

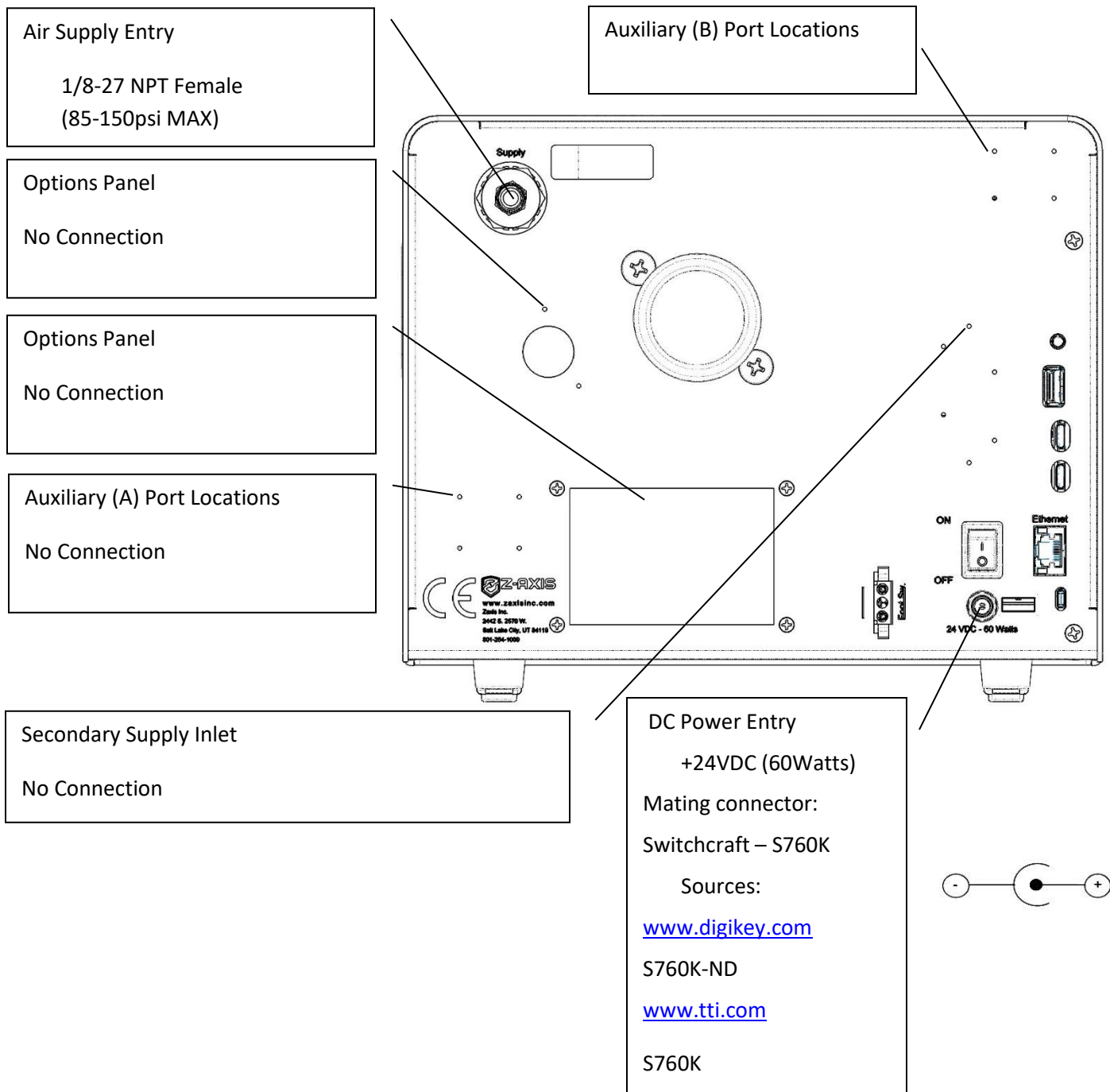


Z-AXIS
INTEGRITY THROUGH
— INNOVATION —

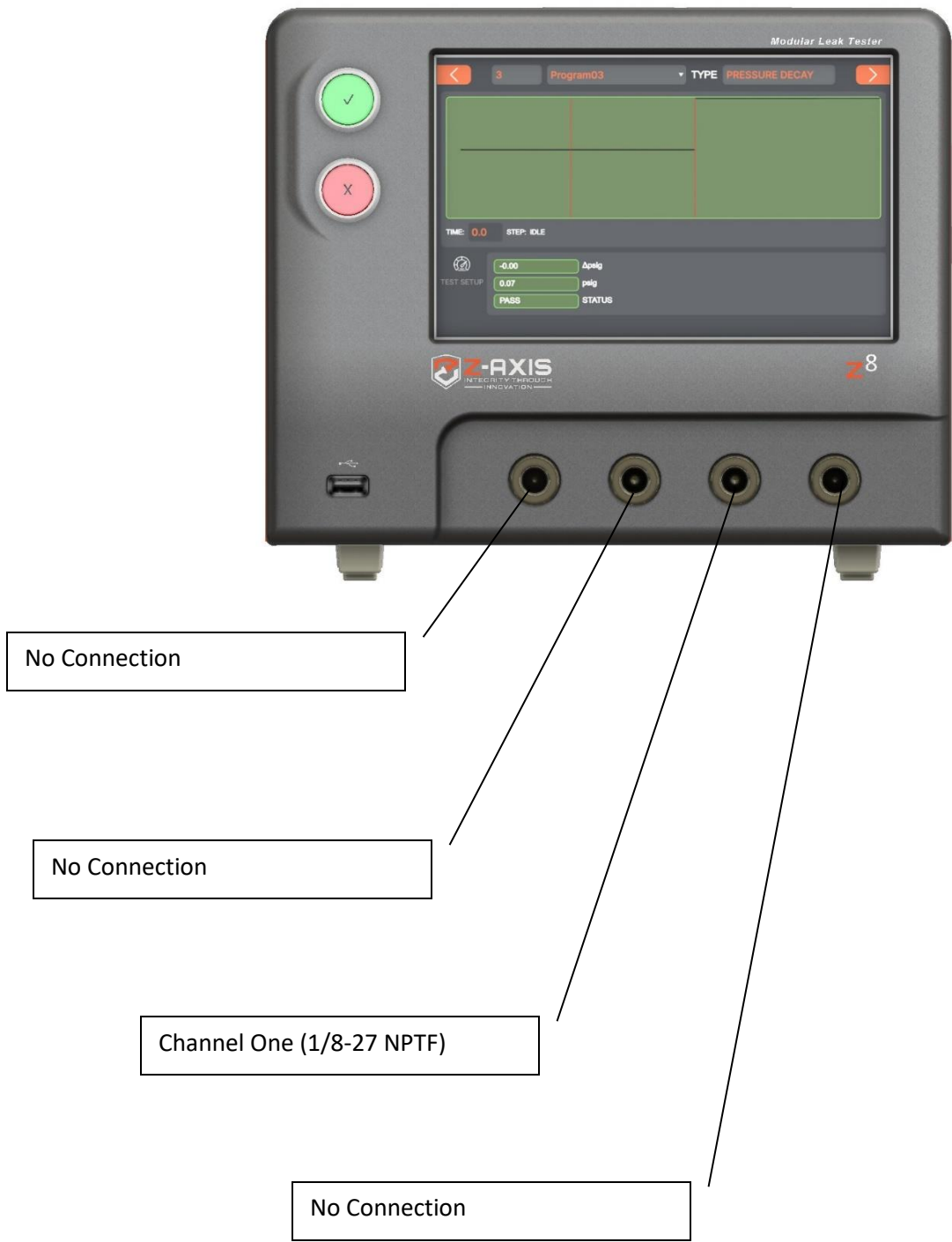


Z8 - Quick Start Guide

Air and Power Supplies along with Miscellaneous connections are made on the rear of the unit. The following diagram are the connections installed on this unit.



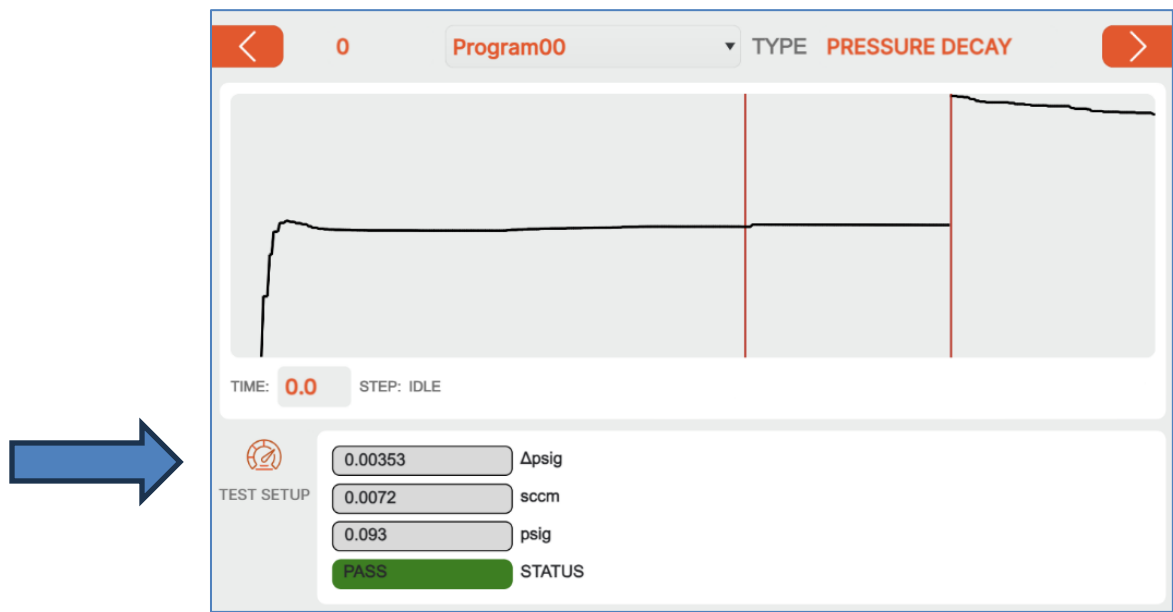
Test port connections are made on the front of the unit. The following diagram are the connections installed on this unit.



Navigation

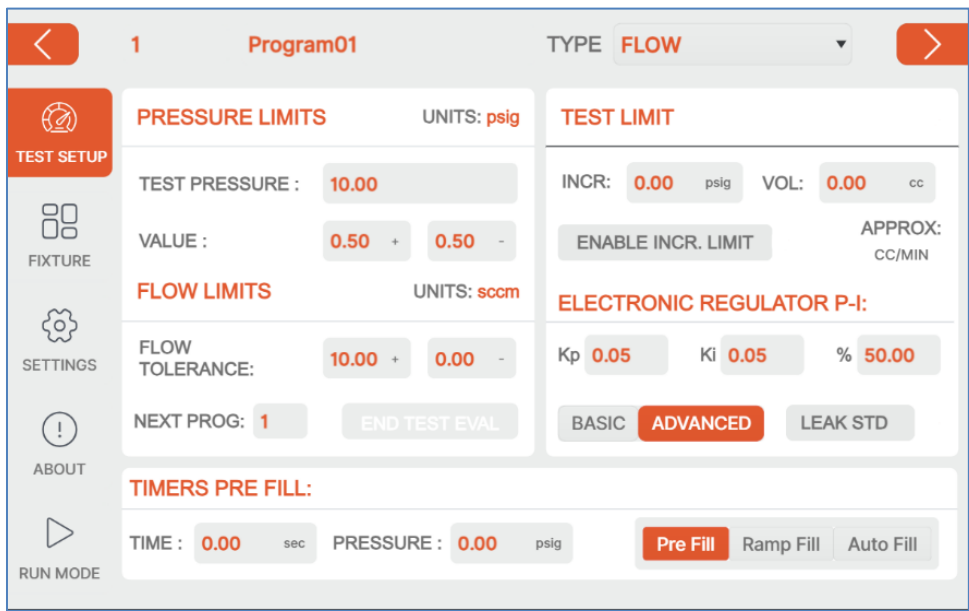
The Z8 will always boot to the ‘run’ screen, and into the last program that was selected or previously ran.

To access the test setup or all other setting screens press the TEST SETUP button in the lower left corner of the screen.



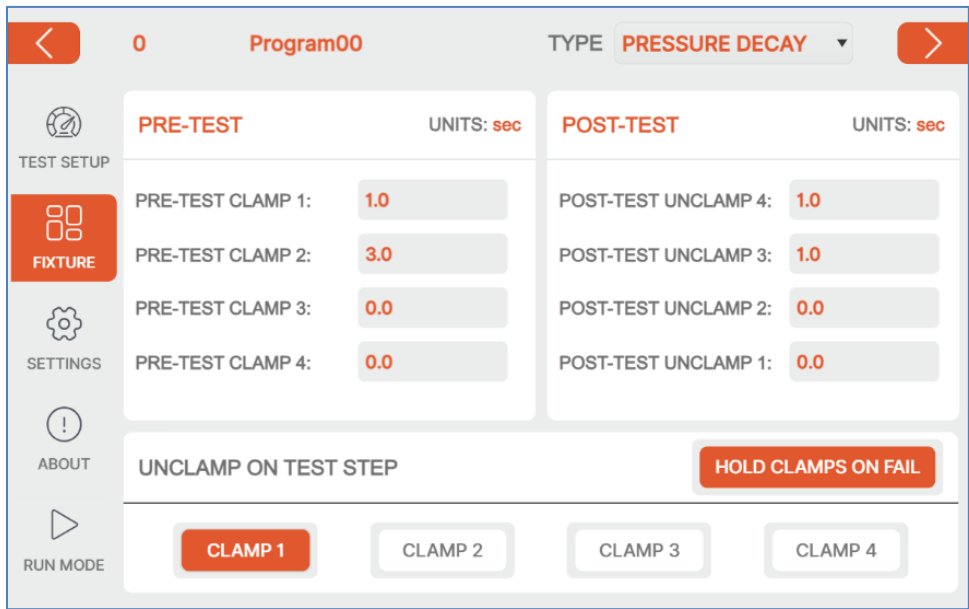
The initial menu will be the actual test parameters. The currently selected test will be shown across the top of the screen. All basic timers and limits are displayed on this screen for easy access.

Additional menus are along the left edge of the screen. The active menu will be highlighted.

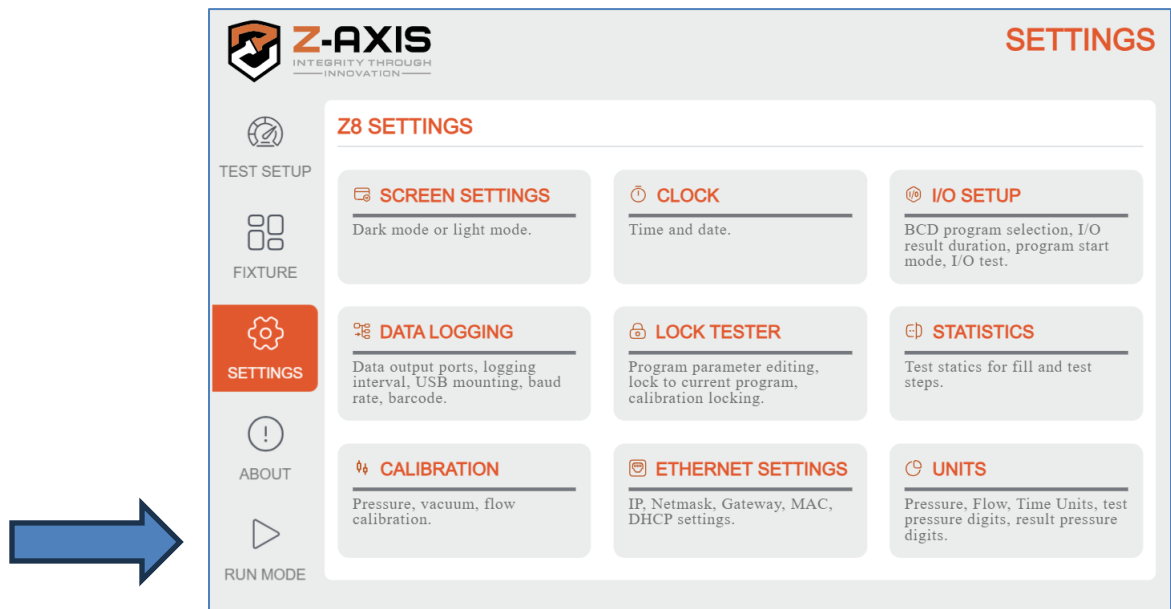


To control fixture actuation valves (clamps), access the FIXTURE menu from the left side.

There are up to four fixture actuation valves that can be controlled.



The settings menu is the access point for items such as Calibration and Data Collection.



To run a test cycle, press the RUN MODE button, then the green start button on the front panel.

How to select test parameters

Testing times are dependent on factors such as part volume, test pressure, and leak rate. Other factors that will affect testing are things like compliance (stretch) of the part under pressure or vacuum.

Some amount of trial and error will be involved in finding acceptable values. Zaxis has a few guidelines to follow in aid of your task.

Timers:

Fill – This timer should be long enough, such that the part reaches test pressure and is stable for 1 second longer. Increasing the fill time will allow for thermodynamic processes to nullify. More fill time is better than less. (For example, if the part pressurized in 1.2 seconds, the recommended minimum fill time would be 2.2 seconds).

Settle – During the settle timer the part is isolated from any incoming air. If sufficient time is given to the fill step, this timer can be shortened to 0.5seconds minimum.

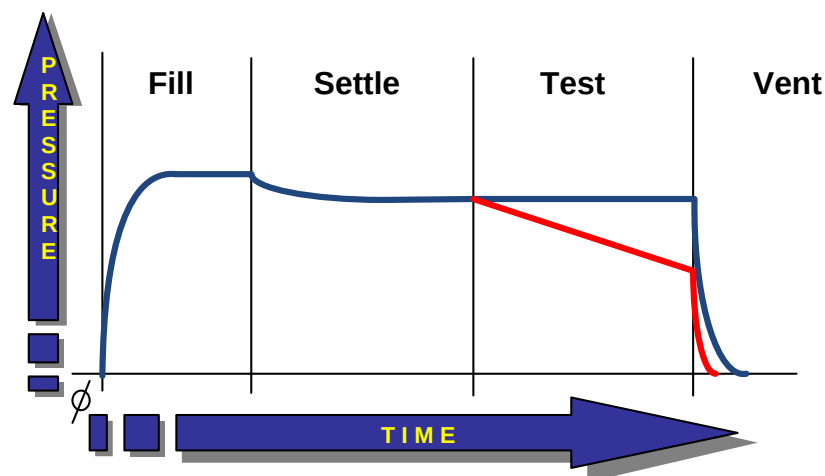
Test – The test time is dependent on the needs of the product and the leak rate. Start with 3-5 seconds. Compare the decay of a good and bad part. The further apart the decay of these values, the more assured you can be that failed parts will be found. A good rule-of-thumb is to have a 3X separation between the decay of a good part and bad part. To further separate these values, add more test step time.

Vent – The vent step is for the safety of the operator. The vent step allows test pressure in the part to be vented internally to the unit, so that if the part is removed no pressure is ejected towards the operator. The default of 1.0 seconds is typically a good place to start.

Limits:

Test Pressure - This is the amount of pressure variance that is acceptable for the test pressure. We recommend starting at 10% of the test pressure. This limit will be used to evaluate the Fill and Settle steps. A High- or Low-pressure error will result if the pressure fails to stay in bounds of the tolerance. The Settle step must hold the minimum tolerance of the test pressure for the entire timer, or it is considered a GROSS leak.

Decay – This is the value used in the Test step to determine 'fine' leak status. If the decay during the test step is greater than this value, the test will halt and declare a LEAK result.



Tester Baseline

At the factory a baseline test is performed to verify functionality. The parameters are shown below.

When setting the test pressure, cap the test port before selecting the pressure field.

Running a capped port test with these parameters should yield a value less than 0.005psig.

<

1

Program01

TYPE

PRESSURE DECAY

>

TEST SETUP

FIXTURE

SETTINGS

ABOUT

RUN MODE

PRESSURE LIMITS

UNITS: psig

TEST PRESSURE : 10.00

TOLERANCE : 0.50 + 0.50 -

PRESSURE DECAY : 0.05

NEXT PROG: 1

END TEST EVAL.

TIMES

UNITS: sec

FILL : 2.00

SETTLE : 2.00

TEST : 3.00

VENT : 1.00

BASIC

ADVANCED

TIMED

AUTO

0.09

Off

On

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