TSI Portacount "Quick Start" Guide – For Fit Testing N-95s

Set up:

- Ensure that Portacount, Particle Generator and Tablet are all plugged into the surge protector. The surge protector may need an extension cord as well, depending on location of outlets.
- Connect tablet to Portacount using USB cable
- Connect tubing to Portacount (color coded): the side with the longer clear tubing is the side that connects to the N-95. The "flush" blue/clear tubing is the side that connects to portacount unit.
- Pre-checks for fit testing:
    - Water level. The particle generator needs to have water level at least half way filled to the line. The concentration is 1 NaCl tablet per full (to line) container of water. This is best done the day before if possible so that full mixing can occur (but not mandatory).
    - The probe should have been sitting in the storage container with 70% IPA. It does not need to be full, however the wick inside the probe needs to be completely saturated. In addition, occasionally throughout fit testing (maybe once every hour or two, re-wet the the wick/probe in the alcohol for about 1-2 minutes, to keep it saturated).
- Remove the probe from the storage container (1/2 twist counter clock wise), and place into the unit (remove black knob from portacount – ½ twist counter clock wise, and place probe in appropriate location of portacount, then place black knob on top of probe storage unit.
- Turn power on to tablet. Check wireless connection. Swipe up on the screen. Enter password. For "Admin" the password is "password" – all lower case.
- Top left of screen press icon, and select "all apps" – Go to TSI Folder and open. Select TSI Fitpro Ultra
- A request for operator initials will show up. Type your initials into this space.
- Select "connect" to arrive at the Daily Check window.

Daily Check (only need to do this one time per day before the first fit test -if already done, hit 'skip'.

- Turn on particle generator (switch at back of unit).
- Ensure HEPA/Zero filter is not attached to tubing. Press "start" on the screen. This will check the ambient particle count (that it is high enough) – press "continue" – this will last for approximately 10 seconds.
- Attach HEPA filter to clear tube. Press "continue" – this will last for approximately 45 seconds (to check integrity of tubing and unit) and will automatically run through the "max fit factor" test, approx. 60 sec - (which will check for internal issues within unit).
- Once the daily check is complete, the "start" button will appear.
- Turn the particle generator 'off'
- Detach the HEPA filter
- Push "continue"
- Press "next" to go to beginning of fit test (pressing 'start' will re-start the daily checks again).

Conducting Fit Test:

Select "assign person"

Press "new" and enter the identifier # into the "first name" space: (this is the sequence of information that includes 1) volunteer #, 2) tester admin #, 3) mask # and 4) the date.

So for example: 001-3-034-0522 would represent volunteer #1, tester #3, mask #34 and the date (month/day). See additional tables for assigned numbers for volunteers and test administrators. The masks will have their number written on the strap.

Enter this identifier # in First name, Last name and in ID field, type "validation"

Enter any additional notes in the bottom field.
select "save"

On the right hand side of fields:

- Protocol: should always be “OSHA Fast-Filtering Face”
- Respirator Model/Style – Select either 1870+, 1860 or 1860S
- Respirator size: For 1870+ and 1860, select “onesize”; for 1860S, select “small”
- Select “assign” on the bottom right of field box

Fit Test:

- Attach N-95 probe to the end of clear tubing (longer tube)
- Turn particle generator on
- Allow fit test subject to put on and adjust N-95 – (pay special attention to nose piece)
- When ready, hit ‘start’
- Follow the 4 steps in order (bending over, talking, head side to side, and head up and down)
- If too poor of a fit, the test may automatically abort; if on the edge of passing, it will continue.
- It is possible to fail one step (if high enough fit factor), and still pass the overall test. This is ok.
- Machine will tell you if ‘pass’ or ‘fail’ and automatically register both in database.
- Have option to ‘retry’, ‘exit’, or move on to next fit test.

Potential reasons for respirator failure:

- Too low of an ambient particle concentration
- Too low of alcohol concentration (re-soak wick)
- Inside probe portal, can get clogged with time
- Tubing failure (not secure enough on machine end or N95 end)
- Internal portacount failures (like switch valve not functioning, etc…)

- Not tight enough at the nose…press down, and get snug
- Openings at seal of N95
- For males, if not clean shaven and facial hair causing breach
- Tubing weighing down N95 (have them hold tubing)

Reporting:

There is a good amount of flexibility in reporting, customizing reports, exporting to a file as pdf, printing, etc…

We can discuss this part more and define what the final reports in database should look like.