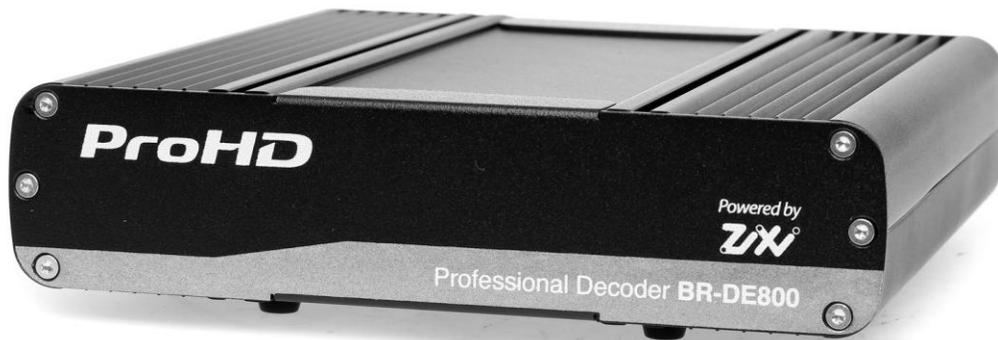


# **ProHD**



## **ProHD BR-DE800 Professional Decoder Appliance User Manual Version 2.5**

Date: May 26, 2015  
Doc Rev: <A>

# Contents

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<b>Chapter 1 About This Manual</b> .....	<b>3</b>
<b>General</b> .....	<b>3</b>
<b>Manual Structure and Use</b> .....	<b>3</b>
<b>Chapter 2 ProHD BR-DE800 Decoder Overview</b> .....	<b>4</b>
<b>The Product</b> .....	<b>4</b>
<b>Communication Protocols</b> .....	<b>4</b>
<b>I/O Specifications</b> .....	<b>5</b>
<b>ProHD BR-DE800 Decoder Front Panel</b> .....	<b>5</b>
<b>ProHD BR-DE800 Decoder Rear Panel</b> .....	<b>5</b>
<b>Chapter 3 Getting Started and Initial Setup</b> .....	<b>7</b>
<b>Initial Connection and Setup</b> .....	<b>7</b>
<b>Connecting from a PC</b> .....	<b>8</b>
<b>Connecting from a Mac</b> .....	<b>14</b>
<b>Initial Connection Using SSH</b> .....	<b>18</b>
<b>Setting Network Parameters through a USB Thumb Drive</b> .....	<b>20</b>
<b>Chapter 4 Setup and Operations</b> .....	<b>21</b>
<b>Decoding Video, Audio and Displaying Web Content</b> .....	<b>21</b>
<b>Chapter 5 General Management</b> .....	<b>28</b>
<b>Viewing, Restoring Settings, and Restarting the Unit</b> .....	<b>28</b>
<b>Upgrading the Firmware</b> .....	<b>31</b>
<b>Resetting the Unit</b> .....	<b>33</b>
<b>Setting Zixi License</b> .....	<b>35</b>
<b>Appendix A Warranty</b> .....	<b>37</b>
<b>Index</b> .....	<b>39</b>

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## Safety Instructions

- Use the following safety guidelines to help protect your ProHD BR-DE800 Decoder unit from potential damage and to ensure your own personal safety.
- Make sure that only authorized personnel installs, connects and maintains ProHD BR-DE800 Decoder and its components.

### When using ProHD BR-DE800 Decoder

- To help prevent electric shock, plug the power cable into properly grounded sources. Use only properly grounded extensions and adapters as the need arises.
- Make sure that nothing rests on your ProHD BR-DE800 Decoder power cable and that the cables are not located where they can be stepped or tripped over.
- Do not spill food or liquids on your unit.
- Keep your ProHD BR-DE800 Decoder unit away from radiators and heat sources. Do not place your ProHD BR-DE800 Decoder unit on a bed, sofa, or rug.
- When you disconnect a power cable, pull on its connector or on its strain relief loop not on the cable itself.
- **ESD Warning:** Normal handling precautions should be taken to avoid static discharge.



**WARNING:**

Do not try to open or replace parts as this will void your warranty.

---

# About This Manual

## In This Chapter

<a href="#">General</a> .....	3
<a href="#">Manual Structure and Use</a> .....	3

## General

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## Manual Structure and Use

This manual is structured in a modular format, containing the following sections:

- [ProHD BR-DE800 Decoder Overview](#) (on page 4)  
Describes the ProHD BR-DE800 Decoder product, its system requirements and I/O specifications.
- [Getting Started and Initial Setup](#) (on page 7)  
Describes how to connect to the appliance for the first time.
- [Setup and Operations](#) (on page 21)  
Describes how to set and configure ProHD BR-DE800 Decoder appliance.
- [General Management](#) (on page 28)  
Describes how to upgrade, restore settings and restart the appliance.

## CHAPTER 2

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# ProHD BR-DE800 Decoder Overview

## In This Chapter

The Product.....	4
Communication Protocols .....	4
I/O Specifications.....	5

## The Product

ProHD BR-DE800 Decoder is a high-performance IP decoding appliance for standard definition and high definition MPEG-2 and MPEG-4 H.264 streams. The Decoder features a flexible selection of output interfaces, including 3G, HD-SDI, HDMI and Composite video. It comes in a fan-less, portable design, and is ideal for portable and stationary applications. The ProHD BR-DE800 supports various streaming protocols including UDP, RTP, RTSP, Zixi™, and Pro-MPEG FEC.

### The ProHD BR-DE800 Decoder package includes:

- The ProHD BR-DE800 Decoder appliance
- Power supply
- A CD containing the ProHD BR-DE800 Decoder user manual, firmware upgrade and reset utilities, an XML file (for USB Thumb Drive), SSH security file, and brochure.

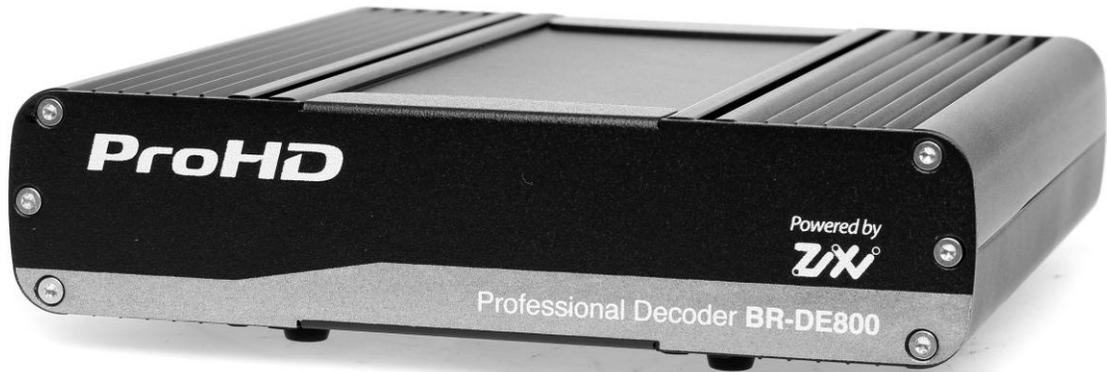
## Communication Protocols

### Telnet/SSH Client:

- Microsoft Windows Telnet client
- Or*
- Third-party Telnet/SSH client such as Putty.

## I/O Specifications

### ProHD BR-DE800 Decoder Front Panel



### ProHD BR-DE800 Decoder Rear Panel



Interface	Type	Description / Usage
Ethernet	RJ-45	Ethernet port for receiving incoming streams and for remote management
HDMI Out	HDMI	HDMI HD/SD video output w/ embedded audio
USB 1	USB	Used for saving and uploading/resetting network configuration.

Interface	Type	Description / Usage
COMP Out	Composite	Composite SD video output
Audio Out	Mini-jack	Stereo audio out (unbalanced)
USB 2	Mini-B USB	Used for firmware upgrade only
SDI 2 Out	BNC	HD/SD-SDI Output w/ embedded audio
SDI 1 Out	BNC	HD/SD-SDI Output w/ embedded audio
POWER +12V		Power input.

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## Getting Started and Initial Setup

### In This Chapter

Initial Connection and Setup .....	7
Connecting from a PC .....	7
Connecting from a Mac .....	13
Initial Connection Using SSH.....	17
Setting Network Parameters through a USB Thumb Drive .....	19

## Initial Connection and Setup

The ProHD BR-DE800 Decoder is configured, by default, to use a fixed static IP address for its streaming port (labeled "Ethernet"). Use the default **192.168.1.2** IP address to perform initial login from a computer connected directly to the platform.

The ProHD BR-DE800 Decoder is configured using a menu-based configuration utility that is accessed over IP using either Telnet or SSH. In order to comply with various IT security requirements – Telnet connectivity can be disabled/enabled by using the unit's configuration utility. The SSH interface requires a security file to be used. This file is located on the product's CD.

Both the Telnet and the SSH interfaces are password protected. The password is user-configurable. The Telnet interface presents a fixed password prompt prior to presenting the user-configurable password prompt.

## Connecting from a PC

*To connect to the appliance from a terminal window on a PC:*

1. Open a Telnet terminal window (refer to MS instructions on how to enable Telnet for Win OS).
2. Connect to the ProHD BR-DE800 Decoder IP address.
3. At the primary login prompt, type "**admin**" and when prompted for the first password, type "**admin**" again, This password is fixed, but you can change it as described later in this chapter.
4. At the secondary password prompt, type the same default password "**jvc1234**".

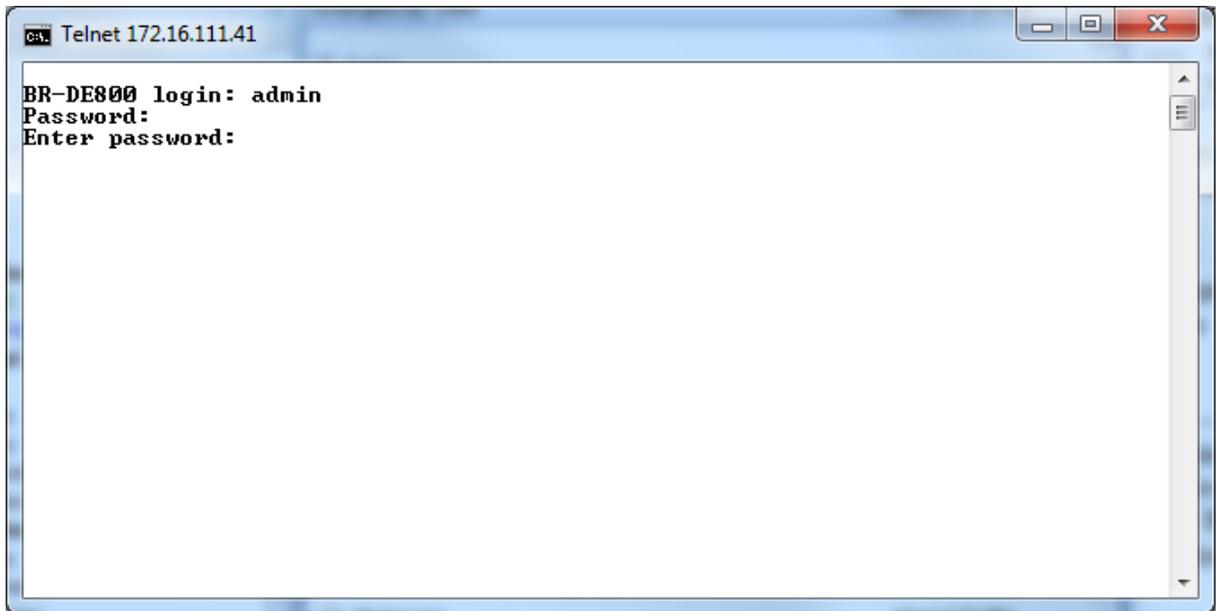


Figure 3-1: The Login window



*To configure network settings:*

1. From the main menu, type "2" for **Network**. The Network Settings menu appears:

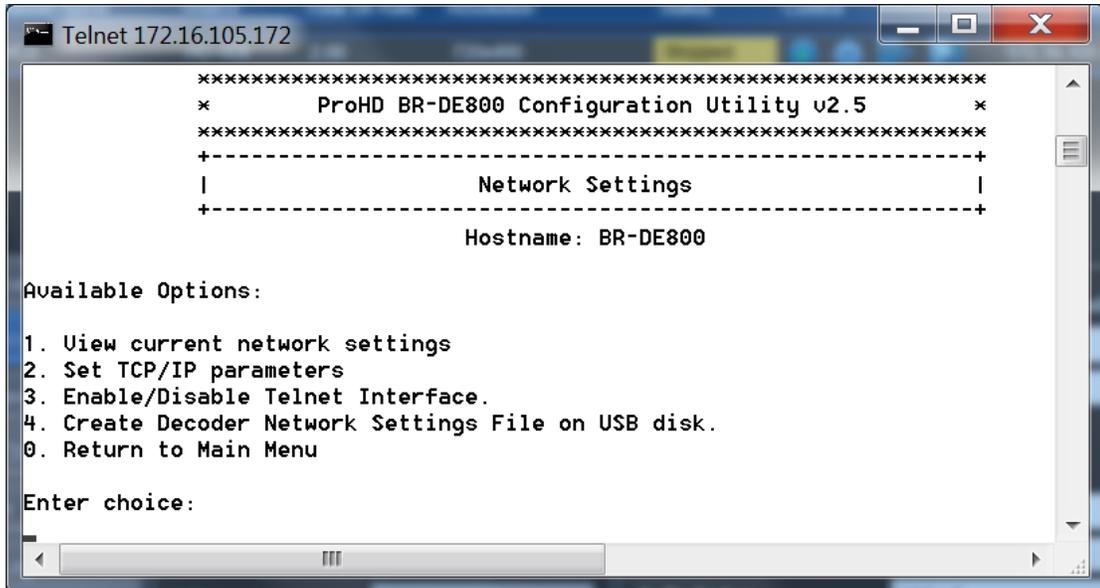


Figure 3-4: The Network Settings window

2. To set TCP/IP parameters manually type "2" for **Set TCP/IP parameters** and set the following values:
  - Enter the appliance's new IP address
  - Enter the appropriate subnet mask
  - Enter your default gateway address
  - Enter the DNS address (optional)
  - Enter the NTP address (optional)
  - When prompted, type "y" to restart the unit. Wait for unit to restart and reload the Configuration Utility menu by re-connecting to the unit using its new IP address



**CAUTION:**

If you have changed the appliance's IP address to a different subnet you may need to reconfigure your computer network settings to re-connect to the appliance.

3. To enable/disable Telnet type **"3"** for **Enable/Disable Telnet**.

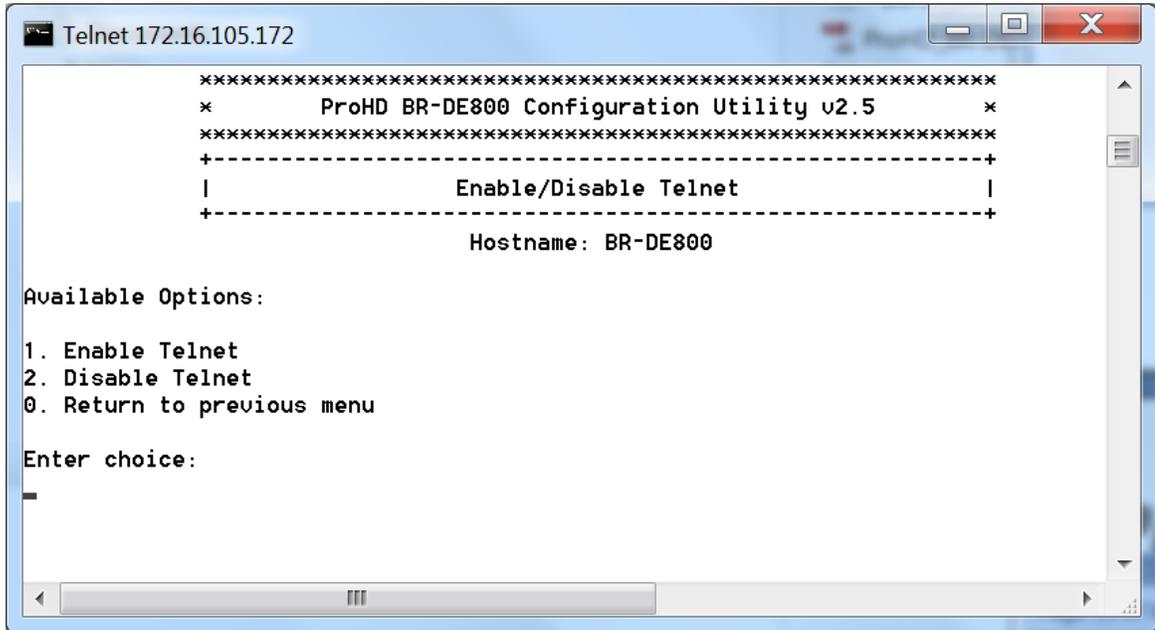


Figure 3-5: The Enable-Disable Telnet window

4. To save decoder's settings on a USB thumb drive, insert the USB drive to the decoder's USB port and type **"4"** for **Create Decoder Network Settings File on USB disk**.

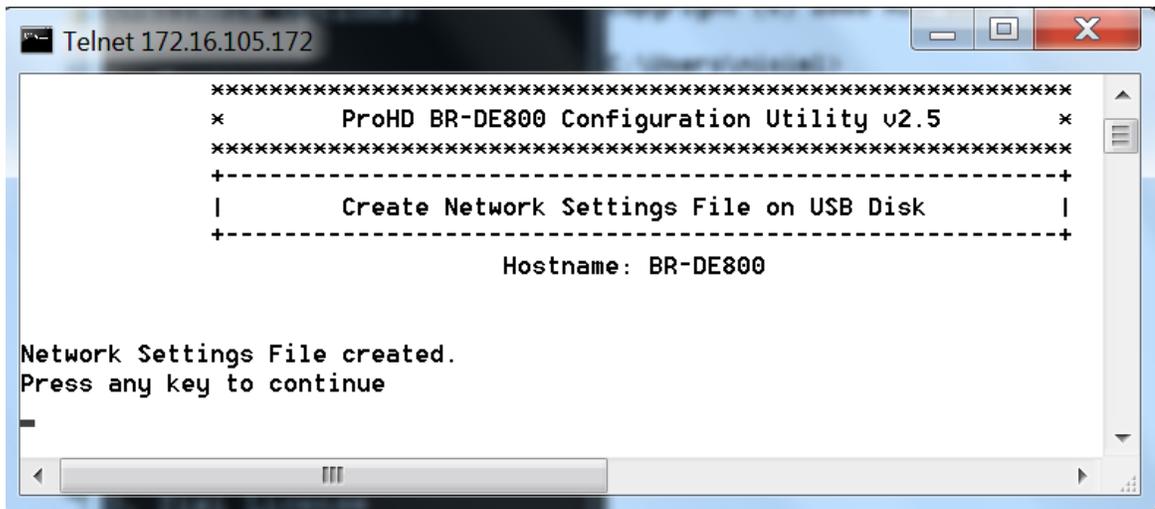


Figure 3-6: The Create Network Settings File on USB Disk window

*To change the Administrator password:*

1. From the main menu, type "3" for **Administrator password**.
2. Type "y" when prompted.
3. Type new password.
4. Re-type password when prompted.

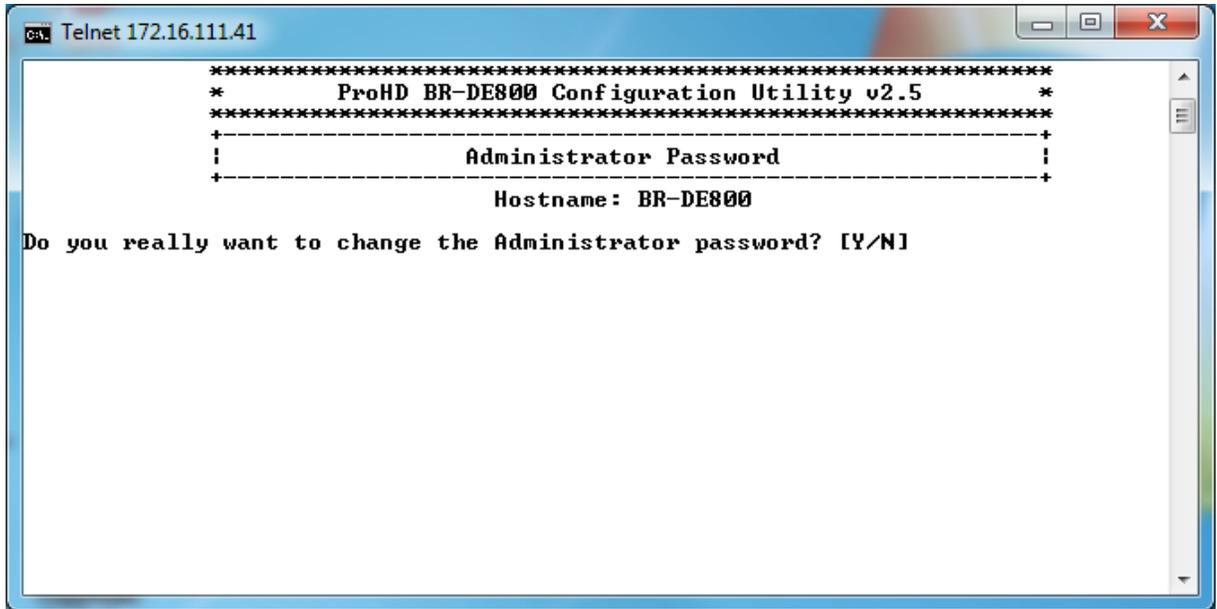


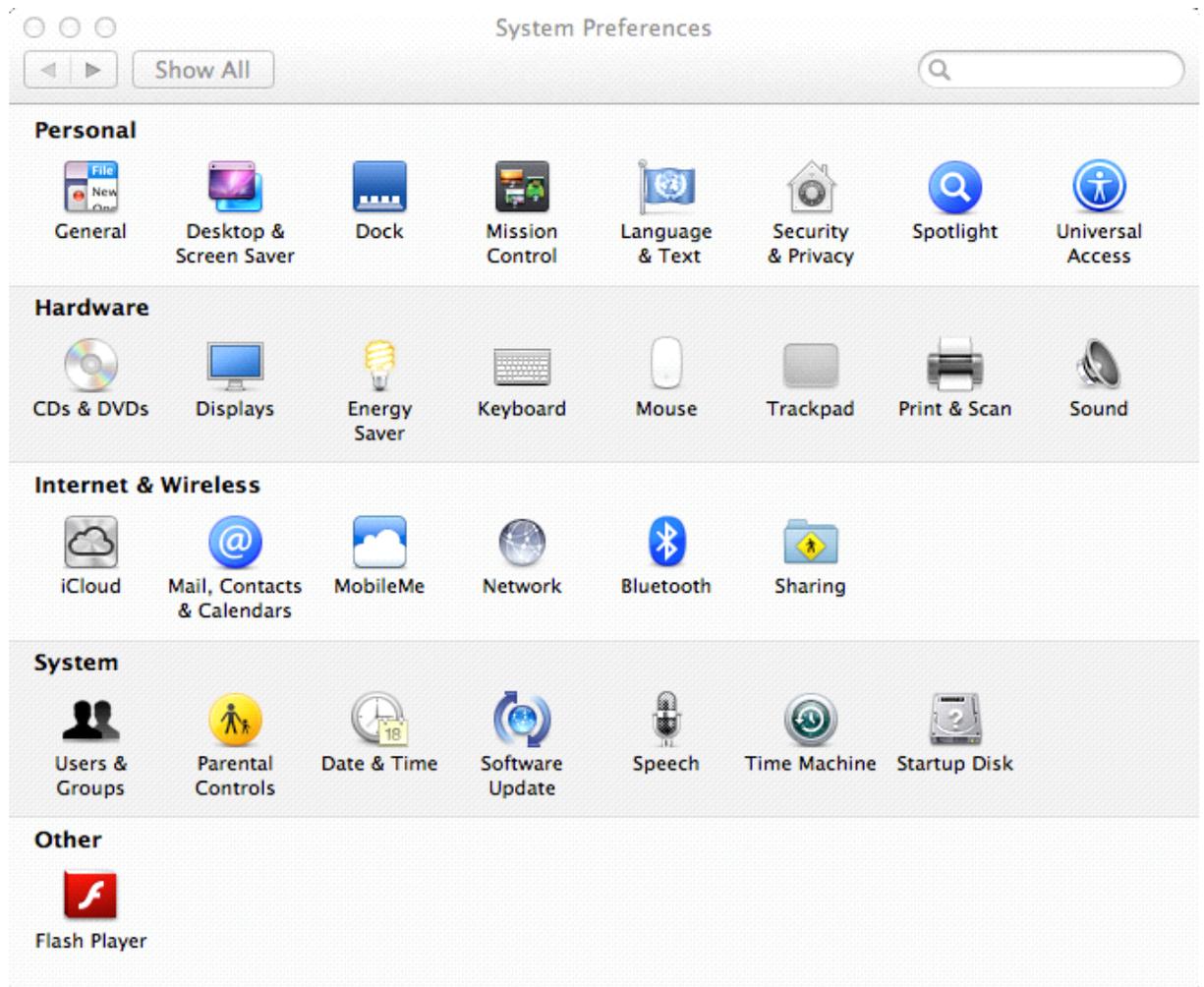
Figure 3-7: The Administrator Password window



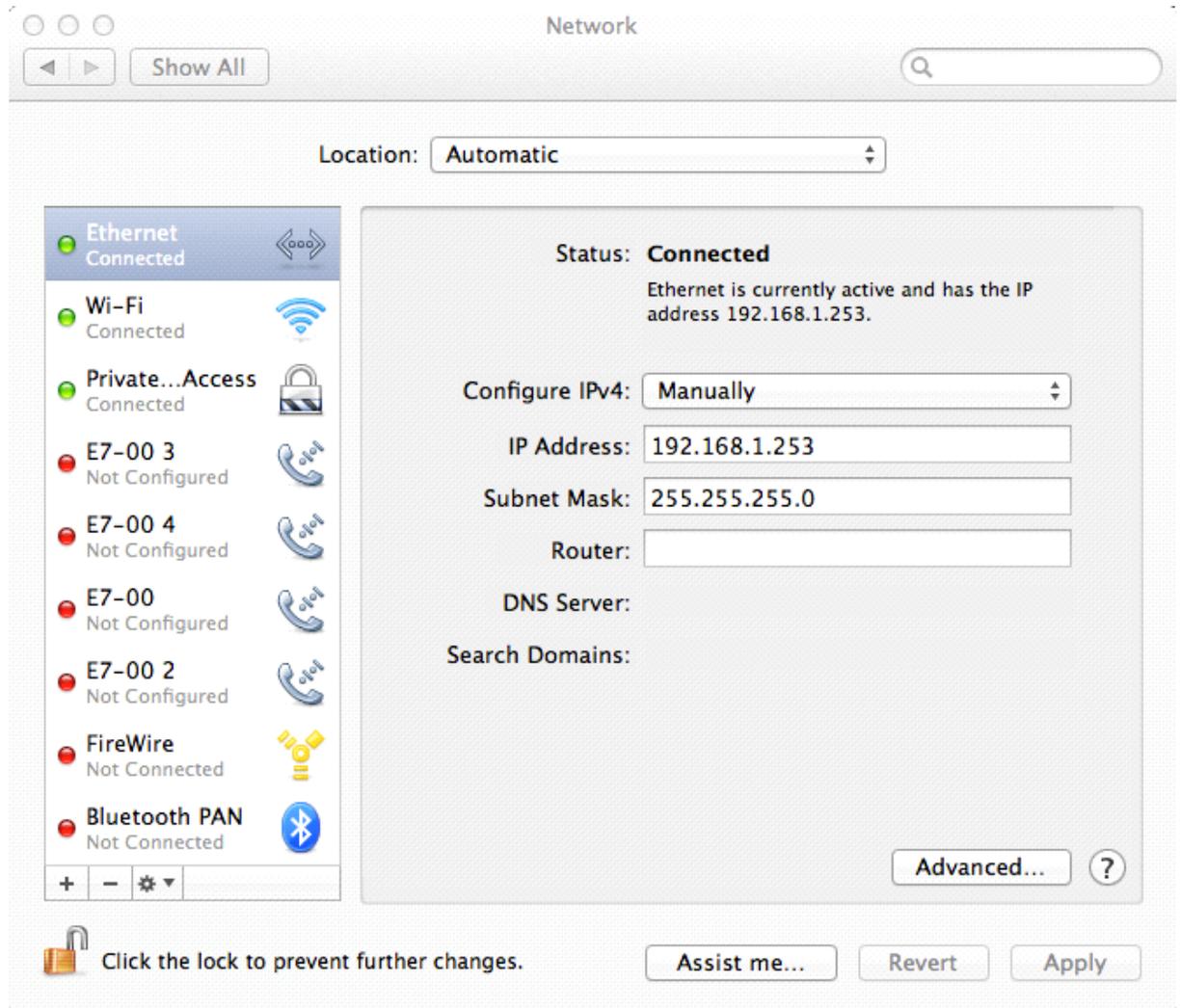
## Connecting from a Mac

*To set up the IP address of the Mac:*

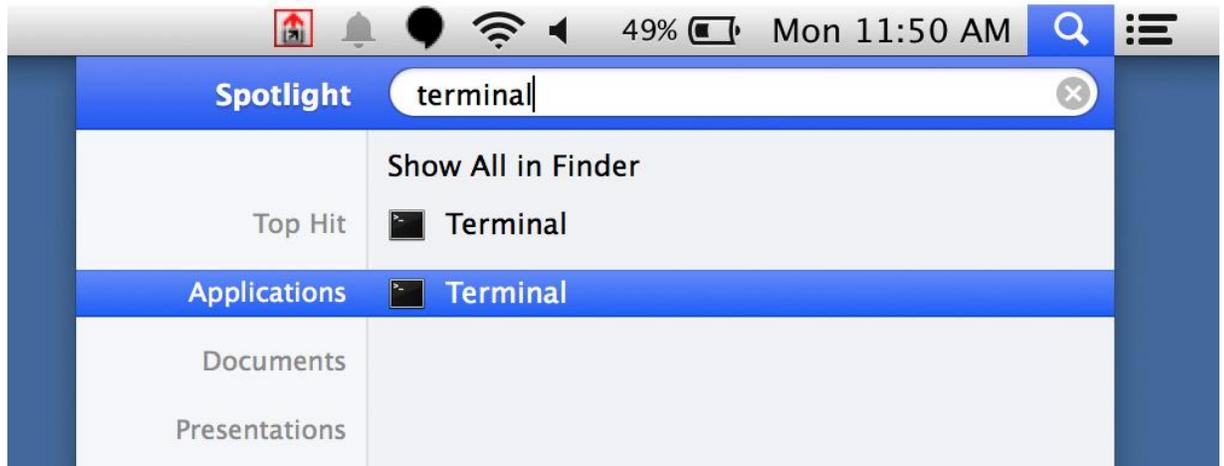
1. Click the Apple icon and from the menu select **System Preferences**. The following window appears:



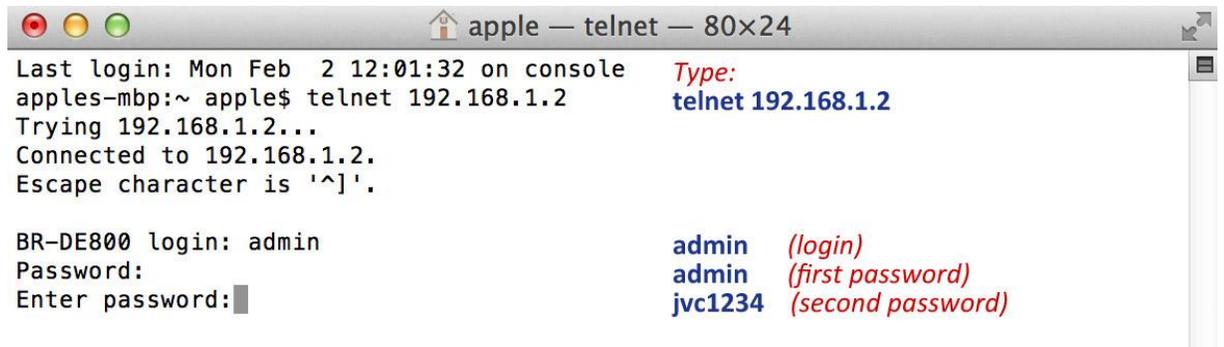
2. Select **Network**. The following window appears:



3. Manually set the **IP Address** of the Mac to **192.168.1.253**. Set the Subnet Mask to **255.255.255.0** as shown in the figure above, and click **Apply**.
4. Type terminal in the **Spotlight** field. See figure below (alternatively, you may press the command and tab keys simultaneously, and from the Application switcher select **Finder>Go>Applications>Utilities**):



5. In the terminal window, type "**telnet 192.168.1.2**". For login type "**admin**". When prompted for the first password, type "**admin**" again, and when prompted for the second password type: "**jvc1234**". See figure below:

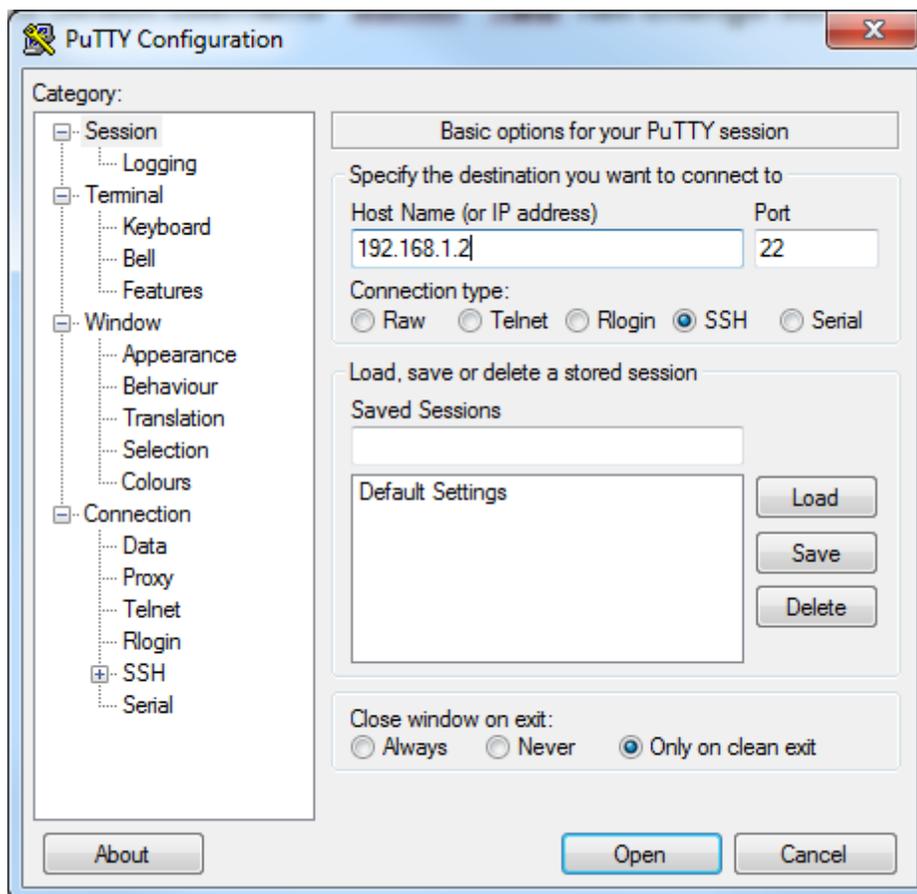




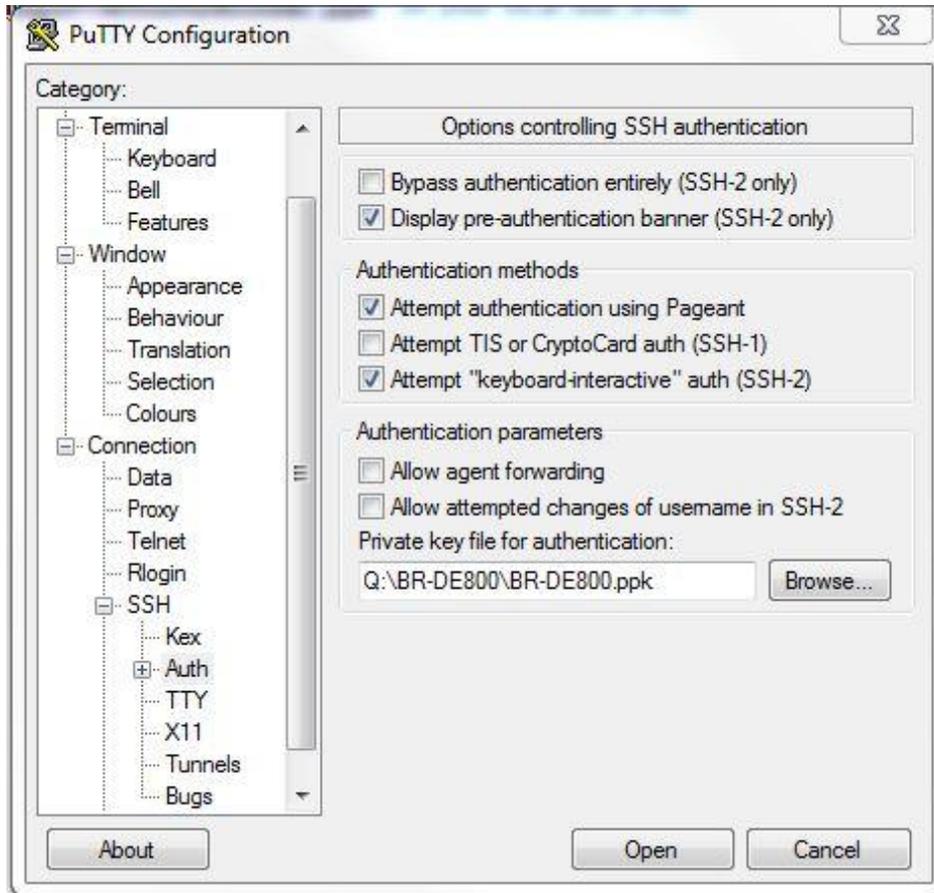
## Initial Connection Using SSH

*To configure the appliance's network settings for the first time using SSH:*

1. Copy the private security file "**BR-DE800.ppk**" from the product CD (included in the box) to your local disk drive.
2. Connect a power source to the rear power input port.
3. Connect the network port labeled "Ethernet" to a computer in the **192.168.1.x** range with subnet **255.255.255.0** and ensure you can ping the default IP address of the unit to **192.168.1.2**.
4. Start your SSH client, direct it to the IP address of the unit: **192.168.1.2** and use the default username "**admin**".



5. Enter the SSH client's session authentication screen and direct the client to the private security file "**BR-DE800.ppk**" on your local disk drive (provided on the product's CD).

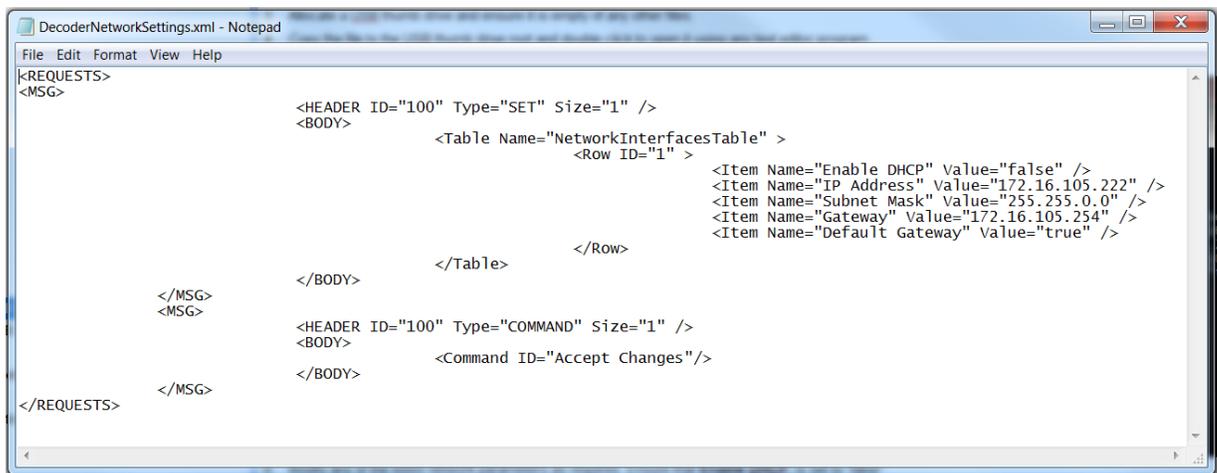


6. Connect to the unit using your SSH client.
7. At the password prompt, type "**jvc1234**".

# Setting Network Parameters through a USB Thumb Drive

## To Set Network Parameters through a USB Thumb Drive:

1. Turn the decoder *OFF*.
2. Obtain the *DecoderNetworkSettings.xml* file from JVC CD or from JVC Online Support Portal.
3. Allocate a USB thumb drive and ensure it is empty of any other files.
4. Copy the file to the USB thumb drive root and double click to open it using any text editor program.



```

DecoderNetworkSettings.xml - Notepad
File Edit Format View Help
<REQUESTS>
<MSG>
    <HEADER ID="100" Type="SET" Size="1" />
    <BODY>
        <Table Name="NetworkInterfacesTable" >
            <Row ID="1" >
                <Item Name="Enable DHCP" Value="false" />
                <Item Name="IP Address" Value="172.16.105.222" />
                <Item Name="Subnet Mask" Value="255.255.0.0" />
                <Item Name="Gateway" Value="172.16.105.254" />
                <Item Name="Default Gateway" Value="true" />
            </Row>
        </Table>
    </BODY>
</MSG>
<MSG>
    <HEADER ID="100" Type="COMMAND" Size="1" />
    <BODY>
        <Command ID="Accept Changes"/>
    </BODY>
</MSG>
</REQUESTS>
    
```

Figure 3-9: The DecoderNetworkSetting.xml File

5. Modify any of the listed network parameters as required. Ensure that **Enable DHCP**. is set to "false"



**CAUTION:**

We do not recommend enabling DHCP.

6. Use a USB cable to connect the USB thumb drive to the decoder.
7. Turn the decoder *ON*.
8. When the boot process is completed, enter the new set IP to the Internet Browser URL field. The Log on window appears.
9. Remove the USB thumb drive.







- For **PRO-MPEG** type "3" and enter the **IP address** and the **Port** number of the streaming destination. To set the FEC Level A and B port numbers you have the two following options:

- \* Either enter manually the FEC port numbers.

- Or -

- \* Use the standard default FEC port numbers by pressing Enter on your keyboard. Standard default FEC port numbers will be automatically set according to the set streaming port number as follows:

**FEC Level A Port Number** = [<streaming destination port #> + (2)] e.g., when the streaming destination port is **6504**, FEC Level A port number will be **6506** (see figure below).

**FEC Level B Port Number** = [<streaming destination port #> + (4)] e.g., when the streaming destination port is **6504**, FEC Level B port number will be **6508** (see figure below).

```

C:\> Telnet 172.16.111.41

*****
* ProHD BR-DE800 Configuration Utility v2.5 *
*****
+-----+
|                               IP Input                               |
+-----+
                        Hostname: BR-DE800

Enter the IP Address [192.168.1.2] :192.168.1.2
Enter the Port (1024-65535) [0]:6504
Enter the FEC Level A Port (1024-65535) [6506]:
Enter the FEC Level B Port (1024-65535, 0-No FEC Level B) [6508]:
  
```

- For **ZiXi**, type "4" and select whether you plan to use the ZiXi Broadcaster Server. Push streaming method - when the streaming destination is the decoder IP address: Enter the **Channel name** = the **Stream ID** on the ZiXi Broadcaster. Enter the **Password** = the password on the ZiXi Broadcaster. Enter the **Latency Value** = the latency value that is set on the ZiXi Broadcaster.



**NOTE:**

The Zixi protocol supports two modes:

- Using Zixi Broadcaster Server.
- Streaming directly from the camera or encoder.

When streaming using Zixi Broadcaster Server, the BR-DE800 pulls video from one of the server's inputs. Enter the Zixi Server IP address and Stream ID / Password for the associated input (do not attempt to create new output on a server).

When streaming directly from the camera or encoder, enter the decoder's IP address and the Stream ID / PW to match the source settings.

```
Telnet 172.16.111.41
*****
*      ProHD BR-DE800 Configuration Utility v2.5      *
*****
+-----+
|                               IP Input                               |
+-----+
                Hostname: BR-DE800

Use Zixi Broadcaster Server [Y|N] (Y):
Enter the Broadcaster Server IP [192.168.1.21] :
Enter the Broadcaster Server Port (1024-65535) [65041]:
Enter the Channel Name [Channel1]:
Enter the Password (optional):
Enter the Latency Value [300-6000] [500]:
```





# General Management

## In This Chapter

Viewing, Restoring Settings, and Restarting the Unit .....	28
Upgrading the Firmware .....	30
Resetting the Unit .....	33
Setting ZIXI License .....	35

## Viewing, Restoring Settings, and Restarting the Unit

Invoke Telnet client and connect to the unit.

### *To view system settings:*

1. From the main menu, type "8" for **View system settings**.

```

Telnet 172.16.111.41
-----
Network Settings
DHCP Enable.....[YES]
IP Address.....[172.16.111.41]
Subnet Mask.....[255.255.255.0]
Default Gateway.....[172.16.111.254]
Hostname.....[BR-DE800]

Video Settings
-----
Output Resolution..[1920x1080i @ 59.94]

Decoding Settings
-----
Decoder mode..[Standard]

Version Info
-----
Software version.....[BR-DE800 v2.5.12]
Firmware version.....[BR-DE800 v2.5.12]
Decoder ID.....[3A1B11]

Press any key to continue
  
```

Figure 5-1: The Network Settings window

The system settings page shows the IP Input, Network Settings and Video Settings currently configured.



*To restart the unit:*

1. From the main menu, type **"C"** for restarting the unit.

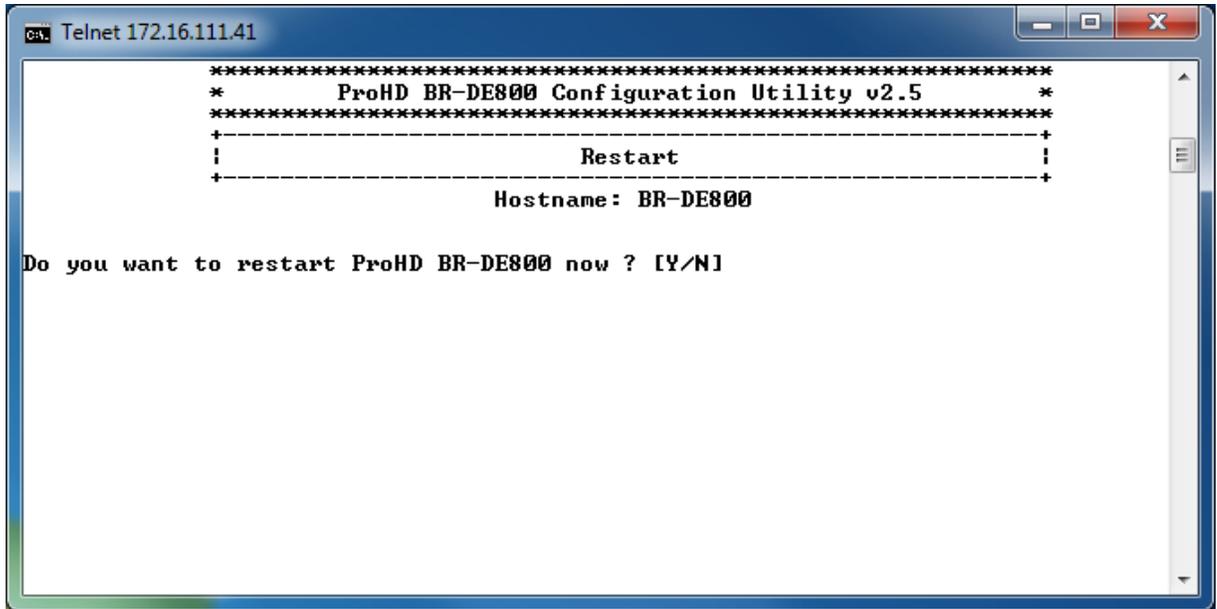


Figure 5-4: The Restart window

2. Type **"y"** when prompted. The unit will reboot.

## Upgrading the Firmware

The following two options are available for upgrading decoder's firmware:

- Through the web user interface
- Using Windows-based utility.

*To upgrade the firmware using the Web user interface:*

1. Invoke Telnet client and connect to the unit.
2. From the main menu, type **"A"** for system upgrade.

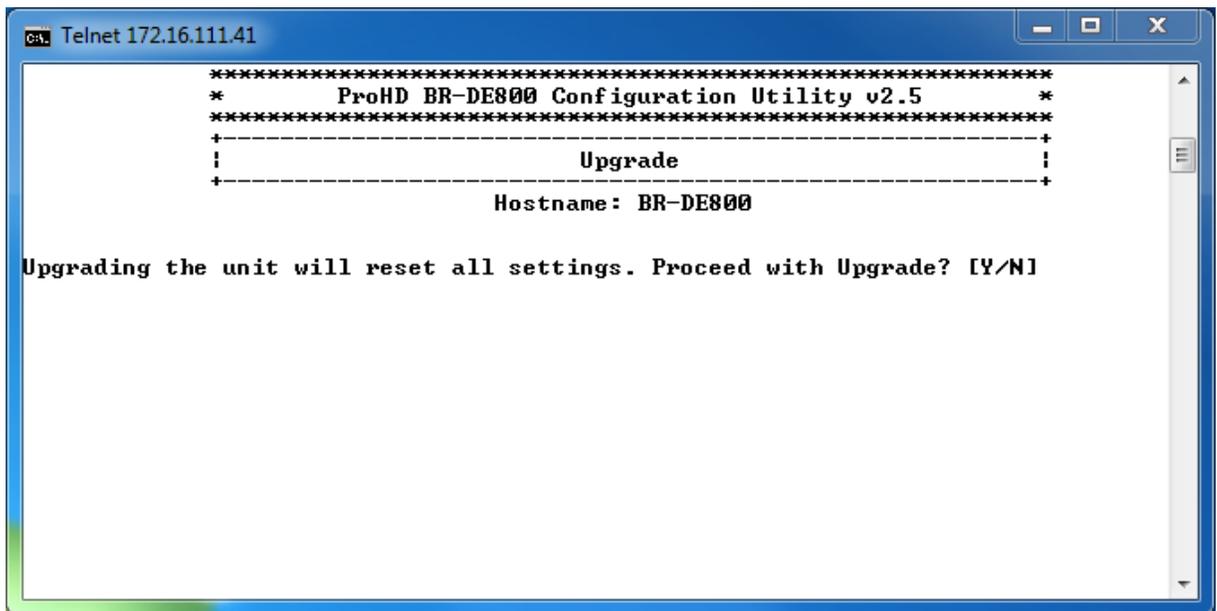


Figure 5-5: The Upgrade window

3. When prompted, type **"y"**.
4. Enter the HTTP URL of the server containing the upgrade file, and follow the instructions on the screen.

*To upgrade the firmware using the utility:*

1. Obtain the BR-DE800-<version #>.upd update file from JVC website.
2. Open the update utility provided on the BR-DE800 installation CD or download it from JVC website. The **BR-DE800 Update Utility** window opens:

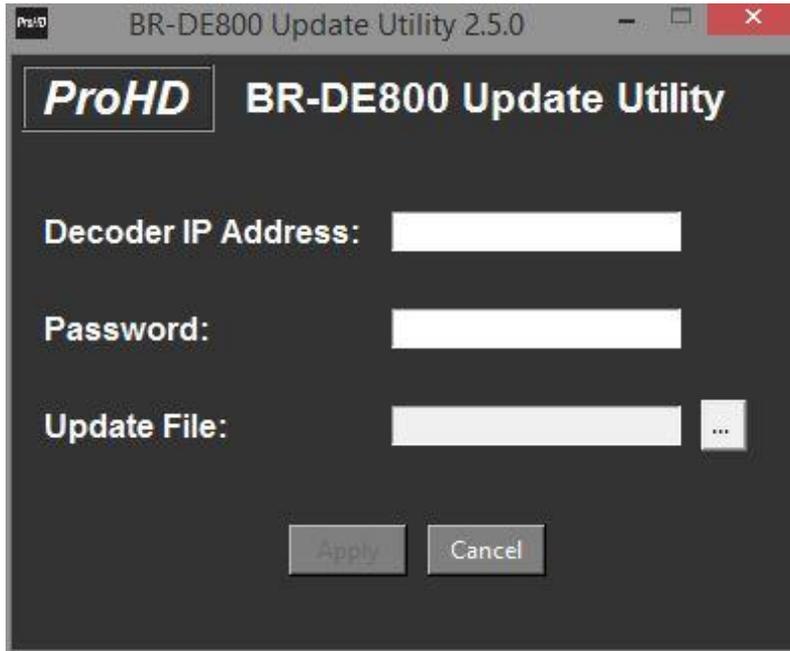
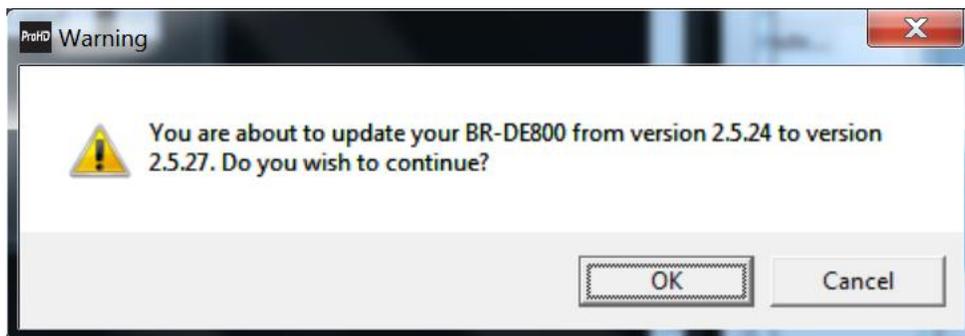


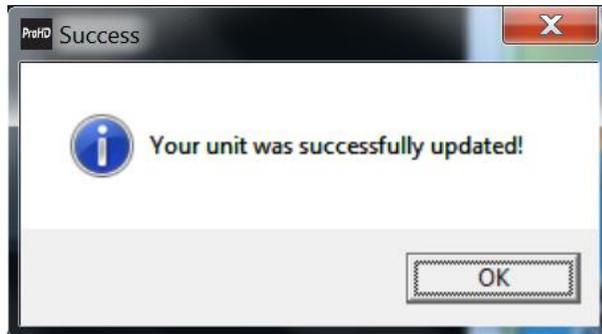
Figure 5-6: The ProHD BR-DE800 Update Utility window

3. Enter the decoder **IP Address** and **Password**.
4. Browse for the *BR-DE800-<version #>.upd* update file and click **Apply**. The following warning window appears:



5. Click **OK**.

- When upgrade completes, The Update Utility window disappears and the following window appears:



- Click **OK**.
- Re-connect to the device as described on [Initial Connection and Setup](#) (on page 7).

## Resetting the Unit

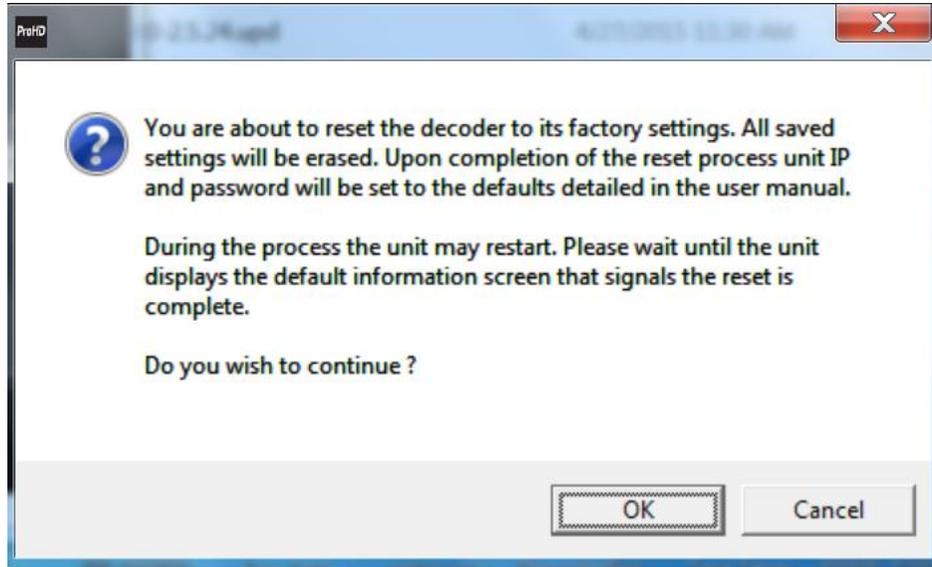
*To reset the unit:*

- Open the reset utility provided on the BR-DE800 installation CD or download it from JVC website. The **BR-DE800 Reset Utility** window opens:

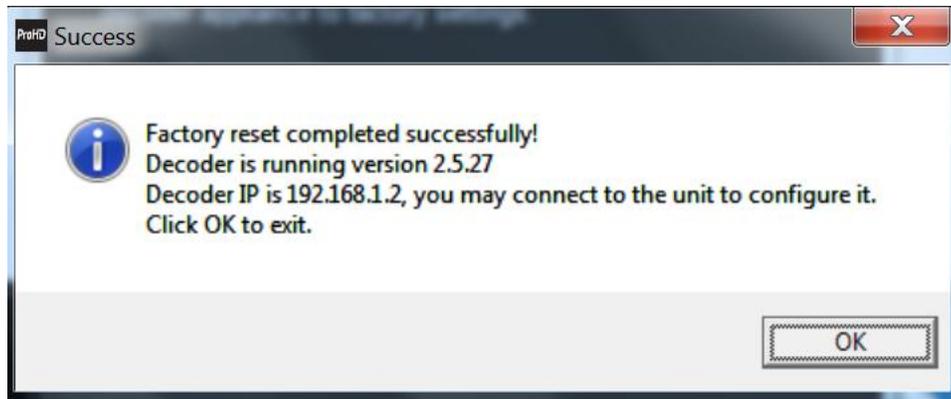


Figure 5-7: The BR-DE800 Reset Utility

2. Read and follow the instructions on the screen.
3. Click **RESET**.



4. The reset process will take a few minutes.
5. When reset completes, the following window appears:



6. Click **OK**.
7. Re-connect to the unit. Refer to **Initial Connection and Setup (on page 7)**.



**NOTE:**

If you fail to follow the instructions on the screen an error message will appear. For example: IP address that was not set as instructed to 192.168.1.10.



Figure 5-8: The Error Message window

## Setting Zixi License

*To set the Zixi license:*

1. Invoke Telnet client and connect to the unit.
2. Obtain the Zixi license file from JVC.
3. From the main menu, type "**D**" for **Zixi License**.

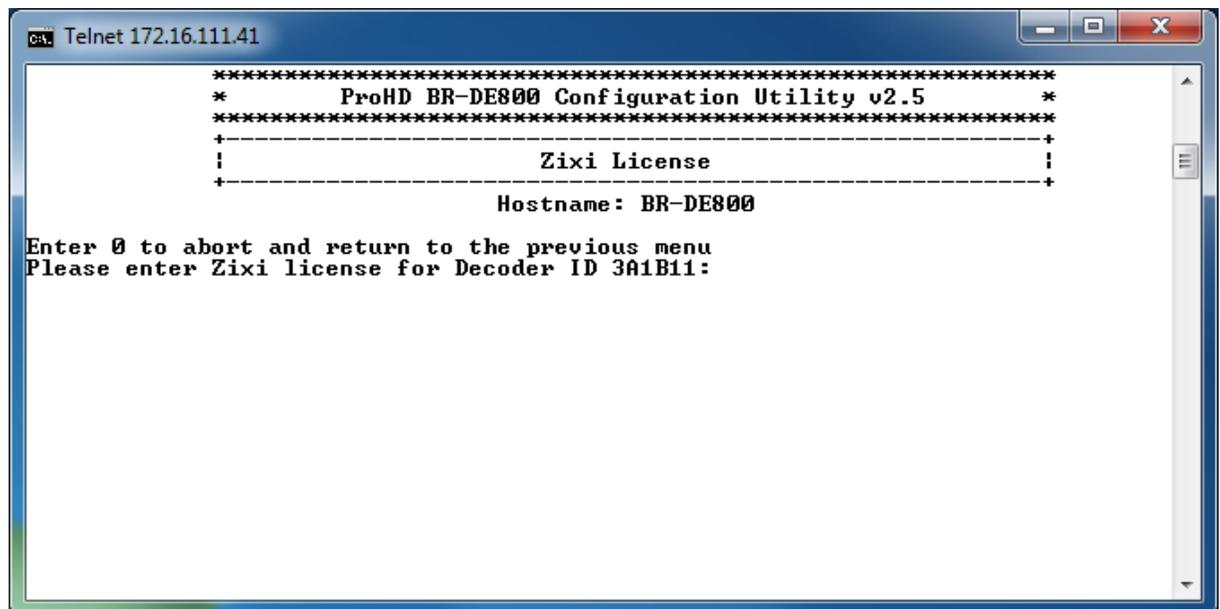


Figure 5-9: The Zixi License window

4. Enter the obtained ZiXi license info.



**NOTE:**

This license allows you to use the ZiXi protocol for point-to-point streaming without a ZiXi Broadcaster.

---

# Warranty

## Limited Hardware Warranty Terms

Subject to the terms and conditions specified below your ProHD product (the "**Product**") is warranted against defects in material and workmanship (the "Warranty") for a period of 12 (twelve) months following the Delivery Date (the "**Warranty Period**"). The Warranty provided to you hereunder supersedes any warranty which may be provided to you by the original manufacturer of the Product.

Vitec Video Innovations (collectively "**company**") will repair or replace (at its option) any defective part during the Warranty Period, provided that (i) the Warranty remain in force. Your dated sales receipt or invoice shall be considered as the delivery date of the Product from Company's premises to your designated address (the "**Delivery Date**"); (ii) your Product unit carries a serial number on its rear panel; (iii) you received from company's Customer Service department a Return Materials Authorization (RMA) number. No Product unit will be accepted for repair without RMA number; and (iv) the entire Product unit is returned to the company by prepaid shipping in the company's original packaging.

Company will not be responsible for (i) any damages resulting from the use, maintenance or installation of any Product; or (ii) for the incorporation of any spare or replacement parts not approved by the company.

Without limiting the generality of the foregoing, The company reserves the right to refuse to provide any services under the Warranty for any Product that, in the company opinion, has been subjected to any abnormal electrical, mechanical, or environmental abuse, or shows signs of modification by an unauthorized person or company. Call your local distributor or reseller for out-of-warranty repair charge estimates prior to returning a product.

You acknowledge that the product licensed or sold hereunder, which may include technology and software, are subject to the export control laws and regulations of the United States ("U.S.") and/or any other country in which the product is received. You agree that you will not knowingly transfer, divert, export or re-export, directly or indirectly, the product, including the software, the software source code, or technical data (as defined by the U.S. Export Administration Regulations) restricted by such regulations or by other applicable national regulations to any person, firm, entity country or destination to which such transfer, diversion, export or re-export is restricted or prohibited

by U.S. or other applicable law, without obtaining prior authorization from the U.S. Department of Commerce and other competent government authorities to the extent required by those laws.

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# Index

## A

About This Manual • 3

## C

Communication Protocols • 4

Connecting from a Mac • 14

Connecting from a PC • 8, 17

**Copyright Notice • i**

## D

Decoding Video, Audio and Displaying Web Content • 21

## G

General • 3

General Management • 3, 28

Getting Started and Initial Setup • 3, 7

## I

I/O Specifications • 5

Initial Connection and Setup • 7, 33, 34

Initial Connection Using SSH • 18

## M

Manual Structure and Use • 3

## P

ProHD BR-DE800 Decoder Front Panel • 5

ProHD BR-DE800 Decoder Overview • 3, 4

ProHD BR-DE800 Decoder Rear Panel • 5

## S

**Safety Instructions • ii**

Setting Network Parameters through a USB Thumb Drive • 20

Setting Zixi License • 35

Setup and Operations • 3, 21

## T

The Product • 4

## U

Upgrading the Firmware • 31

## V

Viewing, Restoring Settings, and Restarting the Unit • 28

## W

Warranty • 37