

RP0402 - M-40 Field Protective Mask

TERMINAL LEARNING OBJECTIVES

1. Given a M40 series field protective mask and carrier, maintain the M40 Field Protective mask, to ensure serviceability, per the student handout. (RP00.04.03)
2. Given a tactical scenario, a M40 series field protective mask in its carrier and an NBC alert or an order, don the M40 field protective mask, with in 9 seconds, per the student handout. (RP00.04.04)

ENABLING LEARNING OBJECTIVES

1. Without the aid of references, given a list, identify the characteristics of the M40 Field Protective Mask, per the student handout. (RP00.04.03a)
2. Without the aid of references, given a list, inspect the M40 Field Protective Mask, per the student handout. (RP00.04.03b)
3. Without the aid of references, given a list, clean the M40 Field Protective Mask, per the student handout. (RP00.04.03c)
4. Given an M40 field protective mask and exposure to irritant gas in a chamber or simulated combat environment, know the proper masking procedures, per the student handout. (RP00 .04.04a)
5. Given an M40 field protective mask and exposure to irritant gas in a chamber or simulated combat environment, implement proper masking procedures, per the student handout. (RP00.04.04b)

1. **M40 FIELD PROTECTIVE MASK (FPM)**

a. **Characteristics of the M-40 FPM**

- (1) The M-40 FPM is used to protect the individual's face, eyes, and lungs against field concentration of chemical and biological (CB) agents, toxins and radioactive fallout particles.
- (2) The M40 FPM will not protect the wearer against industrial gases such as ammonia, carbon monoxide. It is not effective in confined spaces, where the oxygen content of the air is low.
- (3) The M40 FPM allows the wearer the capability of drinking water while worn.
- (4) The M40 FPM comes in three (3) sizes small, medium, and large. The size mark is located on the top left portion of the mask.

b. **Components of the M-40 FPM** - When you receive a FPM you should inspect the following components for serviceability (See fig. 1):

- (1) **Face-piece Assembly** - Visually inspect outside and inside for the following:
 - (a) Dirt, mud, or oily substances
 - (b) Check for holes, tears, splits
 - (c) Soft or sticky spots
- (2) **Head Harness** - Visually inspect for the following:
 - (a) Dirt
 - (b) Cuts, tears, missing parts on straps
 - (c) Fraying and loss of elasticity of straps
- (3) **Eye-lenses, Eye-rings and Out-serts** - Remove out-serts from face-piece and inspect for the following:

- (a) Eye-lenses for cracks, cuts, scratches, or discoloration that will affect vision
- (b) Eye rings for distortion or corrosion
- (c) Out-sets for cracks, chips or discoloration that affects your vision
- (4) **Hood** - Examine the hood for the following:
 - (a) Cuts, holes, or tears
 - (b) Straps- Frays, tears, or missing hardware
 - (c) Zipper - torn, broken, or inoperative parts.
- (5) **Canister** – Inspect canister for the following:
 - (a) Seams- cracks, dents, or holes
 - (b) Check air intake- not clogged with dirt
 - (c) Damaged threads on the canister
 - (d) Visible water damage, any moisture will render the canister unserviceable
- (6) **Outlet Valve Disk and Outlet Valve Cover** - Ensure the following:
 - (a) Outlet valve disk is present and is not curled or distorted
 - (b) Rotate outlet valve disc to make sure it is not sticking
 - (c) Inspect outlet valve cover for cuts, tears, or holes
 - (d) Remove any dirt or moisture
- (7) **Internal/External Drink Tubes** – Ensure the following:
 - (a) Inspect for cracks or cuts
 - (b) Tubes are not clogged- by connecting M1 canteen cap and blowing air through system
- (8) **Airflow Deflector** – Ensure the following:
 - (a) The airflow deflector is securely mounted inside face-piece
 - (b) Inspect mounting holes for cuts or tears
- (9) **Inlet Valve** – Ensure the following:
 - (a) Inlet valve to insure it is properly mounted on post
 - (b) Inspect inlet valves for cuts, holes, or tears
 - (c) Inlet valve is not stuck to valve body
- (10) **Nose-cup Assembly** – Ensure the following:
 - (a) Inspect nose-cup for cracks or holes
 - (b) The nose-cup is not pulled away from the back of the front voice-meter housing
 - (c) The nose-cup valve disks are present
 - (d) Rotate disks to make sure they are not stuck, curled, or torn
- (11) **Voice-meter** – Ensure the following:
 - (a) Inspect voice-meter for bends, cracks, or punctures
 - (b) The beads in the center of each voice-meter should be facing outward
- (12) **Carrier** - Inspect for the following:
 - (a) Torn, damaged, or missing hardware
 - (b) Mildew, solvents, or abrasive materials that may harm the face-piece
- (13) **Waterproof Bag** – Inspect for the following:
 - (a) Cracks, tears, holes, or brittleness
 - (c) Rubber bands are not sticky, broken, or brittle

(14) **Optical Inserts** - (if issued) Inspect for broken lenses or frame

(15) **Face form** - Maintains mask shape

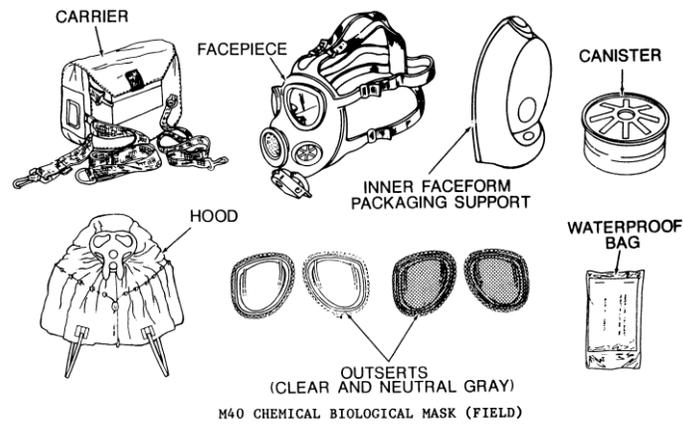


Figure 1

c. **Accessories of the M40 FPM**

- (1) M1 canteen cap
- (2) M291 decontaminating kit.
- (3) Optical inserts (See fig. 2)

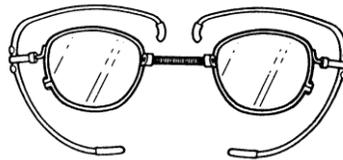


Figure 2

d. **Using the drinking system of the M40 FPM**

- (1) Prior to using the drinking system, use M8 chemical agent detector paper to check for contamination. If contamination is detected, decontaminate the drinking tube and the M1 canteen cap with the M258A1 decontamination kit. After decontamination, recheck the surfaces with M8 chemical agent detector paper.
- (2) By pressing in on the top of the outlet valve, the internal drinking tube can be grasped between your teeth (See fig. 3a)
- (3) Pull the quick connect coupling out of the outlet valve cover (See fig. 3b)

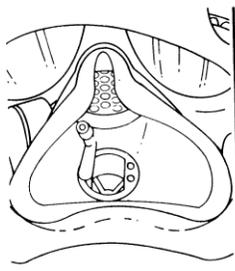


Figure 3a

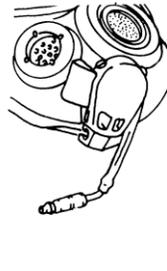


Figure 3b

- (4) Remove the cap cover from the canteen cap (decontaminate if necessary).
- (5) With the canteen right side up, insert the quick connect coupling into the M1 canteen cap and blow air into the drinking system to create positive pressure within the canteen (See fig. 4)

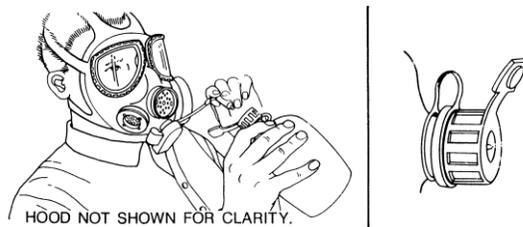


Figure 4

- (6) Raise and invert the canteen and begin drinking water.

e. **Masking Procedures**

- (1) When the verbal or visual signal sign for an NBC attack has been given you must follow these procedures in a time limit of 9 seconds without hood and 15 seconds with hood or risk becoming contaminated.
- (2) Stop breathing and close your eyes
- (3) Open carrier and grab the face-piece. The mask is stored with the head harness pulled over the front of the mask.

- (4) Place your chin in chin-pocket of the face-piece
- (5) Clear the field protective mask
 - (a) Cover the outlet valve with the palm of one (1) hand
 - (b) Exhale sharply so that the air escapes around the edges of the face-piece
 - (c) Cover the air inlet port of the canister with the palm of your free hand, and breath in. The face piece should collapse against your face and remain there while holding your breath. If the face piece collapses consider it airtight.
- (6) Grasp the tab and tighten straps and adjust. Make sure the square harness patch is centered in the rear of your head.

f. **Cleaning the M-40 FPM**

- (1) Wash mask anytime it needs cleaning. A white or rust colored waxy film is not dirt, it is from the preservatives built in the rubber. It will bleed off as long as the face-piece is good.
- (2) Required materials; soft cloths, soft bristle brushes, warm soapy water, and warm clear water.
- (3) Procedural Steps:
 - (a) Remove the filter by unscrewing it
 - (b) Dip clean, soft cloth in warm soapy water and wring it out. Wash mask inside and out. Wash voice-meter, outlet valve cover, and inlet valve assemblies. Be careful with rubber disks.
 - (c) Rinse cloth in clear, warm water and wring it out. Wipe all washed parts.
 - (d) Dry all parts and mask with dry, soft cloth. Use brush in hard to get areas.
 - (e) Replace parts taken off. Make sure rubber disks are snug and flat. Clean the lenses using polish or warm, soapy water.

REFERENCES: Operator's Manual for Chemical-Biological Mask M40, TM 3-44240-300-10-1
IST 2001 (pg. 1-20-63/1-20-71)