implied or otherwise) regarding the accuracy and completeness of this document and shall in no event be liable for any loss of profit or any commercial damage, including but not limited to special, incidental, consequential, or other damage.

SAFETY INSTRUCTIONS

Always read the safety instructions carefully:

- Keep this User's Manual for future reference
- Keep this equipment away from humidity
- 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's Manual.

COPYRIGHT

This document contains proprietary information protected by copyright. All right are reserved. No part of this manual may be reproduced by any mechanical, electronic or other means, in any form, without prior written permission of the manufacturer.

TRADEMARKS

All trademarks and registered trademarks are the property of their respective owners or companies.

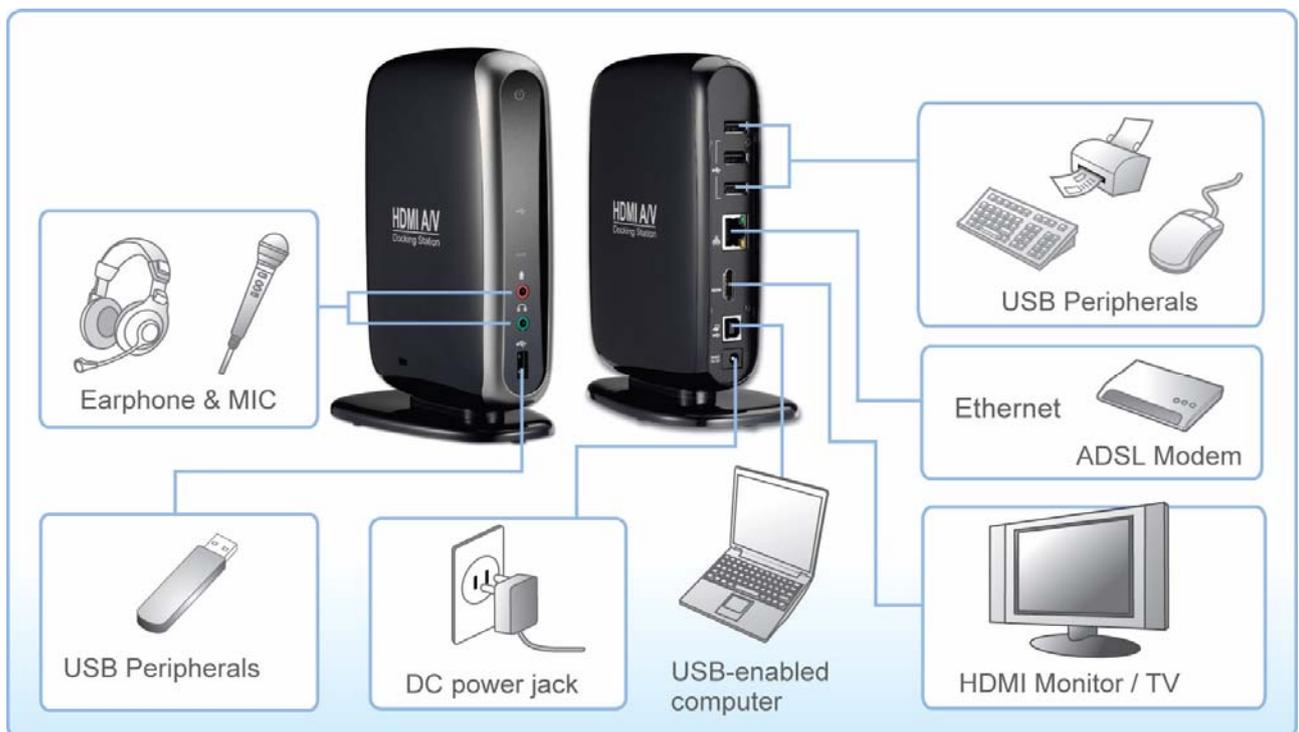
Table of Contents

1. Introduction	1
Features	2
Package Contents	2
System Requirements.....	2
Front Panel	3
Rear Panel	4
2. Installation	5
A. On Windows® XP / Windows Vista®	5
B. On Windows® 7	11
C. Connecting the Docking Station to Computer	15
D. Connecting Devices to the Docking Station	15
Connecting Ethernet network device	15
Connecting HDMI® Monitor	16
Connecting USB Devices	16
Connecting Microphone and Speaker/Headphones	16
3. Using the Docking Station with Video	17
USB 2.0 Ports.....	17
Audio Ports	17
Configuring Windows Audio Device.....	17
Ethernet Port	18
Video Port	19
Display Modes	19
Adjusting Resolution, Color Depth and Refresh Rate	22
Fit to TV Function	23
Inferred Modes.....	27
Disconnecting the Docking Station	27
How Standby or Hibernate Mode Affects Devices Attached to the Docking Station.....	28
External Monitors	28
Other Devices	28
4. Uninstalling the Driver	29
5. Specifications	30

6. Regulatory Compliance	32
FCC Conditions	32
CE	32
WEEE Information	32

1. Introduction

The High-Definition A/V Docking Station is the world's first HDMI® Docking Station using one HDMI® connector that can transmission audio and video function. HDMI® is a compact audio/video interface for transmitting uncompressed digital data. With the HDMI® port your computer can be connected to one more monitor, LCD or projector. The connected monitor can be configured to either mirror your primary screen, or extend the Windows desktop allowing visibility of more applications at the same time. No more stacking windows within the confines of a single display.



Features

- DualView let you expand your work area across your notebook screen and external monitor.
- Dual display settings-Allows you to switch between mirror and extended video modes.
- HDMI[®] monitor output-Supports video resolutions up to 1920 x 1080 Full HD monitor with a refresh rate of 60 Hz.
- Three rear-facing USB 2.0 ports-Ideal for use with memory keys and other “quick access” devices.
- Integrated 10/100M Ethernet – Form Internet/LAN connectivity. No external adapter required.
- Power charge of USB peripherals from your Docking Station, maximum is support DC5v/750mA.
- Compact and sleek mini-tower designs that Reduces footprint on desk.
- Supports Microsoft Windows[®] XP, Windows Vista[®] 32/64 and Windows[®] 7 32/64 bit operation system.

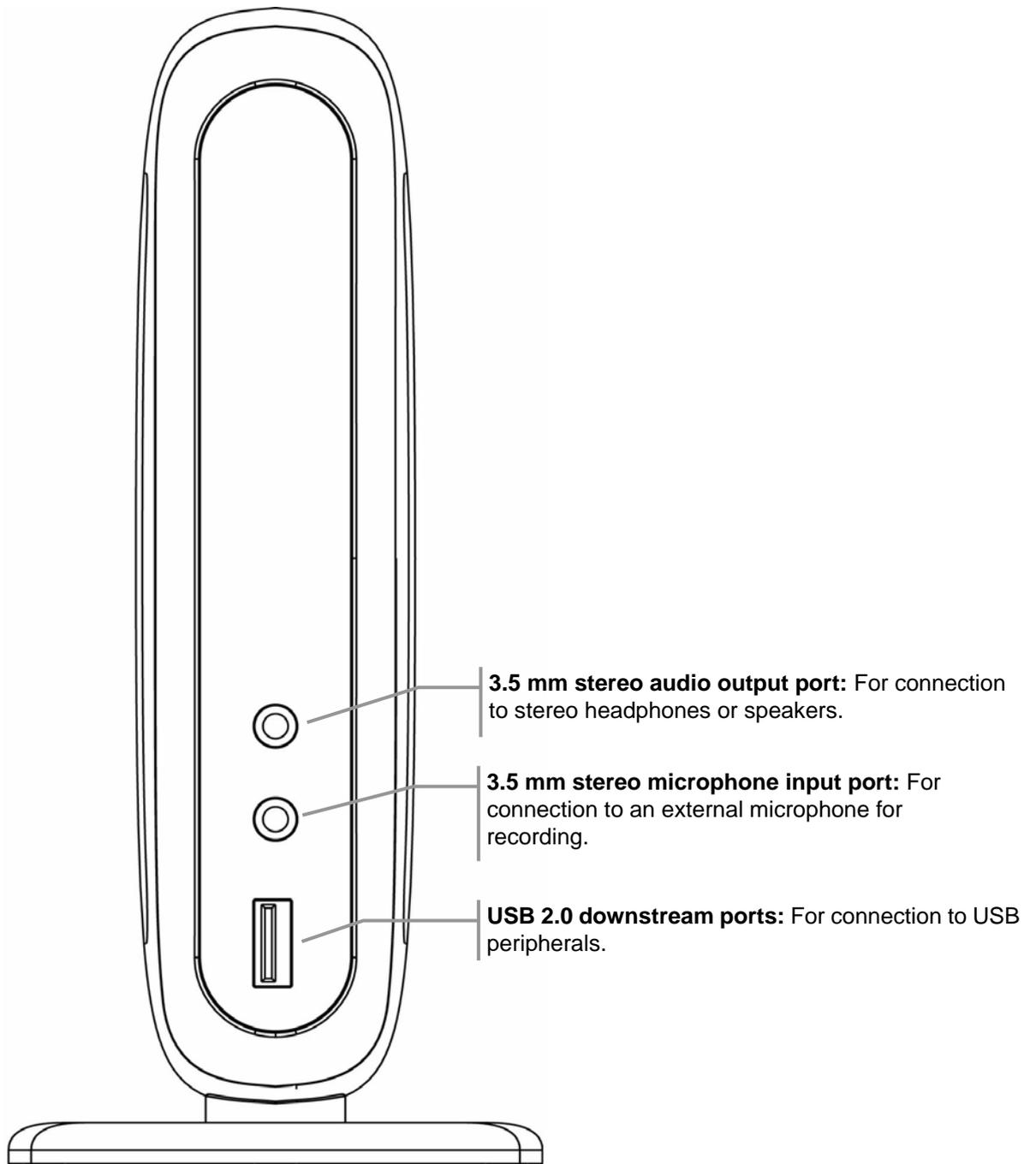
Package Contents

- | | |
|---------------------------------------|----|
| ■ High-Definition A/V Docking Station | x1 |
| ■ USB 2.0 Cable | x1 |
| ■ Power Adapter | x1 |
| ■ CD (Driver and User's Manual) | x1 |
| ■ Quick Installation Guide | x1 |

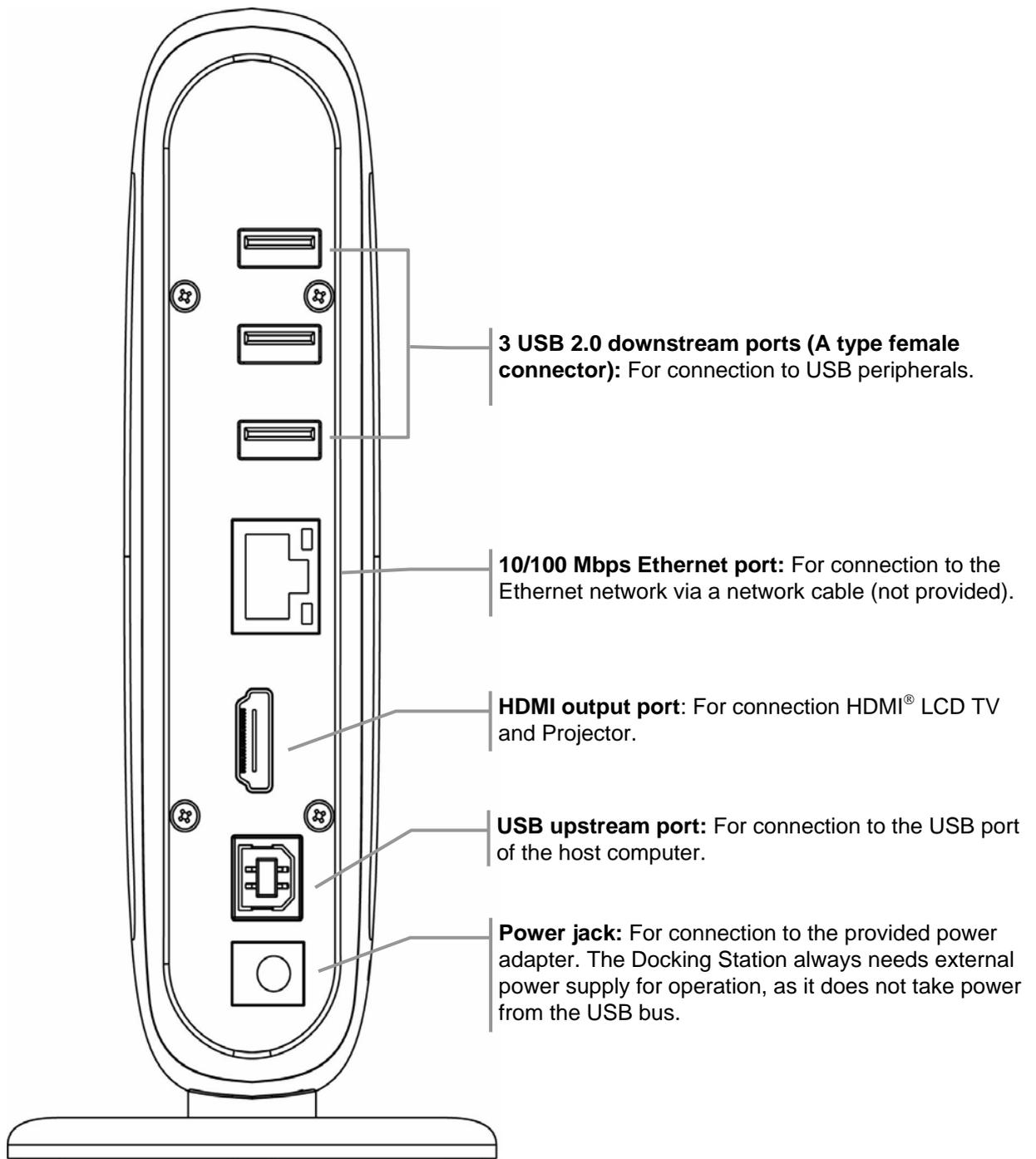
System Requirements

- Windows[®] XP, Windows Vista[®] 32/64 bit, Windows[®] 7 32/64 bit.

Front Panel



Rear Panel



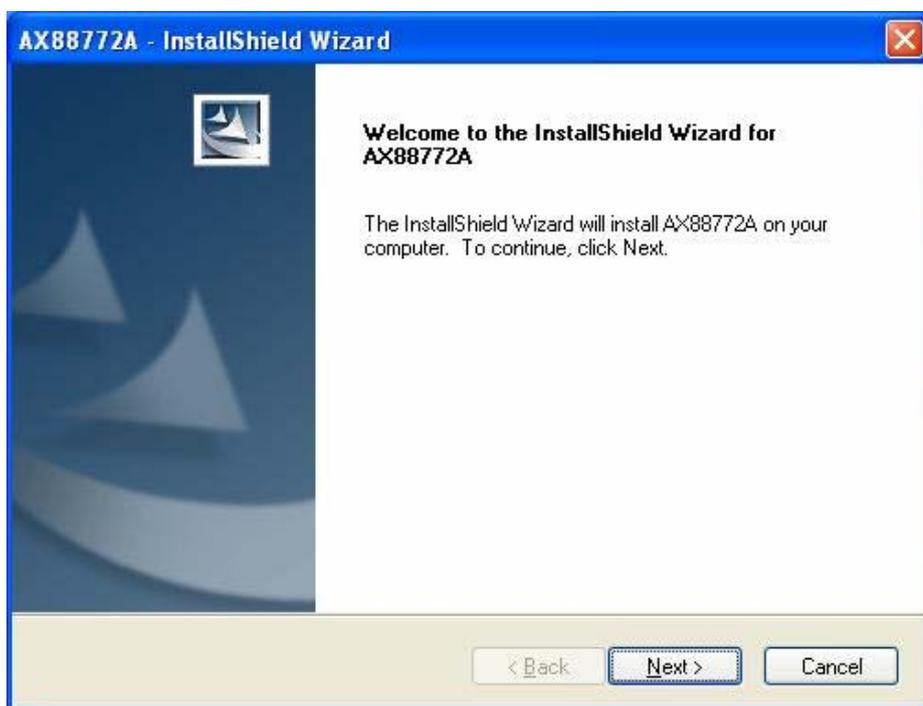
2. Installation

The docking station requires specific installation procedure, please follow the steps described in this manual to install the drivers first and make the connection.

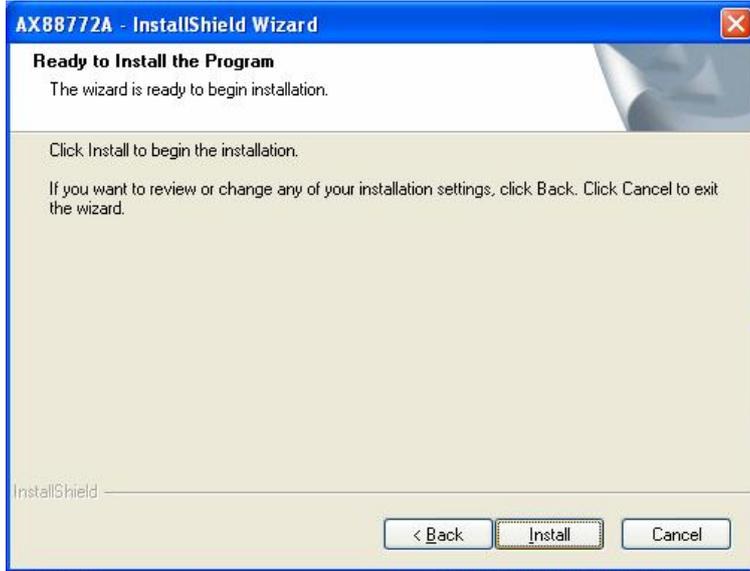
A. On Windows[®] XP / Windows Vista[®]

To install the Ethernet Driver:

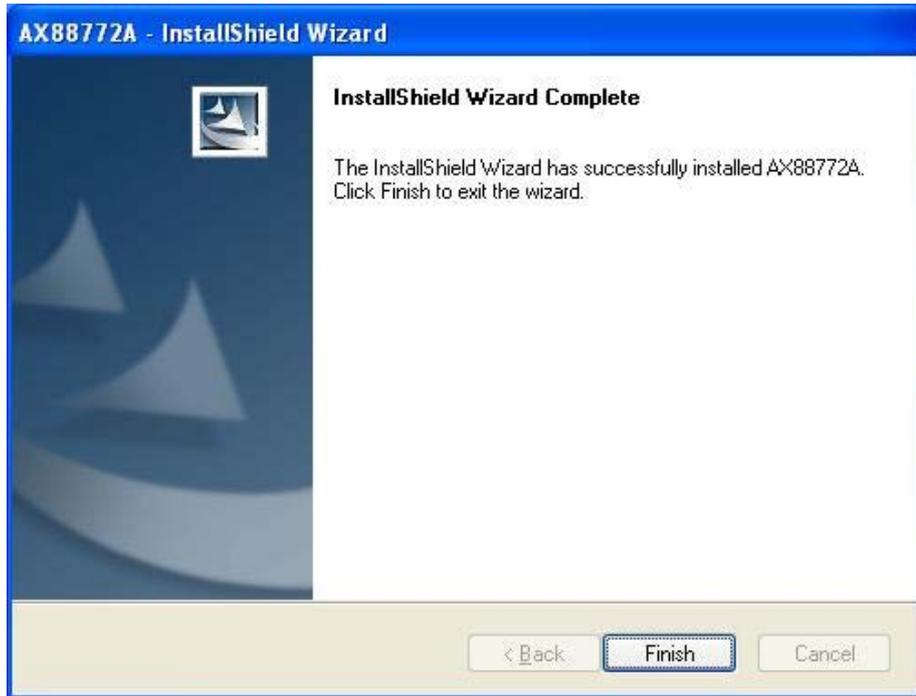
1. Insert the provided CD into your disc drive, locate and double-click the **Setup.exe** file under **E:\Driver** where E is your disc drive letter. Click **Next** to the next step for installation.



2. Click Install to begin the installation.

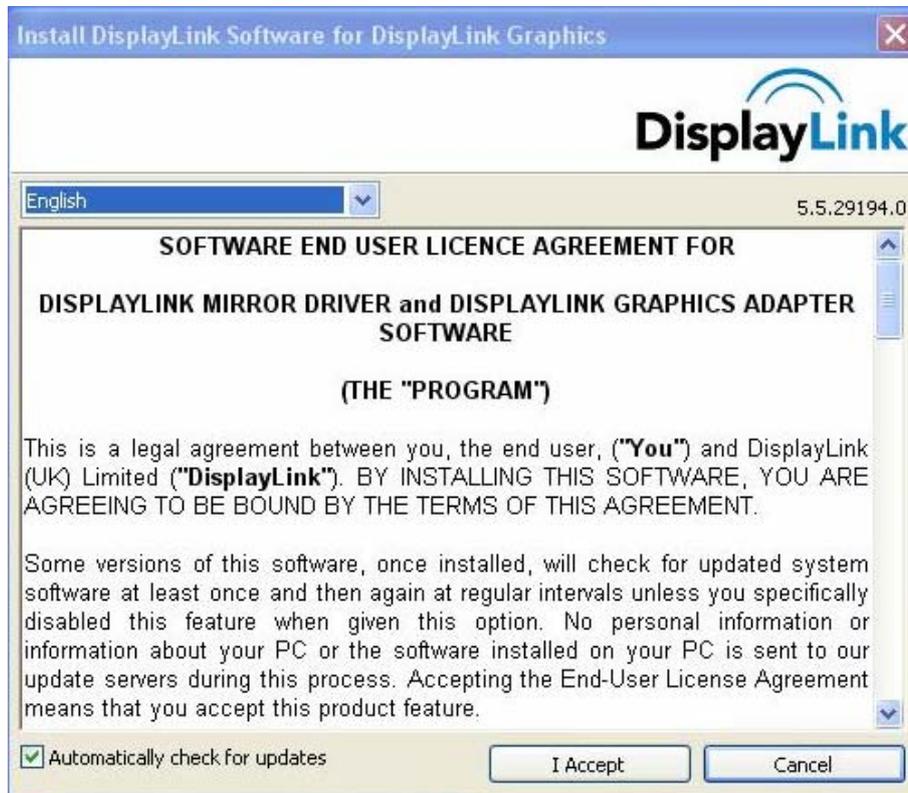


3. Please click **Finish** to exit the wizard.



To install DisplayLink Driver:

- Please click **I Accept** after reading the statement of **“SOFTWARE END USER LICENCE AGREEMENT FOR DISPLAYLINK MIRROR DRIVER and DISPLAYLINK GRAPHICS ADAPTER SOFTWARE”**.



Do not connect the docking station to your computer at this stage. Please proceed to next section to continue with the video component installation.

- Please wait while Windows configures DisplayLink Core Software. Your screens may temporarily go black or flash during this process.



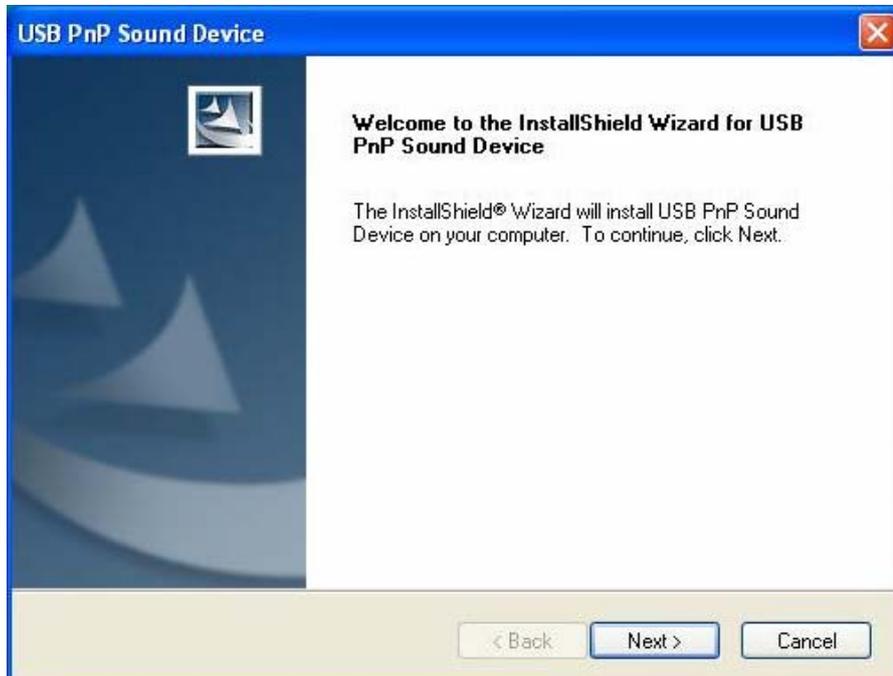
Note: The installation has not been completed, please click **No** at this time.



To install Audio Driver:

Notice: Please use HDMI[®] cable to make connection between High-Definition A/V Docking Station and any available USB ports of computer before installing the USB PnP Sound Device driver.

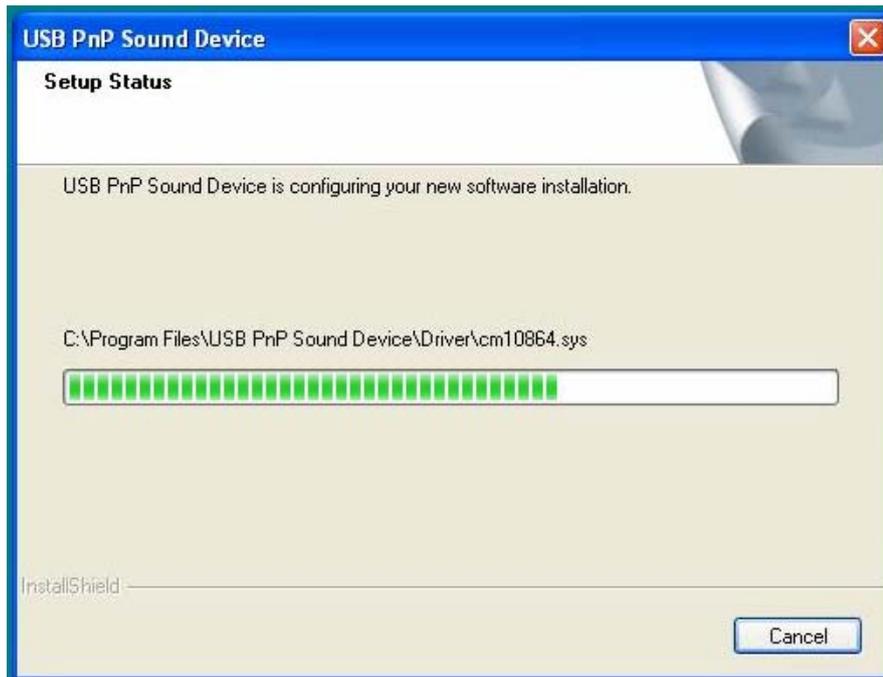
6. Please click **Next** to install USB PnP Sound Device.



7. Setup has enough information to start copying the program files. If you are satisfied with the settings, click **Next** to begin copying files.



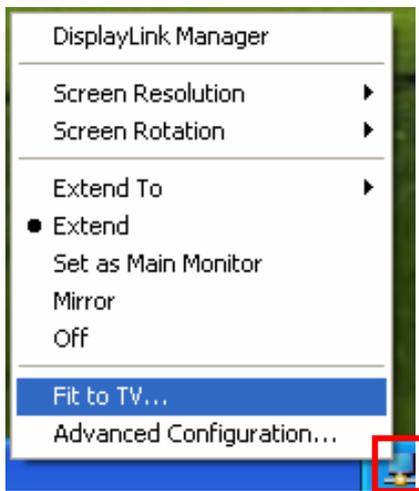
8. USB PnP Sound Device is configuring your new software installation.



9. The installation is complete. You must restart your computer. Please click **“Yes, I want to restart my computer now.”**



10. After the installation is complete, you will see the DisplayLink Manager Icon in System Tray that looks like a monitor as below. Click on the icon to bring up the menu.



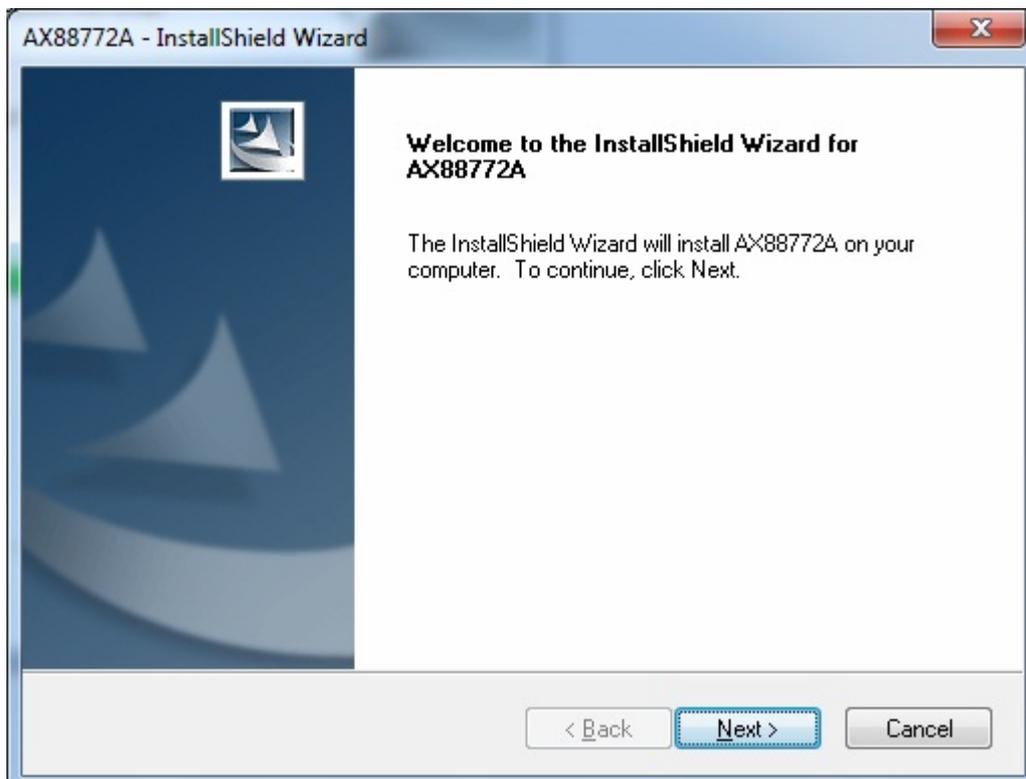
- Extend Mode**: The screen is part of the extended desktop.
- Mirror Mode**: The screen copies the contents of the primary screen.
- Off Mode**: The screen is black.
- Set as Main Monitor**: The screen is the primary screen.

**Actual strings depend on your operation system. These screen shots are from Windows® XP SP2, it might vary slightly for each operation system.*

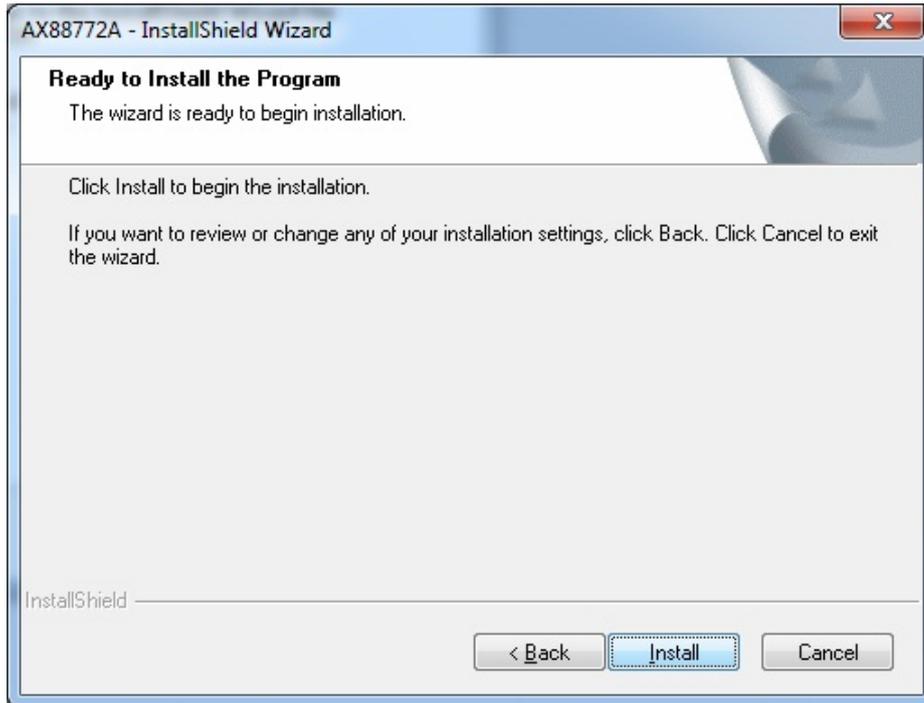
B. On Windows® 7

To install Ethernet Driver:

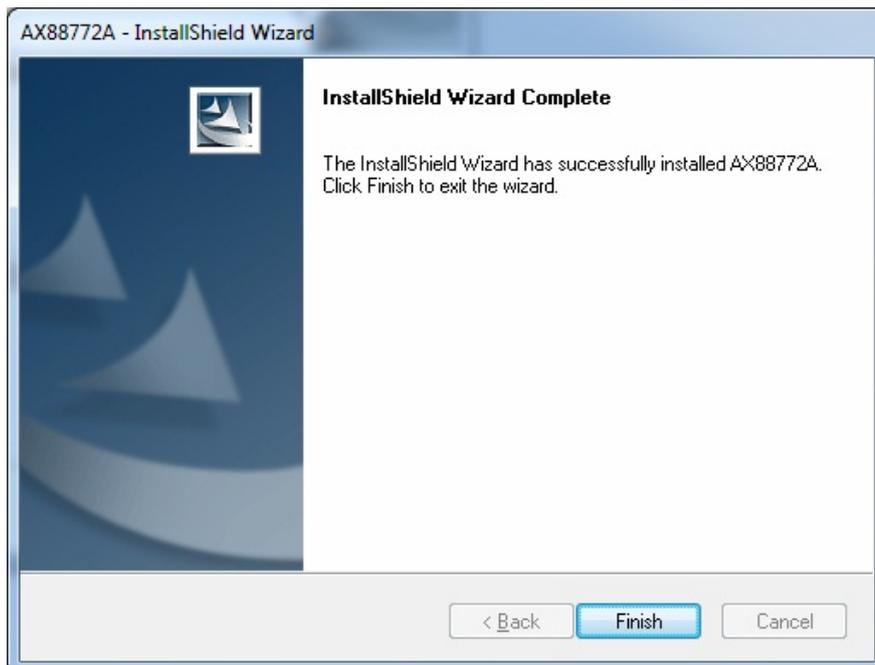
1. Insert the provided CD into your disc drive, locate and double-click the **Setup.exe** file under **E:\Driver** where E is your disc drive letter. Click **Next** to the next step for installation.



2. Click **Install** to begin the installation.

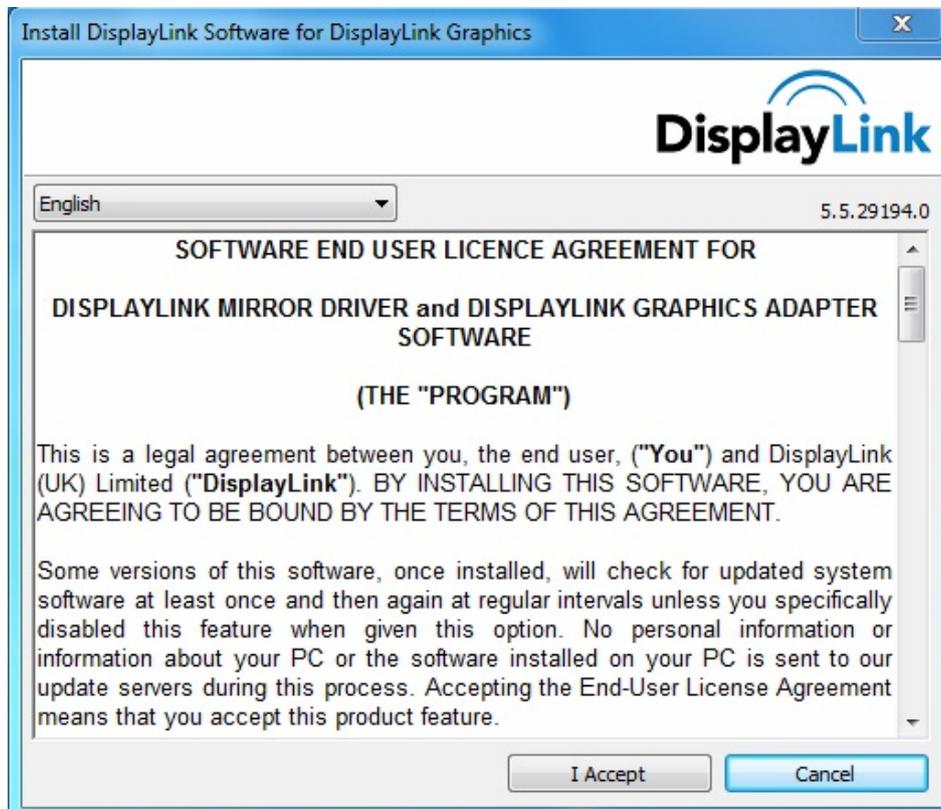


3. Please click **Finish** to exit the wizard.

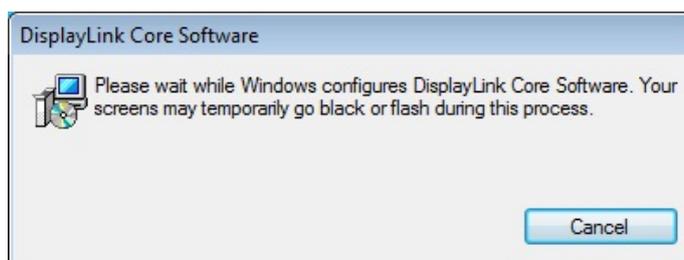


To install DisplayLink Driver:

4. Please click **I Accept** after reading the statement of “**SOFTWARE END USER LICENCE AGREEMENT FOR DISPLAYLINK MIRROR DRIVER and DISPLAYLINK GRAPHICS ADAPTER SOFTWARE**”.



5. Please wait while Windows configures DisplayLink Core Software. Your screens may temporarily go black or flash during this process.



To install Audio Driver:

Notice: Please use HDMI[®] cable to make connection between High-Definition A/V Docking Station and any available USB ports of computer before installing the USB PnP Sound Device driver.

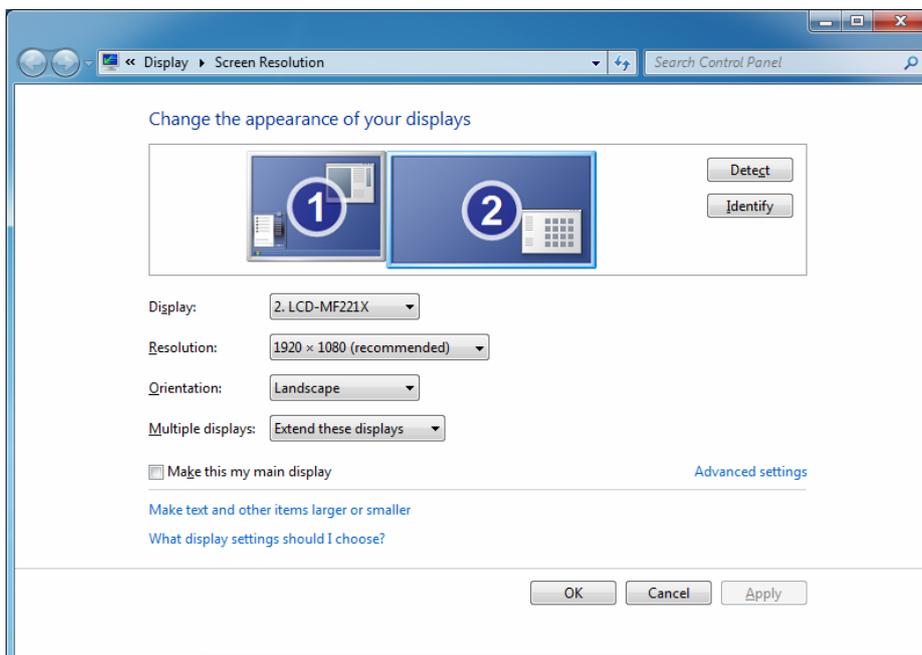
6. The USB PnP Sound Device will install automatically.



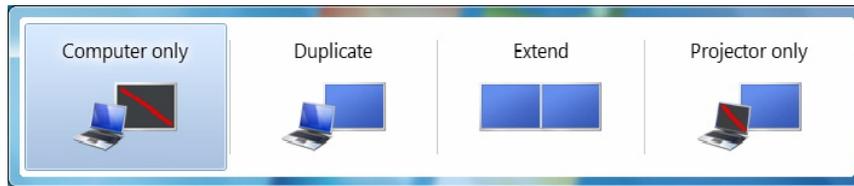
7. The installation is complete. You must restart your computer. Please click **“Yes, I want to restart my computer now.”**



8. After the installation is completed, the following Window will pop up. You can change the appearance of your displays through the Window. Moreover, additional controls are available in Windows[®] 7: Orientation (Portrait, landscape, rotated portrait, rotated landscape)



- To control the behavior of an attached DisplayLink device (or screen), it is possible to use **Windows Key+P** to display a menu (and cycle through it) to allow: Disconnect Projector, Duplicate, Extend, Projector Only.



**Actual strings depend on your operation system. These screen shots are from Windows® 7 and might vary slightly for each operation system.*

C. Connecting the Docking Station to Computer

- Plug the power cord of the power adaptor into the **DC IN** jack on the back of the docking station and then connect the power adaptor to a working electrical outlet.
The **Power** indicator on the front panel glows when the docking station is powered on.
- Plug the square end of the USB cable into the USB upstream connector at the back of the docking station.
- Plug the other end of the USB cable into an available USB 2.0 port on your computer.

Upon the USB connection, your computer will automatically complete the remaining installation, including installing Windows built-in drivers for the USB hub.

A pop-up message will appear in the notification area indicating the installation status. Wait for the final message indicating the driver software installation is successful. Then the docking station is ready for use.

D. Connecting Devices to the Docking Station

Now the installation is complete. You can connect the peripherals/monitor to appropriate ports on the docking station as required. If required, you can connect and disconnect the peripherals/monitor any time without disconnecting the docking station from the USB port on your computer.

Connecting Ethernet network device

- Connect an Ethernet cable to the **Ethernet** port on the docking station.

2. Connect the other end of the Ethernet cable to your network hub, switch or router.

Connecting HDMI[®] Monitor

Upon the connection it's normal that the screen flicks black a couple of times. Once the connection is done, an extended screen will appear on the add-on monitor. Sometimes it takes time for the add-on monitor to show the video. Please wait for while.

For Windows Vista[®], if the add-on monitor has been blank for a while, please reboot your system again.

To change the display mode, see next chapter for instructions.

Connecting USB Devices

Connect your USB devices to the USB ports on the docking station. As long as one USB device is connected to the port and the connection works properly, the USB LED glows green (on). When no USB device is connected to the port, the LED light is off.

If your USB device, such as a printer or optical drive, etc., came with its own AC adaptor, make sure that it is plugged into the device and a working electrical outlet.

Connecting Microphone and Speaker/Headphones

To connect your speaker/headphones, insert the plug to the green hole on the front of the docking station.

To connect a microphone, insert the plug to the pink hole on the front of the docking station.

3. Using the Docking Station with Video

USB 2.0 Ports

The USB ports on the docking station function just like the ports on a USB hub. Just connect any USB device to the docking station's USB ports when required.

- All the USB ports provide power when the computer is either off, suspended or hibernated. This means you can use the USB port for power charging purpose.
- The USB port supports hot-plug feature. You may plug and unplug an USB device from the docking station at any time when required.
- Some USB devices, e.g., printers and optical drives, require higher power to operate. To use these devices, the power adapter shipped with the device should be plugged into the device and the mains.

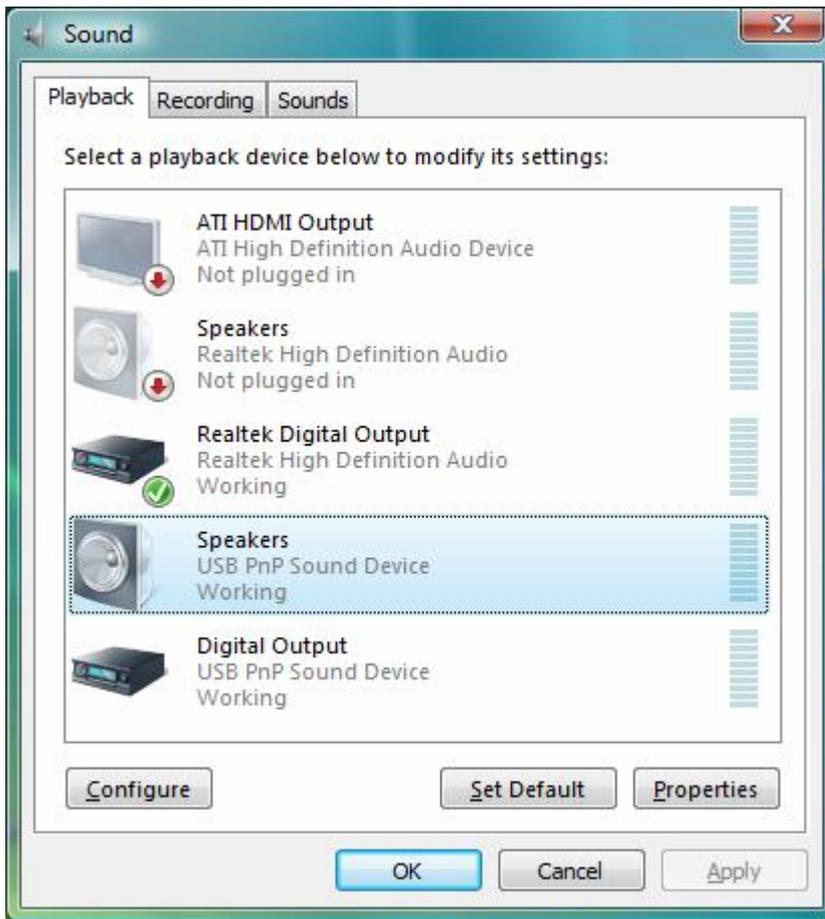
Audio Ports

Prior to using the speaker/microphone connected to the docking station, you have to correctly configure your application to use **USB PnP Sound Device**, i.e., the audio components of the docking station.

When the docking station is connected to your computer, the audio devices named **USB PnP Sound Device** are automatically installed and *may override Windows default audio settings*. The most obvious effect is that your original music playback will be re-directed to the speaker connected to the docking station. However, it's possible that users may want to use original sound card for music playback and use the docking station's audio ports for chatting via instant messaging software (such as MSN messenger, Yahoo messenger or Skype). In such cases users have to manually configure required audio device for each application.

Configuring Windows Audio Device

To specify a sound device for music playback in Windows, open **Control Panel** and double-click the sound or audio icon. Then select a desired device in the playback section. If you want to use your original sound card for music playback, make sure to select it instead of **USB PnP Sound Device**.



Configuring Instant Messaging Software Audio Device

To chat via instant messaging software using the headphone and microphone connected to the docking station, make sure the instant messaging software, such as MSN messenger, Yahoo messenger or Skype, are configure to use **USB PnP Sound Device** as the audio in and out devices.

Ethernet Port

The Ethernet port supports Ethernet 10/100 Mbps function. To connect your computer to a network through the docking station, attach one end of a network cable (not provided) to the **Ethernet** port on the docking station and the other end to your network hub, switch or router for network access.

Video Port

Display Modes

There are several ways you can utilize the monitor attached on the docking station. The add-on monitor can be configured to use either “mirror mode”, “extended mode” or be the primary display as described in this section.

Extend Your Windows Desktop to Add-on Monitor (Default)

In this so-called “extended mode”, your display will be spread over the add-on monitor(s). This mode allows you to perform multiple tasks more effectively without overlapping windows.



Extended mode is the default setting. To set up the video component to use or restore extended mode, follow these steps:

1. Position the mouse anywhere on your computer desktop, right-click and select **Screen Resolution** on Windows[®] 7, **Personalize > Display Settings** on Windows Vista[®] or **Properties > Settings** on Windows[®] XP.
2. In the **Display** drop-down menu, select the option with the string “**DisplayLink Graphics Adapter**”.
3. Check the **Multiple Displays > Extend these displays** on Windows[®] 7, **Extend the desktop onto this monitor** box on Windows Vista[®] or **Extend my Windows desktop onto this monitor** box on Windows[®] XP.

4. Drag the icons in the window at the top of the screen to match the physical arrangement of your primary monitor and add-on monitor.

The add-on monitor connected to the docking station may be identified as either "2" or "3", depending on your computer, although there may not be a total of 3 screens connected.

5. Click **OK** to close the settings screen.



(Note: The string after USB_XXXX_XXXXXX will vary by different products.)

Once the setting is done, to use your extended desktop, simply drag and drop your open windows over to your second monitor. However, note that some applications may not support display on the extended desktop.

Cursor disappeared ?

If you're in extended mode but the add-on monitor is not connected, the desktop still pans to the add-on monitor and it's possible that your cursor has moved to the extended desktop so that you cannot find it on the primary display. To solve the problem in such a case, connect the add-on monitor to the docking station or keep moving your mouse to try or unplug the docking station first to restore the cursor.

Video and DVD Playback in Extended Mode

On Windows Vista® with extended mode, it's suggested that you run video or DVD playback programs on your primary monitor instead of the add-on monitor to ensure the playback performance.

Mirror Your Windows Desktop

This mode is referred to as “mirror” or “clone” mode. In this mode, your original screen (the primary display) will be mirrored to the add-on monitor.



In mirror mode, the video component will automatically select the settings (screen resolution, color quality and refresh rate) for the add-on monitor. But you can manually adjust the settings as required. If you change the video output to extended mode and then want to switch back to mirror mode, follow these steps:

1. Position the mouse anywhere on your computer desktop, right-click and select **Screen Resolution** on Windows® 7, **Personalize > Display Settings** on Windows Vista® or **Properties > Settings** on Windows® XP.
2. In the **Display** drop-down menu, select the option with the string “**DisplayLink Graphics Adapter**”.
3. Check the **Multiple Displays > Duplicate these displays** on Windows® 7, uncheck the **Extend the desktop onto this monitor** on Windows Vista® or **Extend my Windows desktop onto this monitor** on Windows® XP.
4. Click **OK** to close the settings screen.

Be the Primary Monitor

To make the add-on monitor the primary display:

1. Position the mouse anywhere on your computer desktop, right-click and select **Screen Resolution** on Windows[®] 7, **Personalize > Display Settings** on Windows Vista[®] or **Properties > Settings** on Windows[®] XP.
2. In the **Display** drop-down menu, select the option ends with **DisplayLink Graphics Adapter**.
3. Check the **This is my main monitor** box on Windows Vista[®] / Windows[®] 7 or **Use this device as the primary monitor** box on Windows[®] XP.

On some PCs and laptops it is necessary to disable the main display (i.e. uncheck the **Extend the desktop onto this monitor** or **Extend my Windows desktop onto this monitor** box for the main display) as part of the same settings change.

4. Click **OK** to close the settings screen.

The add-on monitor stays primary if the PC enters hibernate or suspend mode or is rebooted. If the add-on monitor is unplugged, the main display becomes primary again.

Adjusting Resolution, Color Depth and Refresh Rate

There are three components that make up the screen mode:

Resolution: In common usage, this refers to the number of pixels displayed on screen horizontally and vertically.

Color Depth: This defines the number of different colors that can be shown on the screen at the same time.

Refresh rate: Measures the speed that the entire screen is rescanned. Higher frequencies reduce flicker.

Some monitors advertise the supported modes through the video connector. If this is the case, the video component identifies the supported modes from the monitor. If the monitor does not advertise the supported modes, the video software chooses a set of common screen modes for the monitor.

If cloning the primary display, the video component will try to use the preferred monitor mode. In some cases, this may not be the most appropriate mode for the cloned desktop. It is recommended that the primary display resolution be changed to closer match the default resolution of the add-on monitor.

To configure the three components (resolution, color depth and refresh rate) of a screen mode, follow these steps:

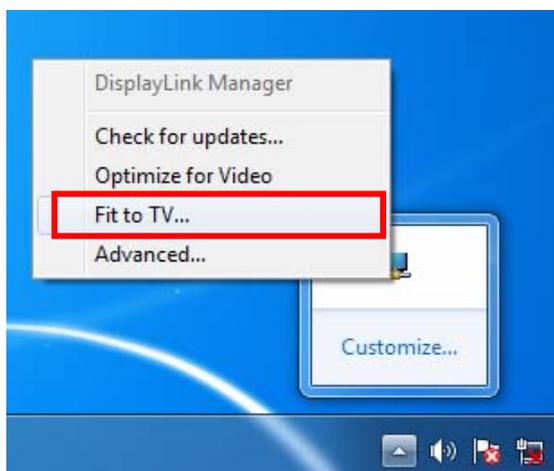
1. Position the mouse anywhere on your computer desktop, right-click and select **Screen Resolution** on Windows[®] 7, **Personalize > Display Settings** on Windows Vista[®] or **Properties > Settings** on Windows[®] XP.
2. In the **Display** drop-down menu, select the option ends with **DisplayLink Graphics Adapter**.
3. To change the screen resolution or color quality, select those options on the screen. Be sure to select one of the supported resolutions and color quality numbers in the table above. For an add-on monitor, you can also select any resolution or color quality supported by that monitor.
4. To change the refresh rate, click **Advanced...** and then click **Monitor**.
5. Select a refresh rate from the **Screen** refresh rate drop-down list and then click **Apply**.
6. Click **OK** to close the settings screen.

Fit to TV Function

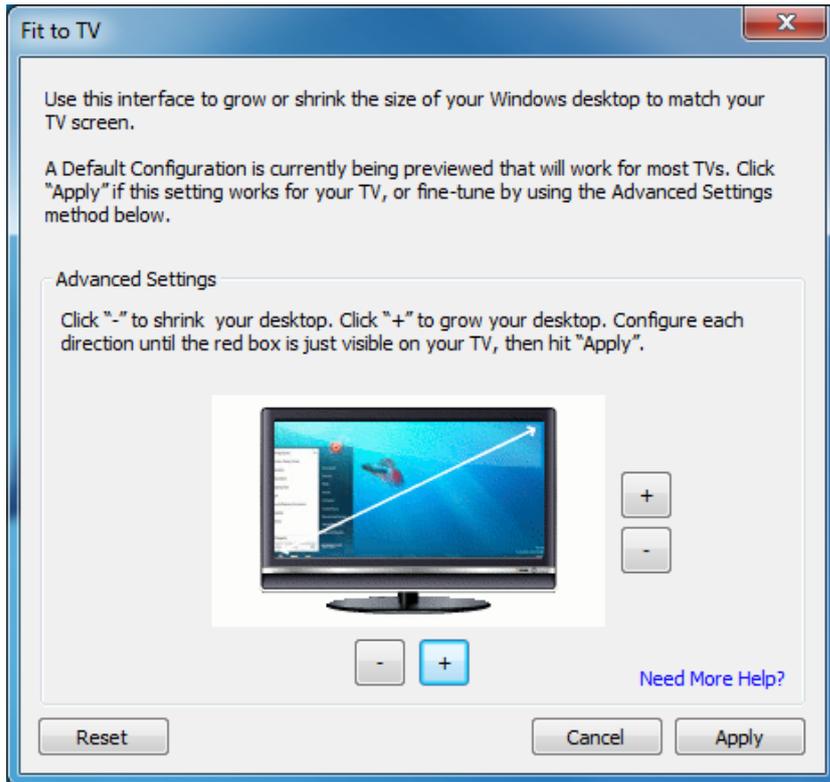
"Fit to TV" function is for HDMI[®] TV connections. A new user interface option allows the correction of overscan on TVs when using a USB to HDMI[®] adapter. The "Fit to TV" function allows a user to change the size of their Windows desktop to allow the entire desktop to be viewed.

Setting

1. Click on the DisplayLink Device icon and select "Fit to TV" to enable this function.



2. To configure Fit to TV, the following interface appears



3. The red border shows the size of the new Windows desktop...



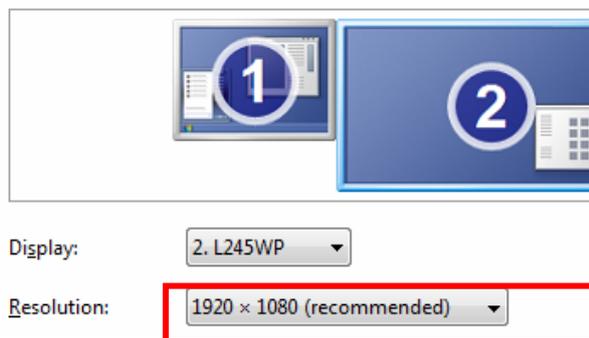
4. Use the "+" and "-" controls on the Fit to TV GUI to change the size of the red border until it fits on the TV screen.

Note: Finer configuration of the size of the border can be achieved by holding down the CTRL key and clicking the "+" and "-".

Before:



Change the appearance of your displays

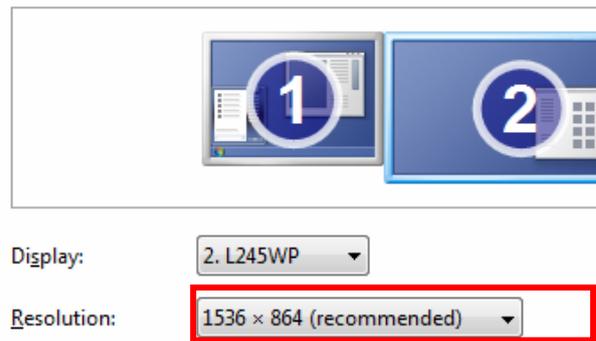


5. Once the red border is at the edges of the TV screen, click "Apply" to resize the Windows desktop.

After:



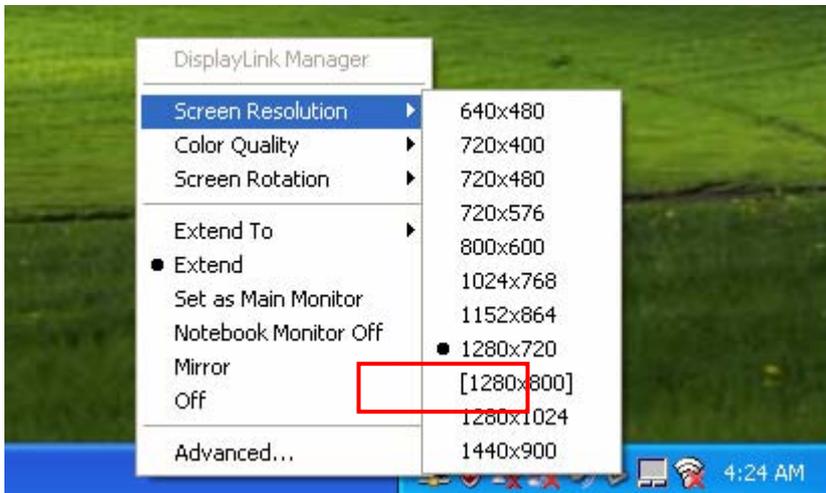
Change the appearance of your displays



Note: Fit to TV function only works in extend mode and does not support rotated modes.

Inferred Modes

Some modes in the DisplayLink GUI are shown with [] around them.



This occurs when connecting a monitor with a preferred mode higher than the maximum supported resolution of the DisplayLink device.

In this case, the preferred resolution of the monitor cannot be supported. However we add lower resolutions of the same aspect ratio to be tried with the monitor. Modes in square brackets [] imply that these are modes not reported by the monitor, but have been made available by the DisplayLink software for you to try.

As these are inferred modes from the preferred mode of the monitor, they are not guaranteed to work with the display.

Disconnecting the Docking Station

If the docking station is unplugged from the computer, the add-on monitor goes blank. All windows and icons move to the primary screen.

On reconnection of the docking station, the docking station returns to the same mode as it was before disconnection. However, windows and icons that were previously on the screen will not be moved back.

How Standby or Hibernate Mode Affects Devices Attached to the Docking Station

External Monitors

When the docking station is connected to a computer and an external monitor, if the computer goes into standby or hibernate mode, the external monitor display goes blank.

When the computer returns to an active state, the external monitor display keeps the same settings it had before the computer went into standby or hibernate mode. However, if the add-on monitor was set for extended mode, windows that were previously on the external monitor will not move back to that secondary monitor. Also, if the add-on monitor is in extended mode and the computer requires a login after standby or hibernate mode, the login screen appears on the primary computer monitor, not the external monitor.

If the computer is shut down, restarted and logged in, again the add-on monitor returns to the same mode as it was before shutdown.

Other Devices

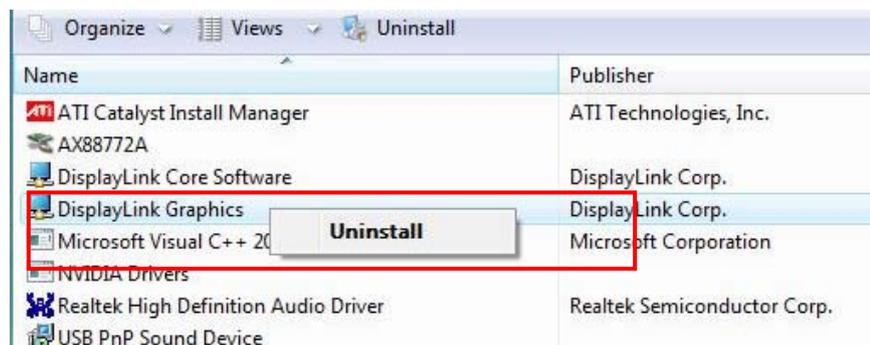
If another device is connected to a port on the docking station and the computer goes into standby or hibernate mode, that device will not function. For example, if you are using the Ethernet port for high-speed network access, network access will not be available until the computer returns to an active state.

4. Uninstalling the Driver

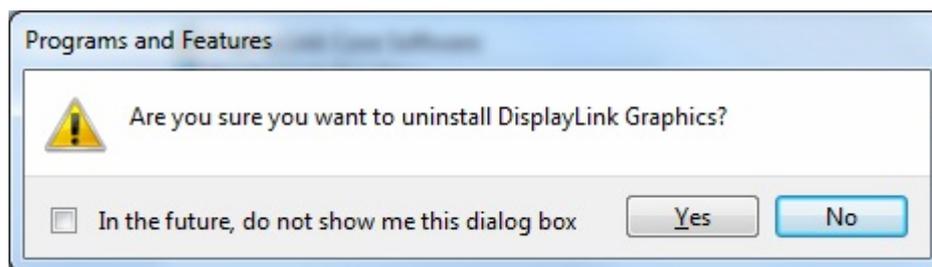
Uninstalling the Driver

Please take these steps to uninstall Drive:

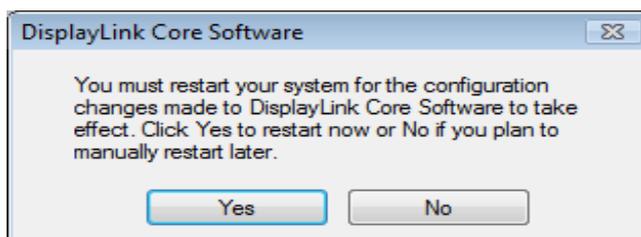
1. Open the **Control Panel** and double-click **Uninstall a Program** on Windows® 7, **Programs and Features** on Windows Vista® or **Add or Remove Programs** on Windows® XP.
2. Select **DisplayLink Graphics...** and click **Uninstall** or **Remove**



3. Click **Yes** to confirm the removal.



4. Click **Yes** to restart your computer. You can also disconnect the video connection now.



5. Specifications

General	
Host Interface	USB 2.0
Operating System Support	Windows® XP SP2, Windows Vista® (32/ 64 bit) and Windows® 7 (32/64 bit).
Ports and Connectors	
Upstream	1 x Upstream USB 2.0 Port (Type B female Connector)
USB Hub Downstream	4 x Downstream USB 2.0 Port (Type A female connector)
Ethernet	1 x Ethernet Port
Video	1 x HDMI Port (30 pin Female Connector)
Audio	1 x microphone (3.5 mm stereo mini-jack) 1 x earphone (3.5mm stereo mini-jack)
Security Lock Slot	Industry-standard Kensington® security slot
LED	
Power LED (Blue)	On: Power is supplied to the docking station. Off: No power is supplied to the docking station.
USB Hub LED (Green)	On: Any of the USB downstream ports is connected to a USB device. Off: No USB device is connected.
Power	
Power Adapter	Input: AC 100-240V Output: DC 5V / 3.0 A
Power Mode	Self-powered

Video Component	
Supported Modes	Extended Desktop (Default), Mirrored Desktop, Primary Display
Environmental Specifications	
Operating Temperature	10-40°C
Storage Temperature	-10~80°C
Relative Humidity	< 85% non-condensing
Regulatory Compliances	
Safety, EMI	FCC, CE
RoHS	RoHS compliant

* Specification is subject to change without further notice.

6. Regulatory Compliance

FCC Conditions

This equipment has been tested and found to comply with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference
- (2) This device must accept any interference received. Including interference that may cause undesired operation.

CE

This equipment is in compliance with the requirements of the following regulations:
EN 55 022: CLASS B

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, please contact your local authorities, your household waste disposal service or the shop where you purchased the product.

