

# PVI

## PRO VIDEO INSTRUMENTS

### **PLUG AND PLAY YOUR UNIT AS FOLLOWS**

- 1) Connect a laptop for your first testing to the NMS PORT  
Set the LAN IP of your computer to Fixed 192.168.0.100  
Open your WEB browser AND POINT <http://192.168.0.136>  
Login to the control interface with user name " admin " password " admin "
- 2) Connect your Video Sources following the Quick Start Guide Manual
- 3) Connect your first test TV with a short coax cable, directly to the modulator  
Make Sure the ANTENNA MODE on your TV is set to DIGITAL OFF AIR mode
- 4) Reset your TV channel list and SCAN for channels. Current channels are :  
> Channel 10 DIGITAL OFF AIR – 195 MHz

**FOR OTHER CHANNELS SEE OUR CHANNEL/FREQUENCY TABLE  
IN THE QUICK START MANUAL**

***If your unit is not encoding there might be a pending reboot – turn OFF/ON***

### **IP TV Streaming – ( available if purchased )**

Download VLC [VIDEO.LAN.ORG](http://VIDEO.LAN.ORG) – connect to IPTV port on rear  
OPEN / MEDIA / NETWORK / and enter the following to play the channel  
Stream 1 > [udp://@224.2.2.2:1234](http://udp://@224.2.2.2:1234)

# **\*\* CURRENT PARAMETERS HERE \*\***

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Use the SEARCH to find any Answer in real time

with step by Step explanations you can print out and use

If you cannot find your answer, open a urgent Ticket

or send an email to [support@provideoinstruments.com](mailto:support@provideoinstruments.com)

We understand your urgency so we respond urgently



# **1 CHANNELS – MS - ATSC**

**1x HDMI**

# **QUICK PROGRAMMING GUIDE**

# Important Suggestions

To Learn and operate this equipment correctly we strongly suggest you please follow these important points :

- Use a Player set to 1080i or 720p – **DO NOT USE A COMPUTER PLAYER AT FIRST**
- Use the above parameters, do not change at first
- Connect a local TV directly to this modulator through a short piece of antenna cable
- Test everything and when everything is ok, change / connect, **STEP BY STEP**, the final devices or parameters, so if one does not work, you can troubleshoot that or go back to the previous test.
- If your TV is not receiving, Make sure the **ANTENNA MODE** is set to **DIGITAL AIR**, as if it is set to **CABLE** or **ANALOG** it won't receive these digital channels
- If you connect your antenna distribution and some of your TVs are not receiving or shows pixels, there is too much loss of signal on the distribution cables/splitters. Add one antenna amplifiers of 4 or more decibels of gain on your splitters input to compensate their loss. If the local TV works well, all TVs must be able to do the same, unless the received signal is too low, so you need to reamplify
- **IMPORTANT** : There could be a situation where our signal level is too high and saturates the input of following Active splitters.  
If you still have pixelization, please go to the **MODULATOR** menu, and try reducing the out level to -20 or -30 db, so there is no more saturation on the following distribution circuits

# Connect your PC to the modulator

- Use a common Ethernet PATCH CORD ( any ) and connect your computer ethernet lan interface port to the NMS ( network management software ) port on the modulator
- Make sure your computer Lan port is set to a FIXED IP NETWORK ADDRESS, in the range of the current ip address of the modulator. The factory default ip address of the modulators is 192.168.0.136, so you could set your computer to 192.168.0.100
- Open the WEB BROWSER on your computer and enter in the address field 192.168.0.136 then hit enter
- The login splash screen of the connected modulator will show up and you can proceed to login with user name “admin” and password “admin” or the passwords you set before.
- If you cannot connect, please check the current IP ADDRESS of the modulator from the front panel display, navigating the menu by pressing the lck button, network ..  
You pc MUST BE in the same ip address range and only the last 3 digits must be different.
- To configure your PC IP address, please contact your computer vendor or view the instruction manual related to your version of operative system on your computer

Web Management

- Welcome
- Parameter
  - Input 1
  - Input 2
  - ASI Input
  - VCT
  - IP Output
  - Modulator
  - Save/Restore
- System
  - Reboot
  - Firmware
  - Network
  - Password
  - Backup/Load

Save Configuration

When you change the parameter, you should save configuration, otherwise the new configuration will be lost after reboot.

Save config

Restore Configuration

Load latest saved configuration, after click the "Restore" then please click the "Save config" button, otherwise the "Restore" parameter will be lost after reboot.

Restore

Factory Set

Set all configuration back to default, after click the "Factory Set" then please click the "Save config" button, otherwise the default parameter will be lost after reboot.

Factory set

192.168.0.136

Web Management

- Welcome
- Parameter
  - **Input 1**
  - Input 2
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### 1CH Mpeg2/H.264 HD Encoder Configuration (EN12)

|                       |                                     |                            |
|-----------------------|-------------------------------------|----------------------------|
| Video Format          | Mpeg2                               |                            |
| Video BitRate         | 16.000                              | Mbps (1.000 - 19.500 Mbps) |
| Audio Format          | Mpeg2                               |                            |
| Audio BitRate         | 192 Kbps                            |                            |
| 1080P TO 1080i Enable | <input checked="" type="checkbox"/> |                            |
| Program Out Enable    | <input checked="" type="checkbox"/> |                            |
| Low Latency           | Normal                              |                            |
| Program Name          | HD1                                 |                            |
| Service ID            | 0x1                                 |                            |
| PMT PID               | 0x100                               |                            |
| Video PID             | 0x101                               |                            |
| Audio PID             | 0x102                               |                            |
| PCR PID               | 0x103                               |                            |
| Video:                | <span style="color: red;">●</span>  |                            |
| Video Format:         | unknown                             |                            |
| Encoding:             | <span style="color: red;">●</span>  |                            |
| Bitrate:              | 0.000 Mbps                          |                            |
| Rom Version:          | 0.7.0.65                            |                            |

Help      Default      **Apply**

- Test the LOW DELAY mode in Normal Mode.  
You can also test MODE 1 and MODE 2 later should you need ultra low latency encode mode, if supported by your television

192.168.0.136

Web Management

- Welcome
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Save/Restore

- System
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### Modulator Configuration

|              |                                      |                            |
|--------------|--------------------------------------|----------------------------|
| RF Frequency | <input type="text" value="195.000"/> | MHz (57.000 - 861.000 MHz) |
| RF Outlevel  | <input type="text" value="-10.0"/>   | dBm (-25.0 - -5.0 dBm)     |

**HERE YOU SET THE OUTPUT CHANNEL**

**IN THIS EXAMPLE :**

**VIDEO INPUT 1 GOES TO FREQUENCY 195 MHZ = CHANNEL 10 DIGITAL OFF AIR**

**YOU CAN CHANGE THE CHANNEL AS YOU NEED**

**Please find the channel/frequencies table at the end of this manual**



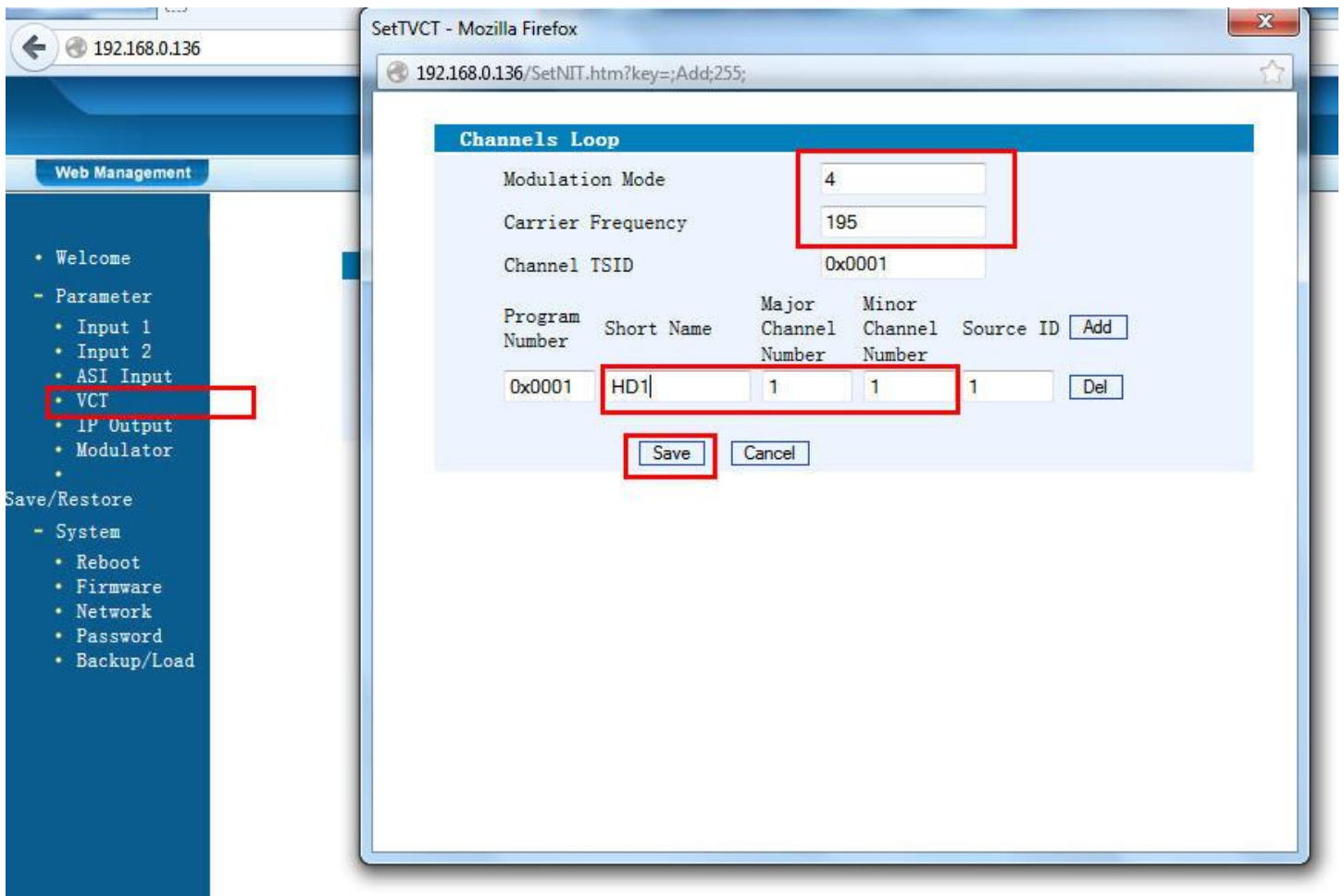
Web Management

- Welcome
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Virtual Channel Table

Transport Stream ID

| TSID | ModulationMode | Carrier Frequency | Add | Del-All |
|------|----------------|-------------------|-----|---------|
|------|----------------|-------------------|-----|---------|



**THIS SETS THE " NAME " FOR YOUR VIDEO INPUT #1, THAT WILL DISPLAY ON THE TV SCREEN WHEN YOU CHANGE TO THIS CHANNEL.**

**ALSO SETS THE DESTINATION CHANNEL NUMBER ON THE TVs ( MAJOR ) AND SUB CHANNEL NUMBER ( MINOR )**

**IN THIS EXAMPLE THE FIRST VIDEO IN WILL BE CALLED HD1 AND WILL BE ON 1.1**

Web Management

- Welcome
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  - Input 2
  - ASI Input
  - VCT
  - IP Output
  - Modulator
  -
- Save/Restore
- System
  - Reboot
  - Firmware
  - Network
  - Password
  - Backup/Load

Virtual Channel Table

Transport Stream ID

| TSID   | ModulationMode | Carrier Frequency | Add    | Del-All |
|--------|----------------|-------------------|--------|---------|
| 0x0001 | 4              | 195               | Detail | Del     |

Help

Update VCT

192.168.0.136

Web Management

- Welcome
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  - Input 1
  - Input 2
  - ASI Input
  - VCT
  - IP Output**
  - modulator
- Save/Restore
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### IP Output Configuration

IP Output Enable:  If not set, the following parameters will be no use, the IP Output will not work.

Service IP: The IP Output port address. The format is xxx.xxx.xxx.xxx (like 192.168.2.137).

Output IP: The IP Output data receive address. The format is xxx.xxx.xxx.xxx (like 224.2.2.2). After set the Output IP address, you must use the new address to receive IP Output data.

Subnet Mask: General is 255.255.255.0, it is must the same in a local area network.

Gateway: If the device is in different net segment, you must set the gateway.

Port: The UDP protocol port (like 8001), you should use Output IP and new port to receive IP Output data (like udp://@224.2.2.2:8001)

IP Output Enable:

Service IP: 192.168.2.137

Output IP: 224.2.2.2

Subnet Mask: 255.255.255.0

Gateway: 192.168.2.0

Port: 1234

Default Apply

**TO PLAY IPTV ON YOUR LAPTOP :**

**A) SET YOUR LAPTOP LAN PORT TO IP ADDRESS 192.168.0.100**

**B) CONNECT THE COMPUTER DIRECTLY TO THE IPTV CONNECTOR VIA A PATCH CORD FIRST.**

**B) DOWNLOAD AND INSTALL VLC PLAYER FROM VIDEOLAN.ORG  
SEE COMPATIBILITY WITH YOUR CURRENT OPERATIVE SYSTEM.**

**C) START VLC AND CLICK ON MEDIA ON TOP RIGHT**

**D) OPEN NETWORK STREAM**

**TYPE : UDP://@224.2.2.2:1234 - This plays the first stream**

**To Use your network switch – set the MULTICAST and IGMP ON on it  
network switch MUST BE LAYER 2 OR LAYER 3 TYPE or the streaming will jam the traffic**

**To Use your WIFI ACCESS POINT – set the MULTICAST and IGMP ON on it  
WIFI ACCESS POINTS MUST BE TOP MODELS CAPABLE OF MULTIPLE HD STREAMING – G/N TYPE  
FOR MORE DETIALS ON SWITCHES AND WIFI CONFIGURATION PLEASE CONTACT ITS VENDOR  
For more configuration of our unit and please visit [WWW.PVISUPPORT.COM](http://WWW.PVISUPPORT.COM) and search for IPTV**

Web Management

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**Save Configuration**

When you change the parameter, you should save configuration, otherwise the new configuration will be lost after reboot.

Saving ...

Save config

**Restore Configuration**

Load latest saved configuration, after click the "Restore" then please click the "Save config" button, otherwise the "Restore" parameter will be lost after reboot.

Restore

**Factory Set**

Set all configuration back to default, after click the "Factory Set" then please click the "Save config" button, otherwise the default parameter will be lost after reboot.

Factory set



## NORTH AMERICAN DIGITAL ATSC OFF AIR TELEVISION CHANNELS / FREQUENCIES

(frequencies in MHz)

| Channel | ATSC FREQUENCY |
|---------|----------------|
| 2       | 57             |
| 3       | 63             |
| 4       | 69             |
|         |                |
| 5       | 79             |
| 6       | 85             |

**VHF high-band (band III)**

| Channel | ATSC FREQUENCY |
|---------|----------------|
| 7       | 177            |
| 8       | 183            |
| 9       | 189            |
| 10      | 195            |
| 11      | 201            |
| 12      | 205            |
| 13      | 213            |

**UHF band**

| Channel | ATSC FREQUENCY |
|---------|----------------|
| 14      | 473            |
| 15      | 479            |
| 16      | 485            |
| 17      | 491            |
| 18      | 497            |
| 19      | 503            |

|                |                       |
|----------------|-----------------------|
| 20             | 509                   |
| 21             | 515                   |
| 22             | 521                   |
| 23             | 527                   |
| 24             | 533                   |
| 25             | 539                   |
| 26             | 545                   |
| 27             | 551                   |
| 28             | 557                   |
| 29             | 563                   |
| 30             | 569                   |
| 31             | 575                   |
| 32             | 581                   |
| 33             | 587                   |
| 34             | 593                   |
| 35             | 599                   |
| 36             | 605                   |
| 37             | 611                   |
| 38             | 617                   |
| 39             | 623                   |
| 40             | 629                   |
| 41             | 635                   |
| 42             | 641                   |
| 43             | 647                   |
| 44             | 653                   |
| 45             | 659                   |
| 46             | 665                   |
| 47             | 671                   |
| 48             | 677                   |
| 49             | 683                   |
| 50             | 689                   |
| 51             | 692                   |
| <b>Channel</b> | <b>ATSC FREQUENCY</b> |
| 52             | 701                   |
| 53             | 707                   |
| 54             | 713                   |

|    |     |
|----|-----|
| 55 | 719 |
| 56 | 725 |
| 57 | 731 |
| 58 | 737 |
| 59 | 743 |
| 60 | 749 |
| 61 | 755 |
| 62 | 761 |
| 63 | 767 |
| 64 | 773 |
| 65 | 779 |
| 66 | 785 |
| 67 | 791 |
| 68 | 797 |
| 69 | 803 |

| <b>Channel</b> | <b>ATSC FREQUENCY</b> |
|----------------|-----------------------|
| 70             | 809                   |
| 71             | 815                   |
| 72             | 821                   |
| 73             | 827                   |
| 74             | 833                   |
| 75             | 839                   |
| 76             | 845                   |
| 77             | 851                   |
| 78             | 857                   |
| 79             | 863                   |
| 80             | 869                   |
| 81             | 875                   |
| 82             | 881                   |
| 83             | 887                   |



For additional tech support

Please visit :

[www.pvisupport.com](http://www.pvisupport.com)

login / search / print the needed guide and manual

Or Send an Email to :

[support@provideoinstruments.com](mailto:support@provideoinstruments.com)

MON-FRI 9AM-5PM EST TIME – USA

Thank you