



# SOFTWARE RELEASE NOTES

MPEG Version 2.05

Revision 4.0

August 15th, 2014

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## INTRODUCTION

The MPEG series decodes and displays MPEG-2 and MPEG-4 signals via Ethernet IP or BNC ASI inputs while giving users the ability to browse PAT, PMT, EIT and NIT data tables for each selected stream. In addition to MPEG IPTV and ASI inputs the MPEG series monitors also feature dual 3G/HD-SDI inputs with loop-through output, HDMI input, and audio monitoring with on-screen level meters. Only the MPEG series decodes and monitors MPEG transport streams carrying MPEG-2, MPEG-4/H.264 encoded video plus all associated data tables for complete confidence monitoring in places it was previously impractical or very costly to do so. The MPEG series brings confidence monitoring to a new level without codec limitations or the costly upgrades usually associated with MPEG monitoring equipment.

## SOFTWARE VERSION – FEATURES LIST

The current release of MPEG is version 2.05. This is a full/complete release consisting of several bug fixes and enhancements to the v2.03. All customers are encouraged to upgrade to V2.05.

## MPEG V2.05 FEATURES AND IMPROVEMENTS

- **\*NEW\*** Backlight Interval option is moved from System Menu to Adjust Menu as Backlight Timeout. Backlight values range from 0.25hr - 25 hours at an increments of 15 minutes (Here 0.25hr = 15 min).
- **\*NEW\*** Changing the Backlight Timeout in Adjust menu changes the Backlight interval on all the other screens.
- **\*NEW\*** In Adjust Menu, minimum value of Red and Blue is now set to 128 and can range from 128-255.
- **\*NEW\*** MPEG now has the capability to display more PID's in the PMT page. (previous versions could only support up to 90 PID's in PMT page)
- **\*NEW\*** MPEG on power up comes with green Tally light and as the boot process progresses the light goes orange and green which indicates a good boot, But when the light goes orange and red(tries for 3 times) and stays on red tally - this indicates a bad boot.
- **\*NEW\*** **On a bad boot or any kind of failures, Power off the MPEG and try performing a factory reset by holding the Menu button of the right most monitor till you see the LED's blinking on the left most screen. Leave the unit till all the monitors are reset.**

## PREVIOUSLY INCLUDED FEATURES & IMPROVEMENTS FROM MPEG V1.06-V2.05

- Video PID's in PMT page and the tables in PSI page provide more data.
- Audio PID of a program can be disabled from PMT page by using F1 button.
- PMT page of the MPEG Menu now has the ability to display just the program PID's by hitting the PMT button twice.  
Note: PMT in the MPEG Menu page can still be accessed by hitting on respective PMT button as it was in the previous versions.
- Presets functionality is included to set the options and save them to presets and Load when required.
- An option to copy presets from one monitor to the other monitor is present in the Presets Menu.
- Presets can be invoked by setting a preset to a function button in Functions Menu.
- Improved software upgrade process with appropriate messages as the upgrade progress.
- Colors of some of the Menu items are changed for better visibility and user friendly appearance.
- Supports both 188 byte and 204 byte Packet transport streams.

## MPEG FIRMWARE V2.05

- Version Number: v2.05
- MainSys: Application Version: dvm\_31Jul2014\_V2.05
- MainSys: FPGA Version:
  - For MPEG-2443: 02\_04 5/22 04.03
  - For MPEG-3270 and MPEG-4290: 02\_04 5/22 09.07
- Front Panel Versions:
  - Loader Version: LD4v205
  - Control Panel: CP4v205A

#### **MPEG FIRMWARE V2.05 KNOWN LIMITATIONS**

- ASI input capability and limitation range is 200Mbps.
- Ethernet/IP capability range is 35Mbps on a transport stream.
- Multicast IP unstable.
- Limited to 4:2:0 decoded format, MPEG does not support 4:2:2.
- Audio type HE-AAC is not supported on MPEG.
- Ethernet connection (RG-45) supports up to 1/10/100Mbps only, Gigabyte is not supported.

#### **UPGRADE INSTRUCTIONS TO UPDATE V2.01 or higher versions to V2.05**

##### **MPEG - 2443**

Follow the upgrade process:

1. Upgrade the Loader (USBv205.LD4)
  2. Upgrade the Control Panel (USBv205A.CP4).
  3. Upgrade the Main systems and Reboot (MPEGV205.MS4).
- (No restart needed in between)

##### **MPEG - 3270**

Follow the upgrade process:

1. Upgrade the Loader (USBv205.LD7).
  2. Upgrade the Control Panel (USBv205A.CP7).
  3. Upgrade the Main systems and Reboot (MPEGV205.MS7).
- (No restart needed in between)

##### **MPEG - 4290**

Follow the upgrade process:

1. Upgrade the Loader (USBv205.LD9).
  2. Upgrade the Control Panel (USBv205A.CP9).
  3. Upgrade the Main systems and Reboot (MPEGV205.MS9).
- (No restart needed in between)

**Note: Please perform a hard power cycle if the unit does not recognize the power buttons after an update.**  
Customers running a previous version of 2.0x release are recommended to update to the latest released versions.

#### **UPGRADE INSTRUCTIONS TO UPDATE MPEG V1.06 OR LESSER TO V2.05 OR HIGHER**

##### **MPEG - 2443**

***(These instructions are to upgrade an MPEG from software version 1.06 or lesser to version 2.0x or higher)***

1. Copy the "**V2.05.zip**" file from [ftp://ftp.wohler.com/download/Public/MPEG\\_Release\\_Versions/](ftp://ftp.wohler.com/download/Public/MPEG_Release_Versions/) to your computer. Unzip and copy just the files to the root directory of the USB Flash drive.
2. Start the MPEG by pressing the Power buttons on all the screens of MPEG-2443
3. Insert USB drive into the USB port present on the MPEG.
4. Press Menu button, Use the knob to scroll to System Menu and Push the knob to select System Menu.
5. Select Upgrade using the knob and Push the knob to Upgrade.
6. Follow the instructions, and Push the knob to go to the next step and Push the knob to move into the next step.
7. A page with list of Upgrade options is displayed on the MPEG monitor.
8. **Upgrade Loader:**
  - a) Select Upgrade Loader option and Push the knob, it then displays the Upgrade file (like **USBv205.LD4**) at the bottom of the screen. Select the file and Push the knob.
  - b) The upgrade starts and when it is completed, the cursor returns to upgrade menu.
9. **Upgrade Control Panel:**

- a) Select Upgrade Front Panel option and Push the knob, it will displays the upgrade files (like **USBv205A.CP4**) at the bottom of the screen. Select the file and Push the knob.
  - b) The upgrade starts and when it is completed, the cursor returns to upgrade menu.
- 10. Upgrade Main Systems and Reboot:**
- a) Select Upgrade Main System and Reboot option and Push the knob, it will displays the upgrade file (like **MPEGV205.MS4**) at the bottom of the screen. Select the file and Push the knob.
  - b) The upgrade starts and when it is completed, the MPEG will power off. Press the Power buttons to start the MPEG. (Do not disturb the MPEG until all the screens are upgraded.)
- 11.** The Upgraded Software version number is present in the System Status menu.

**Note: Please perform a hard power cycle if the unit does not recognize the power buttons after an update.**

#### **MPEG – 3270**

**(These instructions are to upgrade an MPEG from Software version 1.06 or lesser to version 2.0x or higher)**

1. Copy the "V2.05.zip" file from [ftp://ftp.wohler.com/download/Public/MPEG\\_Release\\_Versions/](ftp://ftp.wohler.com/download/Public/MPEG_Release_Versions/) to your computer. Unzip and copy just the files to the root directory of the USB Flash drive.
2. Start the MPEG by pressing the Power buttons on both the screens of MPEG-3270.
3. Insert USB drive into the USB port present on the MPEG.
4. Press Menu button, Use the knob to scroll to System Menu and Push the knob to select System Menu.
5. Select Upgrade using the knob and Push the knob to Upgrade.
6. Follow the instructions, and Push the knob to go to the next step and Push the knob to move into the next step.
7. A page with list of Upgrade options is displayed on the MPEG monitor.
8. **Upgrade Loader:**
  - a) Select Upgrade Loader option and Push the knob, it then displays the Upgrade file (like **USB3270.LD2**) at the bottom of the screen. Select the file and Push the knob.
  - b) The upgrade starts and when it is completed, the cursor returns to upgrade menu.
  - c) **Power off the MPEG by unplugging the power cord and plug it back and power up the MPEG.**
  - d) **Repeat steps 2-5** and select Upgrade Loader option and upgrade the loader with the **"USBv205.LD7"** file.
  - e) **Power off the MPEG by unplugging the power cord and plug it back and power up the MPEG.**
9. **Upgrade Control Panel:**
  - a) Select Upgrade Front Panel option and Push the knob, it will displays the upgrade files (like **USBv205A.CP7**) at the bottom of the screen. Select the file and Push the knob.
  - b) The upgrade starts and when it is completed, the cursor returns to upgrade menu.
  - c) **Power off the MPEG and power it up and repeat 2-7 steps before upgrading the Main Systems.**
10. **Upgrade Main Systems and Reboot:**
  - a) Select Upgrade Main System and Reboot option and Push the knob, it will displays the upgrade files (like **MPEGV205.MS7**) at the bottom of the screen. Select the file and Push the knob.
  - b) The upgrade starts and when it is completed, the MPEG will power off. Press the Power buttons to start the MPEG. (Do not disturb the MPEG until both the screens are upgraded.)
11. The Upgraded Software version number is present in the System Status menu.

**Note: Please perform a hard power cycle if the unit does not recognize the power buttons after an update.**

#### **MPEG - 4290**

**(These instructions are to upgrade an MPEG from software version 1.06 or lesser to version 2.0x or higher)**

1. Copy the "V2.05.zip" file from [ftp://ftp.wohler.com/download/Public/MPEG\\_Release\\_Versions/](ftp://ftp.wohler.com/download/Public/MPEG_Release_Versions/) to your computer. Unzip and copy just the files to the root directory of the USB Flash drive.
2. Start the MPEG by pressing the Power buttons on both the screens of MPEG-4290.
3. Insert USB drive into the USB port present on the MPEG.

4. Press Menu button, Use the knob to scroll to System Menu and Push the knob to select System Menu.
5. Select Upgrade using the knob and Push the knob to Upgrade.
6. Follow the instructions, and Push the knob to go to the next step and Push the knob to move into the next step.
7. A page with list of Upgrade options is displayed on the MPEG monitor.
8. **Upgrade Loader:**
  - a) Select Upgrade Loader option and Push the knob, it then displays the Upgrade file (**USB4290.LD2**) at the bottom of the screen. Select the file and Push the knob.
  - b) The upgrade starts and when it is completed, the cursor returns to upgrade menu.
  - c) **Power off the MPEG by unplugging the power cord and plug it back and power up the MPEG.**
  - d) **Repeat steps 2-5** and select Upgrade Loader option and upgrade the loader with the **"USB9v205.LD7"** file.
  - e) **Power off the MPEG and power it up and repeat 2-7 steps before upgrading the Control Panel.**
9. **Upgrade Control Panel:**
  - a) Select Upgrade Front Panel option and Push the knob, it will displays the upgrade files (like **USBv205A.CP9**) at the bottom of the screen. Select the file and Push the knob.
  - b) The upgrade starts and when it is completed, the cursor returns to upgrade menu.
  - c) **Power off the MPEG and power it up and repeat 2-5 steps before upgrading the Main Systems.**
10. **Upgrade Main Systems and Reboot:**
  - a) Select Upgrade Main System and Reboot option and Push the knob, it will displays the upgrade files (like **MPEGV205.MS9**) at the bottom of the screen. Select the file and Push the knob.
  - b) The upgrade starts and when it is completed, the MPEG will power off. Press the Power buttons to start the MPEG. (Do not disturb the MPEG until both the screens are upgraded.)
11. The Upgraded Software version number is present in the System Status menu.

**Note: Please perform a hard power cycle if the unit does not recognize the power buttons after an update.**

## RESOLVED ISSUES

Issue	Description
<b>Bug #1</b>	On failure of boot/startup the power goes off by itself, but now it will not power off on failures.
<b>Bug#2</b>	Fixed the issue where monitor displays video, but Menus doesn't come up.
<b>Bug#3</b>	Software update fails and monitor will not start is resolved.
<b>Bug#5</b>	Preset option that launches program based on Video Source selection always launched ASI B is now fixed.
<b>Bug#6</b>	Front Panel LEDs are affected by Menu Button is fixed.
<b>Bug#7</b>	Menu rotation is slow after performance adjustments are made is now resolved.
<b>Bug#9</b>	Fixed the issue when new presets are loaded the monitor still shows old screen markers.
<b>Bug#10</b>	When Presets are loaded with Level meters ON using F2, the level meters clear up but F2 led stays ON. – fixed in V2.03
<b>Bug#11</b>	Function buttons on the Front Panel gets out of sync is now fixed.
<b>Bug#12</b>	Menu items like SAVE and DONE highlighting has been changed.
<b>Bug#14</b>	Invoking preset from Function buttons F1-F6 causes crash is resolved.
<b>Bug#15</b>	Setting function button to MPEG act the way it should now.
<b>Bug#17</b>	A crash that happens when accessing Adjust Menu and then MPEG menu is fixed.
<b>Bug#20</b>	Issue resolved when MPEG menu is set to any function buttons and do a boot, Black screen appears
<b>Bug#22</b>	Some TS takes long time to find certain parameters (ex: B3, B5) in the stream.

<b>Bug#23</b>	Switching SD format to HD format will now rescale to HD correctly.
<b>Bug#24</b>	SD SDI displays a vertical white bar on the right side of the LCD is now fixed.
<b>Bug#29</b>	Manufacturing mode access is now locked for the customers.
<b>Bug#33</b>	Fixed an issue in the GPI-In Menu setting the MPEG Program to 3, 4 or 6.
<b>Bug#34</b>	Updating from v1.061 to v2.01 (or 2.02E), lit all LEDs on startup has been resolved.
<b>Bug#35</b>	In Adjust Menu, setting RED or BLUE to their minimal values is fixed.
<b>Bug#39</b>	In SDI input mode, pressing the MPEG Menu will hang – fix included.
<b>Bug#40</b>	Pressing the MENU button, and the VOL encoder before the Main Menu appears will enable the FACTORY MODE menu is resolved.
<b>Bug#45</b>	Resolved bad boot after resetting Presets issue.
<b>Bug#50</b>	Resolved the issue of Powering an MPEG with GPI set to MPEG Program that cause a boot failure.
<b>Bug#42</b>	Fixed the issue in ASI, when you pause (or stop) then resume (or play) the same stream, the Source ID will change to "Wait on PAT"
<b>Bug#38</b>	Resolved the issue, LED out of synch with function of button while restoring the backlight.
<b>Bug#37</b>	Resolved the issue of changing the Contrast, Saturation or Black Level in Adjust Menu changes the color on the screen (blue tint)
<b>Bug#55</b>	Fixed the issues where Markers will not show up on reboot.
<b>Bug#57</b>	Resolved the issue where MPEG hangs when a Select is hit in the MPEG PGM Menu in ASI/ETH UC/MC without signal.
<b>Bug#54</b>	Resolved the issues where Backlight timeout while adjusting other values in Adjust Menu disables FP keys.
<b>Bug#46</b>	Fixed audio bars display even when there is no signal in SDI.

## KNOWN ISSUES

Bug#26: Some streams produce audio lip sync delay. During decode of MPEG audio, the video and audio sync will go out of sync after multiple loop backs of stream. This can also occur if there are stream errors and video frames are dropped.

Bug#25: MPEG Audio decode buffer occasionally underruns. Decoding MPEG Audio (LC-AAC, AC3, and MPEG2 Layer2 Audio) will occasionally drop audio buffer due to underrun.

Bug#31: MPEG streams decode in unicast when multicast is enabled.

Bug#56: SD 4:3 doesn't scale to correct format instead it stretches to 16:9.

## HARDWARE ISSUES

Bug#18: After plugging in power, LED's A and B are lit but power button is not recognized. When this happens you need to unplug then plug in the power cord in the back of the unit to recover.