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AEROFIT
USER MANUAL

Your Complete AeroFit Respirator Fit Tester User Manual

For further information, please contact the manufacturer:
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2200 Resource Drive | Birmingham, AL 35242 | U.S.A
+1.205.980.0180 | www.ohdglobal.com
sales@ohdglobal.com | techsupport@ohdglobal.com

Introduction

The AeroFit is a condensation nuclei counting (CNC) respirator fit testing device. It is designed to provide quantitative fit factors for any tight-fitting respirator to include disposable respirators (such as N95, FFP2, and P2). The provided fit factors are an assessment of fit during the fit test and are not to be used to determine actual exposure as respirator fit varies at different times due to many factors.

Safety and Environmental

The instrument and related documentation, including this Manual, must be reviewed carefully for familiarization with safety markings and instructions before operating the instrument. The AeroFit is for use at an altitude up to 2000m (6500 feet). The maximum relative humidity is 90% noncondensing and pollution degree 2. AeroFit may not function properly beyond the specified operable environment. The operating temperature range is 15 to 35°C, (59 to 95°F) when powered by the external power supply; 15 to 35°C, (59 to 95°F) when powered by the optional battery pack, and 15 to 29°C, (59 to 95°F) when powered by the external power supply with the optional battery pack installed.

If the included power supply becomes faulty or damaged, it must be replaced with OHD part number FTK 3010-4021. The AeroFit has an optional removeable/rechargeable battery pack. Only the OHD battery pack part number FTK 3010-4023 may be used with the AeroFit. Visit www.ohdglobal.com, call OHD (+1.205.980.0180), or email sales@ohdglobal.com for information on purchasing replacement power supplies and/or battery packs.

Do not disassemble, modify, or attempt to repair the device. It can be extremely dangerous (See Laser Safety Information below). If an unusual odor, abnormal noise, or smoke is observed, or if any liquid enters the instrument, turn the power off immediately, remove the battery, or disconnect the power cable if connected, as this may result in electric shock, fire, or damage to the instrument.

When the instrument is not in use, unplug the power cord. Failure to observe this may result in electric shock, fire or damage to the internal circuit. When using the power cord, make sure that the plug is clean and dry. Use the instrument in a location where the power cord is accessible for easy disconnection. The AC outlet used must be within the specified power requirement to prevent a risk of fire. Use only the power cord and/or the AC adapter provided with this instrument. Other commercially available cords may have different voltage specifications and polarity, which may result in short circuit, fire or damage to the instrument. Under abnormal conditions, such as static discharge, it may be necessary to cycle power to achieve proper operation.

Static electrical discharge to the instrument may impact measurement value and/or damage internal circuitry.

Do not use or leave this instrument in an environment exceeding or falling below the specified temperature or relative humidity levels for the instrument. The instrument should not be exposed to direct sunlight for prolonged periods of time. If AeroFit has been stored in a cold environment, allow the instrument to come to temperature equilibrium with the environment in which it will be operated before turning it on. A sudden, drastic temperature change may cause condensation. Condensation on the sensor can lead to inaccurate measurements or if extreme, could damage internal components.
Do not expose AeroFit to strong shocks or place heavy objects on the instrument as this may cause malfunction or damage.
Do not allow the instrument draw in highly concentrated particles that exceed the specification level (>100,000 particles/cc).
If the AeroFit is not used specifically in the manner outlined in this manual and for its intended use, the protection of the instrument may become impaired.
The Aerofit is intended for indoor use. It can be used temporarily outdoors but only under specified weather conditions.

General Specifications
Input Voltage: 12VDC, Center Positive, 3A Max
Power Supply: Universal, 100-240VAC, 50/60Hz 1A Max
Operating Temperature (max based on configuration): 15-35°C
Relative Humidity Range: 10%-90% (non-condensing)
Setup Memory
Size(H) 11 x (W) 4.4 x (D) 15 inches
Weight: 9 lbs
Display: 800 x 480 pixels
Touchscreen: Capacitive Touch
Environmental
Pollution Degree: 2
Certifications
Laser
Laser Classification
This device is classified as a Class 1 Laser Product in accordance with the following standards:
21CFR1040.10 and 1041.11

Laser Safety Information
This instrument utilizes a laser diode as the light source of the sensor inside the unit. Do disassemble the device or the optical sensor inside the unit.
Any attempt by a user to control, adjust, or perform maintenance procedures other than those specified in this manual may result in hazardous exposure to laser radiation.
Wavelength 639nm
Maximum output 12mW
Beam emission angle 6-12°(Parallel) 16-24°(Perpendicular)

Service
Should service be needed for your instrument, contact the OHD Service Department. For service and operation questions, contact OHD: service@ohdglobal.com,+1.205.980.0180
For those instruments outside the U.S.A., contact OHD to find the nearest service center.

CAUTION: The AeroFit is intended to be serviced only by authorized service personnel. Service procedures should only be performed by qualified technicians. If the AeroFit appears to be tampered with, this may render the warranty null and void.

Disposal
Disposal of the instrument or any part therein should be in line with any local or national regulation(s).

Table of Contents

Welcome

In this manual we will walk you through the setup, operation and maintenance of your AeroFit fit test instrument hardware and software.

AeroFit is designed to measure fit factors for all respirators including disposable filtering facepiece respirators (N95, FFP1, FFP2, FFP3) with maximum efficiency. AeroFit's unique features enhance the user experience and make fit testing an efficient process.

What is Needed to Perform a Fit Test
To perform a fit test, you will need a qualified person that has a clear understanding of respiratory protection standards, respirator protection and limitations, and fit test protocols. While all persons can become proficient at using the AeroFit, additional knowledge on fit testing operations is necessary to properly manage respirator fit testing. Research local laws, regulations and resources to access these details.

Training for employees using respiratory protection is one of the most crucial aspects of a respiratory protection program. Training on respirator use, including donning and doffing, should be completed prior to fit testing.

Fit Testing Precautions
Test subjects who smoke can exhale particles for up to 30 minutes after their last cigarette; thus, test subject should refrain from smoking for 30 minutes prior to fit testing. Failure to do so may result in lower fit factors and lead to fit test failures.

Fit testing near irritant smoke used for qualitative fit testing operations may lead to corrosion in the AeroFit. Do not operate or store the AeroFit in environments where irritant smoke is being used for any process including fit testing.

Statement on Cross-Contamination
The risk of cross contamination resulting from the use of a AeroFit is very minimal. Fit Testing itself **does not** increase or decrease a person's risk of exposure to any virus or illness. The real threat is coming into close contact with an infected person no matter the location or activity.

The AeroFit pulls air out of the respirator into the instrument. No air is ever reintroduced to the respirator being worn by the test subject. Thus, the chances of contaminated air being in the system are, at worst, no more likely than contaminated air being in the surrounding environment. If an infected person were to be fit tested, air from their breathing zone would be taken into the instrument, particles would be counted, and all air would be exhausted through an internal HEPA filter.

The AeroFit and accessories are subject to surface contamination like any item in the test area. For protection against the transference of surface contamination, all possibly contaminated surfaces the operator or subjects may contact need to be disinfected. This includes the AeroFit and accessories. The adapter kits may be cleaned either by immersion, spray, or wipe from an EPA-approved disinfectant. The adapter should be dry before use in a fit test. The AeroFit tubing should be carefully wiped down with an EPA approved disinfectant.

If there is a threat of contamination, the fit test operator should take precaution when carrying out fit testing according to the guidance provided by the CDC.

If respirators are shared for fit testing, the fit test operator should follow OSHA 1910.134 Appendix B-2 Respirator Cleaning Procedures or the manufacturer's guidelines for the disinfection of the respirator to avoid any cross contamination.

How the AeroFit Works

AeroFit uses the approved Condensation Nuclei Counting (CNC) fit test protocols accepted by global regulatory committees to test the seal of a respirator to a test subject's face.

CNC, also referred to as ambient aerosol, or Ambient Particle Counting (APC) fit testing, uses airborne particles to challenge the fit of a respirator. Within this manual, we will refer to the technology as CNC. The theory of CNC fit testing states that if there is a known concentration of particles in the ambient environment, and we have a respirator equipped with a defined filter material, then we can use specific mechanisms inside the instrument to measure the concentration of particular particles inside and outside the respirator to assess the fit. The theory states that because the filter efficiency of the respirator is known, particles present in the respirator must be entering through a leak.

The inside concentration is compared to the outside concentration, and a comparative analysis is completed to determine if the seal of the respirator to the face, or the fit, is good.

Fit Factor
With the AeroFit, fit factor is measured by comparing the concentration of particles inside the respirator to the concentration of particles outside the respirator. The ratio of **(particle concentration outside)/(particle concentration inside)** is used to calculate a fit factor for each exercise within the given protocol. Finally, a total fit factor calculation is used to determine the overall fit factor of the respirator on the test subject. Passing fit factors are set by the governing body that approved the protocol. The AeroFit determines a pass or fail based on the guidelines of each governing body.

$$Fit\ Factor = \frac{Concentration\ Outside\ the\ Respirator}{Concentration\ Inside\ the\ Respirator}$$

The overall fit factor is calculated by using the harmonic mean of the fit testing steps as follows:

$$Overall\ \ Fit\ \ Factor\ = \frac{N}{\left[\left(\frac{1}{FF1}\right) + \left(\frac{1}{FF2}\right) + \ldots \left(\frac{1}{FFN}\right)\right]}$$

Where:
N = The number of exercises;
FF1 = The fit factor for the first exercise;
FF2 = The fit factor for the second exercise;
and FFN = The fit factor for the nth exercise

Instrument Setup

The AeroFit machine and package comes with all the components necessary to execute up to 500 disposable respirator fit tests. Additional adapters may be necessary if fit testing full or half face elastomeric respirators.

What comes with the AeroFit?

- The AeroFit Respirator Fit Tester
- Power supply and power cord
- Twin Tubing
- Wick storage container
- Wick assembly
- 2 spare wicks and screens
- 10 2 oz bottles of reagent grade isopropyl alcohol
- 500 push nuts and 500 probes
- N95 probing tool
- Particle generator and connection cord
- USB cable
- Hard case with extendable handle and wheels
- Logic software
- Calibration Certificate

Unpacking the AeroFit Carrying Case:

Release the two latches on the front of the case by depressing the moveable lever under each latch.

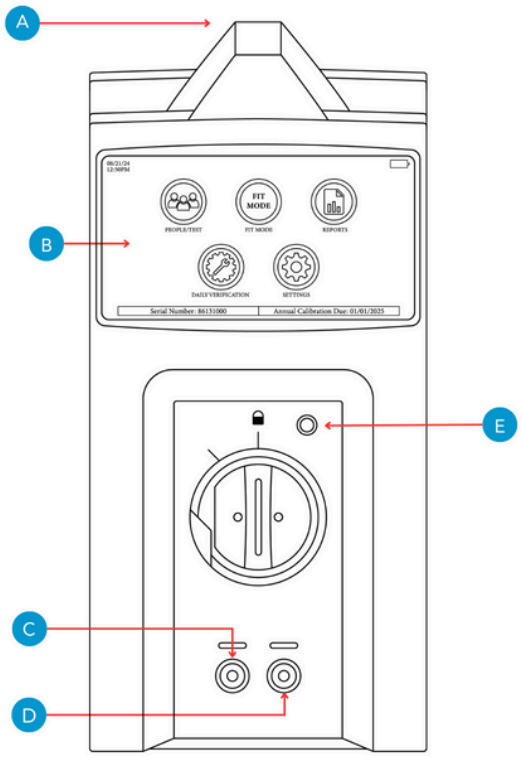
A. Power supply and power cord
B. Twin Tubing
C. Wick storage container
D. Wick assembly (located in the wick storage container)
E. 2 spare wicks and screens
F. 10 bottles of reagent grade isopropyl alcohol
G. 500 push nuts and 500 probes
H. N95 probing tool
I. Particle generator and connection cord
J. USB cable

Available Accessories

- Respirator adapters (required for fit testing)
- Rechargeable battery pack
- Printer (standard printer and/or card printer)
- USB Keyboard

Startup

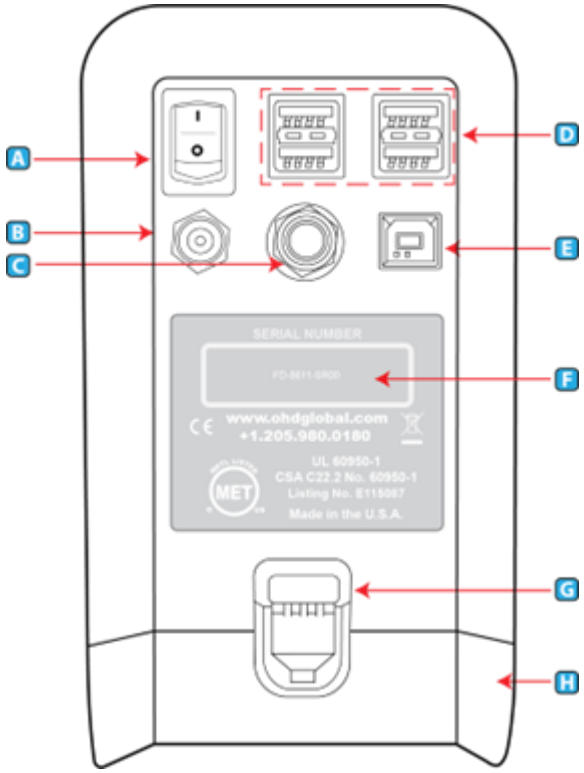
- Connect the power supply or insert battery
- Connect the Particle Generator to the back of the AeroFit and fill with water as directed in the Particle Generation Management section.
- Turn on the instrument with the rocker switch on the rear panel
- Follow the Startup Wizard (during initial setup only)
- Follow instructions for Daily Verification
- Ready to test



Instrument Front Connections

A. Carrying Handle
B. Color Touch Screen
C. Clear Tube Connection
D. Blue Tube Connection
E. Daily Verification Zero Port

Instrument Rear Connections



A. **On-Off Switch** - The On-Off Switch functions like a standard power switch. Toggle up (|) and the power is turned on. Toggle the switch down (o) and the power is turned off.
B. **12 VDC, 3A (max) Power Connection** - The power connection is to supply power to the unit, and the universal power supply shipped with the AeroFit must be used.
C. **Particle Generator Connection** – If using the Particle Generator and OHD's Particle Generation Management, its cord must be inserted into this port.
D. **USB Devices (4)** - The four standard USB ports may be used to connect a keyboard, printer, USB memory stick, or other useful devices.
E. **USB PC Port** - The USB PC Port is used to connect the AeroFit to a personal computer. The AeroFit is shipped with a supplied cable for this purpose. The USB symbol on the cable must face up to properly insert this cable. This cable allows for the AeroFit to be operated from the supplied software.
F. **Serial Number** - Located in the center, the serial number is important should you require service or support. All records are kept according to the serial number.
G. **Battery Latch** - Push down on this latch to release the battery pack and pull outward to remove it.
H. **Battery Pack (optional) or Cover** - When using an optional battery pack to operate the AeroFit, it will be inserted here. When no battery pack is purchased, this cavity will be filled with a blank cover.
I. **Bluetooth Module (internal, not shown)** - When purchased with the Bluetooth function, the AeroFit can wirelessly connect to a computer with Bluetooth capability.

CAUTION: It is vital to open Logic software to pair the device. See Logic Software section.

OHD Logic software allows users to run multiple machines simultaneously, with flexibility on the start time for any test. Standard Bluetooth allows testing to happen from across the room.

Connecting Tubes to the AeroFit

The twin tubing set consists of two tubes (blue and clear). The blue tube samples the ambient air and connects to the machine on the bottom left port. The clear tube samples inside the respirator and connects to the machine on the bottom right port.

The ends of the tubing that connect to the instrument are those that have click to connect connections. The blue tube has a male connection, and the clear tube has a female connection. To connect the tubes to the instrument, it is best to push the connections into place while holding the tube, not the connection.

When performing a daily verification follow the instructions and use the onscreen drawings to connect the other end of the clear tube to the zero port when instructed. The clear tube that attaches to the zero port is 5-6 inches longer than the blue tube.

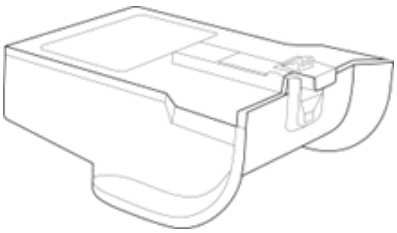
On the Adapter

It is best to connect the clear sample tube to the respirator while holding the respirator in your hand, not while the test subject is donning the respirator. Ensure the clear tube is connected securely to the respirator adapter, and that there are no obvious leaks.

Note: Each adapter is different and some adapters may require assembly. All adapters are constructed with a 1/8" port to connect the clear sample line.

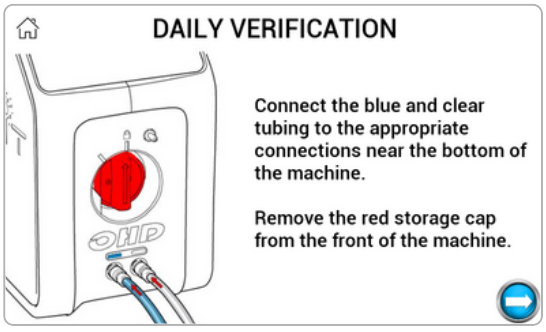
Battery

The optional battery pack can be used in lieu of the power cord. When a battery is in place, if the AeroFit is plugged into a wall outlet and the building loses power, the battery will automatically take over without any interruption to the fit test. The battery may be charged while connected to power whether the AeroFit is in use or not. When fully charged, the battery typically yields approximately four hours of typical testing.



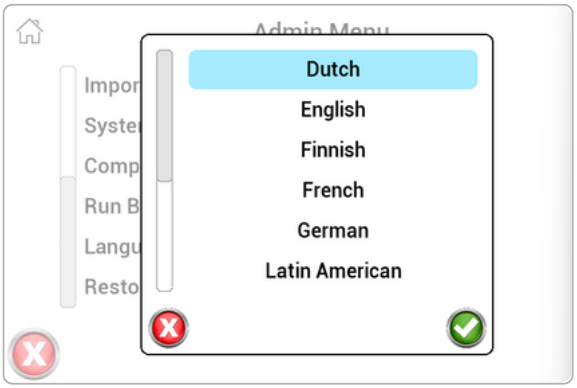
Daily Verification

Daily verification is required for each day of testing. This check ensures the instrument is measuring particles when they are present, has no internal leaks, and that all moving components are working correctly. See the Daily Verification section on page 22 for more information.



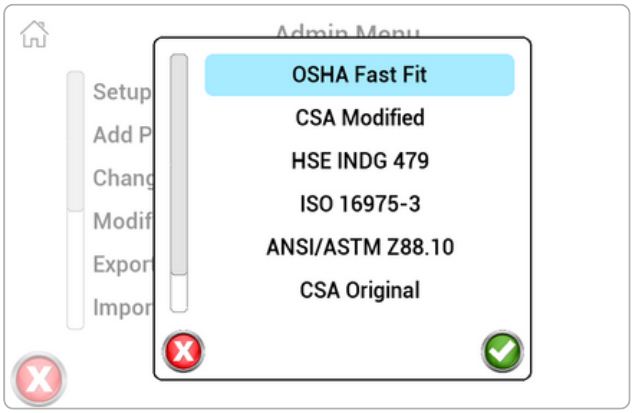
Startup Wizard

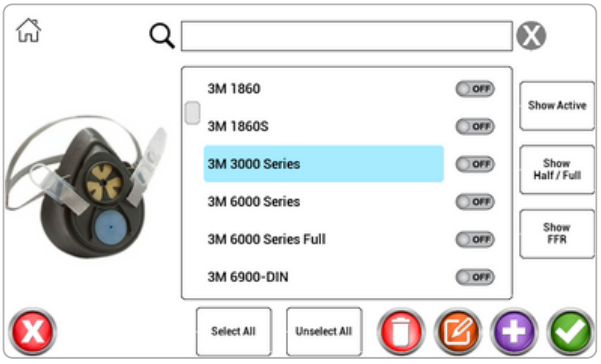
The startup wizard allows the user to customize settings within the AeroFit that will not change unless manually . These settings will help make the user more efficient when fit testing, and can protect the user from improper data inputs.



Language
Select your preferred language here.

Regulation
The operator will be required to select the regulation that will be followed for testing in any specific region. This can be changed in the Settings>Admin Menu screen if there is a need to switch regulations.The regulation controlsall the test parameters: Select regulation links are listed in Appendix E: Regulations.

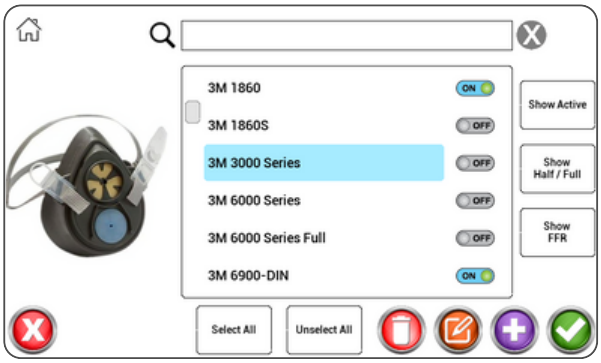




Respirator Designation
In the respirator selection, identify the type of respirators you will be fit testing. If you are fit testing filtering facepiece respirators, like N95s, you will need to choose the appropriate level of filtration in the options below.
Select all respirator types that apply to your fit testing applications.

Respirator Selection

Find the respirator(s) that will be used for fit testing and toggle the on/off switch to on. If a particular respirator has not been determined, you may select any respirator and continue. This can be changed later in the Settings>Setup Respirators section. Using the buttons on the right, you can filter by respirator type and selection.

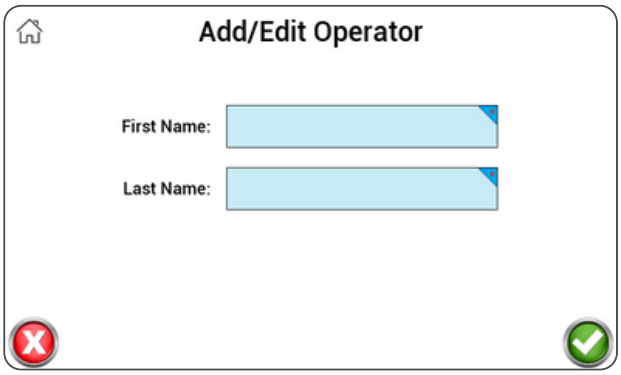


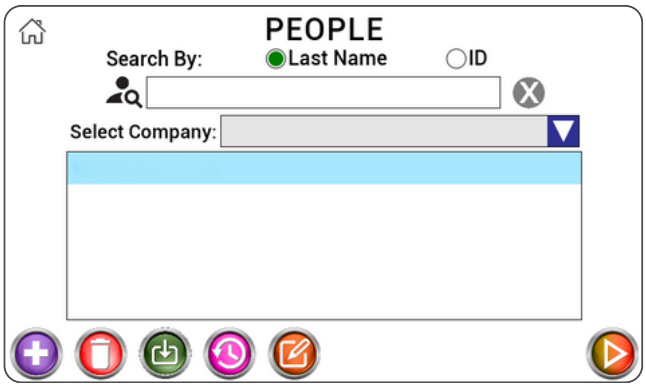
Particle Generation Management:

Particle Generation Management (PGM) is a unique feature in the AeroFit that uses the particle counts in the fit testing operations to activate or deactivate the provided particle generator. This feature ensures that your fit testing environment is optimal foe fit testing with the AeroFit.

Operators

For every test performedon the AeroFit, an operatormust be assigned to the record.The Operator screen is used to add/edit operators in the database. Enter one or more operator. Additional operators may be added in the Settings>Admin Menu section. See Setup Operators for more information.





People/Test

In the People/Test screen, people can be added one by one, imported from a list,or added at the time of a test. The people screen is the last screen in the setup wizard. The operator may close this window or performfit tests. See Performing a Test instructions in this manual

Navigation

The AeroFit is operatedby the color touch on the front of the instrument. When pressing any button, there will be a "click-tone". The volume of this tone can be changed in the SystemSettings menu. There are five major modules to select from:

People/Test: Where people are added, edited, or imported, and where tests are initiated.

Fit Mode: Realtime measurements of ambient particle concentration and fit factor based on respirator.

Reports: Reports that can be printed out or exported one at a time, or by date, company, or group.

Daily Verification: Used to perform the daily verification requirement for each day of operation.

Settings: Contains parameters that can be changed for the convenience or requirement of the operator.

Other buttons you will see are:

Add: This button will allow the user to add to the records currently viewed, e.g., person, respirator, etc.

Admin Menu: Entry to a menu for secure and important settings

Cancel: This button will close the current screen. Any values entered by the operator on the screen will not be saved.

Company: A separation of people into different groups, teams, companies, etc.

Daily Verification: Will allow the user to perform a daily verification when the initial daily calibration has already been completed

Delete: Removes an item from a list

Download: For loading people into the QuantiFit2 from the OHD Logic software

Edit: Allows the operator to change information for the selected item

Go Back: The back button will allow the operator to return to the previous screen

Go Down: To move down through a list

Go Forward: This button will guide the operator to the next screen in the sequence

Go Up: This button will guide the operator to move up in a list

Next: Takes the operator from the People screen to the test screen

Help: Dynamic help according to the screen being viewed

History: Will allow the operator to see recorded information regarding the selected person

Home: Will bring the operator back to the Home screen

Operators: Add/edit operators that will be testing individuals

People/ Test: Add/edit people and initiate fit test

Print: The print button allows the user to print a report related to the current screen

Reports: Brings the operator to a section enabling them to print reports by date or company

Retry: When a test step is interrupted, this allows the test subject to retry that step

Save: The green checkmark will save the information entered on the screen

Fit Mode: Realtime measurements

Search: A field available on the People screen that allows a search to find the desired test subject quickly and easily

Settings: Enters the screen with options for changing settings on the AeroFit

Setup Respirators: Add, edit, or delete respirators

System Information: with information including software version, serial number, calibration due date, etc.

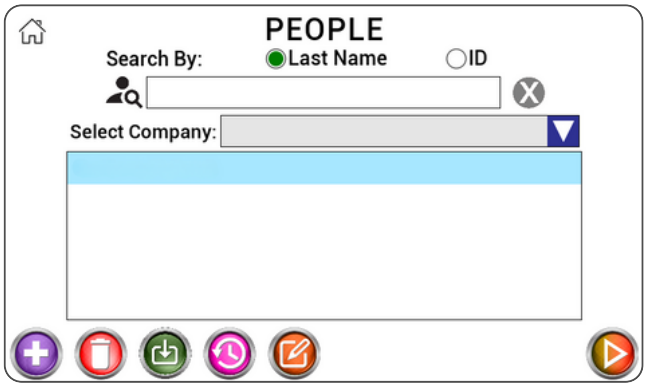
Update Software: Used when an update is available and saved on a USB drive

USB Save: Save report or information to a USB drive plugged into the AeroFit

People/ Test

A. Search

Test subjects maybe searched by last name or by their personalID. Click the button to be used for the search.The search will be defaultedto Last Name. Press the X at the end of the search bar to reset all searchcriteria. Partial names and numbers may be used in the search.



For example:

- Enter an "E" in the search, and all those in the database with the last name starting with "E" will be displayed.
- When specifying a company and typing in an E, only those names starting with E and within the company selection will be shown.

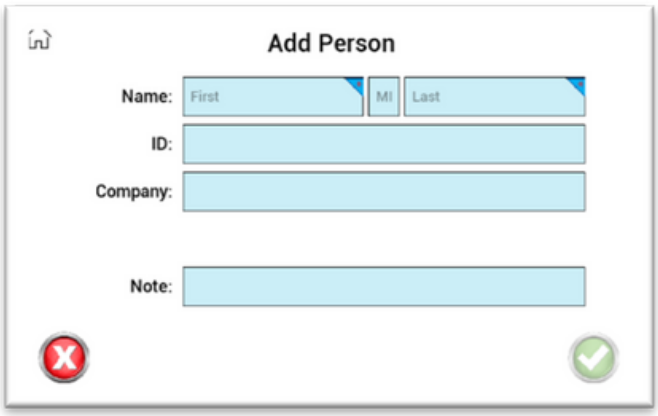
B. Select Company

Company is intended to create a division among the test subjects who are entered into the onboarddatabase. To add a company to the AeroFit database, type in a company name when adding a test subject to the database. The company will be saved automatically along with the test record.

CAUTION: When entering the name of a company, it is critical that it exactly matches the previous entries,or a new company will be created.

C. Add

The Add button will open a screen that will require test subject information. The fields available are Name, ID, Company, Group, and Notes.



D. Delete

When a test subjectis selected, press on this icon to delete this person from the instrument. There will be a prompt asking if you are sure that you want to delete this person from the database.

CAUTION: After deletion, a test subject cannot be restored.

E.  **Download**

The download feature allows test subjects to be uploaded in bulk. This can be done through a CSV file from the OHD Logic software. See Appendix B: Import Personnel Template for import requirements.

F.  **History**

When a test subject is selected and the history button is pressed, a screen will show any existing tests for this person. Tests will be listed by date.

G.  **Edit**

When selecting a test subject and pressing on the edit button, there will be an opportunity to change the saved information for this person. This includes Name, ID, Company, and Notes.

H.  **Next**

When a test subject is selected, the Next button will move to the test screen.

Performing a Fit Test

Preparing the Respirator

- Filtering Facepiece (FFP) – FFP respirators (such as N95s) require the user to insert a non-removable probe into the respirator. This probe allows the AeroFit to sample inside the respirator. Applying this probe to the respirator will make the respirator unfit for respiratory protection AFTER the fit test has been conducted. The user should discard the respirator once the fit test is complete. Steps to inserting the probe are as follows.

1. Insert the flanged side of the probe into over the needle on the base of the AeroFit punch tool
2. With the convex side facing up, slide the push nut onto the magnet on the top side of the AeroFit probing tool.
3. Slide the respirator over the needle to align the needle in the desired location on the respirator; ideally in the middle. The outside of the respirator should be facing up, the inside of the respirator should be facing down, over the needle.
4. With the Punch tool sitting on a flat surface. Press down on the top of the tool until you feel the needle push through the respirator.
5. Remove pressure and allow the punch tool to become uncompressed.
6. Remove the probed respirator from the punch tool
7. Attach the clear sample line to the probe that was inserted to the respirator by pushing the tube over the probe. The sample line should be applied to the respirator BEFORE the test subject dons the respirator.
8. Have the test subject don the respirator and begin the fit test process.

- Full and Half Face Elastomeric Respirator – Full and half face elastomeric respirators require specific adapters to be applied to gain access inside the respirator. Adapters are equipped with P100 respirators to properly challenge the respirator seal.

    1. Connect the P100 filter the proper end of the adapter.
    2. Cut a 3 inch peace of the ¼" tube provided and attach it to the barb on the inside of the adapter.
    3. Feed the tube into the breathing zone of the respirator and connect the assembled adapter to the respirator.
    4. Attach the clear line from the AeroFit to the barbed port o the outside of the respirator.
    5. Have the test subject don the respirator and begin the fit test process.

Beginning a Fit Test

After selecting or adding a person to the database, and advancing to the Test Information page, the test can be initiated by pressing the Blue Arrow to advance. During each step, written instructions will be displayed on the right of the screen, visual instructions will appear in the middle of the screen, and a fit test progress indicator will appear on the right of the screen.

Initiating the test step:

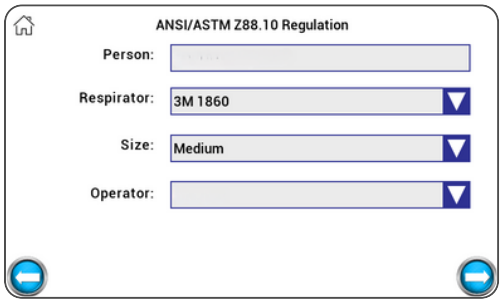
At the end of each step, an audio tone will be played to let the test subject know they are able to move onto the next exercise. The screen will automatically advance to the instructions for each exercise as they are sequenced in the standard that was selected.

Press the People/Test button to enter the Test Screen

The People screen prompts the operator or test subject to select or fill in the details of the person being fit tested.

- Search individuals in the data base by selecting either "Last Name" or "Company" and typing in the desired search criteria.
- Add a new person by pressing the + button on the bottom left.

Press the Blue arrow at the bottom right to advance to the Test Screen.



Test Screen

The test screen prompts the user to select the Respirator, Size, and Operator or the fit test.

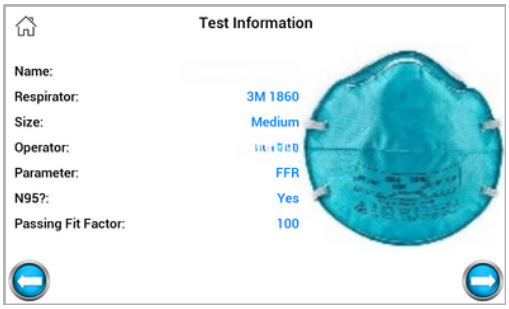
- The Respirator selection will only show the respirators that have been selected during the setup wizard or in the Setup Respirators module on the settings screen.

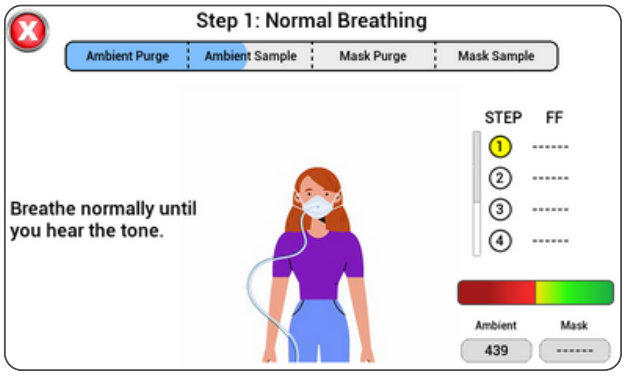
Press the Blue arrow at the bottom right to advance to the Test Information Screen.

Test Information Screen

This screen allows the test administrator and test subject to review and verify that the test subject, respirator, and other test parameters are accurate.

Press the Blue arrow at the bottom right to advance to the test.



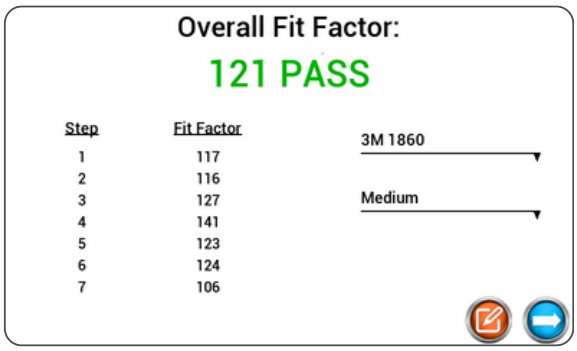


Instruction Screen

The fit test subject should follow onscreen indtruction for head and body movements specific to the chosen regulation.

Operator Signature

After the details of the test have been confirmed, the operator can progress to input their signature on screen, if desired. This feature can be turned off in Settings>System Settings>Signature Capture.



Overall Fit Factor Screen

At the end of the test, the results for each exercise are displayed along with an overall fit factor and the "PASS" or "FAIL" designation. Users can add a note with the fit test record, or press the Blue Arrow to advance.

Post Test Signature

After the final step, if the signature feature is enabled, the test subject will sign on the touchscreen.

Overall Fit Factor Screen

The final screen of the fit test allows the user to print the report, generate a fit PDF, retest the test subject, or move onto the next subject. By choosing the Retest Subject option you will be redirected to the test screen with all the fields populated with the current test subject information. By selecting the Next Subject option you will be redirected to the People/Test page and will be able to choose the next test subject from the list or add a new one if they are not yet in the database.

Reports

Reports may be printed at the time of the test, or any time after the testing has been completed. The following reports are available on the AeroFit:

Fit Test Reports

- Individual

A single-page report that contains all required data for a respirator fit test record. This report includes a fit test card at the bottom of the sheet for the test subject to keep.

- Summary

A report that will print the specified group of people in a truncated fashion, which allows for many people to be
recorded on the same sheet.

Fit test reports can be selected by:

- Company
- An individual person
- Tests that fall within a specificdate range

Verification Reports

Quick selections include:

- Today
- Current week
- Previous week
- Current month
- Previous month
- Custom [Date Range]

Print/Export Reports

The reports can be saved as a PDF file, CSV file, or both, or printed directly to an approved printer.

Daily Verification

Daily verification is required for each day of testing.

When turning on the instrument for the first time each day, the Operator will first be prompted with the daily verification message. Once the daily verification has been performed for the day, this message will no longer appear when the unit cycles power.

The Daily Verification is a series of tests performed on the instrument and the environment, to ensure the instrument and environment are suitable for fit testing. During the Daily Verification, there are four variables that are measured and validated through a series of test. They are as follows:

1. Test to ensure the instrument is seeing particles when they are known to be present.
2. Test that there are enough particles in the test environment to execute a fit test.
3. Test with a HEPA filter in line to verify we do not detect particle when they are not present.
4. The instrument completes a series of internal movements that verify that the instrument is functioning without leaking.

The steps to executing a Daily Verification are as follows:

1. Connect and initiate the particle generator by following the step in the Particle Generation Management section.
2. Connect the clear and blue tubes to their male and female connections on the front of the AeroFit.
3. Remove the red storage cap and insert the blue wick that has been charged with isopropyl alcohol.
4. Turn on the AeroFit or select the Daily Verification icon from the home screen if the instrument is already turned on.
5. Select the respirator types that you will be fit testing using the icons on the screen.
    a. Select all respirators that apply to your fit testing session.
        i. If you are fit testing filtering facepiece respirators you will need to designate whether or not the respirator has a filter efficiency less than 99% (N95).

6. Follow the instructions on the touch screen and connect the clear end to the zero port when prompted.

    a. The AeroFit has internal timing sequences that will walk you through the Daily Verification process.

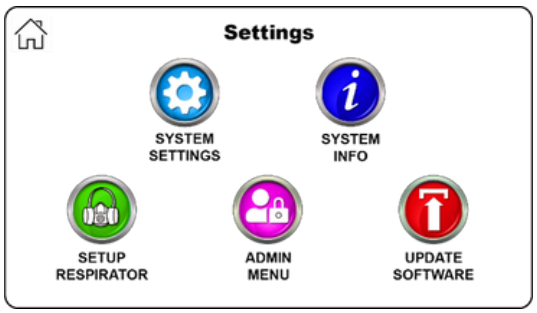
Troubleshooting:

Troubleshooting a failed Daily Verification starts with determining the point at which the check was failed.

1. If the check failed during the concentration check because the ambient particles were too high or too low, simply generate or clear out particles using the particle generator or by opening a door or window.
2. If the test failed after the clear tube was connected to the zero port, replace zero port steps with the spare HEPA filter included in the and repeat the test.
    - Show HEPA filter and connection to the clear tube
3. If the verification fails again, contact OHD technical support techsupport@ohdglobal.com

Onboard Settings

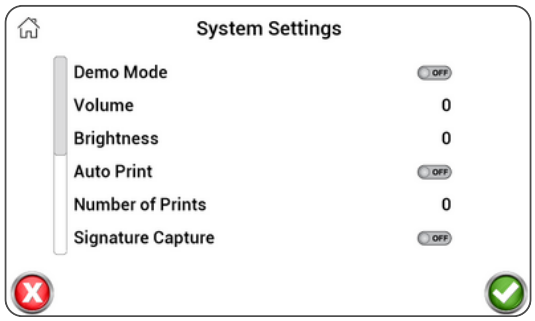
System settings



Volume allows the operator to increase or decrease the volume of the audio indicators that one might hear when testing or entering test data. The settings are 0 to 10, where 10 isthe loudest.

Brightness allows the operator to increase or decrease the brightness of the display. The settings are 1 to 10, where10 is the brightest.

Auto Print is turned on when the operator desires the test automatically to be printed upon completion of a fit test.



Number of Prints allows the operator to select the number of prints when printing reports. To be used when more than one copy isrequired.

Signature Capture allows the operator to turn off the signature capture at the end of each test if the signatures are not necessary or required.

Ask Daily Verification Mask Type
Save Failed Fit Test Data
Save Fit Mode Data
Particle Generator Management
Data Format
Keyboard

System Information

The information button will display helpfulinformation when contacting OHD for support including:

- **System Version** – The current version of on-board software
- **Cycle Count** – The number of cyclesthe instrument has run
- **Calibration Due Date** – The date due for annual calibration requirements
- **Current Date** – Can be changed by touching the current value
- **Current Time** – Can be changed by touching the current value

Setup Respirators

The AeroFit is populated with an extensive list of respirators. When selecting respirators, only those turned "on" will be available as a selection on the Test Information screen during a fit test.

If the respirator that is being tested does not appear on this list, a new respirator may be added to the list. The following fields will be required:

- Respirator Manufacturer and Model
- Half or full face
- Parameter
- Image

An image can be uploaded into the database from a thumb drive.

- The respirator image should be no larger than 240 pixels wide by 370 pixels tall.
- The respirator image should be a *.png file.

When no image is uploaded, "No Image Available" will be shown in place of the image.

Admin Menu

The Admin Menu is a directory for critical settings. These settings should be changed only by a person who has been trained and understands the purpose of each setting.

Setup Operators

Operator setup is necessary to record those people who will be running the tests. To record an Operator, there are key fields required:

- First and Last Name
- Email

Change Regulation

The AeroFit is designed so that when a regulation is selected, all tests are automatically executed with the correct settings. New regulations will be added in future updates as they become available or are modified.Links to select regulations are listed in Appendix E: Regulations.

Export Database to USB Drive

Allows users to create and save a complete backup of the onboard database including people, fit tests, operators, selected respirators, and various other settings.

Import Database File from USB Drive

This is how you restore a backup database and can also be used to share databases across multiple units.

System Reset Options

There are numerous reset options according to which information needs to be reset:

- Clear People List will remove all the people from the current database.
- Clear Test Records will keep the people list but will delete all test information.
- Clear Operators will remove all operators listed in the unit.
- Clear Custom Parameters will remove any parameters that have been manually added to the database.
- Restore System Defaults will change all operational settings to the settings that were originally implemented on the instrument. This option will not erase any of the information listed above.
- Reset to Factory Settings will remove all data on the Quantifit2 and it will operate as though it is the very first time the unit is powered up.

Company Info for Reports is a customizable header that will appear on reports printed directly from the AeroFit

Run Battery Drain Procedure

CAUTION: Must be performed to prepare battery for shipping. Please remember this as you prepare to ship your instrument back for annual calibration.

Language

Change selected language

Update Software

Occasionally there will be updates to the on-board software. OHD will notify customers when an update is available if the unit has been registered.

The notification will come via email. The update can be downloaded from a website and saved to a USB Drive. With the USB Drive in any port on the back of the instrument, the Update Software button will ask the operator to select the update file. After the update, the instrument will automatically cycle power at the appropriate time, reboot the system, and be ready for testing.


Your Protection.
Our Priority.