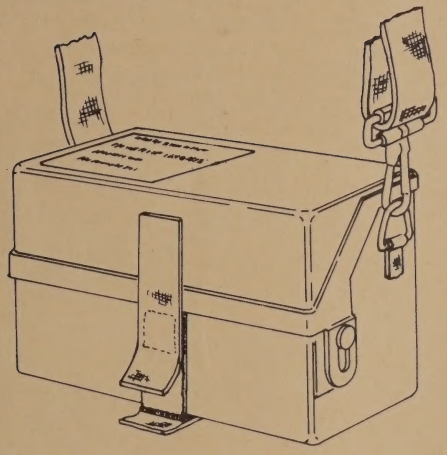
TM 3-6665-307-10

TECHNICAL MANUAL

OPERATOR'S MANUAL
DETECTOR KIT, CHEMICAL AGENT: M256
(NSN 6665-01-016-8399)



HEADQUARTERS, DEPARTMENT OF THE ARMY,
JANUARY 1979

WARNINGS

Do not use an outdated kit because it will give unreliable test indications. A false negative indication would give a false sense of security. This may result in removal of protective masks while toxic agents are actually present.

Do not touch the sampler-detector agent test spots because incorrect test results may be produced.

The heater produces hot vapors and is hot to the touch. Keep away from face and bare skin after the ampoules are broken.

Hold the sampler-detector on the upwind side to avoid picking up vapors from your protective equipment.

Do not use an outdated sampler-detector because it will give unreliable test indications.

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No. 3-6665-307-10

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, DC *25 January 1979*

OPERATOR'S MANUAL
DETECTOR KIT, CHEMICAL AGENT: M256
NSN 6665-01-016-8399

REPORTING OF ERRORS

Reporting of Errors and Recommending Improvements. You can help improve this manual. If you find any mistake or if you know of a way to improve the procedures, please let us know. Mail your letter, DA Form 2028 (Recommended Changes to Publication and Blank Forms), or DA Form 2028-2 located in the back of this manual direct to: Commander, US Army Armament Materiel Readiness Command, ATTN: DRSAR-MAS-C, Aberdeen Proving Ground, MD 21010. A reply will be furnished to you.

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CHAPTER I
INTRODUCTION

Section I. GENERAL INFORMATION

1-1. Scope

This manual is for your use in operating the M256 Chemical Agent Detector Kit (fig. 1-1). Hereinafter this equipment will be referred to as a kit.

1-2. Maintenance Forms and Records.

No maintenance forms and records are required for use of this kit.

1-3. Reporting Equipment Improvement Recommendations (EIRs)

EIRs can and must be submitted by anyone who is aware of an unsatisfactory condition with the equipment design or use. It is not necessary to show a new design or list a better way to perform a procedure, just simply tell why the design is unfavorable or why a procedure is difficult. EIRs may be prepared on SF 368, Quality Deficiency Report. Instructions for preparing EIRs are provided in TM 38-750, The Army Maintenance Management System (TAMMS). EIRs should be mailed directly to: Commander, US Army Armament Materiel Readiness Command, Attn: DRSAR-MAD-E, Aberdeen Proving Ground, MD 21010. A reply will be furnished directly to you.

Section II. EQUIPMENT DESCRIPTION

1-4. Equipment Purpose, Capabilities, and Features

a. Purpose. The purpose of the kit (fig. 1-1) is to detect and classify chemical agents present in the air and in liquid form.

b. Capabilities. The kit is capable of detecting the presence of nerve, blood, and blister agents in 15 minutes.

c. Features. The kit is a portable expendable item that consists of a carrying case with straps, 12 sampler-detectors, one book (25 sheets) of ABC-M8 VGH chemical agent detector paper (M8 paper), and a set of operational instruction cards.

(1) *Carrying case.* The carrying case is 7 inches wide, 3 inches deep, and 5 inches high. The top case is hinged to the bottom case. The top case is secured by a hook and pile fastener tape to the bottom case. An adjustable shoulder strap and a waist belt attachment strap are provided for carrying purposes.

(2) *Sampler-detector.* There are 12 individually wrapped sampler-detectors in each kit (fig. 1-2). Each sampler-detector consists of eight glass ampoules each filled with chemical reagent, three test spots, a chemical heater, protective strips, and tabs. Instructions for use are printed on the outer sides of each sampler-detector protective bag. A lewisite tablet rubbing tab uses a lewisite detecting tablet for detection of lewisite. Formed channels in the plastic sheets direct the flow of reagents from the finger crushable ampoules to wet the test spots at the time of testing. SAFE/DANGER observations are printed on each sampler-detector. They show the approximate color that each test spot develops if agent is/is not present.

(*a*) *Blister agent detection.* To detect mustards (H and HD) and phosgene oxime (CX), the square test spot is used in conjunction with the blister reagent ampoules and the chemical heater. To detect lewisite (L) the lewisite detecting tablet and the lewisite tablet rubbing tab are used. A pull tab covers the lewisite detecting tablet.

(*b*) *Blood agent detection.* To detect hydrogen cyanide (AC) and cyanogen chloride (CK), the circular test spot is used in conjunction with the blood reagent ampoules.

(*c*) *Nerve agent detection.* To detect nerve agents (V and G), the star shaped test spot is used in conjunction with the nerve reagent ampoules.

(*d*) *Hinged protective strip.* The hinged protective strip protects the blood and nerve agent test spots when in the closed position.

NOTE

The colored beads in the ampoules have no function to perform. They were installed during manufacture of the sampler-detector as an aid in identifying the sampler ampoules.

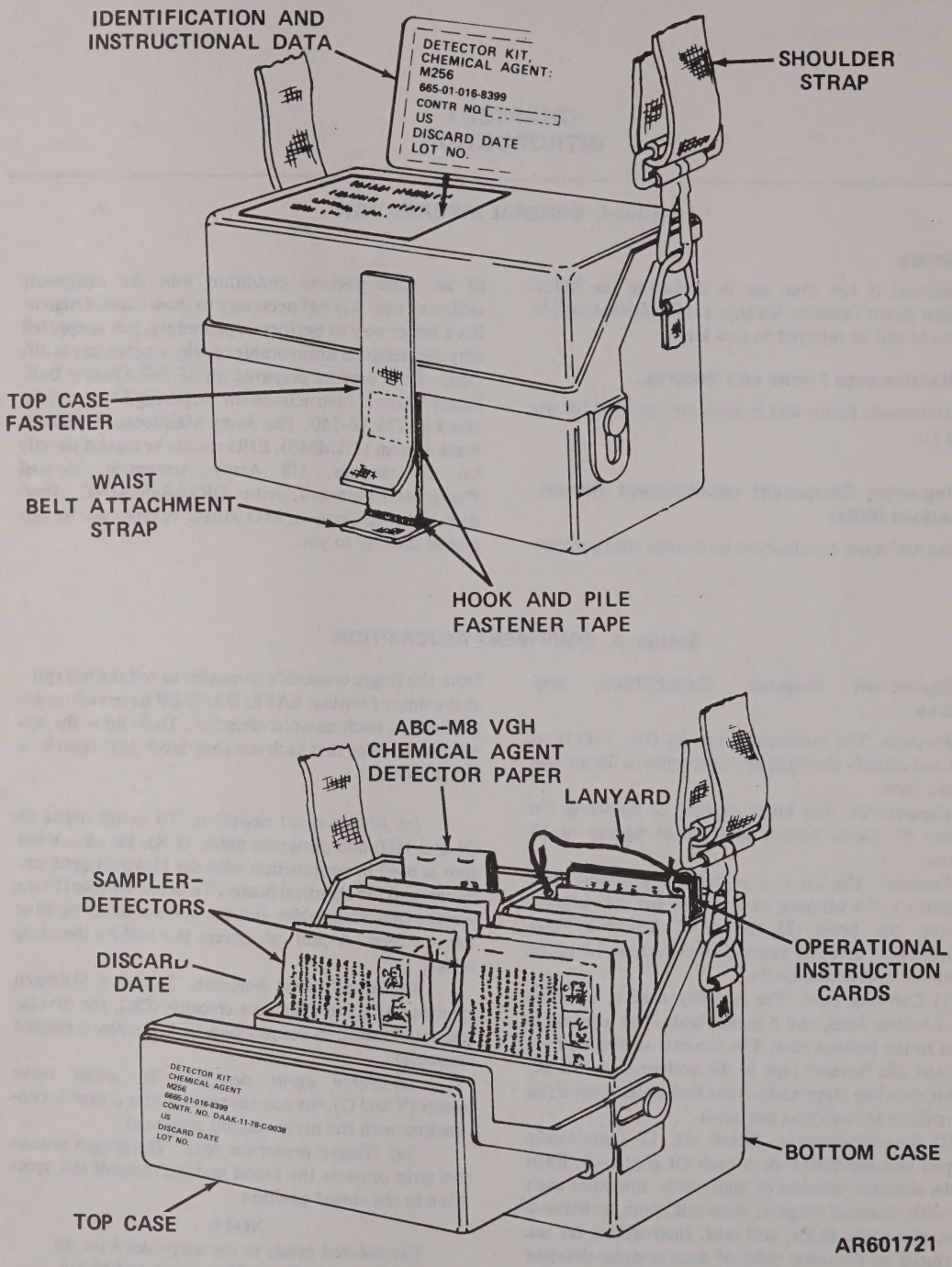


Figure 1-1. M256 chemical agent detector kit, front view.

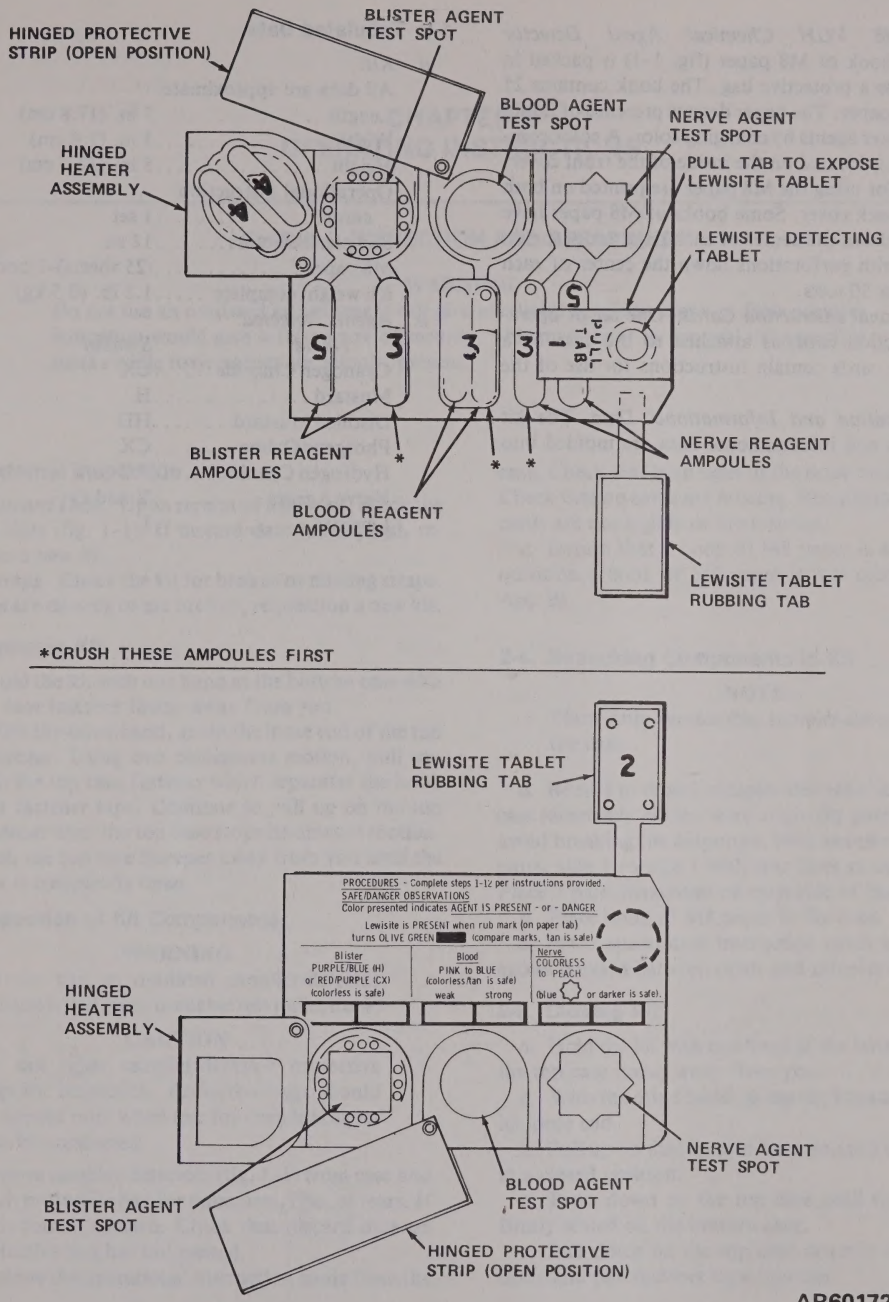


Figure 1-2. Sampler-detector (protective bag removed).

d. ABC-M8 VGH Chemical Agent Detector Paper. One book of M8 paper (fig. 1-1) is packed in each kit inside a protective bag. The book contains 25 sheets of M8 paper. The paper detects presence of liquid nerve and blister agents by changing color. A color comparison chart is located on the inside of the front cover. Instructions for using the M8 paper are printed on both sides of the back cover. Some books of M8 paper have perforations down the center of each page and some do not. Books with perforations down the center of each page allow for 50 tests.

e. Operational Instruction Cards. One set of operational instruction cards is attached to the case by a lanyard. The cards contain instructions for use of the kit.

f. Identification and Informational Data. The kit identification and informational data are molded into the top case.

1-5. Tabulated Data

a. Kit.

All data are approximate.

Length	7 in. (17.8 cm)
Width	3 in. (7.6 cm)
Height	5 in. (12.7 cm)
Operational instruction cards	1 set
Sampler-detectors	12 ea.
M8 paper	(25 sheets)-1 book
Kit weight complete	1.2 lb. (0.5 kg)

b. Agents Detected.

Name	*Symbol*
Cyanogen Chloride	CK
Mustard	H
Distilled Mustard	HD
Phosgene Oxime	CX
Hydrogen Cyanide	AC
Nerve Agents	V and G
Lewisite	L

CHAPTER 2
OPERATING INSTRUCTIONS

Section I. INSPECTION AND REPACKING

WARNING

Do not use an outdated kit because it will give unreliable test indications. A false negative indication would give a false sense of security. This may result in removal of protective masks while toxic agents are actually present.

2-1. External Inspection

a. Discard Date. Upon receipt of a new kit, check the discard date (fig. 1-1). If discard date has expired, requisition a new kit.

b. Straps. Check the kit for broken or missing straps. If straps are missing or are broken, requisition a new kit.

2-2. Opening Kit

a. Hold the kit with one hand at the bottom case with the top case fastener facing away from you.

b. With the other hand, grasp the loose end of the top case fastener. Using one continuous motion, pull upward on the top case fastener which separates the hook and pile fastener tape. Continue to pull up on the top case fastener until the top case stops its upward motion.

c. Pull the top case fastener away from you until the top case is completely open.

2-3. Inspection of Kit Components

WARNING

Do not use an outdated sampler-detector because it will give unreliable test indications.

CAUTION

Do not open sampler-detector protective bags for inspection. Protective bags should be opened only when test for chemical agent is to be conducted.

a. Remove sampler-detectors (fig. 1-1) from case and check each protective bag for punctures, rips, or tears. If damage is found, discard. Check that discard date on each protective bag has not passed.

b. Remove the operational instruction cards from the case. Check that both sides of the three cards are legible. Check that no cards are missing. Requisition a new kit if cards are not legible or are missing.

c. Ensure that a book of M8 paper is available. Requisition a book of M8 paper if it is missing (Item 1, App B).

2-4. Repacking Components in Kit

NOTE

Place only serviceable sampler-detectors in the case.

a. Be sure to repack sampler-detectors in the carrying case identically as they were originally packed. This will avoid breaking the ampoules. Nest sampler-detectors in pairs, side 1 to side 1 with tear lines at opposite ends. Place 3 pairs maximum on each side of case.

b. Place book of M8 paper in the case.

c. Place operational instruction cards in case. Push excess lanyard between cards and sampler-detectors.

2-5. Closing Kit

a. Hold the kit with one hand at the bottom case with the top case facing away from you.

b. With the other hand, grasp the top case fastener at its loose end.

c. Pull up on the top case fastener until the top case is in a closed position.

d. Press down on the top case until the top case is firmly seated on the bottom case.

e. Pull down on the top case fastener and press the hook and pile fastener tape together.

Section II. OPERATION UNDER USUAL CONDITIONS

2-6. General

Since color combinations and comparisons are used during test operations, the user should have normal color perception.

NOTE

THE DECISION TO CONDUCT TESTS AND UNMASK IS ALWAYS MADE BY THE PERSON IN COMMAND (FM 21-40).

2-7. Putting on and Opening The Kit

a. Put the adjustable shoulder strap (fig. 1-1) over head and one shoulder. Adjust shoulder strap length so kit waist belt attachment strap can be fastened to waist belt. Fasten kit to waist belt by use of waist belt attachment strap.

b. Grasp the loose end of the top case fastener. Using one continuous motion, pull upward on the top case fastener which separates the hook and pile fastener tape. Continue to pull up on the top case fastener until the top case stops its upward motion.

c. Pull the top case fastener away from you until the top case is completely open.

2-8. Testing for Vapors in Air

a. Preparation for Operation.

(1) Remove the operational instruction cards from the kit (fig. 1-1). Read the instructions on the three operational instruction cards before proceeding.

(2) Remove a sampler-detector from the kit.

WARNING

Do not use an outdated sampler-detector because it will give unreliable test indications.

(3) Read the instructions on both sides of the protective bag before proceeding.

(4) Open the sampler-detector protective bag by tearing the bag along the tear line marked with arrows.

WARNING

Hold the sampler-detector on the upwind side to avoid picking up vapors from your protective equipment.

CAUTION

Protect sampler-detector during exposure from excessive moisture, such as rain and dew.

(5) Carefully remove the sampler-detector from the protective bag. Retain the protective bag for reference to the instructions written on it.

WARNING

Do not touch the sampler-detector agent test spots because incorrect test results may be produced.

(6) Handle sampler-detector carefully. Hold the sampler-detector by the hinged protective strip (fig. 1-2), in closed position.

NOTE

Keep hinged protective strip in closed position to protect test spots.

(7) Swing the hinged heater assembly away from the test spot and discard the two loose protective strips under the hinged heater assembly.

b. Operating Procedures.

(1) Pull off and discard the pull tab (marked 1) to expose the lewisite detecting tablet.

(2) Rub the top half of white paper side of the lewisite tablet rubbing tab (marked 2) on the lewisite detecting tablet. Repeat rubbing until a mark is visible.

(3) Hold the sampler-detector in the vertical position so that the ampoules are down.

(4) Finger-crush the four reagent ampoules in the three center pockets (marked 3). The ampoules to crush are indicated by asterisks on figure 1-2.

(5) Rotate the sampler-detector until the test spots are in a down position. Force the liquid from the four ampoules through the formed channels to the test spots to ensure wetting.

(6) Check that hinged protective strip is over the test spots. Hold the sampler-detector horizontal with left thumb over the center test spot.

(7) Make sure the hinged heater assembly is away from the test spot.

WARNING

The heater produces hot vapors and is hot to the touch. Keep away from face and bare skin after the ampoules are broken.

(8) Finger-crush one of the two green ampoules (marked 4). Immediately swing the hinged heater assembly over the test spot. Vent vapor away from operator's body. Leave the hinged heater assembly in place for 2 minutes.

(9) Swing the hinged heater assembly (after 2 minutes has passed) and hinged protective strip away from test spots.

(10) Hold the sampler-detector by the hinged protective strip.

(11) Expose test spots to air (while shielding from direct sunlight) for 10 minutes.

(12) Finger-crush the second green ampoule (marked 4). Swing the hinged heater assembly over the test spot. Vent vapor away from operator's body. Leave the hinged heater assembly in place for 1 minute.

(13) Swing hinged heater assembly (after 1 minute has passed) away from test spot.

(14) Hold sampler-detector vertically with the test spots down.

(15) Finger-crush the remaining ampoules (marked 5). Force the liquid from the two ampoules through the formed channels to the test spots to ensure wetting.

(16) Rerub the lewisite detecting tablet with the lewisite tablet rubbing tab. Make sure that the second rub mark is next to the first rub mark.

(17) Immediately turn the sampler-detector over to determine safe or danger conditions. Observe the lewisite tablet rubbing tab for a difference in color between the two rub marks. Color comparisons can also be made by the operator using those shown on the operational instruction cards.

NOTES

The operator can compare the BLOOD AGENT and LEWISITE tests immediately

after the prescribed exposure time. The BLISTER AGENTS (H and CX) develop color immediately after all the ampoules are broken. The NERVE AGENT test requires a waiting period of 2 minutes.

Disregard small blue areas under the plastic rim of the nerve agent spot.

Nerve spot may become difficult to wet with solutions as the kit ages. Work solutions to spot carefully.

At low concentrations, a change in lewisite tablet rub mark may be very slight. Compare with a second rub mark before making judgment.

Yellow and orange sometimes occur on blood spot when no agent is present. Pink or blue color must be present for a positive test.

2-9. Testing for Liquid Toxic Agents on Surfaces

If the suspected surface contamination is in liquid form (puddles, small drops, or barely visible droplets), test for toxic agent with M8 paper using the following procedure:

a. Grasp the loose end of the top case fastener (fig. 1-1). Using one continuous motion, pull upward on the top case fastener which separates the hook and pile fastener tape. Continue to pull up on the top case fastener until the top case stops its upward motion.

b. Pull the top case fastener away from you until the top case is completely open.

c. Remove the book of M8 paper from the kit and its protective bag. Discard protective bag.

d. Tear out a sheet of M8 paper from the book. If perforated, use half a sheet.

e. Blot, do not rub, the M8 paper on the suspected liquid agent. Observe for color change.

f. Compare the color change with the typical colors shown on the inside front cover of the book. Yellow indicates the presence of G-agent. Red indicated the presence of blister agents (H). Dark green indicates the presence of V-agent.

NOTES

Certain G-agents give a red-brown color which is between the typical H and G color

Some decontaminants give false positive tests on the M8 paper. The M8 paper may indicate positive results for an area in which decontaminants have been used. Confirm these positive tests with vapor tests by using the sampler-detector.

2-10. Test for Vapors Above Suspect Surfaces Contaminated with Liquid Agents

This test can be performed using one of two different methods. The preferred method is to place an empty box and or can, open end down, over the suspected area. This is the preferred method, if a box or can is available. The second method is to place the activated sampler-detector directly over the suspected area.

a. Test Using Available Boxes and or Cans. Use one box or can and a sampler-detector for blood agents and a separate box and or can and a sampler-detector for nerve, blister, and lewisite agents. These tests can be run at the same time, providing separate boxes and or cans and sampler-detectors are used.

(1) *Blood agent test.*

(*a*) Obtain a box or a can.

(*b*) Grasp the loose end of the top case fastener (fig. 1-1). Using one continuous motion, pull upward on the top case fastener which separates the hook and pile fastener tape. Continue to pull up on the top case fastener until the top case stops its upward motion.

(*c*) Pull the top case fastener away from you until the top case is completely open.

(*d*) Remove a sampler-detector from the kit.

WARNING

Do not use an outdated sampler-detector because it will give unreliable test indications.

(*e*) Open the sampler-detector protective bag by tearing the bag along the tear line marked with arrows.

WARNING

Hold the sampler-detector on the upwind side to avoid picking up vapors from your protective equipment.

CAUTION

Protect sampler-detector during exposure from excessive moisture, such as rain and dew.

(*f*) Carefully remove the sampler-detector from the protective bag.

WARNING

Do not touch the sampler-detector agent test spots because incorrect test results may be produced.

(*g*) Handle the sampler-detector (fig. 1-2) carefully. Hold the sampler-detector by the hinged protective strip in closed position.

NOTE

Keep hinged protective strip in closed position to protect test spots.

(*h*) Finger-crush only the two ampoules in the center pocket (marked 3). There are outer ampoules marked 3; DO NOT crush these.

(*i*) Rotate sampler-detector holding spots down. Force the liquid from the ampoules through the formed channels to the blood agent test spot to ensure wetting.

(*j*) Swing hinged heater assembly and hinged protective strip away from test spots. Discard the two loose protective strips of paper under the hinged heater

assembly. Swing hinged heater assembly back over the test spot.

(*k*) Place the sampler-detector under the box or can. Expose the spot for 10 minutes. Remove the sampler-detector after 10 minutes.

(*l*) Turn the sampler-detector over to determine safe or danger conditions.

(2) *Nerve, Blister, and Lewisite Agents Test.*

(*a*) Obtain a box or a can.

(*b*) Remove a sampler-detector from the kit.

WARNING

Do not use an outdated sampler-detector because it will give unreliable test indications.

(*c*) Open the sampler-detector protective bag by tearing the bag along the tear line marked with arrows.

WARNING

Hold the sampler-detector on the upwind side to avoid picking up vapors from your protective equipment.

CAUTION

Protect sampler-detector during exposure from excessive moisture, such as rain and dew.

(*d*) Carefully remove the sampler-detector from the protective bag.

(*e*) Handle the sampler-detector carefully. Hold the sampler-detector by the hinged protective strip (fig. 1-2) in closed position.

NOTE

Keep the hinged protective strip in closed position to protect test spots.

WARNING

Do not touch the sampler-detector agent test spots because incorrect test results may be produced.

(*f*) Discard the tab (marked 1) to expose the lewisite detecting tablet.

(*g*) Rub the top half of white paper side of lewisite tablet rubbing tab (marked 2) on lewisite detecting tablet. Repeat rubbing until mark is visible.

(*h*) Hold the sampler-detector in the vertical position so that the ampoules are down.

(*i*) Finger-crush the two outer reagent ampoules (marked 3). DO NOT crush the two ampoules in the center pocket (marked 3).

(*j*) Rotate the sampler-detector until the test spots are in a down position. Force the liquid from the two outer ampoules through the formed channels to the blister agent test spot and the nerve agent test spot to ensure wetting.

(*k*) Check that hinged protective strip is over the test spots. Hold the sampler-detector horizontal with the left thumb over the center test spot.

(*l*) Swing hinged heater assembly away from test spot. Discard the two loose protective strips of paper under the hinged heater assembly.

WARNING

The heater produces hot vapors and is hot to the touch. Keep away from face and bare skin after the ampoules are broken.

(*m*) Finger-crush one of the two green ampoules (marked 4). Immediately swing the hinged heater assembly over the test spot. Vent vapor away from operator's body. Leave the hinged heater assembly in place for 2 minutes.

(*n*) Swing the hinged heater assembly (after 2 minutes has passed) and hinged protective strip away from test spots.

(*o*) Place the sampler-detector with the instruction side up under the box or can. Expose test spots for 10 minutes. After 10 minutes remove from under the can or box.

(*p*) Hold the sampler-detector by the hinged protective strip.

(*q*) Finger-crush the second green ampoule (marked 4). Swing the hinged heater assembly over the test spot. Vent vapor away from operator's body. Leave the hinged heater assembly in place for 1 minute.

(*r*) Swing hinged heater assembly (after 1 minute has passed) away from test spot.

(*s*) Hold the sampler-detector test spots down.

(*t*) Finger-crush the remaining two outside ampoules (marked 5). Force the liquid from these ampoules through the formed channels to the blister agent test spot and the nerve agent test spot.

(*u*) Rerub the lewisite tablet rubbing tab (marked 2) on the lewisite detecting tablet next to the first rub mark. Immediately observe for a difference in color between the two marks.

(*v*) Turn sampler-detector over to determine safe or danger conditions.

b. Test By Placing Activated Sampler-Detector Over Suspected Area. When performing test using this method, no box and or can or other covering is used to concentrate vapors.

(1) Hold the kit with one hand at the bottom case with the top case fastener facing away from you.

(2) With the other hand, grasp the loose end of the top case fastener. Using one continuous motion, pull upward on the top case fastener which separates the hook and pile fastener tape. Continue to pull up on the top case fastener until the top case stops its upward motion.

(3) Perform procedure in paragraph 2-8 steps *a* and *b* (1) through (9).

(4) Lay the sampler-detector directly on the ground with the instruction side up atop the suspected area for 10 minutes.

(5) After 10 minutes have passed, perform procedure in paragraph 2-8*b* steps (12) through (17).

Section III. OPERATION UNDER UNUSUAL CONDITIONS

2-11. General

This section provides the operator with supplemental instructions for proper operation of the kit under adverse weather conditions.

2-12. Climate Extremes

a. Temperatures Below +50°F. (10°C.). Wait 5 minutes before making color comparison when temperature is below +50°F. (10°C.).

b. Temperatures Between −25°F. (−32°C.) and +32°F. (0°C.). Perform the following when temperature is between −25°F. (−32°C.) and +32°F. (0°C.):

(1) Place the unopened protective bag in the warm area (within a heated shelter or vehicle) for 5 minutes or more to thaw the reagents.

(2) Open the protective bag by tearing along the tear line marked with arrows.

(3) Carefully remove the sampler-detector (fig. 1-2) from the protective bag.

(4) If any of the reagents are still frozen, wait until they are completely thawed.

(5) Handle sampler-detector carefully. Hold the sampler-detector by the hinged protective strip in closed position.

(6) Swing hinged heater assembly away from test spot. Discard the two loose protective strips of paper under the hinged heater assembly.

(7) Pull off and discard pull tab (marked 1) to expose the lewisite detecting tablet.

(8) Rub the top half of white paper side of lewisite tablet rubbing tab (marked 2) on the lewisite detecting tablet. Repeat rubbing until a mark is visible.

(9) Hold the sampler-detector in the vertical position so that the ampoules are down.

(10) Finger-crush the four reagent ampoules in the three center pockets (marked 3). The ampoules to crush are indicated by asterisks on figure 1-2.

(11) Rotate the sampler-detector until the test spots are in the down position. Force the liquid from the four ampoules through the formed channels to the test spots to ensure wetting.

(12) Check that hinged protective strip is over the test spots. Hold the sampler-detector horizontal with left thumb over the center spot.

(13) Make sure the hinged heater assembly is away from the test spot.

WARNING

The heater produces hot vapors and is hot to the touch. Keep away from face and bare skin after the ampoules are broken.

(14) Finger-crush with right thumb and fingers one of the two green ampoules (marked 4). Immediately swing the hinged heater assembly over the test spot. Vent vapor away from operator's body. Leave the hinged heater assembly in place for 2 minutes.

(15) Swing the hinged heater assembly (after 2 minutes has passed) and hinged protective strip away from test spots.

(16) Hold the sampler-detector by the hinged protective strip.

(17) Place the sampler-detector outdoors and expose test spots to air (while shielding from direct sun) for 10 minutes.

(18) Bring the sampler-detector into the warmed area.

(19) Wait for any frozen reagents to thaw.

WARNING

The heater produces hot vapors and is hot to the touch. Keep away from face and bare skin after the ampoules are broken.

(20) Finger-crush the second green ampoule (marked 4). Swing the hinged heater assembly over the test spot. Vent vapor away from operator's body. Leave the hinged heater assembly in place for 1 minute.

(21) Swing hinged heater assembly (after 1 minute has passed) away from test spot.

(22) Hold sampler-detector test spots down.

(23) Finger-crush the remaining ampoules (marked 5).

(24) Rerub the lewisite tablet rubbing tab (marked 2) on the lewisite detecting tablet next to the first rub mark. Immediately observe for a difference in color between the two rub marks.

(25) Immediately turn the sampler-detector over to determine safe or danger conditions.

NOTES

The operator can compare the BLOOD AGENT and LEWISITE tests immediately after the prescribed exposure time. The BLISTER AGENTS (H and CX) develop color immediately after all the ampoules are broken. The NERVE AGENT test requires a waiting period of 2 minutes.

Disregard small blue areas under the plastic rim of the nerve agent spot.

Nerve spot may become difficult to wet with solutions as the kit ages. Work solutions to spot carefully.

At low concentrations, a change in lewisite tablet rub mark may be very slight. Compare with a second rub mark before making judgment.

Yellow and orange sometimes occur on blood spot when no agent is present. Pink or blue color must be present for a positive test.

c. High Temperature Low Humidity (Desert Conditions). Under desert conditions, the sampler-detector is operated the same as under normal conditions with one

exception. Five minutes after exposure of test spots has started, the nerve agent test spot must be rewet. Do this by squeezing the remaining liquid in ampoule 3 onto the nerve agent test spot.

NOTE

A faint blue color may appear in the ABSENCE of blister agents (H and HD).

d. High Temperature and High Humidity (Tropic Conditions). The color change for lewisite rub marks may be very slight. Compare with a second rub mark before making judgment. A faint blue color may appear in the ABSENCE of blister agents (H and HD).

2-13. Direct Sunlight

Keep the sampler-detector away from heat and direct sunlight as much as possible.

2-14. Snow or Rain

Protect from rain or snow as much as possible by use of your body or any available shelter.

CHAPTER 3
MAINTENANCE INSTRUCTIONS

Section I. MAINTENANCE PROCEDURES

3-1. Discard Date

The operator must observe and make sure that the discard date has not passed. Do not use the kit if the discard date has passed. Requisition a new kit (para 3-2).

3-2. Requisition of Kit

The operator must notify his supervisor that 6 months or less remains on his kit so that a new kit can be ordered before the discard date.

3-3. Storage

a. Keep case closed.
b. Store the kit in a cool, dry place when not in use.

Section II. PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS)

3-4. General (See Table 2-1).

a. Before You Operate. Always keep in mind the CAUTIONS and WARNINGS. Perform your before (B) PMCS.

b. While You Operate. Always keep in mind the CAUTIONS and WARNINGS. Perform your during (D) PMCS.

c. After You Operate. Be sure to perform your after (A) PMCS.

3-5. PMCS Procedures

a. Item Number Column. Checks and services are numbered in chronological order.

b. Interval Columns. The columns headed "B", "D", and "A" contain a dot (•) opposite the appropriate check.

c. Item to Be Inspected Column. The items to be inspected are identified by their short name (e.g., Kit; Sampler-Detector).

d. Procedures Column. This contains a brief description of the procedure to be used when the check is performed.

e. For Readiness Reporting, Equipment Will Be Reported Not Ready/Available If: Column. This column contains criteria which will cause the equipment to be classified as not ready/available because of inability to perform its primary mission.

Table 3-1. Preventive Maintenance Checks and Services

NOTE: Within designated interval, these checks are to be performed in the order listed.

B-Before D-During A-After

Item No.	Interval B	Interval D	Interval A	Items to be Inspected	Procedures	For Readiness Reporting Equipment Will Be Reported Not Ready/Available If:
1	•			Kit	Check discard date on top of kit case (fig. 1-1). Do not use if it is past the discard date. Requisition new kit.	Discard date has expired

Table 3-1. Preventive Maintenance Checks and Services - Continued.

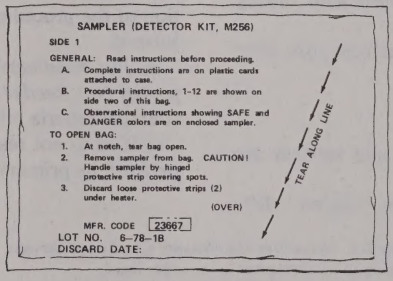
NOTE: Within designated interval, these checks are to be performed in the order listed.

B-Before D-During A-After

Item No.	Interval B	Interval D	Interval A	Items to be Inspected	Procedures	For Readiness Reporting Equipment Will Be Reported Not Ready/Available If:
2	•		•	Should strap	If strap is missing or broken, requisition new kit.	Strap missing or broken.
3	•			M8 paper	Check that M8 paper is present. If missing, requisition M8 paper.	M8 paper missing.
4			•	Sampler-detector	Check discard date on protective bag. Do not use if date has expired. **NOTE** Discard date will show month and year.	
5		•		Sampler-detector	Check blood agent test spot. If blood agent test spot is pinkish - do not use sampler-detector.	
6			•	Kit	Check for M8 paper. If all used - requisition M8 paper.	M8 paper is missing.

Section III. DESTRUCTION TO PREVENT ENEMY USE

When time permits, the case and components should be destroyed by smashing or burying. Without opening the sampler-detector protective bags, crush each sampler-detector by striking with the hand and discard. Step on the case to crush. Bury operational instruction cards and M8 paper.



APPENDIX A
REFERENCES

FM 21-40	NBC (Nuclear, Biological, and Chemical) Defense.
TM 38-750	The Army Maintenance Management System (TAMMS).
CTA 50-970	Expendable Items

APPENDIX B
EXPENDABLE SUPPLIES AND MATERIALS LIST

Section I. INTRODUCTION

B-1. Scope

This appendix lists expendable supplies and materials you will need to operate and maintain the M256 detector kit. These items are authorized to you by CTA 50-970, Expendable Items (Except Medical, Class V, Repair Parts, and Heraldic Items).

B-2. Explanation of Columns

a. Column 1—Item Number. This number is assigned to the entry in the listing and is referenced in the narrative instructions to identify the material (e.g., "Use detector paper, M8, Item 1, App. B").

b. Column 2—Level. This column identifies the lowest level of maintenance that requires the item, which is C—operator/crew.

c. Column 3—National Stock Number. This is the National stock number assigned to the item; use it to request or requisition the item.

d. Column 4—Description. Indicates the Federal item name and, if required, a description to identify the item. The last line for each item indicates the part number followed by the Federal Supply Code for Manufacturer (FSCM) in parentheses, if applicable.

e. Column 5—Unit of Measure (U/M). Indicates the measure used in performing the actual maintenance function. This measure is expressed by a two-character alphabetical abbreviation (e.g., ea, in, pr). If the unit of measure differs from the unit of issue, requisition the lowest unit of issue that will satisfy your requirements.

Section II. EXPENDABLE SUPPLIES AND MATERIALS LIST

(1) ITEM NUMBER	(2) LEVEL	(3) NATIONAL STOCK NUMBER	(4) DESCRIPTION	(5) U/M
1	C	6665-00-050-8529	Detector Paper, Chemical Agent, VGH, ABC-M8 D5-67-266 (81361)	BK

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DATE: 28 December 1977

PUBLICATION NUMBER	DATE	TITLE
TM 3-6665-307-10	January 1978	Operator's Manual Detector Kit, Chemical Agent: M256

BE EXACT. . .PIN-POINT WHERE IT IS

PAGE NO.	PARAGRAPH	FIGURE NO.	TABLE NO.	IN THIS SPACE TELL WHAT IS WRONG AND WHAT SHOULD BE DONE ABOUT IT:
7		1-1		The cord going from the edge of the instruction cards to a location outside the case should be deleted. The cord actually attaches to the center divider in the center of the case as indicated.
18	1-4			Change to read "(or can) for nerve, blister and lewisite agents..."
				Reason: The blister and leqisite tests are conducted at the same time as the nerve agent test. Only the blood agent test is performed separately.
			1-1	Steps 1 and 2 under the Blood Agnet column are omitted because the lewisite test is not conducted. The following steps are renumbered 1 thru 5 instead of 3 thru 7.
23	2-4 WARNING			Add to the end of the last sentence "before reading the color".
				Reason: To clarify the operation which should be performed at the end of the 5 minute wait.
24	2-4b			Change "corner" to "cover". Typographical error.

SAMPLE

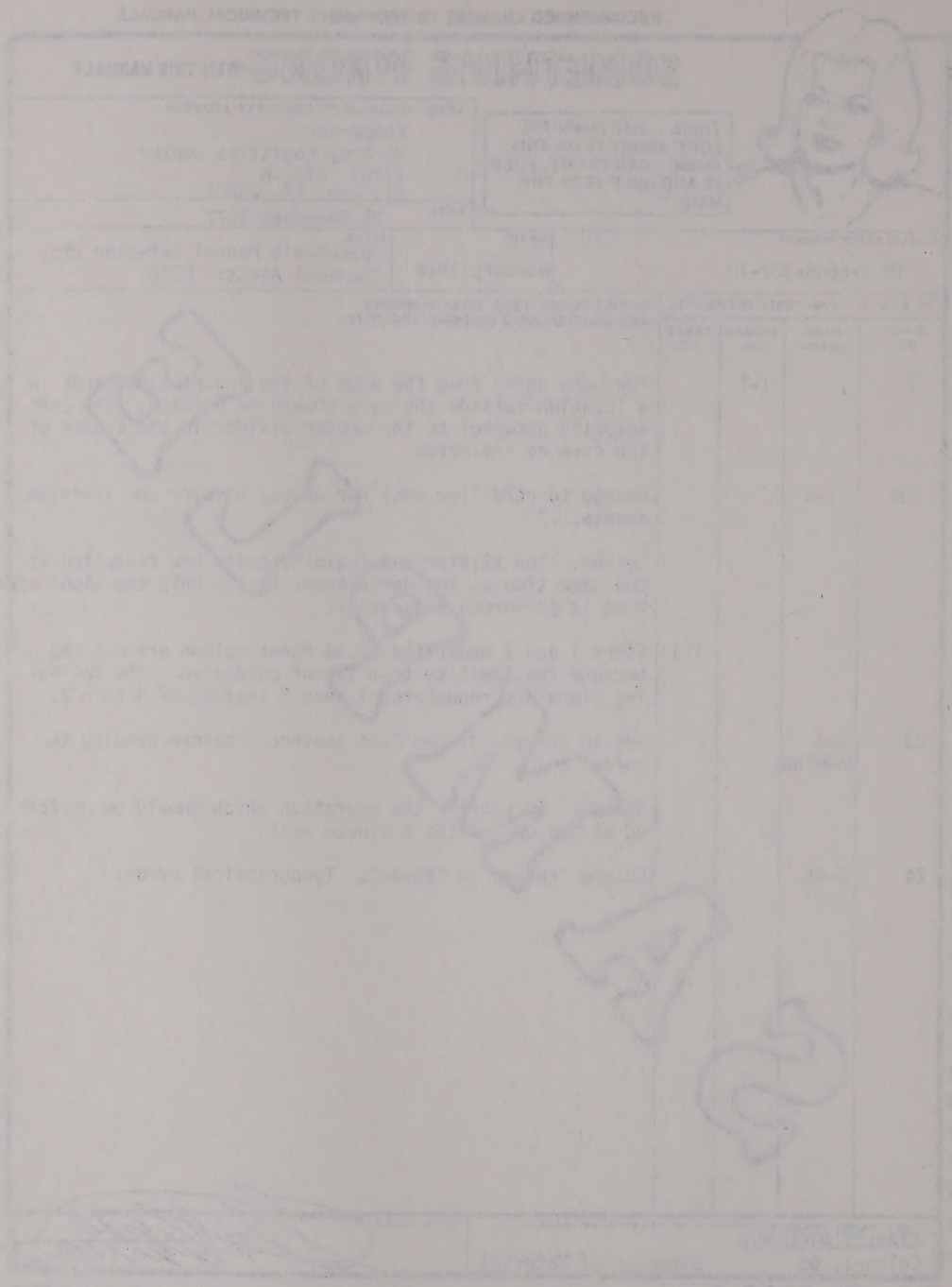
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