

**Introduction**

This software allows all functions of the D1810-01 SWIR Zoom lens to be controlled via a RS 422 Interface.

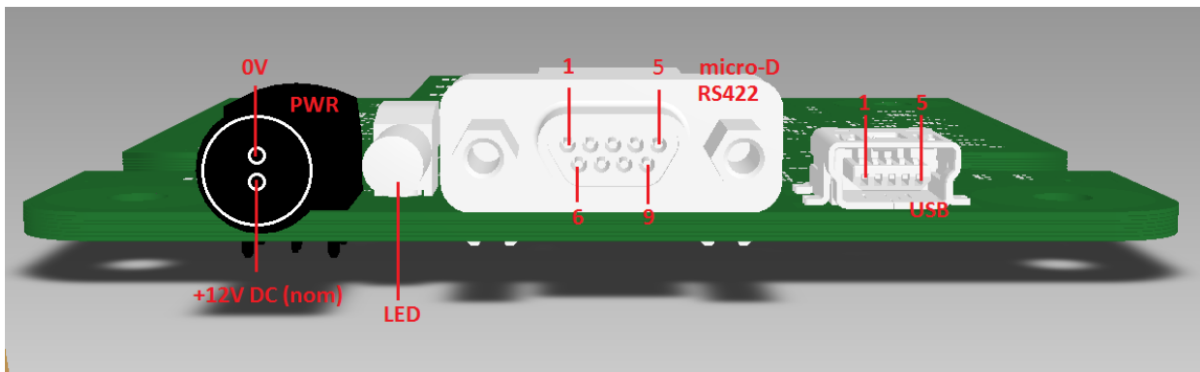
The BOS ZOOM LENS (64) PROGRAM will be required to be loaded onto a **64-Bit Computer**.

To run the Program a suitable driver will need to be loaded onto the computer.

This program, and a USB driver, are contained on a BOS memory stick provided with the lens.

This software controls all BOS zoom lenses, but not all features are required for the D1810-01 zoom lens. (e.g., range extenders).

**Connections**



LED (if enabled): Green steady = power on, blink every 2.5sec = heartbeat (alive), more frequent blinking = communications activity

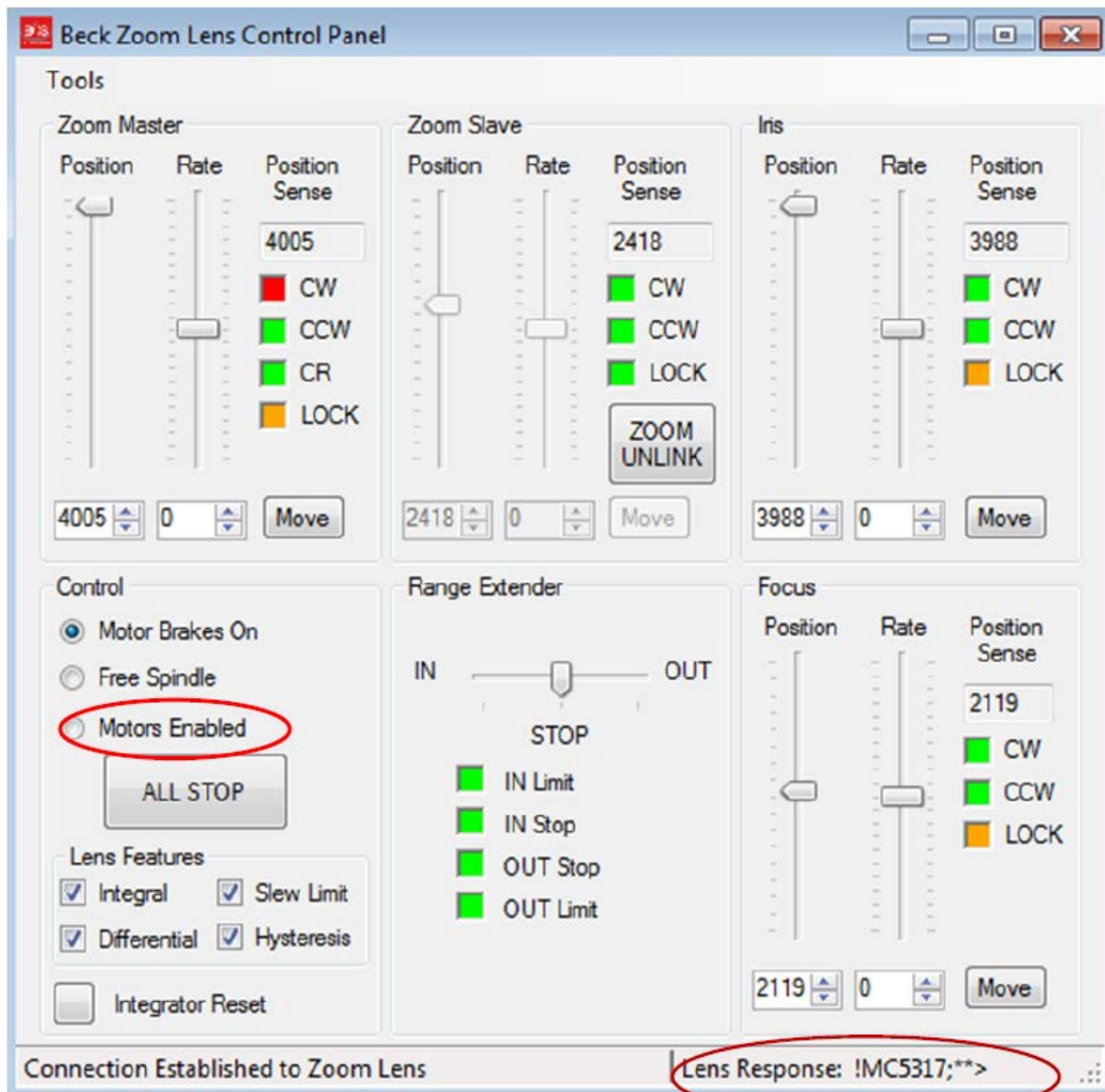
RS422:		pin	function	pin	function
	1		RX- (Host to Lens)	5	GND (can be unlinked from board ground)
	2		RX+	6	TX- (Lens to Host)
	3,4,8,9		NC	7	TX+

USB:		pin	function	pin	function
	1		VBUS (5V) - enables USB circuit	4	NC
	2		D-	5	GND (can be unlinked from board ground)
	3		D+		

Power Connector: mating part is Lemo FGG.00.302.CLAD35 pin polarity as shown (reverse protected)

**QuickStart**

- Install the USB to RS422 driver from the memory stick supplied (Brain Box USB\_Serial\SetupAMD64).
- Copy ZoomLensControlPanel (68) from the memory stick onto computer desktop (or it can be run directly from the memory stick).
- Use a 12 Volt DC power supply set to 1 Amp maximum.
- Connect the power to the lens.
- Connect the RS422 cable and blue (USB to RS422) adaptor from the lens to the computer before you switch on.
- When you switch on, the green LED on the connector panel at the rear of the lens will flash initially and then stay on.
- Double click on the red BOS icon with 64 in brackets from the desktop (or run from ZoomLensControlPanel (68) on the memory stick provided).
- The Control Panel shown below will appear:



- You will see data updates showing in the Lens Response window at the bottom right of the control panel if communication is OK.
- Click on the Motors Enabled light.
- Make sure that the Zoom is linked by toggling the Zoom Link or Zoom Unlink button in the centre of the control panel.
- Using the Zoom Master Slider make sure that the slider is in the maximum u position (i.e., wide field of view) before setting the back focus of the camera. Set the back focus by undoing the set screws in the aluminium sliders on the camera mount and slide the camera until the picture is in focus. Lock the set screws using a 1 mm Allen key.



- Drive the zoom to the narrow field of view and adjust the focus slider on the control panel until the picture comes into focus. With the Zoom Linked the picture should now stay in focus throughout the zoom operation.
- By operating the Zoom Master slide the camera will zoom at quite a fast speed.
- If that does not give a suitable speed, adjustment can be made using the Zoom Master slide to either Plus or Minus – for example, +/- 40, and press the Move button.
- The zoom will travel to its limit in that direction and stop. If you want to reverse move the slider in the opposite direction to obtain the equivalent value and press the move button.

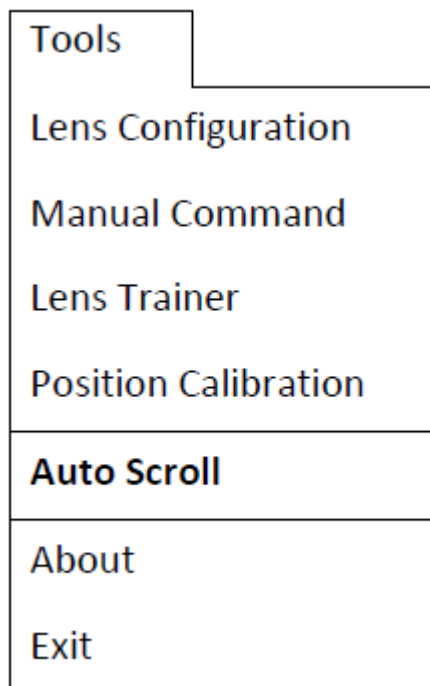
**Demonstration**

For demonstrating the D1810-01 SWIR ZOOM LENS, an Auto Scroll facility exists which allows the zoom lens to cycle automatically between Zoom In and Zoom Out.

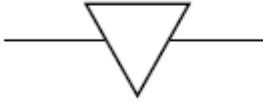

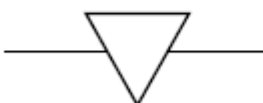

Click on Tools (top left) and the Drop-Down Tools Menu shown below will appear.

All Tools Menu features are available, but for Lens Configuration, Manual Command, Lens Trainer, and Position Calibration options please refer to the Set-Up Procedures Manual.

All Tools Menu features are available but Lens Configuration, Manual Command, Lens Trainer, and Position Calibration options are only explained in the Set-Up Procedures Manual.



- Click on Auto Scroll

Auto Scroll	
Scroll Parameter	
Scroll Rate	
	70 
Gap (seconds)	
	3 
<input type="button" value="GO"/>	<input type="button" value="Close"/>

- Pres GO button and Auto Scroll will start.
- The GO button will then toggle to a STOP button
- Scroll Rate can be changed by sliders or up/down arrows.
- The Gap or Pause Time can be changed by sliders or up/down arrows
- Press Close button to close the window.

#### About Beck Optronic Solutions

Beck has a reputation for excellence in design and manufacture of precision optics that can be traced back over 175 years. Based near London, UK, Beck delivers complex, integrated electro-optic systems for defence and commercial use across the electromagnetic spectrum from UV to LWIR. **For pricing or further information please contact us at:**

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