# xtraCoN Series: Video+Audio+USB Extender Over LAN (or USB)

Model Number	Resolution Max.	Platform	LAN	Output Connector	Audio Connector	
MACNM-H90	1920 x 1080	W. 1 (A)		100	HDMI	Audio via
MACNM-H92	1920 x 1200 2048 x 1152	Windows/ Mac	BASE	Female	HDMI	
MACNM-G90	1920 x 1080		1000	HDMI	Audio via	
MACNM-G92	1920 X 1200 2048 x 1152	Windows/ Mac	BASE	Female	HDMI	
MACND-H20	1280 x 1024					
MACND-H60	1600 x 1200		100	DVI-D	Speaker +	
MACND-H90	1920 x 1080	Windows/ Mac	BASE	Female	Mic	
MACND-H92	1920 X 1200 2048 x 1152		5/62	Temate	me	
MACND-G90	1920 x 1080	Windows/ Mac	1000	DVI-D	Speaker +	
MACND-G92	1920 X 1200 2048 x 1152		BASE	Female	Mic	
MACNA-H20	1280 x 1024					
MACNA-H60	1600 x 1200		100	HDB15	Speaker +	
MACNA-H90	1920 x 1080	Windows/ Mac	BASE	Female	Mic	
MACNA-H92	1920 X 1200 2048 x 1152		5,01	Temate	Mic	
MACNA-G90	1920 x 1080	Windows/ Mac	1000	HDB15	Speaker +	
MACNA-G92	1920 X 1200 2048 x 1152		BASE	Female	Mic	

Extend HDMI/ DVI/ VGA signal over LAN or USB interface from a single source computer to multiple displays

# **Related Products**

xtraViU Series: Video+Audio Extender Over LAN (or USB)

Model Number	Resolution Max.	Platform	LAN	Output Connector	Audio Connector
VCNM-H90	1920 x 1080		100	HDMI	Audio via
VCNM-H92	1920 x 1200	Windows/ Mac	BASE	Female	HDMI
, 0.1,	2048 x 1152				
VCNM-G90	1920 x 1080		1000	HDMI	Audio via
VCNM-G92	1920 X 1200	Windows/ Mac	BASE	Female	HDMI
VCIVIN-G72	2048 x 1152		DAGE	remate	115//
VACND-H20	1280 x 1024				
VACND-H60	1600 x 1200		100	DVI-D	Speaker +
VACND-H90	1920 x 1080	Windows/ Mac	BASE	Female	Mic
VACND H03	1920 x 1200		DAGE	remate	mic
VACND-H92	2048 x 1152				
VACND-G90	1920 x 1080		1000	DVI-D	Speaker +
VACND-G92	1920 x 1200	Windows/ Mac	BASE	Female	Mic
VACND-072	2048 x 1152		DAJE	Terriace	Mic
VACNA-H20	1280 x 1024				
VACNA-H60	1600 x 1200		100	HDB15	Speaker +
VACNA-H90	1920 x 1080	Windows/ Mac	BASE	Female	Mic
VACNA-H92	/ACNA-H92 1920 x 1200		27.02	· cacc	
VACNA-1192	2048 x 1152				
VACNA-G90	1920 x 1080		1000	HDB15	Speaker +
VACNA-G92	1920 x 1200	Windows/ Mac	BASE	Female	Mic
VACNA-U9Z	2048 x 1152		22		,,,,,

Transmit DVI/VGA signal via USB interface from a single source computer to a single display. The color depth is supported up to 32 bits at the maximum resolution.

### **Related Products**

xtraViU Series: USB-to-Video Extender

Model Number	Input	Output
VCUA-20/ 60/ 90/ 92	USB	VGA
VCUD-20/ 60/ 90/ 92	USB	DVI-D
VCUB-20/ 60/ 90/ 92	USB	DVI-D + VGA

- \* UP TO FOUR **xtraCoN** series through the USB 2.0 ports can be connected at a time, enjoying multiple windows on the multiple monitors, increasing your productivity like never before!
- \* The driver installation procedure and software operations may differ from version to version, that may cause the snapshot on this user's manual slightly differ from others without affecting the function.
- \* The final specifications are based on the actual product.
- \* Features and functions may be added or changed since the manual was written.

  Please visit our website to download the latest version of manual for reference
- \* To prevent damages to your installation, it is important that all devices are properly grounded.
- \* For Mac users the signal extending over LAN is not applicable.



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Please read this manual thoroughly and follow the **Installation** procedures to prevent any damage to the unit or any connecting device

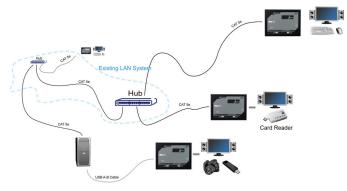
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# - Introduction

xtraCoN series, Video+ Audio+ USB Extender over LAN: MCNM/ MACND/ MACNA series --- provides LAN connectivity via CAT5 cable (or USB cable connection) for HDMI/ DVI / VGA extension from a single video source to multiple video display devices with maximum resolution up to SXGA(1280 x 1024) / UXGA(1600 x 1200)/ Full HD (1920 x 1080). The installation can be easily achieved with an easy 2-step process---installing the driver and connecting both the display and Hub (or source computer) to the Extender Unit by Video and CAT5 cables (or USB A-B cable) respectively. It supports most of the popular Windows systems and Intel-based Mac OS system for extending video via USB connection. Users can have two displays at both the local and remote locations from the same video source and up to 4 Units can be daisy chained at a time.

The connected monitor can be configured to either clone the primary screen, or extend the Windows desktop allowing visibility of more applications at the same time such as while reading the email on one monitor, open the attachment on the other monitor.

With its portability and small footprint, it can be plugged in quickly to deliver high definition signal to a projector or monitor display from a PC or other media repository, which is perfect for situations that require immediate Video/Audio/ USB signal extension with easy set up and high quality output such as applications on public broadcasting, exhibits, courtrooms, classrooms, boardrooms, stock tickers, bus stations etc.



# 

- Easily add the extra console(s) via the USB or the exiting LAN system without additional wiring.
- Add up to 4 extra consoles allowing 4 + 1 users to share one computer at a time; the control power is on first-come, first-serve basis.
- Unique Multi-users network configuration, negotiable controlling access setting.
- Enable USB peripherals sharing via network connection.
- Support HDMI/ DVI/ VGA display. (depends on model)
- Perform the multiple windows on the multiple displays and increase productivity like never before.
- Demonstrate media files and DVDs in either extend or clone mode.
- Support the high resolution up to UXGA (1600 x 1200)/Full HD (1920 x 1080) and 2048 x 1152 for certain models.
- Fully support Windows 2000 SP4, Windows XP SP2 or SP3, Windows Vista SP1/SP2, Windows 7.
- Fully support Intel-based Mac OS 10.4/10.5 for the video extending via USB connection.

x 1

 Ideal for applications on public broadcasting, exhibits, retail stores, courtrooms, etc.

# Packing Checklist 1. xtraCoN Unit

2. Power Adapter with necessary AC Cord	
Or	
Plug-in Power Adapter	x 1 (select only one of three)
Or	
USB power cable	
3. CD with the driver & User's Manual	x 1
4. USB A-B Cable	x 1
5. CAT5 Cable	x 1
6. Foot Pad Set	x 1

### Optional

Magnetic foot pads with necessary screws x 1 set

(Avoid locating it near any strong sources of electromagnetic radiation such as CRT monitors, high power electric cabling, audio equipments, and tape recorders)

# **★**System Requirements

Network: Supports 100/1000 Mbps of bandwidth.

Display: Monitor(s) or Projector(s)

Computer (Windows Vista):

1. WEI (Windows Experience Index) score of at least 3.0 overall.

The recommended hardware depends on the display resolution:

1366x768: overall WEI score of at least 3.5

1920x1080 (HD): overall WEI score of at least 4.0

- 2. VGA or DVI video card
- 3. CD-ROM or DVD drive
- 4. At least one USB 2.0 port (optional)

Computer (Windows 2000/XP/7) based on full screen DVD Display:

- 1.1. For 1-2 monitors, business usage, productivity target. This may not provide full frame rate DVD playback at full screen:
  - 1.2GHz Single Core CPU (Celeron or Atom N270 for example)
  - 512MB memory
- 1.2. For 3 monitors where 1 could run DVD video while also targeting productivity and business apps. Will support only 1 video of DVD resolution at full screen:
  - 1.6GHz CPU
  - 1GB memory
- 1.3. For 4 monitors where 1 screen can run full screen DVD video:
  - 1.8GHz Core Duo
  - 1GB memory
- 2. VGA or DVI video card
- 3. CD-ROM or DVD drive
- 4. At least one USB 2.0 port (optional)

**NOTE**: More Unit connections for signal simultaneous transmission, more computer resources may be consumed.

# **★**Additional Requirements

The Unit software can be installed on any desktop or laptop system running Windows 2000 SP4, Windows XP SP2 or SP3, Windows Vista SP1/SP2 32-bit and 64-bit editions, Windows 7 and Intel-based Mac OS 10.4/10.5. Any predecessor versions of the Windows or other platforms that are not mentioned here won't be supported by any drives currently.

Depending on the interconnection deployments that include Video+Audio extending via LAN and Video+Audio extending via USB, users can select the appropriate Unit software driver from the provided CD for the driver installation to the source computer.

- For the source computer running Windows 2000 SP4, Windows XP SP2 or SP3, Windows Vista SP1/SP2 32-bit and 64-bit editions, and Windows 7, the scheme of Video+Audio extending via LAN/ USB can be implemented by using any model of xtraCoN Series.
- For the source computer running Intel-based Mac OS 10.4/10.5, the scheme of video extending via USB can be implemented by using any model of xtraCoN Series, and the scheme of video extending via LAN is impracticable in this platform.

For the details of driver installation, please proceed to the sections entitled "Windows 2000/ XP/ Vista/ 7" or "Intel-based Mac OS 10.4/10.5"

NOTE: Long cable lengths between the Units and source computer may adversely affect image quality at high resolutions and refresh rates. If users need to run remote displays at high resolutions and frequencies, use as little Ethernet cabling between locations as possible and avoid practices such as "coiling" unused cable in a ceiling or behind the display.

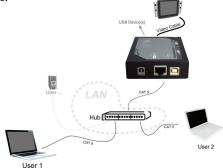
(USB A-B Cable for connection between the source computer and the Unit should not exceed 5 meters.)

# ----- Product Description



1	USB Connector	Connect to USB (1.0/ 2.0) Peripherals
2	USB Connector	(USB connector does not support USB hub)
3	Video Connector	Connect to VGA / DVI / HDMI Display Device
4	Audio Connector	Connect to Speaker Device
(Not available for HDMI model)	Connect to MIC Device	
6	LED Indicator	Green: Power On
•	(LAN)	Flash Green and Blue: Connect to the active network
7	LED Indicator	Blue: Power On
	(USB)	Light Off: Extra monitor off
8	Power Supply	Apply the proper power to the unit
9	Reset Button	Reset to the factory default
10	RJ-45 Jack	Use CAT5 cable for the LAN connection
11	USB Connector	Connect to the Computer USB port

Figures listed below illustrate typical applications of xtraCoN series. The model you have purchased may be slightly different from those described in the figures.



Extend the Video+Audio via the Local Area Network system



Extend the Video+Audio via USB

# -----Connection

### Before the Connection

- Install the software to the computer first BEFORE the physical installation
- Prior to the installation, ensure to power off all devices that will be connected to this system.
- 3. Ensure that all devices you will connect are properly grounded.
- 4. Place cables away from fluorescent lights, air conditioners, and machines that are likely to generate electrical noise.
- 5. Avoid locating the magnetic foot pad near any strong sources of electromagnetic radiation such as CRT monitors, high power electric cabling, audio equipments, especially tape recorders, which are very sensitive to electron-magnetic fields.

### **Connection Patterns**

- For the maximum capability and extension, up to 4 Units can be daisy chained and connected to an Ethernet Hub at a time.
- Connect the provided power cord into an appropriate power source and plug the opposite end into the power connector on the xtraCoN Unit. The POWER LED on the top panel of the Unit flashes GREEN-BLUE followed by steady BLUE indicating the power ON.
- Use a HDMI/DVI/VGA cable for the connection between xtraCoN Unit and the monitor display.
- On the xtraCoN Unit, connect the mouse/keyboard to USB connectors and Audio Jack to Speakers and MIC.
- For LAN connection pattern, use CAT5 cables for the connection among the xtraCoN series, source computer, and Ethernet Hub. The LAN LED on the top panel of the Unit flashes BLUE to confirm the connection.
- For USB connection pattern, use a USB A-B cable for the connection between the source computer and the xtraCoN models. The USB LED on the top panel illuminates BLUE to confirm the connection.

# ------ Windows 2000/XP/Vista/7

### Driver Installation

The source computer running Windows 2000/XP/Vista/7 is required to install the appropriate Unit software according to the interconnection deployment method that could be Extending the video via the Local Area Network system or Extending the video via USB. Please follow the instructions below listed step by step for your driver installation.

All the prompt screens and dialog boxes shown in this section are for Windows 2000/XP/Vista/7. Some dialog boxes and folders may slightly different in other versions of Windows.

NOTE: The driver installation procedure and software operations may differ from version to version, that may cause the snapshot on this user's manual slightly differ from others without affecting the function.

NOTE: If you have software installed you must uninstall it, using the Windows Add/Remove Programs feature, before installing this release.

NOTE: On some machines you may need to reboot before you can use your xtraCoN enabled device.

- Install the xtraviU driver (Windows 2000/XP/Vista/7)
  - Insert the CD into the CD/DVD-ROM drive and browse:
     X:\ Windows\ XtraviU\ XtraViU\_X.x.xxxxx
     Double-click on the "XtraViU\_X.x.xxxxx" file to begin the installation (The version of driver may vary, please contact your local dealer for the latest driver)
  - 2. Use an USB A-B Cable to connect the **Unit** to your computer after the installation completed.
  - 3. Power ON the Unit and you can find this icon in the System Tray:





- Install the XtraViU\_NET driver (Windows 2000/XP/Vista/7)
  - Insert the CD into the CD/DVD-ROM drive, and then browse:
     X:\ Windows\ XtraViU\_NET\ USBServer\_XtraViU\_NET\_xx
     Double-click the file "USBServer\_XtraViU\_NET\_xx" to begin the
     Installation (The version of driver may vary, please contact your
     local dealer for the latest driver).



2. Restart your computer after the installation completed.



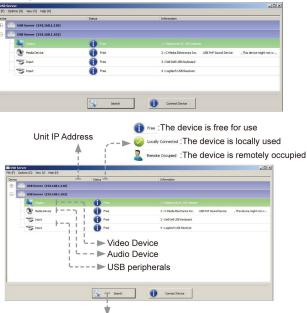
After Windows has been loaded, users can find a shortcut "Launch USB Server" on the Windows desktop. Follow the procedure outlined below to avoid complications at the configuration stage.



- 3-1) Confirm proper operations of each of the monitor(s) to be connected to the xtraCoN Unit
- 3-2) Switch OFF the power of monitor(s)



- 3-3) Confirm that your network is operating normally and keep your computer online
- 3-4) Connect the xtraCoN Unit RJ-45 Connector to the network by using an Ethernet CAT5 cable
- 3-5) Connect the xtraCoN Unit to the monitor and switch on each connected monitor
- 3-6) Power ON the the xtraCoN Unit
- When the xtraCoN Unit is powered ON, double-click on the shortcut "Launch USB Server", a Pop-Up Screen indicating the current connecting Status.



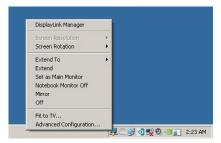
Press "Search" to find new active device(s) on the network



# Extend the video via USB

• Using Menu Bar Control (Windows 2000/XP/Vista/7)

Once the software and hardware of the **xtraCoN Unit** are properly installed and connected, the user can easily find the icon located at the lower right corner of desktop as the snapshot shown below, click on it to bring up the following screen. By default, the **xtraCoN Unit** is set to Extend mode. (Any of icon selection from this bar will achieve the screen setting to the extra screen-the secondary screen.)



### 1. Screen Resolution

The user can select a desired resolution by accessing to "Screen Resolution" listed at the icon as the following figure shown



**NOTE:** The resolution options may vary from monitor to monitor. Check the capability for your monitor.



#### 2. Screen Rotation

The user may rotate the extra screen to the desired angle for certain applications.



Normal: keeps the extra screen with the same angle as the primary screen.

Rotated Left: rotates the extra screen 90 degree clockwise.

Rotated Right: rotates the extra screen 90 degree counterclockwise.

Upside-Down: rotates the extra screen 180 degree.



Normal



Rotated Left



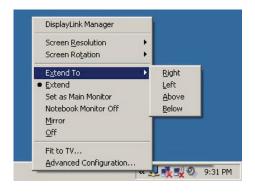




Upside-Down

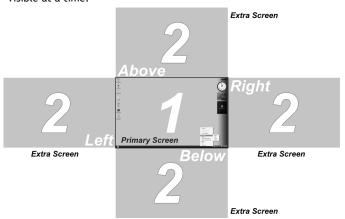
### 3. Extend To

Allows the user to set the extra screen extend to the above, below, left, and right of the primary screen.





In Extend Mode, the monitor attached to the **xtraCoN** Unit forms part of the extended windows desktop. The extra desktop area is a great productivity aid, allowing more applications or documents to be visible at a time.



#### 4. Set as Main Monitor

Allow the user to set the extra screen as the primary screen

**NOTE**: Please check the capability of your extra monitor first before you try to perform this configuration.

### 5. Notebook Monitor Off

After setting the extra screen as the primary screen, the user can turn off the laptop screen and continue the laptop operation without any obstacle. (The extra screen will replace the laptop screen)



#### 6. Mirror

Allow users to set the extra screen as a clone of the primary screen.



Primary screen

Extra screen

### 7. Off

Allow users to turn off the extra screen.

# 8. Optimize for Video (Vista and Windows 7 Only)

Configure the secondary display for optimum full screen video performance output. Select this option for better movie playback performance on the **xtraCoN** enabled displays. Only select this option when playing back video content.

Note: Text may appear less clear when enabled.





#### 9. Fit to TV

If the Windows desktop does not completely appear on TV, this option can be used to adjust the size of the Windows desktop. However, only on TV screen, users can adjust the size to full screen while this function may not be applicable to some PC monitors.

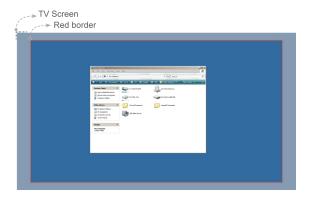
**Note:** Fit to TV only works in extend mode. If choosing the option while in mirror mode, the screen will change to extend and be placed above the laptop screen in Windows Display Properties. Fit to TV does not support rotated modes.







### You will also see a red border on the extend screen



The red border shows the size of the new Windows desktop (Extend). Use the "+" and "-" controls on the Fit to TV Screen to change the size of the red border until it fits on the TV screen. Once the red border is at the edges of the TV screen, click "Apply" to resize the Windows desktop.

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



### 10. Advanced

Provide more options for settings as following shown.

■ Display selection



■ Resolution and Color Quality Settings





■ Refresh Rate: Click "Advance"→"Adapter"→"List all mode...", all valid combinations of resolution, color quality and refresh rate are fully listed here. Flat panel monitors do not flicker and require a low refresh rate.



### Windows 7 System

On Windows 7, you can configure an **xtraCoN** device through the use of Windows Display Properties (WDP). WDP provides a simple method to attach, rotate, duplicate or extend screens as well as modify screen resolution.





#### Orientation:



#### Multiple displays:



### **Portrait**



Portrait (flipped)



Landscape



Landscape (flipped)



Duplicates these displays: Reproduces the main display on the second display.

Extend these displays: Extends the main display onto the secondary display.

Show Desktop only on 1: The desktop appears on the display "1".

The display marked 2 becomes blank.

Show Desktop only on 2: The desktop appears on the display "2".

The display marked 1 becomes blank.



To control the behavior of an attached **xtraCoN** display, it is also possible to use Windows Key+P to display a menu (and cycle through it) to switch mode.

Select the Windows Key+P. The following menu appears. Click on one of the options. The display updates to reflect your choice.





# Operation

# Extend the Video+Audio via the Local Area Network system

• Using USB Server (Windows 2000/XP/Vista/7)

The USB Server, a Graphical User Interface (GUI), is a useful tool to set up multi-xtraCoN Units for your computer video output display.

When you launch the USB Server (programs\ USB Server 2\ Launch USB Server), it will automatically search the active **xtraCoN** Units in the same network segment and you will see these active devices listed in the USB Server screen as the following figure shown.



### **Device Connection**



For example, Select the Device (Video/Audio) and then press "Connect Device" for the device connection





The "Video Device" is now locally used

### **Device Disconnection**

When finishing the Audio/Video transmission, user may disconnect the device(s) and left the controlling access for the next user. As figure shown below



The "Video Device" is now free for use



### Audio Configuration (Speakers)

After the "Media Device" is locally connected, users can find the Volume control options on the taskbar. Open Volume control options window and check Speakers

(USB PnP Sound Device)





### Audio Configuration (Microphone)

Attach the microphone to the xtraCoN Unit. Then users can find "Recording devices" option on the taskbar. Click "Recording devices".

Under Microphone (USB PnP Sound Device), open "Properties" option for volume adjustment.

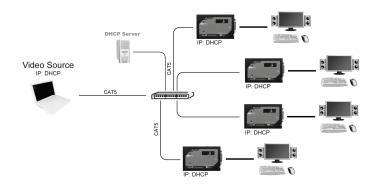






By default, the **xtraCoN Unit** gets the IP Address from DHCP server automatically. The PC's IP Address must be in the same subnet as the **xtraCoN Unit's** IP Address for the two devices to communicate. (For example, if **xtraCoN Unit's** IP Address is 192.168.1.104, with a subnet mask of 255.255.255.0, then your computer's IP Address should be 192.168.1.x, where x is a value between 1~254, excluding 104.)

NOTE: To add additional **xtraCoN** Units, simply connect them to the network. A maximum total of 4 Units can be expanded.

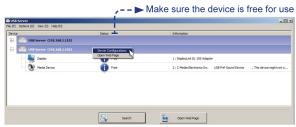




# Network Configuration

If your network doesn't have or support DHCP Server, please assign a unique IP for each connected **xtraCoN Unit**.

Step 1. Right click the device on the list and select "Server Configurations"



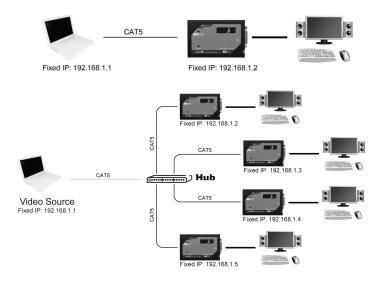
NOTE: The device status should be on "Free" status

Step 2. Uncheck the "Use DHCP" and set a valid IP address for the Unit



Step 3. Press "Set" button for the confirmation



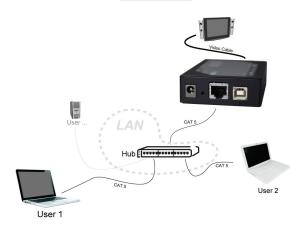


NOTE: The PC's IP Address must be in the same subnet as the **xtraCoN**Unit's IP Address for the devices to communicate.

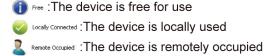
**NOTE:** No password is set by factory defaults.



Network Configuration Multi-users

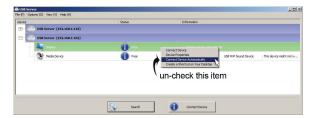


**xtraCoN** operation is on first-come first-serve basis. Different users cannot access the same **xtraCoN** unit simultaneously. Three statuses can be found on the USB Server screen as the following figure shown.



For the best usability and flexibility of the Audio/ Video transmission in multi-users condition, please un-check the "Connect Device Automatically" item for all devices listed on the USB Server window as the following figure shown.

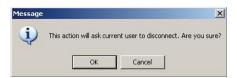




# Request Disconnect Device



Under multi-users situation you may send "Request Disconnect Device" message to the current user and ask for accession to the **xtraCoN** device. Right click on the device you want to access and then select "Request Disconnect Device" As figure shown above. The following Pop-Up screen will then ask for confirmation.





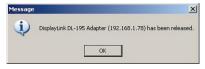
The current user will receive a message indicating the disconnection request, and he/ she can decide whether to yield the controlling access or not. As the figure shown below



If the current user is still working on the device operation then your monitor will Pop-Up screen as below.



If the current user finish working on the device operation then your monitor will Pop-Up screen as below.





Select the Device and then press "Connect Device" for the connection



# Setup Button: Restore Factory Defaults

Users can reset the **xtraCoN Unit** back to its original state (Factory Default Settings) through a pinhole Setup Button (as the figure shown below). This feature is helpful for some circumstances, such as IP or password lost or forgotten, etc.. The following procedure will guide you through this process:

**Warning:** This is a data-destructive process. It is strongly recommended that you backup any/all data from the **Unit** before starting the restore.



**Setup Button** 

- Step 1. Make sure that the Unit is powered on. In this state, the POWER LED on the top panel of the Unit should emit steady GREEN light indicating that the power is ON.
- Step 2.Press and Hold the setup button 3 seconds with a paper clip or pencil tip. The POWER LED will flash blue light once followed steady GREEN light indicating that the factory defaults are restored.

**NOTE:** By default, no password is set to the **Unit** that is set to automatically get the IP Address from DHCP server



#### Standby and Hibernate, Shut down and Restart

If a computer/laptop connecting to an **xtraCoN** Unit is placed into standby or hibernate mode, the display goes blank. When the computer/laptop is again powered up (and unlocked if necessary) the connected monitor returns to the same mode as it was before stand by or hibernate.

If the computer/laptop is shut down, restarted and logged in, again the connected display returns to the same mode as it was before shutdown.

#### Disconnect the xtraCoN Unit

If the **xtraCoN Unit** is powered off or the USB cable is removed from the computer, the display blanks. All windows and icons move to the primary screen.

Once the computer is reconnected or the **xtraCoN** Unit is powered up, the display returns to the same mode as it was before disconnection or powered off. However, windows and icons that were previously on the screen will not be moved back.

## ----- Intel-based Mac OS 10.4/10.5/10.6



In addition to being compatible with Windows 2000/XP/Vista/7, **xtraCoN** series provide a better platform flexibility in supporting Intel-based Mac OS 10.4/10.5/ 10.6 for extending video via USB. Please follow the instructions below listed step by step for the driver installation.

All the prompt screens and dialog boxes shown in this section are for Intel-based Mac OS 10.5 Some dialog boxes and folders may slightly different in other versions of operating system.

## **Driver Installation**

 Insert the Driver CD into the CD/DVD-ROM drive, then browse through the CD and locate the "XtraViU\_xxxxx.dmg" file. Double-click on this file to begin the Installation





2. Double-click the "Software Installer" to install the software



Once the installation is complete, click the "Restart" button. The computer will reboot automatically



After the computer has been restarted, plug in the xtraCoN Unit to an available USB 2.0 port. The xtraCoN Unit should now be ready to use.



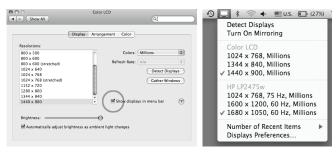
## Operation

## Using Menu Bar Control

Once software has been installed to the Mac, simply plug each **xtraCoN Unit** connected with display into the Mac. You can now use up to 4 additional monitors. When attaching a monitor to your Mac, by default, the monitor will be extended to the right of the main display.

## Configuring Display from the Menu Bar

Check the "Show displays in menu bar" in Display Preference then you can configure displays by clicking the display icon in the menu bar.



Detect Displays: Detect all displays connected to the Mac.

Turn On/ Off Mirroring: Turn display mirroring on/off

Color (CD 1024 × S68, Millions 1344 × 840, Millions × 1440 × 900, Millions : Set the resolution of the primary display.

 $^{1024}$  , 768, 75 Hz, Millions  $^{1060}$  x 1200, 60 Hz, Millions  $^{1060}$  x 1200, 60 Hz, Millions  $^{1080}$  x 1050, 60 Hz, Millions

Number of Recent Items: Configure how many "recent resolutions"

should be shown in this menu.

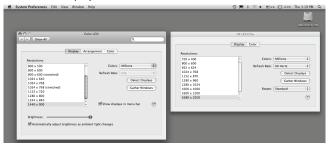
Display Preferences: Open "Display Preferences"



#### 1. Screen Resolution

To change the resolution for the display preference, select an available resolution by accessing to the path:

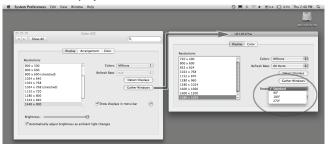
Menu bar→ Display Preference→ Gather Windows



The resolution availability depends on both the **xtraCoN** Unit and the capabilities of the connected display.

#### 2. Screen Rotation

If you wish to rotate the display(s), you can configure the orientation by dropping down the "Rotate". Select the appropriate angle of rotation to match your display's set up by accessing through the path: Menu bar→ Display Preference→ Gather Windows→ Rotate

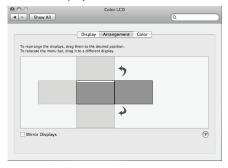


NOTE: Each time any settings the user made to the mode, rotation, resolution, frequency or depth are remembered for next time the user switch back.



#### 3. Display Positions

If your computer is connected to more than two displays, you can specify that some are mirrored displays and others show the extended desktop. A mirrored display shows the same content as the main display whereas an extended display will be an extension to your existing desktop. You can arrange your displays so that they match the physical layout of your displays by selecting the 'Arrangement' pane within Display Preferences. This ensures that you can easily navigate among all connected displays.



To move the position of a display, click and hold the display you wish to move then drag it to the desired position. The display will be highlighted with a red border whilst you are moving the display to its new position.

NOTE: To extend connected displays, make sure that the "Mirror Display" on the 'Arrangement' pane is unchecked.



#### 4. Mirror

When in Mirror mode, additional displays will display what is being shown on the primary display. Checking the "Mirror Display" on the 'Arrangement' pane enables this feature.



#### 5. Set as Main Monitor

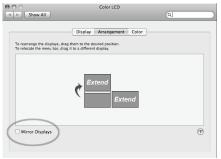
You can change the main display by moving the Menu Bar among displays. Changing the main display affects where new windows appearance and the position of the Dock. The 'Menu Bar' can be moved so that it is shown on an alternative display. Clicking the white menu bar and dragging it to the desired display will perform this action.





#### 6. Use both extended and mirrored displays

To work with both extended and mirrored displays, uncheck the box of mirror displays as the circle mark below, then in the Arrangement pane hold down both keys cmd and alt and drag the display you wish to overlay the primary display. Repeat this with each display you wish to mirror, those untouched will remain extending.



Both of the additional monitors are extended

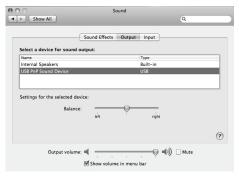


One extended and the other mirrored



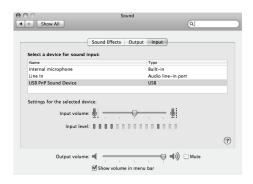
#### Audio Configuration (Speakers)

Open the "Sound" control option in System Preference. Select "Output" page and then choose "USB PnP Sound Device."



### Audio Configuration (Microphone)

Open the "Sound" control option in System Preference. Select "Input" page and then choose "USB PnP Sound Device."



# -----Specifications

		MACNA-H20	MACNA-H60	MACNA-H90	MACNA-H92
		MACND-H20	MACND-H60	MACND-H90	MACND-H92
Signal Input		Ethernet + USB			
Signal Output		HDB15 (MACNA) / DVI-D (MACND)			
Resolution (Max.)		1280 x 1024 1440 x 900	1600 x 1200 1680 x 1050	1920 x 1080 1600 x 1200	1920 x 1200 2048 x 1152
LEDs		Dual Color x 1 + Blue x 1			
Connector (In)	RJ-45	Yes			
	USB	Yes, USB 2.0			
Connector (Out)		HDB15/ DVI-D female, 3.5-mm jack x 2 for Audio USB-A (2.0) x 2			
LAN		100BASE-T			
Enclosure		Metal			
DDC2B Support		Yes			
Max. Power Consumption		DC 5V, 800mA			
Dimensions H x W x D (mm)		25 x 110 x 75			

		MACNA-G90	MACNA-G92	
		MACND-G90	MACND-G92	
Signal Input		Ethernet + USB		
Signal Output		HDB15 (MACNA) / DVI-D (MACND)		
Resolution (Max.)		1920 x 1080 1600 x 1200	1920 x 1200 2048 x 1152	
LEDs		Dual Color x 1 + Blue x 1		
Connector RJ-45		Yes	3	
(ln)	USB	Yes, USB 2.0		
Connector (Out)		HDB15/ DVI-D female, 3.5-mm jack x 2 for Audio USB-A (2.0) x 2		
LAN		1000BASE-T		
Enclosure		Metal		
DDC2B Support		Yes		
Max. Power Consumption		DC 5V, 800mA		
Dimensions H x W x D (mm)		25 x 110 x 75		

		MACNM-H90	MACNM-H92	
		MACNM-G90	MACNM-G92	
Signal Input		Ethernet + USB		
Signal Output		НДМІ		
Resolution (Max.)		1920 x 1080 1600 x 1200	1920 x 1200 2048 x 1152	
LEDs		Dual Color x 1 + Blue x 1		
Connector	RJ-45	Yes		
(ln)	USB	Yes, US	B 2.0	
Connector (Out)		HDMI (Female), USB-A (2.0) x 2		
LAN		MACNM – Hxx (100 BASE) / MACNM – Gxx (1000 BASE)		
Enclosure		Metal		
DDC2B Support		Yes		
Max. Power Consumption		DC 5V, 800mA		
Dimensions H x W x D (mm)		25 x 110 x 75		

# Troubleshooting

Symptom	Possible Cause	Solution	
	USB connection might be a issue	Make USB A-B cable length not exceed 5 meters.	
No video on		Configurations in the network environment are sophisticated	
screen(s) or	CAT5 connection	<ul><li>please lower the resolution</li></ul>	
screen(s) flicker	might be a issue	<ul> <li>use CAT5 cable compliant with EIA/TIA 568B industry standard</li> </ul>	
		<ul> <li>CAT5 cable length should not exceed 100 meters.</li> </ul>	
Can not link the Unit via USB server	The Unit might be occupied	The linking schedule is on the first come first serve basis.	
CAT5 connection is not applicable	USB and CAT5 connected simultaneously	USB connection has a higher linking priority than CAT5 connection	
Can not access to the network without IP/password	Forgotten the IP/password	Please see the section "Setup Button-Restore Factory Defaults" in this manual for details.	
Can not LAN link This RJ-45 LAN		<ul> <li>Use USB connection</li> </ul>	
the Unit in Mac OS System	connector does not support Mac OS	<ul> <li>Try the network operating in Windows systems</li> </ul>	

## **Limited Warranty**

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