

# QUICK START GUIDE

## PORTACOUNT® RESPIRATOR FIT TESTER

### MODEL 8020M



#### Start Up

1. Fill the alcohol fill capsule up to the fill line using the supplied isopropyl alcohol. Insert the alcohol cartridge into the fill capsule and wait 2 minutes for alcohol to be absorbed. Then Insert the alcohol cartridge into the Model 8020M and twist to lock.



#### WARNING

Isopropyl alcohol is a hazardous material. **DO NOT** allow alcohol to get into your eyes. Avoid contact with the skin. **DO NOT** swallow or ingest it in any way. Alcohol is extremely flammable. **DO NOT** expose to open flame or sources of ignition. Consuming the alcohol will result in severe illness or death. See the manual for instructions.

2. Connect the power adapter cord to the back of the Model 8020M.



3. Attach the sample and ambient tubes.



4. Press the **ON/OFF** button  to turn the instrument on.



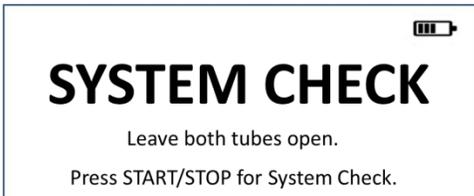
5. Wait for the instrument to warm up (60 seconds).

MODEL: PortaCount 8020M  
SERIAL: 1234567890  
REV: x.010  
02/05/2001, 02:26 :16  
Warming up: 2 sec

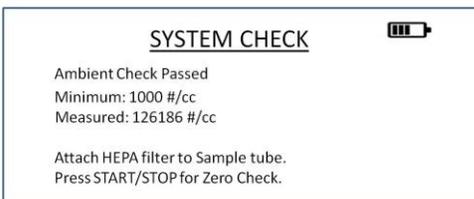


## Perform System Check

- After warm-up the instrument will go into System Check mode. Alternatively, press the **System Check** button; the LED will illuminate indicating you have selected this mode of operation.
- Leave both inlet tubes open without mask or HEPA filter attached. Press the **Start/Stop TEST** button to start a System Check.



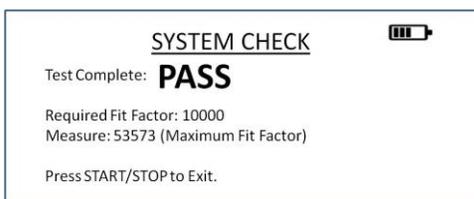
- When the device stops measuring ambient air, verify the display reads 1000 PARTICLE/cm<sup>3</sup> or higher and displays "Ambient Check Passes."
- If the Ambient Check fails, refer to the manual for troubleshooting information.



- As directed on the display, attach the HEPA filter to the clear sample tube and press the **Start/Stop TEST** button to perform a Zero Check.



- The display should read PASS within 30 seconds. Press the **Start/Stop TEST** button to Exit System Check.



If the Zero Check or Maximum Fit Factor Check fails, refer to the manual for troubleshooting information.

- Remove the HEPA filter. The default mask protocol will be active. To change the mask protocol, refer to the manual. The instrument is now ready for a Fit Test or Real Time Test.



## Prepare Mask and Test Subject for Fit Test

- No Smoking in immediate area; test subject should not smoke for at least 30 minutes before test
- Visually inspect mask inside and outside for dirt, mud, sand, powder, greasy or oily substances
- Test subject must sit for the fit test
- Adjust facepiece and tighten head harness
- Ensure facepiece is properly fitted and that no hair is under the sealing surface of the facepiece
- Check that canister is attached

- Attach the drink tube adapter to the drink tube quick disconnect coupling and instruct the test subject to blow hard several times into the internal drink tube mouthpiece.

### NOTES

- Make certain the sample tube is **not** attached while the test subject blows into the drink tube mouthpiece. If the tube is attached, any fluid will be blown into the instrument and make the instrument inoperable.
- Different masks use different drink tube adapters. See manual for details.



- 2. Attach the sample tube (clear tube) to the fitting on the end of the drink tube adapter.



## Perform a Fit Test

- 1. Prepare mask and test subject first. Put the instrument in Fit Test mode by pressing the **Fit Test** button and start the Fit Test by pressing the **Start/Stop TEST** button. Testing begins immediately.

- 2. Exercise instructions are displayed on the instrument according to the mask protocol selected. An example is given below. Each time the exercise changes, a "beep" sounds to prompt the test subject to start the next exercise.



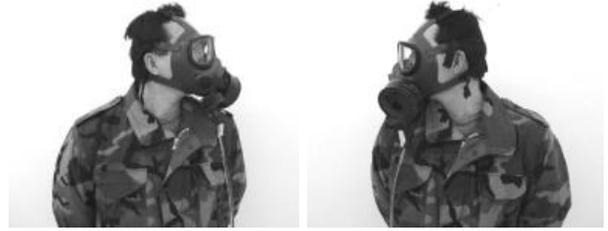
- 3. **Normal breathing**  
Test subject must keep head motionless.



- 4. **Deep breathing.**  
Test subject slowly but deeply inhales through nose and exhales from mouth.



- 5. **Head movement side to side.**  
Test subject looks over each shoulder in one-second intervals.



- 6. **Head movement up and down,**  
Test subject looks at ceiling then floor in one-second intervals.



- 7. **Rotate chin.**  
Test subject moves jaw in a circular pattern with mouth slightly open.



- 8. If the test passes, the subject is done. After a pass or fail indication, an overall test result is displayed.

9. Press the **Start/Stop TEST** button to immediately begin another Fit Test with a new test subject.



If the test fails:

1. Check to ensure head harness pad is centered correctly.
2. Re-tighten straps after adjustment of head harness pad.
3. Check for hair under facepiece sealing surfaces.
4. Make sure all connections are correct.
5. The mask may be faulty; verify its condition.
6. Perform a Real Time Test (see below).
7. Repeat mask Fit Test.
8. Try using a different size mask with the test subject.

## Perform a Real Time Test

A Real Time Test is used to assist in mask training. It allows a test subject to experiment with strap tension and other adjustments while watching the effect in real time.

1. Prepare mask and test subject before performing Real Time Test.
2. To perform a Real Time Test, press the **Real Time** button. The LED will illuminate indicating you have selected this mode of operation.



3. Press **Start/Stop TEST** button. The instrument immediately begins to sample the ambient air (for 5 seconds).
4. The instrument then starts to sample the mask air and displays a bar graph indicating how well the mask fits. If the fit is "poor" attempt to maximize the fit by adjusting the mask. The arrow indicates the Pass/Fail setting for the mask. This test runs for 5 minutes and then repeats and samples the ambient air again.
5. To end the Real Time Test, press the **Start/Stop TEST** button.

