# Operating Guide for the AccuFIT 9000 PC Software (Next Generation)

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Fit Tests     C     Devices     People     RealTime     Validation Check	Fit Test History Overdue Tests Law 100 days	Upcoming Tests Net 30 days		Completed Tests Lax 90 days	
Settings <	Search for previous tests Search	Status All	Dates	More -	
	¢ Name	ployee ID ¢ Company	<b>≑</b> Test Date	¢ Result	

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## Downloading and Installing the Software

Point your browser to the Software/Firmware/Driver page on the Accutec website at <u>https://accutec.com/resource-library/</u>. Download the Current version of the PC Software here:



Clicking on the downloaded file will begin the installation or upgrade process. Installation requires that Microsoft Windows Desktop Runtime 8.0.11 be installed on your computer. If this app is not already present, you will be presented with a prompt that allows download and installation of this app. If this is a first-time installation of the Accutec software, the EULA (End-User License Agreement) will appear before allowing installation to complete.

If the CP210x Driver for USB connectivity is not already installed, download it from the Accutec website here: <u>https://accutec.com/download/accutfit-9000cp210x-driver/</u> and install according to the accompanying instructions. Please be aware that the installation procedure for Windows™11 is different from that of previous versions of Windows™.

PC Software (2.0.7.2)						- c
ït Test Hist	ory					
Overdue Tests Last 90 days		Upcoming Te Next 30 days	sts	Completed Tests Last 90 days		
0		0		18		
Search for previous t	ests	Status	Dates			
Search		All	•	More -		
♦ Name	Employee ID	Company	◆ Test Date	Result		
Wylie Coyote	608786	Acme	4/11/2024 5:47:30 PM	PASS	*	8
Wylie Coyote	608786	Acme	4/11/2024 5:52:15 PM	PASS	*	•
Wylie Coyote	608786	Acme	4/11/2024 6:01:52 PM	PASS	*	•

When the software is opened the following Screen should appear:

Please note the "Hamburger" menu icon at the upper left of the screen immediately below the Version legend. Clicking on this menu icon invokes the Navigation Bar at the left of the screen.

## The Navigation Bar

AccuFIT PC Software (2.0.11.0)				- • ×
	=			Accutec 🐱 🥰
🚱 Fit Tests 🛛 <				
🖵 Devices	Fit Test History			
😂 People				
🔟 RealTime	Overdue Tests Last 90 days	Upcoming Tests Next 30 days	Com Last 90	pleted Tests days
Validation Check		Ő.		
🔹 Settings 🛛 👻	U III			
Operator				
Organization	Search for previous tests	Status	Dates	
Data Management	Search	All		More -
Respirators	♦ Name	e ID 🗢 Company	♦ Test Date	Result
🕑 Help				

**The Navigation Bar** has multiple tabs, and clicking on a selected tab will bring the user to that function of the application. The description of each tab is as follows: (Please note that the sequence order is optimized for regular use. During the installation process you will want to open the "Settings" tab first.)

- **1. Fit Tests** Expanding this tab with the drop-down arrow to the right of the Tab header brings up two sub-tabs:
  - **a. Run Fit Test** This allows the user to set up and initiate a Fit Test by invoking the Fit Test Application.
  - **b. Fit Test History** This provides access to fit test reports, enables the user to search and filter by date, status, name, respirator type, and other parameters. In the Cloud version, this is where you can email fit test reports and respirator cards.
- 2. Devices This tab accesses the communication status of any device(s), allows adding new devices, enables data synching, and has the ability to switch to other tabs: Real Time, Validation Check, Fit Test, etc.
- **3. People** This accesses the data associated with your "People" database and allows searching, adding, limited editing, and importing and exporting data. Fit test cards can be printed (or emailed in the Cloud version).
- 4. **Real Time** This brings up a utility that can display the ambient concentration of particles, show the fit factor of a respirator in real time, and can be used for diagnostics of fit, instrument performance, and ambient particulate concentration. This is extremely useful as a teaching tool for demonstrating how adjustments to the respirator can affect the actual fit.
- **5.** Validation Check This is the utility that invokes the series of tests that determine that the ambient conditions are acceptable for performing the fit test, and that the instrument is performing within specifications.
  - **a. Run Validation** This opens the command page to perform the Validation Check. This is also where user-defined (or default) minimum particle, max zero particles, and Max Fit Factor parameters are set for both the Validation Check and Fit Test operation.
  - **b.** Validation History Here is where you can view historical Validation Check information and produce reports or export Validation Check information.

#### Settings

This is where the software is configured for the specific requirements of the Respiratory Protection Program in which the AccuFIT 9000 or AccuFIT 9000 PRO is being used. Because this setup must be configured before the software is operated, we will cover these operations first.

**a. Operator** This is where the name that will appear on the Fit Test Report as the system operator or administrator of the fit testing is entered. Additional names can be entered, and the active administrator can be selected.

AccuFIT PC Software (2.0.7.2)	_		
ACCUTEC	=		
🕒 Fit Tests 🗸 🗸			
Run Fit Test	Operator		
Fit Test History	First Name	Last Name	
🖵 Devices	Bill	Hitt	
😫 People	Change Operato	•	
😬 RealTime			
Validation Check			

b. Organization This is where the name of the organization (e.g., Acme, Inc., or Anytown Regional Medical Center) is created. You can also enter sub-organizations under the main organization name. You can also add a logo which will appear on your fit test report, and which is specific to the Organization or sub-Organization selected in active memory. (Arrow shows selected or active Organization or sub-Organization.)

AccuFIT PC Software (2.0.11.0)		– ¤ ×
ACCUTEC	=	AST 👻 🖉
<ul> <li>Fit Tests</li> <li>Devices</li> </ul>	Organization Details	Organization
🛎 People	Organization Name AST Change	Sub-Organization SAFD
Validation Check	Logo	Acme AST
Settings -	Change	
Organization	Regional Preferences	
Data Management Respirators	Regulatory Regions	
e Help	Fit Test Preferences	
	OSHA Fast Full/Half 2019, OSHA Fast FFP 2019, OSHA   Fit Test Report Signatures	
	Minclude Oberator signature line on reports	*

The Next field (**Regional Preferences**) is where your location is entered (e.g., United States, Japan, etc.) in order to invoke the appropriate regulatory protocols. The next field (**Fit Test Preferences**) selects the protocols that can be accessed for the fit tests. This also allows the operator to configure the Fit Test Report to include or not include signature lines for the operator and fit test subject.

Regio	onal Preferences		
Regulatory F	legions		
	United States of America	٠	
Eit T	est Proforences		
Fit Te	est Preferences		
Fit Te	est Preferences Mocods 4 selected	÷	
Fit Te Available Pro Fit Test Repr	est Preferences tocols 4 selected rt Signatures	•	
Fit Test Repr	est Preferences tocols 4 selected rt Signatures Operator signature line on reports	•	

The next field (**People Data Attributes**) allows the addition of fields (or "Attributes") to a "People" data record (e.g., Building Number, or Department).

Name Created Format Actions

**c. Data Management** This section has the utilities for importation of data from other sources (including data stored in the AccuFIT 9000 device itself). You can import these data to the AccuFIT 9000 PC Software. **Data Management** allows the user to import stored databases from older systems or older software into the Accutec PC Software.

AccuFIT PC Software (2.0.12.0)		-	>
	=	SAFD 👻	C
Fit Tests  Devices People RealTime Validation Check	Data Management Use this tool to import existing people and fit test data to your organization in Accutec. Import From File(s) Begin Import		
Run Valldation Valldation History Settings Operator Organization Data Management Respirators P Help	Export Data to File Clean Copy Full Copy Internal File Location: C \LiberstähllTLAppQutalLecal\Peckages\Lacaticepc_S00gktmtHirde\Local\CacherLocal\Accutec		

Clicking on "Data Import" invokes the next screen:

AccuFIT PC Software (2.0.12.0)		^
	≡ SAFD ▼ Ø	;
<ul> <li>Fit Tests</li> <li>Devices</li> <li>People</li> <li>RealTime</li> </ul>	Data Management Use this tool to import existing people and fit test data to your organization in Accutec. Import From File(s)	
Validation Check V Run Validation Validation History		
Settings       Operator       Organization	Choose from files Choose from devices Choose from files	
Data Management Respirators	Return to Data Management	

**NB:** Be sure that you have selected the correct Organization or sub-Organization into which you want to import the information. The imported data will merge with any records that are in the active Organization (database). If you wish to import a complete database, you should create a new sub-Organization into which you will import the database. If this is not done, and if the new "sub-Organization is not selected, the imported database will be merged with the existing database in your active "Organization".

- January Herrich	^			-	
Desktop	Name	Date modified	Type S	Size ^	
Documents	Restore	11/21/2024 5:16 PM	File folder		
Downloads	2GUERRERO	2/10/2021 9:07 AM	Microsoft Edge PD	1	
Music	2GUERRERO2	2/10/2021 9:14 AM	Microsoft Edge PD	1	expanination in Accutor
E Pictures	ACI 2021	12/27/2022 8:55 AM	MFDB File	2	organization in Acculec.
Videos	Acme - Copy	1/12/2021 8:53 AM	MFDB File		
Local Disk (C:)	AF9P test	1/12/2021 8:40 AM	MFDB File	5	
USB Drive (E:)	AF9PTest JSON	6/16/2021 11:26 AM	MFDB File	1	
	Boyd	4/30/2021 1:46 PM	Microsoft Edge PD	2	
USB Drive (E:)	Buchanan Fit Test Data	11/21/2024 5:14 PM	MFDB File	9	
MaskFit	Canada Check	7/31/2020 12:11 PM	MFDB File		
Screenshots	Columbus_FitTest	5/5/2021 4:34 PM	Microsoft Office E	~	
Network	<		1100.01	>	
File na	me:	~ A	ll files	~	
		E	Open Cance	el	Connec
				- 10	
Respirators					

Import from Files activates a browse command.

Double-click on the file (database) to be imported which invokes the acknowledgement below:



Click on "Import These Records" to complete the import process.

**Import from Devices** invokes the following window where you can choose the device from which to import and the file to import:

Import From De	evice
Choose a connected device to	transfer data from.
Device	
	*
Databases	
None set	ected 🗢
	Import Data

Choose the Device from which you wish to import the database.

Select the database(s) from the list and click "Import Data" to complete the operation.

Device	
SN: 956000 - AccuFit9000 Pro	
Databases	
SD: ACI 2022_1.mfdb	:
SD: ACI 2022_1.mfdb	
□ SD: ACI 2022_2.mfdb	Income Desta
□ SD: Acme_04-21-2024_093448.mfdb	Import Data
SD: Acme_1.mfdb	_
□ SD: Evolution 2024_1.mfdb	
SD: FAIRFIELD FIRE_1.mfdb	
SD: SAFD 2021_1.mfdb	
SD: test database.mfdb	

**Export Data to File** will export the active organization or sub-organization (database) as a *.mfdb* file. You can choose to export the entire database which includes the completed Fit Test Records or you can simply export a "Clean" copy which includes only the People, respirators, and protocols. You will be prompted to choose the path to save this file.

#### d. Respirators

						Add Respirato
Model	Manufacturer	Style	Fit Factor Pass Level	N95	Edit	Delete
1870+	зм	N95 MASK	100	True		Ť
1870+	ЗМ	DISPOSABLE	100	False	ø	Ť
7500	зм	HALF FACE	100	False		ĩ
8210	ЗМ	Disposable	100	True	ø	Ξ.
AURA 9205	ЗМ	N 95	100	False	ø	Ť
760088	Honeywell	Full Face	500	False		Ť
H210	Lighthouse	N95	100	True	A*	ĩ
LWS Shield-95-MEDI	Lighthouse	N95	100	True		Ť

Here is where you can add, edit, and select as "active" the respirators in your Respiratory Protection Program. In this example, the 3M 8210 N95 respirator has been selected as "active" which allows it to be selected from the dropdown menu in the Fit Test section of the program.

To add a new respirator to your database, click "Add Respirator" in the above screen which invokes the following screen:

To create a custon	n respirator fill in the details below
Manufacturer	
-	
Don't see what you're Enter a Custom Man	e looking for? ufacturer instead
Model	
Style	
Half Mask	
Pass Value	
0	
N95 Respirator	

e. Integrations (Cloud Version Only) This section is where you integrate the fit test data with your other apps (e.g., Cority EHR software).

#### People

This is the list of personnel who use respirators and who will be fit tested in accordance with your regional respiratory protection regulations. In the United States, the regulatory agency is OSHA, and the documentation can be found at 29 CFR 1910.134.

AccuFIT PC Software (2.0.7.2)	•				0			- 🗆 ×
ACCUTEC	=							Acme 🖌 🕄
🗣 Fit Tests 🛛 👻								
Run Fit Test	People							
Fit Test History	Search for people	Status						
💻 Devices	Search	All	· ·	Column •	More -		+	Create Person
😂 People		≜ Employee	•	Medical				
Lui RealTime	Name	ID	Company	Clearance	♦ Last Test	Next Due	<b>≑</b> Status	
✓ Validation Check	Wylie Coyote	608786	Acme		05/02/2024 06:09	04/11/2025	Up to	1
Settings <					PM		Date	•
🕑 Help	John Doe	1357	AccuTec-		05/02/2024 06:37	05/02/2025	Up to	1
			IHS		PM		Date	8
	Linda Smith	2468			05/14/2024 10:21	04/09/2025	Up to	ø
					АМ		Date	8
	William Hill	1234	Accutec	2	05/02/2024 06:14	05/02/2025	Up to	1
					PM		Date	

Opening the People tab invokes the following screen:

Clicking the "Create Person" creates a record for the individual to be added to the list. This screen also allows searching, editing, and downloading fit test cards showing a list of respirators for which the fit has been tested and which the test subject is cleared to use.

This list can be pre-populated before starting a fit test session, but this is not strictly necessary, as it is possible to return to this page by clicking the "Person" field in the Fit Test Module.

**NB:** It is extremely important to ensure that the correct Organization or Sub-Organization is active before adding, editing, or performing any other function of the "People" tab. The active Organization can be selected in the header box at the upper right of the window.

### **Devices (Communication Setup)**

Clicking on "Devices" invokes the next screen.

AccuFIT PC Software (2.0.7.2)						-	
	=					Acmo	• • 8
🖨 Fit Tests 🛛 <							
💻 Devices	Devices					Refresh D	evices
🐣 People	If your device isn't preser	nt in this list, ensure tha	t no other instance of	the software is c	urrently open.		
네 RealTime	Device	Firmware	Connection	Status	Actions		
Validation Check	956000	Version 211	USB	READY	N		
🕸 Settings 🛛 <	AccuFit9000 Pro				New lest Re	at time :	
• Неір							

Make sure that the AccuFIT 9000 0r 9000 PRO is powered on and showing the Main or Opening Screen on the touchscreen of the device. Click on "Refresh Devices" to establish communication. When communication is established, the device description, serial number, Firmware version, and connection type will be populated. Clicking on the three "More" dots at the right will open the "Synch to" utility. This allows the active database in the software to be exported directly to the SD memory in the AccuFIT 9000 device for stand-alone operation.

The AccuFIT 9000 devices can communicate with the PC-based software via a USB connection, an ethernet (LAN) connection, or via WiFi. The type of connection is controlled by selecting USB, LAN, or WiFi in the "Setup>Communication" utility resident in the AccuFIT 9000 Device. Please refer to Appendix 1 for detailed instructions describing how to configure the device for the desired mode of communication.

#### Validation Check

**a. Performing the Validation Check** Clicking on "Run Validation" will invoke the Validation Check window.

AccuFIT PC Software (2.0.7.2)						- 🗆 ×
ACCUTEC	=					Acme 🖌 🞜 î
<ul> <li>Fit Tests</li> <li>Devices</li> </ul>	Validation Check				Settings	Start
<ul> <li>People</li> <li>RealTime</li> <li>Validation Check</li> </ul>	_					
🗢 Settings 🖌	Remove HEPA Filter ar	r <b>ck</b> nd press start to	begin.		20	
🖌 нер	956000				Time Remaining	ē
	Device	Port/Connection	Status			
	956000 - AccuFit9000 Pro *	058	READY		N95 Mode	
	Ambient/Mask Sample Particle Check	Max Fit Factor Check	Comm Status Good	Zero Check -	Validation Check Result -	
	Status Message:					
			+ New Device			

The Validation Check is a utility that checks several parameters which determine that the instrument performance and ambient conditions are within specified limits to ensure that the fit test is statistically valid and that the AccuFIT 9000 device is operating properly. Once these system tests are performed, the software stores the results for future reference.

The first parameter measured is the ambient particle concentration, showing that there is a statistically significant concentration of respirable particles in the ambient atmosphere where the test is being conducted, and that the AccuFIT 9000 device can count them. The first sample is drawn into the system through the clear Sample tube, so the system prompts the user to remove the blue cylindrical Zero or HEPA filter to begin the ambient count. Click "Start" to initiate the first part of the Validation Check. Once the ambient count is complete the utility asks the user to connect the HEPA filter into the clear Sample tube and tap "Continue".

	=					- o × Acme ~ Ø
<ul> <li>Fit Tests</li> <li>Devices</li> <li>People</li> </ul>	Validation Check				Continue	Stop
RealTime     Validation Check     Settings     <     Help	<b>Zero Check</b> Please connect a Zer	o Filter to continu	e.		C Time Remain	ing
	956000 Device 956000 - AccuFit9000 Pro	Port/Connection USB	Status READY		N95 Mode	ā
	Ambient/Mask Sample 588 Particle Check 594 Status Message:	Max Fit Factor Check	Good	Zero Check -	Validation Check Result	

The AccuFIT 9000 will now measure the concentration of respirable particles drawn into he Sample Port when a HEPA filter is attached (should be very close to zero).

The screen below shows the Zero Check as it completes.

AccuFIT PC Software (2.0.7.2)								-	o ×
ACCUTEC		=						Acme 👻	ື
🕒 Fit Tests	۲.	Validation Cl	neck				Settings	Start	
🗖 Devices					_				
📇 People									
년 RealTime		Validation 0	heck Resu	lt			0		
Validation Check		Validation c	heck result	ts have been cal	culated.		U		
🔹 Settings	<	You may no	w adjust se	ettings and start	a new vali	dation check.			
Help		956000						õ	
		Device		Port/Connection	Status				
		956000 - AccuFit90	00 Pro 🔻	USB	READY		N95 Mode		
		Ambient/Mask Sample	Particle Check	Max Fit Factor Check	Comm Status	Zero Check	Validation Check Result		
		0	1162	>10197	Good	0	PASS		
		Status Message:							

Next, the Validation Check automatically proceeds to the Max Fit Factor Check, which tests the functioning of the MAC valve. First, the valve is toggled to the "Ambient" position (which should show a value for particle concentration very close to the initial Minimum Particle Check) and then back to the "Sample" position (which still has the Zero filter connected and should thus show zero particles). The software divides the "Ambient" value by the "Sample" value and reports the result as "Max Fit Factor" If all of these measurements produce results that are within specifications the Validation Check reports a "Pass". The results of the Validation check are saved to the database for future reference.

t



**Validation Check Settings** Clicking on the "Settings" tab in the upper right part of the screen opens the following window:

Prefere	nces will be saved fo	or future validation						
	Normal Mode	N95 Mode						
Minimum Ambient Particle Level								
500								
Reset To Value mu	Default ist be greater than or equal	to 350.						
High A	mbient Concentratio	n Warning						
3000	0							
Reset To Value mu	<u>Default</u> ist be greater than or equal	to 1000.						
	neck: Max Particles a	llowed in 30 sec						
Zero Cl								
Zero Cl								
4 Reset To Value mu	<u>Default</u> st be between 1 - 30							
Zero Cl 4 Reset To Value mu Max Fit	Default st be between 1 - 30 t Factor: Minimum Fi	it Factor						
Zero Cl 4 Reset To Value mu Max Fit 2500	Default est be between 1 - 30 t Factor: Minimum Fi 0	it Factor						
A Reset To Value mu A Max Fi 2500 Reset To Value mu	Default st be between 1 - 30 t Factor: Minimum Fi O Default st be greater than or equal	t Factor						

This is where the Minimum Ambient Particle Level, maximum allowed particles in Zero Check, and Max Fit Factor, and High Ambient Concentration Warning setpoints are entered. **Note:** *The Minimum Ambient Particle Level and High Ambient Concentration Qarning Level settings apply to both the Validation Check and the Fit Test.* The best statistically-significant setting for the Minimum Ambient Particle Value is 1000 particles/cc, but lower values are permitted. The Zero Check should be set to allow a maximum concentration of 4 particles to be detected, but this may be increased if extremely high concentrations of respirable particles are present in the ambient atmosphere. The High Ambient Concentration Warning Level defaults to 30,000 particles/cc, but this may be increased by the user if environmental conditions make a higher value necessary. The Max Fit Factor value should be at least 12,000, but the software defaults to 25,000.

Clicking on "N95 Mode" changes the setpoint page to the values used when the DMC or particle classifier is invoked when fit testing disposable filtering facepiece respirators (such as N95's).

Recommended Values in the N95 Mode are:

checks.	s will be saved fo	or future validation
No	rmal Mode	N95 Mode
Minimum A	mbient Particle	Level
30		
Reset To Defau Value must be	lt greater than or equal	to 0.
High Ambie	ent Concentratio	n Warning
30000		
Reset To Defau Value must be	It greater than or equal	to 1000.
1		
Reset To Defau Value must be	lt between 0 - 30	
	tor: Minimum F	it Factor
Max Fit Fac		
Max Fit Fac		
Max Fit Fac 200 Reset To Defau Value must be	lt greater than or equal	to 50

b. Validation History All of the Validation Checks are stored in the database for future reference as proof that the ambient concentration of particulates was sufficient to allow a statistically-significant value for the Fit factor at the time that the fit test(s) were performed and that the instrument was operating within acceptable parameters. In order to retrieve, view, or produce a report of these Validation Checks, click on "Validation History". The following screen will appear:

HOUSELL PC SURVINE (ED.1222)						0
ACCUTEC	=				SAFD 🛩	
Fit Tests     Compared      Fit Tests     Compared      People     RealTime	Validation History Search for validation checks Search	More •				
Validation Check V	Device Serial No.	¢ Date	¢ №95	* Result	10	
Validation History	956000	05/13/2021 01:46 PM	2	PASS		
🔹 Settings 🗸 👻	956000	04/18/2023 05:41 PM		PASS		
Operator	956000	04/18/2023 05:43 PM		PASS		
Organization	956000	04/18/2023 07:07 PM		PASS		
Respirators	956000	04/18/2023 07:09 PM	8	PASS		
	956000	04/26/2023 12:09 PM		PASS		
<b>U</b> new	956000	05/05/2023 03:29 PM		PASS		
	686398	05/13/2023 12:06 PM	8	PASS		
	689238	05/13/2023 05:23 PM	2	PASS		
	689238	05/13/2023 05:34 PM		PASS		
	< 1 2 ×					

Note that the window only shows the 10 most recent Validation Checks, so in order to see older records, click on the number box below the list. Click "More" selector to export the ten records in active window as a .csv file. In order to see details of any particular Validation Check, click on the record in the table.

The order may not be as described above if older Validation Check information has been imported to your database from an older database. For example, the chronological order of the archived Validation Check results may be reversed. Details of any archived Validation Check report are available by clicking on any entry.

	Validation (	-bock			
Device Serial No.	Device Serial No.	LIIECK	~	\$ N95	Result
56000	956000				
56000	Date				
9238	10/18/2024 08:32 /	AM			
56000	N95				
56000	Particle	Ambient			
	2088.17	0			
12 >	Max Fit Factor	Sample			
	100092584	0			
	Result				

#### Real Time

The Real Time utility allows you to measure several parameters that affect the fit test or to determine in real time how adjustments to the respirator affect the fit. Click on "Real Time" in the Navigation Bar to invoke the Real Time screen.

		Accutec 👻
🚯 Fit Tests 🔹 📢		
🖳 Devices	RealTime	
421 People		
🖼 RealTime	Analytics Fit Factor Ambient Concentration	
Validation Check	1986	
🗘 Settings 🗸 👻	9X	
Operator	R	
Organization	· · · · · · · · · · · · · · · · · · ·	
Data Management		
Respirators	· · · · · · · · · · · · · · · · · · ·	
Help		
	956000	
	Device Pert/Connection	
	956000 - AccuFit9000 Pro * US8 N896	

The opening screen defaults to the real-time measurement of the respirator fit factor, and when the "Start" button is clicked, the AccuFIT 9000 device measures the particles in the ambient and then switches to the Sample port and begins a measurement of particles in the test subject's breathing zone. A running fit factor calculation is performed which is displayed on the semilog graph at the top of the screen and as a number at the bottom of the screen. You can observe the effects in real time (actually the display lags a few seconds) in order to demonstrate what happens when the respirator is adjusted.

Analytics	Fit Factor	Ambient C	Concentration		
1010		$\searrow$	$\int$		
100					
10					
1					
1					: 0
1 SGDDD		Pert/Connectio	n		:0
1 56000 evice 956000 - Acce	uFit9000 Pro	Port/Connectio	n	N95 Mode	e
1 sector 956000 - Acco umbient Value	JFIt9000 Pro Respirator Value	Port/Connectio USB Comm Status	n Fit Factor	N95 Mode	 0

Another very useful feature is the ability to perform continuous measurement of the ambient particulate concentration, with ot without energizing the DMC (N95 particle selector). The below screenshot shows Ambient Concentration of particulates <60nm in aerodynamic diameter.

ealTime	2				Stop
Analytics >1000 1000	Fit Factor	Ambient	oncentration		
10					
evice		Part/Connectio			
956000 - Acco	Fit9000 Pro	USB		N95 Mode	
Ambient Value 87	Respirator Value	Comm Status -	Fit Factor >200		

This can be useful when determining optimum placement of the particle generator.

#### **Fit Tests**

Expanding this tab allows access to the Fit Test History module and the Active Fit Test utility. The active Fit test utility is where the actual fit test is performed.

AccuFIT PC Software (2.0.7.2)													-	0	
ACCUTEC	=												SAFD	•	C
🕒 Fit Tests 🗸 🗸															
Run Fit Test	Run Fit Te	est								Settings	Start All				
Fit Test History	956000										Start Test	:			
🖵 Devices															
🚢 People	Device		Respirator		Protocol		Person								
🔟 RealTime	956000 - Accu	Fit9000 Pro	•			T		N9	5 Mode	🖍 Test Details	Edit Note				
☑ Validation Check	Ambient Value	Respirator Value	Pass Value	Exercise		Fit Factor	Exercise Time	Test Time	Test Result						
🕸 Settings 🛛 🗸	-		-		-		0:00	-	] [						
Help	Status Message:														
						+ New F	Fit Test								

This is the window in which the Fit Test Operator enters the respirator, size, protocol, and test subject for the fit test about to be performed by clicking on each field which invokes a dropdown selection.

AccuFIT PC Software (2.0.7.2)												-	0	×
	=											SAFD	•	C
🕒 Fit Tests 🗸 👻														
Run Fit Test	Run Fit Te	est								Settings	Start All			
Fit Test History	956000										Start Test			
🖵 Devices														
🚢 People	Device		Respirator		Protocol		Person							
년 RealTime	956000 - Accu	Fit9000 Pro	3M 1870	N95 MASK	OSHA Fast	FFP 2019 *	Carlos Jaramillo	N	95 Mode 🖌	Test Details	Edit Note			
Validation Check	Ambient Value	Respirator Value	Pass Value	Exercise		Fit Factor	Exercise Time	Test Time	Test Result					
🗘 Settings 🗸	-	•	100		•	-	0:00	•	•					
🕑 Help	Status Message:													
	_													
						+ New I	Fit Test							

After the test subject has donned the respirator, you have determined that the information is correct, and the requisite time to clear the breathing zone has elapsed, click "Start Test" to initiate the actual fit test. Note that the respirator to be fit tested is an N95, and that the N95 mode and pass value have auto-selected. This shows the fit test is in progress and that the "Bending Over" exercise is being performed,

AccuFIT PC Software (2.0.7.2)															0	
	Ξ													SAFD	۲	32
😪 Fit Tests 🗸 🗸																
Run Fit Test	Run	Fit To	est								Settings	O Stop All				
Fit Test History	9560	0										• Stop Test	:			
🖵 Devices																
🐸 People	Device			Respirator		Protocol		Person								
😬 RealTime	956	100 - Accu	uFit9000 Pro	* 3M 1870	* N95 MASK	OSHA Fas	t FFP 2019 *	Carlos Jaramillo	N95	i Mode 🧹	Test Details	Edit Note				
Validation Check	Ambie	it Value	Respirator Value	Pass Value	Exercise		Fit Factor	Exercise Time	Test Time	Test Result						
🕸 Settings 🛛 <		-		100	Bend	ing Over		0:45	2:27	•						
🕑 Help	Status I	essage:														
	_						1.0	Ch 7								
							+ New	Fit lest								

If the Operator wishes to see fit test details, the following screen can be called up by clicking on "Test Details". Note that Real-Time fit factor and Exercise animations are shown. The animations and exercise instructions are also shown on the touchscreen of the AccuFIT 9000 device so that the test subject does not need to see the computer screen for instructions.

Tost Datails		Applytics		
Test Detaits	Coulos Issemille	Anatytics		
Protocol:	OSHA Fast FEP 2019		Ambient Count	Respirator Value
Respirator:	3M 1870+ N95 MASK	>200	200 Pass Value	0 Overall Fit Factor
Respirator Size:	One Size Fits All	Live Fit Factor	100	
Operator:	Bill Hill			
Serial no:	956000			
Port/Connection:	USB	Exercise Prompt		
Exercises Bending Over	Fit Factor	1. Bending Over		0:15
Talking	-			
Head Side to Side	-			
Head Up and Dow	n -			

When the Fit Test is completed, the following screen appears showing the "Pass" or "Fail" status of the overall fit test.

- 0

ACCUTEC	=					_	SAFD 🗸
<ul> <li>Fit Tests</li> <li>Run Fit Test</li> </ul>	Run Fi	Carlos Jaramillo Fit Te OSHA Fast FFP 2019	st Total Time Remaining: Initi	ializing 514	IRT TEST	× Start All	
Fit Test History	956000	Test Details	Analytics			The Close Decuder	
Devices	550000	Person: Carlos Jaramillo				Clear Resoluts	
😂 People	Device	Protocol: 05HA Fast FFP 201	9	Ambient Count 293	Respirator Value		
🔟 RealTime	956000	Respirator: 3M 1870+ N95 MASK	>200	Pass Value	Overall Fit Factor	Edit Note	
Validation Check	Ambient V	Respirator Size: One Size Fits All	Live Fit Factor	100	>200		
🕸 Settings 🛛 <	29	Operator: Bill Hill					
@ Hala	Status Mes	Serial no: 956000					
e nep		Port/Connection: USB	Exercise Prompt			_	
		Exercises Fit Factor	Completed		0:00		
		Bending Over >200	A				
		Talking >200	ALCOTEL				
		Head Side to Side >200					
		Head Up and Down >200					
						_	

Exit the "Details" screen to return to the Run Fit Test Screen.

AccuFIT PC Software (2.0.7.2)

AccuFIT PC Software (2.0.7.2)													-	D	×
	=												SAFD	•	C
🚱 Fit Tests 🛛 👻															
Run Fit Test	Run Fit Te	est								Settings	Start All				
	956000								A Test Report	Fit Test Card	- Clear Results				
Devices															
🖴 People	Device		Respirator		Protocol		Person								
🖼 RealTime	956000 - Accu	Fit9000 Pro	* BM 1870+	N95 MASK	OSHA Fat	it FFP 2019 ×	Carlos Jaramillo		195 Mode	🖍 Test Details	Edit Note				
Validation Check	Ambient Value	Encolation Value	Date Value	Exercise		Dr Daving	Everying Time	Tert Time	Test Preside						
Settings <	293	0	100	Co Cor	-	>200	0:00	0:00	PASS						
0 Help	Status Message:														
						+ New	Fit Test	)							

Clicking on "Fit test Card" will show the card which can be printed or sent to fit test subject.



Or clicking on "Fit Test Report" will show the following:

		B Save			
Test Details					
Employee ID		Last Test Date			
2145		07/19/2024			
First Name	Last Name	Next Due Date			
Carlos	Jaramillo	07/19/2025			
Company		Device S/N			
SAFD		956000			
Location		Operator Name			
		Bill Hill			
Notes					
Respirator/Protoco Respirator 1870+ Manufacturer	ol Details	Protocol OSHA Fast FFI Pass Level	P 2019		
Respirator/Protoco Respirator 1870+ Manufacturer 3M Model 1870+ Respirator Size One Size Fits All	ol Details	Protocol OSHA Fast FFf Pass Level 100 Respirator Style N95 MASK Approval Number	P 2019		
Respirator/Protoco Respirator 1870+ Manufacturer 3M Model 1870+ Respirator Size One Size Fits All Exercise Details	ol Details	Protocol OSHA Fast FFI Pass Level 100 Respirator Style N95 MASK Approval Number	P 2019	verall FF:	>200
Respirator/Protoco Respirator 1870+ Manufacturer 3M Model 1870+ Respirator Size One Size Fits All Exercise Details Exercise	Duration	Protocol OSHA Fast FFA Pass Level 100 Respirator Style N95 MASK Approval Number	P 2019	verall FF:	>200
Respirator/Protocol Respirator 1870+ Manufacturer 3M Model 1870+ Respirator Size One Size Fits All Exercise Details Exercise Bending Over	Duration	Protocol OSHA Fast FF4 Pass Level 100 Respirator Style N95 MASK Approval Number	P 2019 O Pass	verall FF: Ves	-200
Respirator/Protoco Respirator 1870+ Manufacturer 3M Model 1870+ Respirator Size One Size Fits All Exercise Details Exercise Bending Over Talking	Duration 30	Protocol OSHA Fast FF4 Pass Level 100 Respirator Style N95 MASK Approval Number Fit Factor >200 >200	P 2019 O Pass	verall FF: Ves	>200
Respirator/Protocol Respirator 1870+ Manufacturer 3M Model 1870+ Respirator Size One Size Fits All Exercise Details Exercise Bending Over Talking Head Side To Side	Duration 30 30 30	Protocol OSHA Fast FF4 Pass Level 100 Respirator Style N95 MASK Approval Number Fit Factor >200 >200	P 2019 Or Pass	verall FF: Ves Ves	►200

The operator can "Save" or "View" the .pdf of the printable fit test report:



FIT TEST REPORT Dec 13, 2024

EMP ID LAST NAME FIRST NAME COMPANY	2145 Jaramillo Carlos Acme		
TEST DATE DUE DATE	Jul 19, 2024 09:23 AM Jul 19, 2025	DEVICE S/N	956000
RESPIRATOR	3M 1870+	<b>DDOTOCO</b>	
MANUFACTURER	3M 1870+	PASS LEVEL	05HA Fast FFP 2019 100
MASK STYLE MASK SIZE	N95 MASK One Size Fits All	APPROVAL	
		NOTES	
<b>EXERCISE</b> Bending Over Talking Head Side To Side Head Up And Down	<b>DURATION</b> 30s 30s 30s 30s	FIT FACTOR >200 >200 >200 >200	PASS Y Y Y Y
OVERALL FF		>200	Υ
FIT TEST OPERATOR	Bill Hill	D	АТЕ

**The Fit Test History Screen** allows you to access all of the historical data, generated reports, and fit test respirator cards.

	=					Accutec Sar	idbox 👻 😡
<ul> <li>Fit Tests</li> <li>Run Fit Test</li> </ul>	Fit Test History						
Fit Test History	Overdue Tests Last 90 days		Upcoming Tests Next 30 days		Completed Tests Last 90 days		
🛥 People	0		0		19		
Settings <	Search for previous tests		Status All	Dates	More -		
Help	♦ Name	Employee ID	¢ Company	♦ Test Date	¢ Result		
	Deborah C de Baca	5436	Hiltech	3/6/2024 3:09:01 PM	PASS	*	80
	Dave Thomas	1234	REPSS	3/7/2024 6:23:21 PM	PASS	*	80
	Charles Bogenschutz	2112	ACCUTEC-IHS, INC.	3/8/2024 1:38:46 PM	PASS	*	80
	Charles Bogenschutz	2112	ACCUTEC-IHS, INC.	3/12/2024 4:59:19 AM	PASS	Ŧ	80
	Charles Bogenschutz	2112	ACCUTEC-IHS, INC.	3/12/2024 6:23:14 AM	PASS	*	80

## Appendix 1.

## Setting the Communication Mode.

The AccuFIT 9000 controls the mode by which the device communicates with the PC-based software.

To select the mode, open the following screen on the touchpad of the device by tapping "Setup" and then "Communication":

Communication			09/14/2024 09:37
PC Tool LAN Wi-Fi	Generator		
Please input host	IP Address and Por	't number to connect to PC To	ol via LAN or Wi-Fi.
Host	192.168.1	0.121	
Port	9000		Save
o USB		● LAN	● Wi-Fi
Status <mark>Ready</mark>			
Connect	t		Exit

## 1. Setting the USB Mode.

The USB mode is selected (which is the default status) in the above example. To confirm and continue the selection of the USB mode, ensure that a USB cable is connected to the computer with the "B" type connector connected to the port behind and about 10 mm to the left of the On/Off button, and the "A" type connector connected to a USB port in the computer. Tap the "Connect" button, and the display will return to the main Screen. Open the AccuFIT PC Software if it is not already open and select "Devices" in the left menu bar. The device, serial number, connectivity mode, and firmware version should be displayed.

Once the Device has been configured in the USB communication mode it is not necessary to reconfigure the communication setting.

#### 2. Selecting Ethernet (LAN) mode.

In order to select the LAN mode, it is necessary to know the IP address of the computer with which you want to communicate. For Windows 10 tap the "Start" button in the extreme lower left of your desktop and select "Settings" which will typically be the second icon from the bottom on the extreme left.

Click "Network and Internet" which will take you to the Network Status Page.

ŵ Home	Status	
Find a setting	Network status	
Network & Internet	므 년	$-\bigoplus$
🖨 Status	Ethernet Public network	Ŷ
문 Ethernet	You're connected to the li	nternet
🛱 Dial-up	If you have a limited data plan, y metered connection or change o	ou can make this network a other properties.
% VPN	From the last 30 days	717 MB
Proxy	Properties	Data usage

Click "Properties" to see the next page. Scroll down to see the following section.

Properties	
Link speed (Receive/Transmit):	1000/1000 (Mbps)
Link-local IPv6 address:	fe80::2738:a1fb:4376:f96f%7
IPv4 address:	192.168.10.105
IPv4 DNS servers:	192.168.10.1
Manufacturer:	Intel
Description:	Intel(R) Ethernet Connection I217-LM
Driver version:	12.13.17.4
Physical address (MAC):	34-17-EB-C0-58-AE
Сору	

Your IP address will be shown to the right of IPv4 address: (in this case 192.168.10.105).

In Windows 11, go to Start>Settings>Network & Internet (WiFi or Network), and select your connected network. Under "Properties" your IP address will be shown next to the IPv4 address.

Make a note of the IP address, as you will need to enter this address in the "Host" field in the "PC Tool" Communication screen. Click "Save"

Communication		09/14/2024 09:37
PC Tool LAN Wi	Fi Generator	
Please input h	ost IP Address and Port number to connect to PC Tool vi	ia LAN or Wi-Fi.
Host	19216810121	
	102.100.10.121	

Connect the Ethernet (LAN) cable to the ethernet port in the rear panel of the AccuFIT 9000 device and an Ethernet port at your router.

Click on the "LAN" tab at the top to open the following screen;

Communication		09/14/2024 10:29
PC Tool LAN Wi-Fi Generator		
Please input and save the following inf may be automatically assigned if DHC	formation to connect to PC Tool via L. P is enabled.	AN. Name server addresses
O Obtain an IP address via DH	ICP.	
Specify an IP address		
IP Address	192.168.10.120	
Subnet Mask	255.255.255.0	
Default Gateway	192.168.10.1	Save
MAC Address	80:30:dc:86:01:bc	
		Exit

Be sure that "Obtain an IP address via DHCP" is selected. Click "Save". Return to the connection page by selecting the "PC Tool" tab at the top left.

Open the AccuFIT PC Software on the computer and then return to the device touchscreen and click "Connect". The connection will establish itself within 30 seconds, and the display on the device will return to the Main Screen.

On the computer, click on "Devices" to see the AccuFIT 9000 device you just configured. You may need to click the refresh button before the device is recognized. Once the device is recognized, you can continue the operation via the PC software.

**Note:** The device defaults to the "USB" mode when powered off, so you will need to reconfigure for LAN communication when the device is powered up again.

### 3. Selecting WiFi Mode

From the main Screen on the AccuFIT device, tap "Setup" and then "Communication". The screen defaults to the "PC Tool" tab which invokes the following screen:

Communication				11/23/2024 14:23
PC Tool LAN Wi-Fi Ge	nerator			
Please input host IP	Address and Por	t number to connect to PC	Tool via LAN or W	/i-Fi.
Host	192.168.10	0.105		
Dort	0000			Cavia
FOIL	9000			Save
• USB		• LAN		○ Wi-Fi
Status				
Not Connected				
Connect				Exit

Select "WiFi by tapping the radio button to the left of "Wi-Fi".

In the WiFi Mode, the AccuFIT 9000 device connects directly to the WiFi network. This requires that you know the network name (SSID) and password. The AccuFIT 9000 device can search the available SSID's to allow you to choose the network to which you wish to connect. Click the "WiFi" tab at the top of the screen to show the following screen:

Communication	ŋ														09/14/2024 11:27
PC Tool LAN	Wi-Fi	Ge	nerat	or											
Please inpu	t and	l sav	ve th	e fol	lowir	ng int	form	atior	i to ci	onne	ct to	PC T	ool v	ia Wi-Fi.	
SSID			A	.ccl	iteo	: La	b							•	search SSID
Passwo	rd		**	***	***	***:	****	<b>**</b>							
⊖ Obta	in a	n If	D ad	Shov Idre:	w pa: ss vi	sswo a Dl	rd ch HCP	arac •	ters						
O Input F	Panel			_	_	_	_	i –				_	-		
TD Esc	1	2	3	4	5	6	7	8	9	0	-	=	BS		Save
Tab ,	q	W	е	r	t	у	u	i	0	р	Ε	]	١		Sure:
Su Caps Lock	a	s	d	f	g	h	j	k	1	•	•	ret	urn		
Det Shift	z	x	с	۷	b	n	m	,		1		1			
áü M (	`								ins	del	<del>~</del>	Ļ	$\rightarrow$		Exit
IVIAC A	aar	es:	5					20	:18::	se:.	L/:/	.T:p	2		

When you have selected the network, you must enter the password (network key). The AccuFIT 9000 will allow you to display the characters in the password when you are entering it, but when you exit this page, you cannot see the characters again until you reenter the SSID selection process. Be sure that you have selected "Obtain an IP address via DHCP"

Return to the "PC Tool" tab and input the IP address of the host. (Refer to the section above to find the IP address.)

Communication		09/14/2024 09:37
PC Tool LAN W	-Fi Generator	
Please input	nost IP Address and Port number to connect to P	PC Tool via LAN or Wi-Fi.
Host	192.168.10.121	

Open the software on the computer with which you will operate the AccuFIT device. Select Devices" from the Navigation Bar on the left of the window which will invoke the following screen:

AccuFIT PC Software (2.0.11.0)					- 🗆 ×
	=				AST 🗸 🞜
Fit Tests     C     Devices	Devices	proposition this list operate the	nt no other instance of the coffur-	is surrantly open	Refresh Devices
본 People 네 RealTime ☑ Validation Check	Device	Firmware	Connection	Status	Actions
Settings <			Connect a device to get sta	arted.	

At the Device, under the "PC Tool" tab click "Connect" If the WiFi connection is successful, the AccuFIT 9000 Device should return to the Main Screen. It will take several seconds for the WiFi connection to be recognized by the computer, but in about 30 seconds (depending on your computer, router, and network) the following Device information should be displayed:

AccuFIT PC Software (2.0.11.0)								- C	X
		=						AST 🗸	3
🕓 Fit Tests	<							_	
💻 Devices		Devices						Refresh Device	s
😂 People		If your device isn't presen	t in this list, ensure that	no other instance of t	the software is cu	irrently open.			
- respice									
💾 RealTime		Device	Firmware	Connection	Status	Actions			
<ul> <li>✓ People</li> <li>✓ Validation Check</li> </ul>		Device	Firmware	Connection	Status	Actions			
<ul> <li>✓ People</li> <li>✓ RealTime</li> <li>✓ Validation Check</li> <li>✓ Settings</li> </ul>	¢	Device 686398 AccuFit9000 Pro	Firmware Version 2.1.5	Connection Network	Status READY	Actions New Test	ealTime	i	

The Software can now be used to control the AccuFIT 9000 and perform Fit Tests.

**Note:** The device defaults to the "USB" mode when powered off, so you will need to reconfigure for WiFi communication when the device is powered up again.