

Fit Testing



- Once all three steps are complete, the mask must be fit tested.
- This is done using the TSI Portacount Test System
- Before either of the tests begin, the mask must be set up properly.



Fit and Leak Test Theories

- Just because a mask is worn does not mean that the user is breathing clean air. If the mask is donned improperly or it is not functioning correctly, articles can enter the mask through various leak paths.
- When a leak exists within the mask system, the user is not properly protected.
- These tests ensure that the user is wearing the mask properly and that the mask is functioning properly.
- Mask fit testing is performed by sampling the air inside the mask and comparing this to the amount of particles contained in the air outside the mask.

Preparation of the TSI Portacount



CAUTION

NO SMOKING/DIPPING
WITHIN 30 MIN. OF TESTING
WITH THE PORTACOUNT.

NO SMOKING AROUND THE
PORTACOUNT.



Preparation of the TSI Portacount

Preparing the Mask:

1. Visually inspect the inside and outside of the mask
2. Attach modified drink tube sampling adapter to the drink tube coupler.
3. Have user don the C50
4. Turn the drink tube lever to the ON position

Caution:

- **All water or foreign material must be expelled from the mask drink tube before the sample tube can be connected. BLOW SEVERAL TIMES TO CLEAR. If obstruction cannot be removed, the mask should be returned for maintenance.**

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C50 Protective Mask

Maintenance & Removal of Components



WARNINGS, CAUTIONS and NOTES



WARNING

If you have not used your mask for 30 days or more, perform all Maintenance prior to using your mask.

DO NOT use tissue paper or a paper towel to remove dirt or moisture from front module cover, outlet disk valve, or outlet valve seat. Paper may break up and lodge in outlet valve area causing leakage.

It is important to properly clean your mask. A dirty mask will compromise its ability to provide maximum protection.

CAUTION

DO NOT use high pressure water to clean mask, it may damage components. Care must be taken not to scratch the visor and outserts when handling the mask assembly.

NOTES

If components identified in maintenance are not present, notify next higher level maintenance

C50 Mask Maintenance Concept

- No maintenance requirement above field level
- Cornerstone of maintenance on masks is operator PMCS
- Field semiannual PMCS validates performance of operator PMCS
- Special tools are not required for maintenance
- Every component is listed in the PMCS table



Clear/Sunlight/Laser Outserts

Removal

1. Grasp the top and bottom of the outsert with both hands and gently rotate the bottom of the outsert up and away from the facepiece assembly

Installation

1. Align the locking tabs on the ends of the outsert with the outsert receptacles
2. Gently rotate the outsert down pushing the locking tabs into the outsert receptacles



Outlet Valve Cover

Removal

1. Remove drink tube coupler from receptacle
2. Unwrap external drink tube
3. Turn the drink tube lever to a horizontal position
4. Grasp outlet valve cover from underneath the communications port and lift

Installation

1. Turn drink tube lever to clear the outlet valve cover
2. Align the outlet valve cover over the communications port
3. Gently snap into place
4. Close communications port door by pushing on the raised tab until it clicks
5. Reinstall drink components



Outlet Disk Valve

Removal

1. Remove the outlet valve cover
2. Pinch center of the outlet disk valve between the thumb and middle finger, and pull gently away from the mounting post

Installation

1. Visually inspect the disk
2. Align over the valve mounting post
3. Gently press the center of the disk until fully seated on the mounting post
4. Replace outlet valve cover



Filters

Removal

1. Grip filter body and unscrew anti-clockwise until filter is removed from filter mount

Installation

1. Grip filter with 40mm thread fitting pointing outwards
2. Align with filter mount on mask
3. Screw in clockwise
4. When resistance is felt as filter touches gasket give filter a good final turn to compress casket
5. Filter should be tightly retained
6. Each time mask is used, remove filter and inspect gasket
or
7. Back of filter slightly in a anti-clockwise rotations and retighten as above



Drink Coupler

Removal

1. Remove drink tube coupler from storage location and unwrap external drink tube
2. With one hand grasp the drink tube coupler; with the other hand grasp the external drink tube and pull off the drink tube coupler

Installation

1. Align the external drink tube with the drink tube coupler
2. Push the drink tube over the drink tube coupler



Internal Drink Tube

Removal

1. Turn drink tube lever on front module assembly upward
2. Grasp internal drink tube and firmly pull
3. Turn drink tube lever downward to place internal drink tube coupler in stowed position

Installation

1. Turn drink tube lever on front module assembly upward
2. Install drink tube on drink tube coupler and press
3. Adjust to fit
4. Place internal drink tube in stowed position
5. Check for proper alignment to achieve proper fit



Air Deflectors

Removal

1. Reach into facepiece and move the nosecup to one side exposing the air deflector
2. Gently pull the air deflector off the filter mount exposing the inlet disk valve



Installation

1. Move nosecup and position the air deflector over the filter mount clamp ring ensuring air deflector is aligned with drink couple stow feature in bottom of mask



Inlet Disk Valves

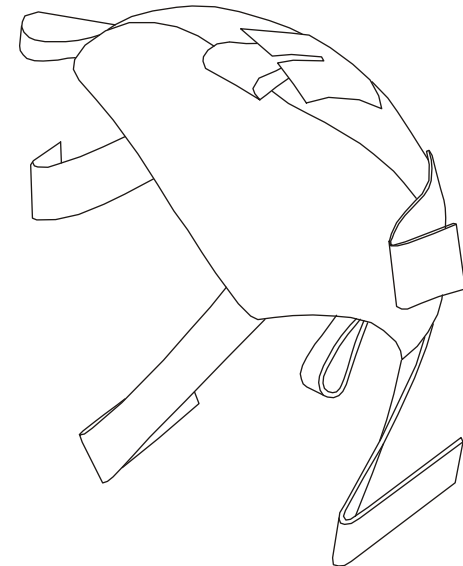
- **Removal**
 1. Fold back the nosecup to expose the air deflector, remove
 2. Pinch valve gently with thumb and middle finger, and pull away from the mounting post
- **Installation**
 1. Check that the disk valve and seat are clean
 2. Fold back the nosecup to expose center hole of the filter mount assembly
 3. Position the outlet disk valve
 4. Gently press the center of the disk until fully seated on the mounting post



Head Harness

Removal

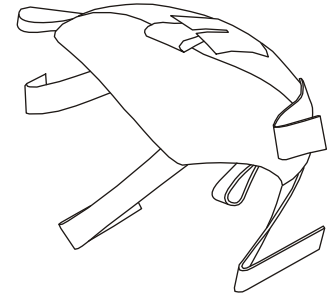
1. Undo the two brow strap hook and pile fasteners at the top of the head harness skullcap and pull the brow straps through the slots
2. Lift the clamp plates of the pivoting buckles and pull the temple straps through and out of the buckles
3. Remove the cheek straps



Head Harness

Installation

1. Slide the two brow straps through the brow strap slots; fold straps over the slots and fasten to head harness brow strap covers at the top of the skullcap
2. Lift clamp plates of buckles and thread the temple straps through the pivoting buckles; push the temple straps through the buckle opening, loop over and push the folded end down through the slot between the clamp bar and the retaining bar; leave clamp plates open
3. Thread the cheek straps through the buckles by pushing the folded end of the cheek straps through the wide opening; then push it back through the narrow opening (front slot)



Amplifier, Audio Frequency VPU

Installation

1. Place the amplifier adapter into the facepiece assembly by gently pressing the adapter pins into the communications port
2. Install two “AAA” batteries in amplifier
3. Don and clear the C50
4. Open communications port cover on front module cover
5. Grasp the amplifier by the upper and lower locking clamps; place upper locking clamps into slots on the top of the front module main body; squeeze lower hinged locking clamp while lowering the amplifier down and press the amplifier onto the mask; ensure the amplifier communications port connector fits into the communications port receptacle, until it snaps into place
6. Turn switch to on position



Amplifier, Audio Frequency VPU

Removal

1. Ensure the amplifier is turned off
2. Grasp the amplifier by the upper and lower locking clamps; squeeze lower hinged locking clamp and lift amplifier up and away from mask
3. Close the communications port on front module
4. Doff the M50 and place on a flat surface facing down
5. Remove batteries from amplifier
6. Stow the amplifier and batteries in the carrier



Side View



Front View

Amplifier, Audio Frequency VPU

Battery Replacement

1. Loosen battery compartment locking screw and open.
2. Remove old batteries and replace with new ones.
3. Close battery compartment.