

Instructions for Pressure Testing A Gas Tight Garment

Model AKMOC



Kappler®

Know What You're Getting Into.®

**THIS INFORMATION PACKET MAY NOT BE REMOVED
EXCEPT BY THE END USER**

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SAFETY CONSIDERATIONS

Be sure to read, understand and follow the information in this manual and all applicable federal, state and local occupational safety and health statutes. For users outside the United States, please consult national or other applicable personal protective equipment regulations for proper use, consistent with NFPA 1500, Standard on Fire Department Occupational Safety and Health Program, and 29 CFR 1910.132.

SAFETY SYMBOLS USED IN THIS MANUAL



WARNING

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



CAUTION

Indicates a potentially hazardous situation which, if not avoided, could result in physical injury or damage to the product. It may also be used to alert against unsafe practices.



NOTICE

Indicates additional information on how to use the device.

HELPFUL YOUTUBE VIDEOS AVAILABLE FOR YOUR AKMOC USE.

PRESSURE TESTING A GAS TIGHT GARMENT USING THE AKMOC TEST KIT

<https://www.youtube.com/watch?v=Hv5k2srzdEw>

PRESSURE TEST KIT SELF-TEST

<https://www.youtube.com/watch?v=U89O5youy0o>

REPLACEMENT AND USE OF THE UNIVERSAL ADAPTER

<https://www.youtube.com/watch?v=MUMqckDIHGU>

REMOVAL AND REPLACEMENT OF THE EXHAUST VALVE BODY ON A FRONTLINE 500

https://www.youtube.com/watch?v=9khzKO_PVFW

REMOVAL AND REPLACEMENT OF THE PIRELLI EXHAUST VALVE ON A ZYTRON 500

<https://www.youtube.com/watch?v=gWZxRzP8Vnc>

TECHNIQUE FOR CLOSING A GAS TIGHT ZIPPER

<https://www.youtube.com/watch?v=Vupn0CH0wks>

PROPER FOLDING AND STORAGE OF ZYTRON 500

<https://www.youtube.com/watch?v=ST2n51PMqAU>

PROPER FOLDING AND STORAGE OF FRONTLINE 500

<https://www.youtube.com/watch?v=QFRlqkckmGg>

**WARNING**

DO NOT CONNECT SUPPLIED AIR TO THE TEST KIT DURING A SELF-TEST. CONNECTION OF SUPPLIED AIR DURING THIS TEST COULD RESULT IN SERIOUS INJURY OR DAMAGE TO THE TEST KIT.

**NOTICE**

During the assembly and testing of the Kappler AKMOC pressure test kit, several steps are taken to ensure the reliability and accuracy of the kit.

The kit is subjected to a self-test to ensure the connections inside the kit are complete and leak free. The kit is then subjected to an ASTM F 1052 test with a testing pillow.

Upon successful completion of these tests, the pressure transducer inside the kit is verified against a pressure calibrator. If the transducer is out of tolerance during the verification, slight adjustments are made to bring the readout into tolerance.

If the authority having jurisdiction (AHJ) or company policies require calibration of the kit, then an accredited calibration company should be consulted for calibration.



**CAUTION**

This pressure test kit is recommended for an inlet pressure of 100-150 psi. Any pressure higher than 200 psi will damage the pressure test kit. If a source greater than 200 psi is used, a pressure regulator must be installed in-line to prevent damage to the kit.

Kappler strongly recommends the use of a clean air source to prevent contamination of the pressure test kit. If a clean and dry air source cannot be verified, an in-line air filter should be installed.

If hoses are removed from the test kit while the test is in process there is a possibility of over-inflating and/or damage to the garment being tested. If hoses are removed during a pressure test Kappler recommends immediately stopping the testing process and completely restarting the pressure test.

A. Pair of Valve Adapters (AKM003)

B. Aspirator for Self-Test

C. USB Drive

D. Pair of Air Supply Hoses with Quick Disconnect Fittings (AKM004)

E. Power Cord

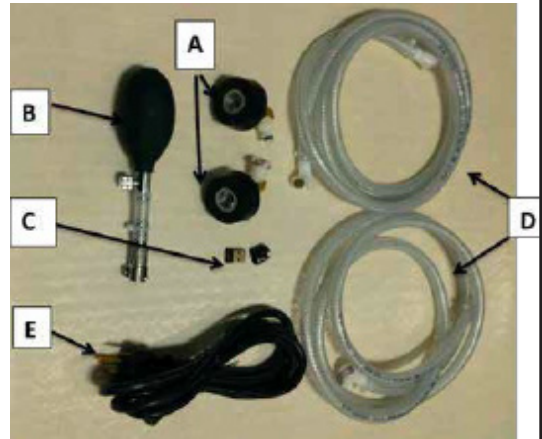


Figure 1: Labeled Components

F. Male Quick Disconnect Hose Fittings (D)

G. Male Quick Disconnect Fitting for Aspirator (B)

H. Pressure Relief Valve

I. Swivel Connector for User Supplied Air Fitting

J. Touch Screen

K. USB Port

L. Power Switch and Power Cord Plug (E)

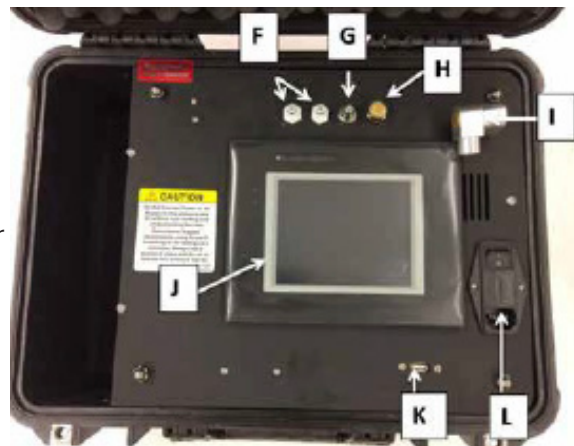


Figure 2: Test Kit Layout

SELF-TEST INSTRUCTIONS



WARNING

DO NOT CONNECT SUPPLIED AIR TO THE PRESSURE TEST KIT DURING THE “SELF-TEST”. RELEASE ANY RESIDUAL PRESSURE BEFORE ATTACHING ASPIRATOR.

1. Ensure there is no residual pressure in the test kit by using your finger to press the white inner tube of the Male Quick Disconnect Fitting (Part G) and releasing any stored air.
2. Locate the power supply cord (Part E) and insert into the AC receptacle (L) on the test kit face. Connect the power supply cord to a 110 volt power source. Use of this kit outside the United States will require special adapters and/or converters.
3. Connect the two supplied air hoses (Part D) together by attaching one male quick disconnect to one female quick disconnect and then connecting the other ends to the male quick disconnect fittings (Part F) mounted on the top center of the test kit face plate.
4. Attach the female quick disconnect on the self-test aspirator (Part B) to the male quick disconnect (Part G) located on the face plate adjacent to the other quick disconnect fittings. Close the thumb screw on the aspirator.
5. Turn test kit on with power switch (L). Wait until the test kit program has loaded and the Touch Screen (J) shows the Set-up Page (Figure 3). Insert USB drive into the USB port (K). Note: It will take a few moments for the drive to connect with the software.



Figure 3: Set Up Page

6. Press the “TEST SELECTION” button on the startup page to proceed to Test Selection Page (Figure 4).

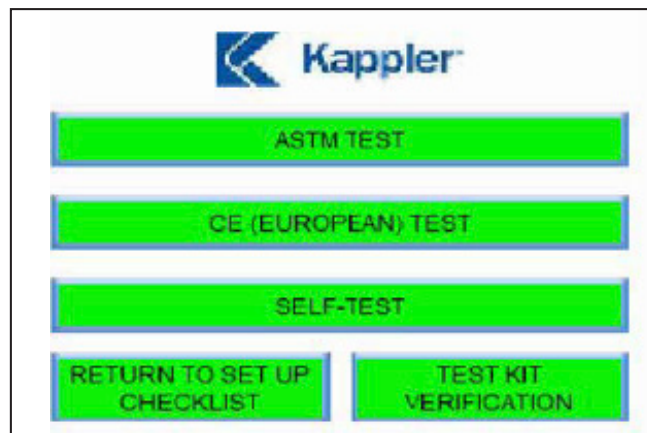


Figure 4: Test Selection Page

7. Press the “SELF-TEST” button to go to the SELF-TEST PAGE.
8. Press the “INPUT USER AND KIT INFORMATION” button.

9. Input the user and test kit information in the appropriate fields and press the “SELF-TEST” button to return to the self-test page.
10. Press the “START” button, and then firmly squeeze the aspirator one (1) time to fill the kit and hoses with air. The self-test requires minimal air, DO NOT continue to squeeze the aspirator or this will further extend the time to complete the test.
11. The self-test will take several minutes to complete.
12. The results of the testing will be displayed with an indication of PASS/FAIL. To complete the self-test and record the test data, press the “STOP” button and then press the “COPY DATA TO USB” button to transfer data to the USB drive. When the red button “Accessing USB Drive Do Not Remove” stops flashing, the USB drive can be removed. Kappler offers a data conversion program to access the data on the USB drive and allow conversion into an Excel spreadsheet for further use. The executable file for this program can be located at <https://www.kappler.com/files>, USB Data Program. Instructions for downloading the Data Program can be found on page 30.
13. If the test kit passes the self-test, remove the aspirator bulb from the kit, disconnect the hose ends from each other and attach the valve adapters to perform garment testing.
14. If the test kit fails the self-test, ensure the kit has obtained ambient temperature for at least 30 minutes. Verify all connections for proper fit, relief valve seating, and has a positive seal on all connections. Perform the test 2-3 more times allowing for plenty of time for temperature adjustment of the kit to reach ambient temperature. If the test kit still will not self-test, contact Kappler Customer Service at 1-800-600-4019 for a Return Goods Authorization (RGA) to return the test kit for inspection and repair.

15. If the self-test results in an ending pressure of 4.25 inches or higher, the message “Pressure rose during test. Please retest” will appear. Allow the kit to remain in the test area at least 30 minutes and perform the test again. If the result of the retest is high again, contact Kappler Customer Service at 1-800-600-4019 for a Return Goods Authorization (RGA) to return the test kit for inspection and repair.

**NOTICE**

*The ASTM and CE Testing Procedure **SHOULD NOT** be performed near heating or cooling vents. Air can expand and/or contract, leading to a false pass or fail of the garment.*

ASTM AND CE TESTING PROCEDURE

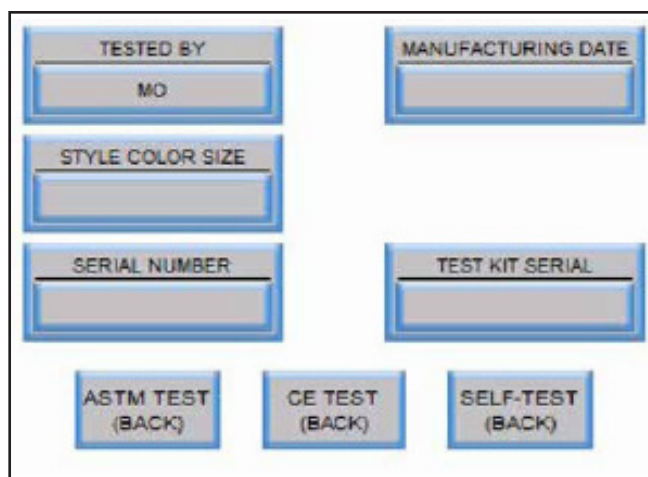
1. Insert the two test kit valve adapters (Part A) into the matching quick disconnect fittings on the Supplied Air Hoses (Part D). Listen for a distinct click to ensure disconnect fittings are inserted correctly.
2. Locate the power supply cord (Part E) and insert into the AC receptacle (L) on the test kit face. Connect the power supply cord to a 110 volt power source. Do not turn on the power to the test kit at this time. (Use of this kit outside the United States will require special adapters and/or converters.)
3. The user must supply a suitable quick disconnect fitting, that is compatible with their air supply system, and install the fitting into the supplied air fitting connection (I) located on the upper right of the test kit face. Use thread sealant or sealing tape on the fitting Threads to ensure proper seal. If sealing tape is used, insure none is over the end of the male fitting.

4. Connect to a clean and dry air source, preferably Grade D breathing air, to the test kit. Kappler recommends an inlet pressure of between 100-150 psi. **Do not exceed 200 psi inlet pressure.**
5. Turn on the test kit with power switch (L) and wait until the test kit program has loaded and the Touch Screen (J) shows the Set-up Page (Figure 3). Insert USB drive into USB port (K). Note: It will take a few moments for the USB drive to connect with the software.
6. Cut the pull tie that attaches the inspection tag to the garment storage bag (Figure 7), open the bag and remove the gas tight garment. Unfold the garment and place face down on a smooth clean surface where it can be inflated without obstruction.

Locate the two exhaust valves on the back of the garment. Remove the exhaust valve covers (M) and the diaphragms (N) from inside the exhaust valves (Figure 8). Visually inspect the valve diaphragms (N) for signs of deterioration to ensure pliability and proper performance.

7. Place each valve cover (M) and diaphragm (N) in a safe place until testing is completed.
8. Install the test kit valve adapters (A) into each exhaust valve, while reaching inside garment to support the exhaust valve from the inside. Firmly insert the valve adapters (A) into the exhaust valves sitting level with respect to the exhaust valve with a slight even twist to ensure a tight seal. Visually inspect the connection to confirm the valve adapters (A) are securely in place. Close the garment zipper ensuring the slider is firmly engaged against the zipper end stop. For instructions on proper zipper closing techniques refer to <https://www.kappler.com/files> “Technique for Closing a Gas Tight Zipper”.

9. On the test kit touch screen Test Selection Page (Figure 4), press the “ASTM TEST or CE (EUROPEAN) TEST, depending on the test needed. On the Test Page, press the “INPUT USER AND GARMENT INFORMATION” dialog box to reach the User and Garment Information Page (Figure 5). The information for the tester, the style/color/size of the garment, garment serial number, garment manufacturing date and test kit serial number can be recorded. After the necessary information has been entered, press the appropriate button and return to the ASTM or CE test page.
10. Press the START button to begin the test. The button will light up if pressed correctly to indicate testing has started. The test will perform automatically. The garment will inflate until the settling pressure is reached. You will hear continued short bursts of air from the kit during this time, which is normal. During this time, flatten out any wrinkles or folds in the garment, such as the sock boot folded under the boot flap. Also use this time to perform a visual inspection to check for cuts, abrasions, seam lifts and other visual defects.
11. After the settling pressure is reached (5 inches for ASTM/ 6.8 inches for CE), the settling phase of the test will begin and will continue for the appropriate time. (3 minutes for ASTM/10 minutes for CE).
12. After settling is complete, the test kit will reduce the pressure to the initial test pressure (4 inches for ASTM /6.6 inches for CE) and begin the testing phase. After the testing begins, do not touch the garment or the Supplied Air Hoses for the duration of the test.
13. At the end of the test, the screen will display messages at the top and bottom of the page. The top message will indicate a pass or fail of the pressure test. The bottom message will provide the ending test pressure. These messages will remain until the “STOP” button is pressed to end the testing.



A screenshot of a user interface for entering information. It features several input fields and buttons. On the left, there are three stacked input fields labeled 'TESTED BY' (with 'MO' entered), 'STYLE COLOR SIZE', and 'SERIAL NUMBER'. On the right, there are two stacked input fields labeled 'MANUFACTURING DATE' and 'TEST KIT SERIAL'. At the bottom, there are three buttons labeled 'ASTM TEST (BACK)', 'CE TEST (BACK)', and 'SELF-TEST (BACK)'.

Figure 5: User and Garment Information Page

When testing is complete, press the red “STOP” button and then the “COPY DATA TO USB” button to transfer the test data to the USB Drive (Figure 6). Do not remove the USB Drive until the flashing red “Accessing USB Drive Do Not Remove” stops flashing. If “COPY DATA TO USB” is pressed and the flashing icon does not appear, then all data has been transferred.

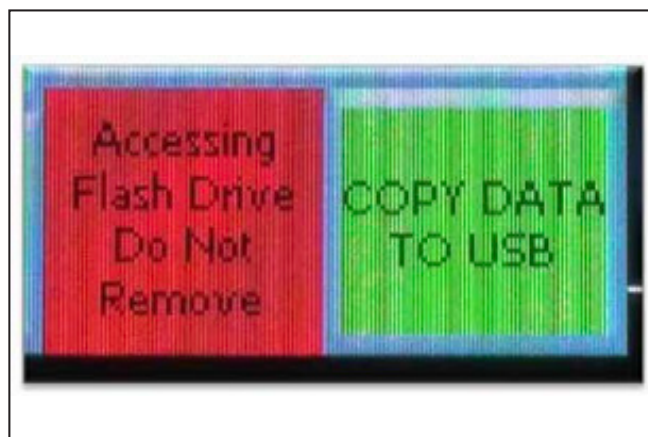


Figure 6: Copy Data to USB Button and Red “Accessing USB Drive Do Not Remove” Alert

**NOTICE**

The pressure testing data must be downloaded to the USB before the power is turned off to the pressure test kit or the stored data will be lost.

14. Disconnect the valve adapters (A) from the garment.
15. Fill out the inspection tag; see Figure 7 (A), which came attached to the bag with the results of the test and the user information.



**Figure 7: (A) Pull Tie and Inspection Tag
(B) Pull Tie and Inspection Tag binding the handles together.**

16. Replace the diaphragms and the valve covers (Part M and N) in Figure 8. For the Zytron® diaphragm pull on the stem to secure

the diaphragm to the valve and for the Frontline® diaphragm insert the protrusion located in the center of the valve into the hole of the diaphragm.



Figure 8: Exhaust Valve Covers and Diaphragms

17. Fully unzip the garment to exhaust the air, fold the garment and return it to the bag as stated in garment User Manual.



NOTICE

Kappler recommends that all garments be stored with the zipper unzipped completely.

18. Using a pull tie, attach the inspection tag to the bag while binding the handles together; see Figure 7 (B).

**CAUTION**

Do not allow the kit to come in contact with water as it may damage the pressure test kit.

INSTRUCTIONS FOR LOCATING LEAKS

1. With the garment still connected to the test kit, Press the “Start” button on the ASTM test to begin the test again.
2. During the settling time where the pressure is maintained at 5 inches of water column, brush or wipe sections of the garment, one at a time, with a mild soap and water solution.
3. Check seams, zippers, visor seams, glove interfaces and valve bodies, as well as between the valve and valve adapter.
4. Observe these areas for the presence of soap bubbles, which is an indication of a leak.

If more time is needed for inspection, press the “STOP” button and repeat steps 1 through 4 until leak is found.

**NOTICE**

All Kappler garments are designed for multi-use, single exposure and must be replaced when damaged or chemical contamination occurs.

PRESSURE TEST KIT VERIFICATION



NOTICE

Verification should not be performed near heating or cooling vents. Air can expand and/or contract, leading to incorrect readings. This test should be performed with a third party calibrated manometer.



WARNING

WARNING: DO NOT REMOVE the testing unit from the outer case. Inside the kit there are exposed wires that could shock the user and cause serious injury or death if the user makes contact with the power supply or power switch. Removal of the testing unit from the case is **NOT RECOMMENDED AND VOIDS THE WARRANTY.**

ITEMS NEEDED FOR PRESSURE TEST KIT VERIFICATION

- ▶ Calibrated Pressure Test Device capable of reading between 0 and 10 inches of water column
- ▶ Female Quick Disconnect Coupling Sockets
- ▶ ¼ Inch Diameter Hose
- ▶ Other parts may be needed depending on the calibrated device being used as a reference.

STEPS NEEDED FOR PRESSURE TEST KIT VERIFICATION

1. Connect the calibrated test equipment to the male quick disconnect hose fittings (Part F). The recommended fitting is McMaster-Carr Item 5012K21. However, the fitting may vary based on the calibrated test equipment requirements.
2. Remove any residual air from the kit by pressing the inner tube of the self-test male quick disconnect fitting for aspirator (Part G).
3. Connect the aspirator (Part B) to the male quick disconnect fitting for aspirator (Part G).
4. Connect the power cord (Part E) to the 110V power source and the kit.
5. Turn on the kit (Part L).
6. Press the “Test Selection” button to advance to the correct test.
7. Select “Test Kit Verification” to enter the calibration program.
8. Press the “Start” button.
9. Squeeze the aspirator bulb. The pressure value should be beyond the scale range.
10. Press the “8” button on the test screen.
11. The pressure will be maintained at 8 to allow the user to compare values between the kit and the calibrated test equipment manometer.
12. Record the values.
13. Repeat steps 10 thru 13 for the pressure values of 7, 6, 4, and 3.

14. The original accuracy of the pressure test kit is + or - 1% of scale.
15. If the verification process does not result in this accuracy, the pressure test kit should be calibrated by a third party calibration company.

DURACHEM® 500 INSTRUCTIONS FOR USING THE FACE SEAL BLANK TO PRESSURE TEST KAPPLER ADAPTER ITEM #AKMO07

1. To pressure test a DuraChem® 500 garment, a device is needed to blank off the opening in the face seal. Kappler provides a face seal blank to use in conjunction with our AKMOC pressure test kit.
2. The face seal blank connects to the pressure test kit hoses using the same quick disconnects as the exhaust valve adapters.
3. To set the face blank into place, unscrew T handle counterclockwise and remove the metal plate from the black base.
4. Place the black base inside the face seal and center in the opening. Place the metal plate over the attachment screw aligning the holes with the quick disconnects in the black base.
5. Inspect the face seal and ensure there are no overlaps, folds or wrinkles in the seal area. Hand tighten the T handle clockwise and snug tight. Connect the hoses to the quick disconnects on the face blank.
6. Perform the pressure test using the Test Kit's ASTM instructions.
7. Follow instructions for Locating Leaks if garment fails testing.

REPLACEMENT PARTS AND ACCESSORIES

Others items may be available upon request by contacting Kappler Customer Service.

- ▶ AKM003 Pair of Adapters for Pressure Test Kits.
- ▶ AKM004 Pair of Air Supply Hoses with Quick Disconnect Fittings.
- ▶ AKM007 Pressure Test Plug Plate for Face Gasket (for use with DuraChem® 500 Garments).

NOMENCLATURE

PSI	<i>Pounds per square inch. This is a unit of measuring pressure or force over a designated area.</i>
Self-Test	<i>A testing process that evaluates the integrity of the pressure test kit by searching for leaks.</i>
Verification	<i>The process by which a device is determined to be within calibration, an acceptable tolerance, by comparing the readings to a calibrated device.</i>
Calibration	<i>The physical manipulation of the device to adjust the accuracy to within the desired tolerance of the test kit. It is recommended that a third party who specializes in calibration of test equipment perform this operation.</i>
Diaphragm	<i>Also known as a flapper, a thin rubber cover, this is connected to the valve body on the garment.</i>

**Quick
Disconnect
Fittings**

Fittings with spring loaded locking mechanisms which allows for fast connecting and disconnecting of the hoses to the pressure test kit and adapters.

Kink

A distortion in the hose preventing air from flowing.

**Inches
of Water
Column**

The unit of measurement used when dealing with small pressures. One psi is approximately 27.71 inches of water column.

APPENDIX A – TESTING PROCEDURE SCREEN SHOTS

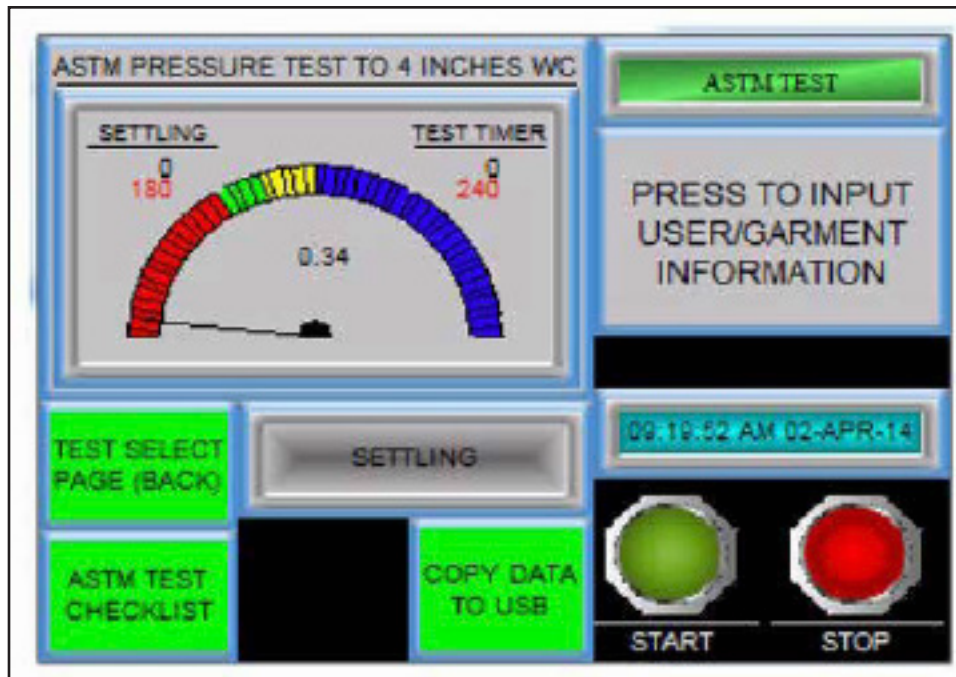


Figure 9: Test Page



Figure 10: Self-Test Page

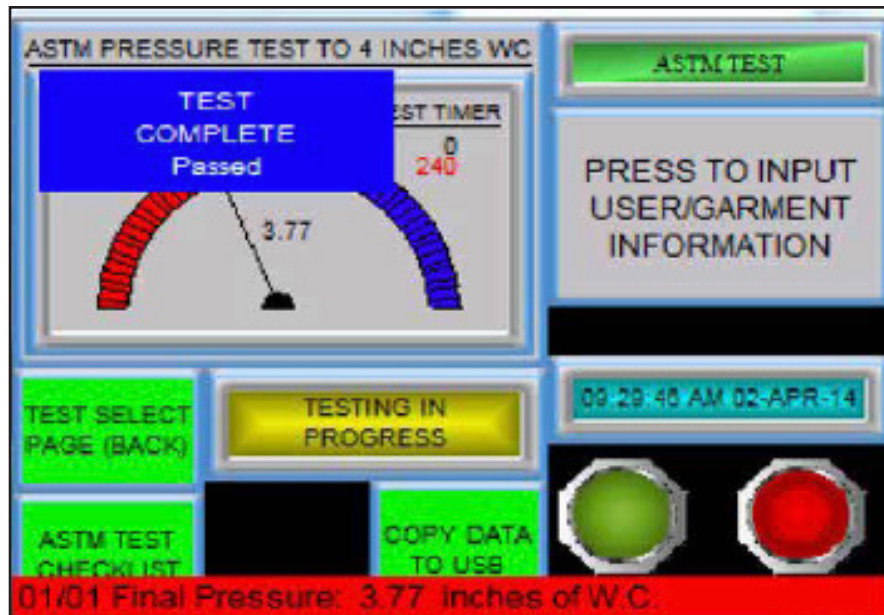


Figure 11: End of Test Output Display

TROUBLESHOOTING & OTHER TIPS

Unit does not have a connection for the airline

The connector for the airline is not supplied due to the large variety of styles.

Unit does not come on:

- ▶ Check electrical source.
- ▶ Check fuses at power switch.

Garment not inflating:

- ▶ Check air source.
- ▶ Check pressure relief valve seating.
- ▶ Check adapters to ensure proper sealing.
- ▶ Check garment for unplugged openings.

Test kit fails self-test

Allow the kit to remain in the test area for additional 30 minutes, check pressure relief valve is seating, all air hose connections are properly sealing, and perform the test again. If the kit fails again, contact Kappler Customer Service (800-600-4019) for a Return Goods Authorization number. Note: If the kit does fail the second time, try a third time as we are dealing with a very small volume of air and pressure.

Unable to write to the USB drive

Verify USB drive is good. Connect drive to a computer and verify operation.

Buffer is full message

Data was not completely transferred to USB drive previously. Press the “Copy Data To USB” on-screen icon. The data has been transferred if the signal “Accessing Flash Drive Do Not Remove” flashes. If it does not, all memory has been transferred.

Airline contamination / Debris in valve / Air continues to flow from kit

If air continues to flow from the test kit after the test starts or when the kit is not activated, the internal valve is not closing completely. This could be due to contamination in the airline blocking the valve from closing completely. To clean out the valve perform the following steps:

- ▶ Connect the compressed airline to the kit.
- ▶ Select either ASTM or CE test.
- ▶ Press Start.
- ▶ Allow air to flow.

- ▶ Press Stop.
- ▶ Check to see if air has stopped flowing from the kit.
- ▶ Repeat steps if needed.
- ▶ If problem persists return kit to Kappler for repair.

Difficulty in pressing onscreen buttons

This is most likely due to the screen not being calibrated. To calibrate the screen:

- ▶ Turn the unit on.
- ▶ This should take about four (4) seconds. Use one finger, press and hold the left corner of the set up instructions screen.
- ▶ The Activate System Screen should appear. This should take about four (4) seconds. Press “OK.”



NOTICE

By pressing “OK” any data from previous test which has not been uploaded to a USB drive will be lost.

- ▶ Press the on-screen button titled “Setting” on-screen.
- ▶ Press Select the “Adjust Touch Panel” icon.
- ▶ Follow the on screen instructions.
- ▶ Press “Press here to save and quit.”
- ▶ Press the “Main Menu” button at the bottom right of the screen.
- ▶ Press “Exit” at the bottom right of the Main Menu screen.

Changing Time and Date

- ▶ Turn on the unit. This should take about four (4) seconds.
- ▶ On the screen with the set up instructions use one finger and press and hold the left corner of the screen. This should take about four seconds.
- ▶ The “Activate System Screen” should appear. This should take about four (4)seconds.
- ▶ Press “OK.”



NOTICE

By pressing “OK” any data from previous test which has not been uploaded to a USB drive will be lost.

- ▶ Press the button “Setting.”
- ▶ Press the “Adjust Clock” icon.
- ▶ The screen should now show displays for both the Time, on the left, and the Date, on the Right. Press the arrow key to the left of the time display. This will highlight the first space holder which will adjust the hours.
- ▶ Use the up and down arrows below the display to adjust the time.
- ▶ Note: The time is military and based on 24 hours. Example: 6:00 PM is 18:00 hours
- ▶ Continue moving from left to right adjusting the time.

- ▶ Use the same process to modify the Date.
- ▶ Once complete, press “OK” at the bottom right of the screen.
- ▶ Press the “Main Menu” button at the lower right of the screen.
- ▶ Press “Exit” at the lower right of the Main Menu.

**For all other problems, have the test kit returned to Kappler with a full description of the problem.

FREQUENTLY ASKED QUESTIONS

There is air flow where the supplied air connects to the unit. Is this a problem?

No. The connections at that location on the unit are not critical to testing and do not have to be air tight. This will most likely be caused by the connection between the user supplied air fitting and the swivel mount. Unscrewing the fitting from the mount and applying thread tape then reconnecting the fitting to the mount will most likely solve this issue.

The adapters are stiff and not forming a good seal.

The adapters may have been stored in a cold environment thus causing the rubber to stiffen. Allow the rubber to reach room temperature, 60°F or higher, to insure that the rubber around the adapter is soft enough to form a seal with the valve body on the garment.

Is there a battery backup to prevent the loss of the program and test data?

No. There is no need for a battery backup as the programs on the computer components of this unit are stored on Flash ROM which is

a non-volatile form of memory. All data gathered during a test is stored on what is known as SRAM. This is a volatile form of memory meaning that the data from a test is lost overtime making it important all data is transferred using the on screen button labeled “COPY DATA TO USB” before turning off the unit.

How often should the unit be verified and/or calibrated?

Kappler, Inc. leaves the verification and calibration scheduling up to the internal standards of the customer. It is recommended that the verification process be performed a minimum of once per year and calibration performed based on the verification.

How often should the unit be self-tested?

The self-testing of the unit is left to the customer’s discretion. It is recommended that the kit be tested a minimum of once per year.

How accurate is the test kit?

The benefit of having an automated digital testing unit is that both the accuracy and precision are greater than manual analog versions. The unit itself uses a pressure measuring sensor which is considered to be calibrated when it is within .8% of scale. This means that the unit, when properly calibrated, is accurate to ± 0.08 inches of water column. Precision also increases due to the fact that there is no longer the manual opening and closing of valves. This unit performs each step of the test procedure for the operator, ensuring that the appropriate pressures are reached, and takes the guess work out of the passing or failing of a garment.

What if I do not have an air compressor?

A compressed air cylinder can be used in place of an air compressor. However, the use of a user supplied pressure regulator is required; as the test kit has a maximum air input of 200 psi (100-150 psi is recommended).

USB DATA PROGRAM INSTRUCTIONS

This document explains How to Install and use the USB Data Program.



NOTICE

Please read this before storing information from your USB Drive to your computer.

DISCLAIMER

The information contained in this software application is for general information purposes only. The information is provided by Kappler Inc. and while we endeavor to keep the information up to date and correct, we make no representations or warranties of any kind, express or implied, about the completeness, accuracy, reliability, suitability or availability with respect to the software application or the information, products, services, or related graphics contained on the software application for any purpose. Any reliance you place on such information is therefore strictly at your own risk.

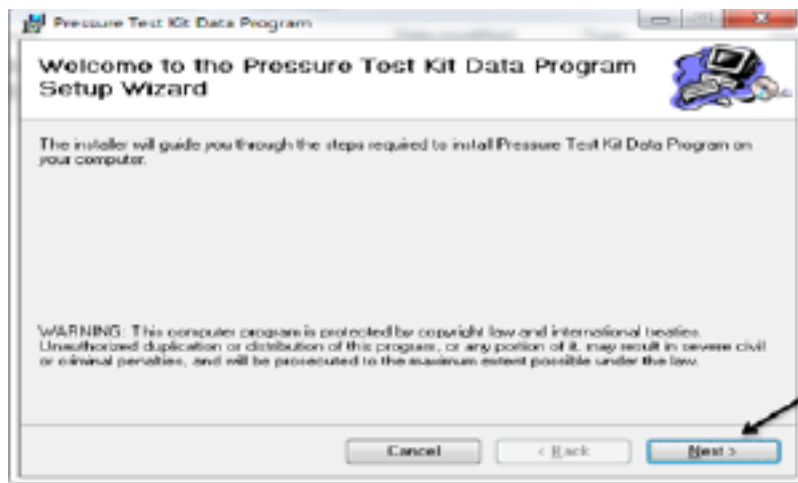
In no event will Kappler Inc. be liable for any loss or damage including without limitation to, indirect or consequential loss or damage, or any loss or damage whatsoever arising from loss of data or profits arising out of, or in connection with, the use of this software application.

INSTALLING THE PRESSURE TEST KIT USB DATA PROGRAM APPLICATION

1. Download Pressure Test Kit USB Data Program from www.kappler.com/files in 32 or 64 bit format depending on your computer's specifications.



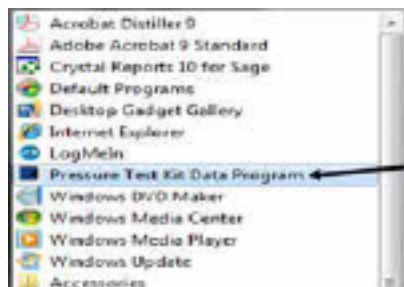
2. Double Click  Pressure Test Kit Data Program Setup
3. Click Next and follow prompts to install program.



Click Next Button

USING THE USB DATA PROGRAM APPLICATION

1. Click the USB Data Program shortcut.



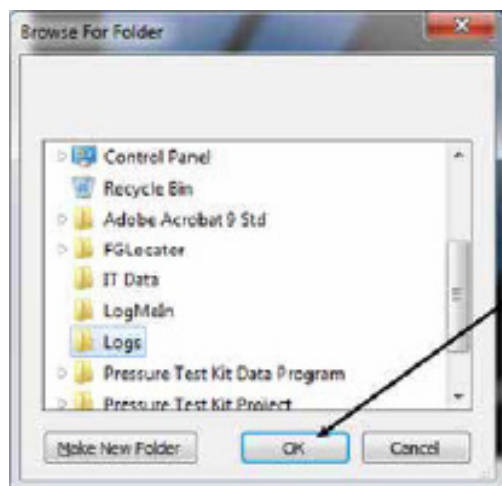
Click the USB Data Program shortcut (located on the Start, All Programs menu)

2. Insert Supplied USB Drive from Test Kit into your computer and Open a test result by clicking File, Open Test Result.

**Opening a Test Result**

- Click File
- Click Open Test Result

3. Click "Computer", "External drive", and "Logs" folder.

**Selecting the test result folder**

- Click Computer
- Click external drive
- Click the Logs folder
- Click OK button

4. When your test results display, you can click on any column header to sort the data in ascending or descending order.

Sorting the test results
Click on any column header to sort the data in ascending or descending order.

Pressure Test Kit Data Program

Test Description	Serial#	Style and Size	Mfg Date	Test Date	Tester	Test Reading	Pass/Fail
ASTM Test to 4 inches of W.C.	418368	230882 OR LGX	MAR23 2012	06-18-2012	MO	3.37 inches of W.C.	PASS
Self-Test	12345	222 ble or	000112	09-14-2012	JDD	N/A	FAIL
ASTM Test to 4 inches of W.C.	1	PULL ON		07-06-2012	ASTM	4.08 inches of W.C.	PASS
C.E. Test to 4.6 inches of W.C.	1	PULL ON		07-06-2012	CE	6.09 inches of W.C.	PASS
ASTM Test to 4 inches of W.C.	1	PULL ON		07-06-2012	ASTM	4.08 inches of W.C.	PASS
C.E. Test to 4.6 inches of W.C.	1	PULL ON		07-06-2012	CE	6.09 inches of W.C.	PASS
ASTM Test to 4 inches of W.C.	1	PULL ON		07-06-2012	ASTM	4.08 inches of W.C.	PASS
C.E. Test to 4.6 inches of W.C.	1	PULL ON		07-06-2012	CE	6.09 inches of W.C.	PASS

EXPORTING THE TEST RESULT DATA

- After opening a test result, displaying the result on screen, and sorting the results, export the test result by Clicking **Data**, Export **To Excel**.

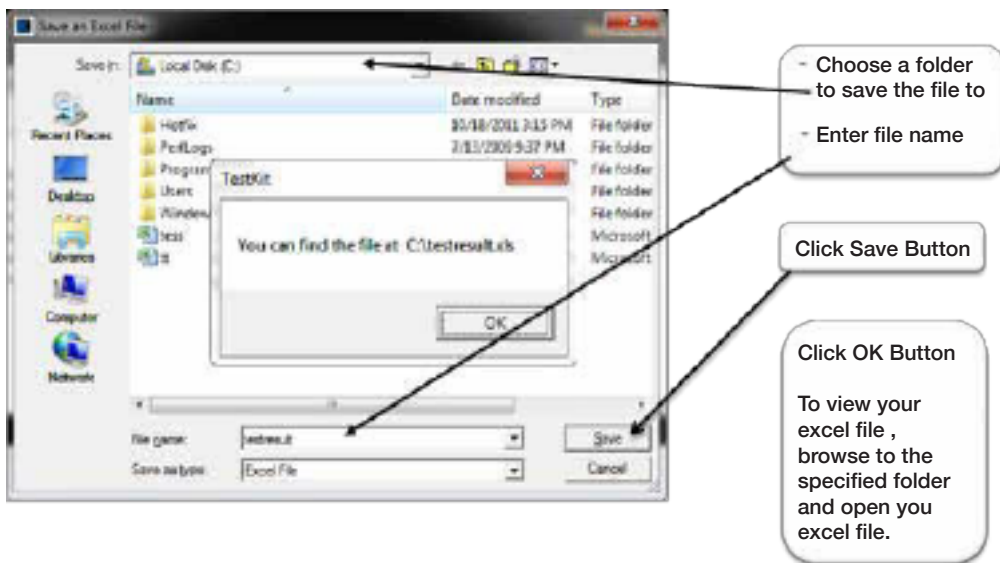
Exporting Test Results

- Click Data
- Click Export To Excel

Pressure Test Kit Data Program

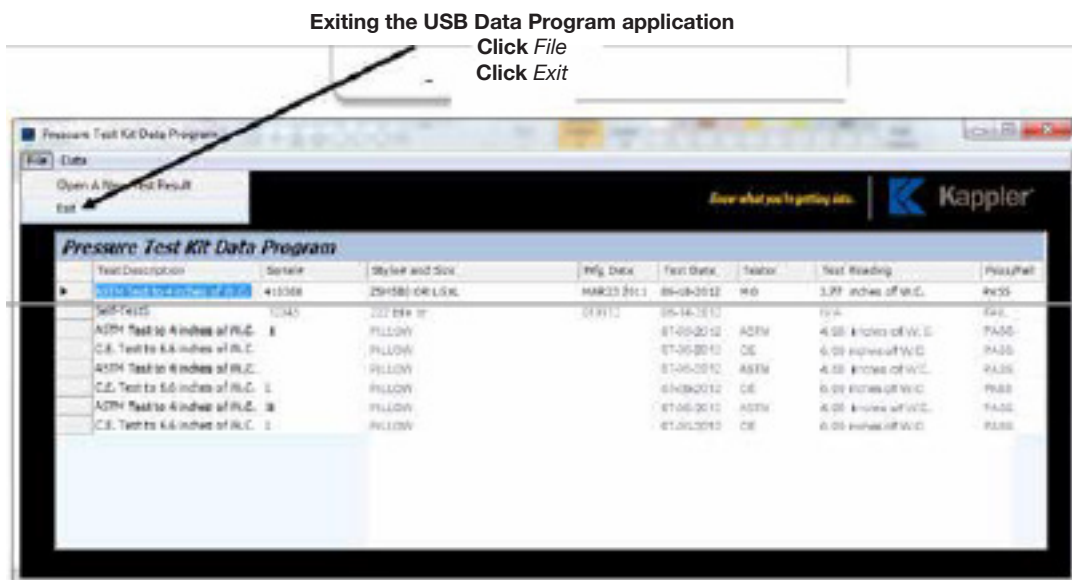
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ASTM Test to 4 inches of W.C.	1	PULL ON		07-06-2012	ASTM	4.08 inches of W.C.	PASS
C.E. Test to 4.6 inches of W.C.	1	PULL ON		07-06-2012	CE	6.09 inches of W.C.	PASS

2. Type the filename to save the result as and Click Save. Click OK.



EXIT AND CLOSE THE USB DATA PROGRAM APPLICATION

3. Click *File*, Exit



WARRANTY INFORMATION

It is the responsibility of the user to select garments and/or other products which are appropriate for each intended use and which meet all specified government and industry standards.

Kappler is available to consult on any proposed use. Kappler warrants for a period of 90 days after the date of invoice of any product by an authorized Kappler distributor. Kappler warrants all products to be free from defects in materials and workmanship when used in accordance with the instructions contained in this care and use manual. No other expressed or implied warranties of fitness for a particular purpose or of merchantability or otherwise is made. This warranty shall not apply to damage or injury resulting from accident, misuse or neglect, or from alteration of any product. It is the responsibility of the user to use reasonable care in the maintenance, operation, and storage of all Kappler products. The Purchaser and all users shall promptly notify Kappler of any claim, whether based on contract, negligence, and strict liability or otherwise.

The sole and exclusive remedy of the purchaser and all end users and the limit of liability of Kappler for any and all losses, injuries or damages, relating to Kappler-manufactured products, at Kappler's option, shall be the refund of the purchase price or the replacement or repair of any product found to be defective within 90 days after the product is delivered. In no event shall Kappler be liable for any special, incidental or consequential damages, whether in contract or in tort, arising out of any warranties, representations, instructions, or defects from any cause in connection with the AKMOC Digital PressureTest Kit, or the sale thereof.

Kappler hereby disclaims all other Warranties, express or implied, including, but not limited to, any implied Warranty of merchant ability or fitness for a particular purpose. There are no warranties which extend beyond the description on the face hereof. The purchaser and all users are deemed to have accepted the terms of this Warranty, including its limitation of warranty and liability, which terms may not be varied by any verbal or written agreement.

Purchaser and all users are responsible for inspection and proper care of this product as described in this care and use manual and are responsible for all loss or damages from use or handling which results from conditions beyond the control of the manufacturer.