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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

<table>
<thead>
<tr>
<th>INPUT</th>
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<td>Storage Temperature</td>
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</tr>
<tr>
<td>Dimensions</td>
</tr>
<tr>
<td>Weight</td>
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</table>

*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**

   Adjust your computer’s settings

   **View by:** Category

   **System and Security**
   - Review your computer’s status
   - Backup your computer
   - Find and fix problems

   **Network and Internet**
   - View network status and tasks
   - Choose homegroup and sharing options

   **Hardware and Sound**
   - View devices and printers
   - Add a device
   - Connect to a projector
   - Adjust commonly used mobility settings

   **Programs**
   - Uninstall a program

   **User Accounts and Family Safety**
   - Add or remove user accounts
   - Set up parental controls for any user

   **Appearance and Personalization**
   - Change the theme
   - Change desktop background
   - Adjust screen resolution

   **Clock, Language, and Region**
   - Change keyboards or other input methods
   - Change display language
   - Ease of Access
   - Let Windows suggest settings
   - Optimize visual display

3. **Select** 'Change Adapter Settings' from the left plane
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

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

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

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

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

RF Setup

This page allows to configure the encoder'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
- T8 ID: 1000
- Network ID: 12239
- Original Network ID: 9018
- Network Name: PROception
13. Encoder Setup

**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 |
| HCP Enable: | ✓ |
| Audio Input: | HDMI |
| Audio Output: | MPEG Layer2 (MP2) |
| Closed Caption: | |
| Brightness: | 0 |
| Contrast: | 128 |
| Saturation: | 128 |
| Hue: | 0 |

Save Config
14. Network Setup

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:

<table>
<thead>
<tr>
<th>MAC Address:</th>
<th>FF:0E:6A:50:B4:F4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Host Name:</td>
<td>PROception-####</td>
</tr>
<tr>
<td></td>
<td>PROCEPTION-001</td>
</tr>
<tr>
<td>IP Address:</td>
<td>192.254.233.33</td>
</tr>
<tr>
<td>Subnet Mask:</td>
<td>255.255.0.0</td>
</tr>
<tr>
<td>Gateway:</td>
<td>192.254.1.1</td>
</tr>
<tr>
<td>Check box:</td>
<td>Enable DHCP</td>
</tr>
<tr>
<td><strong>Save Config</strong></td>
<td></td>
</tr>
</tbody>
</table>
15. Administration

**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:**
  Choose File: No file chosen
  Upload

  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: 
Submit
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 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:**

<table>
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<th>VALUE</th>
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<tbody>
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<td>DEVICE NAME</td>
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<tr>
<td>PURCHASE DATE</td>
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<tr>
<td>INSTALLATION DATE</td>
<td></td>
</tr>
<tr>
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<tr>
<td>FIRMWARE VERSION</td>
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