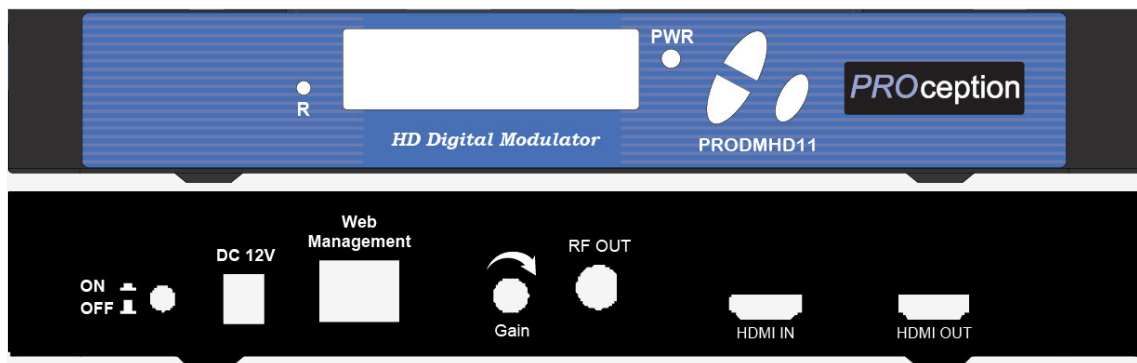


INSTALLATION & CONFIGURATION MANUAL

PRODMHD11

Single HD Encoder/Modulator



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SAFETY PRECAUTIONS



The presence of this symbol is to alert the installer and user to the presence of uninsulated dangerous voltages within the product's enclosure that may be of sufficient magnitude to produce a risk of electric shock.

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS DEVICE TO RAIN OR MOISTURE. DO NOT OPEN THE UNIT. REFER SERVICING TO QUALIFIED PERSONNEL ONLY.

- ❖ DO NOT apply power to the unit until all connections have been made, all components have been installed and all wiring has been properly terminated.
- ❖ DO NOT terminate, change or uninstall any wiring without first disconnecting the unit's power adapter from the device.
- ❖ This device is supplied with the appropriately rated 12VDC power supply with the centre pin positive. The use of any other power supply could cause damage and invalidate the manufacturer's warranty.
- ❖ DO NOT power on the unit until all cables and connections to the device have been properly connected.
- ❖ The device should be installed in an environment consistent with its operating temperature specifications. Placement next to heating devices and ducts is to be avoided as doing so may cause damage. The device should not be placed in areas of high humidity.
- ❖ DO NOT cover any of the device's ventilation openings.
- ❖ If the device has been in a cold environment allow it to warm to room temperature for at least 2 hours before connecting power.



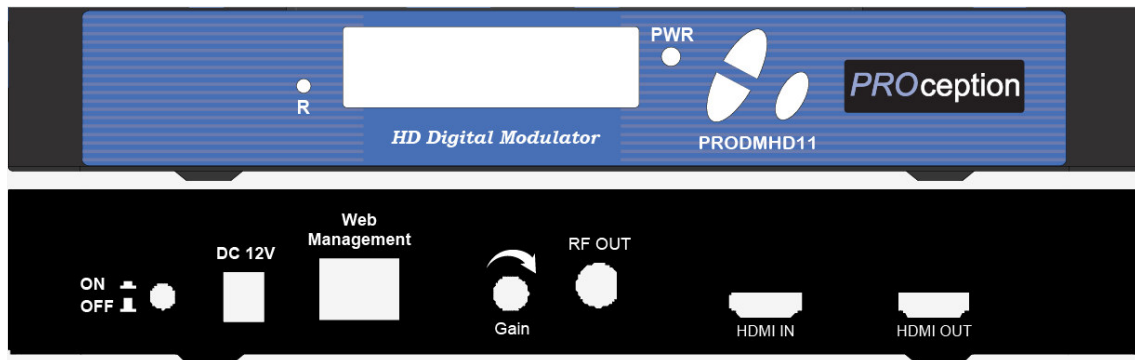
PACKAGE CONTENTS

This package contains:

- ❖ One PRODMHD11 HD Encoder/Modulator
- ❖ One Adapter
- ❖ One installation/configuration manual

Inspect the package before starting installation to ensure there is no damage and all supplied contents are present. Contact your distributor or dealer should the device be damaged or package contents are incomplete.

PRODUCT DESCRIPTION



PROception's PRODMHD11 Modulator converts Digital Video Broadcasting (DVB) high definition video and audio signals to COFDM. The unit features programmable channel and LCN. The unit's front-mounted LCD display allows for easy configuration and adjustments.

The compact and economical PRODMHD11 Modulator is perfect for multi-video distribution solutions in the commercial and institutional market (hotels, motels, sports bars, restaurants, hospitals, casinos, business and university campus, digital signage, etc.) as well as home entertainment systems.

FEATURES

- Converts HD signal into a flexible DVB-T Multiplex.
- HDMI inputs with HDMI loop through.
- Video resolution up to 1080p.
- Clean and clear picture of high motion video, sports and text crawls/rolls etc.
- Programmable via LCD control (on front panel) or via GUI interface for advanced features.
- All interfaces designed to be clear, simple and user-friendly. Easy to install with factory pre-set for a typical installation.
- Output Level 85 dBuV.
- Manual gain control (+/- 20 dB) to eliminate problems due to high signal strength.
- LCN Function, fully agile setting.
- Easy integration into an existing network.
- RJ45 port for easy setup from remote location.
- Cool and silent operation.
- 2K & 8K Carrier Modes.
- Firmware upgradeable.
- Rack mountable.
- Suitable for devices with Freeview HD DVB-T2 Tuner (MPEG-4/AVC). Not compatible with SD and MPEG-2 HD ready TVs.

SPECIFICATIONS

INPUT	PRODMHD11
Input	HDMI 1.4
Loop Through	HDMI 1.4
OUTPUT	
Frequency Range	470~862 MHz
Output Level	85 dB μ V
MER	36 dB typ.
MODULATION	
Video Resolution	480i, 480p, 576i, 576p, 720p, 1080i, 1080p
Video Compression	H.264 AVC
Audio Compression	MPEG1 Layer II/AAC
LCN	Yes
Carrier (OFDM Mode)	2K/8K
Guard Intervals	1/32
Code Rate (FEC)	7/8
Constellations	QAM64
GENERAL	
Power Supply	12 VDC 1.5 Amp.
Consumption	500 mA
Operating Temperature	+32°F to +104°F (0°C to +40°C)
Storage Temperature	+14°F to +140°F (-10°C to +60°C)
Languages	English
Dimensions	236mm x 155mm x 35mm
Weight	880g

****Specifications subject to change without prior notice***

INSTALLATION



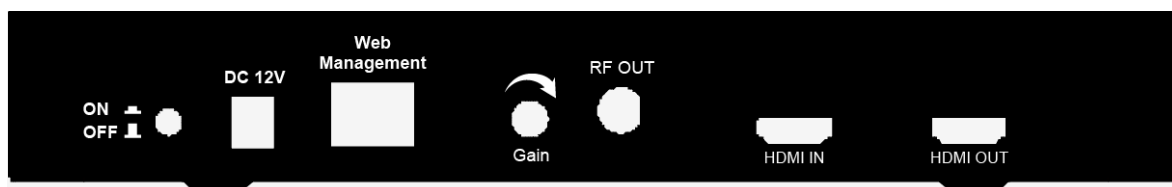
System Installer must adhere to Article 820-40 of the NEC that provides guidelines for proper grounding and specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as possible.

UNPACKING and INSPECTION

Each unit is shipped factory tested. Ensure all items are removed from the container prior to discarding any packing material.

Thoroughly inspect the unit for shipping damage with particular attention to connectors and controls. If there is any sign of damage to the unit or damaged or loose connectors contact your distributor immediately. Do not put the equipment into service if there is any indication of defect or damage.

HARDWARE INSTALLATION and CONNECTIONS



1. Use a HDMI cable to connect the video source (e.g., CATV, DVD, VCR, Camera) to the unit's **HDMI IN** port. It is highly recommended that quality HDMI cable be used for all video source connections.
2. Use a HDMI cable to connect the unit's **HDMI OUT** port to a television. Or use a quality 75Ω coaxial cable with "F" connectors from the unit's **RF OUT** jack to the distribution system (combiner or reverse splitter) or directly to a television.
3. Connect the included power supply to the unit's **DC 12V** POWER jack.
4. Connect the power supply to an appropriately rated AC power outlet.
5. Use a quality RJ45 cable to connect the **Web Management** port to a computer RJ45 port for setup/manage the unit.
6. Connect the included adapter to the unit's **DC 12V** Power plug.
7. Connect the adapter to an appropriately rated AC power outlet.

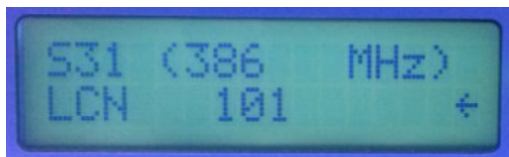
MODULATOR SETUP AND CONFIGURATION

INITIAL SETUP TO FACTORY DEFAULT

The digital modulator's front panel is used to configure the modulator as desired.

MODULATOR CONFIGURATION

Once the modulator is powered up it will go through an internal booting process. When the booting process is finished,



the LCD Display shows the default Channel number and LCN.

There are two parameters to setup, Channel number and LCN. For switching between the two parameters, press OK button until the arrow flashes. Press UP/DOWN button to select the desired setup parameter. Then, press OK again to confirm.



Output Channel – Use the Scroll Up/Down button to change the output channel. Available channels are depending on the local system. The Output Channel is default to E64 (818 MHz). Once the desired output channel is selected press the OK button to set the channel.

LCN – Use the Scroll Up/Down button to change the LCN. The LCN default value is 101. Once the desired LCN is selected press the OK button to set the LCN.



- **Reset to Default – Turn OFF the unit. Whilst pressing UP and DOWN buttons at the same time, turn ON the unit. Release the UP and DOWN buttons when the LCD shows Reset To Default. The unit will reset to factory default.**



Caution: Once this process is complete the unit will automatically reset to the factory default settings. All settings or changes to the encoder/modulator will be lost.

Procedure to connect to the Encoder via the Web Management port

The following procedure will allow the installer to setup the Encoder via the GUI

(Intranet setup- closed LAN setup)

1. Power up the Encoder

Connect each encoder using a standard CAT5e cable from the Web Management port (located on the rear panel of the encoder) to a switch. Connect a CAT5e cable from the switch to a PC.

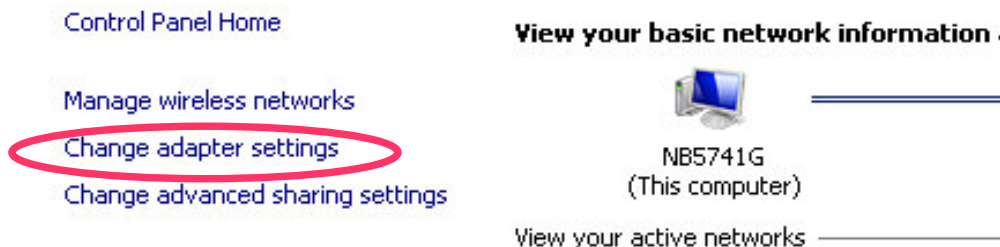
2. Set the PC via the Control Panel to **“Obtain an IP address automatically”**

Start- Control Panel

View Network Status and Tasks



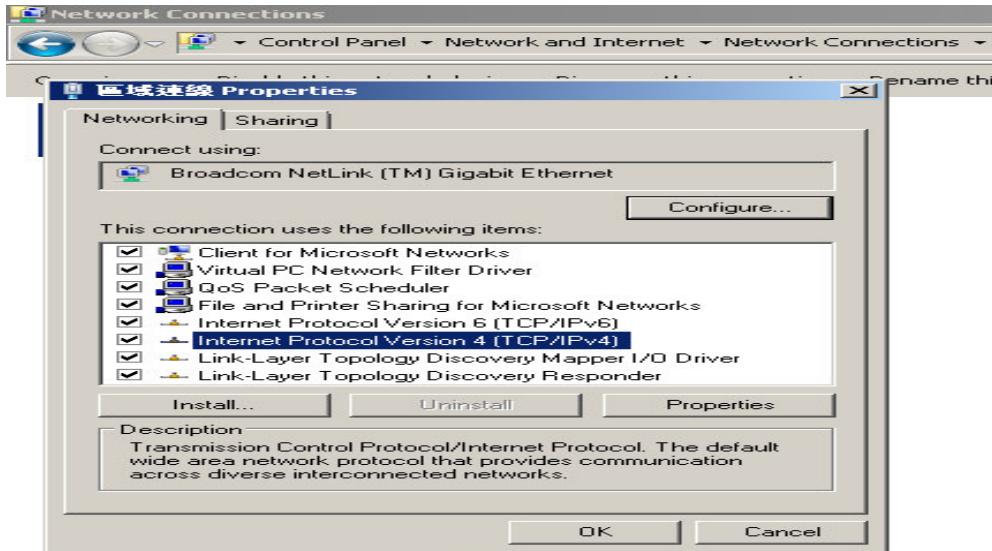
3. Select 'Change Adapter Settings' from the left pane



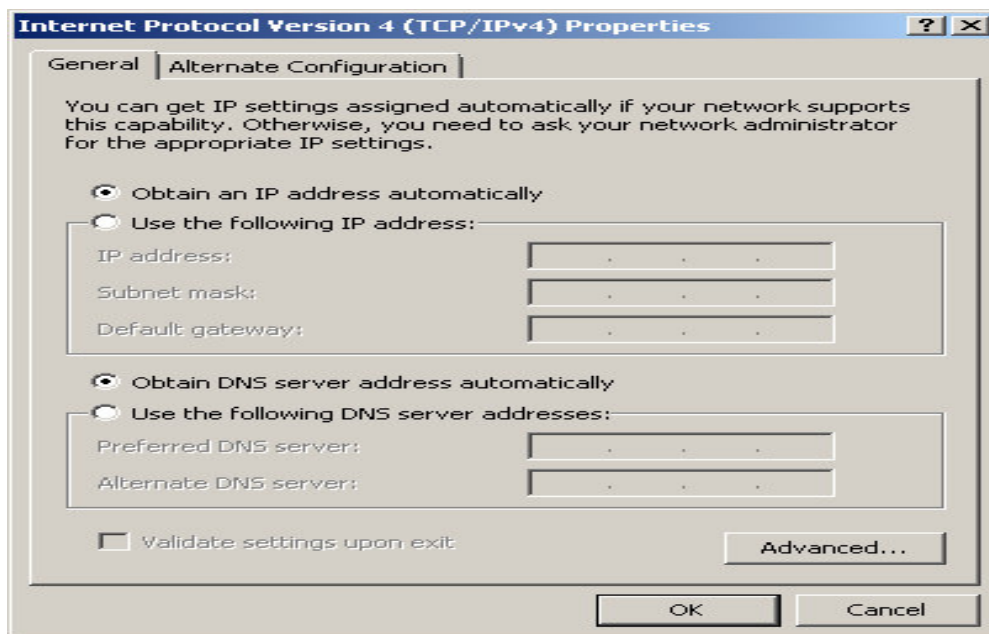
4. **Select** Local Area Connection Icon

Then Right Click – Select Properties

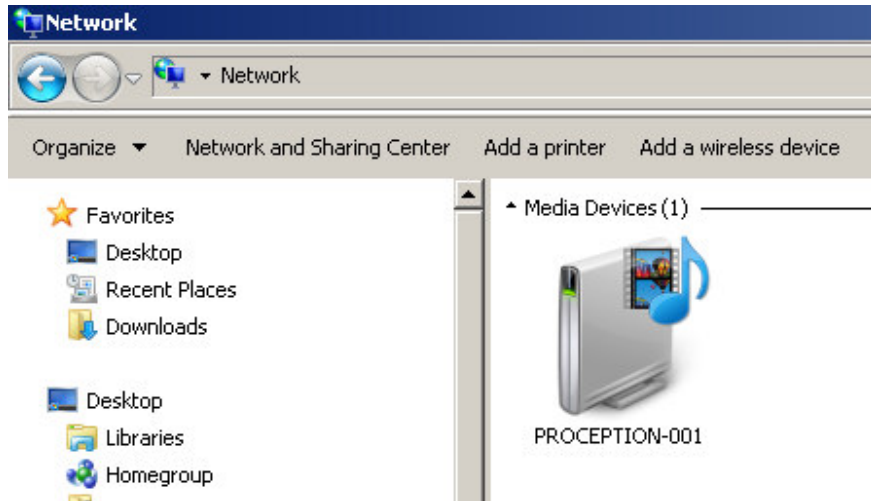
Internet Protocol Version 4(TCP/IPv4) Properties



5. **Select** “Obtain an IP address automatically” & “Obtain DNS server address automatically”



6. After setting the PC to obtain IP address & Obtain DNS server automatically



Select Start- Computer- Network

7. After selecting Network, the encoders will show up on the right side under Media Devices. Each device will show up by Device Address. (ex. PROCEPTION-001, 002, 003...)

Right Click on the icon for the Encoder you want to setup. Select **View device webpage**



8. Welcome page will be displayed as shown (figure for example)

PROception HD Encodulator

Overview

Common Setup

RF Setup

Encoder Setup

Network Setup

Administration

Welcome!

Device Name: PROCEPTION-001
Model Number: PRODMHD11
Device Address: 1
System: DVB-T
Net Version: 20150202

RF Output 1

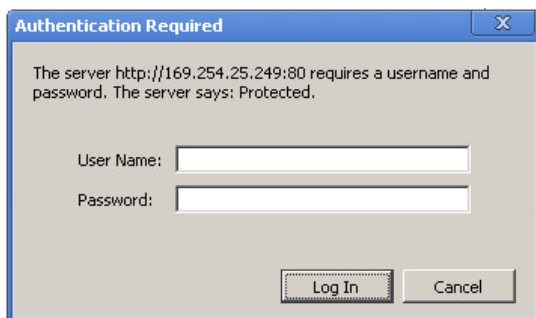
Channel S31 (386 MHz)
Constellation 64QAM
Output Bitrate 31.668

Input 1

Channel Name CHANNEL-1
Video Source HDMI
Video Output AVC
Audio Output MP2
Input Bitrate 18.000

9. Select the Common Setup tab.

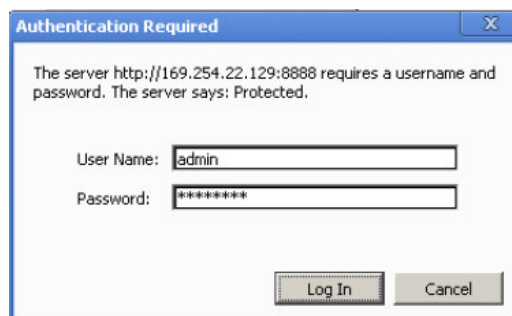
User will be presented with encoders '**Authentication Required**' screen.



10. Enter User Name and Password.

User Name: **admin**

Password: **Admin123**



11. Common Setup

PROception

PROception HD Encodulator

Common Setup

This page allows to configure the encodulator's common settings. After making any change, click **Save Config** to apply the change.

Output Channel: S31 (386 MHz) ▾

Attenuation: 0 dB ▾

LCN Mode: UK ▾

Device Address: 1 ▾

Save Config

Remark: The Attenuation in the Common Setup is reserved. Please adjust the attenuation by adjusting the Gain control from the unit.



12. RF Setup

- Overview
- Common Setup
- RF Setup
- Encoder Setup
- Network Setup
- Administration

RF Setup

This page allows to configure the encodulator's RF output settings. After making any change, click **Save Config** to apply the change.

RF Output 1

Constellation:	64QAM ▼
FEC:	7/8 ▼
Guard Interval:	1/32 ▼
OFDM Mode:	8k ▼
RF Output:	Normal ▼
Cell ID:	0
TS ID:	1000
Network ID:	12289
Original Network ID:	9018
Network Name:	PROception

Save Config

13. Encoder Setup



- Overview
- Common Setup
- RF Setup
- Encoder Setup
- Network Setup
- Administration

Encoder Setup

This page allows to configure the encodulator's encoder settings. After making any change, click **Save Config** to apply the change.

Encoder 1

Video Input:	HDMI ▾
Program Number:	1
Channel Name:	CHANNEL-1
Provider Name:	PROception
LCN:	101
Aspect Ratio:	16:9 ▾
Video Output:	AVC CBR ▾
HDCP Enable:	<input checked="" type="checkbox"/>
Audio Input:	HDMI ▾
Audio Output:	MPEG1 Layer2 (MP2) ▾
Closed Caption:	<input type="checkbox"/>
Brightness:	<input type="range" value="128"/> 128
Contrast:	<input type="range" value="128"/> 128
Saturation:	<input type="range" value="128"/> 128
Hue:	<input type="range" value="128"/> 128

14. Network Setup



- Overview
- Common Setup
- RF Setup
- Encoder Setup
- Network Setup**
- Administration

Network Setup

This page allows to configure the encodulator's network settings. After making any change, click **Save Config** to apply the change.

CAUTION: Incorrect settings may cause the encodulator to lose network connectivity. Recovery options will be provided on the next page.

Enter the new settings for the encodulator below:

MAC Address:	<input type="text" value="F8:0D:EA:50:B4:F4"/>
Host Name:	<input type="text" value="PROception-###"/> PROCEPTION-001
	<input checked="" type="checkbox"/> Enable DHCP
IP Address:	<input type="text" value="169.254.233.30"/>
Subnet Mask:	<input type="text" value="255.255.0.0"/>
Gateway:	<input type="text" value="169.254.1.1"/>
	<input type="button" value="Save Config"/>

15. Administration

PROception HD Encodulator

Administration

Reboot

Reboot the system.

Reset to Default

Reboot and reset all configuration settings to factory default.

Backup

User can backup and download all configuration settings from the device to a local file.

Config File: No file chosen

User can upload the file with pre-saved configuration settings to device.

CAUTION:The new password must:

- matches a string of 6~8 characters;
- that contains at least one digit;
- at least one uppercase character; and
- at least one lowercase character;

After changing the admin's password, it needs to close current web browser, and open a new browser to use new password.

Old Password:

New Password:

Retype New Password:

APPENDIX: WINDOWS 8 SETTINGS

Windows 8 Settings:

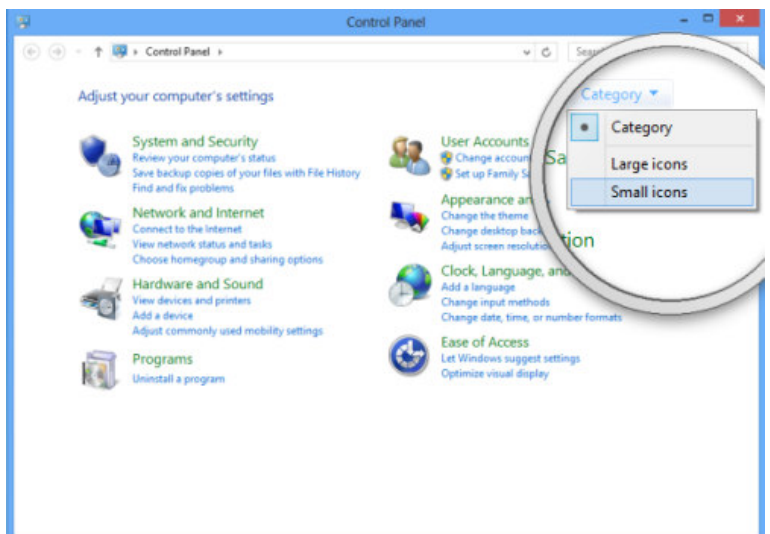
If using Windows 8 PC, move the mouse to the bottom or top right corner of the screen and select **Settings**.



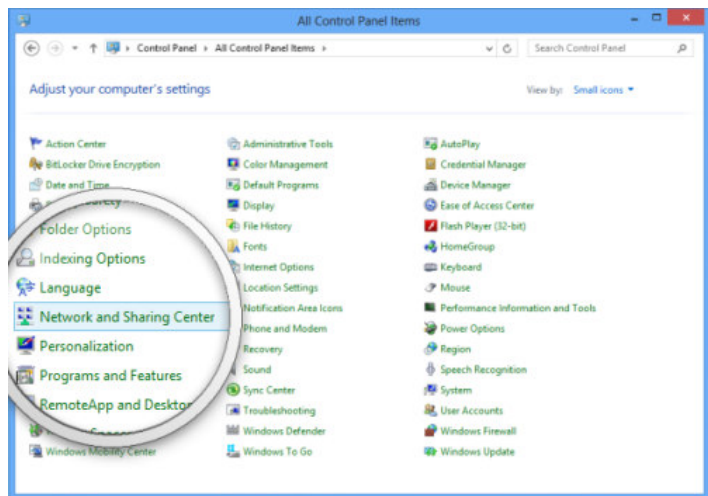
Select **Control Panel**.



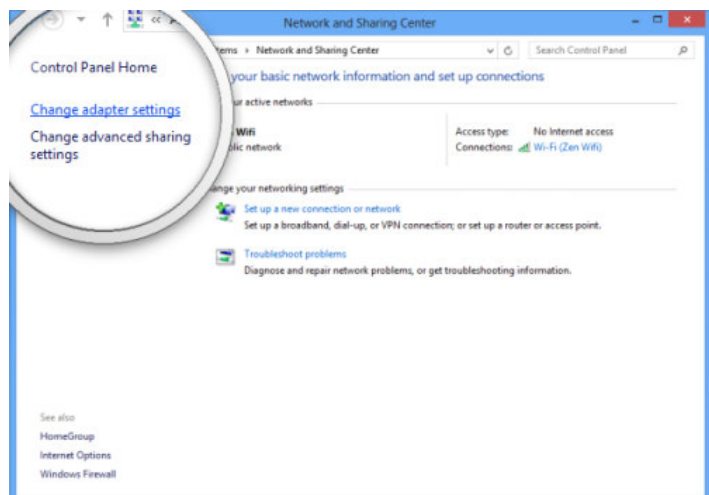
In the Control Panel window select **Category** and then select **Large** or **Small icons**.



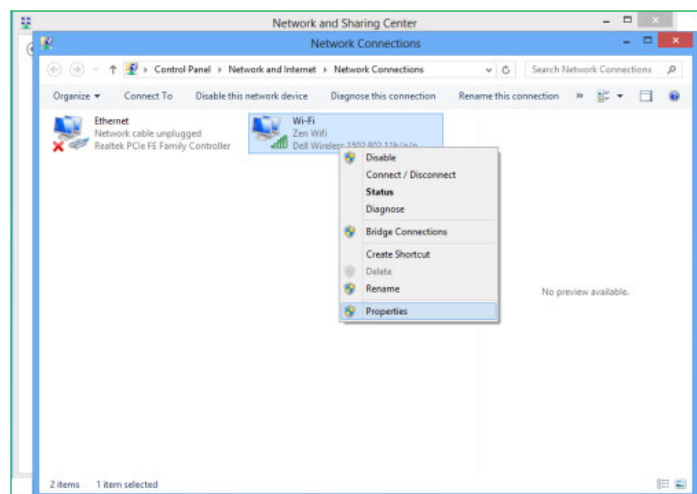
Select **Network and Sharing Centre**.



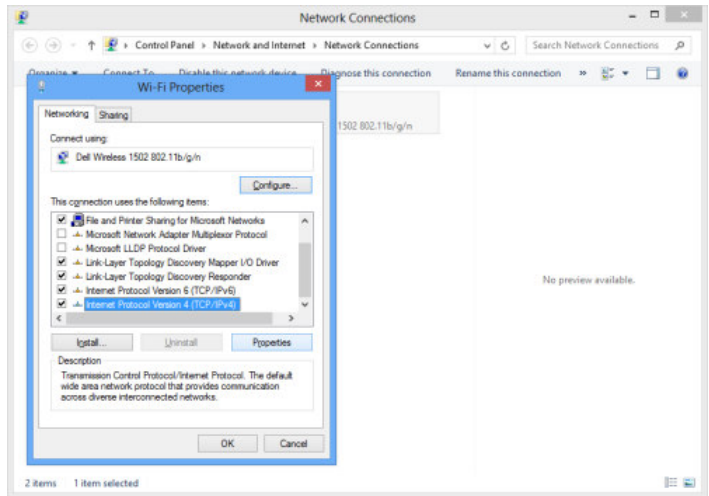
Select **Change Adapter Settings**.



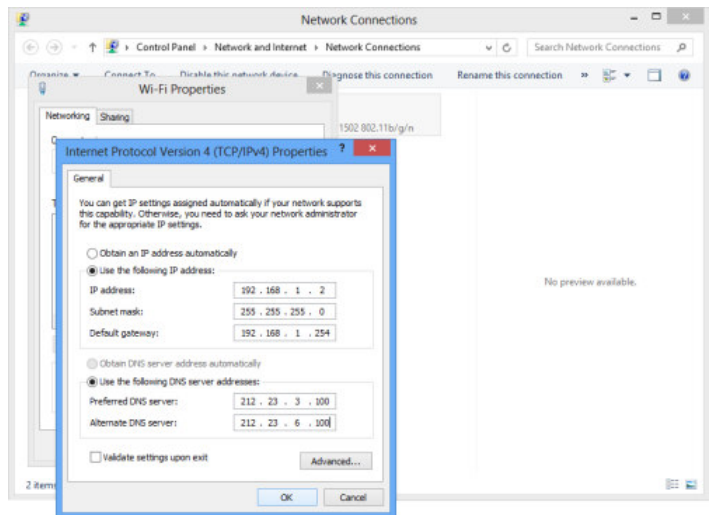
Right click on your connected network and select **Properties**.



Select **Internet Protocol Version 4 (TCIP/IPv4)**. Select **Properties**.



Select **Use the following IP address** and **Use the following DNS server addresses** to change your computer's IP address and/or DNS server addresses.



To get IP settings automatically using DHCP, click **Obtain an IP address automatically**, and then click **OK**. Select **OK** to save.

PRODMHD11 HD Encoder/Modulator Notes

PRODUCT NOTES:

ITEM	VALUE
DEVICE NAME	
PURCHASE DATE	
INSTALLATION DATE	
SERIAL NUMBER	
FIRMWARE VERSION	