

Revolution 6x6

Advanced User's Manual



Thanks for choosing the Revolution 6x6! The purpose of this guide is to explore and describe the more advanced features of your Revolution 6x6. For basic use, check out the Quick Start Guide included in your Revolution 6x6 purchase and available at www.blacklionaudio.com.

STAND-ALONE MODE

Thanks to Stand-alone Mode, The Revolution 6x6 does not require connection to a computer for the applications described below. **Press and hold the Stand-alone button to switch from Interface mode to Stand-alone mode.** Once in Stand-alone mode, tap the Stand-alone mode button to choose from the available sample rates as well as S/PDIF and BNC external clock sources. The unit needs to be connected to the 5v power connection to use Stand-alone mode.

Using the Revolution 6x6 as a stand-alone ADC/DAC

When set to Stand-alone mode, the Revolution 6x6 can be used as a high-quality Word Clock and Digital to Analog / Analog to Digital Converter without needing to be connected to a computer. Hook up your media player, guitar processor, or sampler via S/PDIF or OTG to take advantage of the Revolution 6x6's superior conversion.

Monitoring in Stand-alone mode

When set to Stand-alone mode, audio from the Revolution 6x6's S/PDIF and OTG inputs are routed to the monitor and headphone outputs, and can be monitored directly from the unit via the playback side of the direct monitoring control. Blend with the input side of the direct monitoring control to create a custom mix between the digital and analog inputs.

Note: in standalone mode, The Mono HP control will only affect analog inputs 1 and 2 and not the SPDIF or OTG inputs. Mono HP control will set the monitor L/R output to mono during Stand-alone mode.

Streaming From Mobile Devices In Stand-alone Mode via OTG

When in Stand-alone mode, all analog and digital hardware inputs are sent to OTG Out 1 for streaming from your mobile device to the Internet. Simply connect a mobile device to the OTG I/O and stream to your platform of choice with high quality audio! Note: Due to limitations of certain social media applications audio is sent in mono.

CLOCKING

The Revolution 6x6 can be used as either a Primary (leader) clock or a Secondary (follower) clock. Clocking functionality varies between Interface mode and Stand-alone modes.

When in Interface Mode, the Revolution 6x6 must be used as the Primary clock. Sample rates may be selected from the device panel control panel (Windows) or directly from your DAW.

When in Stand-alone mode the Revolution can be used as either the Primary or Secondary clock depending on the setting.

- ➔ To use the Revolution 6x6 as the Primary clock use sample rates 44.1 – 192khz.
- ➔ To sync the Revolution 6x6 to an external clock, select the BNC or S/PDIF clocking source options.

Note: To best utilize the digital S/PDIF I/O ensure that your digital audio devices are synced to a common clock source. Clock sync allows you to get the highest audio quality possible when recording digital devices like amp modelers, samplers, and more!

RECORDING WITH MOBILE DEVICES

Recording apps (Garageband, etc.)

To record to a mobile recording application such as Garageband and make use of all the hardware inputs, be sure to use Interface Mode and connect the mobile device via the “USB to Computer” port. Most mobile devices will not provide bus power over this connection, so be sure to use the 5v power connection.

USB OTG

The Revolution 6x6's USB-OTG (On The Go) I/O can be used to send and receive a stereo audio stream to and from mobile devices. USB-OTG connectivity can be used in conjunction with a computer connected to the USB-To-Computer port for advanced applications such as streaming to a mobile device while playing along to backing tracks from a DAW on your computer.

Note: To ensure compatibility with Apple, Android, and Windows mobile devices an OTG-specific USB cable or adapter is required. The OTG connection does not carry power, so be sure to use the 5v power connection.

Using The OTG Output For Live Streaming To Mobile Devices

The Revolution 6x6's OTG output can be used to send audio to a mobile device for streaming directly to mobile applications such as Instagram.

- ➔ **Windows:** Connect your Windows PC to the USB-To-Computer port and your mobile device to the OTG port. To create a custom mix to send to your mobile stream, use the mixer application on Windows as detailed below.
- ➔ **Mac:** Connect your Mac to the USB-To-Computer port and your mobile device to the OTG port. Use your DAW to create a custom mix to send to your mobile stream.

SOFTWARE MIXER, LOOPBACK, AND VIRTUAL I/O

(WINDOWS ONLY)

The software mixer can be used to create custom mixes to be sent to the Revolution 6x6 and virtual outputs.

The Virtual I/O channels can be utilized to route audio to and from desktop applications. For example, these channels can be used to route game and voice communication audio to two separate tracks at once for easy mixing for your recording or stream.

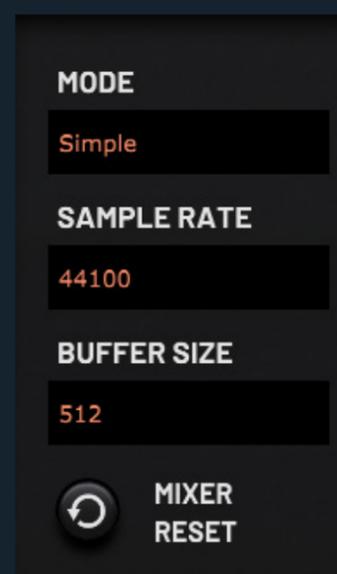
■ *Note: The mixer state persists on the host device between power cycles.*

Mode Select, Sample Rate, and Buffer size

Mode: Select which version of the mixer you would like to view.

Sample Rate: Choose the operating sample rate of the interface here. Be mindful of choosing the same sample rate as the projects you are working on. Options are: 44100, 48000, 88200, 96000, 176400, or 192000 Hz.

Buffer size: The device block size of your interface, measured in samples. Adjust this if you're experiencing latency issues in your audio productions. Lower numbers will result in lower latency, higher numbers result in lower CPU usage.



Simple view

➔ **Playback** - Controls the level of the Application Playback channels (software audio outputs) sent to the corresponding hardware outputs.



➔ **Recording** - Controls the level of the hardware Device Input channels sent to the corresponding Application Recording channels. (Software audio inputs)

➔ **Loopback** - Controls the level of the Application Playback channels sent to the corresponding Application Recording channels.

For example: When the loopback fader is increased, audio from your computer's main outputs (Monitor Out L/R) will be sent directly to Application Recording channels 1/2 (Line In 1/2). This is useful for when you would like to record or stream audio playing from your desktop such as sound from videos or music players.

➔ **Monitor** - Controls the level of the hardware inputs sent to the monitor outputs.

SOFTWARE MIXER, LOOPBACK, AND VIRTUAL I/O

(WINDOWS ONLY)

Advanced Mode View

The Advanced Mode View gives you full control of your audio routing. Increase/decrease the value of the Input/Playback channels (rows) sent to each corresponding Output/Recording channel (columns) by clicking on the desired cell and dragging your mouse up or down.

Use the Output/Recording channel faders to control the overall output of each mix.

Refer to the picture below for the default audio routing setup.

The screenshot displays the software mixer interface in Advanced Mode. The top section is a routing matrix with 16 rows and 10 columns. The rows represent input channels: Monitor Playback L/R, OTG Playback L/R, SPDIF Playback L/R, Mic/Line/Inst In 1/2, OTG In 1/2, SPDIF In 1/2, and Virtual Playback 1-4. The columns represent output/recording channels: Monitor Out L/R, OTG Out 1/2, SPDIF Out 1/2, Mic/Inst/Line Recording 1/2, and OTG Recording 1/2. The routing matrix shows a diagonal pattern of green cells, indicating that each input channel is routed to its corresponding output channel. Below the matrix is a control panel with the following settings: MODE: Advanced; SAMPLE RATE: 44100; BUFFER SIZE: 512; MIXER RESET button; and the REVOLUTION 6X6 and BLACK LION AUDIO logos. The bottom section features ten faders for each output channel, with a scale from 0 dB to -inf dB. The faders for Monitor Out L/R, OTG Out 1, SPDIF Out 1, Mic/Inst/Line Recording 1, and OTG Recording 1 are currently set to 0 dB.

STANDALONE MODE AUDIO ROUTING

