

# Don't Stand Pat on PATS



**S**ome NBC NCOs have a valuable piece of test equipment sitting in their storage cabinets doing nothing but collecting cobwebs. It's the M41 Protection Assessment Test System (PATS).

The PATS will tell you with great accuracy if a mask fits right. But you've got to use it.

Remember, every member of your unit must be checked at least annually for mask fit. When a new soldier arrives, give him the PATS test—don't go by the mask size he wore at his last unit. They may have made a mistake.

If you don't have TM 3-4240-349-12&P, get it. It has PATS operating instructions and NSNs. Your pub's clerk can order it for you.

The most important PATS rule is to use only reagent grade isopropyl alcohol, NSN 6810-01-382-2904. PATS needs the purest alcohol possible. Drug store alcohol clogs its optic system. Then the PATS must be sent out for repair.

But be careful. Alcohol that pure is very flammable.





### Testing

If a mask is dirty or has a loose canister or voicemitter, it's going to fail the PATS test. So have the soldier do a complete PMCS on his mask before you test it.

Then make sure the outlet valve cover is clean inside as well as out.

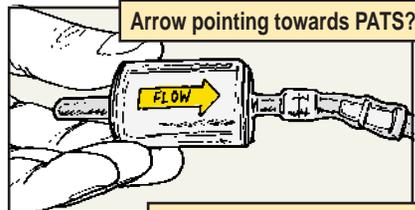
#### Dirty valve causes bad readings



Also have the soldier wash his face with water and rinse out his mouth with water before testing his mask fit. Cologne, tobacco smoke and mouthwash all affect PATS test results.

Make sure the HEPA (high efficiency particulate) filter arrow is pointing to-

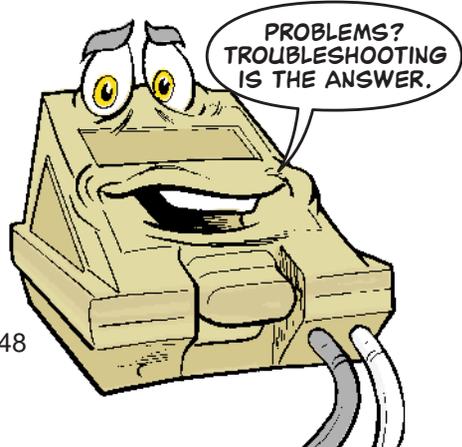
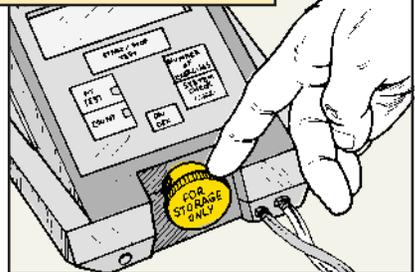
ward the PATS. If it's not, the filter can't stop contaminants from going into the PATS. Reverse the filter if it's pointing in the wrong direction.



Take off the HEPA filter only to do an ambient particle background check or a mask test.

Take off the storage cap only to install the alcohol cartridge. While using the cartridge, put the cap on the alcohol capsule to keep the alcohol uncontaminated.

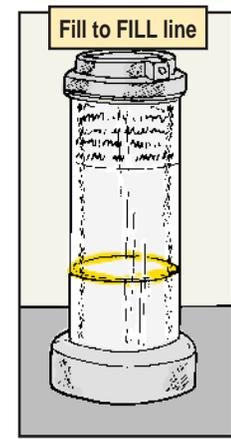
#### Remove storage cap only to install alcohol cartridge



### Troubleshooting

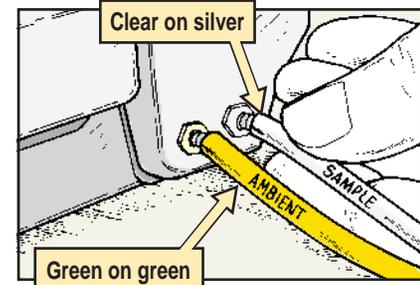
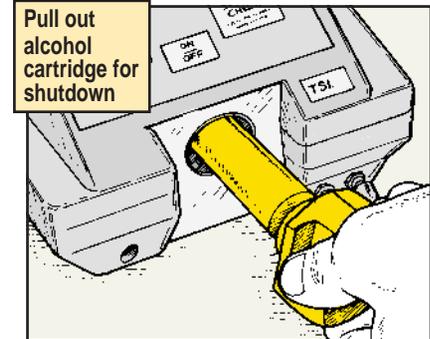
If you get a LOW PARTICLES display, try these troubleshooting steps:

1. Open a window or light a candle. The air may be too clean.
2. Use fresh alcohol. Make sure you fill the cartridge to the fill line. Not enough alcohol can cause problems, too.
3. Change the alcohol wick.
4. Check that the twin tube assembly is not kinked or blocked and that the clear tube is hooked to the silver fitting and the green tube to the green fitting.



head-movement part of the test. If he jerks his head around, the difference in air flow can affect the test.

When you're through testing, remove the alcohol cartridge. If you leave it in, the alcohol saturates the counting mechanism. Put the storage cap back on to seal out contamination.



Check the tubes for moisture. Shake them out if necessary and hang them up to dry. If you have newer tubes, use them. Worn tubes sometimes lose their seal.

5. Change the HEPA filter.

No luck? Your PATS needs to be seen by your local TMDE unit.

Another good tip is to have the soldier move his head slowly during the

