

Layers, Shaders & FX — Build A Look That Moves With The Music

User Guide

DjMirror Pulse lets you combine visual layers, shape their appearance, and add changes that respond to the music. This guide explains what each part does and gives you a practical way to build a look without starting from a long list of technical controls.

DjMirror Pulse User Manual Series

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Use this guide for the **Image, Avatar, Video, Artist Card, Vinyl Disc, Marquee Text, Waveforms, Lighting, and Mask** layers, per-layer image effects, and automatic audio-driven effects. For the dedicated audio visualizer types, see [Visualizers](#). If the audio input is not reaching the app, start with [Audio Setup & Beat Sync](#).

Chapter 1: Three Building Blocks

Layers are the parts of the picture

A layer is one visual element in the output. For example, you can put a video behind an Artist Card, add a waveform over it, and use a Mask to give the composition a shaped edge. A layer can be shown or hidden and, where available, made more or less transparent with **Opacity**.

Layer	What you can use it for
Image	Show still images as backgrounds or overlays.
Avatar	Show images from an avatar playlist, or use a webcam instead. Rotation is optional.
Video	Add moving video from your video content. Video audio has separate routing options; see the audio guide.
Artist Card	Put artist branding on screen, with a 2D or 3D logo, text, sound waves, and optional bounce.
Vinyl Disc	Add a rotating record-style graphic; choose its size, color, line details, and deck view.
Marquee Text	Show scrolling text and artist information, with controls for its message, font, position, and speed.
Waveforms	Add waveform, digital-bar, spectrum, or other audio visualizer elements. The Visualizers guide explains their individual styles.
Lighting	Add visual spotlights, particles, and strobes, then tune their look and audio response. See the Lighting Layer guide for every setting.
Mask	Shape or cover the output, for example with a circle, heart, star, or pixel-style mask.

Most layers start hidden, so having a layer configured does not necessarily mean it is currently on screen. **Visible** controls whether the layer appears. **Opacity** controls how strongly it shows through when other layers are behind it.

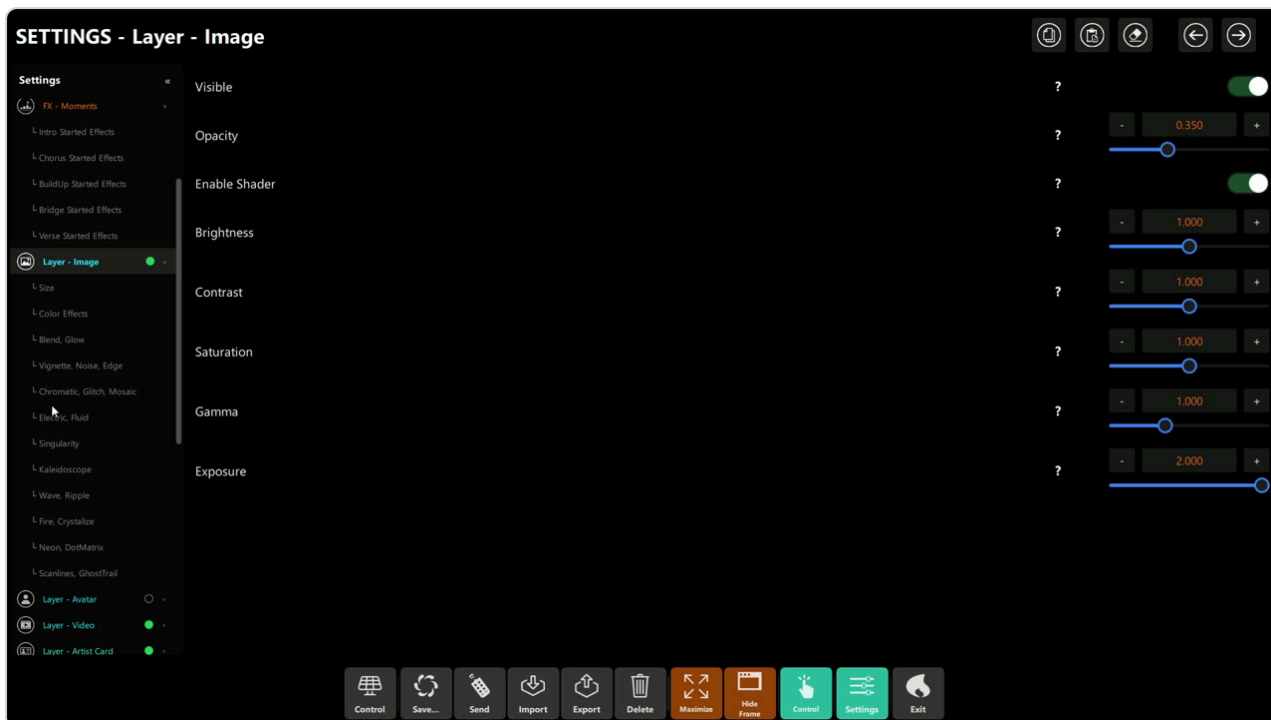


The Layers view gives you quick access to the visual elements in the composition.

Shaders change how a layer looks

The **Enable Shader** setting allows the visual effects for a supported layer. Basic adjustments such as **Brightness**, **Contrast**, **Saturation**, **Gamma**, and **Exposure** help match an image or video to the rest of the composition. Other groups can add treatments such as glow, vignette, color shifts, pixelation, glitch, waves, fire, neon, scanlines, or a ghost trail.

You do not need to use every effect. Start with the image itself, make one change at a time, and stop when the result is clear on the output display. Most effect controls are neutral at their default values, and layer visibility and shader enablement are separate controls.



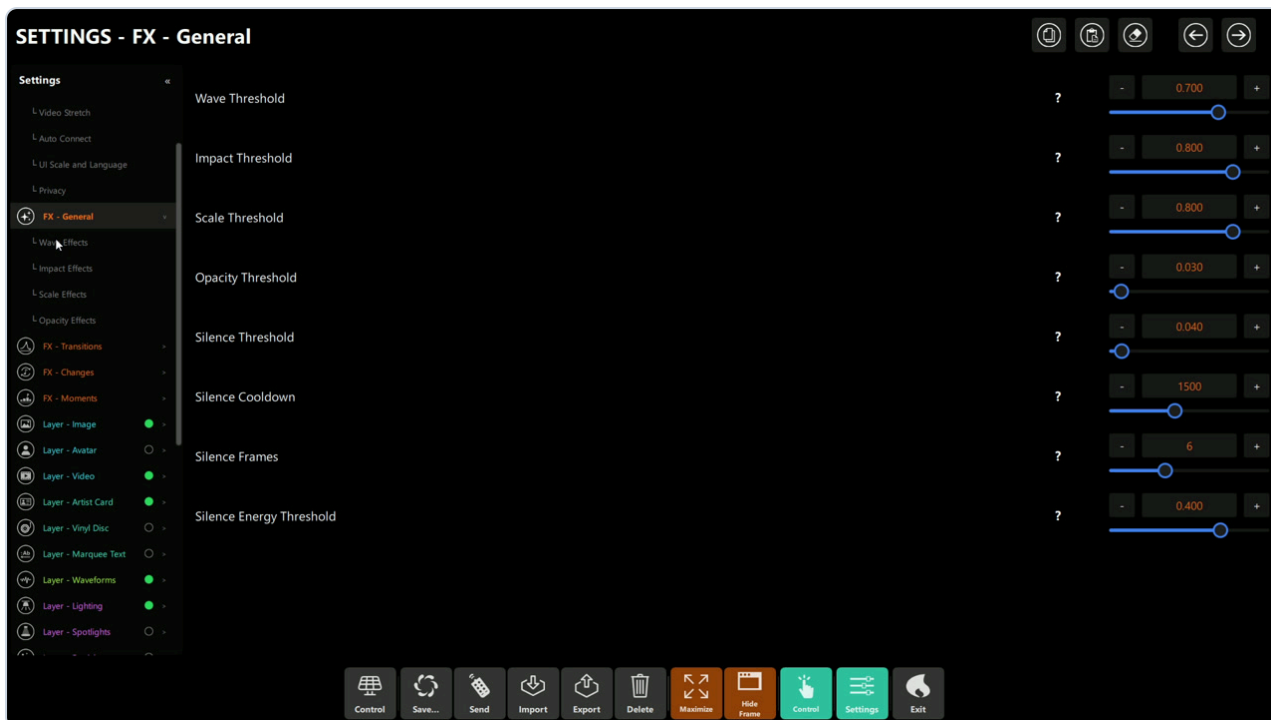
The Image layer has its own shader switch and basic picture adjustments. The displayed values are from this capture, not recommended settings.

Automatic FX add movement or color changes

Audio-driven FX respond to changes detected in the incoming audio. In **Settings**, the groups are organized as:

- **FX - General** — core reactions such as wave, impact, scale, and opacity, plus silence settings.
- **FX - Transitions** — energy changes, outros, peaks, builds, breaks, and drops.
- **FX - Changes** — detected changes in BPM, danceability, rhythm, vibe, harmony, or key.
- **FX - Moments** — song-section cues such as intro, chorus, build-up, bridge, or verse.

Each family may have a detection setting and a corresponding **Effects** group. The detection setting controls how readily a change is recognized; an effect's **Enabled** switch and controls such as **Duration**, **Return Duration**, and **Max** determine whether and how strongly the visual response is applied. A detector and its visual response are related, but they are not the same setting.



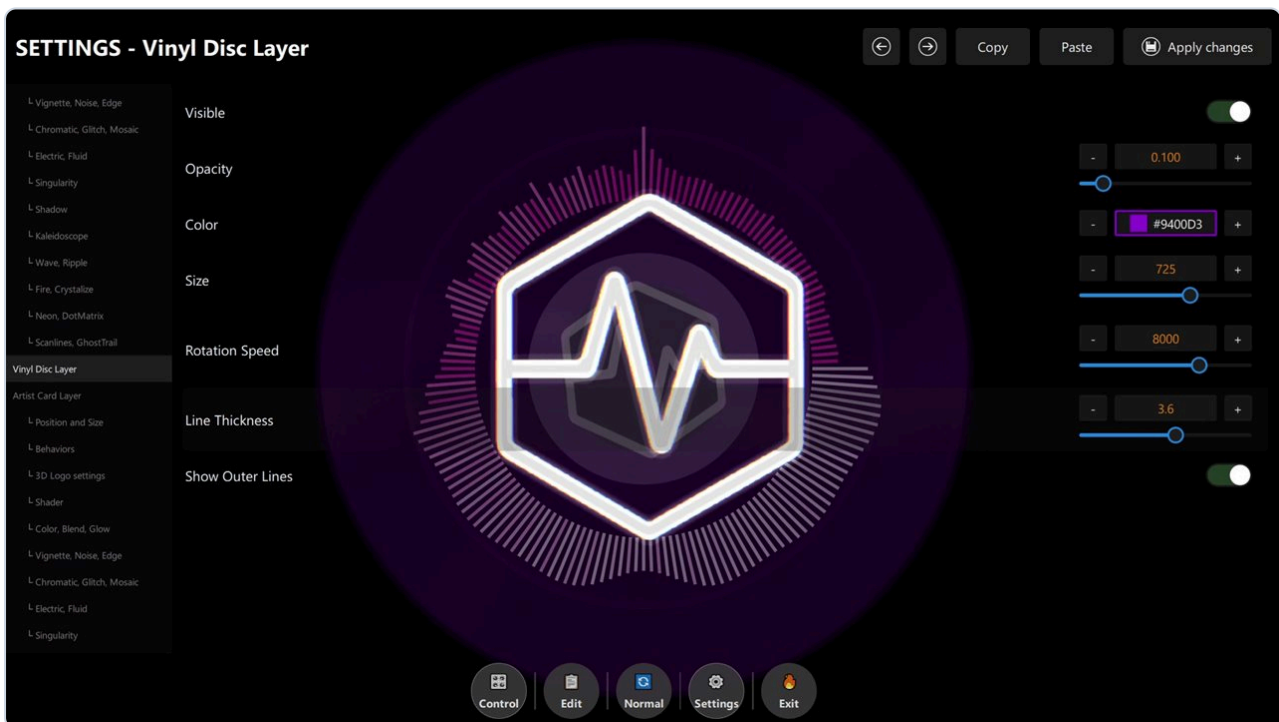
FX - General shows detection controls such as Wave, Impact, Scale, and Opacity Threshold, followed by the silence-detection settings. The pictured threshold values are an example, not a preset recommendation.

These audio rules are driven by the configured audio input. They are not a substitute for a beat clock such as Ableton Link, and they do not require you to switch to AutoMode just to receive audio. The exact result depends on the rule, its enabled effect, the visible layers, and the current visual settings.

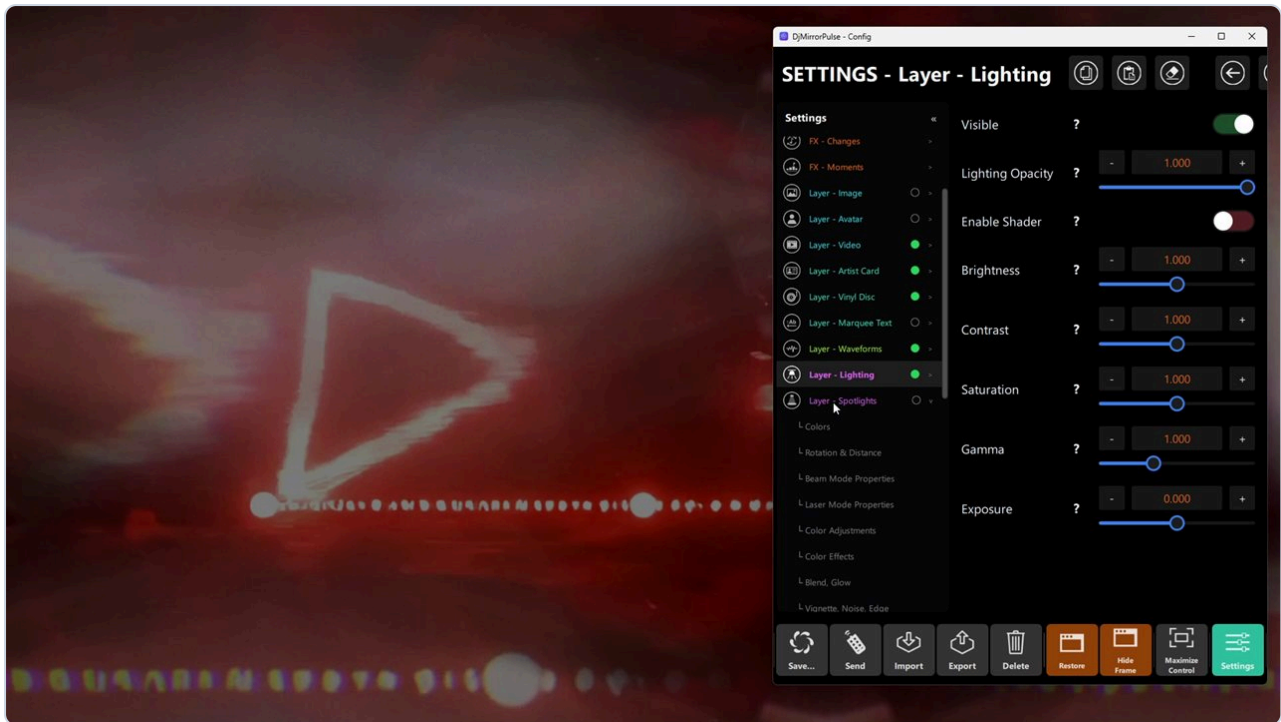
Chapter 2: Make A Simple Layered Composition

Try this first: a moving background, a small amount of audio movement, and readable artist information.

1. **Choose your content.** Load or select the images, videos, or avatar material you want to use in the corresponding content/playlist view. These panels configure how a layer looks; they do not replace choosing its media.
2. **Show one background layer.** Open **Settings** → **Layer - Image** or **Settings** → **Layer - Video** and switch **Visible** on. Confirm that the selected content appears before changing effects.
3. **Set the balance.** Adjust **Opacity** so the background does not overwhelm other elements. If the image needs correction, make small changes to Brightness, Contrast, or Saturation.
4. **Add one foreground element.** Turn on **Layer - Artist Card** for branding, **Layer - Marquee Text** for scrolling messages, or **Layer - Waveforms** for a live audio graphic. Check visibility for both the layer and any visualizer within the Waveforms layer.
5. **Add one shader treatment, if useful.** In the layer's settings, turn on **Enable Shader** and adjust one effect at a time. Return to neutral values if the image becomes hard to read.
6. **Test with music.** Confirm that the audio input meters move. Then try one audio effect family at a time from the **FX - General**, **FX - Transitions**, **FX - Changes**, or **FX - Moments** settings.
7. **Check the actual output.** Judge brightness, contrast, and text size on the display or projector used for the show, not only in a settings preview.



The Vinyl Disc layer has its own controls for color, size, rotation, and line details.

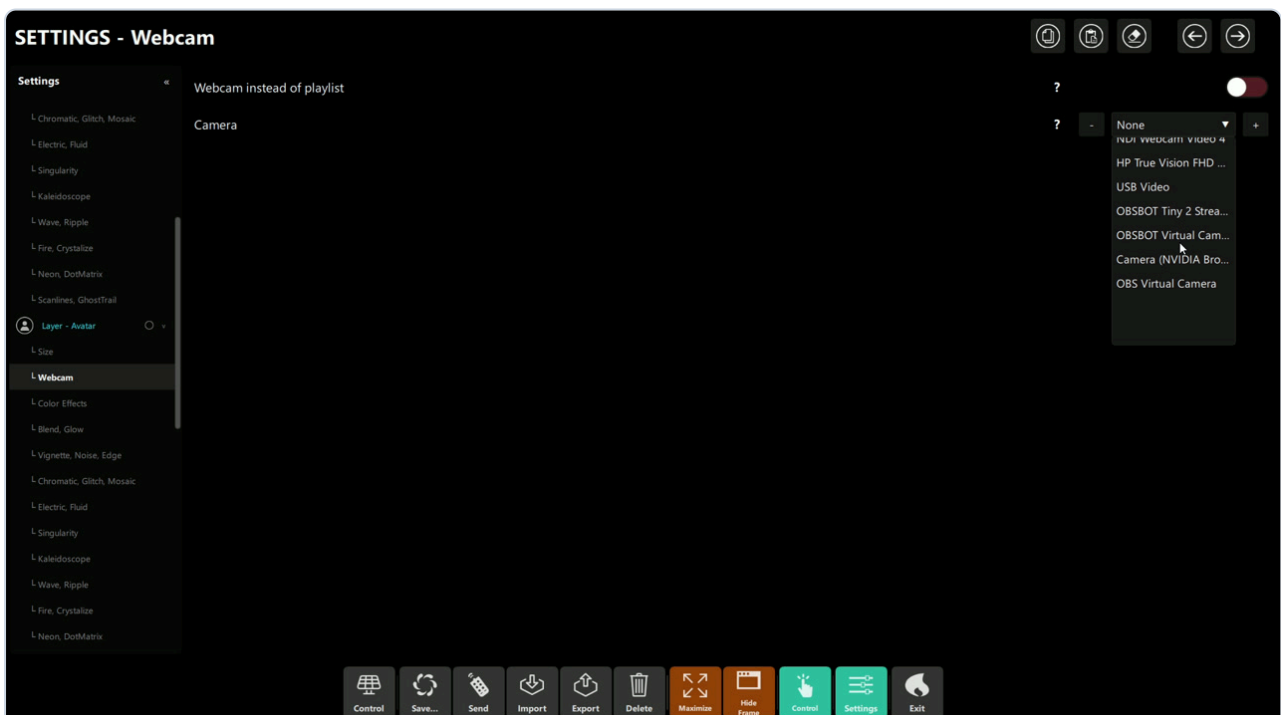


The Lighting layer combines its own controls with optional per-layer image effects.

Use a webcam for the Avatar layer

The Avatar layer can use a camera instead of cycling through its image playlist:

1. Open **Settings** → **Layer - Avatar** → **Webcam**.
2. Turn on **Webcam instead of playlist**.
3. Choose the camera under **Camera**. The available entries depend on the cameras and virtual cameras detected by your system.
4. Make sure **Layer - Avatar** is visible and check the output. Turn the webcam option off to return to the playlist.

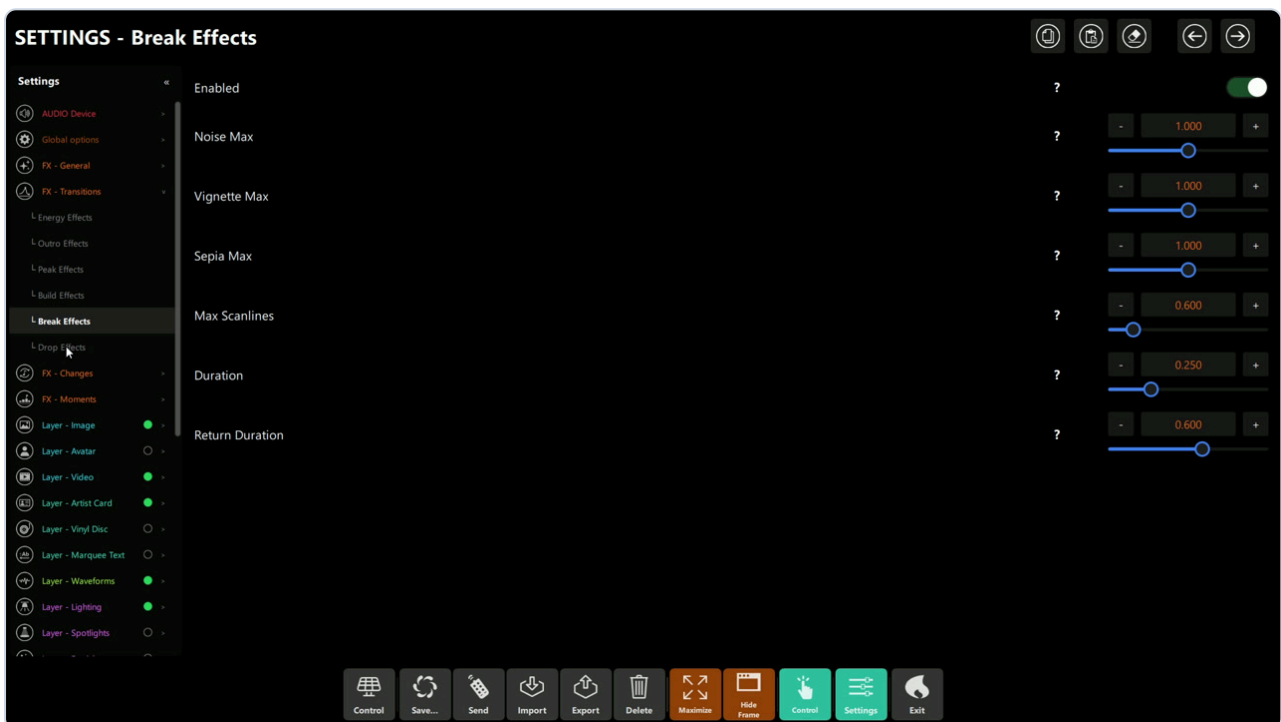


The Webcam section switches the Avatar layer from its playlist to a selected camera. In this capture the switch is off; enable it and choose a camera to use the webcam.

Chapter 3: Add An Audio Reaction In A Controlled Way

The examples below are starting points, not guaranteed settings for every song or audio level.

1. Open **Settings** → **FX - Transitions** and choose one detector, such as **Break**.
2. Open the matching effect group, such as **Break Effects**. Check **Enabled** and use a modest **Max** value and short duration to begin.
3. Play a representative track and watch the output. Give the audio detector time to encounter the kind of moment it is meant to recognize; a Break or Drop detector will not necessarily react to every beat.
4. If the effect is not noticeable, check the input meters first, then confirm the effect is enabled and that a relevant layer is visible. Adjust one detection or strength control at a time.
5. If the result is too busy, lower the maximum effect strength or disable other effect groups before changing several detector thresholds at once.



Break Effects has its own enable switch and visual-strength controls, including Noise, Vignette, Sepia, and Scanlines. Duration and Return Duration shape how quickly the change appears and fades; the shown values are just the captured configuration.

For a gentle look, use small effect strengths and let changes ease back with **Return Duration**. For a more energetic look, increase one effect gradually and test it across different tracks. Use strobe effects carefully, especially in public or camera-recorded environments.

Chapter 4: Per-Layer FX And Global FX Are Different

The application also contains an **Advanced FX - Global Output** panel for stylizing the complete output. It has choices such as ASCII, dithering, halftone, Matrix Rain, VHS, Aurora, Melt, Fracture, and Lightning, plus post-processing controls and FX preset actions.

In this version of Settings the **Global Advanced FX** entry for opening this panel is not shown. For effects you can reach in the normal Settings panels, use **Enable Shader** and the effect groups for an individual layer, or use the **FX - General / Transitions / Changes / Moments** audio settings.

Chapter 5: Masks And Practical Layering Tips

- Turn on **Layer - Mask** and choose a **Shape** with the – and + buttons. There are 18 choices, in this order: **Blackout**, **Disable**, Elipse, Circle, Heart, Rectangle Rounded, Rectangle, Square, Diamond, Star, Terror Mask, 3 Diamond, Face Masks, Pixel, TV, Flame, Waves and Jail Bars.
- Keep **Opacity** in mind when stacking image, video, avatar, or lighting layers. A visible layer at low opacity can blend with what is behind it instead of covering it.
- Use the Artist Card and Marquee Text for information that should remain readable; avoid placing strong glow, glitch, or global effects over important text.
- Add one visual change at a time. If you lose track of which setting caused a problem, reset that layer's adjustments before continuing.
- Waveforms has its own visualizer visibility and audio controls. A visible Waveforms layer alone does not mean every visualizer inside it is turned on.

Chapter 6: Troubleshooting

What you see	What to check
Nothing from a layer appears	Confirm the layer's Visible setting, selected media/content, and (for audio visualizers) the visualizer's own Visible setting.
A layer appears but a shader change has no effect	Check Enable Shader for that layer. It is separate from Visible .
Nothing reacts to music	Check that the selected audio input is active and its meters move. Then check the relevant detector and matching Effects → Enabled setting. See Audio Setup & Beat Sync .
A reaction happens too often	Increase the relevant detector threshold or cooldown, or reduce the number/strength of enabled effects. Change one control at a time.
A reaction is too subtle	Confirm that the matching effect is enabled and a relevant layer is visible; then raise its Max strength gradually.
Looking for global output FX	The Global Advanced FX entry is not shown in this version of Settings. Use the available per-layer shader controls instead.
A mask has no visible result	Confirm Layer - Mask is visible and the selected shape is not Disable . Blackout intentionally covers the output.
Text or details are difficult to read	Reduce glow, glitch, or global post-processing, adjust layer opacity, or use a calmer background.

For broader audio, display, or output issues, see [Troubleshooting](#). For settings panel navigation, see the [Settings Tour](#).

Chapter 7: Quick Reference

- **Visible** shows or hides a layer; **Opacity** controls how strongly it appears.
- **Enable Shader** allows image effects on supported layers; it is separate from layer visibility.
- **FX - General / Transitions / Changes / Moments** configure audio detectors and the effects associated with them.
- Global-output FX are separate from per-layer shaders; the global panel is not shown in this version of Settings.
- If audio reactions do not occur, check the incoming audio and the detector/effect switches before tuning values.