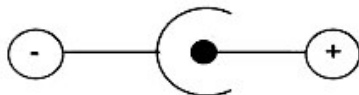
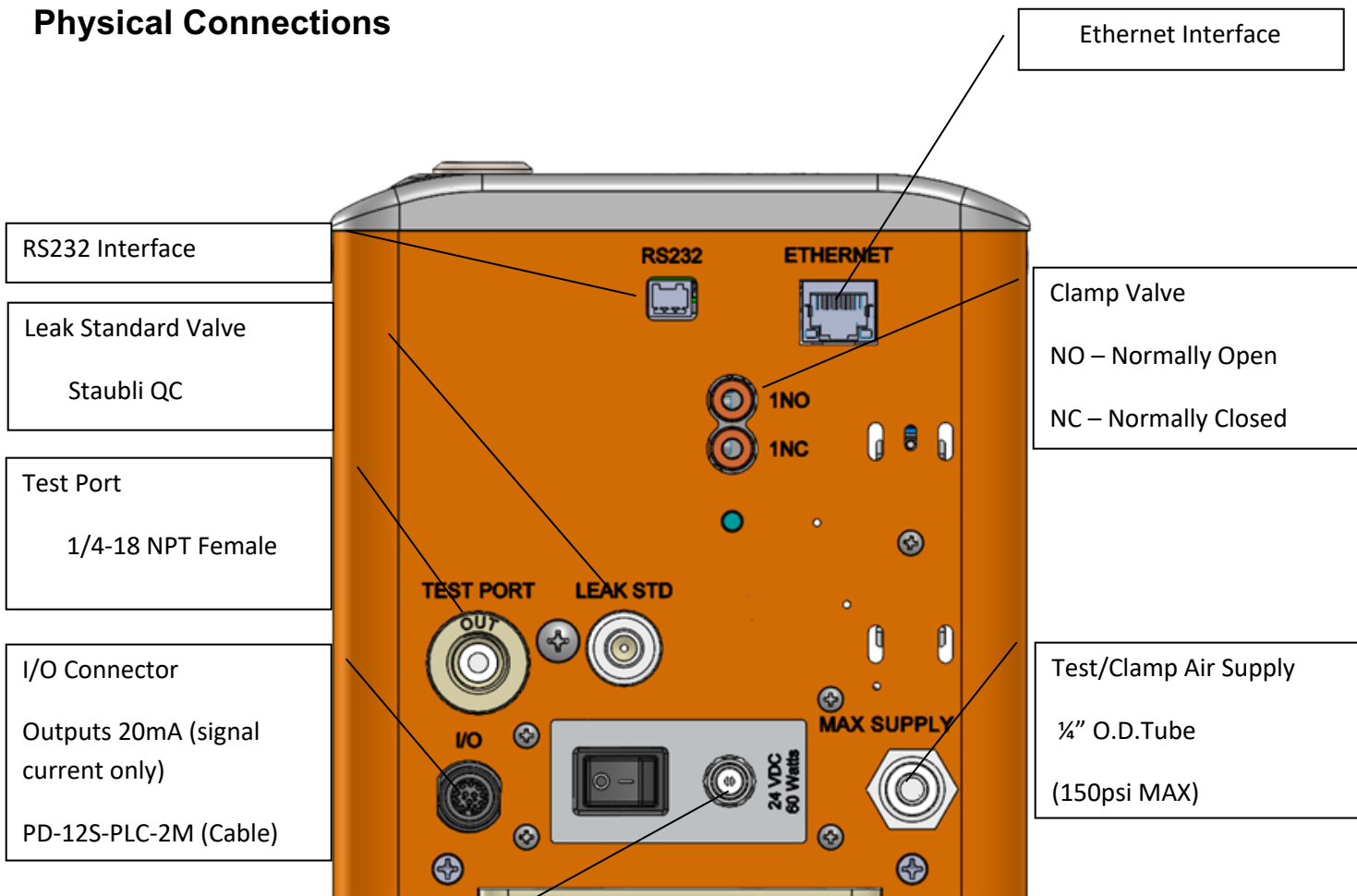




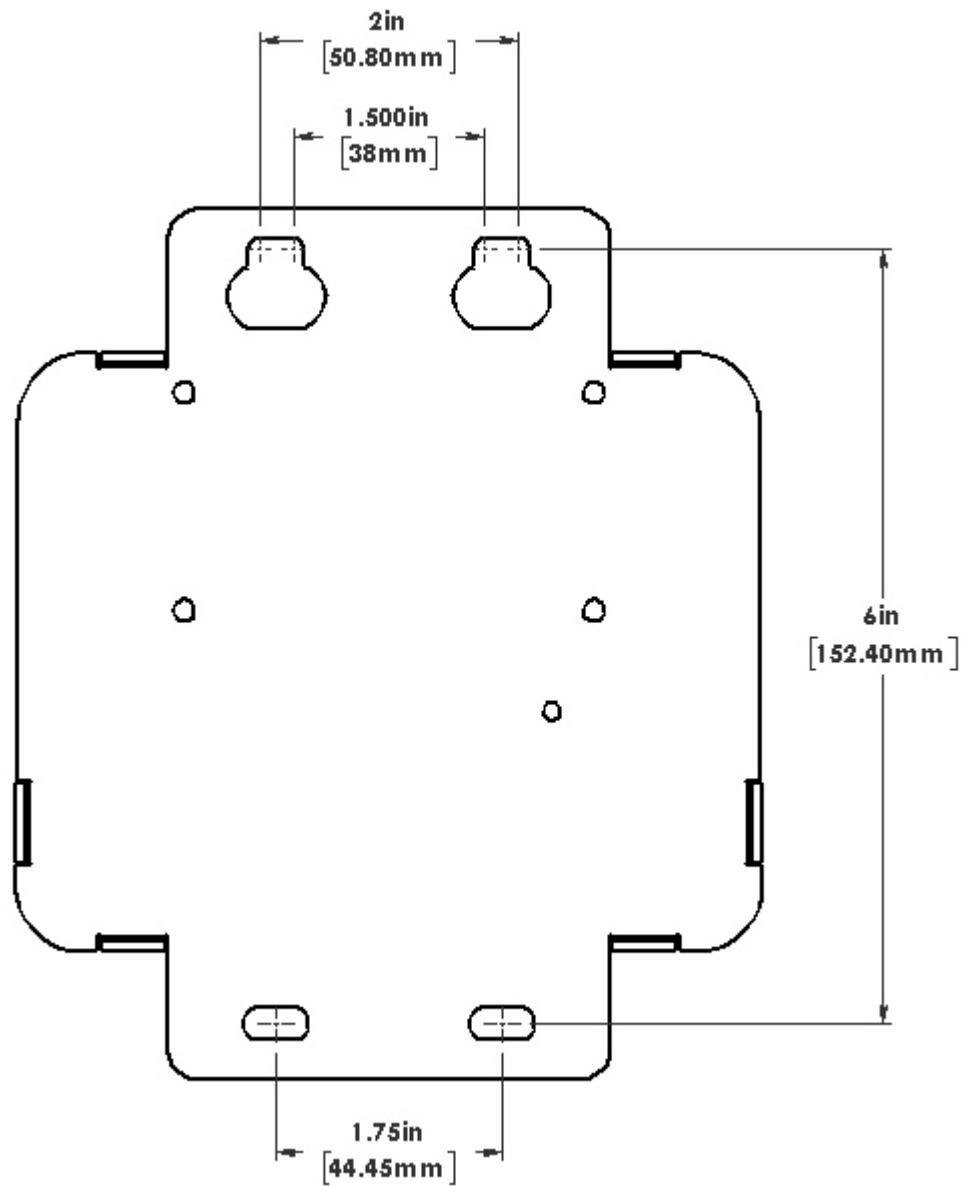
Zaxis PD - Quick Start Guide

This document will aid in the physical connections and navigation of the setup parameters for the Zaxis-PD test platform.

Physical Connections



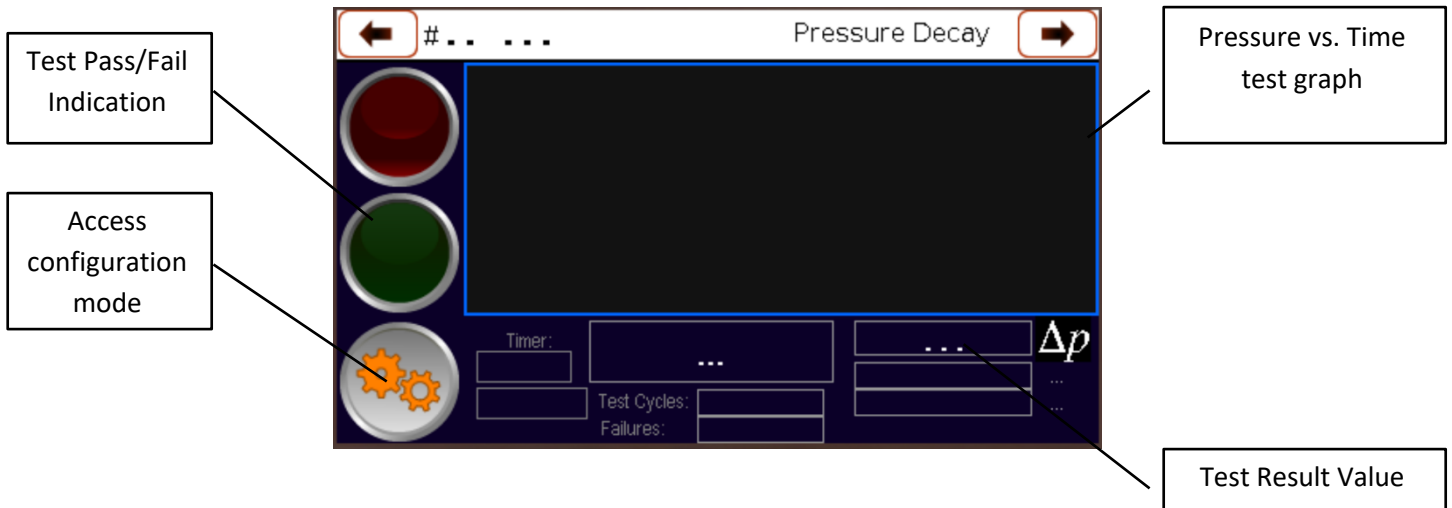
Physical Connections - Mounting



On initial power-up of the unit, the following screen will appear. This screen (About) provides the serial number as well as the firmware version of the display and main PCB.



After five seconds the About screen will change into the run mode (below).



Configuration Mode

The configuration of the unit is separated into four main menus; PROG, UNITS, CALIBRATE, and OPTIONS. All four menus have user configurable settings. See the User Guide for more detailed instructions.

PROG (Program Settings)

Two menus control all the parameters associated with the test process. These screens are PRESSURE, and SETTINGS.

Pressure

This menu is the location for the test pressure setting as well as the tolerance for this pressure. The valve on/off allows for the physical setting of the internal regulator, when the valves are on, cap the test port and increase the pressure to reach the set test pressure. A live reading of the sensor is shown.

The screenshot shows the 'Pressure' configuration screen. At the top, there is a navigation bar with a left arrow, a '#' symbol, and a right arrow. The title 'Pressure Decay' is centered at the top. Below the navigation bar, there are several sections:

- Pressure:** A section with a 'Pressure' button on the left. It contains 'Test Pressure' with a '+' sign and a numerical input field, and 'Parameters to USB...' with a 'Save' button.
- Fixture:** A section with a 'Fixture' button on the left. It contains a '-' sign and a numerical input field, and a 'Load' button.
- Settings:** A section with a 'Settings' button on the left. It contains 'Next Program' with a numerical input field.
- Valve:** A section with an information icon (i) on the left. It contains 'Curr. Pressure:' with a numerical input field, and 'Valve' with radio buttons for 'ON' and 'OFF'.

At the bottom of the screen, there is a navigation bar with a right arrow and five buttons: 'Prog', 'Units', 'Calibrate', 'Options', and 'About'.

Settings

These parameters control test air presented to the test part. The Pre-Fill is used with larger part volumes (greater than 300cc) This timer controls the valve that will introduce a second source of air to the part, typically at a higher pressure. This function can be either timed, or Auto stopped at a value entered on the Pre Fill pressure value box.

The Fill time is the amount of time the regulator will be allowed to supply test pressure to the part.

The Settle time is used to allow for thermodynamics and/or compliance of the part to reach equilibrium.

The Test step is the amount of time where the change in pressure will be measured for a Pass/Fail status of the test.

The Vent step is a safety mechanism to allow test pressure to be evacuated from the test part.

The Decay value is the amount of change in pressure that will cause a fail attribute to be associated with the part.

The screenshot shows a software interface for configuring test parameters. At the top, there is a title bar with a left arrow, a '#' symbol, and the text 'Pressure Decay' followed by a right arrow. Below the title bar, there are several sections:

- Timers:** A section with two rows of settings. The first row has 'Pre Fill: ...s' and 'Pre Fill Press: ...'. The second row has 'Fill: ...s', 'Settle: ...s', and 'Test: ...s'. Below these are radio buttons for 'Timed' and 'Auto'.
- Pressure:** A button labeled 'Pressure'.
- Fixture:** A button labeled 'Fixture'.
- Settings:** A button labeled 'Settings'.
- Output Results:** A section with checkboxes for 'USB' and 'Ethernet'. There is also a checkbox for 'LeakStandard' with an information icon.
- Vent:** A section with a 'Vent: ...s' field and radio buttons for 'Timed' and 'Auto'.
- Test Limits:** A section with an information icon, an 'Increase: ...' field, a checkbox for 'Enable Increase Limit', a 'Decay: ...' field, and a checkbox for 'Evaluate at End of Test'.
- Volume:** A section with a 'Volume: ... cc' field and an information icon.

At the bottom of the screen, there is a row of buttons: a play button, 'Prog', 'Units', 'Calibrate', 'Options', and 'About'.

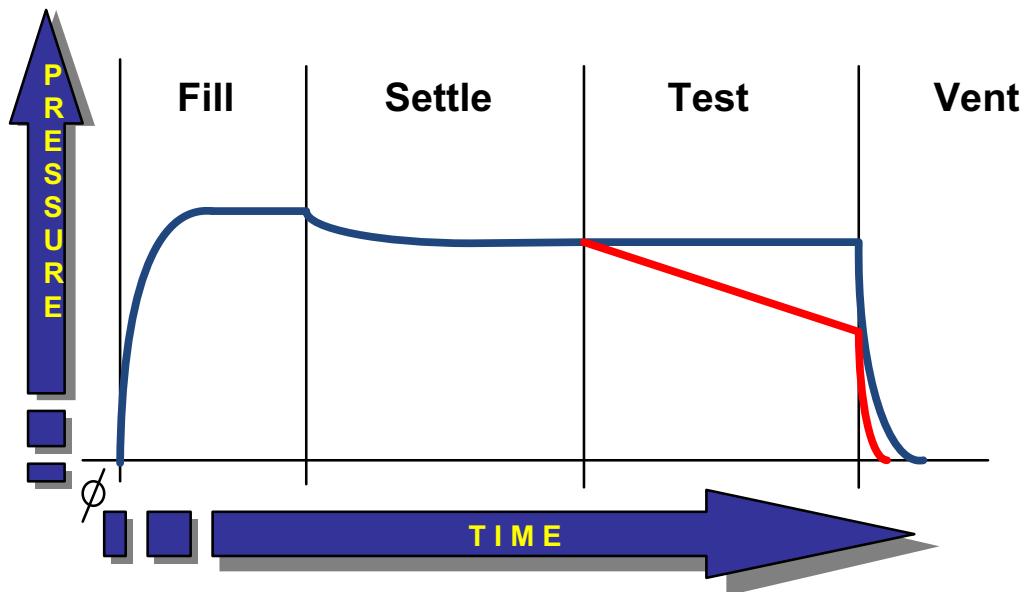
How to select test times

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 of the part under pressure or vacuum. Some amount of trial and error will be involved in finding acceptable values. However Zaxis has a few guidelines to follow in aid of your task.

Fill – The time should be long enough such that the part reaches the test pressure and is stable.

Settle – During the settle time the part is isolated from any incoming air. If the media of the part is susceptible to movement (compliance) the amount of pressure will drop slightly. The total settle time should be long enough to allow for the initial movement of the part to calm.

Test – The test time is dependent on the needs of the product and the leak rate. Compare the decay of a good and bad part.



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