

# CW-3000HD

User Manual

Version 0.6

PAGE 1 BACK TO TOC

# **Safety Precautions**

#### **Electrical Safety**

- To prevent electrical shock hazard, disconnect the power cable from the electrical outlet before relocating the system
- When adding or removing signal cables or devices from the system ensure that the power cable is unplugged before doing so.
- Seek professional assistance before using an adapter or extension cord. These devices could interrupt the grounding circuit.
- Do not attempt to repair or modify the power supply. Doing so could create the risk of electrical shock or fire.

#### **Operational Safety**

- Before operating the system, carefully read the manual that came with the system.
- Before using the system ensure that all cables are correctly connected and there is no damage to the power or signal cables. If any damage is detected, contact the dealer immediately.
- To avoid short circuits, keep paper clips, screws, staples and, other metallic devices away from connectors and ventilation openings.
- Avoid dust, humidity and, temperature extremes. Do not operate the system in any area that may become wet.
- Place the system on a stable surface
- Do not block ventilation holes in the system. The system requires ventilation to ensure proper operation.
- If technical problems are encountered with the system, contact a qualified service technician or the retailer where the product was purchased.

# **Table of Contents**

System Specifications	<u>6</u>
Hardware	<u>6</u>
System Software	<u>6</u>
Multimedia Software	<u>7</u>
Dimensions	7
Package Contents	
System Placement	
Remote Control Unit	
Cable Connections.	
Rev. 1	
Rev. 2	
DVB & ATSC	11
Rev 1	
Rev 2	
DUAL DVB	
Rev 1	
Rev 2	

Quick Start Guide	<u>15</u>
System Bootup	<u>17</u>
System Setup	<u>18</u>
Main Menu	<u>18</u>
Admin Menu	<u>19</u>
Updates Menu	<u>20</u>
Date	<u>21</u>
Downloading Updates	<u>22</u>
Adding And Editing An Updates Server	<u>23</u>
Installing Updates	<u>24</u>
Checking System Version	<u>25</u>
Backup Settings.	<u>26</u>
Restore Settings.	<u>26</u>
Configuration Menu.	<u>27</u>
Adapter Setup	<u>28</u>
Display Setup	<u>29</u>
Size Setup	<u>30</u>
Timeout Setup	<u>31</u>
Themes Setup	<u>32</u>
Network Setup	<u>33</u>
Audio Setup	<u>34</u>
Storage Setup	<u>35</u>
Shared Folders	<u>37</u>
Satellite TV Setup	<u>39</u>
Weather Setup	<u>40</u>
Antenna Menu	<u>41</u>
Satellite Setup	<u>42</u>
Adding A Satellite	<u>44</u>
Satellite Scanning	
Editing Channels	<u>46</u>
Motor Support	<u>47</u>
ATSC Scanning	<u>51</u>
Edit ATSC	<u>52</u>
Cable Scanning.	<u>53</u>
Edit QAM	
Profiles Menu	
Adding A Profile	
Editing A Profile	
Assigning Antenna Channels	
Assigning IP Channels	
Configure IP Channels	
Add IP Channel	
Assigning Applications	<u>62</u>

Operation	<u>6</u>
iles	<u>6</u>
Profile Applications	<u>6</u>
IPTV	<u>6</u>
IPTV Channel Packages	<u>6</u>
IPTV Channel Categories	
TV	<u>6</u>
Navigating Through The On Screen Menus	<u>6</u>
The Grid Program Guide	
The "Schedule" Menu	<u>7</u>
Selecting A Channel	<u>7</u>
Selecting Audio Tracks	<u>7</u>
Instant Recording	<u>7</u>
Pausing Live Video	
Replaying A Recording	<u>7</u> .
Replay Control	
Editing Recordings	
Explained	
Quick Mini-Howto	
Programming The Timer	
Video	
Video Selection.	
Video Viewer Keys	
Pictures	
Picture Viewer Keys	
Web	
DVD	8
DVD Viewer Keys	
Music	
Music Player Keys	8
Roaster	
Prepare DVD	
Prepare Video	<u>9</u>
Burn DVD.	<del>-</del>
Burn Video	
Games	
CD	<u></u>
CD Player Keys.	

Appendix	<u>96</u>
External USB Device Connection.	<u>96</u>
Keyboard / Mouse Connection.	<u>97</u>
Networking With Windows PC's	<u>98</u>
Seeing Files Over The Network	<u>98</u>
Enabling More Shared Folders.	<u>98</u>
Playing Your Recordings Over The Network	<u>98</u>
Remote Control - Keyboard Cross-reference	
Troubleshooting.	
Accessing Logs	
BIOS Settings	
Display Diagnostics	
Remote Control Diagnostics.	
Roaster Diagnostics	
Satellite TV Diagnostics.	
Shared Folders Diagnostics	<u>104</u>
Software License	
Warranty Information.	
Technical Support	
**	

# **System Specifications**

#### Hardware

- Processor:
  - Sempron 3000+ 64Bit CPU AM2 Socket (CW-3000HD rev. 1)
  - Athlon X2 4000+ 64Bit CPU AM2 Socket (CW-3000HD rev. 2)
- Memory: 512MB DDR2 RAM Expandable to 8GB
- Flash Drive: 1 GB System Flash
- Hard Drive: Not Included
- Video:
  - Nvidia GeForce 6150 (CW-3000HD rev. 1)
  - Nvidia GeForce 7050 (CW-3000HD rev. 2)
- Satellite Tuner:
  - o Input terminal: F-type 75 Ohm
  - o Receiving frequency: 950~2150 MHz tuning range
  - o Input level: -65~-25dBm
  - Support MCPC and SCPC
  - o Symbol rate: 2~45 Msps
  - o FEC Codes: 1/2,2/3,3/4,5/6,7/8 and Auto
  - o QPSK
- ATSC Tuner
  - o Latest LG 5th generation tuner for enhanced reception
  - Supports QAM 64 and QAM 256 Cable signals
  - o One TV antenna 75 ohm reception port
- Video Output: VGA/HDMI or DVI/Component/S-Video
- Audio Ouput: Analog and SPDIF Dolby Digital Audio output
- USB Ports: 4 USB v2.0 ports on back panel and 2 USB v2.0 ports on front pane
- Media Reader: All In One Media Reader. Supports most popular flash cards
- Ethernet Port: RJ-45 10/100/1000 Mbits compatible
- DVDRW: Read/Write DVDs and CDs

# System Software

- Linux Operating System based on 2.6.21 Kernel
- Graphical X-Windows Environment
- Java 1.4.2 Based Graphical User Interface
- Software Upgradeable Via Internet and/or USB Storage Device
- Network sharing to Desktop computers using Samba (3)
- All software is 100% Open Source with the exception of the Java user interface

PAGE 6 BACK TO TOC

#### Multimedia Software

- Satellite TV
  - o DVB-S Free To Air using Video Disk Recorder (VDR)
  - o ATSC Reception using Video Disk Recorder (VDR)
  - o Grid And List Style Electronic Program Guides (EPG)
  - o Customizable User Interface Through Themes
  - o Comprehensive Digital Video Recording Functionality Stored on Hard Drive (1)
  - o Automatic Timer Recording For Series and Daily/Weekly Programs (1)
  - o Pause Live TV With Full Fast-Forward and Rewind Capability (1)
  - o Timer Recording Through Program Guide (1)
- IP TV Internet TV Streaming Video Player (2)
- P2P TV Peer To Peer TV Streaming Video Player (2)
- Video Viewer for popular video formats like AVI, MPG and even DVD-ISO
- DVD Viewer for DVD movie media
- Music Player for popular audio formats including MP3 and WMA
- Pictures Viewer with popular functions including Slide-show, Zoom and Rotate
- Roaster (1)
  - o Prepare DVD Convert HD and SD recordings to DVD-ISO image
  - o Prepare Video Create HD or SD MPG-ISO image of recordings
  - Burn Burn DVD-ISO and MPG-ISO images
  - o Backup Create backups of CD/DVD media (not currently active)
- Web Mozilla web browser with support for popular plug-ins including Flash (2)(4)
- Games Mame game support (1)(5)
- Expandable With Hundreds of Linux Applications
- (1) Requires the addition of a Hard Drive.
- (2) Network connection with Internet access required.
- (3) Internal network connection to a PC through a router or crossover network cable required
- (4) Requires keyboard and mouse
- (5) Requires an external download and package installation

#### **Dimensions**

• The CW-3000HD is 14" wide by 5.5" tall by 15" deep Physical Installation

PAGE 7 BACK TO TOC

# **Package Contents**

- 1. CW-3000HD Multimedia System
- 2. Remote Control Unit
- 3. A/V Connection Cable
- 4. Power Cable
- 5. (2) AAA Batteries for Remote Control Unit
- 6. CD containing system restore image and user manual

# System Placement

- Place the system on a stable surface. The unit can be damaged or cause damage if it were to fall to the floor.
- Place the system in a well ventilated area. The system will generate heat and needs to have free air movement to keep internal devices from overheating.
- Do not block the vents in the case. This is required to allow for free air movement.
- Do not place the system on a carpeted surface. System needs to be on a solid surface.
- System should be placed close to the display device. Optionally, an Internet connection and satellite feed should be in close proximity to the installation location to use IPTV and satellite functions of the system.
- If system requires extension cables or cable installation, consult a qualified installer to ensure signal integrity to the system.

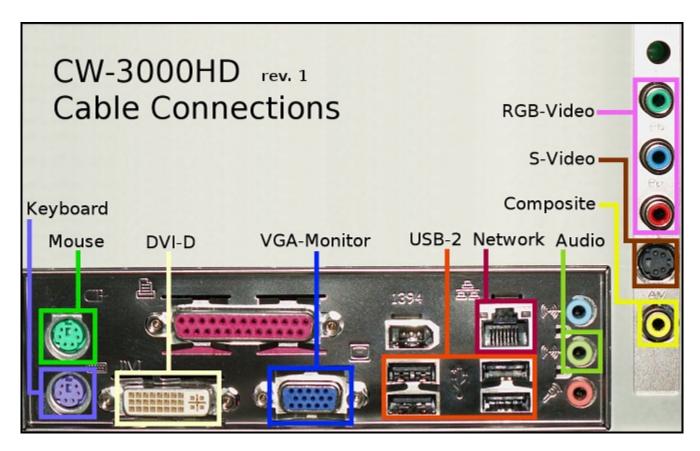
#### **Remote Control Unit**

- The remote control unit is used to control all system functions.
- Do not allow the remote control unit to be used in a wet environment. Allowing the remote control unit to become wet can damage the unit.
- Remove the battery compartment cover on the back of the unit and insert the included batteries the remote control unit paying close attention to the battery orientation pictures inside the battery compartment.

PAGE 8 BACK TO TOC

#### **Cable Connections**

#### Rev. 1



- 6 pin DIN Keyboard and Mouse connectors are for use with an optional keyboard/mouse.
- The 4 USB-2 connectors are for connecting external devices to the CW-3000HD. This allows external USB memory sticks, DVD/CDROM drives, or other USB devices to be used.
- RJ-45 Network connector for standard 10/100/1000 connection.
- The green 1/8" mini-jack connector is the stereo analog audio output jack.
- The RCA composite connector is for use with a SDTV.
- The 4 pin DIN S-Video connector is suitable for SDTV.
- The RGB-Video analog connectors for VGA output for use on a suitably equipped HDTV or computer style monitor.
- The 15pin D-Sub connector is a standard VGA output for use on a suitably equipped HDTV or computer style monitor.
- The 24 pin DVI-D connector is suitable for 1920x1080P, 1920x1080i, 1280x720P HDTV.

NOTE: It is recommended to use a quality DVI cable no longer than 9 feet.

PAGE 9 BACK TO TOC

#### **Cable Connections**

# Rev. 2



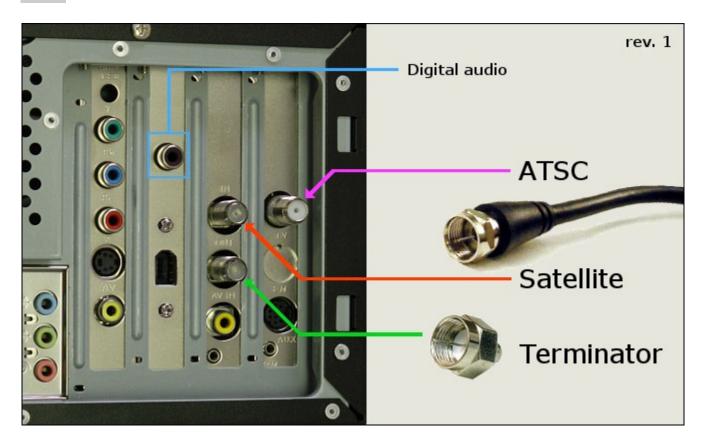
- 6 pin DIN Keyboard and Mouse connectors are for use with an optional keyboard/mouse.
- The 4 USB-2 connectors are for connecting external devices to the CW-3000HD. This allows external USB memory sticks, DVD/CDROM drives, or other USB devices to be used.
- RJ-45 Network connector for standard 10/100/1000 connection.
- The green 1/8" mini-jack connector is the stereo analog audio output jack.
- The RCA composite connector is for use with a SDTV.
- The 4 pin DIN S-Video connector is suitable for SDTV.
- The RGB-Video analog connectors for VGA output for use on a suitably equipped HDTV or computer style monitor.
- The 15pin D-Sub connector is a standard VGA output for use on a suitably equipped HDTV or computer style monitor.
- The 19pin Type-A HDMI connector is suitable for 1920x1080P, 1920x1080i, 1280x720P HDTV.

NOTE: It is recommended to use a quality HDMI cable no longer than 9 feet.

PAGE 10 BACK TO TOC

# **DVB & ATSC**

# Rev 1



- Digital Audio RCA connector
- 75 ohm DVB & ATSC reception ports
- Connect the satellite cable to the upper connector of the vertical connector pair. The lower connector should have a 75 ohm F Terminator affixed.

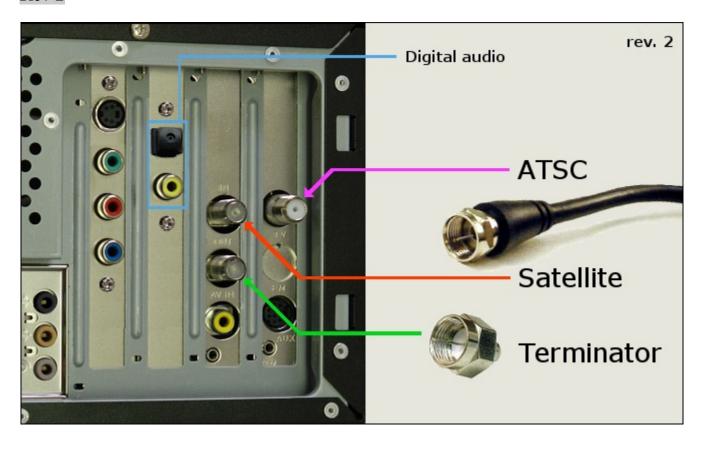
(This is important to decrease interference and increase reception quality)

• Connect an antenna to the ATSC connector. It is the single connector.

PAGE 11 BACK TO TOC

# **DVB & ATSC**

# Rev 2



- Digital Audio Optical and RCA connectors
- 75 ohm DVB & ATSC reception ports
- Connect the satellite cable to the upper connector of the vertical connector pair. The lower connector should have a 75 ohm F Terminator affixed.

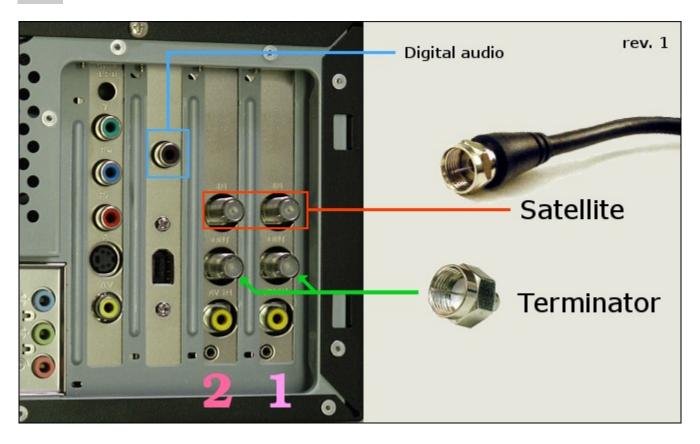
(This is important to decrease interference and increase reception quality)

• Connect an antenna to the ATSC connector. It is the single connector.

PAGE 12 BACK TO TOC

# **DUAL DVB**

#### Rev 1



- Digital Audio RCA connector
- 75 ohm Dual DVB reception ports
- For dual satellite connections the upper connector in each vertical pair should be connected. The lower connectors should have 75 ohm F Terminators affixed.

  (This is important to decrease interference and increase reception quality)
- For a single satellite connection connect the upper connector on the vertical pair closest to the edge of the unit. In other words use DVB # 1

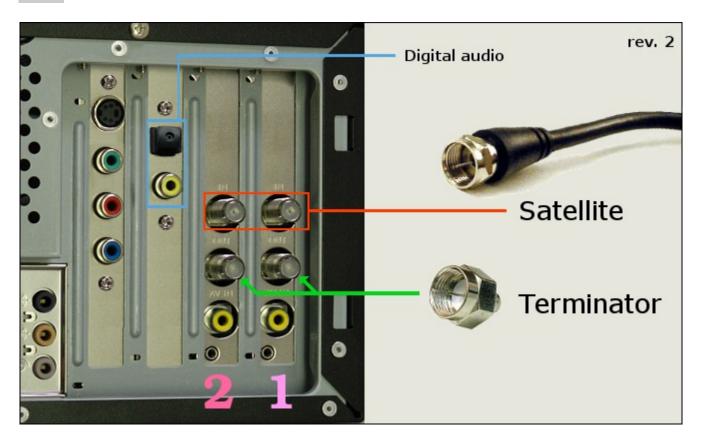
To fully utilize all the functions of the CW-3000HD you should have 2 satellite cables connected to the unit. Both cables need to contain identical feeds.

(ie. You need a dual output LNB with 2 separate lines)

PAGE 13 BACK TO TOC

#### **DUAL DVB**

# Rev 2



- Digital Audio Optical and RCA connectors
- 75 ohm Dual DVB reception ports
- For dual satellite connections the upper connector in each vertical pair should be connected. The lower connectors should have 75 ohm F Terminators affixed.

(This is important to decrease interference and increase reception quality)

• For a single satellite connection connect the upper connector on the vertical pair closest to the edge of the unit. In other words use DVB # 1

To fully utilize all the functions of the CW-3000HD you should have 2 satellite cables connected to the unit. Both cables need to contain identical feeds.

(ie. You need a dual output LNB with 2 separate lines)

PAGE 14 BACK TO TOC

# **Quick Start Guide**

Owners are encouraged to read through this manual to get familiar with the CW-3000HD. Here is a quick start guide for those who simply must dive in immediately.

1. Connect the receiver to your TV.

Only use 1 video connection between the CW-3000HD and the TV. The CW-3000HD is only capable of displaying on 1 device at a time. Shutdown the CW-3000HD before changing the video connection.

Analog audio is connected to the middle green 1/8" minijack on the back panel. Digital audio connection is via the RCA connector. You may connect these simultaneously.

2. Connect the Satellite and or Antenna connections.

#### Satellite and ATSC tuner system:

Connect the satellite cable to the upper connector of the vertical connector pair. Connect an antenna to the ATSC connector. It is the single connector.

#### Dual satellite tuner system:

To fully utilize all the functions of the CW-3000HD you need to have 2 satellite cables connected to the unit. Both cables need to contain identical feeds.(ie. You need a dual output LNB with 2 separate lines) The upper connector in each vertical pair should be connected. For a single cable connection you should connect the upper connector on the vertical pair closest to the edge of the unit.

- 3. Connect the network connection.
- 4. Start the system. The first screen you will see is the adapter settings screen. It is important that you disable any adapters that do not have an antenna connection. Failure to do so will result in erratic channel changes.
- 5. The second screen will be the display settings screen. IT IS EXTREMELY IMPORTANT THAT YOU SET THESE SETTINGS CORRECTLY. Incorrect settings here may cause you to not be able to view anything but a black screen! This setting also chooses a video calibration setting that is tailored for the output that you use. Changing the display connection requires changing this setting to get the correct display calibration.
- 6. The next screen will be to set the system time. Set it correctly.
- 7. Restart the system for the display settings to take effect. That means press the power button on the remote and then press the yellow button to restart.

PAGE 15

BACK TO TOC

- 8. Check for any system updates. Enter the admin profile. Highlight updates and press enter. Highlight system and press enter. Make note of the current version of the software on your system. Back out to the updates screen and highlight download. Press enter. Highlight the check button and press enter. Compare the update version to your system version. If the update is newer download it. (For those with no network connection, you may use your browser to check <a href="ftp://ftp.captiveworks.org/cw3000hd">ftp://ftp.captiveworks.org/cw3000hd</a> for the update file.)
  Install the update. Instructions are available in the announcement for the update on the Technical Support forum found at <a href="http://captiveworks.org">http://captiveworks.org</a>.
- 9. Setup for channels. Enter the admin profile and choose Antenna. Choose satellite or ATSC.

ATSC: (If you don't have an ATSC system, don't bother. It won't work.) The ATSC area allows you to scan for channels. Make sure you have a good antenna connection to the ATSC antenna connector and press the green button to begin scanning. This will configure the channels available to you. Press the blue button to save the list when the scan is finished. If you would like to change the channel numbers you may press the yellow button for Channels and renumber them as you see fit.

**Satellite:** If you use a switch, choose your switch type. This will enable either 2 or 4 of the positions depending on the switch you choose. Choose the LNB types connected to the switch and then choose the satellite the LNB is aimed at. If you wish to separate the satellites you can add an offset to the channel numbers so you may find each sats channels quickly and prevent overlapping channel numbers. You may set that under edit. 10000 is generally a good number to separate each satellite or provider. Once all is configured click the SAVE button. Next you may scan each satellite you wish to view. Each satellite needs to be scanned separately. Press the blue button to save the results of the scan.

- 10. Make sure the channels are available in the user profile. Enter the admin profile. Highlight profiles and press enter. Highlight channels and press enter. Ensure that all the channels you would like are in the selected column. You may also remove any unwanted channels if you choose.
- 11. At this point you should be ready to enter the user profile and explore what all is available.

PAGE 16 BACK TO TOC

# System Bootup



• When first powering on the CW-3000HD you will be presented with this type of a screen. This is what is called the bios splash screen.



After the bios splash screen another screen much like the first will be presented. (approx. 15-20 seconds unless the files system needs scanning)

PAGE 17 BACK TO TOC

# **System Setup**

#### **System Remote Buttons**

#### Remote buttons in GUI screens are as follows:

Up/Down = Move up or down on large buttons or, change values in setup screens

Left/Right = Move from item to item in setup screens

Channel up/down = Scroll up and down a page at a time

Enter = Select item highlighted

Erase  $(\leftarrow)$  = Backspace

Back = Move back to previous screen

Red = Context button on bottom of screen

Green = Context button on bottom of screen

Yellow = Context button on bottom of screen

Blue = Context button on bottom of screen

Numbers = Numbers or letters in text entry areas. The numbers work like a cell phone.

The letters for each number are below the number on the remote.

#### Main Menu

NOTE: CW-3000HD will not function without complete initial setup.



- Admin Section for profile setup and system configuration.
- user The built in initial profile

PAGE 18 BACK TO TOC

# Admin Menu



Choose Admin from the main screen.

When prompted for a pin, enter 1111 (default pin) and press the blue button.

This will bring up the Admin screen where the majority of the system configuration will take place.

- Updates System software update download and installation
- Configuration Configuration menu
- Antenna Antenna setup menu
- Profiles User profile creation and setup

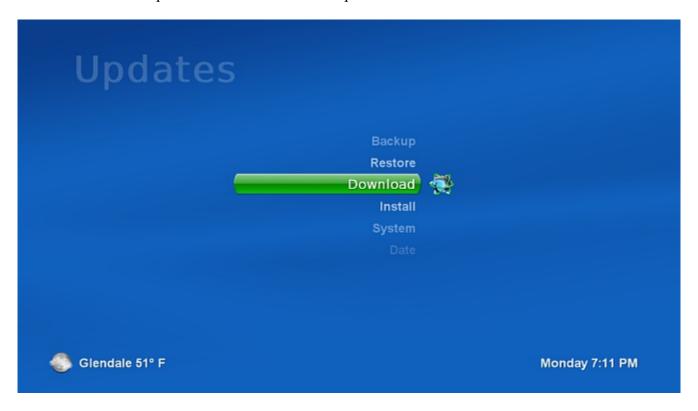
PAGE 19 BACK TO TOC

# **Updates Menu**

One of the first things anyone with a new product that includes an update mechanism should do is download and install the latest update. This allows the owner to get the latest features and the improved stability of software refinements.

System updates for the CW-3000HD can be installed from the Admin screen.

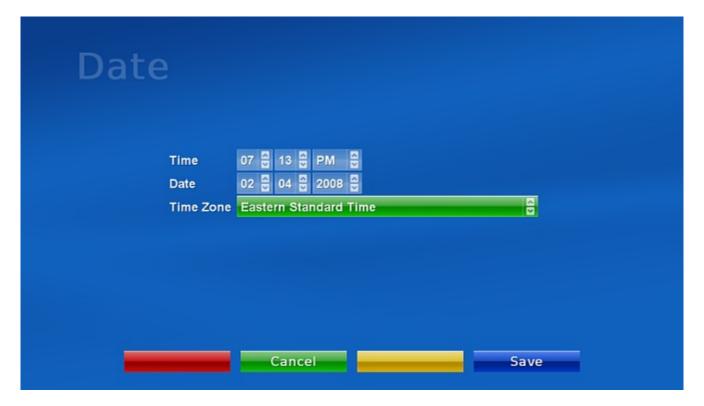
Press enter on the Updates button to enter the updates screen.



- Date: Allows users to set date, time and time zone.
- Download: Allows the user to check for and download updates from the Internet.
- Install: Allows the user to install updates downloaded from the Internet or updates stored on external media.
- System: Shows installed software version information.
- Backup: Allows the user to create a hard copy of their settings by burning them to disc.
- Restore: Allows a user to restore their settings from a restore disc.

PAGE 20 BACK TO TOC

# Date



- Set the proper date, time and time zone for your area. (important for the proper operation of the satellite system)
  - Using the arrow keys move the highlighter to the time or date fields.
  - Press enter to edit a field.
  - Press back to return the arrow keys to navigation of the fields.
- Press the blue button to save the changes.

PAGE 21 BACK TO TOC

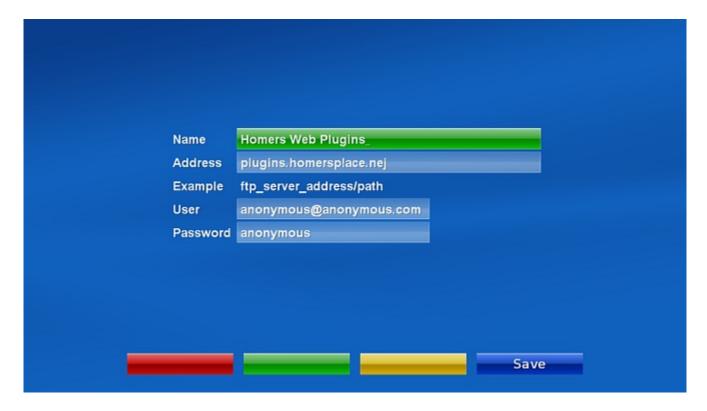
# **Downloading Updates**



- The default download site is the "Official CW-3000HD Updates" site where the Official releases are posted. (ftp.captiveworks.org)
- Highlight the Check button and press enter to connect to the selected server. Once connected it will show a list of available updates.
  - Use the arrow keys to navigate to the Files list.
  - Press enter to highlight and navigate Files in the list.
  - Press back to return the arrow keys to navigation of the fields.
  - Highlight the update you wish to download.
  - Press the blue button to download the update.
- To select an alternate server navigate to the Server currently displayed
  - Press enter to highlight.
  - Use the up and down arrows to choose a server from the list.
  - Press back to return arrow key navigation.
- The red button allows for adding a new server that contains unofficial updates. NOTE: Please read the notice about unauthorized software updates.
- The green button allows for editing a server listing

PAGE 22 BACK TO TOC

# Adding and Editing an Updates Server



In an open source environment individuals may develop packages for the system independently and share them with the community.

• Having pressed the red button to add a new server or the green button to edit an existing server enter or adjust the name, address, user name, and password of the ftp server hosting the system updates.

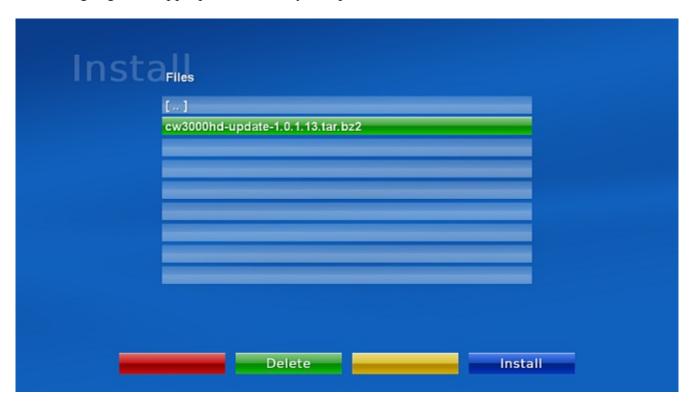
(it is possible the password field may not be required for some servers)

• Press the blue button to save the new addition or changes.

PAGE 23 BACK TO TOC

# **Installing Updates**

- To install an update, press the "Back" button to go back to the main updates screen..
- Highlight the "Install" button and press enter.
- A list of directories will be displayed containing "external" and "local".
- The "local" directory contains any downloaded files from the Internet.
- The external" directory refers a USB stick or, CD/DVDROM.
- Highlight the appropriate directory and press enter.



- If "local" is selected, a list of downloaded files will be shown.
- If "external" is selected, a list of devices will be shown.
  - Choose the appropriate device (USB, CD, etc) to see a list of files on the device.
- Choose the update file and press the blue button to install it.

NOTE: The external directory is used when the user has update files on an external device (e.g. USB stick) instead of downloading it using the download utility.

If at any time you have questions about the update process please visit the on-line forums

http://captiveworks.org/forum/

PAGE 24 BACK TO TOC

# **Checking System Version**



- The system button in the install screen displays the installed software version information.
- Click the blue button to exit the screen..

PAGE 25 BACK TO TOC

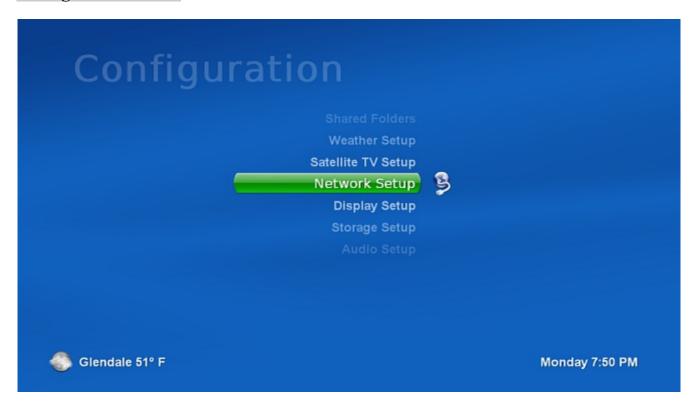
# Backup Insert blank recordable CD/DVD disc Backup



The Backup and Restore function allows you to create a hard copy (CD) of your settings once you have everything exactly the way you want it so that you can restore them if needed..

PAGE 26 BACK TO TOC

# **Configuration Menu**



- Adapter Setup Enable and disable internal and external antenna adapters
- Display Setup Configure display settings for connected display device
  - Size Adjust the viewable area for web browser and Satellite TV program guide.
  - Timeout Enable, disable and configure the screen blanking function.
  - Themes Change the default menu theme.
- Network Setup Configure type of network connection, hostname, and workgroup
- Audio Setup Audio Output setup
- Storage Setup Set up an internal hard drive that's been added to the system.
- Shared Folders Configure the mounting of external file servers.
- Satellite TV Setup Configure program guide style and auto-scan.
- Weather Setup Configure location and update frequencies of weather applet.

PAGE 27 BACK TO TOC

# **Adapter Setup**

Adapter Setup	
ATSC Adapter (Out	ter) Disabled
DVB-S Adapter (Inr	ner) Enabled
External DVB-S Ad	apter 1 Disabled
External DVB-S Ad	apter 2 Disabled 🖁
	Save

The CW-3000HD has the ability to use extra external tuners like the Genpix Skywalker. At this screen the user can enable or disable internal and external ATSC/DVB adapters depending on their set up.

It is important to disable any devices that do not have an antenna connection for the system to work correctly. Failure to do so will result in erratic channel changes.

PAGE 28 BACK TO TOC

Primary Connection	
Display Resolution	High Definition 1080p TV □
Aspect Ratio	16:9
Fill Mode	Normal 🖁
Auto Detect Settings	s Yes □

- Select the Type of physical video connection you wish to utilize. Choose DVI to use the HDMI connector on the CW-3000HD Rev 2.
- Select the Display resolution that corresponds with your Television hardware capabilities. (CAUTION: Ensure you are selecting settings that are supported by your hardware)
- Select the aspect ratio you wish to use (16:9 is wide screen format)(4:3 is regular TV)
- Fill mode is a function that allows you to stretch 4:3 video to fill a 16:9 screen.
- Press the blue button to save the changes
- After saving your settings you will be prompted to restart the CW-3000HD
  - The preferred method is as follows:
    - 1. Back out to the Main Admin screen
    - 1. Press the power button on the remote.
    - 2. Select shutdown.
    - 3. Physically hook up the appropriate cable matching the mode you've selected.
    - 4. Power on the CW-3000HD

#### NOTES:

**D.** 1 G.

Only use 1 video connection between the CW-3000HD and the TV. The CW-3000HD is only capable of displaying on 1 device at a time.

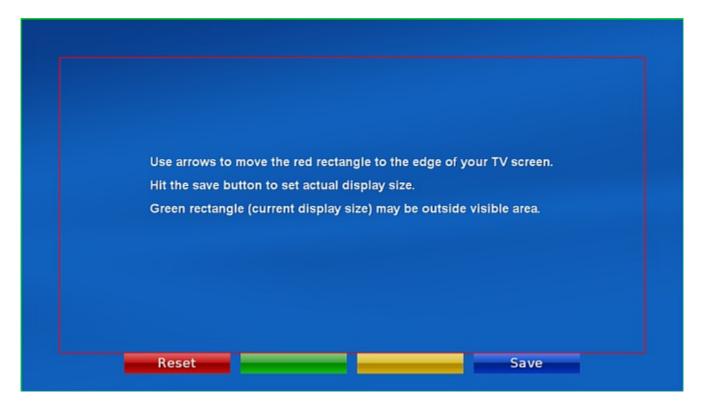
If after powering up the CW-3000HD and waiting until the boot-up screen reaches 100% there is only a blank screen wait three seconds then aim the remote control directly at the front of the CW-3000HD and type in 1346. This will cause it to reboot with default video settings. Return to Display Setup and select a compatible setting.

PAGE 29 BACK TO TOC

# Size Setup

Once you have powered on the CW-3000HD with the appropriate Display Resolution you can adjust the size for the web browser application and Satellite TV program guide.

Press the red button to configure size



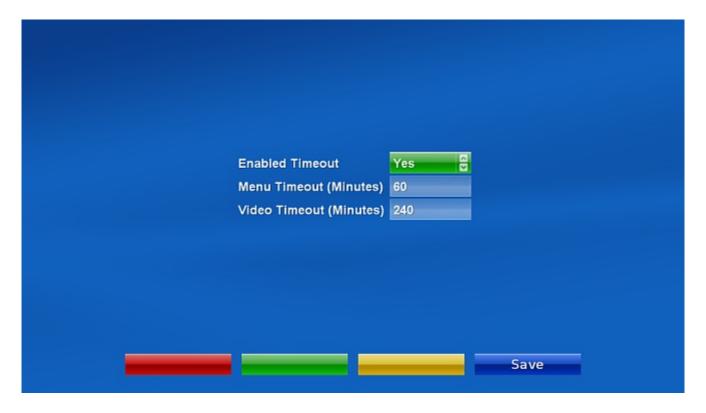
Some models of Televisions are designed with a set amount of over-scanning. What this can translate to is a certain amount of picture being displayed outside the physical dimensions of the screen. For normal TV viewing it is generally unnoticeable, but when it comes to an application like the web browser this can be unacceptable.

- The green box is the current setting the CW-3000HD is using for the browser application.
- Adjust the size of the red box by using the arrow keys so that it is at the extents of your viewable area.
- Press the blue button to save the changes
  - The Web browser should now be the correct size for your TV.
  - The Satellite TV program guide will be automatically put into cropped mode. (Rebooting is not necessary)
- Press the red button to reset the setting to full screen.

NOTE: Some new TV's have different 'HD mode' settings in their Advanced menu. If you are experiencing over-scan it is recommended that you check your TV for settings that provide a larger viewable area before using this size adjustment.

PAGE 30 BACK TO TOC

# **Timeout Setup**

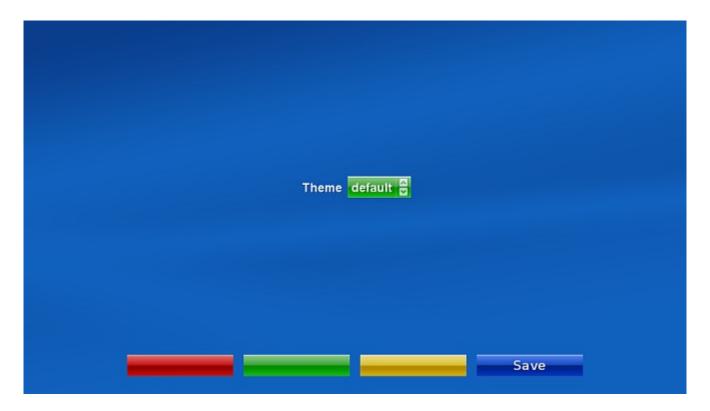


Timeout is meant to be a preventive measure against screen burn-in. It is disabled by default. If screen blanking is desired during times of inactivity the user can enable this Timeout function. The 'inactivity' timeout values can be adjusted to the users preference.

- To enable Timeout highlight the field and set to Yes.
- To adjust the separate Menu and Video timeout values highlight and set the desired values.
- Press the blue button to save the settings.

PAGE 31 BACK TO TOC

# **Themes Setup**



Themes are meant to provide the user with the ability to customize the appearance of the main menu system of their CW-3000HD.

- To adjust the present theme highlight the Theme field
- Use the up and down arrow keys to scroll through the list of available themes.
- Press the blue button to save the settings and apply the new theme.

PAGE 32 BACK TO TOC

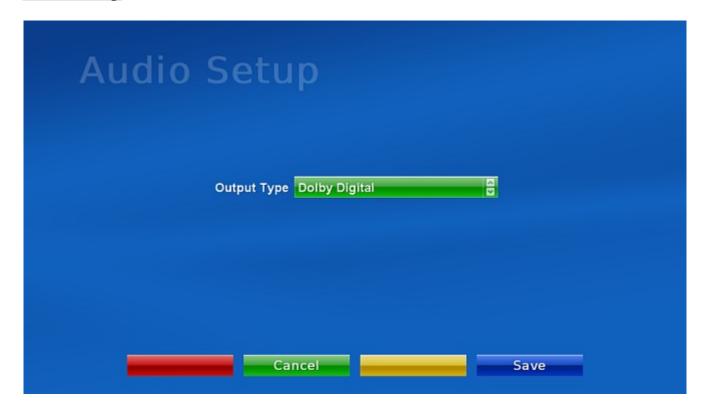
# **Network Setup**



- Choose Enable Network: Yes to enable the network Choose Enable Network: No to disable the network.
- Enter the Name you want your CW-3000HD to be identified as on your network. This variable should be a unique name so that it does not conflict with any other client machines on your home network.
- Enter the Workgroup you want your CW-3000HD to belong to. This variable should be the same as the rest of your home network.
- 'Obtain Address' assumes DHCP is being used on the network and needs no further setup. (Most home networks with a router will use DHCP as a network configuration)
- Enter Network Information if static addressing is being used. The IP Address, Gateway, Net Mask and, DNS boxes need to be filled as appropriate for the network.
- Press the blue button to save the changes
- Press the red button to view the Current IP (useful information for diagnosis and connecting to network shares)

PAGE 33 BACK TO TOC

# **Audio Setup**



- Analog and PCM
  - This default setting passes analog audio through the analog output and PCM digital audio through the SPDIF output.
- Dolby Digital

In the case of a channel that has an AC3 audio track the analog output will be disabled. The AC3 stream will pass to the SPDIF output and a Dolby Digital decoder will be required to listen to the audio. This will also allow viewing of DVDs with a DD/DTS audio track.

In the case of a channel that has both PCM and AC3 audio tracks you can choose between the tracks by pressing the Audio button on the remote. 33 is an AC3 track. 1 is generally English PCM audio and other numbers are alternate language PCM tracks.

PAGE 34 BACK TO TOC

#### **Storage Setup**

The CW-3000HD comes with an automated storage setup system that allows users to uncover enhanced features for improved usability and performance.

# You've chosen to install an internal hard drive. Here are some basic pointers and steps.

#### What you'll need:

- Hard drive device
- The appropriate interface cable
- Phillips screwdriver
- Needle-nose pliers (IDE only)

#### NOTE:

If you do not understand these instructions or lack good manual dexterity, have a qualified technician install the hard drive for you.

If at any time you are in doubt, look for more information. There are plenty of resources on the web as well as the CaptiveWorks forum.

- 1. Turn off the CW-3000HD, unplug it, and take the top cover off.
- 2. Make sure that you are properly grounded and if possible do the installation in an uncarpeted area.
- 3. Facing at the front of the CW-3000HD the hard drive bays are on the right hand side. Undo the top screw holding the hard drive carriage and swing it up and out.
- 4. Position hard drive in drive bay carriage and secure it with screws.
- 5. Connecting an IDE Hard drive:
  - a. Ensure that the jumper is set so that the hard drive will function on its own cable. This is usually Master though some hard drives vary. Refer to the hard drive manufacturer specifications.
  - b. Connect the data (ribbon) cable to back of hard drive. Align the colored band of the cable with pin No. 1 of the hard drive.
- 6. Connecting a SATA Hard drive:
  - a. Connect the SATA cable (skinny flat) to the back of the hard drive.
- 7. Connect the power cable from one of the connectors on power supply. Both SATA and 4 pin molex connectors are available.
- 8. Slide the hard drive/carriage unit in at an angle and swing/rotate down into place.
- 9. Re-fasten the top screw that holds the hard drive/carriage assembly.
- 10. Double-check your connections and ensure the fan(s) are clear of any dangling wires.
- 11. Re-attach the top cover and screws.
- 12. Connect the power cord to CW-3000HD and power it on.

PAGE 35 BACK TO TOC

13. Enter the Admin -> Configuration -> Storage Setup menu.



- 14. At this point the menu will inform you to remove any usb devices
- 15. As it restarts the CW-3000HD will go though a hardware check and determine if it can safely begin the Storage Setup process.



- 16. You will see this screen while it partitions, formats and writes the necessary files.
- 17. It will reboot to the same style screen without the message for approx. 30 seconds before it reboots a final time.

PAGE 36 BACK TO TOC

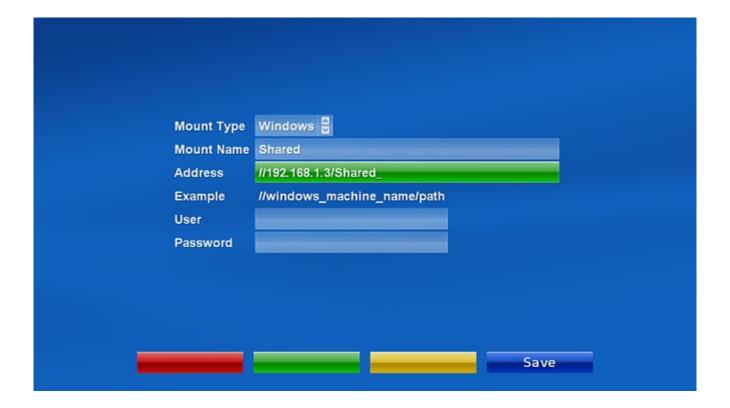
### **Shared Folders**



The Shared Folders function supports the mounting of Windows style shares. Once you have enabled sharing on a folder you will be able to configure the CW-3000HD to automatically mount that shared folder to your CW-3000HD.

- Press the Red button to Add a shared folder
- Press the Green button to Edit and existing shared folder
- Press the Yellow button to delete an existing shared folder

PAGE 37 BACK TO TOC



- Mount Name Enter a descriptive name by which you would like the share identified.
- Address Using the provided example as a reference enter the machine name and path to the network share.
- User Enter the username for the share (if required)
- Password Enter the password for the share (if required)
- Press the blue button to save.

#### Notes:

It is usually best to use the numeric IP address of the Windows machine serving the network share instead of relying on the machine's browser service to resolve the name because it can be quite slow to update at times.

Use / (forward slash) not \ (backslash).

The \ typically used on Windows machines will not work.

Once the shares have been set a reboot is required for the share to become visible to the user profiles. Users will be able to access the shares under 'External' in their profile.

PAGE 38 BACK TO TOC

### Satellite TV Setup



- Guide Type Select the preferred style of guide from the list of available options.
- Guide Auto Scan Enable or disable auto-scan by selecting On or Off
- Press the blue button to save.

Guide Auto Scan is an option to automatically update the EPG information.

If you have a dual tuner setup, with both enabled, the second tuner will walk through the transponders in your channel list looking for guide info as long as it's not recording. That will happen in the background and you won't know it's happening other than you will have guide info as long as you keep the system running for a reasonable amount of time.

If you only have a single tuner enabled the scan will start after 5 hours of inactivity. This means the screen will go blank while the scan is going on. Leave the system on overnight and you will wake up with all the guide info you have available to you. You will have to change channels to bring the video back. A simple channel + channel - will take you back to where you were.

Bear in mind neither of the above scenarios will generate guide info immediately in most cases. It will take some time to work through the transponders available to find the guide data. If you need it immediately you will have to tune to a transponder that contains guide data. What channel that may be depends on the satellite(s) you are pointed to.

PAGE 39 BACK TO TOC

### Weather Setup



- Highlight the City field and clear it's contents.
- Enter the name of the city where you are located and the system will check for that city name.
  - If there are multiple cities with that name, it will give you a list to choose from.
  - If there is one city, it will automatically select it.
- Adjust the measurement units to suit your tastes. (Celcius or Fahrenheit)
- Adjust the Update Frequency to how often the system should check for new weather updates.
- Press the blue button to save.

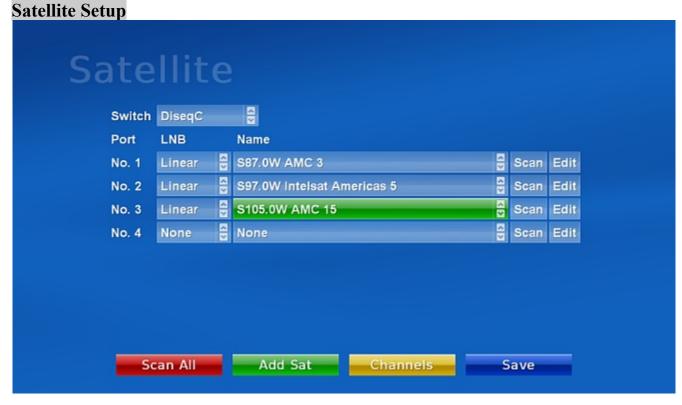
PAGE 40 BACK TO TOC

# Antenna Menu



• Select the type of antenna to configure.

PAGE 41 BACK TO TOC



• Choose either a switch type or None for a single LNB.

Supported switches:

- Diseqc: Typical 4 port committed diseqc switch.
   (Also applies to DP34 and DPP44 switches)
- o Mini Diseqc: 2 port "Toneburst" switch.
- o 22 Khz.: 2 port "Tone" switch.
- o Uncommitted: Typical 2 port or 8 port uncommitted switch
- One LNB/Satellite needs to be setup at a minimum.
- The port lines correspond to a diseqc switch port numbers.
- Fill out each line accordingly with LNB type in the LNB column.
  - None: No connection.
  - o Universal 1: Universal Linear polarized dual LOF (9750/10600)
  - o Universal 2: Universal Linear polarized dual LOF (9750/10750)
  - o Circular: Circular polarized single LOF (11250)
  - o Linear: Linear polarized single LOF (10750)
  - o DP Circular: Dish Pro<sup>™</sup> Circular polarized single LOF (11250) with bandstacked Left transponder frequencies.
  - DP Linear: Dish Pro<sup>™</sup> Linear polarized single LOF (10750) with bandstacked H transponder frequencies.
  - WB Circular: Wide Band Circular polarized single LOF (10750) covering both FSS and DSS bands.
  - Switch: If you have multiple switches cascaded, this will allow setting the second switch by going to the edit button.
  - Motor: This allows configuring a motorized system by going to the edit button.

PAGE 42 BACK TO TOC

- Fill in the satellite that each LNB is aimed at in the name column.
- Press the blue button to save the changes.
- Highlight the Edit field and press enter to specify offset or modify the transponder frequencies of the satellite. (Press save when complete)
- Highlight the Scan field and press enter to scan an individual satellite.
- All configured satellites may be scanned with the red "Scan All" button.
- A satellite that is not listed may be added with the green button.

Notes: (You can also chain switches)

When switch is set to Uncommitted the bottom arrows move to additional screens to set up more satellites.

Only one LNB type will work with a given LNB. Choosing the incorrect LNB type will result in either not scanning any channels or missing large numbers of channels. How do you know which LNB type you have? The simplest way to know is to look at the LNB. There will be a label that will list the frequency range, LOF and possibly the polarity.

Typical frequencies for a Circular LNB are 12.2-12.7 Ghz.

Typical frequencies for a Linear LNB are 11.7-12.2 GHz.

Typical frequencies for a Universal LNB are 10.7-12.75 GHz.

Typical frequencies for a Wide Band Circular LNB are 11.7-12.7GHz.

Typical LOF for a Circular LNB is 11250 MHz (11.250 GHz).

Typical LOF for a Linear LNB is 10750 MHz (10.750 Ghz).

Typical LOF for Universal 1 LNB is 9750/10600 MHz (9.750/10.600 GHz).

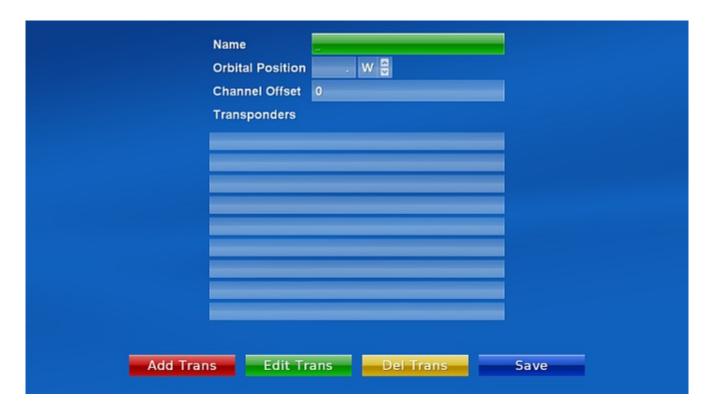
Typical LOF for Universal 2 LNB is 9750/10750 MHz (9.750/10.750 GHz).

Typical LOF for Wide Band Circular LNB is 10750 (10.750 GHz).

For Dish™ equipment there are 2 types, Legacy or Dish Pro™/ Dish Pro Plus™. Legacy equipment will not have a DP or DPP logo on them. These LNBs function as standard Circular or Linear LNBs. Dish Pro or Dish Pro Plus LNBs with the corresponding logos will need the DP circular or DP Linear settings.

PAGE 43 BACK TO TOC

## **Adding a Satellite**



- Enter a satellite name.
- Enter the orbital position
- Enter a channel offset if needed for channel grouping.
- Use the red button to add transponders to the satellite
- The transponders may be edited on a satellite with the green button.
- Delete a transponder with the yellow button.
- When done press the blue button to save the changes.

NOTE: This is also the edit screen with the current data for the satellite filled in.

PAGE 44 BACK TO TOC

### **Satellite Scanning**

NOTE: If more than one provider is to be scanned, an offset can be specified per satellite to avoid channel number collision.

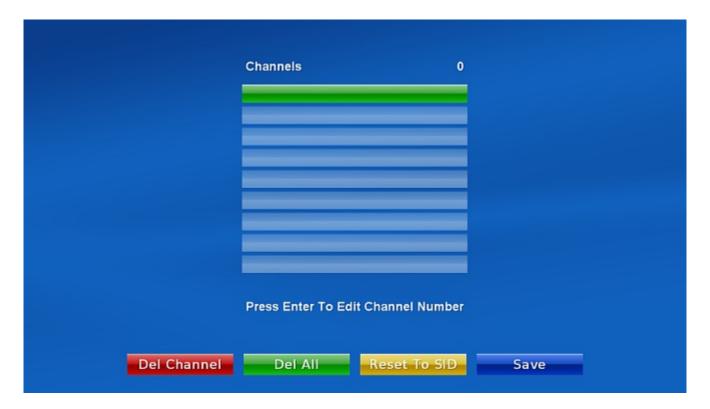
The CW-3000HD numbers channels by the Service ID by default. Channel numbers can be edited once scanning is finished, but during scanning duplicate SIDs will overwrite any previously scanned channels with similar SIDs. This can present a problem if more than one provider's satellite(s) is(are) scanned. An offset of 10,000 is usually adequate to separate channels from multiple providers. For providers with multiple satellites, set all of their satellites to the same offset. To set an offset, use the "Edit" screen for the desired satellite(s). Set the offset and press the blue button to save.



- Once the offset is set, scanning for available channels can begin.
- Either select each satellite's scan button to scan the particular satellite individually or press the red button to scan all configured satellites at once.
- In the scanning screen, a signal meter and the scanned video and audio channels list is displayed.
- Select the internal or external adapter to be used for scanning.
  - (External refers to a connected Skywalker tuner)
- Press the green button to start the scan.
- Once a lock is achieved the satellite will be displayed beside Current. (using AMC 15 as an example: S0.0W will change to 105.0W)
- Press the blue button to save the channel list after the scan is complete.

PAGE 45 BACK TO TOC

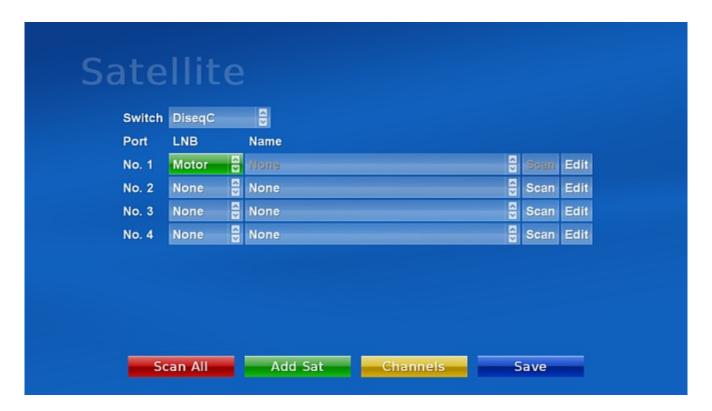
## **Editing Channels**



- Once scanning is complete the channels found may be edited by pressing the yellow button in the satellite setup screen.
- Unwanted channels can be deleted or the channel numbers changed.
- The red button deletes the highlighted channel.
- The green button deletes all channels
- The enter button allows for assigning a new channel number to the highlighted channel. (Note: duplicate channel numbers are not allowed)
- Press the blue button to save the changes
- The channel ordering can be reverted back to "SID" ordering by pressing the yellow button..
- The changes will not take effect until the blue button is pressed to save the changes.

PAGE 46 BACK TO TOC

## **Motor support**



Motor system works in either DiseqC 1.2 mode or USALS mode.

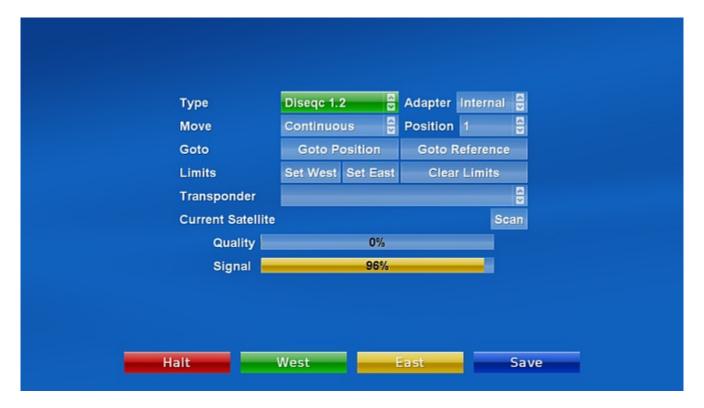
- If you use a switch for a Quad type LNB set the switch to the type of switch.
- Select Motor for switch port
- Select Edit to set up LNB and motor configuration.

PAGE 47 BACK TO TOC



- Choose motor for switch port. Goto edit to set up LNB.
- If using a USALS capable motor, enter the Latitude and Longitude for your location.
- Choose the LNB type.
- Fill in the slots with the satellites that are to be set up.
- Bottom arrows move to additional screens to set up more satellites.
- Select Setup for the satellite to set up.

PAGE 48 BACK TO TOC



- Adapter: allows you to choose the internal adapter(s) or an external genpix adapter.
- Type: allows you to switch between diseqc 1.2 mode and USALS mode.

### Diseqc 1.2 mode:

- **Position**: If the motor is already programmed you can enter the position if known. If not let it choose for you.
- Move: allows you to choose the number of steps for the motor to move when pressing East or West(Yellow or Green)
- Goto Position: tells the motor to move to the programmed position.
- Goto Reference: moves the motor to due south in most cases but may be far East limit depending on your particular motor.
- **Limits**: allow you to set a stop point in either direction in case there is an obstruction that will not allow full motor movement in both directions.
- Clear Limits: allows you to remove the limits.
- **Transponder**: allows you to choose the transponder that will be tuned to as you search for the satellite. Ensure that this transponder is available in your area.
- Scan: takes you to the scan screen to scan for channels once the satellite is found and programmed.
- Save(Blue): saves the position to the motor.
- Halt(Red): allows you to stop motor movement at any time.

PAGE 49 BACK TO TOC

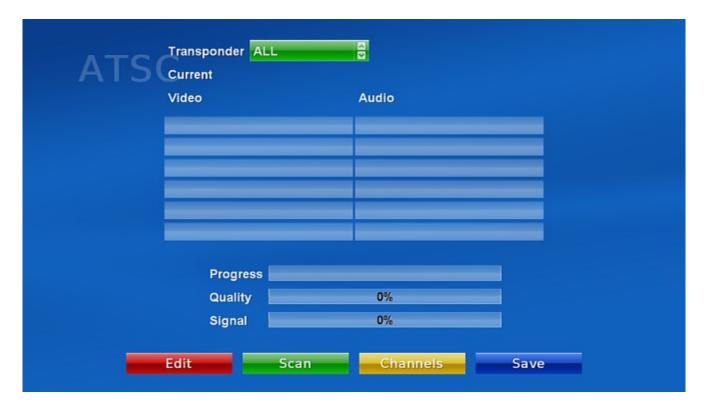


#### **USALS Mode**:

- Orbital Position: Location in degrees of satellite to aim at. (Tip: if you have a USALS motor that is not set dead on tweaking this number can allow you to use the USALS function once you find how far off one satellite is you can change the rest by the difference to simplify setup. That will save having to do the DiseqC 1.2 hunt and store setup for each location.)
- Goto Position: tells the motor to move to the angular position specified by USALS.
- **Goto Reference**: moves the motor to due south in most cases but may be far East limit depending on your particular motor.
- **Limits**: allow you to set a stop point in either direction in case there is an obstruction that will not allow full motor movement in both directions.
- Clear Limits: allows you to remove the limits.
- **Transponder**: allows you to choose the transponder that will be tuned to as you search for the satellite. Ensure this transponder is available in your area.
- Scan: takes you to the scan screen to scan for channels once the satellite is found and programmed.
- Save(Blue): saves the ANGULAR POSITION.
- **Halt**(Red): allows you to stop motor movement at any time.

PAGE 50 BACK TO TOC

## **ATSC Scanning**

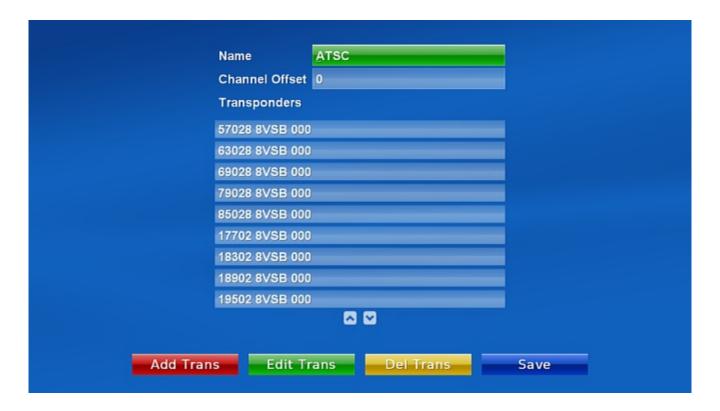


ATSC is for Over The Air (OTA) digital broadcasts requiring an external antenna.

- Press the green button to start the scan.
- Press the yellow button to edit the channels
- Press the blue button to save the channel list after the scan is complete.

PAGE 51 BACK TO TOC

## **Edit ATSC**



- The transponders may be edited by pressing the green button.
- Add a transponder with the red button and delete a transponder channel frequency with the yellow button.
- When done press the blue button to save the changes.

PAGE 52 BACK TO TOC

#### Cable Scanning



The ATSC card in the CW-3000HD is also capable of tuning some digital cable channels providing they are unencrypted or "in the clear". There are some additional caveats. Your cable company must use a QAM256 modulation. Not all of them do. It is the most prevalent modulation but the cable companies are free to do as they see fit.

This does not mean all those analog channels you got on your "cable ready" TV will show up. They must be digital channels. Analog channels are not and will not be supported.

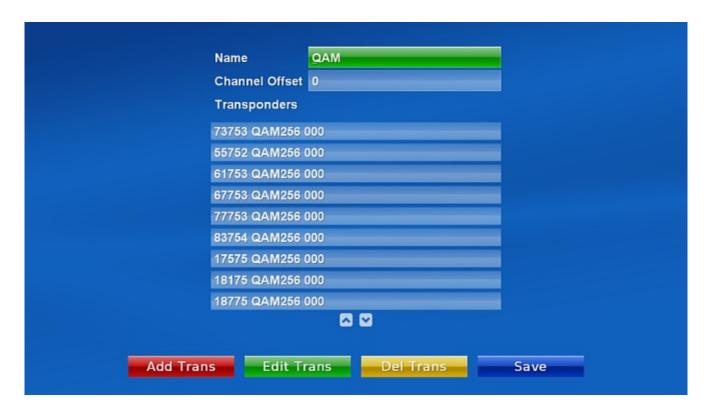
If your cable company uses QAM256 modulation for their digital channels you should get your local HD channel rebroadcasts if you are in the U.S. If you are in Canada you may get nothing. Canada does not have the "in the clear" requirement for local channels. They may all be encrypted in Canada.

On some systems you may get more than just the locals. It is completely dependent on your cable provider. In the U.S. some areas may get a few of the basic cable channels as well as local channels. In other areas you may get nothing more than locals. You may have to step through the scanned channels to find "in the clear" channels.

The QAM support is a side effect of the ATSC card. It is a novelty to play with and the bottom line is we have no idea what you may be able to receive. You may get nothing. You may get a lot. You may have to hunt for it.

PAGE 53 BACK TO TOC

## **Edit QAM**



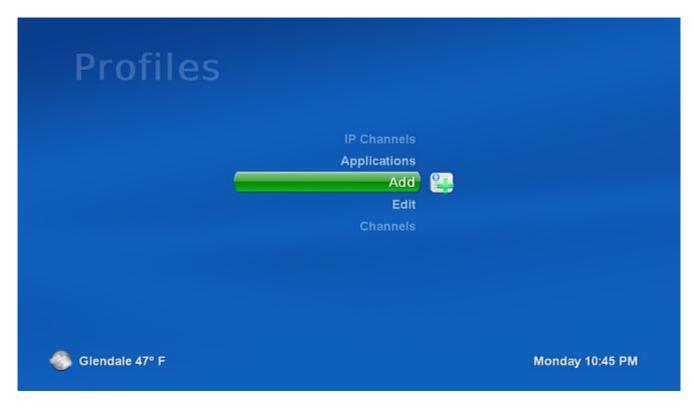
- The transponders may be edited by pressing the green button.
- Add a transponder with the red button and delete a transponder with the yellow button.
- When done press the blue button to save the changes.

PAGE 54 BACK TO TOC

#### **Profiles Menu**

The CW-3000HD uses a unique system for parental control. It's a profile system. Profiles can be created for different users assigning each profile a set of channels, sites, and applications. By default the system comes with 1 user and Admin. Admin is strictly for system setup and profile management. All system configuration shown above has been done under the Admin profile. The user profile is where the applications of the CW-3000HD are used. Additional users can be setup for family members or special cases as needed. An example would be a children's profile containing channels and applications appropriate for children.

• Select "Profiles" from the Admin screen and press the enter button to display the profiles screen.



- Add is to Add a new profile.
- Edit is to change the name or PIN for a profile.
- Channels is to add or change satellite channels.
- IP Channels is to add or change IPTV channels.
- Applications is to add or change system applications.

PAGE 55 BACK TO TOC

## Adding a profile



- Select the "Add" button.
- Enter a name for the user. The name cannot contain spaces or non- alphanumeric symbols.
- Enter a pin if required for this user.
- Leaving the pin blank allows anyone to access the profile.
- Select yes or no to receive a confirmation message before leaving the profile. This is useful in situations where you may not want to accidentally leave the profile.
- Select yes or no to have this profile become a main profile that automatically logs in when the CW-3000HD is turned on.
- Select yes or no to automatically assign channels
- Select yes or no to automatically share the profile folders over the network for other desktop systems to access.
- Choose an icon to display with the name on the main screen.

NOTE: Share on Network enables both sharing of the profile via Windows style networking and sharing of the profile via the internal web server.

(ie. From the web browser of a networked PC type in the IP of your CW-3000HD) (http://192.168.x.x)

PAGE 56 BACK TO TOC

### **Editing a Profile**



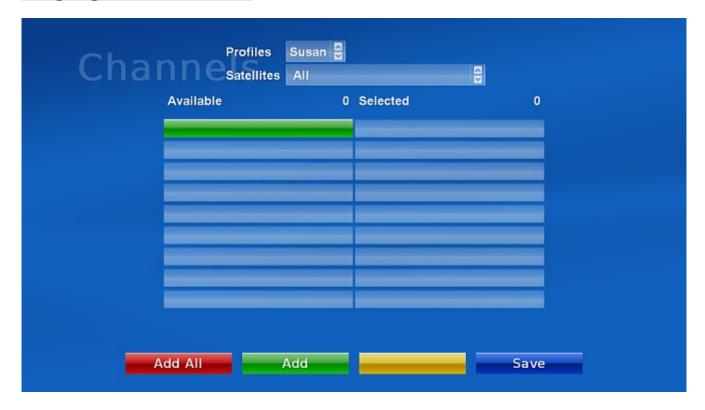
- Select the "Edit" button.
- Use the up and down arrows to choose the profile to edit.
- The display name can be changed.
- The profile pin can be changed.
- Change the selection of yes or no to receive a confirmation message before leaving the profile. This is useful in situations where you may not want to accidentally leave the profile.
- Change the selection of yes or no to have this profile become a main profile that automatically logs in when the CW-3000HD is turned on.
- Change the selection of yes or no for automatically assigning channels
- Change the selection of yes or no for automatically sharing / not sharing the profile folders over the network for other desktop systems to access.
- A profile can be removed by pressing the green button.
- Choose a different icon to display with the name on the main screen.
- Press the blue button to save the changes.

NOTE: Share on Network enables both sharing of the profile via Windows style networking and sharing of the profile via the internal web server.

(ie. From the web browser of a networked PC type to the IP of your CW-3000HD) (http://192.168.x.x)

PAGE 57 BACK TO TOC

#### **Assigning Antenna Channels**



- Use the up/down buttons to select a profile.
- Available channels will be displayed in the left available box.
- Channels that have been added will be in the right selected box.
- To move individual channels highlight a channel and press enter.
- The box to the left of the channel will display an "x" when selected.
- Once the desired channels have been selected, use the add or remove button to move the channels accordingly.
- All channels may be added or removed at once with the corresponding button.
- Press the blue button to save the changes.

NOTE: If satellite channels were scanned prior to creating a profile all channels will be added to the profile by default. If the profile is created prior to scanning, and auto assign channels was not selected, the channels have to be added manually. Also, Rescanning satellite channels will not add them automatically to the profiles if auto assign channels was not selected. The newly scanned channels have to be added manually.

PAGE 58 BACK TO TOC

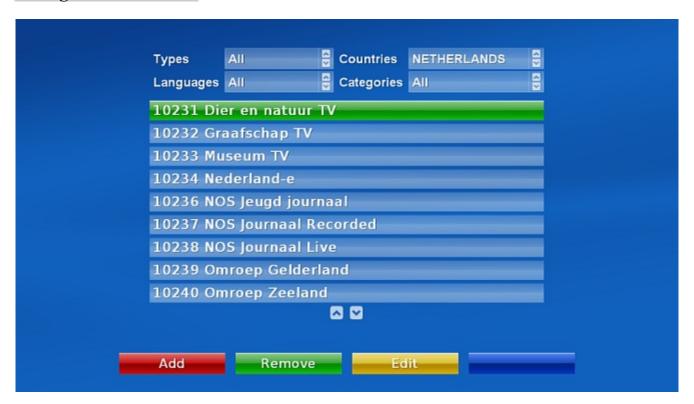
### **Assigning IP Channels**



- Select profile with up/down buttons.
- The available list can be filtered by country.
- Use the up/down buttons in the country box to select a filter.
- Available channels will be displayed in the left available box.
- Channels that have been added will be in the right selected box.
- To move individual channels highlight a channel and press enter.
- The box to the left of the channel will display an "x" when selected.
- Once the desired channels have been selected, use the add or remove button to move the channels accordingly.
- All channels may be added or removed at once with the corresponding button.
- Press the blue button to save the changes.

PAGE 59 BACK TO TOC

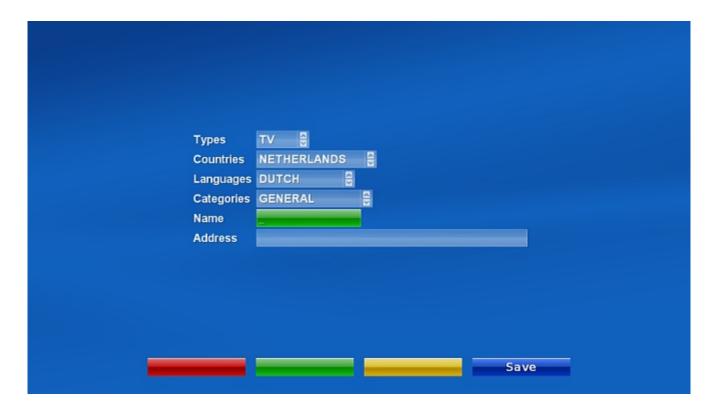
## **Configure IP Channels**



- Press the red button to add a channel to the channel list.
- Press the green button to remove a channel from the channel list
- Press the yellow button to edit an existing channel.

PAGE 60 BACK TO TOC

## Add IP Channel



- Types allows you to choose between radio and TV.
- Countries allows you to specify where the channel originates.
- Languages specifies the spoken language of the channel.
- Categories allows you to specify the theme of the channel.
- Name is the display name of the channel.
- Address is the URL of the channel.

PAGE 61 BACK TO TOC

## **Assigning Applications**



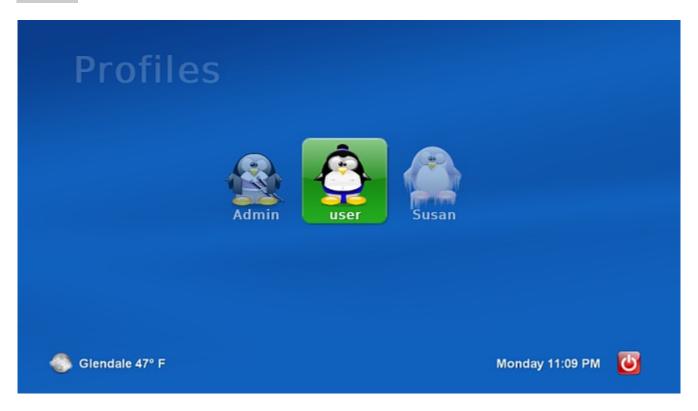
- Select profile with up/down buttons.
- Available applications will be displayed in the left available box.
- Applications that have been added will be in the right selected box.
- To move individual applications highlight an application and press enter. The box to the left of the application will display an "x" when selected.
- Once the desired applications have been selected, use the add or remove button to move the applications accordingly.
- All applications may be removed or added at once with the corresponding button.
- Press the blue button to save the changes.

NOTE: Some applications require an optional device be connected to function. Satellite TV requires a satellite dish aimed at the appropriate satellite(s). IPTV and Web both require a network Internet connection. Web will require a keyboard and mouse. Games and Roaster both require an optional hard drive to be installed. If these optional devices are not connected, these applications will not function.

PAGE 62 BACK TO TOC

## **System Operation**

### **Profiles**



- The initial system start screen contains a list of all available profiles..
- Select the user profile and press the enter button.
- User is the default profile used in the example screens..

NOTE: The profile name "User" is the display name specified when the user profile was created NOTE: The following screens may differ depending on the applications assigned to the profile.

NOTE: The following examples assume all applications are setup for use.

PAGE 63 BACK TO TOC

## **Profile Applications**



- IPTV starts the IPTV viewing application.
- Satellite TV starts the TV viewing application.
- Video starts the video viewing application.
- DVD starts a DVD viewing application.
- Pictures starts the picture viewer application
- Web starts the web browser application.
- Music starts the music playing application.
- Roaster starts the CD/DVD and recordings preparation application.(hard drive needed)
- Games starts the game selection application. (if installed hard drive needed)
- CD starts the CD playing application.

PAGE 64 BACK TO TOC

#### **IPTV**

IPTV viewer application is for viewing streaming video from the Internet. The CW-3000HD comes preconfigured with approximately 450 IP channels from all over the world. Other channels can be added by the user to enhance the viewing experience. Note: IPTV function requires a network connection with Internet access. Ensure that network setup has been completed prior to attempting to view IPTV channels.

## **IPTV Channel Packages**



- Highlight a Package and hit Enter to display the channels contained within.
- Pressing the green button will bring you back to the Packages screen.
- Press the blue, or "play", button to view the highlighted channel.
- Pressing the App Exit button exits the viewing application.

PAGE 65 BACK TO TOC

### **IPTV Channel Categories**



- Pressing the red button will bring you to the Categories screen.
- Use the arrow keys to navigate and select the categories.
- Highlight a channel and press the blue, or "play", button to view the highlighted channel.
- Pressing the App Exit button exits the viewing application.

#### Remote buttons for IPTV viewer

Button	Function	Button	Function
App Exit	Exit	Play	Play
Stop	Stop	Pause	Pause
Vol+	Vol+	Mute	Mute
Vol-	Vol-		

PAGE 66 BACK TO TOC

#### TV is the satellite TV viewing application.

#### **Remote Control Keys For TV Viewer**

The following remote control keys are used to control the TV operation. To keep the number of different keys as small as possible, several keys have different meanings in the various modes:

Remote Button	Normal	Menu	Channels	Timers	Edit/New	Recordings	Replay
Exit App	Exit	-	-	-	-	-	-
Menu	Menu on	Menu off	Menu off	Menu off	Menu off	Menu off	Menu off
i	Program info	-	-	-	-	-	-
EPG	EPG	-	-	-	_	-	-
Red	Recordings Menu	Record	Edit	On/Off	ABC/abc	Play/Commands(1)	Jump
Green	Zoom out	Audio	New	New	Ins/Ovr	Rewind	Skip -60s
Yellow	Zoom in	Delete	Delete	Delete	Delete	Delete	Skip +60s
Blue	Attenuate	ReplayMode	Mark	Info	-	Info	Stop
Up	Ch up	Crsr up	Crsr up	Crsr up	Crsr up	Crsr up	Play
Down	Ch down	Crsr down	Crsr down	Crsr down	Crsr down	Crsr down	Pause
Left	-	-	Page up	Page up	Decrement	Page up	Search back
Right	-	-	Page down	Page down	Increment	Page down	Search forward
	-	-	-	-	-	-	-
All	What's on Now	-	-	-	-	-	-
Recordings	Recordings Menu	-	-	-	-	-	-
Rew	Fast-Rewind	-	-	-	-	-	-
Rec	Record	-	-	-	-	-	-
FF	Fast Forward	-	-	-	-	-	-
Back		-		-	-	-	-
Stop	Stop	-	-	-	-	-	-
Next		-	-	-	-	-	-
Vol+	Vol+	-	-	-	-	-	-
Vol-	Vol-	-	-	-	-	-	-
Play	Play	-	-	-	-	-	-
CH+	Channel +	-	-	-	-		-
CH-	Channel -	-	-	-	-	-	-
Exit	-	Menu off	VDR menu	VDR menu	Discard	VDR menu	Recordings menu
Pause	Pause	-	-	-	-	-	-
Enter	Channel Menu	Select	Switch	Edit	Accept	Play	Progress Display
0-9	Ch Select	-	Sort(2)	Day(3)	Numeric inp	Exec cmd(1)	Editing
Mute	Mute	-	-	-	-	-	-
Timer	Timer Menu	-	-	-	-	-	-

- 1. See "Processing Recordings" below.
- 2. In the "Channels" menu the '0' key switches the sort mode through "by number", "by name" and "by provider". Other numeric input positions the cursor to the channel with the number entered so far. If there is no channel with that number, nothing happens. While entering a channel number, the '0' key will be treated as part of that number, not as a sort mode toggle. If no numeric key has been pressed for more than one second, the number is reset and '0' functions as sort mode toggle again.
- 3. In the "Timers" menu, when on the "Day" item, the '0' key toggles between a single shot and a repeating timer. If "Day" indicates a repeating timer, the keys '1'...'7' can be used to toggle the individual days ('1' is Monday).

PAGE 67 BACK TO TOC

- In a numerical input field the keys 0..9 are used to enter the data, and the Left key can be used to delete the last entered digit.
- In a text input field (e.g. the file name of a recording) the characters can be entered by pressing the numeric keys, the same way as on a cell phone keypad.

### Navigating through the On Screen Menus

- The "VDR" menu can be called up with the Menu (M) button of the remote control unit.
- The Up and Down buttons are used to select a specific item.
- The Left and Right buttons can be used to change options, and the numeric buttons allow dire input of numeric data.
- The Enter button confirms any changes (or switches to a channel in the "Channels" menu).
- The Exit button goes back one level in the menu structure, discarding any changes that might have been made in the current menu.
- In the "Timers" menu, the current timer can be enabled or disabled with the Red button.
- Enabled timers are marked with '>', timers that are currently recording are marked with '#'
- If a timer has the "First day" set so that it will start recording only on the given date, it is marked with '!'.
- The Red button toggles through the "enabled" and "disabled" states, and for repeating timers that are currently recording also a state that ends this recording prematurely and sets the "First day" date so that it will record again the next time the timer hits.
- Pressing the Enter button here opens the "Edit timer" menu.
- Textual options, like channel names or recording file names, can be edited by pressing the Right button (which puts brackets around the current character as in "[R]TL"), selecting the desired character position with Left and Right, and changing the character with the Up and Down buttons.
- Enter then confirms the changes.
- The Red button toggles between upper- and lowercase characters.
- The Green button switches between insert and overwrite mode.
- The Yellow button deletes the current character (or the one to the right of the cursor in insert mode).

#### NOTE:

The Red, Green, Yellow and Blue buttons have special meanings in various menus and are listed at the bottom of the on-screen-display.

At any point in the menu system, pressing the "Menu" button again will immediately leave the menu system (discarding any pending changes).

PAGE 68 BACK TO TOC

#### The Grid Program Guide

- The EPG button will display a semitransparent grid style "Electronic Program Guide"
- Up, Down, Left and Right will move the cursor through the guide.
- The Yellow (Page Up) and Red (Page Down) buttons move through the guide one page at a time.
- The program information in the upper portion of the screen will give a program description for the currently highlighted program.
- Pressing the Enter button on a highlighted program will close the guide and change channels to that program.
- Pressing the Green button will change the channel to the currently highlighted channel while leaving the guide displayed.
- Pressing the Enter button on a future program to instantly create a recording timer. A timer setup window will open.

News			
Timer Type:	Switch Once		
Start:	8:58 PM		
Stop:	9:37 PM		

• The default timer is a one time switch timer. Switch Once will simply switch to the selected channel at the designated start time without recording. This highlighted default upper cell of the timer window can be changed by using the right and left arrow keys.

News			
Timer Type:	Record Once		
Start:	8:58 PM		
Stop:	9:37 PM		

- The Timer Type may be set to Record Once for a one time recording.
- It may also be set to record the same time on the same day each week, the same time every day of the weekday or the same time every Saturday and Sunday.
- The start and stop time of the timer may be altered. The Left and Right buttons will add or subtract one minute from the start or stop time depending on the cell that is highlighted. Note that the Start and Stop time are offset by the Margin Start and Margin Stop parameters in order to make sure the entire program is recorded in case it doesn't exactly adhere to its published start/stop times. Of course, no guarantee can be given that the default margin values will be sufficient, so in case this recording is really important, an extra margin can be added.
- The Back button will exit back to the current program without changing the channel.

PAGE 69 BACK TO TOC

#### The "Schedule" Menu

- The "Schedule" menu presents a list style "Electronic Program Guide" (EPG).
- Select "Schedule" from the "VDR" menu to get a list of all upcoming broadcasts on the current channel.
- Up and Down can be used to scroll through this list, and pressing Enter displays detailed information about the selected program. Pressing Enter again (or pressing Exit) returns back into the "Schedule" menu.
- From the "Schedule" menu, the Green button opens the "What's on now?" menu, which displays all programs that are currently running on all channels that have EPG.
- The Yellow button opens the "What's on next?" menu, which lists all programs that will start next on all channels.
- Inside the "What's on now/next?" menus the Green button toggles between the "Now" and "Next" display, and the "Yellow" button displays the "Schedule" menu of the current channel in the list.
- The Red button allows programming a timer to record the selected program instantly. After pressing this button, the current event will be marked with 'T', and the function of the Red button will change from "Record" to "Timer".
- Pressing Red on an event marked with 'T' will open the "Edit timer" menu for this timer, where one can make any desired modifications. Note that the Start and Stop time are offset by 2 minutes in order to make sure the entire program is recorded in case it doesn't exactly adhere to its published start/stop times. Of course, no guarantee can be given that the default 2 minutes will be sufficient, extra margin can be added if this recording is extremely important.
- VPS recordings will use the exact Start (or VPS) and Stop times as given in the event. If
  a timer is newly created from within the "Schedule" menu, and its event is already
  running or has its start time within the next two minutes, it goes directly into the "Edit
  timer" menu in order to allow the user to make further changes to timer parameters
  before the actual recording starts.
- The Blue button can be pressed to switch to the channel with the selected program.
- The following markers in these menus give additional information about the status of the events:
  - t there is a timer defined for this event which covers only part of the event
  - T there is a timer defined for this event which covers the entire event
  - V this event has a VPS time that's different than its start time
  - \* this event is currently running (the validity of this marker depends on whether) (there is currently a DVB card receiving the transponder this channel is on)
- Pressing 0 in the "Schedule" menu rotates through displaying "This event on this channel", "This event on all channels" and "All events on all channels". This can be used to find reruns of a given show, or the episodes of a series. Note that if there are many channels in the channels list, displaying the "All events on all channels" page may take a while.

PAGE 70 BACK TO TOC

#### **Selecting a Channel**

There are five ways to select a channel:

- 1. With no On Screen Menu displayed press the Up or Down button to switch to the next higher or lower channel.
- 2. Press the EPG button to bring up the grid program guide and browse through the guide with the Up and Down or Yellow(Page Down) and Red (Page Up) buttons. Switch to the selected channel with the ?Enter? button.
- 3. Press the Menu button to bring up the On Screen Menu, select "Channels" and browse through the list with the Up and Down key; to switch to the selected channel press Enter.
- 4. Directly type in the channel number with the numeric keys ('0'..'9'); if no key is pressed for about 5 seconds, the digits collected so far will define the channel number.
- 5. Press the All button to bring up "What's on now" and "Next" menu. Highlight the desired channel and press the Blue button to "Switch" to the channel..
- Pressing the 0 button in normal viewing mode toggles between the current and the previous channel. A channel is considered "previous" if it has been selected for at least 3 seconds
- After switching to a different channel the channel number and name, as well as the current time are displayed in the OSD. If available, the 'current/next' information will be displayed below this line.
- This display automatically goes away after about five seconds, or if any key is pressed.

## Selecting audio tracks

- If the current channel or recording provides different audio tracks (for different languages or Dolby Digital), the Audio button can be pressed to bring up the "Audio" menu.
- Within this menu, the Up and Down keys can be used to switch between the audio tracks
- The Left and Right keys can be used to switch between "mono left", "stereo" and "mono right" for channels that broadcast different audio tracks in the left and right stereo channels.
- The Enter key explicitly switches to the selected track (in case the device for some reason doesn't play it) and closes the "Audio" menu.
- The "Audio" menu will automatically disappear after 5 seconds of user inactivity, or if any key other than the ones described above is pressed.
- Once a Dolby Digital track has been selected on any channel, further channel switches will first search for a Dolby Digital track of one of the preferred audio languages. If no such track can be found, a normal audio track will be selected.
- Note that this only works if the broadcasters use actual language codes in their PID data, not things like "dd" or "2ch".

PAGE 71 BACK TO TOC

#### **Instant Recording**

- Recording can be started in the current channel by pressing the Red button in the "VDR" menu or pressing the Record button.
- This will create a timer event named "@channelname" that starts at the current time and by default records for 3 hours.
- If the recording time needs to be modified, the timer must be edited.
- Stop instant recording by pressing the Menu (M) button and selecting "Stop Recording", or by disabling the timer.
- The default priority, lifetime and recording time can be defined in the "Setup/Recording" menu.
- As the live-video is continuously recorded, it is possible to get the just seen scene into a normal recording.
- A new timer can be created. If the start time is in the past, then the already seen part of the recording will be added.
- Or rewind to the start point and start an instant recording (by pressing the rec-key or menu -> red)

### Pausing live video

- If the live program being watched needs to be paused, press Menu/Yellow or Pause on the remote control.
- Replay will be put into "pause" mode allowing the viewer to attend to other events while the program is paused.
- Once ready to continue viewing, press the Up or Play button to watch the current channel in time shift mode, from the point where it was paused.
- It is also possible to rewind a scene to get an instant replay. Press the Rewind (<<) button to start rewinding. Press Play to resume playback.
- Play resumes normal replay from any "pause", "forward" or "backward" mode.
- Fast Forward/Rewind (<<>>) runs playback forward or backward at a higher speed; press again to increase the speed. Press Play to resume normal speed. If in Pause mode, runs forward or backward at a slower speed, press Pause to return to pause mode.
- Press the stop button to return to viewing in realtime.

PAGE 72 BACK TO TOC

## Replaying a Recording

- All recordings are listed in the "Recordings" menu.
- Browse through the list with the Up and Down button and press Enter (or the Red button) to start playback.
- New recordings are marked with an '\*'.
- VDR adds the "Episode name" (which is usually the name of the episode in case of a series) to the recording's name.
- The "Recordings" menu then displays all recordings of a repeating timer in chronological order, since these are usually the individual episodes of a series, which may be viewed in the order in which they were broadcast.
- Playback can be stopped via the "VDR" menu by selecting "Stop replaying", or by pressing the Stop button outside the menu. A previously stopped playback session can be resumed by simply restarting the recording.
- Press the "Green" button in the recordings menu to rewind a recording to start at the beginning.

# Replay Control

• The following keys have the listed meaning in Replay mode:

Up Resumes normal replay from any "pause", "forward" or "backward" mode.

Down Halts playback at the current position. Press again to continue playback.

Blue Stops playback and stores the current position, so that playback can be resumed later at that point.

Left/Right Runs playback forward or backward at a higher speed; press again to increase the speed. Press Up to resume normal speed. If in Pause mode, runs forward or backward at a slower speed, press Pause to return to pause mode.

Red Jump to a specific location. Enter the time to jump to and then press "Left" or "Right" to jump relative to the current position, "Up" to jump to an absolute position, and "Down" to jump and pause at an absolute position.

Green/Yellow Skips about 60 seconds back or forward. Pressing and holding down the button performs the function until the button is released again.

Enter Brings up the replay progress display, which shows the date, time and title of the recording, a progress bar and the current and total time of the recording Press Enter again to turn off the progress display.

Back Stops replaying and brings up the "Recordings" menu. This can be used to easily delete a recording after watching it, or to switch to a different recording.

PAGE 73 BACK TO TOC

## **Editing Recordings**

## **Explained**

- While in Replay mode, the following keys can be used to manipulate editing marks:
- Toggles an editing mark. If the mark indicator shows a red triangle, the current mark is deleted. Otherwise a new mark is set at the current position.
- 4, 6 Move an editing mark back and forward. First, jump to an editing mark for this to work.
- 7, 9 Jump back and forward between editing marks. Replay goes into still mode after jumping to a mark.
- 8 Positions replay at a point 3 seconds before the current or next "start" mark and starts replay.
- 2 Start the actual cutting process.
  - Editing marks are represented by black, vertical lines in the progress display.
  - A small black triangle at the top of the mark means that this is a "start" mark, and a triangle at the bottom means that this is an "end" mark.
  - The cutting process will save all video data between "start" and "end" marks into a new file (the original recording remains untouched).
  - The new file will have the same name as the original recording, preceded with a '%' character (imagine the '%' somehow looking like a pair of scissors).
  - Red bars in the progress display indicate which video sequences will be saved by the cutting process.
  - The video sequences to be saved by the cutting process are determined by an "even/odd" algorithm. This means that every odd numbered editing mark (i.e. 1, 3, 5,...) represents a "start" mark, while every even numbered mark (2, 4, 6,...) is an "end" mark.
  - Inserting or toggling a mark on or off automatically adjusts the sequence to the right side of that mark
  - Use the keys described under "Replay Control" to position to, e.g., the beginning and end of commercial breaks and press the '0' key to set the necessary editing marks.
  - After that use the '7' and '9' keys to jump to each mark and maybe use the '4' and '6' keys to fine tune them.
  - Once all marks are in place, press '2' to start the actual cutting process, which will run as a background process.
  - When replaying the edited version of the recording use the '8' key to jump to a point just before the next cut and have a look at the resulting sequence.
  - Currently editing marks can only be set at I-frames, which typically is every 12th frame. So editing can be done with a resolution of roughly half a second.
  - A "start" mark marks the first frame of a resulting video sequence, and an "end" mark marks the last frame of that sequence.
  - An edited recording (indicated by the '%' character) will never be deleted automatically in case the disk runs full (no matter what "lifetime" it has).

PAGE 74 BACK TO TOC

## **Quick Mini-Howto**

#### STEPS FOR EDITING RECORDINGS:

Go to recordings

Play the recording

Skip ahead to when the show starts

Hit pause

Hit 0 to create a mark

If you want to move the mark a bit use 4 or 6 depending on the direction Hit play

Skip ahead to the commercial (or end of the show if it's commercial free) Hit pause

Hit zero to make another mark

If you want to move the mark a bit use 4 or 6 depending on the direction When you have reached the end of the show and are happy with the mark locations hit 2 to begin the process of cutting and combining the recording

Hitting 2 will take whatever data is between your first and second mark.. your third and fourth mark .. and so on and use that data as the new recording file.

#### TO RE-EDIT RECORDINGS:

Using 7 and 9 enable you to jump from mark to mark. This is useful when wanting to move the marks slightly.

PAGE 75

BACK TO TOC

## **Programming the Timer**

Use the "Timer" menu to maintain the list of timer controlled recordings. The parameters in the "Edit timer" menu have the following meanings:

- Active: Defines whether the timer will be processed (set it to 'no' to temporarily disable a timer).
- Channel: The channel to be recorded (as defined in the "Channels" list). Any changes made in the "Channels" list (like renaming or reordering channels) will be automatically reflected in the timers settings.
- Day: The day on which this timer shall start. This can be a date (like 2005-03-19), which allows programming a "single shot" timer that hits once and is deleted after it ends.
  - Another option here are "repeating timers" which are defined by listing the days
    of the week on which they shall record. For example, a timer that shall record
    every Monday and Wednesday would have a Day setting of "M-W----".
  - o The '0' key toggles between a single shot and a repeating timer.
  - o If "Day" indicates a repeating timer, the keys '1'...'7' can be used to toggle the individual days ('1' is Monday).
  - Switch to a set of predefined repeating timer settings by pressing the "Left" key when the day is the present day.
  - o To return to the single shot mode just press "Right" until a date is displayed.
- Start: The start time of the timer in hh:mm as 24 hour ("military") time.
- Stop: The stop time of the timer.
- VPS: Defines whether the timer shall use VPS (if available).
  - o If this option is set to 'yes', the start time must exactly match the program's VPS time, otherwise nothing will be recorded.
  - o If VPS is used, the stop time has no real meaning. However, it must be different than the start time, and should correspond to the actual stop time of the program, just in case there is no real VPS data available at the time of recording, so VDR has to fall back to normal timer recording.
- Priority: The Priority (0..99) is used to decide which timer shall be started in case there are two or more timers with the exact same start time.
  - o The first timer in the list with the highest Priority will be used.
  - o This value is also stored with the recording and is later used to decide which recording to remove from disk in order to free space for a new recording.
  - If the disk is full and a new recording needs more space, an existing recording with the lowest Priority (and which has exceeded its guaranteed Lifetime) will be removed.
  - o A timer with a higher priority will interrupt the timer with the lowest priority in order to start recording.

PAGE 76

BACK TO TOC

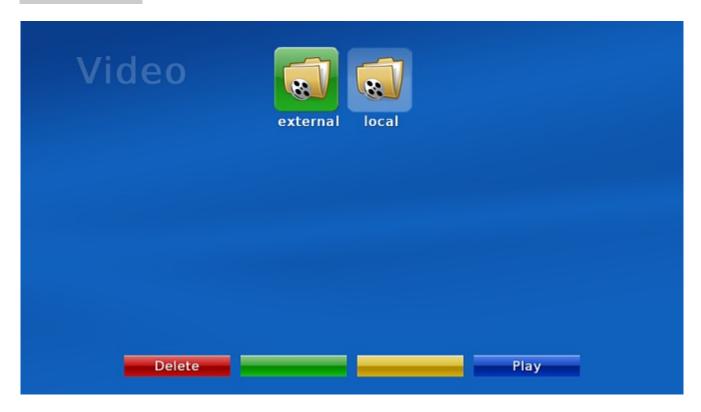
- Lifetime: The number of days (0..99) a recording made through this timer is guaranteed to remain on disk before it is automatically removed to free up space for a new recording.
  - Note that setting this parameter to very high values for all recordings may soon fill up the entire disk and cause new recordings to fail due to low disk space.
  - The special value 99 means that this recording will live "forever", and a value of 0 means that this recording can be deleted any time if a recording with a higher priority needs disk space.
- File: The name under which a recording created through this timer will be stored on disk (the actual name will also contain the date and time, so it is possible to have a "repeating timer" store all its recordings under the same name; they will be distinguishable by their date and time).
  - o If the file name contains the special character '~', the recording will be stored in a hierarchical directory structure.
  - For instance, a file name of "Sci-Fi~Star Trek~Voyager" will result in a directory structure "/video/Sci-Fi/Star\_Trek/Voyager"
  - o The '∼' character has been chosen for this since the file system's directory delimiter '/' may be part of a regular program name.
  - Repeating timers create recordings that contain the 'Episode name' information from the EPG data in their file name.
  - O Typically (on tv stations that care about their viewers) this contains the episode title of a series. The episode name is appended to the timer's file name, separated by a '~' character, so that it results in all recordings of this timer being collected in a common subdirectory.
  - If this field is left blank, the channel name will be used to form the name of the recording.
- First day: The date of the first day when this timer shall start recording (only available for repeating timers).
- A timer can also be programmed by pressing the "Red" button on the "Schedule", "Now", "Next" or "Event" menus.

PAGE 77 BACK TO TOC

#### Video

The video application is for viewing movies downloaded from the Internet or other sources. Most video formats including mpeg, avi, divx, wmv, mov and real media files are supported. Note that certain newer formatted wmv files and DRM protected videos will not work with this player. The video application does support subtitle files.

#### Video Selection

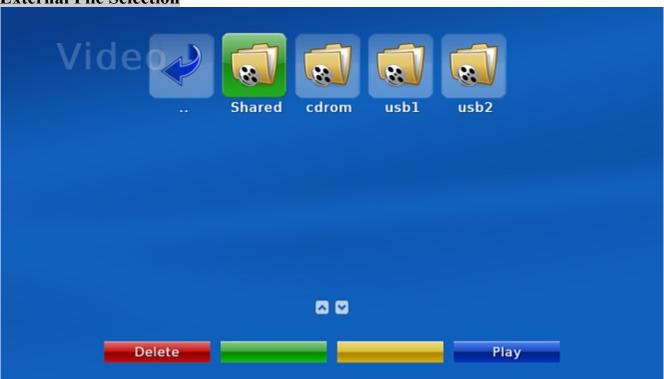


- A file selection list is displayed containing two directories "external" and "local"...
- The "local" directory contains any files stored on the hard drive.
- The external" directory refers a USB stick, network share, or CD/DVDROM.
- Highlight the appropriate directory and press enter.

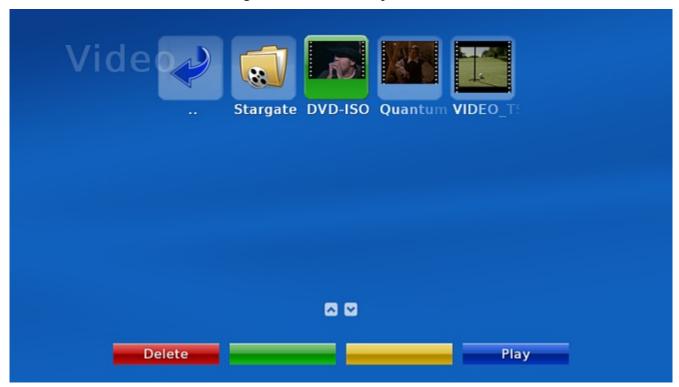
NOTE: This video player also supports DVD ISO file playback as well as playback of the DVD file structure which is achieved by selecting ../VIDEO TS/VIDEO TS.IFO

PAGE 78 BACK TO TOC

# **External File Selection**



- If "external" is selected, a list of devices is displayed.
- Select the device containing the video file and press "Enter".



- Highlight the desired video file and press the blue, or "Play", button to start playback.
- Press the App Exit button to exit the player when done viewing

PAGE 79 BACK TO TOC

# Video Viewer Keys



PAGE 80 BACK TO TOC

## **Pictures**

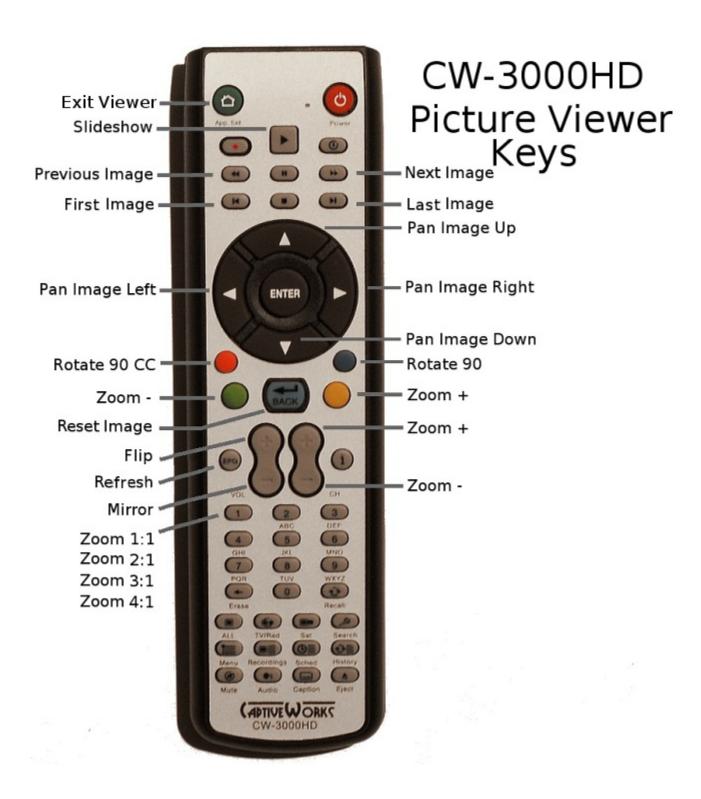
The pictures application allows for high quality picture viewing in a slideshow format or single viewing. It has other popular features like image zoom, pan and rotate.



- A list of files and directories will be displayed containing two directories "external" and "local"...
- The "local" directory contains any downloaded files from the Internet.
- The external" directory refers a USB stick, network share, or CD/DVDROM.
- Highlight the appropriate directory and press enter.
- If "local" is selected, a list of picture files will be shown.
- If "external" is selected, a list of devices will be shown. Choose the appropriate device (USB, CD, etc) to see a list of files on the device.
- Select a picture and press the blue button to view it
- Select a folder of pictures and press the yellow button for a slideshow

PAGE 81 BACK TO TOC

# **Picture Viewer Keys**



PAGE 82 BACK TO TOC

#### Web

The web application is for browsing the internet allowing the user access to their favorite websites and webmail. This award winning Mozilla browser, with proper plugins installed, provides viewing of streaming media from popular video sharing websites and much much more.



- Highlight the Web button and press Enter to begin browsing the Internet.
- The web browser behaves much like that of a desktop computer.

NOTE: If the web browser is not completely visible on your screen see the display configuration section for details on how to adjust the window size.

The web browser is capable of playing the same media formats that the video application does. Other formats like the flash player require a separate download.

A bookmark for the flash plugin has been provided in the bookmarks.

PAGE 83 BACK TO TOC

## **DVD**

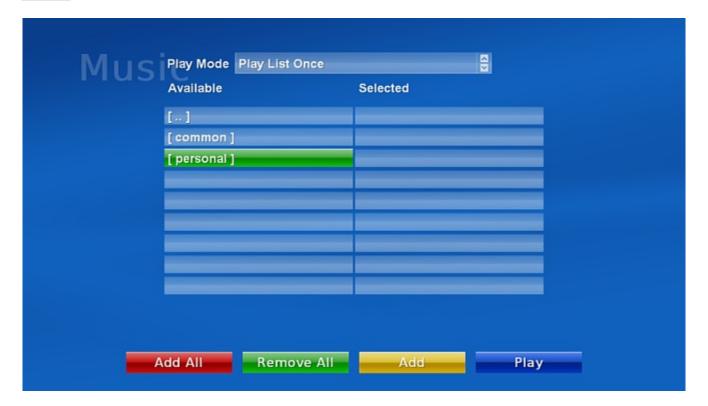
The DVD application is for viewing DVD movies on DVD disks. Press enter on the DVD button to begin viewing the DVD disk in the drive.

# **DVD Viewer Keys**



PAGE 84 BACK TO TOC

#### Music



The Music application is for listening to audio files in MP3s and other formats. Note that DRM protected files are not supported.

Music playback can be from local storage as well as external devices (e.g. USB stick, CD/DVDROM). See appendix A for device connection instructions.

# • Music playlist screen:

• The music selection screen contains the play mode drop down and a file selection list containing two directories "external" and "local".

# • Play Mode Selection:

- The play mode can be selected with the up/down buttons.
- "Play list once" will play the playlist in order and then stop.
- "Loop entire list" will play the playlist in order and then repeat until stopped.
- "Randomly play until all finished" will randomly play all songs once and then stop.
- "Randomly play repeat when finished" will randomly play all songs until stopped by the user.
- The play mode may also be changed with the red key while playing.

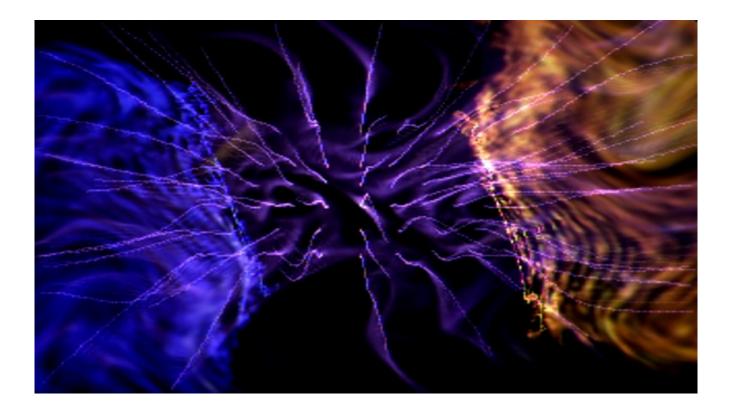
#### **File Selection List:**

- The "local" directory contains any files stored on the hard drive.
- The external" directory refers a USB stick, network share, or CD/DVDROM.
- Highlight the appropriate directory and press enter.

PAGE 85 BACK TO TOC

#### • External Files Selection:

- If "external" is selected, a list of devices is displayed.
- Select the device containing the audio file and press "Enter".
- Available music files in the current directory are displayed in the left "Available" box.
- All selected Music files are displayed in the right "Selected" box.
- To move individual songs, highlight a song and press enter. The box to the left of the song will display an x when selected.
- Once the desired songs have been selected, use the add or remove button to move the songs accordingly.
- All music files may be added and/or removed at once with the "Add All" and/or "Remove All" buttons.



As music plays it generates a wide spectrum of visualizations.

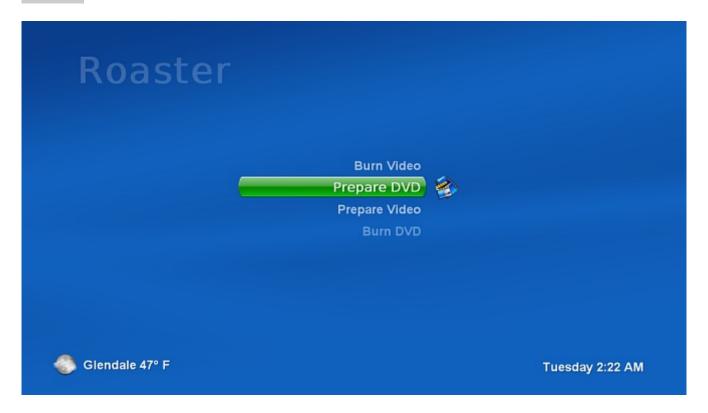
PAGE 86 BACK TO TOC

# **Music Player Keys**



PAGE 87 BACK TO TOC

## Roaster



Roaster is an application for converting video recordings.

- Prepare DVD Convert HD and SD recordings to DVD-ISO image.
- Prepare Video Create HD or SD MPG-ISO image of recordings.
- Burn DVD Burn DVD-ISO images to DVD media.
- Burn Video Burn MPG-ISO images to CD/DVD media.

PAGE 88 BACK TO TOC

# Prepare DVD



- Highlight and browse the Titles
- Highlight the recording under the title you wish to prepare
- Press the blue button to Prepare DVD of the recording
- Press the green button to cancel

When active, Roaster will update the screen with messages displaying the current operation and display the percentage of progress per operation. Recordings created with the Satellite TV application are comprised of multiple segments. The Prepare DVD process begins with the last segment and works it's way down to the first segment. After all segments have been converted to a DVD compliant MPG format It creates a DVD-ISO image which can be written to DVD media from within the Burn DVD section.

PAGE 89 BACK TO TOC

## Space requirements for Prepare DVD

Prepare DVD requires a substantial amount of free space for it's conversion and image creation processes. You will need approximately 3.5 times the size of your recording as free space. A 2 hour HD recording will usually have about 7-8 segments of 2 GB each. A 2 hour SD recording will usually have about 1-2 segments of 2 GB each. If your free space is limited make sure you do not have any recordings going or timers set to record.

## **HD Recordings & Prepare DVD**

Converting HD recordings requires a fair amount time and CPU power. The less CPU dedicated to other tasks the quicker the conversion process will be.

## Ways of freeing up CPU for Roaster

While in your user profile the Satellite TV application is always running. This means if you are tuned to an HD channel you are dedicating a significant amount of your CPU to the Satellite TV application even if you aren't watching it. When at all possible keep the Satellite TV application tuned to an SD channel and do not record TV shows while Roaster is active.

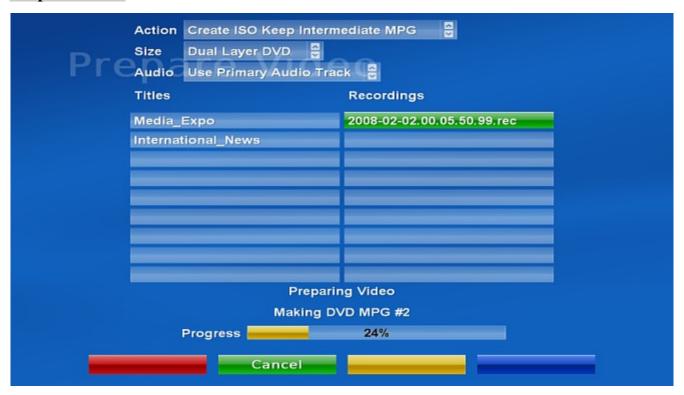
The absolute quickest way to convert HD recordings is to start the Prepare DVD process then log out of the user profile. This will completely free up the CPU for Roaster. Users may find this the most preferred and time saving method for overnight processing.

#### Other Notes of Interest

- Roaster is designed to perform only one job at a time.
- HD recordings take about an hour per gig. Longer while other applications are running.
- Since Roaster jobs are background processes, meaning they run in the background and do not stop when a profile is exited, the job itself will continue even when a different user is logged in. These specific video files of another user are not accessible by other users, but since the Roaster job is running they will be able to view the job progress and Roaster will not be free to use. If you do not think a user is responsible enough to operate Roaster then remove that application from their application list.

PAGE 90 BACK TO TOC

# Prepare Video



- Highlight and browse the Titles
- Highlight the recording under the title you wish to prepare
- Press the blue button to Prepare Video of the recording
- Press the green button to cancel

Recordings created with the Satellite TV application are comprised of multiple segments. Prepare Video allows you to create a disc image containing the separate video segments of your recordings. Prepare Video does not down convert the recordings. HD segments remain HD, SD segments are made DVD compliant for improved compatibility.

When active, Roaster will update the screen with messages displaying the current operation and display the percentage of progress per operation. The Prepare Video process begins with the last segment and works it's way down to the first segment. After all segments have been converted to MPG format It creates an MPG-ISO image which can be written to CD/DVD media from within the Burn Video section.

PAGE 91 BACK TO TOC

#### **Burn DVD**



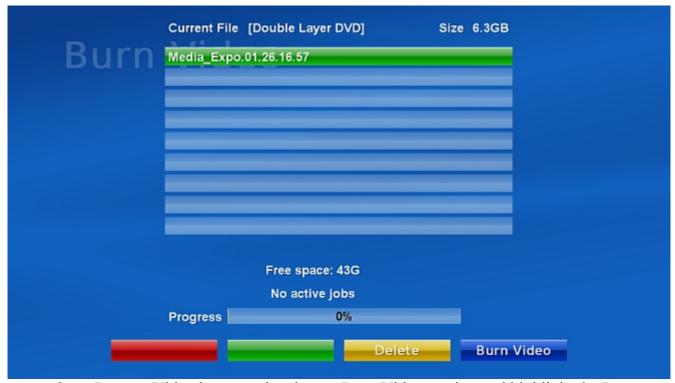
Once Prepare DVD has completed enter Burn DVD section and highlight the DVD Image file. Insert blank DVD media that is large enough to accommodate the size of the image. The size is displayed at the upper right of the screen.

- Burn DVD starts the write process
- Delete allows you to delete the Image files

Notes: This screen is designed that once the job is active you must wait for it to finish. This is to prevent a failed write due to other processes that could potentially interfere. The DVD-ISO files are playable from within the Video screen section. The ability to play the ISO format is very useful in that when free space is at a premium users may opt to simply keep the DVD-ISO file as their preferred video file instead of the satellite recording.

PAGE 92 BACK TO TOC

# **Burn Video**



Once Prepare Video has completed enter Burn Video section and highlight the Image file. Insert the appropriate blank media that is large enough to accommodate the size of the image. The size is displayed at the upper right of the screen.

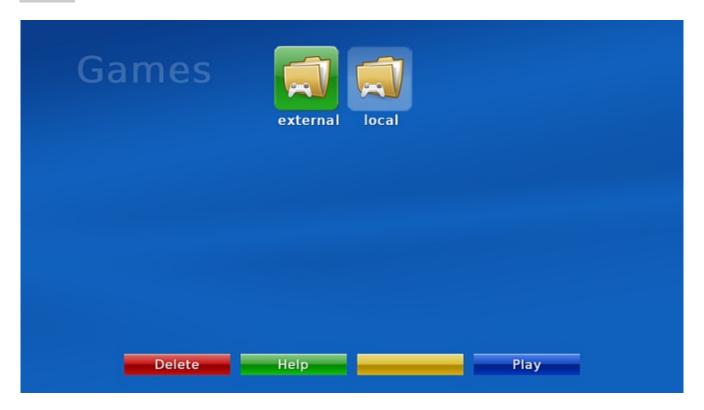
- Burn Video starts the write process
- Delete allows you to delete the Image files

Note: This screen is designed that once the job is active you must wait for it to finish.

This is to prevent a failed write due to other processes that could potentially interfere.

PAGE 93 BACK TO TOC

#### Games



The games package is not part of the stock system. It is available as a separate download at <a href="http://www.captiveworks.org/games/">http://www.captiveworks.org/games/</a> for those legally entitled to its proper use. To install the package please refer to the 'Installing Updates' section.

- Pressing the green help button will access the help file that is provided by the installation package.
  - It is recommended that you read through all the pages of the help file.
- Pressing the red delete button will delete highlighted game.
- Pressing the blue play button will start the game.

NOTE: If for some reason your game will not launch check the game log. It can provide insight into issues like mistakenly forgetting to include all required files.

For specific game troubleshooting refer to the Internet and utilize a search engine.

The CaptiveWorks forum will not provide any games support.

PAGE 94 BACK TO TOC

**CD** 

The CD application is for listening to CD music.

Highlight CD in your applications list and press enter to begin playing the CD disc in the drive.

# **CD Player Keys**

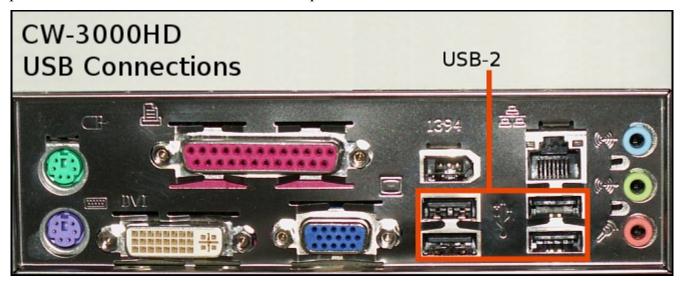


PAGE 95 BACK TO TOC

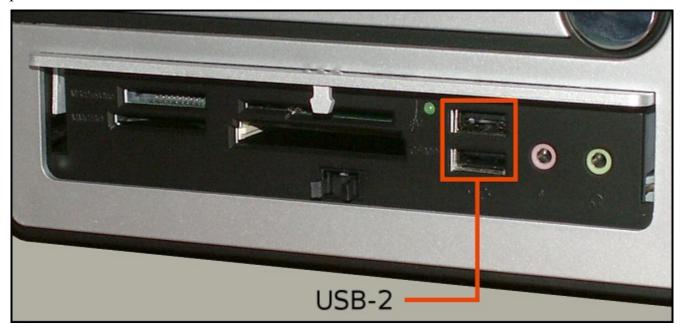
# **Appendix**

#### External USB device connection

The CW-3000HD can make use of optional external devices to extend the functionality of the system. USB memory stick can also be used to play audio and video files. A USB memory stick may also be used to update the software on a system that has no access to the Internet. The connections are a standard PC style USB interface on the front and rear of the system. The ports are USB v2.0 and are backwards compatible with USB v1.1 devices.



Read the users manual for the external device to ensure that it is set up correctly. Software installation steps may safely be ignored as the CW-3000HD already has the drivers and software for supported devices. Connect the USB cable to one of the USB ports on the front or back panel. In the case of a USB memory stick, it may be inserted directly into one of the USB ports.

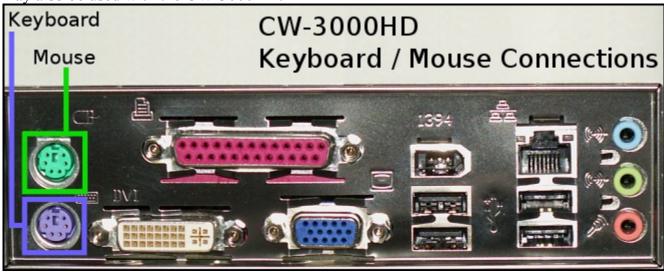


PAGE 96 BACK TO TOC

# **Keyboard / Mouse Connection**

A keyboard and mouse may be used with the CW-3000HD for ease in using the web browser or other future enhancements.

The labeled connections below are for connecting a PC style PS/2 keyboard and mouse. Ensure that the correct device is connected to the appropriate port. A USB mouse/keyboard may also be used with the CW-3000HD.



PAGE 97 BACK TO TOC

## Networking with Windows PC's

Here are a couple of quick little howto/suggestions for those that use Windows.

# Seeing files over the network

Click on My Network Places

If you don't see the the workgroup 'WORKGROUP' or don't see the CW3000HD then click Search

Under computer name enter CW3000HD and click search

It should then show up under the My Network Places window named 'CAPTIVEWORKS (Cw3000hd)'

For future ease of use you can drag this to the desktop if you like.

Another way to quickly view the CW3000HD is to type in the explorer bar: \\Cw3000hd\\
or if you prefer, by IP:

example: \\192.168.1.102\

# **Enabling more shared folders**

The logs, and updates shares are shared by default.

If you go into the Admin screen to edit a user profile and enable the 'share over network' when you don't have a hard drive the setting will be ignored. Once you have a hard drive installed the common folders share is started automatically.

The personal folders can be shared by going back into the Profile section of the Admin screen and **re-save the shared user profile**.

# Playing your recordings over the network

Install vlc if you don't already have it installed.

Browse to the video folder share of your choice (ie. common\video .. user\video, etc)

Navigate down in one of your recording folders until you see the 001.vdr, 002.vdr files.

If you have never played a .vdr file with vlc you'll need to associate it.

Simply right-click on the file and click properties.

Beside Opens with: you should see a Change.. button

Click Change..

You should be able to browse and select vlc media player out of the list.

Once that is done you should be able to right-click and Play the recordings.

PAGE 98 BACK TO TOC

# Remote Control - Keyboard Cross-reference

The remote control actions can be duplicated when using a keyboard with these keystrokes.

Power	CTRL+P
Exit App	CTRL+X
Timer	CTRL+T
Play	CTRL+Y
Pause	CTRL+U
Stop	CTRL+O
Record	CTRL+R
Rewind	CTRL+W
Fast Forward	CTRL+F
Skip Back	CTRL+B
Skip Forward	CTRL+D
Ok	ENTER
Back	ESC
RED	F1
GREEN	F2
YELLOW	F3
BLUE	F4
EPG	CTRL+G
i	CTRL+i
VOL +	KP_Multiply
VOL -	KP_Divide
CH +	KP_Add
CH -	KP_Subtract
Erase	BCK SPACE
Recall	CTRL+L
All	CTRL+A
TV/Rad	CTRL+V
Sat	CTRL+S
Search	CTRL+E
Menu	CTRL+M
Recordings	CTRL+K
Schedule	CTRL+C
History	CTRL+H
Mute	CTRL+Q
Audio	CTRL+Z
Caption	CTRL+N
Eject	CTRL+J

PAGE 99 BACK TO TOC

# **Troubleshooting**

If at any time you need further troubleshooting assistance please visit the on-line forums

http://captiveworks.org/forum/

Please refer to the Latest News thread before posting.

# **Accessing Logs**

A good way to diagnose is to look through log files. Log files can be accessed in a number of different ways.

The system by default has the following to make accessing the logs convenient:

- A Windows style network share named logs. This means should be accessible from within My Network Places of your networked Windows PC.
- A web based 'logs' access point. This means you should be able to point the web browser of a Networked PC to the IP of your CW-3000HD. (example: http://192.168.1.103)
- Another option is to use an external utility like WinSCP and access the internal /var/logs folder.

# **BIOS Settings**

- Main-> Primary IDE Master-> UDMA Mode -> disable
- Advanced -> CPU Configuration-> AMD Cool 'n' Quiet Function-> Auto
- Advanced-> Chipset-> Frame Buffer Size-> 64M
- Advanced-> Chipset-> TV Mode Support-> NTSC-M
- Power-> Hardware Monitor-> O-Fan Controller-> Enabled
- Boot-> Hard Disk Drives-> 1. 1st Master: Flash Card

PAGE 100 BACK TO TOC

## **Display Diagnostics**

I see the initial boot screens and then the screen goes blank.

The CW-3000HD supports one method of video connection at a time. Double-check your cable connections to ensure your TV (or monitor) is hooked up using only one display connector method. If after turning the unit on you get a blank screen after the initial boot screens then wait a few minutes for the unit to be able to accept remote input and carefully point the remote control at the unit and press 1346. The unit should reboot with a default display setting. After that try a more compatible video setting that corresponds with your display devices capabilities.

NOTE: When using DVI-HDMI it is also important to use a short 'low-loss/low-noise' cable to ensure your CW-3000HD can communicate properly with your display device and negotiate a setting approved by your display device. (shortest possible cable the better)

I do not see the boot screens, but I see the menu after it boots.

Some TVs may not support the lower display resolution of the boot screens when utilizing the DVI display mode. If you happen to have this issue and find this to be unacceptable try utilizing a different display connection such as VGA or Component.

I do not see the boot screens, all I get is a blank screen.

If your CW-3000HD does not display any video when you first hook it up it is possible that the memory became unseated from its slot during shipping. The first thing to do is to disconnect the box from power and open the top lid. Locate the memory module under the DVD tray. You may have to unscrew the DVD tray to get to it. Unclip the latches on the two sides of the memory then push the memory back in its slot so that you hear the clicking sound from the latches on both sides. Screw the DVD tray back in place. (Be careful not to disconnect any cables in the process) Close the top lid and reconnect the power cord. Turn the unit on and see if it makes a difference.

PAGE 101 BACK TO TOC

## **Remote Control Diagnostics**

# My remote wont work unless I am three feet or less from the box, new battery's didn't help. What can I do to increase the range?

During assembly of some of the initial CW-3000HD units there were cases where the remote sensor was out of alignment.

If you pop the front cover off (grasp the sides and carefully pull forward with both hands you will see the remote sensor board on the right side(it's the long PCB). Unscrew it and adjust the sensor so it is in the middle of ir window. Put it back together and try it again.

NOTE: If the sensor still doesn't line up good enough you could do what some people have done and unscrew the bottom screw and move the board until the eye is directly in line with the window. Once the unit is not going to be moved too much, the top screw will be enough to hold it in place.

#### My remote is acting up. I am getting random key strokes. What can I do?

When the batteries get low the remote begins to lose its range. When trying to use the remote at its range limit it can misinterpret the key presses and give incorrect key strokes. Replace the batteries and try it again. If the random keystrokes continue it may be a sensor misalignment. (you can test this by using the remote directly in front of the unit). See the statement above for increasing the range.

# I think the random keystrokes have locked up some buttons on my remote. How can I get them back?

If the remote gets in a state where keys are not responding exit the user profile and return to the main screen. Press the Power button on the remote and select Shutdown. In these cases a complete shutdown is necessary since a reboot keeps the remote circuits powered. When it is powered off the remote circuits are then cleared. The remote should return to normal when the unit is powered back on at that point.

NOTE: Pre - 1.0.1.9 systems have a repeat key issue from within Satellite TV, please check your version and update.

# **Roaster Diagnostics**

# I get a ring buffer overrun

Sometimes the relationship between the audio and video stream information can get a little out of sorts in sections of a recording. In order to make a proper DVD of the recording the prepare process needs to make sure the information is set straight. If it is not within tolerance you can receive a ring buffer overrun error along with the message to try re-editing the recording.

The process of editing the recording from within Satellite TV and trimming it slightly can usually repair the recording. The editing process recombines the recording segments and can usually set the information straight.

PAGE 102 BACK TO TOC

## **Satellite TV Diagnostics**

I get a black screen when switching channels

Double-check your adapter settings and ensure any unused adapters are disabled then re-save.

I receive a Media Not Available message

If you receive a Media Not Available message while in Satellite TV it means that something has caused VDR (the application receiving the signal) to terminate.

Manually type in a FTA channel and check the strength and the quality of the signal by pressing the Menu button and select Signal Information. It is important that both meters STR & SNR are steadily in the green.

- If the values are too low you may need to readjust or increase the size of your antenna.
- If the strength(STR) is good, but the quality(SNR) is poor or fluctuating:
  - It may be that you are getting interference(noise) somewhere between your antenna and your CW-3000HD. That being the case you will have to recheck your cabling and any other component in between (diplexers, splitters, barrel connectors, etc.). Start by simplifying your setup and use a direct line. If that solves the issue add any component back one at a time until you can determine the culprit causing the noise.
  - It may be that you have an improperly grounded antenna setup. This can cause fluctuations and tuning problems. It is strongly advised that you to read National Electric Code if you plan to do the dish installation yourself. Particularly, section 810-20 or hire a certified technician/electrician to do the job.
  - It may be that you have inadequate cooling. Poor airflow can cause the tuner cards to decrease efficiency due to heat. If the issue started shorty after the addition of a hard drive it may be that some cables were accidentally moved and are now impeding air flow.
  - There might be a slim chance that during shipment the internal tuner cards became slightly unseated. Disconnect the box from power and open the top lid. Locate the tuner cards. Unscrew, remove, then return it to its original slot to ensure it is properly seated. Repeat for the next card.

Try creating a new user profile to see if it is limited to a specific profile.

I get audio stutter on some channels

This can sometimes happen if a channel has a low quality (SNR) signal. To verify that this is most likely the cause check the strength and the quality of the signal by pressing the Menu button and select Signal Information.

• A commonly used method to minimize the stutter is to briefly press pause then press pause again to increase the amount of prebuffering.

PAGE 103 BACK TO TOC

# **Shared Folders Diagnostics**

#### I need more details

When sharing a drive in Windows using drive k: as an example you will want to assign a share name for it something like drive\_k. Assigning a drive is done by right-clicking and selecting 'share as'. If your Windows machine has an IP of 192.168.1.103 you would create your share like.

//192.168.1.103/drive\_k

If you intend to share a folder within a certain drive the share should be stated directly. The k:\files\videos folder shared as Videos would be mounted as: //192 168 1 103/Videos

#### NOTES:

- -Only use forward slashes.
- -It is best to replicate any capital letters contained in your share name.
- -It is best to avoid using special characters like: in the share name.

Do I need to add a user name and password?

It is usually best to spend a couple of minutes and create an account in Windows with a known password for sharing and use that.

Anonymous access through the "Guest" account.

Guest access is implemented differently in XP and Vista (compared to 2000 & Prior) Essentially the Guest account has to be enabled for the 'everyone group' to have any effect. Depending on your current level of security you may need to add "guest" or grant full control to 'Everyone' under advanced permissions. This is common for Windows Vista. You would then use:

User name: guest Password: <empty>

Could there be something blocking access?

You may also want to double-check that you don't have it blocked by firewall settings or some sort of firewall software running. Programs like F-Secure usually require a new rule created to allow incoming and outgoing local IP traffic.

PAGE 104 BACK TO TOC

## I just can't get it to connect

There were some changes from XP to Vista where Vista no longer supports the NTLM protocol by default. The CW-3000HD is currently using smb version 3.0.22 which should have support for the newer NTLM2 protocol of Vista. Some users have reported their Vista is working, yet some other have difficulty so there may be differences in Vista releases.

If you figure the protocol change is suspect you could try forcing Vista to use the NTLM protocol as well as NTLM2.

To do that, use these commands:

**Disclaimer**: This is just a suggested method of how to use the earlier protocol and not necessarily what you should do.

Click "Start -> Run."

Type in the Run field: "secpol.msc." to bring you to Vista's security policy system.

Select "Go to: Local Policies > Security Options"

Find "Network Security: LAN Manager" authentication level.

Change the Setting from "Send NTLMv2 response only" to "Send LM & NTLM -- use NTLMv2 session security if negotiated."

In Vista Home Premium, you won't have this tool so what can be done is: Launch your registry editor and open key: HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Control\Lsa Change the value of the DWORD named LmCompatibilityLevel to 1 If it isn't present, create it. And of course reboot.

PAGE 105 BACK TO TOC

## **Software License**

The CW-3000HD is using open-source software. The operating system and multimedia software licenses vary. The individual licenses can be found with the source code for the individual applications.

Generally they fall under the GPL or it's variants.

The Java GUI Is licensed separately from the rest of the system. That license follows:

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PAGE 106 BACK TO TOC

# **Warranty Information**

CaptiveWorks Inc warrantees the CW-3000HD to be free from defects in the workmanship or materials for a period of 12 months from the date of purchase by the consumer. If at any time during the warranty period the product exhibits a defect in material or workmanship, CaptiveWorks will repair or replace the unit within a reasonable period of time.

CaptiveWorks' liability under this warranty is limited to servicing or adjusting the system returned to CaptiveWorks or it's authorized service centers. The warranty shall be limited to the hardware in the system and does not cover damage or malfunctions caused by misuse, abuse, improper use of third party software, insufficient care or other act beyond the control of CaptiveWorks.

The findings of CaptiveWorks or it's service centers shall be in final in all matters

# **Technical Support**

Official CaptiveWorks CW-3000HD support site: <a href="http://www.CaptiveWorks.org">http://www.CaptiveWorks.org</a>

The official support site contains the source code and a technical support forum. Official updates will be found through the CW-3000HD update facility or directly on the official support site.

Email support can be reached at support@captiveworks.org

PAGE 107 BACK TO TOC