

VariZoom

Quick Start Guide for *River* Multi-Head Console



Thanks for purchasing the River system. This is a sophisticated motion controller with a deep feature set, but if you're using it primarily for switching between cameras, you don't need to delve into the more advanced features described in the full manual. This guide will take you through the basic setup and operation for multi-camera production.

Setup warnings:

- 1 - When left unused for long periods, switch power on and allow the River console warm up for 5 minutes before operating (not a big problem, but advisable).
- 2 - Do not plug all the heads and River console into a power strip or surge protector, as these devices limit electrical current and this can cause the heads to underperform or even stall. Plug directly into the wall or a non-limiting multiplug block.
- 3 - Make sure you have clearance when tilting the camera to avoid lens damage. If necessary, set "Tilt Limits" or add an optional riser to the head to increase clearance.

Set up the heads w/ cameras before connecting the green “Head Control” cables between the head and console. The control ports are indicated with green rings, and on the River console they are ordered 1-4 from left to right. (connector panel may differ)

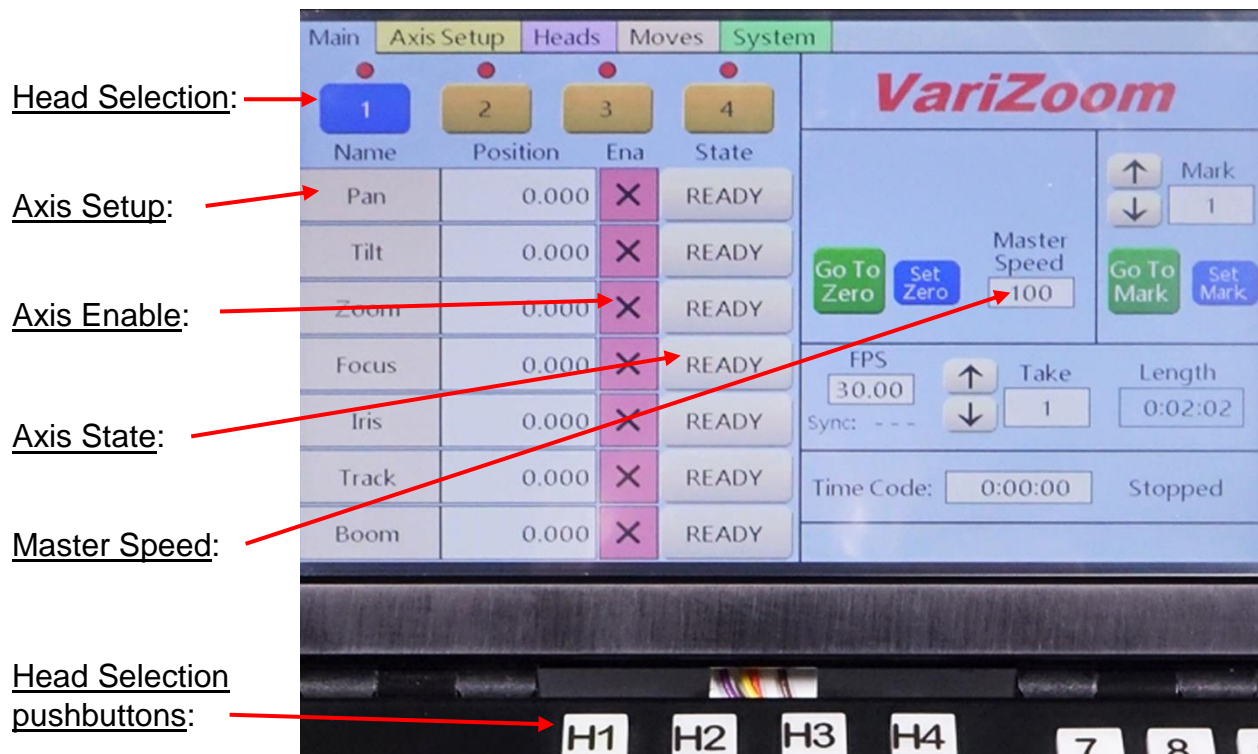


The additional ports are for advanced **optional** equipment and can be ignored for now. The gray ports are serial connections that can be used for firmware updates or connection to various external devices. The white ports are analog inputs for external zoom/focus grips or foot pedals. The BNC connector allows camera sync for frame-accurate motion control. The black ports are for track control (track not available yet). The blue ports are for pan bars or hand wheels, and the uncoded 6pin Fischer port below the BNC is for bloop/sync.

Make sure the power switch is “Off” and connect the River power supply to the XLR connector.



Power up the console by flipping the back panel switch “On.” Let the console warm up for 5 minutes before operating. This will give you an opportunity to review **Touchscreen Key Settings** (note “Axis” refers individually to Pan, Tilt, Zoom, etc). For now, ignore anything not pointed out below:



Head Selection: The light bubble above each touchscreen button 1-4 will be green if a head is synced, red if not synced. You can also use the mechanical pushbuttons H1-H4 to change heads. Touch the onscreen buttons 1-4 to switch heads.

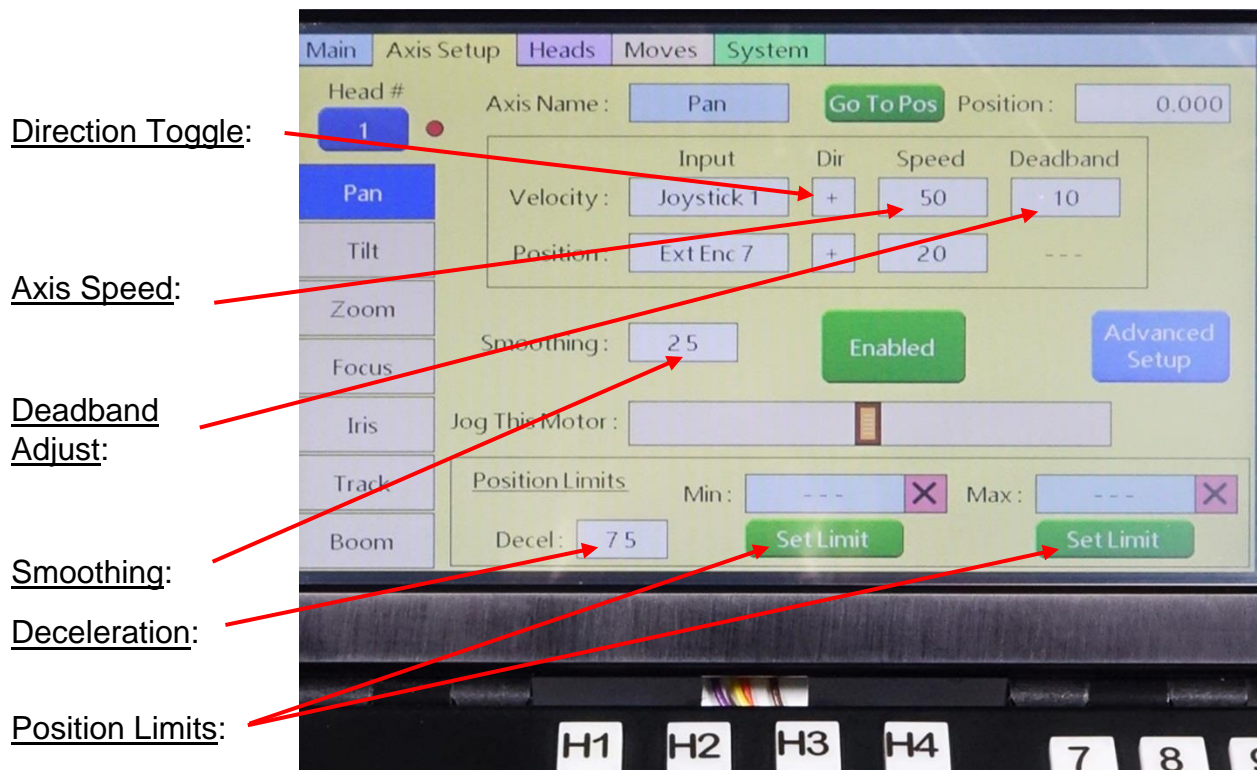
Axis Setup: Quickly access the setup screen for each individual axis to change speed, smoothing and other parameters for only the selected axis. Touch the onscreen button.

Axis Enable: Green checkbox means the axis is enabled, while red checkbox means the axis is disabled. On startup, the connected devices will be enabled by default (green checkbox). Touch the onscreen button to enable/disable.

Axis State: The default state is “Ready,” and this is the desired state for live control of the heads. The other available states are “Record” and “Playback” – **you will not be able to control the axis if it’s in “Playback” mode.** For now, leave all axes in the “Ready” state. Touch the onscreen button to change mode.

Master Speed: This is the global speed setting for all axes. You can change the individual axis speeds under “Axis Setup,” but the Master Speed control will scale the speeds of all axes up or down proportionally. Touch the onscreen button to adjust.

Axis Setup Screen (note pushbuttons T1-T5 match onscreen tabs)



Direction Toggle: This allows you to change the direction the axis moves in response to the joystick. For example, if the head pans left when you move the joystick right, simply hit this button to reverse the head response and it will change between +/-.

Axis Speed: This allows you to change the response speed of the selected axis without changing the response speed of other axes.

Deadband Adjust: This affects the joystick response. The deadband is the joystick's electromechanical range around center where the axis does not respond. The higher the deadband setting, the farther you need to move the joystick to make the axis respond. This is useful for the pan/tilt joystick for separating out the pan and tilt motions; with the right deadband setting you will find it easy to pan without accidentally tilting, or vice versa.

Smoothing: Sometimes referred to as ramping, this setting affects how suddenly or gradually the axis responds to joystick input. With a higher smoothing setting, the start and stop action will be more gradual in acceleration/deceleration, resulting in smoother response at the ends. A low smoothing number will result in instantaneous response.

Deceleration: This affects how “softly” the position limits are approached. With a higher number, the axis will begin to decelerate sooner as the position limit is approached. A lower number means the axis will come to a stop more suddenly.

Position Limits: Also called soft limits, allowing you to restrict the axis’ range of motion.

Changing settings

For the numerically scaled settings (1-100), you merely touch the screen in the number box and then use either the mechanical pushbutton keypad or the onscreen popup keypad. Note that you will have to do this for each axis and head separately. The settings of one head do not carry over to another, and the axis settings are all independent.

The Position Limits can be set two ways.

- 1) The quick method is to use the mechanical “Limits” pushbuttons adjacent to the joystick. Simply move the head to the desired stop position in one direction and then press the corresponding “Limits” button, and you will see its LED turn red. Then move the head in the other direction to the desired stop position and press the other “Limits” button, and you will see its LED turn red. As you move between the limits the LEDs will be green and only turn red when you hit the limits. To deactivate the limits, simply press the buttons again and the LED’s will turn off. (Note: when the LEDs are off, no limits are set)



- 2) You can also set the limits in the **Axis Setup** menu. In this case, move the head to each end and press “Set Limits” on the touchscreen. Here you can also change the deceleration setting, which softens the ‘braking’ action when you run into the limits.

The same limits setup applies for focus (when available on the lens in use):



Heads Menu

Head Power Toggle:

Head Orientation:

PTZ Sensitivity:

Comm Mode:

Lens Setup:

Head Power Toggle: Allows you to remotely power off the head, or if your head is connected and powered but not responding, you can press this button to cycle power.

Head Orientation: This is simply used as a reference for positioning/direction. Pan is reversed when you invert the head from overslung to underslung.

PTZ Sensitivity: ONLY use this if you are controlling a digital lens through the head. Otherwise, always leave it set to zero. This setting progressively increases smoothness and decreases speed of pan/tilt as you approach full telephoto, but it only works properly on digital lenses with positional info. When in doubt, leave it at zero.

Comm Mode: Leave this set on “Two Way” and “Wired” at all times. As a troubleshooting measure, if you’re having trouble with the head that can’t be resolved, you can try changing to “One Way,” but it shouldn’t be necessary.

Lens Setup: This is only necessary if you are controlling a servo lens through the head.

Analog Lens:

“Default” mode is for analog connection to Canon or Fujinon lenses and you have to adjust the “Analog Voltages” to suit the lens being used.

To set up zoom, adjust the “Zoom Center” voltage until it stops zooming and then set the “Low” and “High” voltages equally far apart so the lens zooms the same max speed to wide and telephoto. “Zoom Mode” should be set to “Velocity.”

For “Focus,” adjust endpoint voltages until you can reach Near and Infinity focal points on the lens.

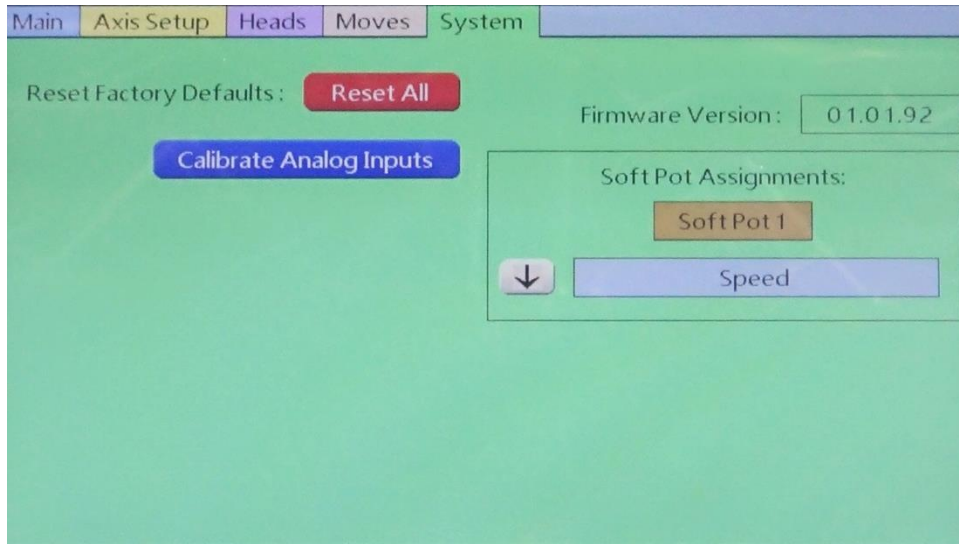
Digital Lens:

The other “Digital Type” options are Canon, Fujinon and Preston, which do not require “Analog Voltage” setup.

Moves Menu

Ignore this menu for now. See the full manual for instruction on recording and playback.

System Menu



The only important item here is “Reset All.” Only use this if the system isn’t responding properly and you’re unable to figure out what’s wrong. Note that it will change all of your settings back to factory default.

“Calibrate Analog Inputs” shouldn’t be necessary, but if a joystick seems to respond unevenly or is drifting, you can use this feature.

“Soft Pot Assignment” is merely a status readout of an advanced feature – nothing to change here.

System Notes

Lens Setup:

Digital Type: _____

Analog Voltage:

Zoom: Low _____ Center _____ High _____

Focus: Low _____ High _____

Axis Advanced Setup:

Pan and Tilt Scale Factors: _____