

User Guide

ND4210w

Network Display

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For Your Records		
Model Name:	ND4210w	
Model Number:	VS11571	
Document Number:	ND4210w_UG_ENG_REV 1B	11-OCT-2006
Serial Number:	_____	
Purchase Date:	_____	

Product disposal at end of product life

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INTRODUCTION

Thank you for buying the **ViewSonic® Network Display**. This section introduces you to the **ND4210w Network Display**.

PACKAGED CONTENTS

Please check that all the following items are in the package:



ND4210w Network Display
with detachable speakers



User Guide



Quick Start Guide



Remote Control
with two AA batteries



Multi-Region
Power Cords

OPTIONAL ACCESSORY

The Wall Mount Kit accessory is available at viewsonic.com

REQUIREMENTS

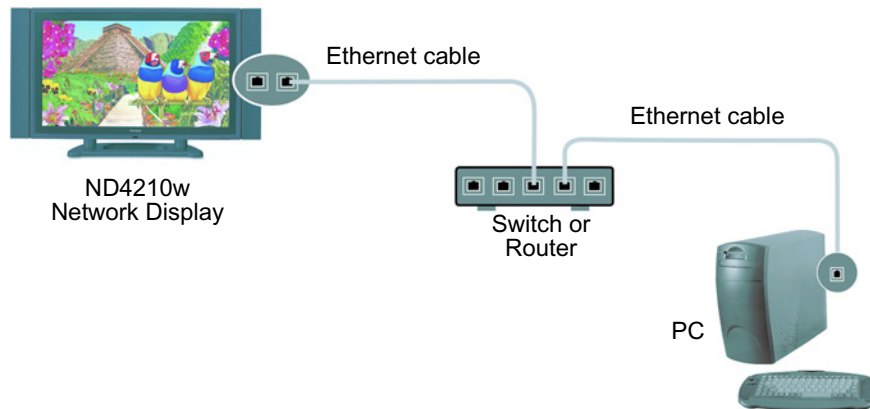
The **ND4210w Network Display** requires:

- **ViewSonic ND4210w Network Display** connected to AC power and a network or internet connection
- Streaming video server and/or live encoder
- If using the **VNC Client** feature, be sure to install VNC software on your PC (sold separately)

TWO MODES OF OPERATION

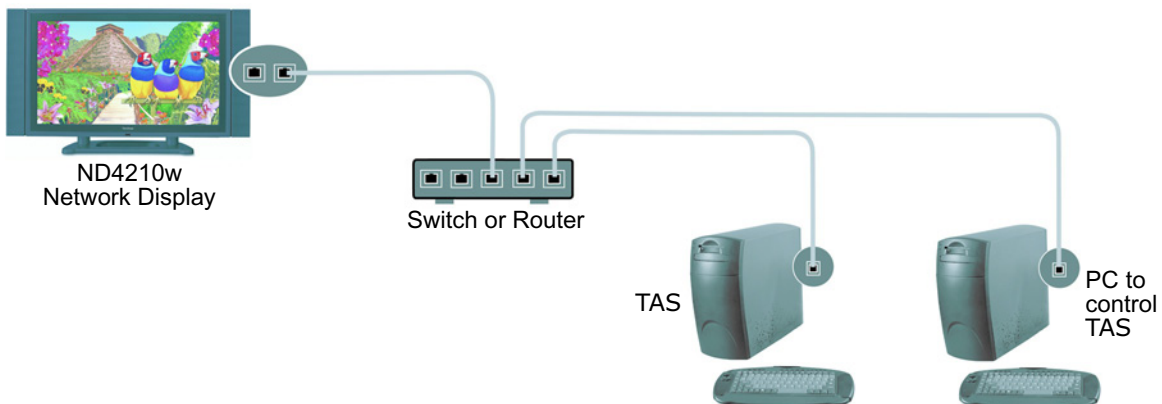
STANDALONE

The setup allows the **ND4210w Network Display** to act as an independent network device controlled by one server.



TAS MANAGED

You can purchase Tivella Administration Server (TAS) separately through Tivella (www.tivella.com or a Tivella dealer/reseller). A TAS server should be used to configure and manage multiple **Network Displays** remotely. TAS provides centralized scheduling of video content presentation on multiple **Network Displays**, as well as management and seamless operation of a Cisco® ACNS Content Distribution Networking infrastructure if one is installed. This configuration greatly reduces maintenance overhead, when TAS and the **Network Display** are connected to the network (LAN/WAN) with the TAS acting as a manager for multiple **Network Displays**.



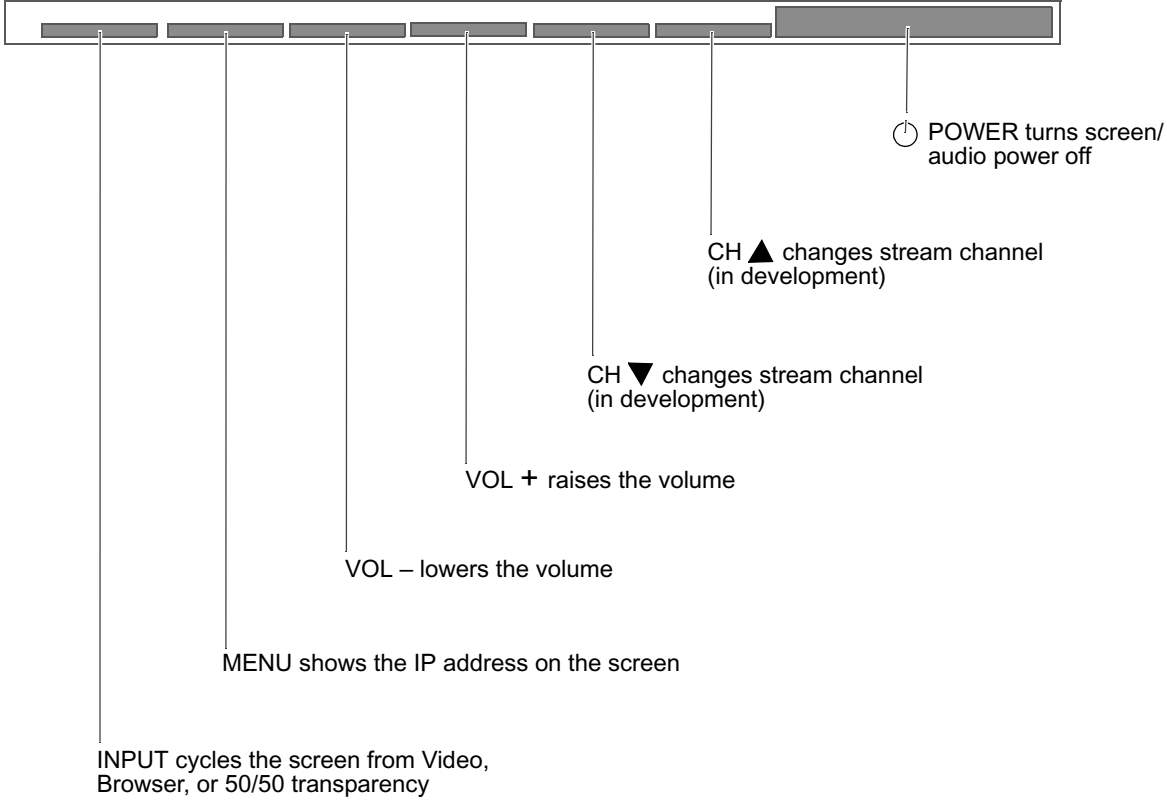
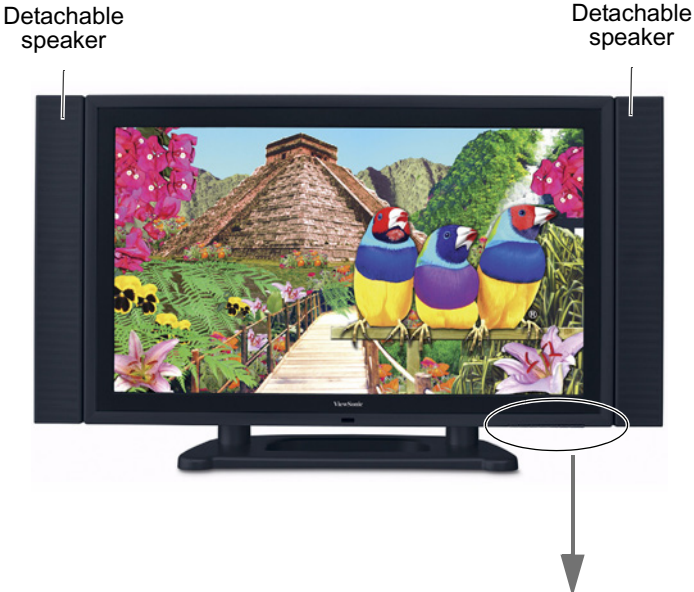
TWO MODES OF COMMUNICATION

There are two modes of communication with the **ND4210w Network Display**: an HTTP web interface and a Telnet advanced command line interface. This document focuses on the web interface only.

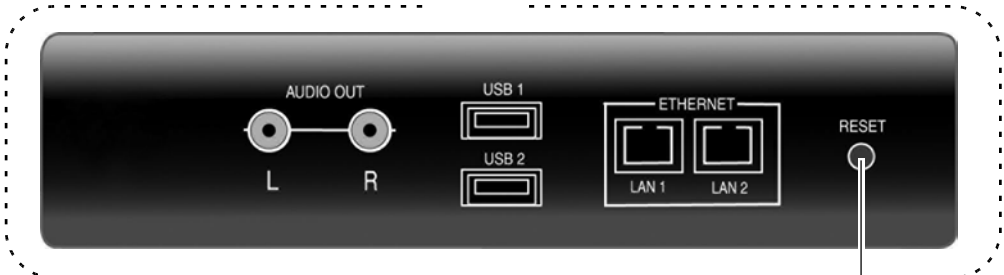
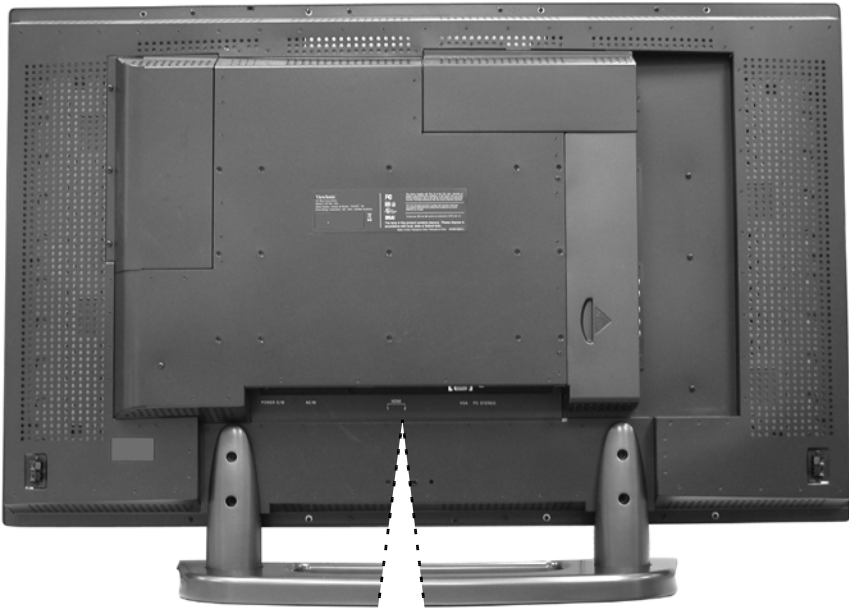
FEATURES

- Integrated display for A/V IP delivery
- Multiple **Network Displays** can be daisy chained with different IP addresses
- Supports scheduling of different video content across multiple displays
- No need for additional external PC or set-top box with a switch
- Remote management control and status reporting
- MPEG A/V decoding, MPEG 1/2/4, Macromedia Flash
- Auto-MDIX (no crossover cabling)
- Powerful combination of the Sigma Design® EM8621L and the Freescale® MPC8247 for smooth playback
- Can be installed with an optional wall mount
- Uses Tivella® content management software
- Devices can be remotely controlled from virtually anywhere with a network or internet connection
- Wireless Ethernet support eliminates the need to run cables to an existing network
- Remote management allows you to adjust the screen and see valuable information without being physically in front of the unit
- Network ready, easy installation
- Local content buffering or storing in hard drive
- AJAX support in browser

FRONT VIEW



BACK VIEW



RESET button
Press and hold the **RESET** button for five (5) seconds to restore the default settings.

REMOTE CONTROL



POWER button
On/Standby

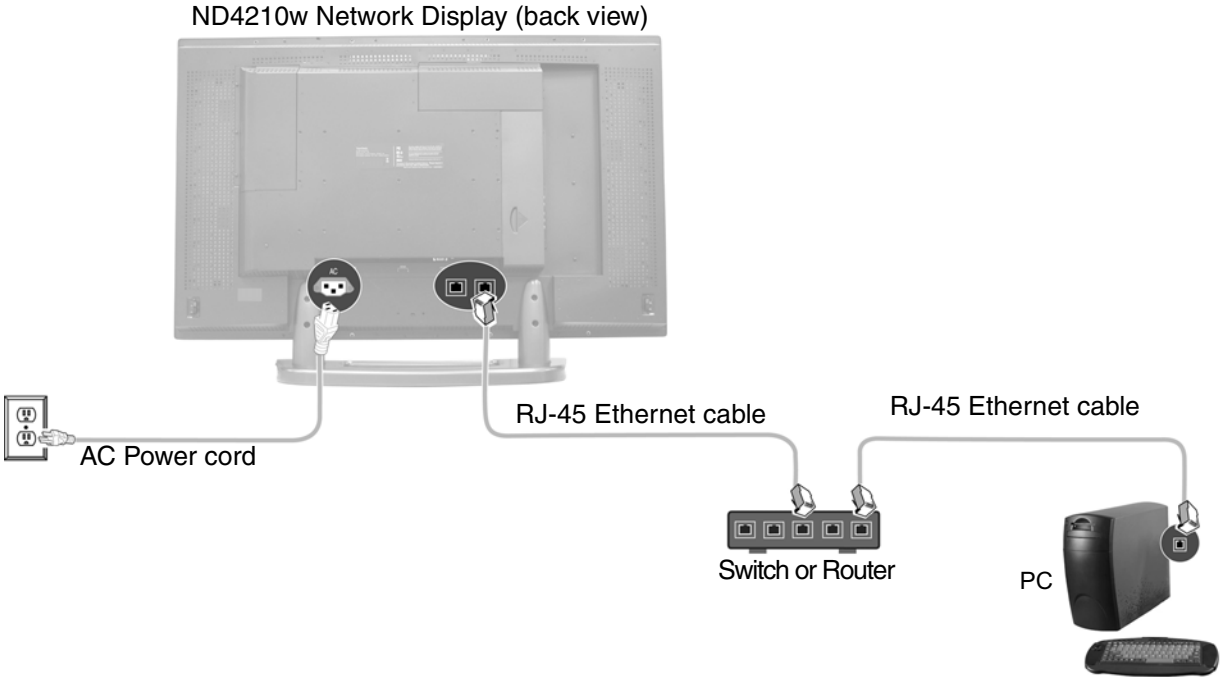


Show IP

SETTING UP THE NETWORK DISPLAY

1. CONNECT TO A SWITCH OR ROUTER

Connect an RJ-45 Ethernet cable from the **Network Display** to either a switch or a router with DHCP services. See your IT Administrator for a code to the switch or a router. Connect the AC power cord from the **Network Display** to an AC power source like a wall outlet.

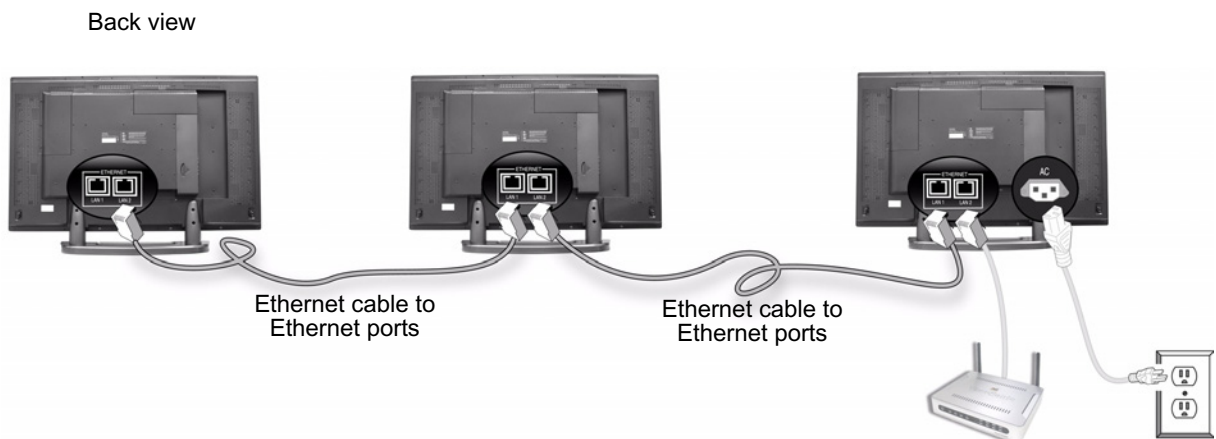


Connect Multiple Network Displays (optional)

You can daisy chain several **Network Displays** together. The two built-in Ethernet ports make the **ViewSonic Network Displays** unique because you do not need separate network switches or PCs for each **Network Display**. Media content on each **Network Display** can be scheduled independently when connected to an external server.



Plug another RJ-45 Ethernet cable into an Ethernet port of another **Network Display**. You can connect either of the two Ethernet ports of one unit to either of the two Ethernet ports of another unit.

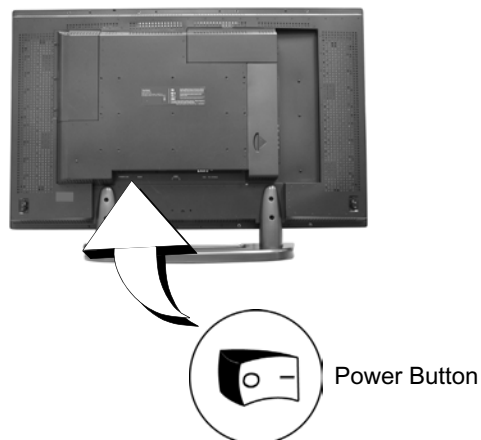


Connect External Speakers (optional)



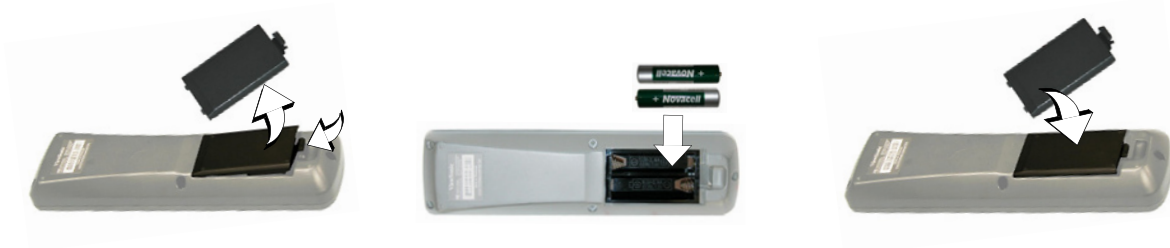
2. TURN POWER ON TO THE NETWORK DISPLAY

Wait for the splash screen to appear with the IP address. Make a note of the IP address on a piece of paper because you will need this in another step.



3. PUT BATTERIES IN REMOTE CONTROL

Remove the back cover from the remote control as shown below. Put two AA batteries in the remote control. Be sure to match the positive end of the battery with the positive end of the compartment. Put the cover back on the remote control.



4. LOGIN

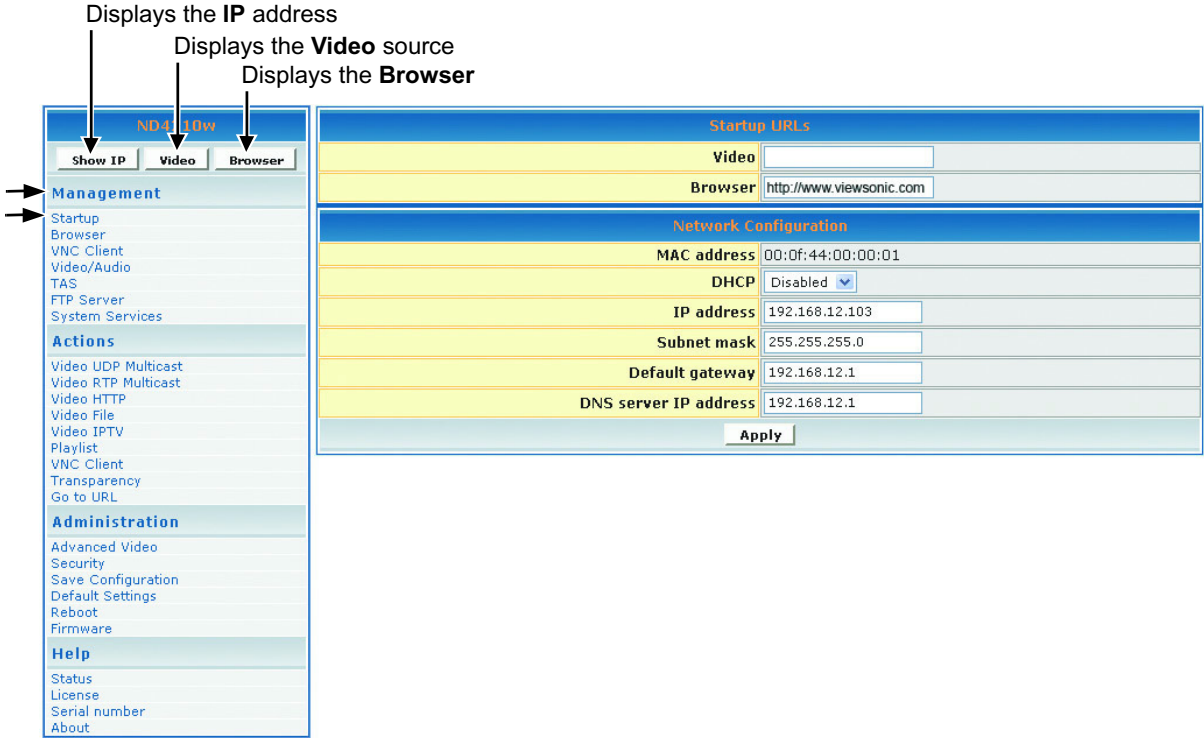
Open an Internet Browser, i.e., **Internet Explorer** on a PC in the same network. In the **URL address** field, type the IP address of the **ND4210w** noted in a previous step > press **Enter**. The **Login** screen appears. Type the defaults **Login: admin** and **Password: admin**. For security purposes, we recommend that you change the default IP address, Login and Password. *For more information, see the **Security** section in this user guide.* After logging in successfully, the **Network Configuration** screen appears as shown on the next page. **Note:** The **ND4210w** automatically logs you out after five minutes of inactivity.

For information on how to change network settings on an OS other than Windows, please consult the OS user guide or your Network Administrator.

MANAGEMENT

STARTUP URL/NETWORK CONFIGURATION

The **Network Configuration** screen allows you to select the video that appears on-screen when you boot up the **ND4210w**. To go to the **Network Configuration** screen after logging into the **ND4210w**, select **Management > Startup**. The **Startup URLs** screen and the **Network Configuration** screen appears as shown below.



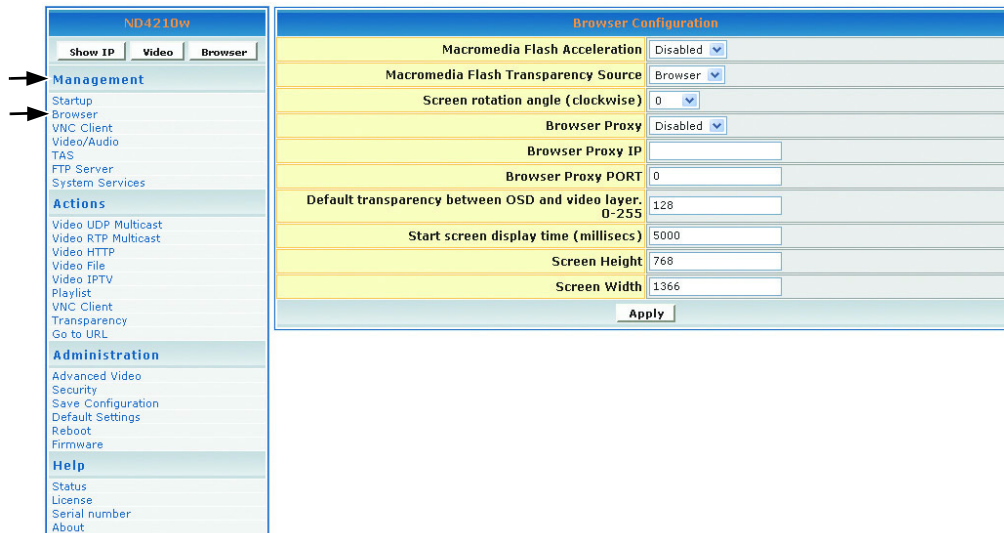
- To play a particular video at startup, in the **Video** field, enter a valid HTML page. Here are some examples:
 - http://<ip-address>/<mpeg-1/2-file-located on WEB Server>**
 - udp://<ip-multicast-address>/port**
 - rtp://<multicast-address>/port**
 - iptv://<ip-multicast-address>/videoport/audioport**
 - playlist=http://<ip-address>/<playlist-file-located-on-WEB-server>**. For more information about creating and playing a playlist with specific content, in a specific order, looped or not looped, see the **PLAYLIST** section in this guide.

Continued . . .

2. In the **Browser** field, enter a startup web screen (for example, <http://www.viewsonic.com>).
Note: The **MAC address** is a read-only field that displays the built-in MAC address of the unit.
3. In the **DHCP** field of the **Network Configuration** screen, tap the down arrow for the pull-down menu and select **Enabled** to dynamically get network parameters. Make sure there are values in the **IP address**, **Mask**, **Gateway**, and **DNS** fields although DHCP assigns values to these fields automatically. If you select **Disabled**, type valid network parameters in these fields.
4. If any changes were made to this screen, do the following:
 - To enable the changes, click **Apply**
 - To save the changes, click the **Administration** menu > click **Save Configuration** > click **Save**.

BROWSER CONFIGURATION

The **Browser Configuration** screen allows you to make specific screen settings for a specific URL that you chose. Click **Management > Browser**. The screen shown below appears. Note: 1 millisecond = 1/1000th second.



1. In the **Macromedia Flash Transparency Source** field, select one of the options from the pull-down menu.
2. In the **Screen rotation angle (clockwise)** field, select one from the pull-down menu for the angle of rotation of the HTML content displayed on-screen. This feature is useful when the **ND4210w** is installed vertically.
3. In the **Browser Proxy** field, select **Enabled** or **Disabled** from the pull-down menu.
4. In the **Browser Proxy IP** field, type an IP address if the **Browser Proxy** was Enabled.
5. In the **Browser Proxy PORT** field, type the port if the **Browser Proxy** was Enabled.
6. In the **Default transparency between OSD and video layer** field, type a number that is between 0 to 255: (128 is average where video and graphics blend together). Also, see examples in the Transparency section of this guide.
 - 0 = video only, no graphics
 - 255 = graphics only, no video

Continued . . .

7. In the **Start screen display time** field, type the number of milliseconds you want the initial screen to be displayed at startup. (1 millisecond = 1/1000 second)
8. In the **Screen Height** field, type the height of the screen that is displaying your graphics image.
9. In the **Screen Width** field, type the width of the screen that is displaying your graphics image.
10. If any changes were made to this screen, do the following:
 - To enable the changes, click **Apply**
 - To save the changes, click the **Administration** menu > click **Save Configuration** > click **Save**.

IMPORTANT NOTE! Due to memory limitations, certain large flash files may not work correctly.

VNC CLIENT (MANAGEMENT)

The **VNC* client configuration** screen shown below on the **Management** menu lets you set the device to start as a VNC client and connect automatically to the VNC server specified. This auto-start feature works only if the **VNC client** under **System services** is set to **YES** or **Enabled**.

VNC server password must be at least 6 characters (can be alpha-numeric).

X and Y coordinates let you set the size of the window of the remote desktop displayed if full screen is not desired.

VNC full screen mode lets you set the client to start up as full screen all the time.

VNC auto restart mode reconnects the client in the event of network interruption.

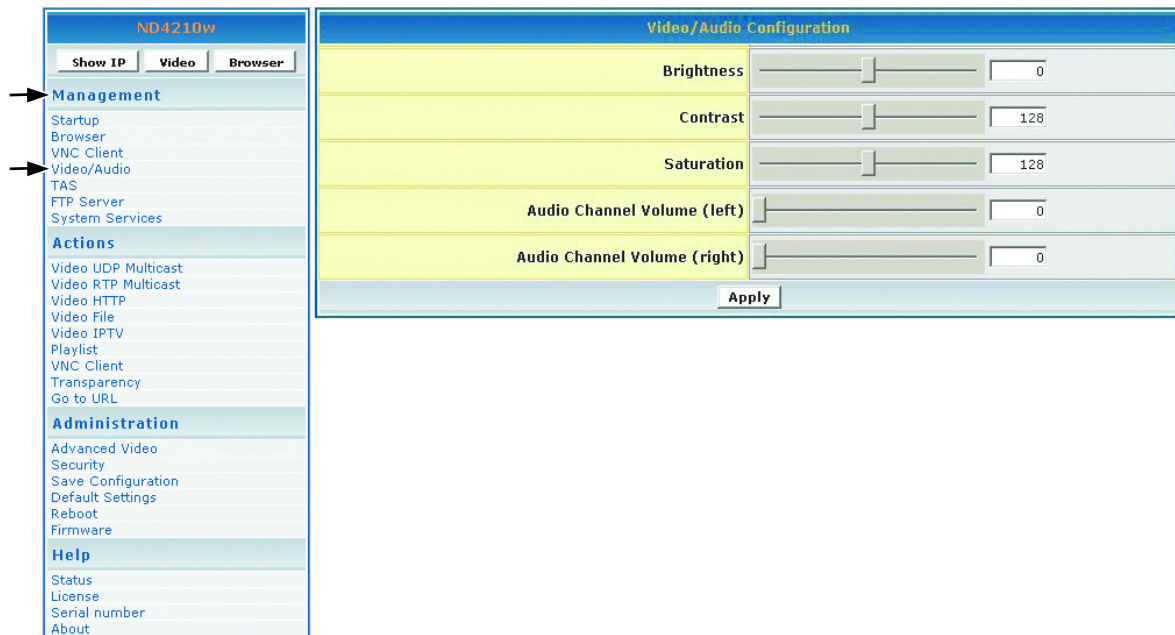
Delay before restart VNC sets the time between reconnects.

The screenshot shows the VNC client configuration interface. On the left, a navigation menu for 'ND4210w' includes sections for Management, Actions, Administration, and Help. The 'VNC Client' option is selected. The main configuration area contains the following fields:

VNC client configuration	
VNC server address	<input type="text"/>
VNC server password	<input type="text"/>
X coordinate of VNC windows left-top corner	<input type="text" value="0"/>
Y coordinate of VNC windows left-top corner	<input type="text" value="0"/>
VNC full screen mode	<input type="button" value="No"/>
VNC auto restart mode	<input type="button" value="No"/>
Delay (in milliseconds) before restart VNC	<input type="text" value="5000"/>
<input type="button" value="Apply"/>	

* You must have VNC software running on your computer Video/Audio Configuration

This screen is used to adjust the display and audio parameters. Click **Management > Video/Audio**. The screen shown below appears.



1. Move the **Brightness** slider: values range between -128 and 127
2. Move the **Contrast** slider: values range between 0 and 255
3. Move the **Saturation** slider: values range between 0 and 255
4. Move the **Audio Channel Volume** (left) slider: values range between 0 and 100
5. Move the **Audio Channel Volume** (right) slider: values range between 0 and 100
6. If any changes were made to this screen, do the following:
 - To enable the changes, click **Apply**
 - To save the changes, click the **Administration** menu > click **Save Configuration** > click **Save**.

TAS CONFIGURATION

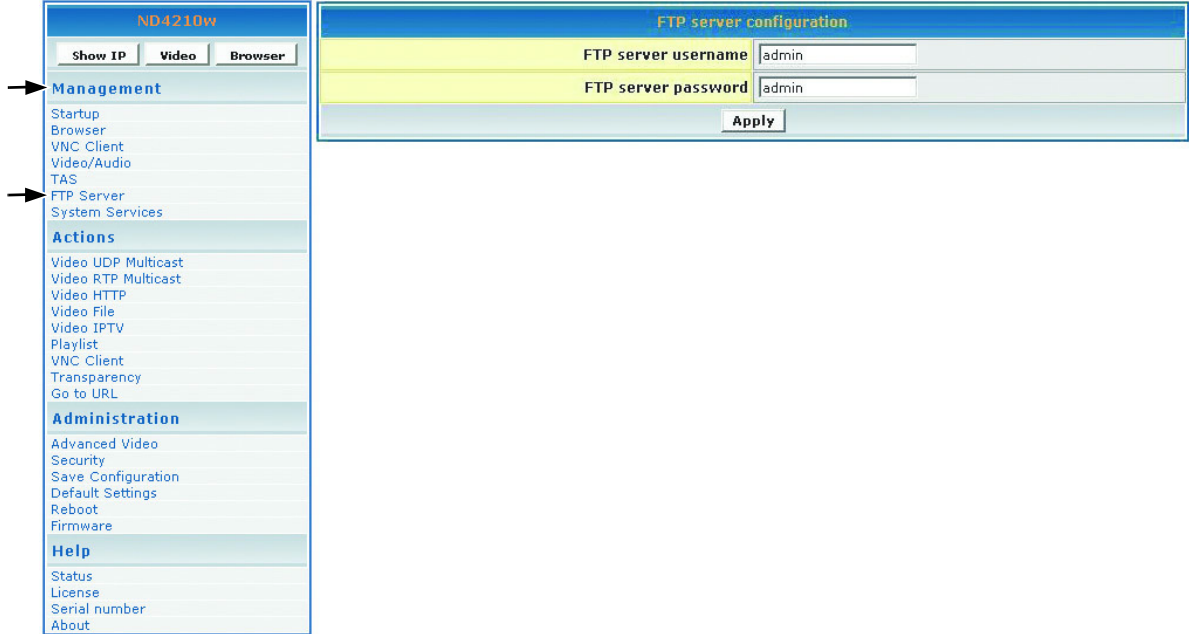
This screen works in conjunction with **TAS**. (TAS software can be purchased through Tivella at www.tivella.com or through an authorized Tivella dealer/reseller.) Click **Management > TAS**. The screen shown below appears.

The screenshot shows the ND4210w web interface. On the left is a navigation menu with sections: Management (Startup, Browser, VNC Client, Video/Audio, TAS, FTP Server, System Services), Actions (Video UDP Multicast, Video RTP Multicast, Video HTTP, Video File, Video IPTV, Playlist, VNC Client, Transparency, Go to URL), Administration (Advanced Video, Security, Save Configuration, Default Settings, Reboot, Firmware), and Help (Status, License, Serial number, About). The 'TAS' item is selected. The main content area is titled 'TAS Configuration' and contains two input fields: 'Timeout (sec)' with the value '20' and 'IP Address' with the value 'tas-intranet'. An 'Apply' button is located at the bottom right of the configuration area.

1. In the **Timeout (sec)** field, type the number of seconds for the **ND4210w** to access TAS.
2. In the **IP Address** field is a valid DNS name automatically generated by TAS when connected to a network but empty when used as a standalone.
3. If any changes were made to this screen, do the following:
 - To enable the changes, click **Apply**
 - To save the changes, click the **Administration** menu > click **Save Configuration** > click **Save**.

FTP SERVER

FTP server is only for Network Displays with local storage. The **FTP server** allows you to use an FTP client for uploading files.



SYSTEM SERVICES CONFIGURATION

Configure System Services in the MIB (Management Information Base) to manage the following groups: Network, Browser, Video/Audio, TAS, and System Services. Click **Management** > **System services**. The screen shown below appears.

The screenshot shows the ND4210w System Services Configuration interface. On the left is a navigation menu with sections: Management (Startup, Browser, VNC Client, Video/Audio, TAS, FTP Server, System Services), Actions (Video UDP Multicast, Video RTP Multicast, Video HTTP, Video File, Video IPTV, Playlist, VNC Client, Transparency, Go to URL), Administration (Advanced Video, Security, Save Configuration, Default Settings, Reboot, Firmware), and Help (Status, License, Serial number, About). The main configuration area is titled 'System Services Configuration' and contains two rows: 'Network Media Player (port 6666)' with a 'Yes' dropdown, and 'MIB Event Notification' with a 'No' dropdown. An 'Apply' button is located at the bottom right of the configuration area.

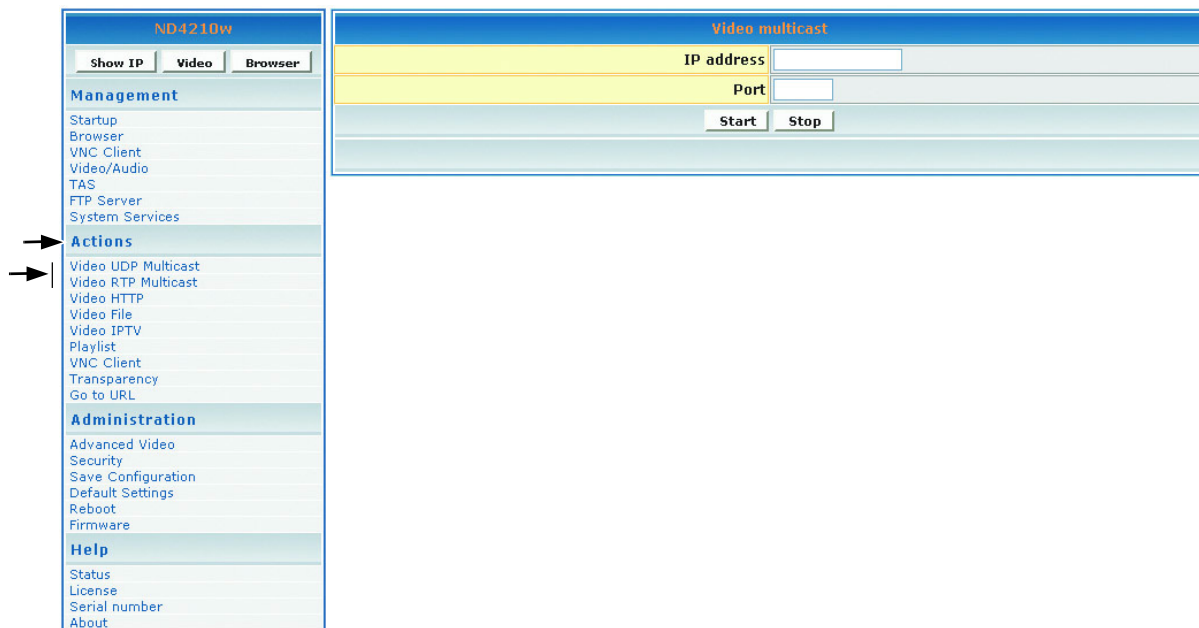
1. In the **Network Media Player (port 6666)** field, select **Yes** to access the **ND4210w** using a Telnet client on port 6666. If you do not want this, select **No**.
2. In the **MIB Event Notification** field, select **Yes** to be notified of changes that you made to the **ND4210w** settings.
3. If any changes were made to this screen, do the following:
 - To enable the changes, click **Apply**
 - To save the changes, click the **Administration** menu > click **Save Configuration** > click **Save**.

ACTIONS

This section mainly concerns video related activities. Video can be streamed by UDP, RTP, IP/TV or HTTP stream and organized in Playlists. When you initiate a stream, you can see the video on your display. You can also change the **Transparency** of the OSD or go to a specific URL on the fly.

VIDEO UDP/RTP MULTICAST

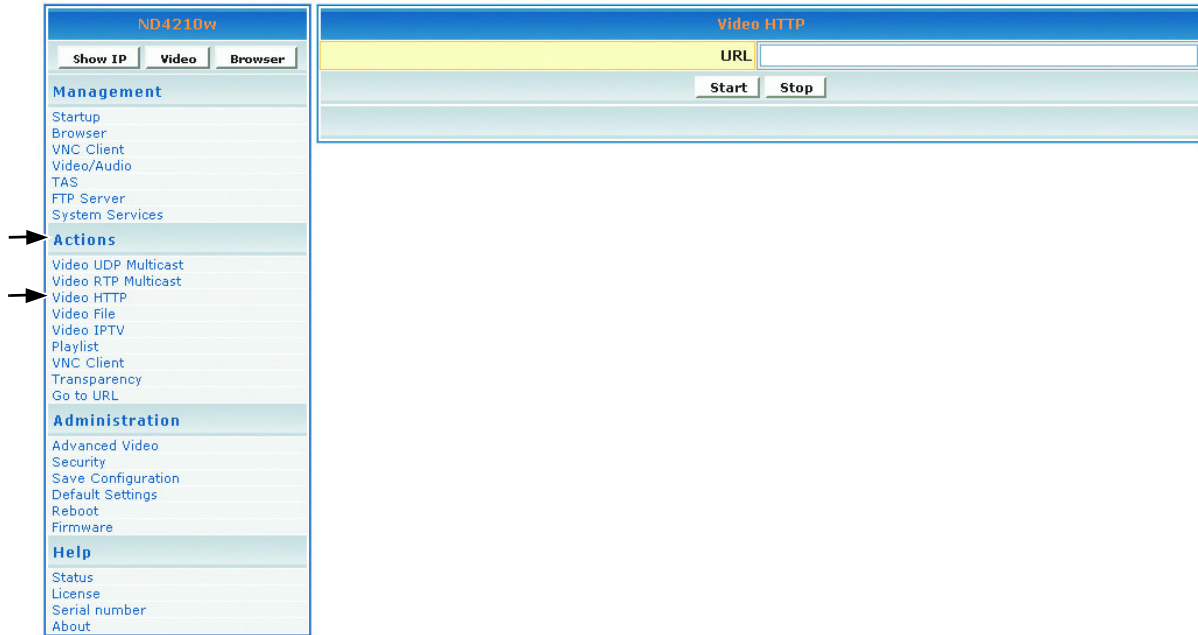
This screen allows you to play streams using assorted protocols. Select **Actions > Video Multicast**. The screen shown below appears.



1. In the **IP address** field, type the IP Address transmitting UDP/RTP based multicast stream (for example, 239.1.1.7)
2. In the **Port** field, type the **Port** number used to receive the multicast.
3. To tell the system to listen to the UDP/RTP multicast stream from the IP on the Port that you entered, click **Start**.

VIDEO HTTP

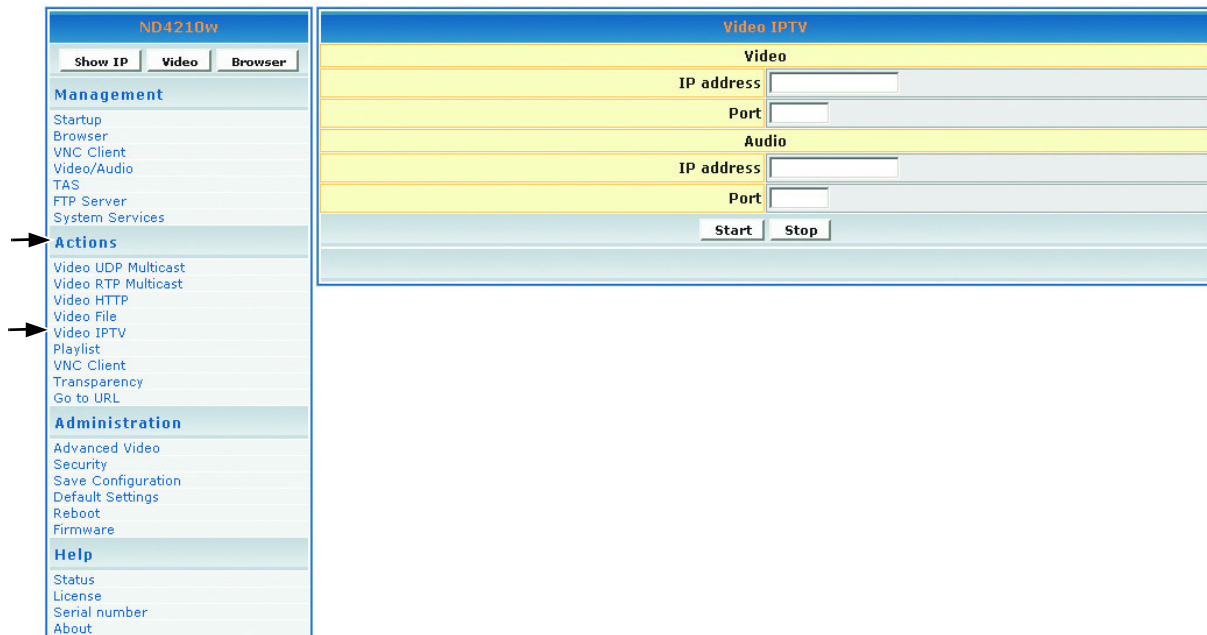
To get to the browser setup screen, click **Actions** > **Video HTTP**. The screen shown below appears.



1. In the **URL** field, type the URL that corresponds to the HTTP stream that you want to appear on the display (for example: `http:192.168.12.x/movie.mpg`, or, `http://<server-ip>/file.mpg`).
2. To tell the system to listen to the HTTP stream from the entered URL, click **Start**.

VIDEO IPTV

The Video IPTV screen allows you to play Split Stream files where the video and audio information being streamed is in two different addresses. This is similar to RTP and UDP multicast except the values for video and audio are entered separately. To get to the **Video IPTV** screen, click **Actions > Video IPTV**. The screen shown below appears.

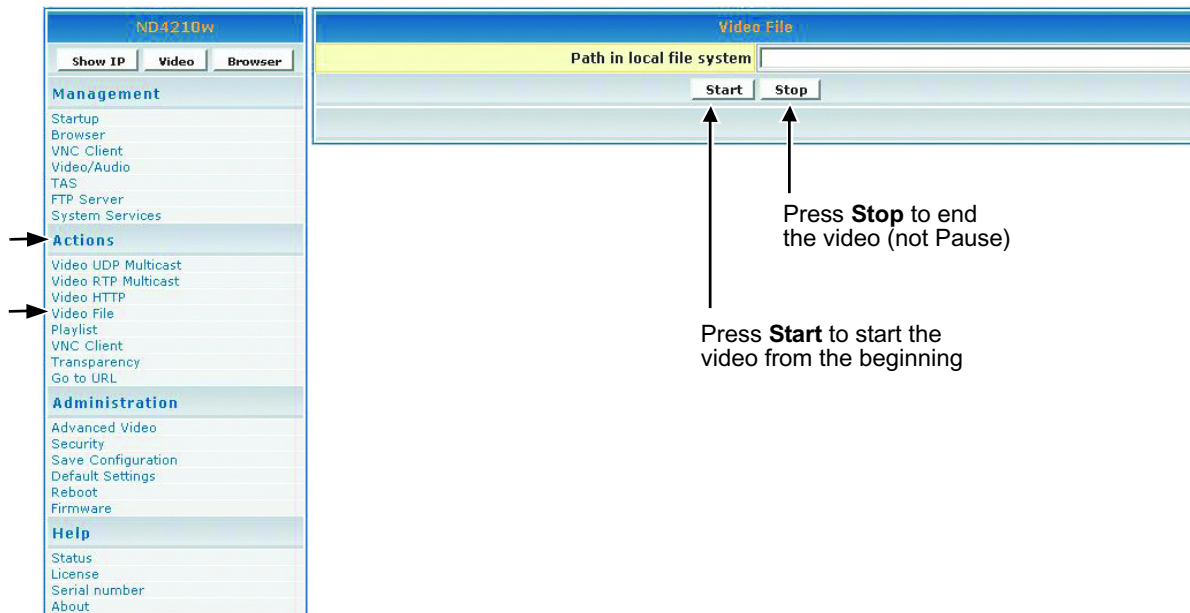


1. Under **Video**, enter the **IP Address** and **Port** of the Video stream
2. Under **Audio**, enter the **IP Address** and **Port** of the Audio stream
3. Click **Start**

VIDEO FILE

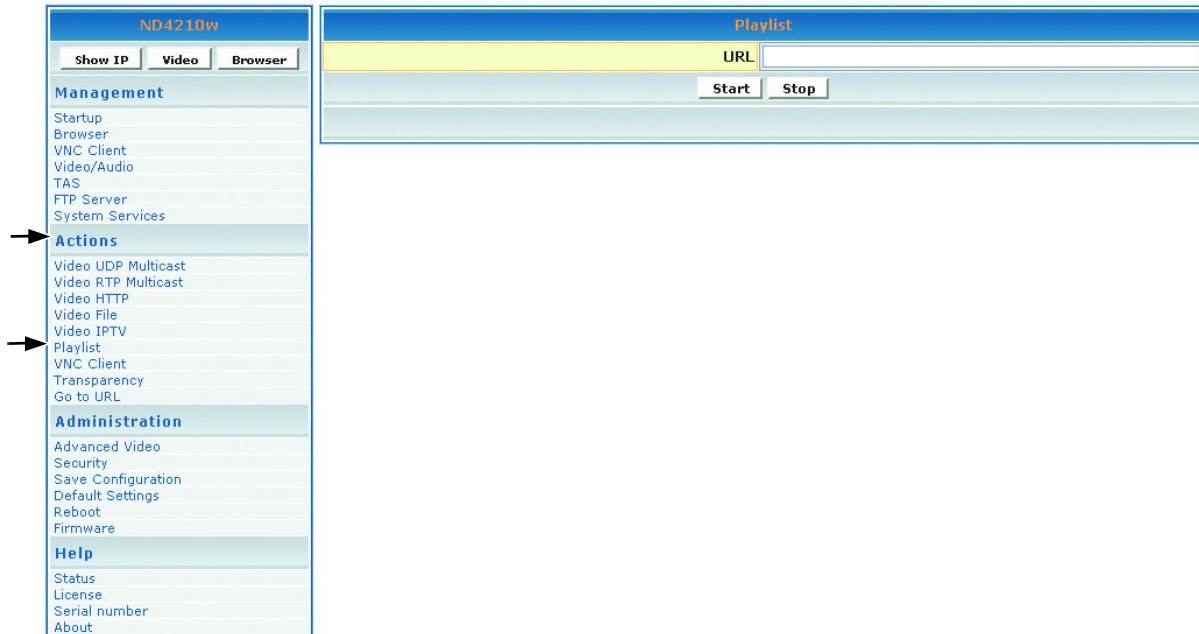
The **Video File** screen allows you to play video files stored in the internal Hard Drive. Click **Actions > Video File** and the screen shown below appears. The location of the hard drive is /tmp/ftproot/hd1.

1. In the **Video File** field, type /tmp/ftproot/hd1/sample_video.mpg then click **Start**.
2. If the video file is inside a folder (example: /movie) in the hard drive, type /tmp/ftproot/hd1/**movie**/sample_video.mpg



PLAYLIST

To stream existing video **Playlists** on an HTTP server, click **Actions > Playlist**. The screen shown below appears.



1. In the **URL** field, type the URL that corresponds to the **Playlist** to appear on the display (for example, `http://192.168.12.x/playlist.txt` or, type the address to start playback such as `http://<server-ip>/playlists.pls`).
2. To tell the system to listen to the **Playlist** from the entered URL, click **Start**.

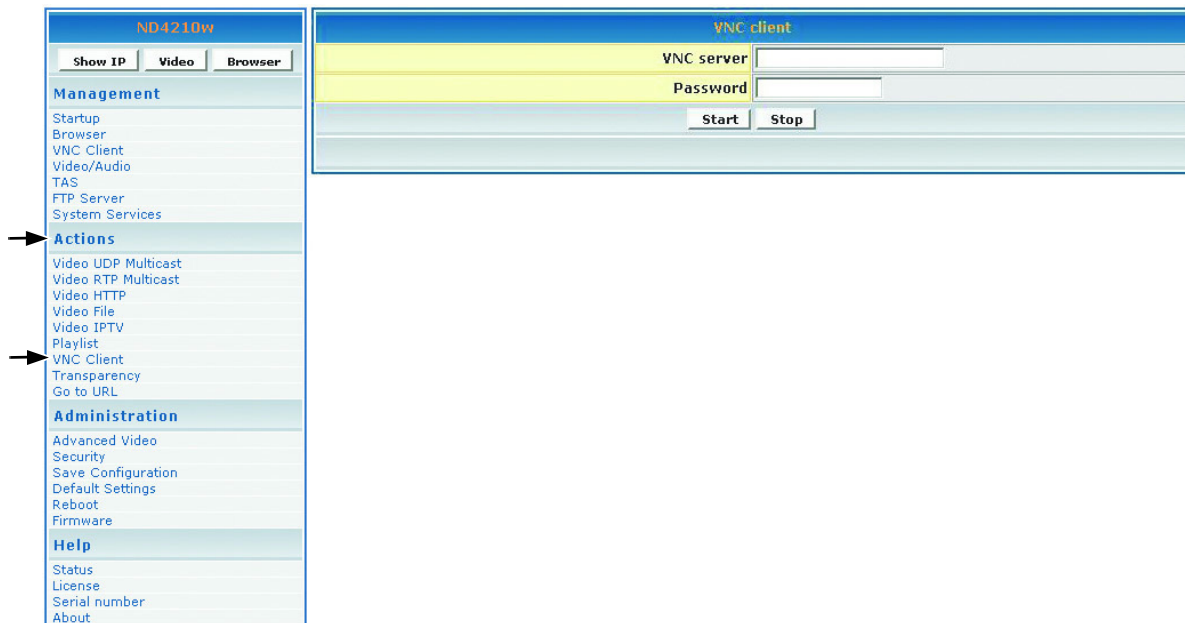
To create a playlist

A **Playlist** is a text file that can be created in any text editor with an extension of `.txt`. A **Playlist** is necessary when you want the **ND4210w** to play specific content, in a specific order, usually looped. You can create a looped **Playlist** for the http streams as shown below. For a **Playlist** that is not looped, list the desired content without the keyword "loop."

```
loop
http http://192.168.12.x/movie1.mpg
http http://192.168.12.x/movie2.mpg
http http://192.168.12.x/movie3.mpg
```


VNC CLIENT (ACTIONS)

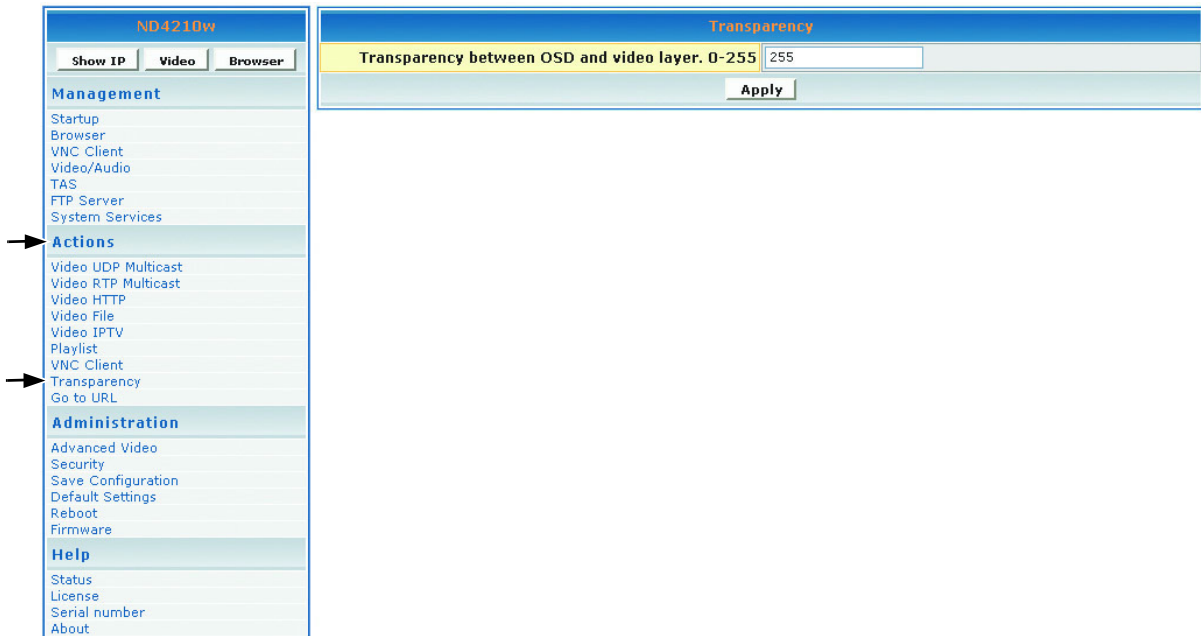
To use **VNC Client**, you must have VNC software running on your PC (sold separately). The VNC (Virtual Network Computing) client screen shown below allows you to connect and display a remote desktop running a VNC server.



1. In the **VNC server** field, type the IP Address of the VNC server.
2. In the **Password** field, type the password of the VNC server whose IP is entered above.
IMPORTANT! The password must be at least six (6) characters (can be alpha-numeric).
3. To display the remote desktop click **Start**

TRANSPARENCY

To change the transparency of the browser on-screen in relation to the video image in the background, click **Actions > Transparency**. The screen shown below appears.



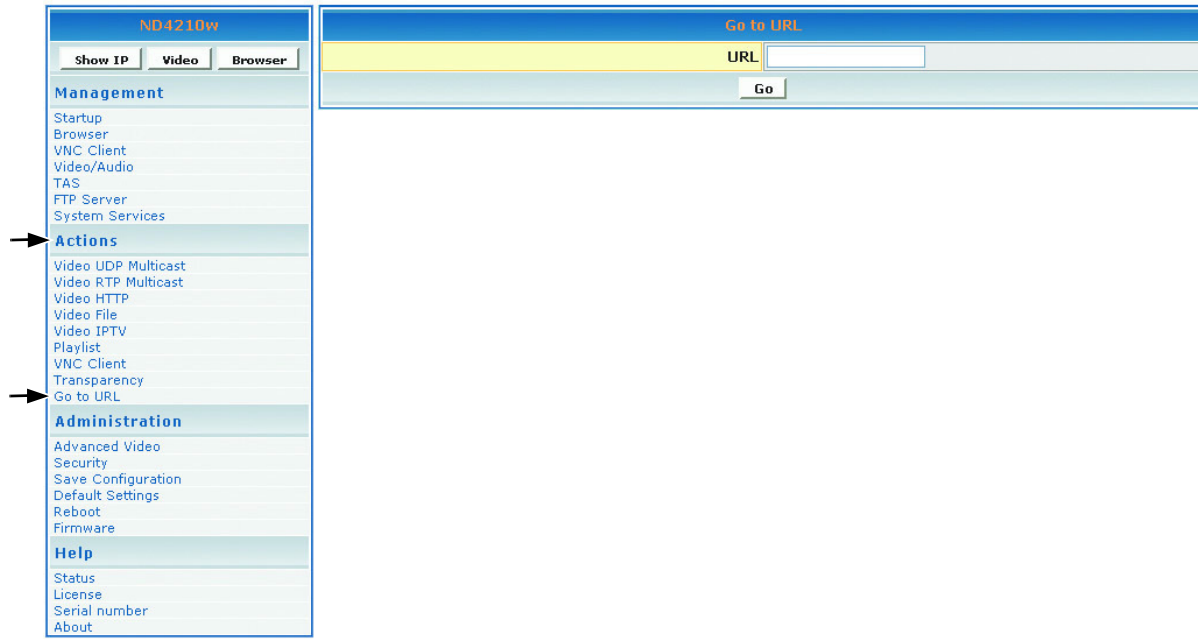
1. In the **Transparency between OSD and video layer** field, type a number between 0 to 255 for a more or less transparent (translucent) browser image (user interface) so you can still see through the browser OSD (On-Screen Display) shown below on the right with your video or other images: 0 = no OSD, 255 = no video, 128 = equal transparency between video and OSD layers.



2. To apply the entered transparency value to the image on the **ND4210w**, click **Apply**.

Go to URL

To go to a web page on the browser, click **Actions > Go to URL**. The screen shown below appears.

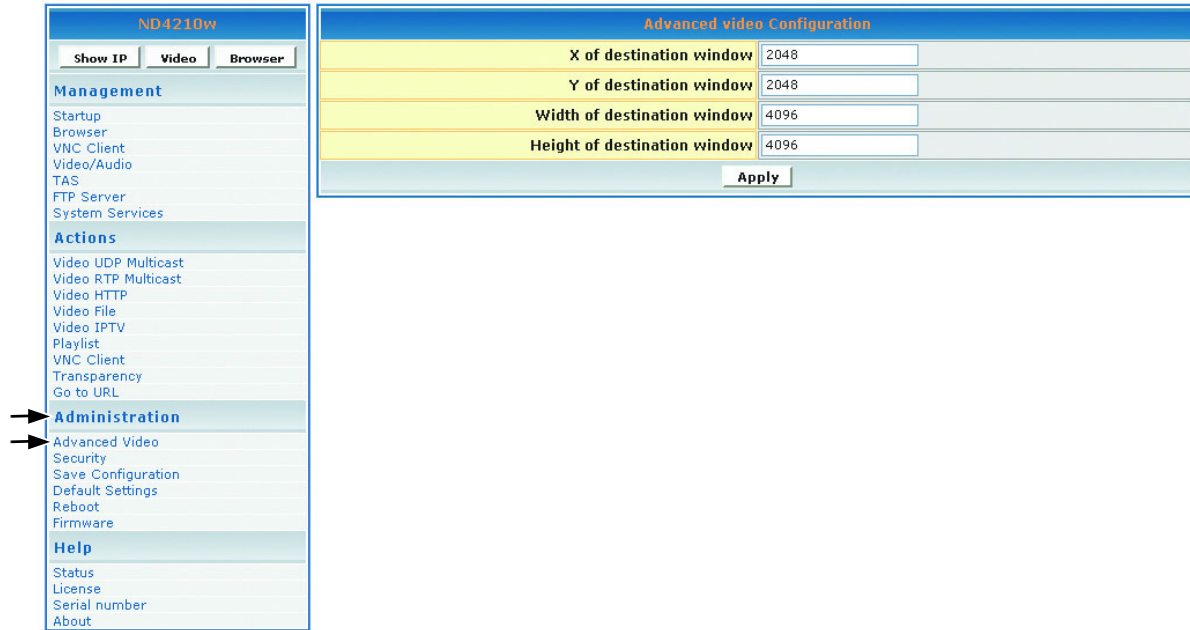


1. In the **URL** field, type the desired URL.
2. To redirect the browser to the URL that you entered, click **Go**. The web page appears on your display.

ADMINISTRATION

ADVANCED VIDEO CONFIGURATION

To adjust the size and location of the video on the screen, click **Administration > Advanced video**. The screen shown below appears.



1. In the **X of destination window**, type the center point of the screen on the X axis.
2. In the **Y of destination window**, type the center point of the screen on the Y axis.
3. In the **Width of destination window**, type the width of the destination window.
4. In the **Height of destination window**, type the height of the destination window.
5. If any changes were made to this screen, do the following:
 - To enable the changes, click **Apply**
 - To save the changes, click the **Administration** menu > click **Save Configuration** > click **Save**.

SECURITY

To change the **User name** and **Password** of the **ND4210w**, click **Administration > Security**. Current settings automatically appear in each field as shown below: default User name/ Password is admin/admin.

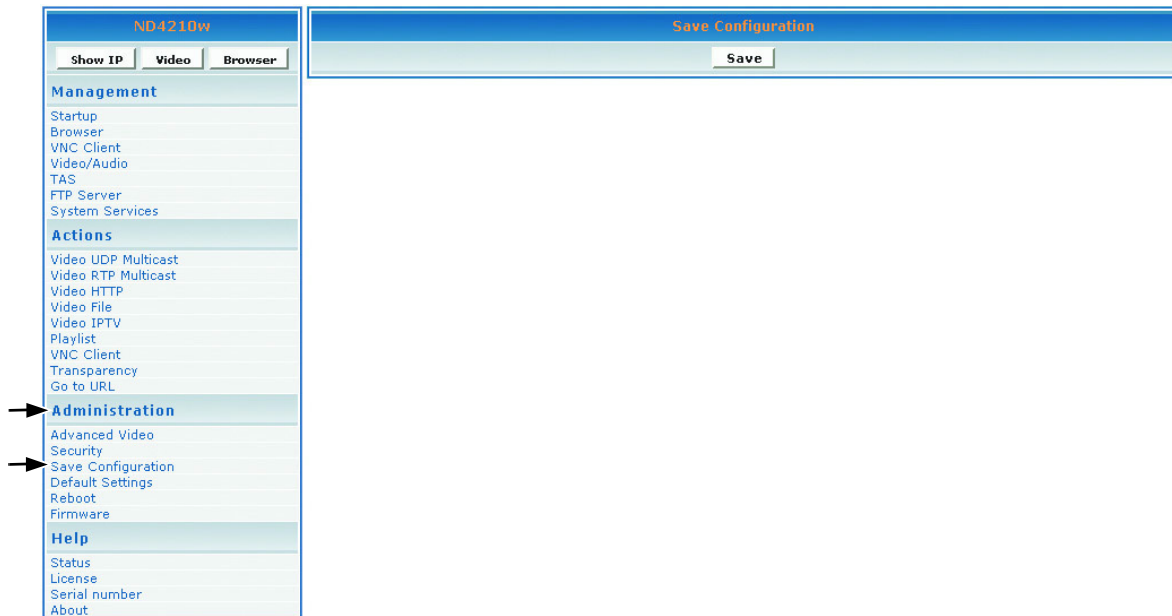
ND4210w		
Show IP	Video	Browser
Management		
Startup		
Browser		
VNC Client		
Video/Audio		
TAS		
FTP Server		
System Services		
Actions		
Video UDP Multicast		
Video RTP Multicast		
Video HTTP		
Video File		
Video IPTV		
Playlist		
VNC Client		
Transparency		
Go to URL		
Administration		
Advanced Video		
Security		
Save Configuration		
Default Settings		
Reboot		
Firmware		
Help		
Status		
License		
Serial number		
About		

Security Credentials	
User name	admin
Password	*****
Repeat password	*****
Apply	

1. In the **Password** field, type a new password.
2. In the **Repeat Password** field, re-type the new password.
3. If any changes were made to this screen, do the following:
 - To enable the changes, click **Apply**
 - To save the changes, click the **Administration** menu > click **Save Configuration** > click **Save**.

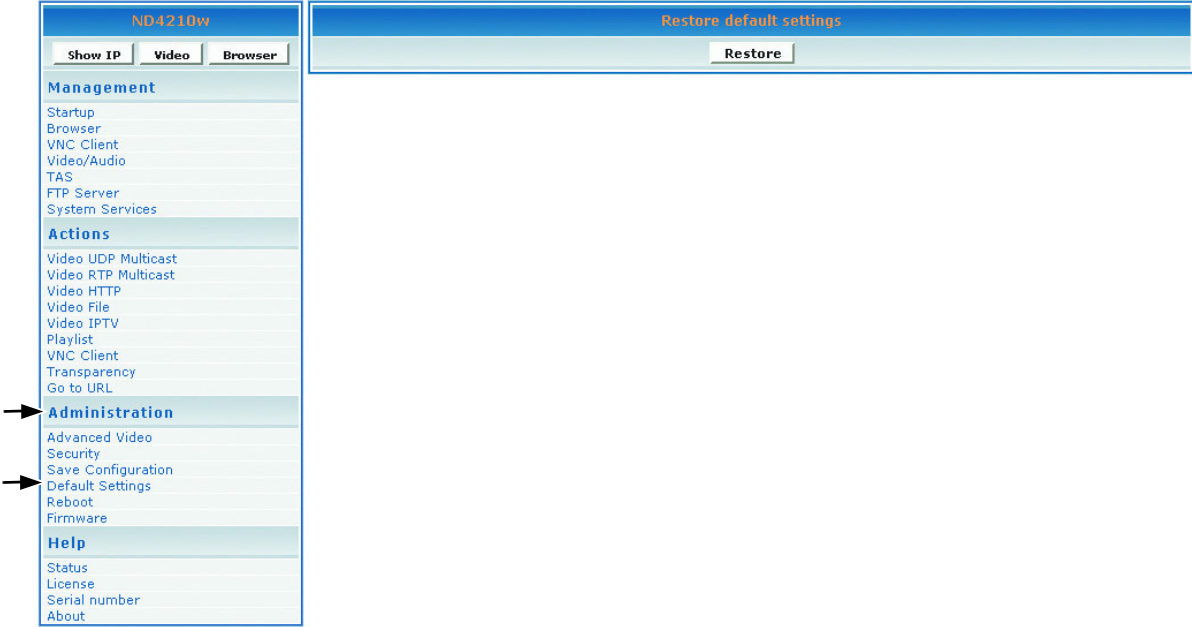
SAVE CONFIGURATION

To save your settings on the **ND4210w**, click **Administration > Save Configuration**. The screen shown below appears. Click **Save**.



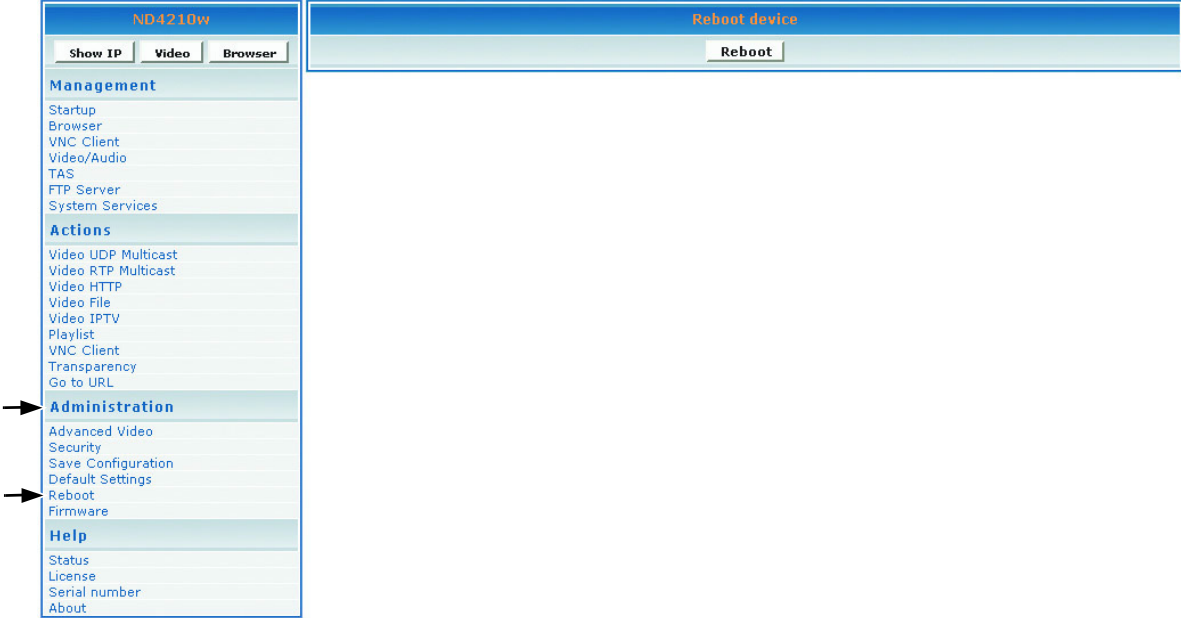
DEFAULT SETTINGS/RESET

To restore the **ND4210w** back to factory settings, click **Administration > Default settings**. The screen shown below appears. Click **Restore**. User-defined settings will be lost. Or, press and hold the **RESET** button on the back of the display for five (5) seconds to restore the default settings.



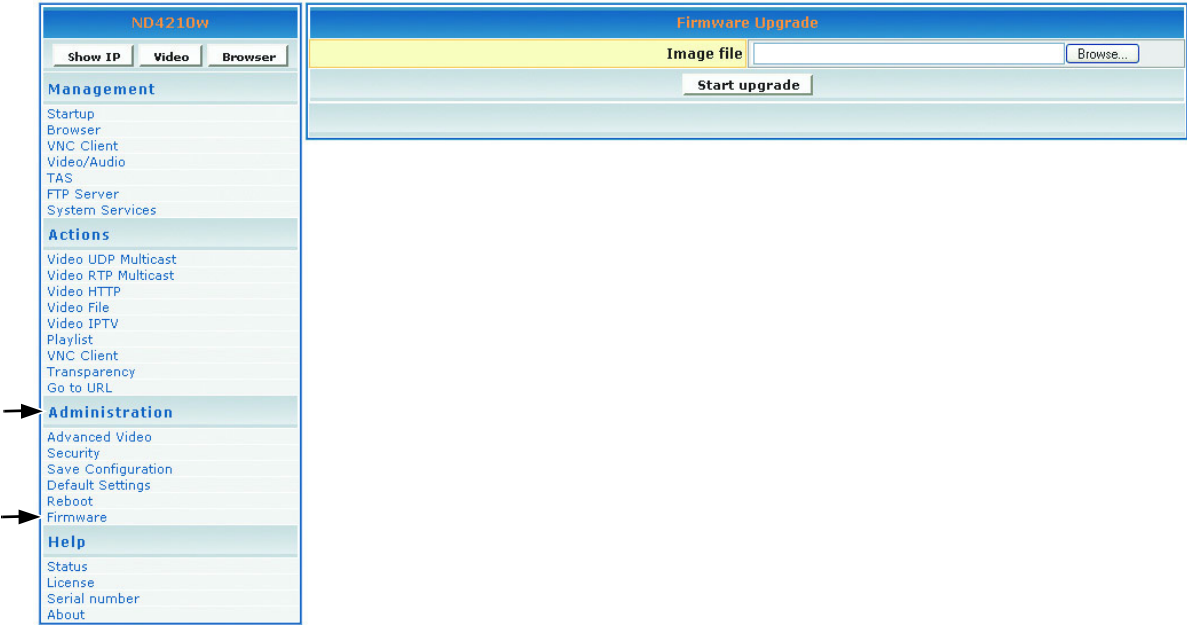
REBOOT

To reboot the **ND4210w**, click **Administration > Reboot**. The screen shown below appears. Click **Reboot**. The **ND4210w** reboots.



FIRMWARE UPGRADE

To upgrade the firmware on the **ND4210w**, click **Administration > Firmware**. The screen shown below appears. Click **Browse** to open the firmware file > click **Start upgrade**.



HELP

STATUS

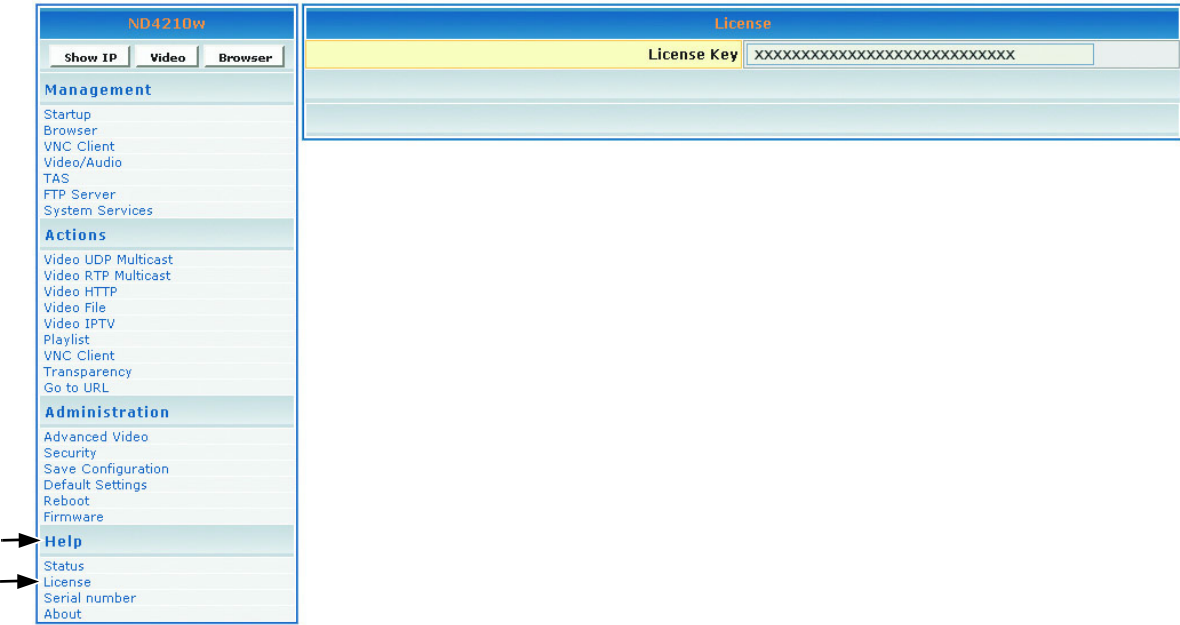
Status refers to the log where you can track activity on a specific ND4210w. To show the Status log, click Help > Status. The screen shown below is for information only (no inputs).

The screenshot shows the ND4210w web interface. The left sidebar has a navigation menu with the following items: Management, Actions, Administration, Help, Status, License, Serial number, and About. The 'Help' and 'Status' items are highlighted with arrows. The main content area is titled 'Device status' and displays a list of system parameters and their values.

Parameter	Type	Value
init.License_ro	T_STRING	Y
init.License	T_STRING	000F8800001049903A6A1F5492C0607A
init.DefaultFactorySetup	T_STRING	SETUP NUMBER_2 NUMBER_9
init.build	T_STRING	Mon Feb 20 10:01:18 PST 2006
init.model_name	T_STRING	NMP-500
init.product	T_STRING	NMP-500
init.version	T_STRING	2.00-RC6
init.macAddress	T_STRING	00:0f:
init.manufactHardware	T_STRING	
init.manufactVendor	T_STRING	
init.manufactDate	T_STRING	
init.lHydraServerPort	T_STRING	8080
init.lHydraServerAddress	T_STRING	192.168.12.99
init.BigHydraServerAddr	T_STRING	64.1.254.116
init.lightHydraMacUpdate	T_STRING	yes
init.startService_xapp	T_STRING	no
init.startService_X11	T_STRING	yes
init.startNtpclient	T_STRING	no
init.startInetd	T_STRING	yes
init.startService_mib_mc	T_STRING	no
init.startService_tnet	T_STRING	no
init.startService_rs232	T_STRING	no
init.startService_kbd	T_STRING	yes
init.startService_api	T_STRING	no
init.startService_vt1	T_STRING	no
init.startService_pickch	T_STRING	no
init.startService_sigma	T_STRING	yes
init.startService_sinfo	T_STRING	yes
init.startService_smb	T_STRING	yes
init.startService_mibevt	T_STRING	no
init.startService_mibifc	T_STRING	yes
init.startService_mib	T_STRING	yes
init.startService_shell	T_STRING	yes

LICENSE

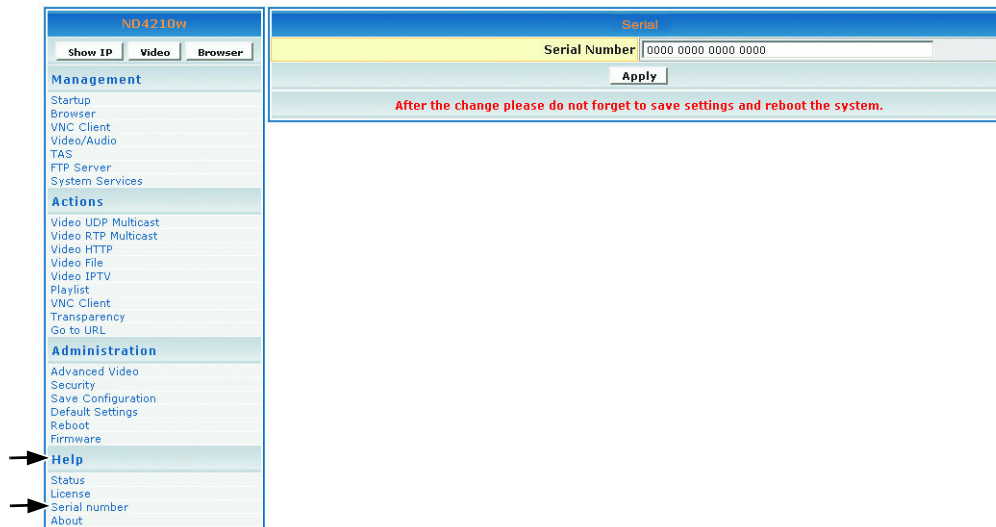
To activate the license on the **ND4210w**, click **Help > License**. The **License Key** may appear automatically in the screen shown below (read-only).



SERIAL NUMBER

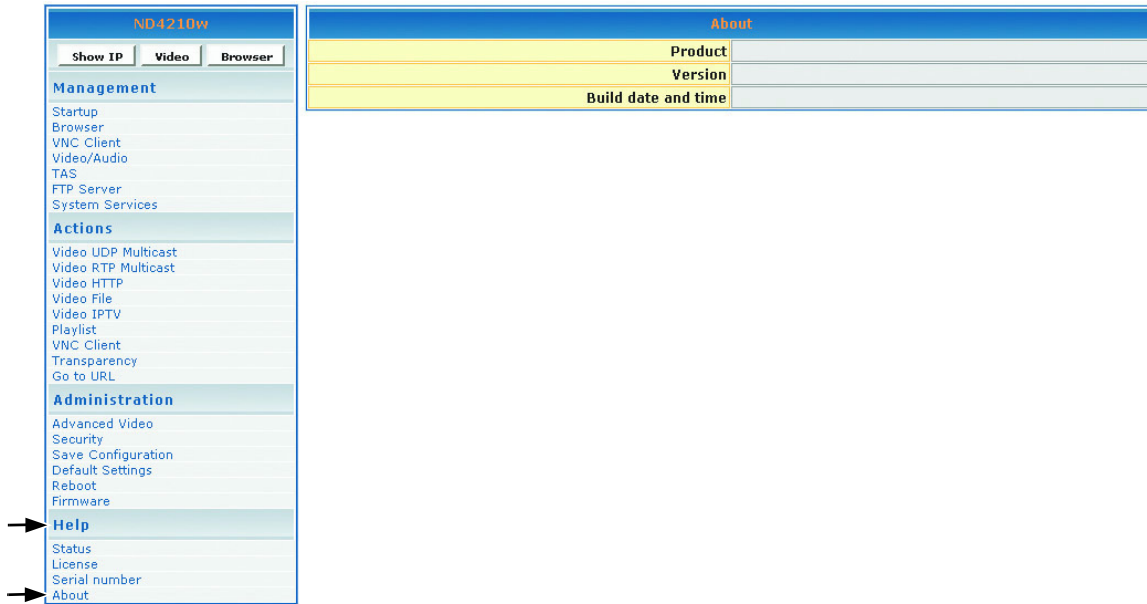
The **Serial Number** screen allows you to enter the **Serial Number** of the product. Click **Help > Serial number**. The screen shown below appears. Once entered, the information cannot be changed.

1. Look at the back of the device and record the **Serial Number** of the product.
2. In the **Serial Number** field, type the **Serial Number** > click **Apply**.



ABOUT

To show the current version of the product, click **Help > About**. The screen shown below appears (information only).



APPENDIX

SCREENS

MANAGEMENT

ND4210w

Management

- Startup
- Browser
- VNC Client
- Video/Audio
- TAS
- FTP Server
- System Services
- Actions**
- Video UDP Multicast
- Video RTP Multicast
- Video HTTP
- Video File
- Video IPTV
- Playlist
- VNC Client
- Transparency
- Go to URL
- Administration**
- Advanced Video
- Security
- Save Configuration
- Default Settings
- Reboot
- Firmware
- Help**
- Status
- License
- Serial number
- About

Startup URLs

Video

Browser

Network Configuration

MAC address

DHCP

IP address

Subnet mask

Default gateway

DNS server IP address

Browser Configuration

Macromedia Flash Acceleration

Macromedia Flash Transparency Source

Screen rotation angle (clockwise)

Browser Proxy

Browser Proxy IP

Browser Proxy PORT

Default transparency between OSD and video layer.
0-255

Start screen display time (millisecs)

Screen Height

Screen Width

VNC client configuration

VNC server address

VNC server password

X coordinate of VNC windows left-top corner

Y coordinate of VNC windows left-top corner

VNC full screen mode

VNC auto restart mode

Delay (in milliseconds) before restart VNC

Video/Audio Configuration

Brightness

Contrast

Saturation

Audio Channel Volume (left)

Audio Channel Volume (right)

TAS Configuration

Timeout (sec)

IP Address

FTP server configuration

FTP server username

FTP server password

System Services Configuration

Network Display (port 6666)

MIB Event Notification

ACTIONS

ND4210w

Management

Startup
Browser
VNC Client
Video/Audio
TAS
FTP Server
System Services

Actions

Video UDP Multicast
Video RTP Multicast
Video HTTP
Video File
Video IPTV
Playlist
VNC Client
Transparency
Go to URL

Administration

Advanced Video
Security
Save Configuration
Default Settings
Reboot
Firmware

Help

Status
License
Serial number
About

Video multicast

IP address

Port

Video HTTP

URL

Video IPTV

Video

IP address

Port

Audio

IP address

Port

Video File

Path in local file system

Playlist

URL

VNC client

VNC server

Password

Transparency

Transparency between OSD and video layer. 0-255

Go to URL

URL

ADMINISTRATION

The screenshot displays the administration interface for a ViewSonic ND4210w device. On the left is a navigation menu with sections: Management (Startup, Browser, VNC Client, Video/Audio, TAS, FTP Server, System Services), Actions (Video UDP Multicast, Video RTP Multicast, Video HTTP, Video File, Video IPTV, Playlist, VNC Client, Transparency, Go to URL), Administration (Advanced Video, Security, Save Configuration, Default Settings, Reboot, Firmware), and Help (Status, License, Serial number, About). An arrow points to the 'Administration' section. The main content area is divided into several panels:

- Advanced video Configuration:** A table with four rows for window dimensions. The 'X of destination window' and 'Y of destination window' are both set to 2048. The 'Width of destination window' and 'Height of destination window' are both set to 4096. An 'Apply' button is at the bottom.
- Security Credentials:** A form with three rows: 'User name' (admin), 'Password' (*****), and 'Repeat password' (*****). An 'Apply' button is at the bottom.
- Save Configuration:** A single 'Save' button.
- Restore default settings:** A single 'Restore' button.
- Reboot device:** A single 'Reboot' button.
- Firmware Upgrade:** A form with one row: 'Image file' (with a 'Browse...' button) and a 'Start upgrade' button.

HELP

ND4210w
Device status

Show IP
Video
Browser

Management

- Startup
- Browser
- VNC Client
- Video/Audio
- TAS
- FTP Server
- System Services

Actions

- Video UDP Multicast
- Video RTP Multicast
- Video HTTP
- Video File
- Video IPTV
- Playlist
- VNC Client
- Transparency
- Go to URL

Administration

- Advanced Video
- Security
- Save Configuration
- Default Settings
- Reboot
- Firmware
- Help
- Status
- License
- Serial number
- About

```

init.License_ro T_STRING      Y
init.License     T_STRING      000F8800001049903A6A1F5492C0607A
init.DefaultFactorySetup T_STRING      SETUP NUMBER_2 NUMBER_9
init.build       T_STRING      Mon Feb 20 10:01:18 PST 2006
init.model_name  T_STRING      NMP-500
init.product     T_STRING      NMP-500
init.version     T_STRING      2.00-RC6
init.macAddress  T_STRING      00:0f:
init.manufactHardware T_STRING
init.manufactVendor T_STRING
init.manufactDate T_STRING
init.lHydraServerPort T_STRING      8080
init.lHydraServerAddress T_STRING      192.168.12.99
init.BigHydraServerAddr T_STRING      64.1.254.116
init.lightHydraMacUpdate T_STRING      yes
init.startService_xapp T_STRING      no
init.startService_x11 T_STRING      yes
init.startNtpclient T_STRING      no
init.startInetd T_STRING      yes
init.startService_mib mc T_STRING      no
init.startService_tnet T_STRING      no
init.startService_rs232 T_STRING      no
init.startService_kbd T_STRING      yes
init.startService_api T_STRING      no
init.startService_vt1 T_STRING      no
init.startService_pickch T_STRING      no
init.startService_sigma T_STRING      yes
init.startService_sinfo T_STRING      yes
init.startService_smb T_STRING      yes
init.startService_mibevt T_STRING      no
init.startService_mibifc T_STRING      yes
init.startService_mib T_STRING      yes
init.startService_shell T_STRING      yes
          
```

License

License Key

Serial

Serial Number

After the change please do not forget to save settings and reboot the system.

About

Product	
Version	
Build date and time	

ViewSonic ND4210w

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CUSTOMER SUPPORT

You need the product serial number when you contact **Customer Support**.

Country/Region	Website (for email address also)	T = Telephone F = FAX
United States	viewsonic.com	T: (800) 688-6688 F: (909) 468-1202
Canada	viewsonic.com	T: (866) 463-4775 F: (909) 468-5814
United Kingdom	viewsoniceurope.com	T: 0800 833 648 F: 01794 500801
Europe, Middle East, Baltic countries, and North Africa	viewsoniceurope.com	Contact your reseller
Australia and New Zealand	viewsonic.com.au	T: +61 2 9929 3955 F: +61 2 9929 8393
Singapore/India and Southeast Asia	viewsonic.com.sg	T: 65 273 4018 F: 65 273 1566
Taiwan	viewsonic.com.tw	T: 866 2 2246 3456 F: 866 2 8242 3733
Other Asia Pacific countries		Contact your reseller
South Africa	viewsonic.com/asia	T: 886 2 2246 3456 F: 886 2 8242 3668

COMPLIANCE AND SAFETY NOTICES

FCC CLASS A COMPLIANCE NOTICE (UNITED STATES)

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are 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 the instruction manual, 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 user's own expense.

You can determine whether your equipment is causing interference by turning it off. If the interference stops, it was probably caused by this equipment or one of its peripheral devices. If the equipment causes interference to radio or television reception, try to correct the interference by using one or more of the following measures:

- Turn the television or radio antenna until the interference stops.
- Move the equipment to one side or the other of the television or radio.
- Move the equipment farther away from the television or radio.
- Plug the equipment into an outlet that is on a different circuit from the television or radio. (That is, make certain the equipment and the television or radios are on circuits controlled by different circuit breakers or fuses.)

Modifying the equipment without proper authorization may result in the equipment no longer complying with FCC requirements for Class A or Class B digital devices. In that event, your right to use the equipment may be limited by FCC regulations, and you may be required to correct any interference to radio or television communications at your own expense.



MERCURY WARNING

This product contains mercury. Dispose of in accordance to local, state and federal laws.

CANADIAN COMPLIANCE NOTICE

English: This digital apparatus does not exceed the Canada ICES-003 Class A limits for radio noise emissions from digital apparatus as set out in the radio interference regulations of the Canadian Department of Communications.

French: Le present appareil numerique nemet pas de bruits radioelectriques depassant les limites applicables aux appareils numeriques de Canada ICES-003 Class A prescrites dans le reglement sur le brouillage radioelectrique edicte par le Ministere des Communications du Canada.



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

GOST-R CERTIFICATION

This product is GOST-R certified.



EUROPEAN COMPLIANCE NOTICE

Products with the CE Marking comply with both the EMC Directive (89/336/EEC) and the Low Voltage Directive (73/23/EEC) issued by the Commission of the European Community. Compliance with these directives implies conformity to the following European Norms:



- EN55022 (CISPR 22) Class A Radio Frequency Interference
- EN55024 (IEC61000-4-2, -4-4, -4-5, -4-6, -4-11)
- EN60950 (IEC950) Product Safety



WARNING This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

For EU-member states only as follows

The mark shown to the right is in compliance with the Waste Electrical and Electronic Equipment Directive 2002/96/EC (WEEE). The mark indicates the requirement NOT to dispose the equipment as unsorted municipal waste, but use the return and collection systems according to local law.



FOR TAIWAN AND OTHER TRADITIONAL CHINESE MARKETS



WARNING This is a Class A Information Product, when used in residential environment, it may cause radio frequency interference, under such circumstances, the user may be requested to take appropriate countermeasures. Note: Product BSMI approval license number is on the product label outside the system enclosure.

警告使用者

這是甲類資訊產品，在居住環境中使用時，可能會造成射頻干擾，在這種情況下，使用者會被要求採取某些適當的對策。注意：產品的度和檢驗標準局 (BSMI) 核准授權號碼在系統外殼的產品標籤上。

CHINA CCC MARK



WARNING This is a Class A Device. It may cause radio frequency interferences if used in residential environment, in this case, it may be required to have countermeasures.

CCC Class A Declaration

此为A级产品，在生活环境中，该产品可能会造成无线电干扰。在这种情况下，可能需要用户对其干扰采取切实可行的措施。

DECLARATION OF ROHS COMPLIANCE

This product has been designed and manufactured in compliance with Directive 2002/95/EC of the European Parliament and the Council on restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS Directive) and is deemed to comply with the maximum concentration values issued by the European Technical Adaptation Committee (TAC) as shown below:




Substance	Proposed Maximum Concentration	Actual Concentration
Lead (Pb)	0.1%	<0.1%
Mercury (Hg)	0.1%	<0.1%
Cadmium (Cd)	0.01%	<0.01%
Hexavalent Chromium (Cr ⁶⁺)	0.1%	<0.1%
Polybrominated biphenyls (PBB)	0.1%	<0.1%
Polybrominated diphenyl ethers (PBDE)	0.1%	<0.1%

Certain components of products as stated above are exempted under the Annex of the RoHS Directives as noted below. Examples of exempted components are:

1. Mercury in compact fluorescent lamps not exceeding 5 mg per lamp and in other lamps not specifically mentioned in the Annex of RoHS Directive
2. Lead in glass of cathode ray tubes, electronic components, fluorescent tubes, and electronic ceramic parts (e.g. piezoelectronic devices)
3. Lead in high temperature type solders (i.e. lead-based alloys containing 85% by weight or more lead)
4. Lead as an alloying element in steel containing up to 0.35% lead by weight, aluminium containing up to 0.4% lead by weight and as a copper alloy containing up to 4% lead by weight.

Important Safety Instructions

1. Read these instructions completely before using the equipment.
2. Keep these instructions in a safe place.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this equipment near water.
6. Clean with a soft, dry cloth. If further cleaning is required, see "Cleaning the device" in this guide for further instructions.
7. Do not block any ventilation openings. Install the equipment in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other devices (including amplifiers) that produce heat.
9. Do not attempt to circumvent the safety provisions of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade and the third prong are provided for your safety. If the plug does not fit into your outlet, consult an electrician for replacement of the outlet.
10. Protect the power cord from being tread upon or pinched, particularly at the plug, and the point where it emerges from the equipment. Be sure that the power outlet is located near the equipment so that it is easily accessible.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the equipment. When a cart is used, use caution when moving the cart/equipment combination to avoid injury from tipping over. 
13. Unplug this equipment when it will be unused for long periods of time.
14. Refer all servicing to qualified service personnel. Service is required when the unit has been damaged in any way, such as: if the power-supply cord or plug is damaged, if liquid is spilled onto or objects fall into the unit, if the unit is exposed to rain or moisture, or if the unit does not operate normally or has been dropped.
15. To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture. Apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.
16. Do not open it, or there may be risk of electric shock.



17. The socket-outlet shall be installed near the equipment and shall be easily accessible.

CLEANING THE DEVICE

1. Make sure the device is turned off.
2. Wipe the device with a clean, soft, lint-free cloth. This removes dust and other particles. If still not clean, apply a small amount of glass cleaner with no alcohol, ammonia, benzene, paint thinner, gasoline, or acetone onto a clean, soft, lint-free cloth, and wipe the device. **NEVER SPRAY OR POUR ANY LIQUID DIRECTLY ONTO THE DEVICE!**

Disclaimer: ViewSonic is not liable for damage resulting from using any ammonia or alcohol-based cleaners.

DATA LOSS DISCLAIMER

Before sending the device out for service, be sure to backup all data and remove all third party software, features, parts, options, alterations, and attachments not warranted by ViewSonic prior to sending the product to ViewSonic for service. ViewSonic is not liable for any loss or damage to these items.

With respect to all service provided, it is your responsibility to backup the contents of your device, including any data you have stored or software you have installed on the device. It is likely that the contents of your device will be lost in the course of service and ViewSonic will not be responsible for any damage to or loss of any programs, data or other information stored on any media or any part of any Product serviced hereunder.

IF DURING THE REPAIR OF THE PRODUCT THE CONTENTS OF THE DEVICE ARE ALTERED, DELETED, OR IN ANY WAY MODIFIED, VIEWSONIC IS NOT RESPONSIBLE WHATSOEVER. YOUR PRODUCT WILL BE RETURNED TO YOU CONFIGURED AS ORIGINALLY PURCHASED (SUBJECT TO AVAILABILITY OF SOFTWARE).

SPECIFICATIONS

Default resolution	1366 x 768 @ 60 Hz WXGA
Dimensions	48" W) x 29" (H) x 12" (D) with stand 1243 mm (W) x 739 mm (H) x 304 mm (D) with stand
Display area	42" diagonal LCD screen 930.25 mm (H) x 523.01 mm(V)
Weight	72.6 lbs (net) 90.2 lbs (gross) 33 kg (net) 41 kg (gross)
Connectivity	Network RJ-45 x 2 for Daisy Chain feature 10/100 Ethernet
	Audio Audio output: 2 x RCA stereo analog Internal analog stereo to power amp
	Communication USB x 2
Streaming protocol types	HTTP, UDP, RTP, IP/TV, Local file playback
Video decoding formats	MPEG-1, MPEG-2, MPEG-4, Macromedia Flash
Audio decoding formats	MPEG-1 (Layers 1 & 2) MP3, WAV
Image file formats	JPEG, PNG
Memory (RAM)	128 MB
Memory (FLASH)	64 MB
Number of colors	16.7 million (8-bit)
Power consumption	240 watts (Max.)
Power input	AC 100 ~ 240 V (max) @ 50/60 Hz
Contrast ratio	1600:1 (Typical), 1200:1 (Min.)
Viewing angle	Over 178°
Operating temperature	0 ~ 40° C (32 ~ 104° F)
Regulatory approvals	FCC-15A, IC, cETLus, CE, C-Tick, NOM, TUV-S Mark, CB, SASO, SABS, CCC, BSMI, PSB, GOST-R, RoHS
Optional accessories	Wall mount kit

Specifications are subject to change without notice. Corporate names and trademarks stated herein are the property of their respective companies.

LIMITED WARRANTY

Please go to the Customer Support table in this guide for the ViewSonic website in your region to get warranty information.

ViewSonic®



the choice of professionals