madVR Envy

Kaleidescape Setup Guide

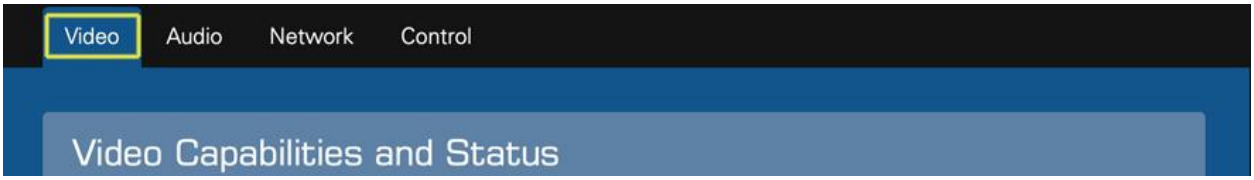
Revision 1.0

Kaleidescape Setup with the Envy

Please follow these instructions to setup your Kaleidescape for proper playback with the madVR Envy. Screenshots of the full Kaleidescape interface with the desired settings are shown in Appendix B.

1. Use a web browser to access the Kaleidescape advanced settings, as these settings are not accessible using the Kaleidescape remote control. If you do not know the IP address of the Kaleidescape, you can get that from its on-screen options.

2. Click on the “Video” tab in the header of the Kaleidescape advanced options page in your browser.



3. Under “Select Video Behavior”, select the option "**Allow display mode changes (use external scaler)**".

   This option ensures the Kaleidescape outputs that the original resolution and framerate of the movie. Otherwise, it will output movies at 60p instead of 24p, which makes HDMI switching faster (and why it is often set up this way), but at the expense of video playback quality. **See Appendix A for more information.**

   This setting also ensures that the native aspect ratio of the movie is used. Otherwise, scoped movies will be played back as 21:9 (2.33:1 or 2.35:1), instead of 2.40 or whatever the actual aspect ratio is, which impacts the Envy’s auto-aspect ratio detection and black bar management.

4. Under “4K Ultra HD Support”, select “Automatic (default)”.

5. Optional: Under “HDMI Content Type Metadata”, select “Transmit content type metadata”.

6. Press OK and apply the settings. This completes the Kaleidescape setup.

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Appendix A – Kaleidescape and Framerates

Kaleidescape players are often set up to output movies at 60p instead of 24p. This is because its movie selection screen only uses 60p, so it avoids the longer HDMI handshakes when movie playback is started 24p, and when stopped.

Almost all movies with few exceptions (Gemini Man, Billy Lynn's Long Halftime Walk, a few others) are mastered at 23.976 frames per second (24p) and meant to be watched this way. In some cases, a CE device (e.g., your Kaleidescape) may be set to output 24p content at a frame rate of 59.94 fps (60p).

This means that each video frame needs to be repeated, some frames twice, some frames three times, and this uneven pattern (called "3:2 pulldown") causes a slightly distracting motion jerkiness. Not everyone may notice this, but now that we mentioned it, you very well may. Since the Kaleidescape movie selection screen is always output at 60p, setting the Kaleidescape to output movies also at 60p means you can start and stop movie playback much faster. That is because when switching between 60p and 24p, a (slow) HDMI handshake is required.

So, in the case of your Kaleidescape, by outputting movies at 60p you get faster HDMI handshakes, but with motion artifacts some people find distracting, and you also not watching the movie as the director intended. Therefore, for the best cinematic experience, we recommend that the Kaleidescape be set to output the native frame rate for the movie (24p).

This is done by selecting the option "Allow display mode changes (use external scaler)" from the “Select Video Behavior” section of the advanced settings, as covered in the setup instructions at the start of this document (step #3).

Tip: Using the Envy you can force all output to 24p. If you do this, the movie selection screen will be output by Envy in 24p, even though the Kaleidescape outputs it to Envy at 60p. This way your movie selection screen and the movies will all be at 24p, avoiding the slower handshake that would take place otherwise, while eliminating the 3:2 pulldown discussed above.

Of course, you would want only content from the Kaleidescape to be forced all the time to 24p. Otherwise your other sources that has native content at 60p, like an Apple TV or a TV box, would be forced to 24p which would create similar motion issues.

We can use “profiles” with the Envy to force 24p, but only for the Kaleidescape. To do this, create a Source Device profile for the Kaleidescape and add the Decimation & Motion menu page to it, setting the Output Frame Rate in that menu page to 24p. Then when watching your Kaleidescape, simply choose your profile for the Kaleidescape, and when watching other sources, choose that source profile or the “Disable Profiles” source device. This can also be automated using a control system. For more information about profiles, please see the Introduction to Profiles guide.

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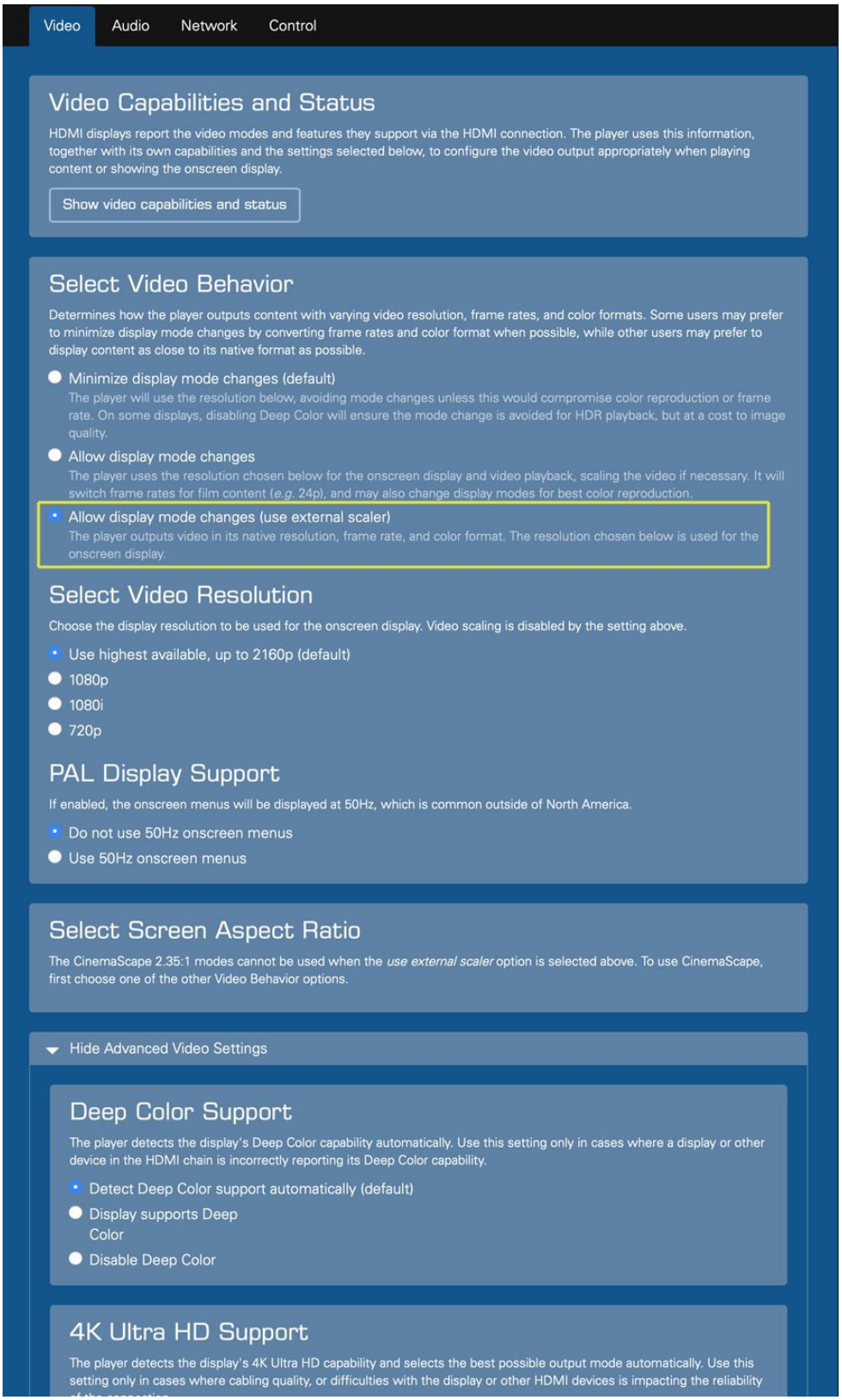
Appendix B – Screenshot of Desired Settings



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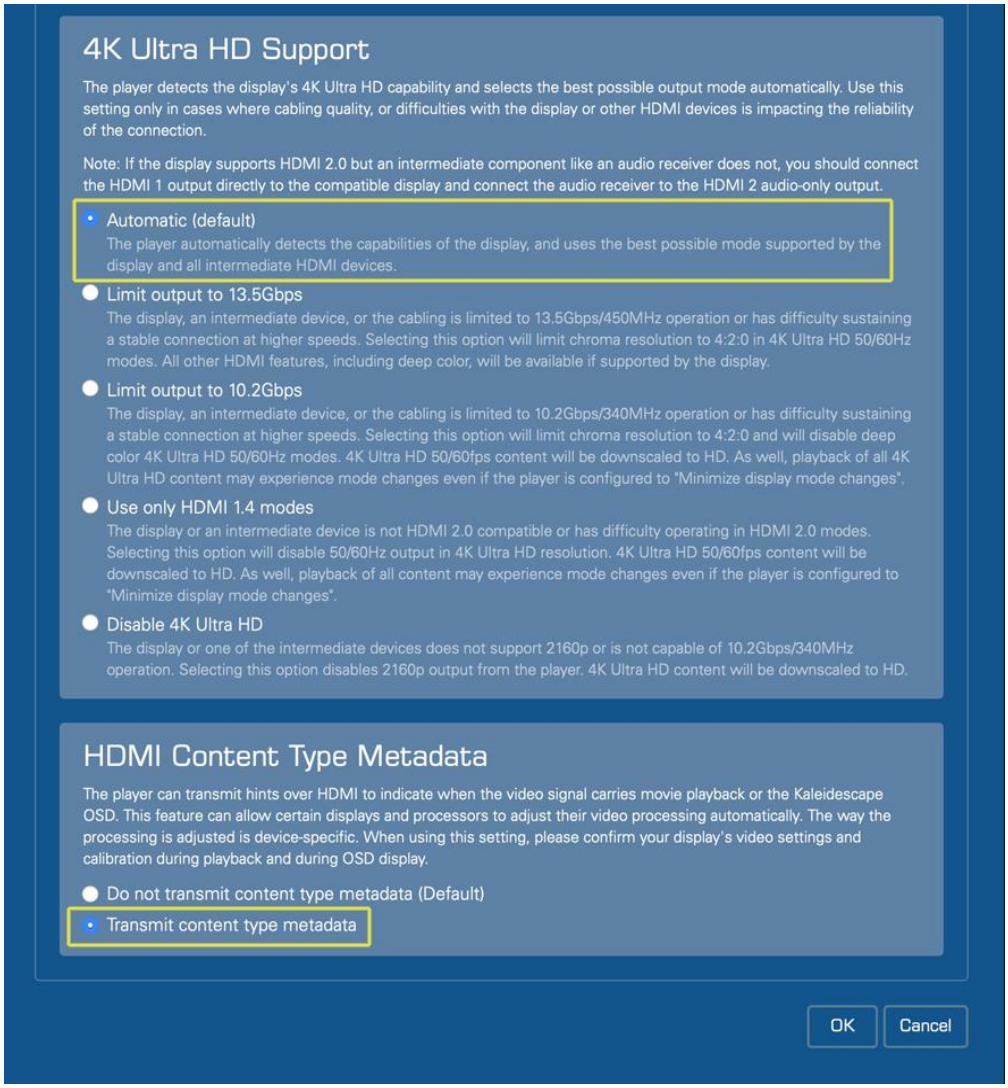

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