


Onsite Setup Guide

For the PIT5000

Safety Information

Preventing injury

Failure to follow all instructions could result in injury:

- Read the User Manual. 
- Understand it.
- Follow all safety warnings and instructions provided with this product.
- Follow your employer's safety practices.

Setup the hardware

1. Locate the PIT5000 away from the pipe section under test according to your company's safety guidelines.
2. Place the PIT5000 on a level surface with adequate protection from precipitation, wind, excessive heat, and excessive cold.

Setup the power connection(s)

3. See the diagrams on page 3.
4. Move the **Power** toggle switch to the **On** position.
5. Turn on the computer and the PIT5000 application automatically launches.

Note: if the application doesn't launch, double click the PIT5000 icon.

Zero the pressure

6. The PIT5000 pressure measurement should indicate zero at ambient air pressure (current atmospheric pressure, no pressure hose connected).
Note: Since ambient air pressure depends on altitude and weather, you should use the PIT5000 application to zero for the current conditions.
7. Select the **PC Setup** sub-tab and click the **Zero Pressure** button to zero the pressure measurement.

Connect the hose and cables

8. Connect one end of the pressure hose to the control panel connector and the other end to the pipe section under test.

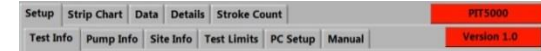


- Safe Working Pressure for the 3300 psi pressure range is 3300 psi.
- Do not exceed the pressure limit.

9. Connect one RTD to the mating end of each RTD cable.
10. Connect the opposite cable end to the control panel connector labeled **Pipe Temperature** or **Ambient Temperature**.
11. Make sure you have the right RTD connections when you locate each RTD in the corresponding test site position (ambient or pipe temperature location).
12. To use the **Stroke counter**, connect the counter cable to the control panel.
13. Connect the opposite end (#8 spade lugs) to a set of dry contacts activated by the pressure pump's stroke counter.
Note: You supply the contacts, normally open or normally closed will work.

Setup the two test reports

14. Enter information in all the data entry fields in the sub-tabs for **Setup**.



Test Info tab

15. Select the pressure and temperature units for the test.
Note: The default units are psi, deg F, and feet.
16. The **Active Report** drop-down gives you the option to choose:
 - a. **Report 1** – the original PIT5000 report.
 - b. **Report 2** - the new, expanded report.
17. The **Report 2** option gives you additional data points to enter in this **Test Info** tab and the **Site Info** tab.

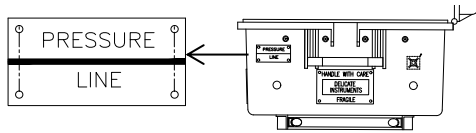
Pump Info tab

18. Enter the pump model and serial number.
19. If you require the Stroke Count function, then enter the pump stroke volume, Stroke Start Pressure (value at which straight line stroke test should start), and Stroke Rate Target (psi/min).
20. **Pump Info:** Use the pump contact indicator to check circuit continuity before testing.

Setup test reports *continued*

Site Info tab

21. Enter the high point pressure and site elevation information for the pipe section under test.
22. Enter the PIT5000 Elevation according to the **—Pressure Line—** on the outside of the carrying case.



23. The **Report 2** option (selected in **Test Info** tab) gives you additional data points to enter in this **Site Info** tab.

Test Limits tab

24. Enter the test duration, PLeak pressure, upper and lower PTest limits, and so on.

Note: Some values on this tab came from values entered in other tabs.

PC Setup tab

25. Click the **Get Cal Data** button to retrieve information about the measurement device.
26. If clicking on the **Get Cal Data** button does not return serial numbers, select another **COM Port** from the list and retry. The **Refresh** button updates the list of available COM Ports.

Record your test data

Start Program button

27. Click to start the PIT5000's real time plot and data logging features.
28. Use **Start Program** to verify PIT5000 data logging during site preparations and for pressurization up to PTest Pressure.
29. Click the **Strip Chart** tab to view real time plot of $T_{ambient}$, T_{pipe} , and Pressure versus time.
30. Click the **Data** tab to view data sets that have been saved to a file.
31. Click the **Stroke Count** tab to view pump stroke totals at any time.
32. Click the **Details** tab to view the current Time, Start Time, Elapsed Time, and Estimated Finish time tracked by the application, serial numbers of measurement devices, and the file paths where the test results were saved.
33. When pressure goes above the **Stroke Start Pressure**, Stroke data sets and the stroke versus pressure plot are active.

Begin Test button

34. Click the **Begin Test** button *after* the pipe section under test is pressurized to the PTest Instrument Pressure and your connections are leak free.
35. Flashing red appears in the Data Panel when the pressure exceeded the range limits.

Note: *These range limits are based on values that you entered in the **Test Limits** sub-tab.*

Add Note button

36. Enter notes in the text box above the **Add Note** button.

Limit: 45 characters.

Note: *You may add notes that you need any time during the test period.*

37. Click the **Add Note** button to save the note.

End Test button.

38. End a test at any point in the test program by clicking the **End Test** button. You receive a prompt asking you what do you want to do: Begin another data set or close the PIT5000 application.

Note: *Test data is saved to the file path displayed on the **Details** tab.*

NOTICE

- You cannot restart a test once you click **End Test**. There is no way to append new data to an earlier file.
- You can click **Begin Test** to restart the program and save the balance of the test data under a different, but similar file name.

Shut down and disconnect

39. Close the PIT5000 application in any main tab by clicking the **End Test** button at the bottom of the **Data Panel**. You must answer the confirmation question with YES or NO.
 1. Click **YES** to close the program.
 2. Click **NO** to return to normal test mode.
40. Shut down the computer.
41. Move the Power toggle switch to the **Off** position on the Control Panel.
42. Relieve pressure in the hose.
43. Disconnect the pressure hose, power cable(s), and sensor cables.

How to contact Meriam

Contact Sales

If you have any issues, questions, or suggestions, please contact us using one of the following methods.

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Recommended power connections with the PIT5000

Note: All batteries are 12 V dc.

Note: Never use the vehicle battery unless the engine is running and the alternator is working.

Battery to PIT5000



Charger to battery to PIT5000



Vehicle to battery to PIT5000



Charger to PIT5000

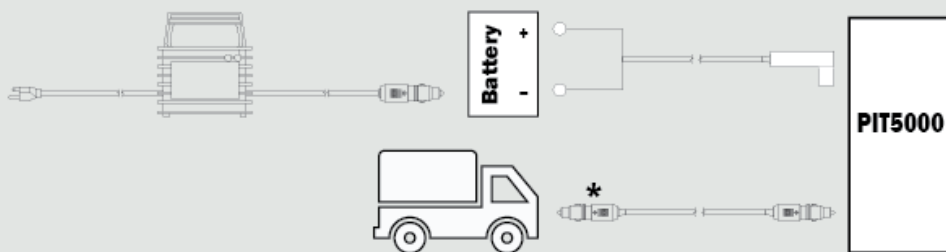


Vehicle to PIT5000



Unacceptable power connections with the PIT5000

Charger to battery and vehicle to PIT5000

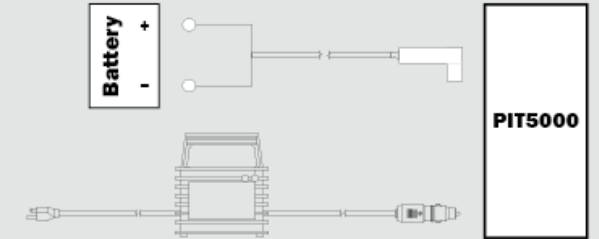


Temporary power connections with the PIT5000

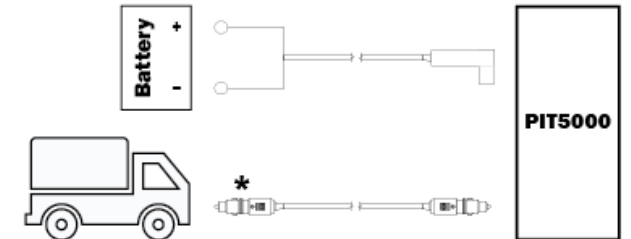
Note: Only recommended briefly while you switch power sources.

Note: Never use the vehicle battery unless the engine is running and the alternator is working.

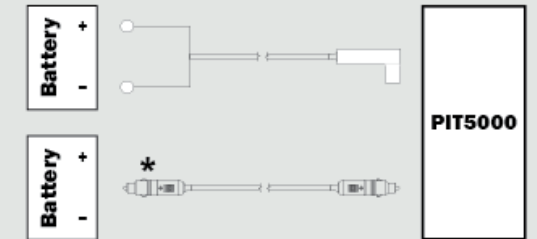
Battery and Charger to PIT5000 (two simultaneous connections)



Battery and Vehicle to PIT5000 (two simultaneous connections)



Battery and battery to PIT5000 (two simultaneous connections)



* Legacy cable.

Notes: