SNAPSHOOT
ENGINEERED FOR A SAFER TOMORROW

현장을 이해하고, 필요한 솔루션을 연결합니다.

산업안전 · 추락방지 시스템
산업용 소재 · 건축자재
제품 제안부터 공급·시공·설치·교육까지



COMPANY INFORMATION

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TECHNICAL DOCUMENTS

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제품의 규격과 성능, 인증 및 적용 조건을 확인하기 위한 자료입니다.

ABOUT SNAPSHOOT

제품 공급을 넘어, 현장에 맞는 해결책으로

스냅슛은 산업현장의 작업 환경과 요구 조건을 바탕으로
적합한 제품과 시스템을 제안합니다. 현장 실사를 통해 설치 조건을 확인하고,
공급부터 시공·설치 및 사용 교육까지 필요한 과정을 함께합니다.

추락방지 시스템

안전대부착설비 · 수평·수직 라이프라인
레일 시스템 · 리지드 포스트

밀폐공간 진입·구조 솔루션

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산업안전 보호구

전신형 안전대 · 랜야드 · 안전블록
작업 환경에 맞춘 개인보호구

산업용 소재·건축자재

산업용 테이프 · 접착제 · 기능성 소재
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SNAPSHOOT
ENGINEERED FOR A SAFER TOMORROW

홈페이지 바로가기 →
문서 라이브러리 바로가기 →
시공사례 바로가기 →
문의하기 →

본 페이지는 스냅슛의 자료 제공 안내용 표지입니다. 첨부된 인증서 및 기술자료의 발행 주체, 인증 대상과 적용 범위는 해당 원문을 기준으로 확인해 주세요.

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Issue Date: 2024-09

User Manual

Neogen Stat-Fax 4700 Microwell Reader

Spectrophotometer for use with Neogen allergen and natural toxin ELISA kits

Application

The Neogen® Stat-Fax 4700 Microwell Reader is a compact, microprocessor-controlled, multi-purpose photometer system designed to read and calculate the results of assays, which are read in microtiter strips. It is a user-programmable open system with selectable strip formatting, alphanumeric test naming, automatic interpretation options, duplicate well options, curve plotting, flags and error messages. Besides quick, accurate, and reproducible results, the instrument offers low maintenance, and easy operation. The Neogen 4700 Reader is used to process Neogen ELISA Assays.

Installation

Unpacking and Installation

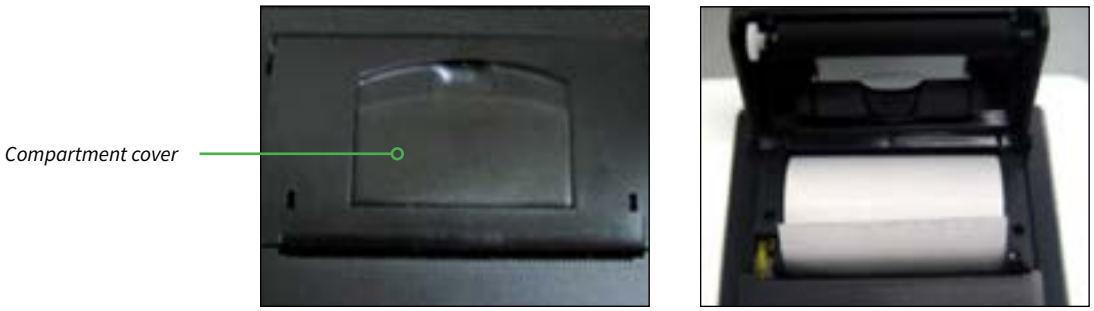
1. Carefully unpack the instrument, removing it from its plastic bag. Report any damage to the freight carrier at once.
   NOTE: Retain the original packing material for future use in the event that the instrument is shipped to another location or returned for service.
2. Place the instrument on a flat working surface capable of safely supporting the weight of the instrument (approximately 5 lbs. or 2.3 kg). A clearance of at least three inches around the instrument is required to ensure optimal ventilation. The instrument should be operated within an ambient temperature range of 18–35°C and at humidity of less than 85%.
3. Ensure the power switch on the back of the unit is in the off (down) position before connecting the power cord to the power supply.
4. With the power switch in the off (down) position, insert the DC connector attached to the end of the power supply module cable to the instrument. Insert the mating end of the AC power cord to the inlet of the power supply module, and plug the other end of the AC power cord into an AC outlet. Use only the power cord and supply module specified for this product and certified for the country of use.
   - For 110–120 V used in the U.S., use the supplied UL listed cord set consisting of an 18 AWG, Type SPT-1 two conductor cord maximum three meters (ten feet) in length, rated 7 A, 125 V, with a polarized parallel blade type attachment plug.
   - For 220–240 V used inside the U.S., use a UL listed cord as above, except rated 250 V.
   - For other locations, use the power cord certified for the country of use.

Initial Power Up

1. Turn on power to the instrument.
2. There will be a choice of language to select. This is the Initial Language setting screen and will only be seen once
3. Select the language and then select the blue button to continue.
4. A message box states that Settings-Language Setting can be used to change the language at any time. Confirm OK
5. Set the Date and Time.
6. The instrument will return to the HOME screen and is ready to use.

Load Paper

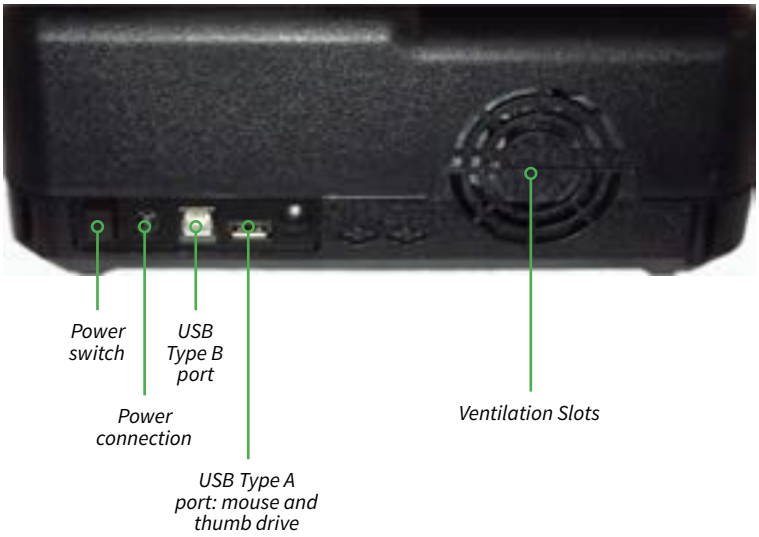
1. Locate the roll of thermal printer paper (700003959 | 9319).
2. Lift the printer paper compartment lid at the tab location to open.
   CAUTION: Be gentle lifting the latch on the printer. Once it is slightly open, release the latch and lift it from the sides of the lid.
3. Place the paper roll in the well so the leading edge of the paper feeds toward the front of the printer from the bottom of the paper roll.
4. Pull up at least one inch of paper and then press the compartment cover down until it snaps closed.



Set Up

Starting the Reader

1. Turn the power switch on, which is located on the back of the unit. The printer will print several lines. If the reader does not print, then the internal printer is disabled. To enable printing, go to settings to turn the printer on.
2. Refer to the Veratox® Software for Windows instruction manual version 3.3 or newer for setting up the USB connection.



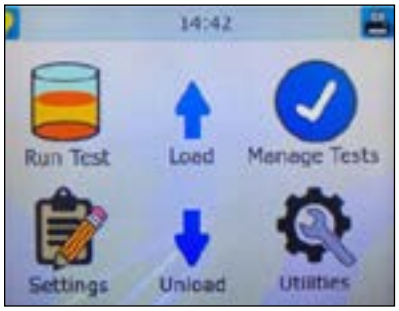


Using the Touch Screen

The touch screen can be manipulated using the stylus or by touch. Icons also can be selected by tapping the stylus on the screen. This instrument is equipped with a capacitive touch screen. These screens must be touched with a finger or a special capacitive pen or glove. Excessive pressure can damage a touchscreen.

The Home Screen

The home screen has several icons:



Run test: Contains preprogrammed tests used to read samples. Scroll through the list and select a test or use “by #.”

Manage tests: Contains options for creating, editing, cloning, restoring, deleting tests, and printing the test list.

Feature	Function
Create Test	Depending upon the mode, allows user to: • Name the test • Select a mode (Absorbance, Factor, Single Standard, Point to Point, Regression, Cubic Spline, Cut Off) • Select the Primary Filter • Select the Differential Filter • Blank Options including assigned QC values for Blanks • Interpretation Criteria (Positive/Negative results and Normal/Linear ranges) • Select Units • Input # of Decimal places used to report results. (The numbers reported to the right of the decimal point.) • Enable % Absorbance (Yes or No) • Input number of Standards • Manage Controls: Enable; name, low/high ranges, action to take (i.e. warn, continue or end test); record Lot Number; input expiration date)
Edit Test	Used to change test programming. Editing a test will erase any stored blank or standard values for that test. Scroll through the list and select a test or use “By #”.
Delete Test	Allows user to delete one test. Scroll through the list and select a test or use “By #”.
Clone Test	Allows user to duplicate an existing test; assigns the next available test slot number allowing for the test to be stored. Scroll through the list and select a test or use “By #”.
Erase All Tests	Allows user to delete all tests.
Print Tests	Printer will print the list of available tests (maximum 140 tests).

Settings: Contains printer setup, date and time, lamp control, laboratory name, strip format, sound settings, and external output settings.

Settings	Function
 Printer Setup	Enables or disables the internal printer. Contrast can be adjusted light to dark. NOTE: It is advisable to print at contrast level 3. Higher contrast levels may degrade after several lengthy printouts. Three font sizes are available – small, medium, and large
 Adjust Date and Time	Provides access to the Set Time option Hours, Minutes, Seconds as well as Month, Day, Year.
 Lamp Control	Provides access to lamp settings: lamp idle timeout of 30 to 3600 seconds **(600 seconds is the default)** and lamp warm up 45 to120 seconds **(45 is the default)**.
 Laboratory Name	Allows a laboratory named to be entered using up to 20 characters, including spaces; laboratory name will print at power up.
 Strip Format	Allows the user to select 8 Well (A-H) or 12 Well (1-12) format. Note: Test programs may be stored in either format, but the strip format setting must be selected before programming a new assay. (Reference Section 1.6.1 Strip Carrier Loading and Positioning).
 Sound Settings	User can select to use all, some or none of the sounds available.

Utilities: Contains options to erase all tests, change access levels, adjust filter voltages, show version details, print unit settings, and recall calibration.

Lamp: Touching this icon will turn the lamp on or off.

FF: Touching this icon will feed paper through the slot.

Utility Menu

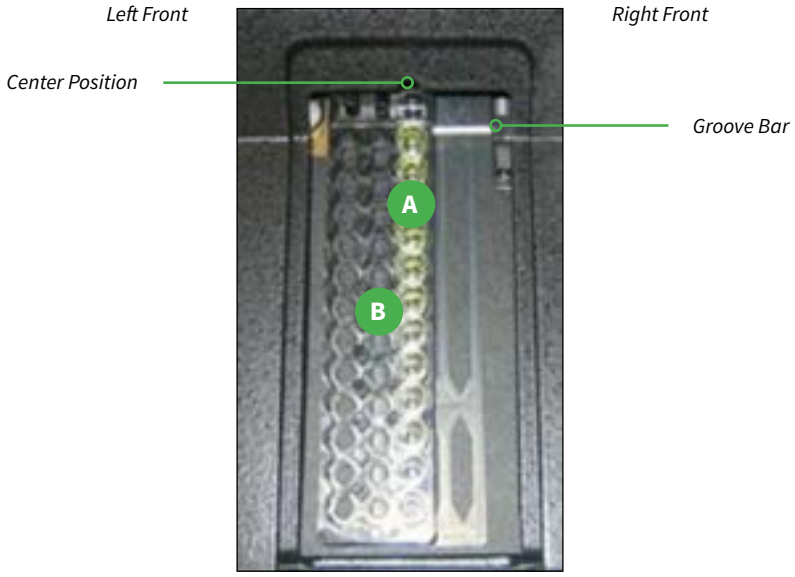
Feature	Function
 Change Access Level	Contact technical support.
 Show Version Details	Information displayed will include the firmware model, version, serial number, and other information that can be useful if troubleshooting becomes necessary
 Erase All Tests	This will prompt user to confirm if all tests are to be erased.
 Recall Factory Calibration	This will prompt user to confirm to “Recall Factory Calibration?” This does not change the instrument’s current settings – it only recalls the original factory calibration.
 Recall Factory Settings	This will prompt user to confirm to “Recall Factory Settings?” This does not change the instrument’s current calibration status. “Factory Settings Restored” will be printed.
 Print Unit Settings	This will print all the instrument parameters, which includes data from the last calibration.
 Filter Voltages	This diagnostic screen allows filter voltages to be verified and printed. The filter wheel speed is also posted on this screen.
 Firmware Update	Displays firmware currently in use and instructs user how to update to a new version of firmware. (Reference 2.3.4.1)
 Printer Update	Displays the version of printer firmware currently in use and instructs user how to update to a new version of printer firmware. Always contact your instrument provider for instructions.

Running the Test

Run the assay according to the directions for use supplied with the test kit. Results should be processed by the reader within 20 minutes of completing the test to ensure accuracy.

Reading and Calculating Results

1. Wipe bottom of microwells clean before reading.
2. Insert wells into the far right slot of the well holder with the zero in the top position. Place any additional strips in positions B.
3. Position the carrier to the left so strip A is in the center of the track.



4. Use the run test key to access the user test menu. The instrument will display the 33 preprogrammed tests. Arrow up "^" or down "^" to scroll, and page forward using ">>" or page back using "<<" to move through the list. Another option is to select "By #," and enter the test number and press enter.
5. Confirm the test selection or press no to select a different test.
6. To print the test menu select the manage tests icon then print test list.
7. One curve may be used to calculate up to 24 wells, but under no circumstances should a curve be used to calculate results for samples that have not been run at the same time as the standard curve.
8. After selecting a test there will be three options — accept the test selected, limit the number of wells to read, or quit the test. When limiting the number of wells, include all controls and samples then press enter and accept to read wells.
9. If the correlation coefficient is < 0.980, the message "Invalid! r < 0.98" will be printed at the end of the run. Results should be considered invalid if this message appears.

Neogen Menu								
	Test Name	**Control Values**						**Unit of Measure**
1	Aflatoxin	0.0	5.0	15.0	50.0			ppb
2	Aflatoxin HS	0.0	1.0	2.0	4.0	8.0		ppb
3	Aflatoxin M1	0.0	5.0	15.0	30.0	60.0	100.0	ppt
4	Aflatoxin HS MAX	0.0	1.0	3.0	5.0	10.0		ppb
5	DON	0.0	0.5	1.0	2.0	6.0		ppm
6	DON HS	0.0	25.0	50.0	100.0	250.0		ppb
7	DON NE	0.0	0.25	0.5	1.0	2.0		ppm
8	Fumonisin 5/10	0.0	0.5	1.0	3.0	6.0		ppm
9	Fumonisin 10/10	0.0	1.0	2.0	4.0	6.0		ppm
10	Fumonisin HS	0.0	50.0	100.0	300.0	600.0		ppb
11	Zearalenone	0.0	25.0	75.0	150.0	500.0		ppb
12	T-2/HT-2 Toxins	0.0	25.0	50.0	100.0	250.0		ppb
13	Ochratoxin	0.0	2.0	5.0	10.0	25.0		ppb
14	Histamine	0.0	2.5	10.0	20.0	50.0		ppm
15	Peanut Allergen	0.0	2.5	5.0	10.0	25.0		ppm
16	VIP Peanut	0.0	2.5	0.625	1.25	2.5	5.0	ppm
17	VIP Cashew	0.0	0.2	0.5	1.0	2.0	5.0	ppm
18	Almond Allergen	0.0	2.5	5.0	10.0	25.0		ppm
19	Egg Allergen	0.0	2.5	5.0	10.0	25.0		ppm
20	Tot Milk Allerg	0.0	2.5	5.0	10.0	25.0		ppm
21	Casein Allergen	0.0	2.5	5.0	10.0	15.0		ppm
22	Gliadin	0.0	5.0	10.0	20.0	50.0		ppm
23	Soy Allergen	0.0	2.5	5.0	10.0	25.0		ppm
24	Hazelnut Alerg	0.0	2.5	5.0	10.0	25.0		ppm
25	Gliadin (2.5-40)	0.0	2.5	5.0	10.0	20.0	40.0	ppm
26	Gliadin (5-40)	0.0	5.0	10.0	20.0	40.0		ppm
27	Coconut Allergen	0.0	1.0	2.5	5.0	10.0	25.0	ppm
28	Mustard Allergen	0.0	2.5	5.0	10.0	25.0		ppm
29	Crustacea Allerg	0.0	2.5	5.0	10.0	25.0		ppm
30	Sesame Allergen	0.0	2.5	5.0	10.0	25.0		ppm
31	VIP Walnut	0.0	0.15	0.375	0.75	1.5	3.75	ppm
32								
33	Abs 450 nm							
34	Abs 650 nm							
35	Dri-Dye 450 nm							

NOTE: Neogen's Veratox format tests have been preprogrammed for convenience. To enter new test parameters, see Programing New Test Parameter section (page 11). To change an existing test, see Editing Preprogrammed Tests (page 10).

Maintenance

It is important to follow the installation instructions carefully, using only a suitable power supply, surge protector, and placing the instrument with the proper clearance for good air circulation around it. Excessive vibration should be avoided. During shipments, use the original packing material or other suitable protective foam.

The Neogen 4700 Reader requires minimal operator maintenance. The instrument must remain dry to avoid damage to the unit. Although the filters are well sealed, the life expectancy may be decreased if the instrument is maintained in a very humid environment (greater than 80% humidity). Using the instrument in an air-conditioned room is recommended for humid climates. Extreme temperature shock is also harmful to the filters. Maximum changes of 5°C per minute are recommended especially at the lower limits of -50°C, where permanent damage may occur. The reader is designed for use at 20°C and performs according to specifications in the range of 18-35°C.

Calibration

Each instrument is calibrated during manufacturing using standards that are traceable to the National Institute for Standards and Testing (NIST) and is tested to verify its linearity to 3A. A reduction in linearity may be indicative of filter deterioration. Calibration and linearity can be verified using DRI-DYE check strips. A monthly verification of instrument linearity is recommended. Any additional maintenance concerns should be addressed by contacting Technical Services.

Cleaning

The exterior of the instrument may be cleaned with a soft cloth using plain water. If need, a mild all-purpose (non-abrasive) cleaner may be used. A 10% solution of chlorine bleach or 70% isopropyl alcohol may also be used as a disinfectant. Take special care not to spill any liquid into the read well. CAUTION: Solvents such as acetone will damage the instrument. Use only water and recommended cleansers. Avoid abrasive cleaners. The display area is liquid-resistant but is easily scratched.

Settings

Printer Setup

For paper loading instructions, see load paper in chapter 1. If the printer does not print several lines upon turning on the Neogen 4700 Reader, the printer is disabled. To enable the printer, go to settings, followed by printer setup. The touch screen will present an on and off option as well as the current status of the printer. To enable the printer, touch on using the provided stylus, followed by save. Printer darkness and the font size can also be adjusted.



To print a list of test options, touch the manage tests icon. Press the print test list icon. The reader will print a list of the programmed tests along with their assigned test number.

Adjust Date and Time

To set the correct time and date, touch the settings icon on the home screen. Once in settings, touch the adjust date and time icon and hit select. To edit the hour, minute, and seconds fields, touch the stylus to the desired field. The screen will show the selected field. Touch the correct number and hit enter. To erase an existing number use the backspace icon or the clear icon. Once the desired number is in the field, press enter. Do the same to set the month, date, and year, which is located below the time settings in the set time window. Once back in the set time window, press save to allow changes to take effect.

The set time window also allows users to switch the format of date between U.S. and European formats. To change the style, touch date style in the set time screen. The date will be displayed in the desired format next to the date style icon. Press save for the changes to take effect.

The set time window also has a set both option. This allows users to input the month, day, and year in a MMDDYY format. After entering the numbers in the set both screen, press enterfollowed by save on the set time screen.

The edit icon in the set time screen also allows users to change time and date settings.

Lamp Control

The length of time the lamp will remain on before it turns off and the minimum warm up time can be adjusted by touching the settings icon, followed by the lamp settings. Touch the desired fields to edit the time in seconds. Touch save to implement the new settings.

Laboratory Name

Users can change the name of the laboratory, which is printed upon startup. From the home screen, touch settings, followed by laboratory name.

Press edit to change the name. Once finished, touch enter. To implement the name, press save. To exit the menu, press cancel.

Strip Format

To change the strip format between 8 wells and 12 wells, touch settings, followed by strip format. Touch either 8 well or 12 well, followed by save to implement the change.

Sound Settings

To access the sound settings, touch settings, followed by sound settings. From here, users can turn on or off the startup sounds, icon press and release sounds, and other sounds. Users also can change the volume by touching the appropriate field. Press save to implement changes.

External Output

To enable output to be sent to a personal computer, a user must have a USB cable with Type A and Type B end connections and use a software application such as SF_Capture to transmit and store data from the instrument.

- Connect the type B end of the USB cable to the type B port of the instrument.



Fig. 1 USB Type A port and connector



Fig. 2 USB Type B port and connector

- With the personal computer (PC) powered on, connect the type A end of the USB cable to a USB port on the PC.

Select Settings from the main display and scroll down to External Output. To enable or disable output, touch the box next to External Output Setup and then SAVE.

☐ = OFF ☑ = ON

Cloning Tests

The clone function allows users to duplicate an existing test and assigns the next available test slot number, which allows the test to be stored.

1. From the home screen, touch the manage tests icon.
2. Touch the clone test icon.
3. Select the test to be cloned from the list and press select. The reader will ask the selection to be confirmed. Touch yes to continue or no to return to the list.
4. The reader will indicate that “Test # was cloned into Test #.”
5. To edit the name of the cloned test and to alter the control values, return to the manage tests screen and select the edit icon.

Editing Preprogrammed Tests

To change the settings on an already established test, follow the directions below:

1. From the home screen, touch the manage tests icon.
2. Touch the edit icon.
3. Select which test to edit by touching the test name and then select. The reader will ask for the selection to be confirmed. Touch yes to continue or no to return to the selection screen.
4. On the first screen, the reader will display the test definition screen where the test name, mode, filters, and blanks can be edited. To edit the fields, either touch the desired field with the stylus or use the edit icon. Once finished editing the fields, touch the double arrow icon to move to the next page. The reader will save any changes that have been made.
    a. Enter the name of the test (e.g. aflatoxin test). Touch enter to submit the name.
    b. Touch the mode field. Select the desired test mode by touching the appropriate field and then hitting select.
    c. Select the filters by touching the primary filter and the differential filter icons and choosing the appropriate number. Touch select to implement.
    d. Choose whether blanks will be used and the number of replicates by touching the blank field. After choosing the desired settings, touch select.

    On the second screen:

    a. **Standards:** Select the number of standards for the new assay.
    b. **# Std. replicates:** If the assay will run standards in duplicate, select 2. Otherwise, the default 1 will be used.
    c. **Axes:** The default will set absorbance on the Y axis and the concentration on the X axis.
    d. **Normal control, abnormal control, and other control:** These functions are parameters set up for control tolerances. It is recommended these functions remain disabled.

    On the third screen:

    a. **Interpretation mode:** This allows the user to input acceptable ranges for optical density. It is recommended these fields are left blank.
    b. **Units:** Select the appropriate unit of measure (ppm or ppb) for the assay.
    c. **Decimals:** Select the desired amount of figures to display after the decimal.
    d. **# Sample replicates:** Select the number of sample replicates used in the assay. The default assumes running only one sample per microwell.
5. If using the test setting only once, touch run to activate the test. To save the setting to the list of preprogrammed tests, touch the save icon (a window will pop up indicating the test has been saved under a new test number). To print the test settings, touch the print icon.

Programing New Test Parameters

For ease of use, Neogen recommends users clone tests rather than programming new parameters.

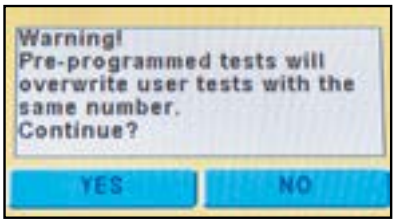
Deleting Tests

1. From the home screen, touch the manage tests icon.
2. Select delete test.
3. Select a test from the list to delete by touching the desired test name.
4. The reader will ask the selection be confirmed. Touch yes to continue or no to return to the list.
5. The reader will indicate that “Test # has been deleted.”

Restore Tests

Users can choose to restore one of the preprogrammed tests or to restore all of the preprogrammed tests if they have been deleted. Note: If a user-programmed test exists in place of preprogrammed test, the restore function will overwrite the user programmed test.

1. From the home screen, touch the manage tests icon.
2. Select restore tests. A message will appear reading, “Warning! Preprogrammed tests will overwrite user tests with the same number. Continue?” Touch yes to continue or no to return to the manage tests screen.



3. The user then will be prompted to, “Restore just one test?” To choose, touch yes. To restore all tests, press no. If no is selected, the reader then will restore all preprogrammed tests.
4. If only restoring one test, the reader will ask for the number of the test to be restored. Input the test’s number to restore it and press enter.

Modes

For more detail on using each mode, please reference the additional Neogen 4700 Reader manual that came with the reader.

Absorbance: This mode reads and prints the monochromatic or bichromatic differential absorbance at the user-selected wavelengths. Blanks are optional. Most assays require a mode other than absorbance mode as no calculations are made in this mode — only absorbance values are reported.

Factor: In this mode, the endpoint absorbance readings will be multiplied by a user-entered factor to calculate a result.

Single standard: This mode reads a calibrator and calculates concentrations based on a single point standard curve passing through the point (0,0). A blank is required to determine the (0,0) point. A factor (equal to the concentration of calibrator plus the absorbance of calibrator) is generated in this mode, and then multiplied by subsequent absorbance readings to determine concentrations.

Point-to-point: The microstrip reader accepts a number of calibrators and calculates concentrations based on the point-to-point calibration curve. Calibrator materials of known concentrations are used to calibrate the reader so concentration of unknown samples may be calculated.

Regression: In this mode, the instrument accepts a number of calibrators and calculates concentration values based on a best-fit curve (linear regression).

Cubic spline: Cubic spline mode accepts a number of calibrators and calculates concentrations based on the cubic spline (constrained) calibration curve. Calibrator material of known concentrations are used to calibrate the reader so concentrations of unknown samples are calculated from the generated curve. The resulting curve is a smooth curve connecting the calibrator points, which may be entered in ascending or descending order of absorbance.

Troubleshooting

Messages are displayed to alert the operator when certain limits are approached. After displaying the warning, the instrument will continue to function normally.

Message/Flag	Explanation
******	Printed in the concentration field if the absorbance is greater than 3.0. To obtain an accurate absorbance and/or concentration it is necessary to further dilute the sample(s) or dilute the specimen(s) and rerun the assay.
“>10**6”	Appears in Concentration Column when Concentration is greater than 10**6
“>3.00” or “< -3.00”	Prints in ABS column if an absorbance is greater than the maximum readable absorbance for the device
“%Absorbance Mode should not be used with negative absorbance!”	This message will display if the user is in %Absorbance Mode, and a standard is read which has a negative absorbance.
“Assay Cannot Be Edited!”	User has tried to edit an OEM preprogrammed test that has flag set to prevent it from being edited.
Cannot match test wavelength with filters currently installed on device!	When test is recalled, one or more filters in the instrument do not match filter wavelengths defined in a stored test.
“Carrier out of position”	This message will be posted if the carrier is not loaded in the correct beginning position, with A1 the first well to be read.
Date Entry Error “Wrong date format (mm.yyyy)!”	Message that appears when the expiration date for a control is not entered in the correct format during test definition.
“Do not select the same filter for primary and differential”	This message will appear when the same wavelengths are selected for the Primary and the Differential filters.
“EQ”	This is reported when a Sample is less than the POS cutoff and greater than the NEG cutoff concentration. (If it is reversed, then the sample is > value POS cutoff and < value NEG cutoff.)

Message/Flag	Solution
*Factory Calibration Restored *	This will be printed if “Recall Factory Calibration” is selected from the Utilities menu.
*Factory Settings Restored *	This will be printed if “Recall Factory Settings” is selected from the Utilities menu.
“Invalid Curve!”	This message indicates that readings for standards cannot be used to obtain a valid curve for the calculation mode being used. If duplicate standards are used, the user has the option to edit the curve if there are enough points (minimum 3 for Point-to-Point and Regression; minimum 4 for Cubic Spline).
“Invalid Curve – Log Error”	An error in the creation of a curve or readings of a negative absorbance will result in this message, followed by Test Ended.
”log(<=0)”	Prints in Interpretation column whenever a curve axis mode with a log tries to log a zero or negative number.
“LOW”, “HIGH”	Prints in Interpretation column whenever a value is lower or higher than the range of values entered to create the test.
“Mechanism Error” “Mechanism Jam	Indicates that the mechanism is not receiving any updated position information from the sensors. *Be sure you use the correct carrier.* Check for incorrectly placed carrier and free the jam, otherwise notify Technical Support.
“NEG”	Negative – prints if a Sample is <NEG value (or if reversed, sample is >NEG value).
Normal, Abnormal or Other Control Failed	Reported if a Control is outside the user definition high range values, low during the definition of a test.
“Not enough wells selected to run assay as defined”	This indicates that the “# Wells” selected were too few to run the Blanks/Standards/Controls as defined in the test.
“OUT”	Blank is outside min/max range or sample is outside low/high valid range values It also appears in Cubic Spline mode, when the sample is outside the range of valid standards
“POS”	Sample is >= POS value (or if reversed, sample is <=POS value.
“Pos must be greater than or equal to Neg!”	This message appears during test definition when the user is defining positive/negative interpretations. A value was entered for both the positive and negative, but the positive value is less than the negative value entered.
“Range Error”	This indicates there is a limit to the range of numbers that can be entered.
>Ref	Prints when a sample exceeds the absorbance of the reference well in a log-logit test. This is usually due to the calibrator concentrations being entered incorrectly or the calibrators being pipetted into the strip incorrectly. The first, or "Zero" calibrator must have the highest absorbance (darker) and the remaining calibrators must be of descending absorbance and increasing concentration.
Test Data Corrupted! OR Test Definition Corrupted!	Test (assay) Data (including calibration data) does not match what was stored. OR Test Definition does not match the data stored. Once a test shows that it is corrupted, there is no way to edit the test. It must be reprogrammed.
“When reversed, pos must be less than neg!”	If using both positive and negative interpretations during test definition, AND if the positive value is greater than the negative value, AND Reverse has been selected, this message will be posted.
“Wrong date format (mm.yyyy)!”	This message indicates the expiration date for a control is not entered in the correct format.

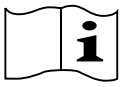
Error Messages

Error messages are displayed when the instrument fails to operate correctly. Some may require assistance from Technical Support.

Message Contents	Explanation
"BAD" next to a filter	This message will be posted if an assay was previously programmed with a filter that is no longer in the instrument. Delete or edit the filters. If this is not the problem, contact Technical Support.
“Calibration Checksum Faulty”	Contact Technical Support
Calibration Warning – Check unit calibration, please consult user manual.	Open the Utilities menu. Select ‘Recall Calibration’. This should restore the instrument’s factory settings. If the message is seen again, contact Technical Support for assistance.
Default Settings Loaded	Retrieval of unit parameters changed since the instrument was first shipped from the factory could not be completed – the original factory unit parameters were restored.
“Error: Offset value out of range”	Offset value is not in the range of 20 – 250 – contact Technical Support
Error Saving Assay Data!	Error found while attempting to save a test to EEPROM. Test not saved. Unable to store Assay information into EEPROM. If fewer than 140 assays stored, contact Technical Support.
“Factory Data Not Saved”	Contact Technical Support
“Factory Settings Invalid” OR “User Settings Invalid “	Contact Technical Support
“Home Sensor Malfunction”	This occurs when the mechanism travels to the front and then travels back, searching for home, and finds that it has gone too far. Contact Technical Support.
“Lamp/Filter Volts Low”	This can indicate the use of a faulty or wrong type of carrier. If the error message appears when the instrument is turned on, but before attempting to read a strip, be sure that the light is on. If not, check the voltage to the lamp and replace the lamp if necessary. If problem continues, contact Technical Support.
“Mechanism Error” “Mechanism Jam”	Indicates that the mechanism is not receiving any updated position information from the sensors. *Be sure to use the correct carrier.* Check for badly placed carrier and free the jam. Contact Technical Support.
"Mechanism Timeout"	Indicates that the motor appears to be turning but no response is received from the sensors. Contact Technical Support.
“Updating internal firmware”	If the system finds an old version of FTDI firmware, flag message displays and it is updated automatically. Do not turn off the unit until the update is complete.
“Abnormal filter index cnt=x” “Please turn instrument off, pause, then back on. Call service if problem persists.” OR Filter Wheel Error, cnt = “x”	During startup, if the filter wheel index count does not get 3 consecutive readings that are either 4, 6, or 8, this error message will show on the display. When starting an assay, if the filter count does not match the count determined at startup, this error message will show on the display. “x” = the last count.

Message Contents	Explanation
FTDI initialization error ========== Hardware Init Error (#10)	This message will be seen if the FTDI startup initialization fails, tries again, but then fails a second time. It may also be seen if the instrument is connected to a Windows 10 computer via USB cable, and the computer is in Sleep mode. To restore the instrument, 'wake up' the computer and set the power option. If the problem is not related to Windows 10, turn the instrument off and then back on. If that does not resolve the error, contact Technical Support.
"Wheel Speed out of range"	This message indicates a change in filter wheel speed. This is usually temporary. If it becomes persistent it indicates a need for service.
"Wheel not spinning properly"	This message will be posted if the 'Wheel Speed out of range' message is displayed more than 3 times. "Wheel not spinning properly. Fix the issue and restart the unit' will be displayed and all screen functions will be disabled. Check that filter wheel and filter wheel motor belts are properly installed. Check rotation of filter wheel motor, jack shaft and filter wheel for possible binding. Check that the filter wheel motor is plugged into its connector.

Explanation of Safety Related Symbols

	**Attention:** Read accompanying documentation.
	CAUTION – Recycle Neogen Stat-Fax 4700 Microwell Reader to avoid environmental contamination. This product contains recyclable parts. For information on recycling, please contact your nearest Neogen Service Center for advice.
	**WEEE mark** – This product contains electrical and electronic components and must not be disposed of using standard refuse collection. Please consult local directives for disposal of electrical and electronic equipment.
	National Institute of Metrology, Standardization, and Industrial Quality – Inmetro governs the (Inmetro) marking as a conformity mark that indicates conformity with the applicable safety requirements for products sold within Brazil.
	CE mark (conforms to applicable requirements for European Economic Area).
	RCM mark (Australia electrical safety and EMC).
	The Neogen Stat-Fax Microwell Reader Model number, which is 4700.
	The Neogen Stat-Fax 4700 Microwell Reader serial number.

Important Safety Information

⚠ WARNING

To reduce the risks associated with fire and explosion:

- Do not dispose of battery or Neogen Stat-Fax 4700 in fire.
- Do not use or store the Neogen Stat-Fax 4700 or power supply in potentially flammable or explosive environments. The Neogen Stat-Fax 4700 was not designed to be categorized as "Intrinsically Safe".

To reduce the risks associated with hazardous voltage and fire:

- Do not modify any part of the Neogen Stat-Fax 4700 and power supply.
- Do not use a power supply or USB cord (power supply cord) other than the ones specified by Neogen.
- Do not allow the power supply to get wet.
- Always keep power supply visible and accessible at all times. The plug at the wall socket is used to disconnect the Neogen Stat-Fax 4700 from the main power supply.

To reduce the risks associated with hazardous voltage:

- Do not service the Neogen Stat-Fax 4700 or power supply. For repairs, send only to Neogen authorized service personnel.
- Do not use the Neogen Stat-Fax 4700 or power supply if the enclosure is broken.
- Do not use a damaged power supply or a damaged power supply cord.
- Always replace damaged components with only the Neogen designated replacement parts.
- Disconnect the Neogen Stat-Fax 4700 from the AC power or the computer before cleaning.

To reduce the risks associated with illness or infection:

- Do not use the Neogen Stat-Fax 4700 in the diagnosis of conditions in humans or animals.
- Do not use the Neogen Stat-Fax 4700 as an indication of sterility of surfaces or solutions.

To reduce the risks associated with cross contamination:

- Before the instrument is removed from the laboratory for storage, disposal, transporting, or servicing, it must be decontaminated. Decontamination should be performed according to your local guidelines using your laboratory procedure. In absence of an existing laboratory procedure, use a 10% solution of chlorine bleach, or 70% isopropyl alcohol to wipe down the instrument. Take special care not to spill liquid inside the instrument.

⚠ CAUTION

To reduce the risks associated with exposure to chemicals:

- Always wear protective apparel and eye protection while using these products.

To reduce the risks associated with property damage and food contamination:

- Dropping or impact to Neogen Stat-Fax 4700 could result in foreign particles.

To reduce the risks associated with environmental contamination:

- Always follow applicable regulations when disposing of the Neogen Stat-Fax 4700 power supply, and battery.

⚠ NOTICE

To reduce the risks associated with property damage:

- Do not use the Neogen Stat-Fax 4700 with non-Neogen tests.
- Use only Neogen Stat-Fax 4700 Software.
- To ensure accurate results and prevent spillage of reagents, please keep the Neogen Stat-Fax 4700 upright when testing.
- Do not operate the Neogen Stat-Fax 4700 in close proximity to strong magnetic fields.

NEOGEN®

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