Elcometer 1510 Control /

User Manual

Getting Started

1. Loading Apparatus:

   The loading and positioning instructions for media to be tested varies upon the type of media tested. Please refer to specific loading protocols that should be provided with the media to be tested.

2. Powering System On and Off:

Powering On:

a. Plug the Elcometer 1510 to a power standard 120v outlet.
b. Locate the toggle switch on the side of the display and turn it on. This action initiates the startup process.
c. Wait for System Boot: Allow the system to boot up. During this time, the system will perform its initialization processes.
d. Once the system is fully booted, it will display the main interface page. This is the starting point for configuring and controlling the test process.

Powering Off:

a. To safely shut down the system, press the power button on the screen. (Figure 1, 0A)
b. Once pressed, the system will ask the operator for additional confirmation before shutting down.
c. Once the system is completely shut down, the toggle switch can be turned off and the machine can be safely disconnected from the power source.

Main Interface

The Eclometer 1510 Controller has a touchscreen display. Lightly touch the screen to see and select items on the dropdown screens or to press buttons and icons. Wait for the system to process each selection or button press before going to the next.

Refer to the picture of the display in Fig. 1 for the description of the function of each button and field.

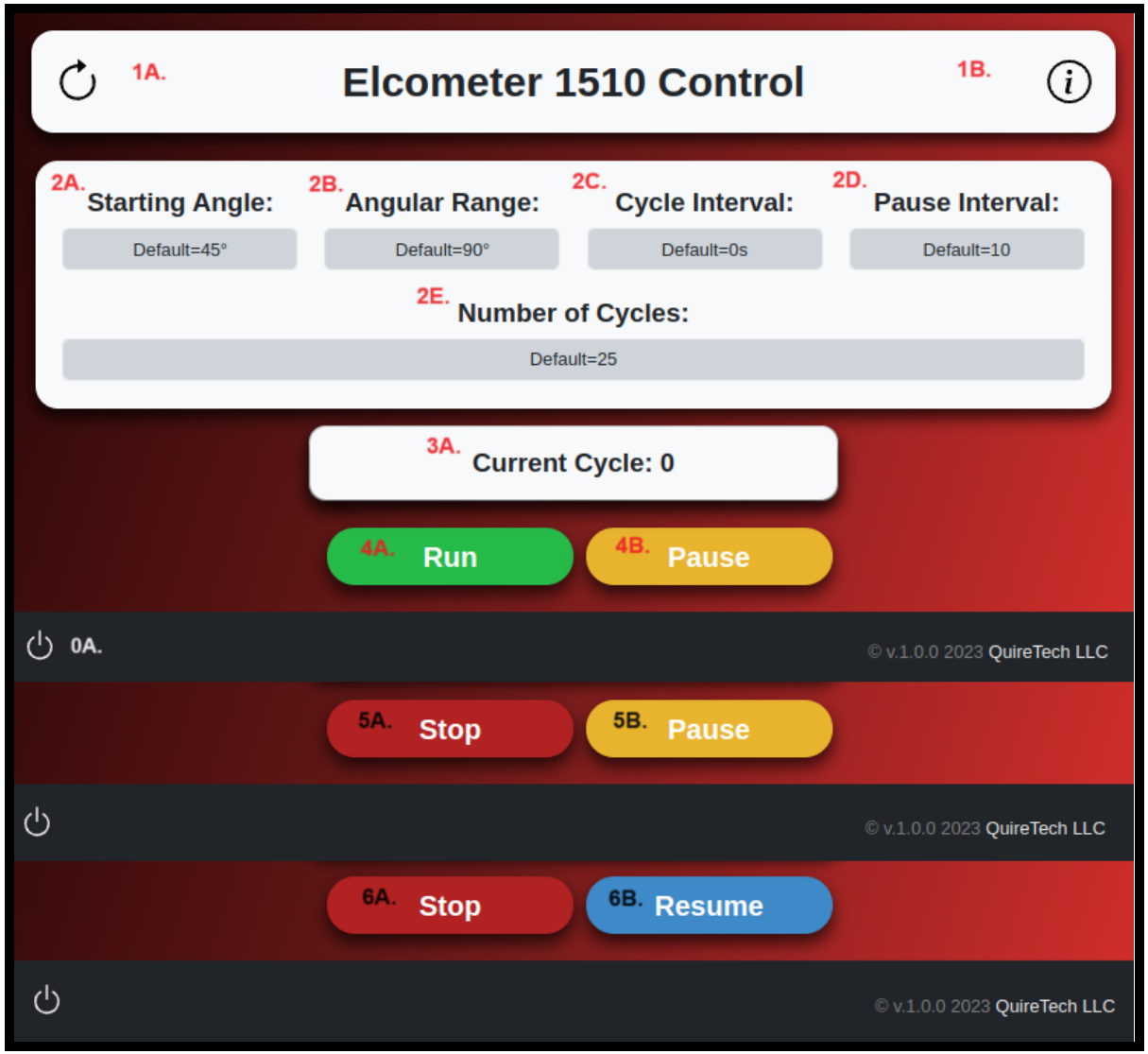

Fig 1. Interface

1. Navigation Menu:

1A.: Refresh Icon: A circular arrow icon that allows you to manually refresh the application. Pressing this icon reloads the page, updating any data and resetting the app to its default settings.

1B.: Info Icon: Pressing this information icon opens up the Elcometer 1510 User Manual.

2. Configuration Options

The Configuration Options section is where you customize the parameters of the mandrel operation. It includes the following settings:

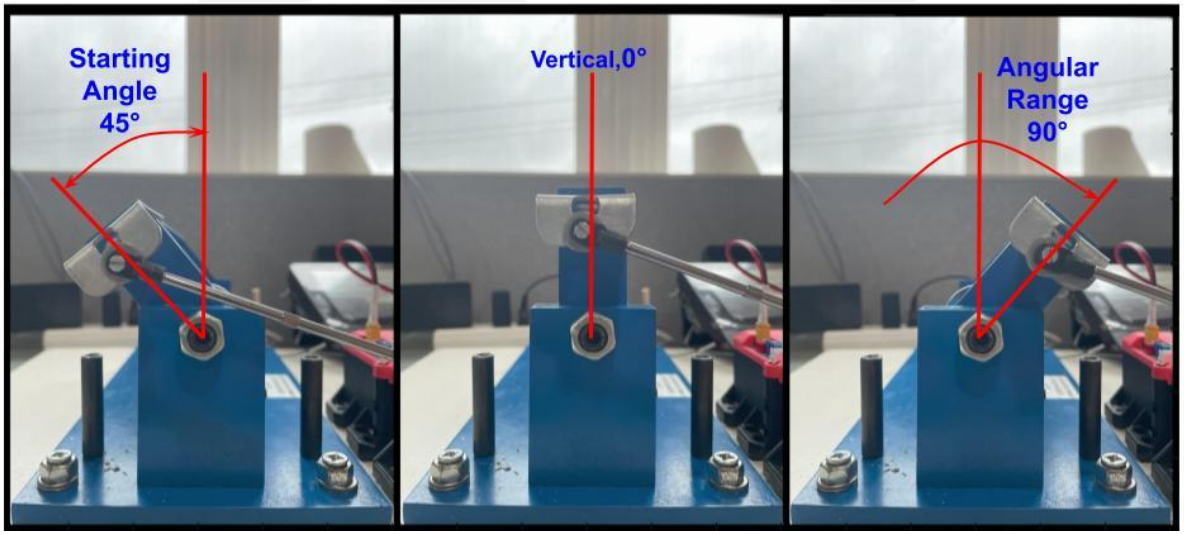

Figure 2: Angle Configuration

2A: Starting Angle. This is the angle the mandrel will begin and end each cycle at. Adjust the starting angle to your desired value by selecting an option from the dropdown menu. *The default is 45°.* As shown in Figure 2, the Starting Angle is at 45°. *Note that the Starting Angle is in degrees away from the vertical position and away from the servo motor.

2B: Angular Range. This is the angular range the mandrel will rotate through starting from the Starting Angle. The angular range is set by selecting an option from the dropdown menu. *The default setting is 90°.* As shown in Figure 2, the Angular Range is at 90°.

Note: The Total Angular Range is such that it cannot exceed +/- 50° on either side of the vertical. *(Where Total Angular Range is defined as: The difference between 2B and 2A)*

2C: Cycle Interval. This is the amount of time the mandrel will pause at the end of each cycle of the test. Set the cycle interval (in seconds) by choosing an option from the dropdown menu. *The default is 0 seconds.* For example, if you set the Cycle Interval to 5 seconds, the system will complete a cycle, pause for 5 seconds, and then start the next cycle. This process will continue until all cycles have been completed.

2D: Pause Interval. This is the number of cycles at which there will be a pause in the test –For example to do a visual inspection of the media being tested. Configure the pause interval (in cycles) by selecting an option from the dropdown menu. *The default is 10 cycles.* For example, if you set the system to run for 500 cycles with a pause interval of 50 cycles, the system will pause after every 50 cycles. The process will repeat until all 500 cycles have been completed. **Note: *This is an indefinite pause in the test and requires the operator to press the "Resume Button" (6B.) in order to resume the test.***

2E: Number of Cycles. Specifies the total number of cycles during the entire test by selecting an option from the dropdown menu. *The default is 25 cycles.*

3. Monitoring Progress

3A: A status bar which displays the current cycle count.

4. Interacting with the System:

You can interact with the system at any time during the test using two buttons: Run/Stop and Pause/Resume, as shown in 4A-4B, 5A-5B and 6A-6B.

5. System Button States

	System State			
	Initial - 1	Running - 2	Paused - 3	Shutdown
Button	***4A - Press the button to initiate the test.*** <u>On Press:</u> The mandrel homes itself to the starting angle (2A) and begins the test. Cycle count is reflected in 3A. The system enters state 2.	***5A - Press the Stop button to end the test.*** <u>On Press:</u> The mandrel completes the current cycle and then homes itself to the vertical position (0°) Cycle count in 3A is reset to 0. The system reverts back to State 1.	***6A - Press the Stop button to end the test.*** <u>On Press:</u> The mandrel completes the current cycle and then homes itself to the vertical position (0°) Cycle count in 3A is reset to 0. The system reverts back to State 1.	***0A - Press the Shutdown button to shutdown the application.*** <u>On Press:</u> Asks for additional operator confirmation before shutting down.
	4B - N/A <u>On Press:</u> Non operational before system is initiated	**5B - Press the Pause button to pause the system.** <u>On Press:</u> The mandrel returns to the starting angle (2A) The system enters State 3 and awaits user input.	**6B - Press the Resume button to resume the test.** <u>On Press:</u> The system reverts back to State 2.	