TM 3-4240-279-20 & P

TECHNICAL MANUAL

ORGANIZATIONAL MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST

MASK, CHEMICAL-BIOLOGICAL: FIELD, ABC M17/M17A1 AND ACCESSORIES

This copy is a reprint which includes current pages from Changes 1 and 2.

HEADQUARTERS, DEPARTMENT OF THE ARMY
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HEADQUARTERS
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ORGANIZATIONAL MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL TOOLS LISTS MASK, CHEMICAL-BIOLOGICAL: FIELD, ABC — M17/M17A1 AND ACCESSORIES

Current as of April 1975

REPORTING OF ERRORS

You can help improve this manual by calling attention to errors and by recommending improvements and by stating your reasons for the recommendations. Your letter or DA Form 2028-2 (TEST), Recommended Changes to Equipment Technical Manuals, should be mailed direct to Commander, US Army Armament Materiel Readiness Command, ATTN; DRSAR-MAS-C, Aberdeen Proving Ground, MD 21010. A reply will be furnished direct to you. For your convenience, preaddressed DA Forms 2028-2 (TEST) are located in back of this manual.

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***This manual supersedes TM 3-4240-202-35P, 15 July 1968, and TM 3-4240-258-35P, 7 March 1968, including all changes, in their entirety.**

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CHAPTER 1
INTRODUCTION

Section I. GENERAL

1-1. Scope

These instructions are for use by organizational maintenance personnel. They apply to the Mask, Chemical-Biological: Field, ABC-M17 and M17A1.

1-2. Record and Report Forms

Equipment maintenance forms and procedures for their use are prescribed in TM 38-750.

1-3. Administrative Storage

Refer to TM 740-90-1 for administrative storage instructions on masks.

1-4. Destruction to Prevent Enemy Use

a. Masks issued to individuals will not be destroyed. When capture or abandonment to the enemy of stocks of masks is imminent, the responsible commander may authorize destruction of masks.

b. Refer to TM 43-0002-31 for methods of destruction.

Section II. DESCRIPTION AND DATA

1-5. General

a. ABC-M17 and M17A1 masks (fig. 1-1 and 1-2) are used to protect the face, eyes, and respiratory tract of the wearer from field concentrations of chemical and biological (CB) agents. They do not protect the wearer from ammonia or carbon-monoxide fumes. They are not effective in confined spaces where the oxygen content of the atmosphere is too low to maintain functional capability (below 18 percent). Refer to TB MED223 for lists of proper respiratory protection devices for other than combat use.

b. Masks are issued in three sizes: small, medium, and large (table 1-1). The size of the mask can be identified by the markings on the forehead of the faceblank and on the inside of the nosecup. A small mask is marked S on the faceblank and M on the nosecup. A medium mask is marked M on the faceblank and nosecup. A large mask is marked M on the faceblank and L on the nosecup.

1-6. Differences Between Models

a. Throughout this manual, the term *mask* refers to the ABC-M17 mask and the M17A1 mask. When data applies to one model only, it will be specifically identified.

b. The M17A1 mask facepiece has a voice-mitter-outer valve assembly that is equipped with a drinking system and a resuscitation system. An M1 water canteen cap is issued with each M17A1 mask. Inside the mask eyelenses the M17A1 mask facepiece has supports with positioning holes for optical inserts. The M15A1 carrier, issued with an M17A1 mask, has two straps above the inside pocket to hold a resuscitation tube in place. Also, it has a larger bottom pocket to accommodate the canteen cap.

c. The ABC-M17 mask facepiece and M15 carrier do not have the features listed in *b* above. An M1 water canteen cap is not issued with an ABC-M17 mask.

NOTE

Replacement carrier for the ABC-M17 mask is Carrier, CBR Mask: Field, M15A1.

Table 1-1. Mask Sizes and National Stock Numbers

Size	*ABC-M17*	*M17A1*
Small	NSN 4240-00-542-4450	NSN 4240-00-926-4199
Medium	NSN 4240-00-542-4451	NSN 4240-00-926-4201
Large	NSN 4240-00-542-4452	NSN 4240-00-926-4200

1-7. Criteria for Replacing Filter Elements

a. M13 filter elements with black connectors or M13A1 filter elements with black or gold connectors will be used for replacement unless directed otherwise. M13A2 filter elements with green connectors (designated serviceable in SB 3-30-2) will be used for replacement when any of the following conditions apply:

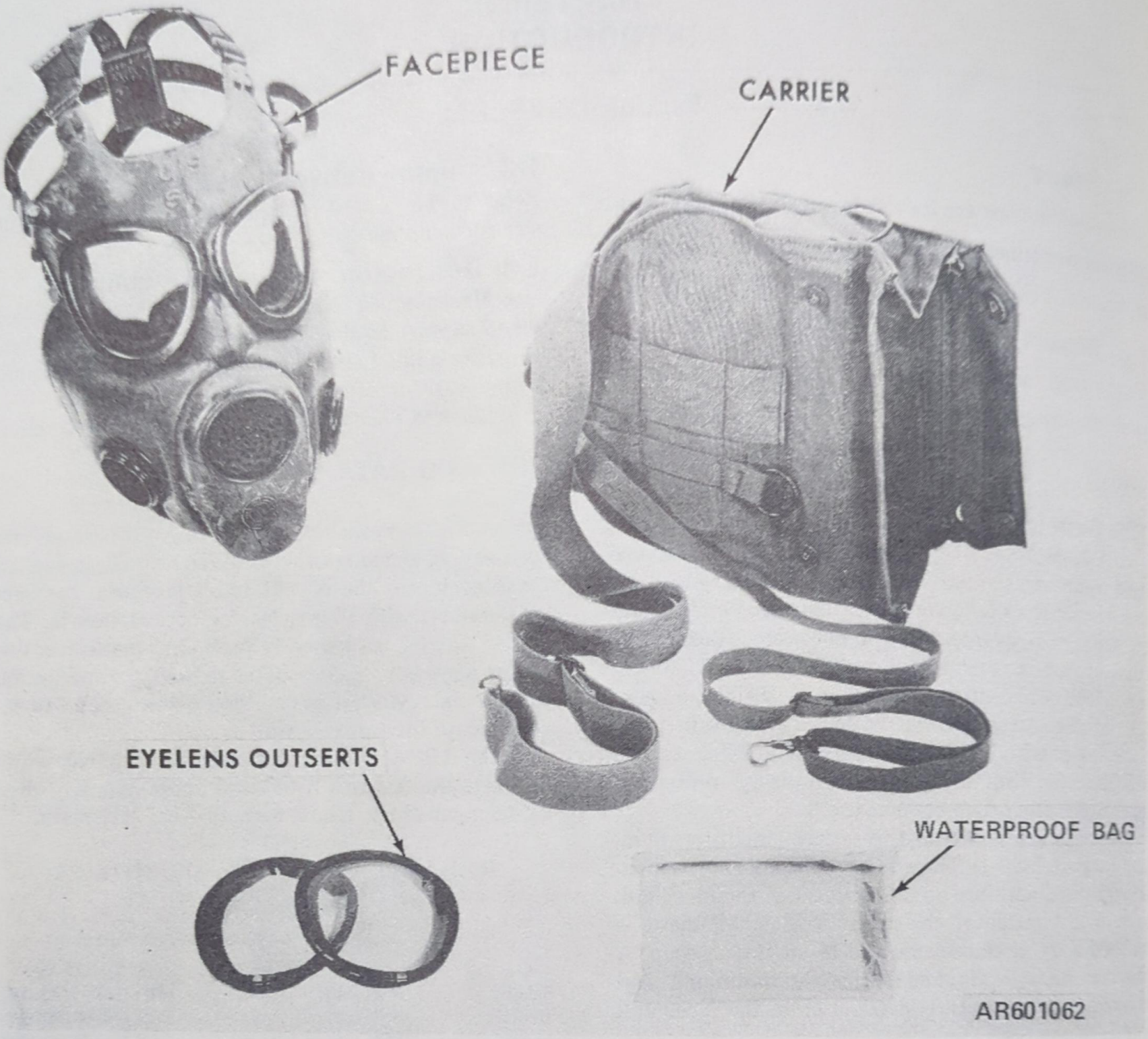


Figure 1-1. ABC-M17 field CB mask.

(1) When directed by division or higher headquarters.

(2) When available military intelligence clearly indicates that the use of chemical agents against US troops is imminent.

(3) When M13 or M13A1 filter elements with black connectors are not available.

b. Filter elements will be replaced if:

(1) They have been exposed to direct attack with chemical-biological agents.

(2) They have been immersed in water.

(3) They show evidence of mechanical damage such as breaks or cuts in the filter material or edge seal, or a bent or split connector.

(4) Excessive breathing resistance is experienced and visual inspection reveals that the filter elements are clogged with dust.

c. In tactical situations, all unserviceable filter elements (contaminated or uncontaminated) will be disposed of by crushing the connectors and burying the elements under at least six inches of earth.

1–8. Description

a. Facepiece (*fig. B-1*).

(1) *Faceblank.* The following are molded into the rubber faceblank: filter-element pouches, flap-button button-holes, clip-buckle tabs, temple-pin lugs, deflector tubes, supports with positioning holes for optical inserts (M17A1 mask only), and openings for eyelenses, nosecup, voicemitter-outlet valve assembly, and filter element connector.

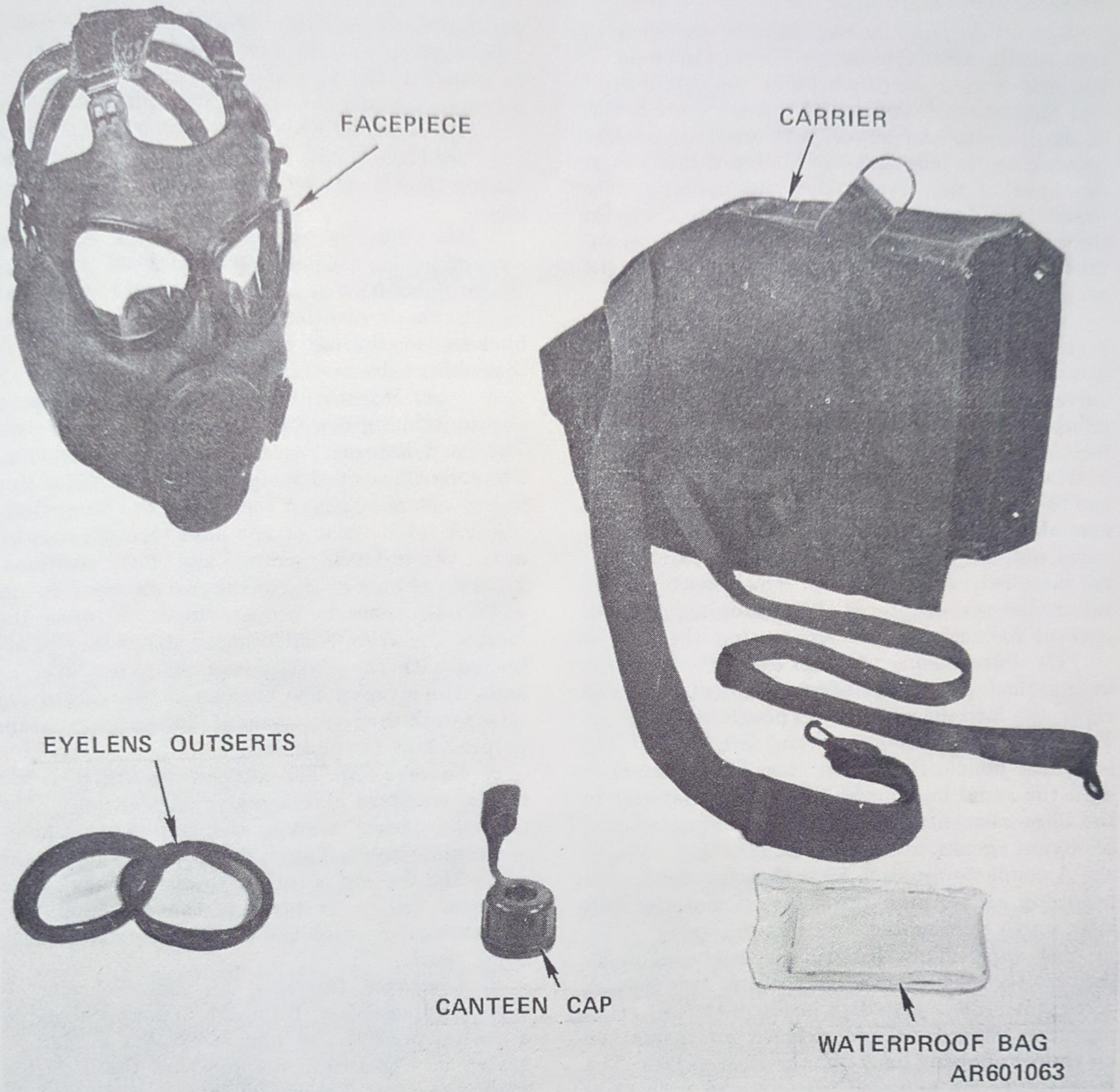


Figure 1-2. M17A1 field CB mask.

(2) *Eyelenses.* Clear-plastic eyelenses are sealed in the faceblank openings by metal eyerings.

(3) *Crimping ring.* A metal crimping ring seals the frame of the voicemitter-outlet valve and nosecup to the faceblank. Two studs on the crimping ring hold the voicemitter-outlet valve cover in place.

(4) *Voicemitter-outlet valve assembly.* The ABC-M17 mask voicemitter-outlet valve assembly consists of a voicemitter and an outlet valve with an outlet valve disk. The M17A1 mask voicemitter-outlet valve assembly, in addition to the above, has an adapter, lever, drinking mouthpiece, and air chamber with a breathing tube. A quick-disconnect coupling half, consisting of a coupling and length of hose, fits over the adapter. The lever controls the movement of the drinking mouthpiece and the breathing tube.

(5) *Voicemitter-outlet valve cover.* The ABC-M17 mask rubber voicemitter-outlet valve cover fits over the voicemitter-outlet valve. The cover surrounds the outlet valve disk with an atmosphere of uncontaminated exhaled air. Air is expelled from the mask through air passages in the bottom of the cover. A lifting tab at the bottom of the cover allows the lower portion of the cover to be lifted without removing the cover.

Two small openings at the sides of the cover fit over studs on the crimping rings. An opening on the face of the cover fits around the voicemitter. The M17A1 mask voicemitter-outlet valve cover, in addition to the above, has another smaller opening on its face that fits behind a hex nut at the base of the lever. Also, an opening in a channel provides a passage through the cover for the quick-disconnect coupling half and water intake tube. The channel and a pocket retain the coupling half when not in use.

(6) *Nosecup.* The soft-rubber nosecup fits over the wearer's nose and mouth. The nosecup diverts most of the exhaled air toward the outlet valve to help prevent fogging of the lenses. A crimping ring seals the front of the nosecup to the faceblank and the voicemitter-outlet valve frame. Plastic flap buttons fasten the sides of the nosecup to the inside of the mask. Two nosecup valve assemblies, each consisting of a metal nosecup valve seat and a soft-rubber nosecup valve disk, are installed in the nosecup. The nosecup valve assemblies permit filtered air to enter nosecup and prevent exhaled air from contacting the lenses.

(7) *Filter elements.* Filter elements are made in matched pairs. One filter element, marked *right,* fits into the right cheek pouch in the mask. The other filter element, marked *left,* fits into the left cheek pouch. Both filter elements are marked with the same lot number. Filtering material in the filter elements filters toxic chemical agents, biological agents, and other particles from inhaled air. A connector on each filter element directs the incoming air through the filtering material. An inlet valve is mounted on each connector.

(8) *Inlet valves.* Inhaled air enters the mask through the inlet valves and the filter elements. A soft-rubber inlet valve disk inside each inlet valve prevents filtered air and exhaled air inside the mask from flowing back out the inlet valves. The inlet valves are louvered and covered with rain-repellent mesh material to protect the filter elements from rain, snow, and coarse particles. The word TOP is printed on each inlet valve rim for positioning the cap on the connector so that the louvers inside the valves are horizontal and correctly sloped.

NOTE

The word TOP may not be oriented properly with the louvers. Check and correct the marking as necessary (TM 3-4240-279-10).

(9) *Flap buttons.* The plastic short and long flap buttons are used to button the cheek-pouch flaps after filter elements are installed. The short flap button is located near the edge of the mask. The long flap button is located near the nosecup. In addition, the long flap button is buttoned to the nosecup to hold it firmly in place.

(10) *Temple pins.* The rubber temple pins pass through lugs in the faceblank to hold the temple tabs in proper position against the facepiece.

(11) *Clip and buckle assemblies.* Six metal clip and buckle assemblies are attached to tabs on the facepiece (two at forehead, two at temple, and two at cheek positions). The bent ends of the buckles pass through openings in the side edges of the rubber tabs to clip the buckles in place.

b. Head Harness. The head harness consists of elastic webbing sewn to a rectangular head pad. The head harness is attached to the faceblank. The ends of the head straps have metal clinch tips to prevent ravelling of the elastic webbing. Ends of the head harness straps pass through buckles at the two forehead, temple, and cheek positions. Elastic webbing connects the two forehead straps and holds them in proper alinement when the facepiece is worn. (The forehead straps may be attached with the elastic webbing either over or under the straps.) The buckles at the ends of the tabs permit the adjustment of the straps to obtain proper fit of the facepiece.

c. Canteen Cap. The canteen cap (fig. 1-2) fits on the standard plastic water canteen only. The cap has a gasket, a cover, and coupling that has a self-sealing valve. The gasket provides a gastight seal when the cap is tightened on the neck of the canteen. The cover protects the coupling from contamination when the drinking system is not being used.

d. Eyelenses Outserts. An identical pair of eyelens outserts (fig. 1-1 and 1-2) are packaged in a plastic pouch. The plastic eyelens outsert is seated in a soft-rubber apron that fits over the mask's eyering. The rim of the apron fits snugly behind the eyering. When the mask is issued, the outserts are to be removed from the pouch and mounted on the mask as a means to protect the mask eyelenses from becoming scratched.

e. M1 Waterproof Bag. The plastic waterproof bag (figs. 1-1 and 1-2) is used to keep the mask dry. The folded bag and a small envelope containing three rubber bands are packed in a small pouch. Instructions for use are printed on the bag.

NOTE

An M1A1 CB mask waterproof bag (para 1-14) is issued as an accessory for use in hot, wet climate, when authorized by the area commander.

f. Carrier. This carrier (fig. 1-1 and 1-2) is made of mildew resistant water-repellent cotton duck. It is stiffened at critical locations, and lined to protect the mask. It has two adjustable strap assemblies (shoulder strap and waist strap) and a chape strap. The carrier is designed to be worn on the left side in either a shoulder-carry or a leg-carry position. The outside of the carrier has a snap flap at the front, and three pockets with snap flaps. Two pockets (upper and lower) are located at the back of the carrier, and the third pocket is located on the bottom. There is an open pocket inside the carrier. Inside the M15A1 carrier, issued with an M17A1 mask, two straps snap-fasten to form a loop. The loop holds a resuscitation tube (when issued) in position in the open pocket.

Section III. ACCESSORIES

1-9. General

This section contains information on accessories that are issued for use with masks, when authorized by the area commander (WABTAC). CTA 50-970 lists NSNs and basis of issue for all accessories except optical inserts. Table 1-1 lists accessories and NSNs that apply to your mask.

Table 1-1. ACCESSORIES FOR YOUR MASK

ITEM	NSN	M17	M17A1
ABC-M6A2 Field CB Mask Hood	4240-00-999-0420	X	X
ABC-M4 Field Mask Winterization Kit	4240-00-065-0319	X	X
M1A1CB Mask Waterproof Bag	4240-00-803-5839	X	X
Optical Inserts (wire frames)	*	X	X
Optical Inserts (wire prongs)	*		X
M1 Resuscitation Tube	4240-00-930-2078		X

*No NSN for optical inserts

1-10. Optical Inserts

a. Prescription optical inserts (fig. 1-3) for personnel who must wear glasses are available by prescription of a medical officer or optometrist (AR 40-3). Under some conditions, an approving officer's signature is required.

b. Inserts with wire frames will fit ABC-M17 and M17A1 masks. Inserts with plastic frames with prongs will fit only M17A1 masks.

c. When ordering prescription lenses specify the type mask the lenses are for.

CAUTION

Contact lenses will not be worn when you wear the protective mask.

1-11. ABC-M6A2 Field CB Mask Hood

a. The ABC-M6A2 hood (fig. 1-4) covers the wearer's head and neck. It protects areas of the skin not covered by the mask against vapors, aerosols, and droplets of chemical and biological agents.

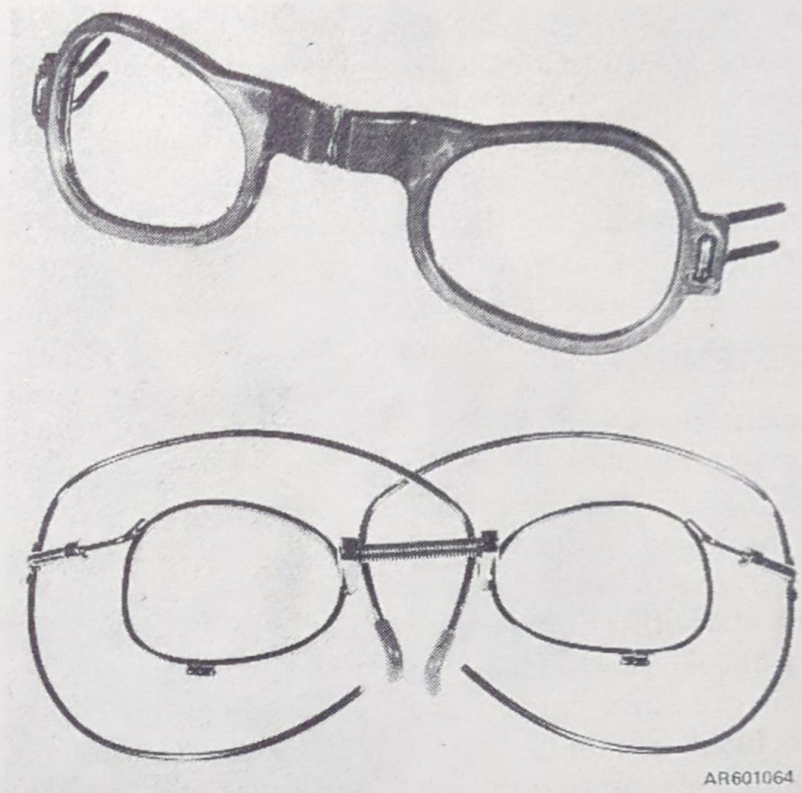


Figure 1-3. Optical inserts.

b. The hood is made of butyl-rubber-coated nylon cloth. It is powdered with talc during manufacture to prevent its surfaces from sticking together. Remove the talc from the hood with a clean dry rag prior to installation on mask. Openings in the front of the hood fit around the mask's eyerings, inlet valves, and voicemitter-outlet valve. A neck cord with slider holds the hood snug around the neck. A zipper in the bib portion of the cap provides a means for ventilating the wearer's neck. Two adjustable underarm straps on the cape of the hood hold the hood in position on the shoulders. Hook and pile fastener tape, at the end of each underarm strap (on the underside) and on the bottom edge of the bib portion of cape, fasten the underarm straps. For arctic use the cape (except for the bib portion) must be cut or torn away from the hood to make the hood compatible with standard cold-weather clothing. The hood is stowed on the mask so that the mask with hood will be ready for instant use. The hood can be used with a winterized mask.

NOTE

Units, such as MP units, which have a riot

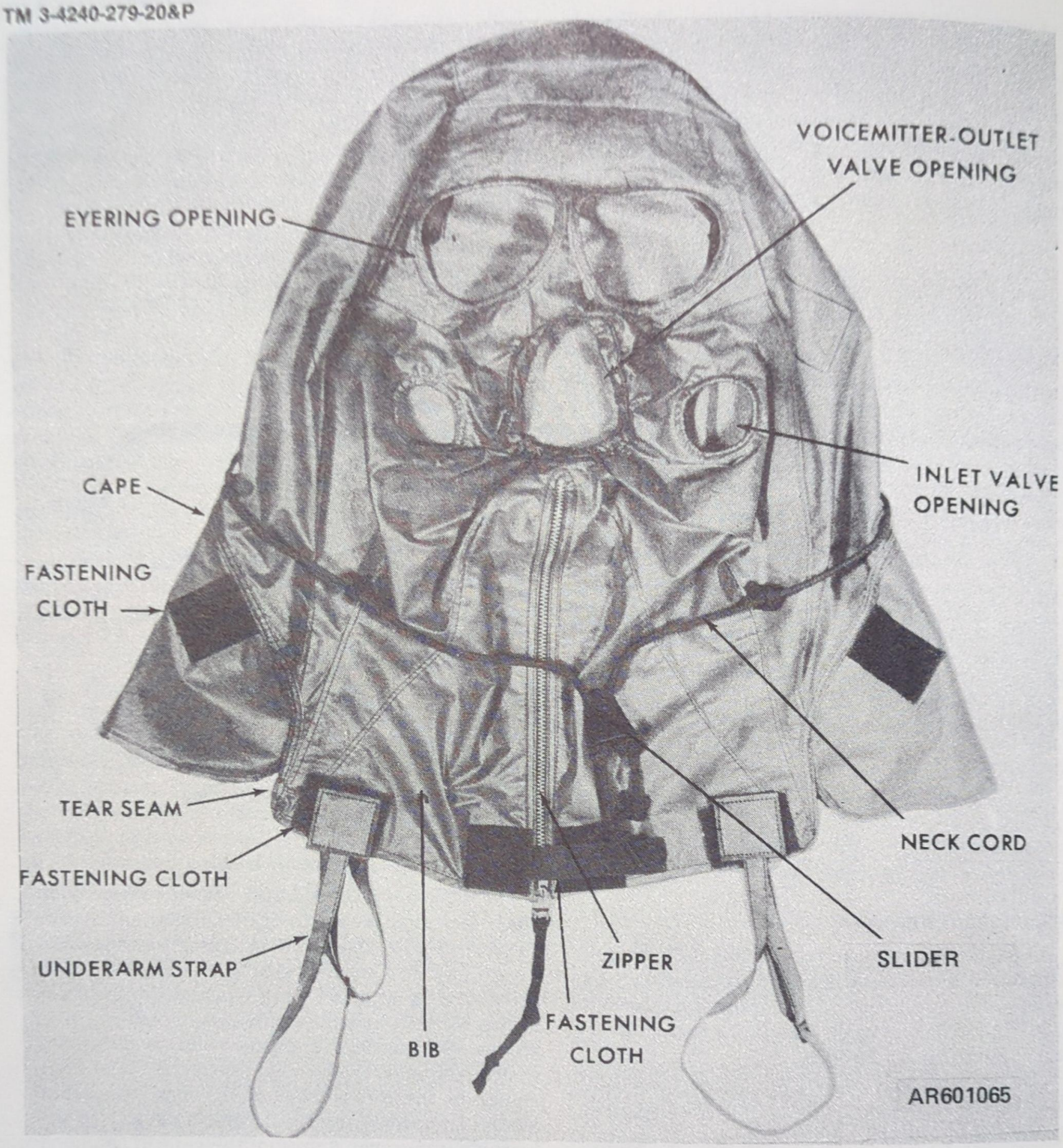


Figure 1-4. ABC-M6A2 field CB mask hood.

control function as part of their primary mission, may store the hood disassembled from the mask, unless directed otherwise.

1-12. ABC-M4 Field CB Mask Winterization Kit.

a. The ABC-M4 kit (fig. 1-5) consists of an ice particle prefilter and two packets of winterization valve disks. It shall be attached to the mask to prevent frost from accumulating on the inlet valves when the mask is worn in temperatures of minus 20° F. If environmental conditions make its use necessary.

b. The ice particle prefilter is made of two pieces of cloth. One piece of cloth is cotton duck; the other is knitted nylon fleece. The two pieces are sewed together to form a pocket and two cheek flaps; hook and pile fastener tape is used to fasten the pocket and cheek flaps. Three taps serve as grips to unfasten the pocket and cheek flaps. Two openings in the cotton-duck material, two plastic retainers, and a length of cotton tape keep the prefilter in position

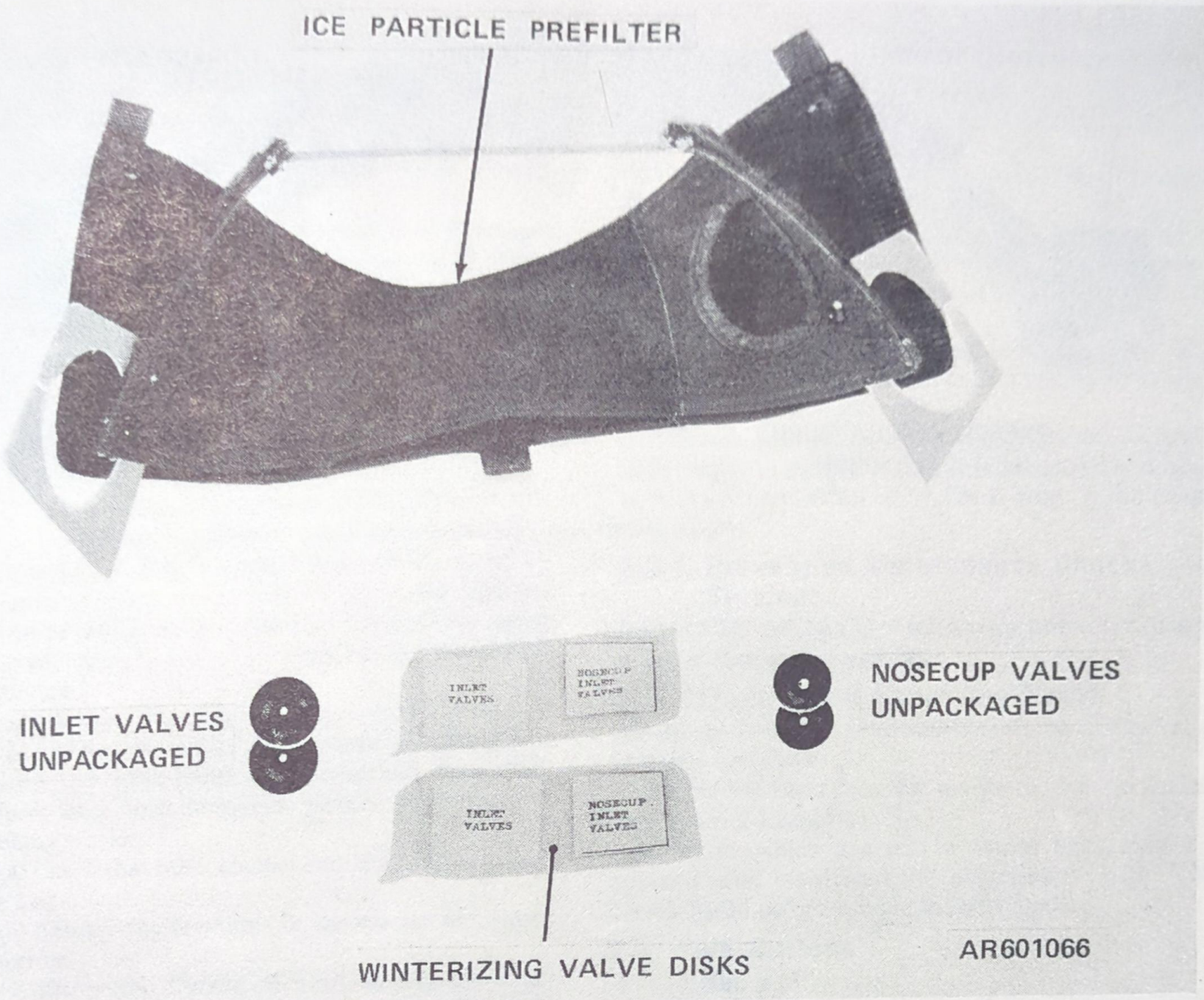


Figure 1-5. ABC-M4 field CB mask winterization kit.

on the mask. The openings and retainers fit around the inlet valves, and the cotton tape fits over the top of the voicemitter-outlet valve cover. The cheek flaps cover the inlet valves. (The prefilter can be worn over the hood when the hood is assembled to the mask.) Each packet contains two inlet valve disks and two nosecup valve disks. The disks are made from a special rubber compound to withstand the effects of extreme cold.

1-13. M1 Resuscitation Tube (M17A1 mask only)

a. The M1 resuscitation tube (fig. 1-6) is used with the M17A1 mask. The wearer can perform mask-to-mouth resuscitation in a toxic atmosphere at temperatures above 0 degrees F. It has been tested and is effective in all temperatures between 0 and 100 degrees F.

b. The flexible corrugated-rubber tube can be stretched to approximately 20 inches. A plastic outlet valve coupling and a rubber resuscitation mouthpiece are attached to the ends of the tube. The outlet valve coupling has an adjusting screw, preformed packing (**O**-ring), and a flange. Turning the adjusting screw causes the preformed packing to expand or retract as required to adjust the outlet valve coupling. The flange serves as a stop to prevent the outlet valve from penetrating too far into the outlet valve well when the coupling is inserted.

1-14. M1A1 CB Mask Waterproof Bag

The M1A1 waterproof bag (fig. 1-7) will keep the mask dry and protect the filter elements from damage by water. The plastic waterproof bag has a roll-down snap-fastened closure at the top. A flat sleeve is issued with the bag.

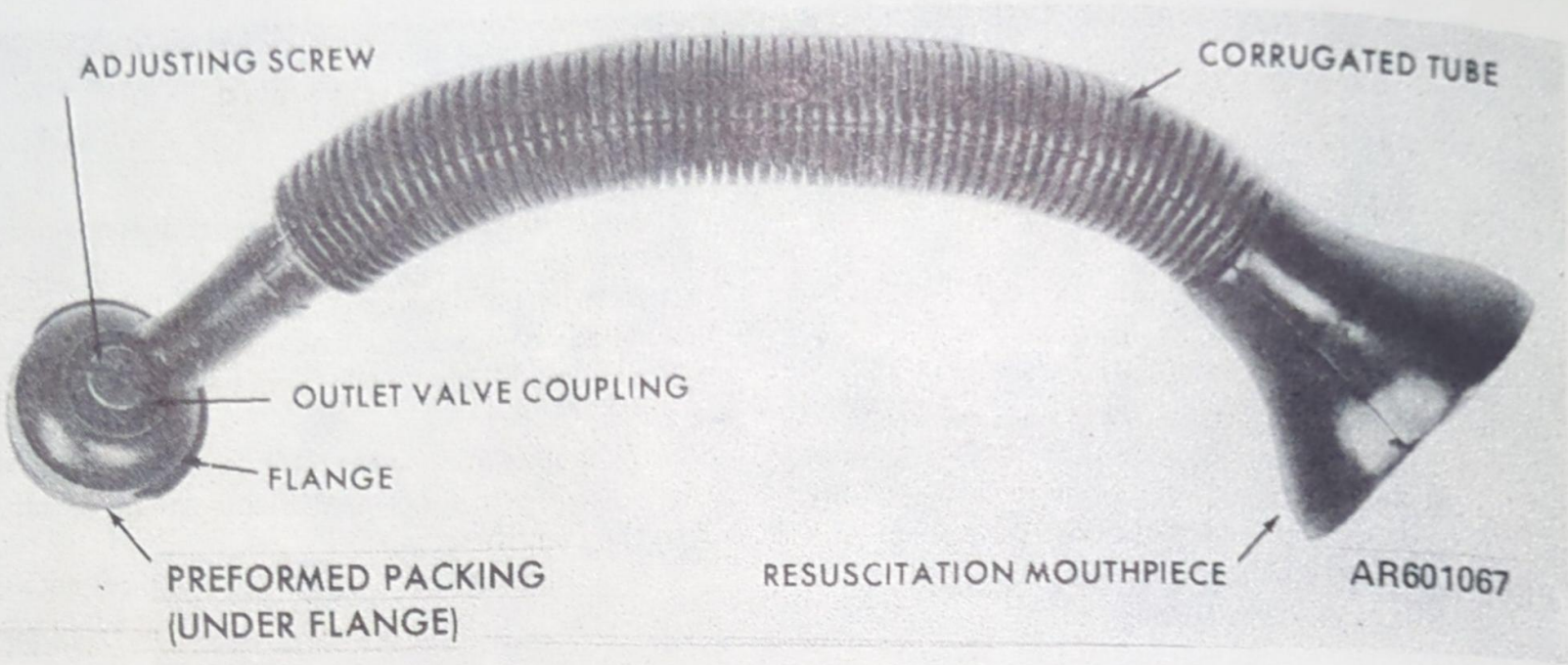


Figure 1-6. M1 resuscitation tube.

CHAPTER 2
ORGANIZATIONAL MAINTENANCE INSTRUCTIONS

2-1. Service Upon Receipt of New Equipment

a. General. Ten masks are packed in a fiberboard box. The approximate weight and cubage of the fiberboard pack are 46 pounds and 3.3 cubic feet. The fiberboard box may be packed in a cleated plywood box. Two cleated box fasteners secure the top of the box at each side; one cleated box fastener secures each end of the box. The approximate weight and cubage of the plywood pack are 66 pounds and 4.0 cubic feet.

b. Unpacking.

(1) If the masks are overpacked in a plywood box, remove the cleated box fasteners and lift off the top of the plywood box. Retain top and fasteners for use if it's necessary to reship the masks. To insure the plywood box will be available for storage and for possible reuse, a note advising the unit to save the box is stenciled inside its top.

(2) Open the fiberboard box and remove masks.

(3) Open each carrier and remove the facepiece. Remove the heat-sealed vapor-barrier bag and faceform from each facepiece. Retain faceforms for repacking masks.

(4) Check that other components are in the carrier (para 1-8).

(5) Replace the facepiece in the carrier and close the carrier.

(6) Either the fiberboard boxes or the plywood boxes may be stacked on their sides to form a bank of storage cells. When fiberboard boxes are used, they should not be stacked more than three high. Each storage cell may be marked (para 2-3) to designate the individual whose mask is to be stored in it.

2-2. Service Upon Receipt of Depot-Overhauled Equipment

a. General. Each depot-overhauled mask may be in a heat-sealed vapor barrier bag or a sealed polyethylene bag. Masks will be packed in compartmented fiberboard boxes containing from one to ten masks depending on quantity to be shipped. For overseas shipment, masks may be overpacked in plywood boxes.

b. Unpacking. Unpack masks the same as paragraph 2-1 above.

2-3. Identifying an Individual's Mask

a. Although a mask will be used only by the individual to whom it is issued and fitted, do not make permanent identification markings on either the mask or carrier (AR 700-84). Attach a removable tape or a tag to the carrier. The tape or the tag may be marked with the individual's name or a code number for identification purposes. The date the mask was tested and fitted to the individual may be used as part of the identification code.

b. Each unit will devise its own code. Take care not to include any designations that may identify the parent organization. The code should not be similar to the code of a neighboring unit.

c. If the unit masks are stored in a permanent shipping-storage box, its compartments should be labeled with the identification code.

d. If permanent shipping-storage boxes are not available, masks in unit storage should be tagged and hung by the shoulder strap or by the D-ring on the chape strap.

2-3.1 Preventive Maintenance Checks and Services

Refer to TM 3-4240-279-10 for weekly preventive maintenance checks and services.

2-4. Cleaning and Sanitizing Masks

All masks issued to individuals must be cleaned and properly sanitized.

a. This has been done for masks received in sealed bags (para 2-1 and 2-2).

b. Masks which are not in sealed bags must be cleaned and sanitized in accordance with TM 3-4240-279-10 before reissue to individuals.

2-5. Flap Buttons

(fig. B-1)

a. Removal. Remove damaged flap button from mask. To remove button, lift nosecup and flap off button. Bottom of button, next to filter element, is larger than other end. Grasp bottom of button (large end) and pull small end through hole in flap of pouch.

b. Replacement.

(1) Install short button in hole nearest outer edge of mask. Using one finger to support bottom of button, force button head through hole so that base of button is inside pouch and head protrudes into cavity of mask.

(2) Install long button in hole nearest the voicemitter in the same manner [(1) and above].

(3) Button pouch flap and fasten down nosecup.

2-6. Temple Pins

(fig. B-1)

a. Removal. If damaged temple pin remains in position between lugs, remove it.

b. Replacement.

(1) Moisten new temple pin with water.

(2) Starting from above or below lugs molded in the faceblank, thread tail of pin through hole in one lug. Grasp protruding portion of tail and pull one knob of pin through the hole. Thread tail through second hole

and pull knob through that hole as well.

(3) Cut off tail.

2-7. Quick-Disconnect Coupling Half and Voicemitter-Outlet Valve Cover

(fig. B-1)

a. Removal.

(1) (M17A1 mask only) Remove quick-disconnect coupling half and hose from pocket and channel in the voicemitter-outlet valve cover.

(2) Grasp tab at bottom of cover and lift bottom portion of cover from outlet valve.

(3) Pull sides of cover away from crimping ring (fig. B-1) until cover is detached from studs that hold cover in place.

(4) Pull upper portion of cover from beneath flange around voicemitter-outlet valve assembly.

(5) (M17A1 mask only) Remove quick-disconnect coupling half from the adapter (fig. B-1) on voicemitter-outlet valve frame.

(6) (M17A1 mask only) Grasp hose on quick-disconnect coupling half near coupling and pull coupling half from cover.

(7) (M17A1 mask only) Remove voicemitter-outlet valve cover from lever on valve.

b. Replacement.

(1) (M17A1 mask only) Dip hose end opposite quick-disconnect coupling half in water to moisten it.

(2) (M17A1 mask only) Pull free end of hose through open in channel at top of voicemitter-outlet valve cover. (This opening cannot be seen from front of cover.)

(3) (M17A1 mask only) Attach hose to adapter.

(4) Fit cover over voicemitter-outlet valve.

(5) Make sure (M17A1 mask only) that any excess length of hose has been pulled from beneath cover.

(6) Fit openings at sides of cover over studs.

(7) Grasp tap at bottom of cover and pull bottom portion of cover over bottom of voicemitter-outlet valve assembly.

(8) Fit edge of cover behind crimping ring.

(9) (M17A1 mask only) Int coupcoupling in pocket and press hose into channel.

2-8. Clip and Buckle Assembly

(fig. B-1)

a. Removal.

(1) Straighten fingers of clip by bending them backward with screwdriver or similar tool.

(2) Withdraw and discard defective clip buckle assembly.

b. Replacement.

CAUTION

No lubricant other than water may be used when placing the clip and buckle assembly.

(1) Moisten fingers of new clip with water. Press fingers of clip through holes molded in the faceblank tab until ends of bent portions of fingers emerge from rubber. (New clip buckles are issued with fingers of clip bent in their use positions.)

(2) Release pressure and pull back on clip so that fingers fully engage tab.

NOTE

If tab is damaged, do not install a new clip buckle. Turn the mask in.

2-9. Head Harness

(fig. B-1)

a. Removal. Remove head harness by releasing straps from buckles or by cutting straps.

b. Replacement.

(1) Position harness in facepiece so that each strap is next to the buckle to which it will be attached. The elastic webbing that joins the two forehead straps may be either over or under straps.

(2) Thread end of each strap through buckle by inserting clinch tip at an angle. (Clinch tips are wider than buckle openings.) Pass each strap through corresponding buckle from beneath buckle and through opening nearest the facepiece. Then pass strap back over buckle bar and through other opening.

(3) Pull straps through buckles about 1 inch.

(4) Check head harness by stretching head-harness pad to see that all straps are under equal tension.

2-10. Carrier

(fig. B-3)

a. Accessories and Components. Remove and retain authorized items from unserviceable carrier. The carrier is considered to be unserviceable if any hardware is missing, straps are loose, or there are rips or tears in the fabric.

b. Replacement.

(1) Inspect replacement carrier in accordance with *a* above. Be sure that it's clean inside and out. Pass a hand over all inside surfaces to detect any imperfections that might damage mask.

(2) Place authorized items into pockets of carrier.

(3) Stow mask in carrier.

(4) Snap carrier closed.

NOTE

If the replacement carrier is a M15A1 it will be marked M17A1 Mask. If the mask is M17, the A1 portion of the marking on the carrier shall be blocked out using "Ink, marking, stencil opaque color black, No. 37038, Fed Spec TT-I-1795A, Type II."

CHAPTER 3
SHIPMENT AND STORAGE

Section I. SHIPMENT

3-1. New Equipment

New equipment is packaged for shipment as described in paragraph 2-1.

3-2. Depot-Overhauled Equipment

Depot-overhauled equipment is packaged for shipment as described in paragraph 2-2.

Section II. STORAGE

3-3. Storage by Using Unit

Either the fiberboard boxes or the plywood boxes may be used for unit storage by stacking them on their sides to form a bank of storage cells. Fiberboard boxes should not be stacked more than three high. Each storage cell may be marked (para 2-3) to designate the individual whose mask is to be stored in it. When the unit displaces, the individual may carry his own mask, or the masks may be moved in groups stowed in boxes, depending upon the commander's decision.

3-4. Storage by Individual

When a mask is stored by an individual, it will be stored in its carrier in a cool dry place, free from outside pressure. It is preferable to hang the carrier either by the shoulder strap or by the D-ring on the short strap on top of the carrier. The shoulder straps may be stowed in the upper pocket and the waist strap in the bottom pocket or both straps may be hooked to the D-ring by their snap hooks. Stow straps as directed by the local commander.

APPENDIX A
REFERENCES

AR 40-3	Medical, Dental and Veterinary Care
AR 700-84	Issue and Sale of Personal Clothing
CTA 50-970	Expendable Items (Except: Medical, Class V, Repair Parts and Heraldic Items)
SB 3-30-2	Chemical-Biological Canisters and Filter Elements: Serviceability Lists
SB 708-42	Federal Supply Code for Manufacturers
TB MED 223	Respiratory Protective Devices
TM 3-4240-279-10	Operator's Manual: Mask, Chemical-Biological: Field, ABC-M17/M17A1 and Accessories
TM 38-750	The Army Maintenance Management System (TAMMS)
TM 740-90-1	Administrative storage of Equipment
TM 43-0002-31	Destruction of Chemical Weapons and Defense Equipment to Prevent Enemy Use

APPENDIX B

ORGANIZATIONAL MAINTENANCE REPAIR PARTS AND SPECIAL TOOLS LIST

Section I. INTRODUCTION

B-1. Scope

This appendix lists repair parts; special tools, test, measurement, and diagnostic equipment (TMDE); and other support equipment required for operation and performance of organizational maintenance of the M17 and M17A1 Masks.

B-2. General

This Repair Parts and Special Tools List is divided into the following sections:

a. Section II — Repair Parts List. A list of repair parts authorized for use in the performance of maintenance. The list also includes parts which must be removed for replacement of the authorized parts. Parts lists are composed of functional groups in ascending numerical sequence, with the parts in each group listed in figure and item number sequence. Bulk materials are listed in NSN sequence.

b. Section III — Special Tools List. Not Applicable.

c. Section IV — National Stock Number and Part Number Index. A list, in ascending numerical sequence, of all national stock numbers appearing in the listings, followed by a list, in alphameric sequence, of all part numbers appearing in the listings. National stock numbers and part numbers are cross-referenced to each illustration figure and item number appearance. This index is followed by a cross-reference list of reference designations to figure and item numbers when applicable.

B-3. Explanation of Columns

The following provides an explanation of columns found in the tabular listings:

a. Illustration. This column is divided as follows:

(1) *Figure Number.* Indicates the figure number of the illustration in which the item is shown.

(2) *Item Number.* The number used to identify each item called out in the illustration.

b. Source, Maintenance, and Recoverability Codes (SMR).

(1) *Source Code.* Source codes are assigned to support items to indicate the manner of acquiring support items for maintenance, repair, or overhaul of end items. Source codes are entered in the first and second positions of the Uniform SMR Code format as follows:

Code	*Definition*
PA	Item procured and stocked for anticipated or known usage.

NOTE

Cannibalization or salvage may be used as a source of supply for any items source coded above.

(2) *Maintenance Code.* Maintenance codes are assigned to indicate the levels of maintenance authorized to USE and REPAIR support items. The maintenance codes are entered in the third and fourth positions of the Uniform SMR Code format as follows:

(*a*) The maintenance code entered in the third position will indicate the lowest maintenance level authorized to remove, replace, and use the support item. The maintenance code entered in the third position will indicate one of the following levels of maintenance:

Code	*Application/Explanation*
C	Crew or operator maintenance performed within organizational maintenance.
O	Support item is removed, replaced, used at the organizational level.

(*b*) The maintenance code entered in the fourth position indicates whether the item is to be repaired and identifies the lowest maintenance level with the capability to perform complete repair (i.e., all authorized maintenance functions). This position will contain one of the following maintenance codes:

Code	*Application/Explanation*
Z	Nonreparable. No repair is authorized.

(3) *Recoverability Code.* Recoverability codes are assigned to support items to indicate the disposition action on unserviceable items. The recoverability code is entered in the fifth position of the Uniform SMR Code format as follows:

Recoverability Code	*Definition*
Z	Nonreparable item. When unserviceable, condemn and dispose at the level indicated in position 3.

c. National Stock Number. Indicates the national stock number assigned to the item and will be used for requisitioning purposes.

d. Part Number. Indicates the primary number used by the manufacturer (individual, company, firm, corporation, or Government activity), which controls the design and characteristics of the item by means of its engineering drawings, specifications standards, and inspection requirements, to identify an item or range of items.

NOTE

When a stock number item is requisitioned, the repair part received may have a different part number than the part being replaced.

e. Federal Supply Code for Manufacturer (FSCM). The FSCM is a 5-digit numeric code listed in SB 708-42 which is used to identify the manufacturer, distributor, or Government agency, etc.

f. Description. Indicates the Federal item name and, if required, a minimum description to identify the item.

g. Unit of Measure (U/M). Indicates the standard of the basic quantity of the listed item as used in performing the actual maintenance function. This measure is expressed by a two-character alphabetical abbreviation (e.g., ea, in., pr, etc.). When the unit of measure differs from the unit of issue, the lowest unit of issue that will satisfy the required units of measure will be requisitioned.

h. Quantity Furnished with Equipment. Not applicable.

i. Quantity Incorporated in Unit. Indicates the quantity of the item used in the breakout shown on the illustration figure, which is prepared for a functional group, subfunctional group, or an assembly.

B-4. Special Information

a. Usable on codes are shown in the description column. Uncoded items are applicable to all models. Identification of the usable on codes used in this publication are:

Code	Used On
A	Model M17
B	Model M17A1

b. Action change codes indicated in the left-hand margin of the listing page denote the following:

N — Indicates an added item

B-5. How to Locate Repair Parts

a. When National Stock Number or Part Number Is Unknown:

(1) *First.* Using the table of contents, determine the functional group within which the repair part belongs. This is necessary since illustrations are prepared for functional groups, and listings are divided into the same groups.

(2) *Second.* Find the illustration covering the functional group to which the repair part belongs.

(3) *Third.* Identify the repair part on the illustration and note the illustration figure and item number of the repair part.

(4) *Fourth.* Using the Repair Parts Listing, find the figure and item number noted on the illustration.

b. When National Stock Number or Part Number Is Known:

(1) *First.* Using the Index of National Stock Numbers and Part Numbers, find the pertinent national stock number or part number. This index is in ascending NSN sequence followed by a list of part numbers in ascending alphameric sequence, cross-referenced to the illustration figure number and item number.

(2) *Second.* After finding the figure and item number, locate the figure and item number in the repair parts list.

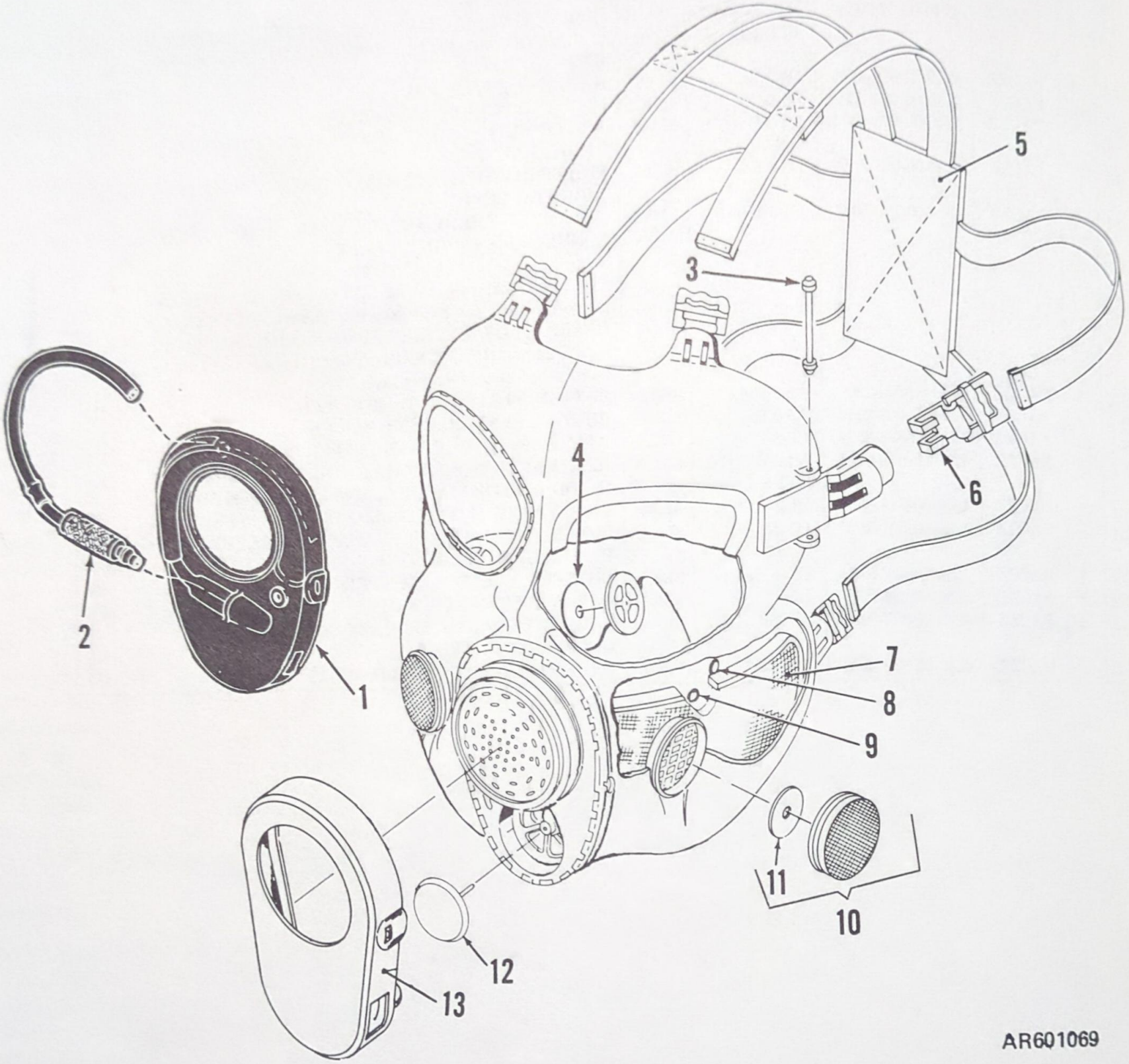
B-6. Abbreviations

Abbreviations	Explanation
bx	box
cn	can
se	set
stl	steel
lg	long
bg	bag

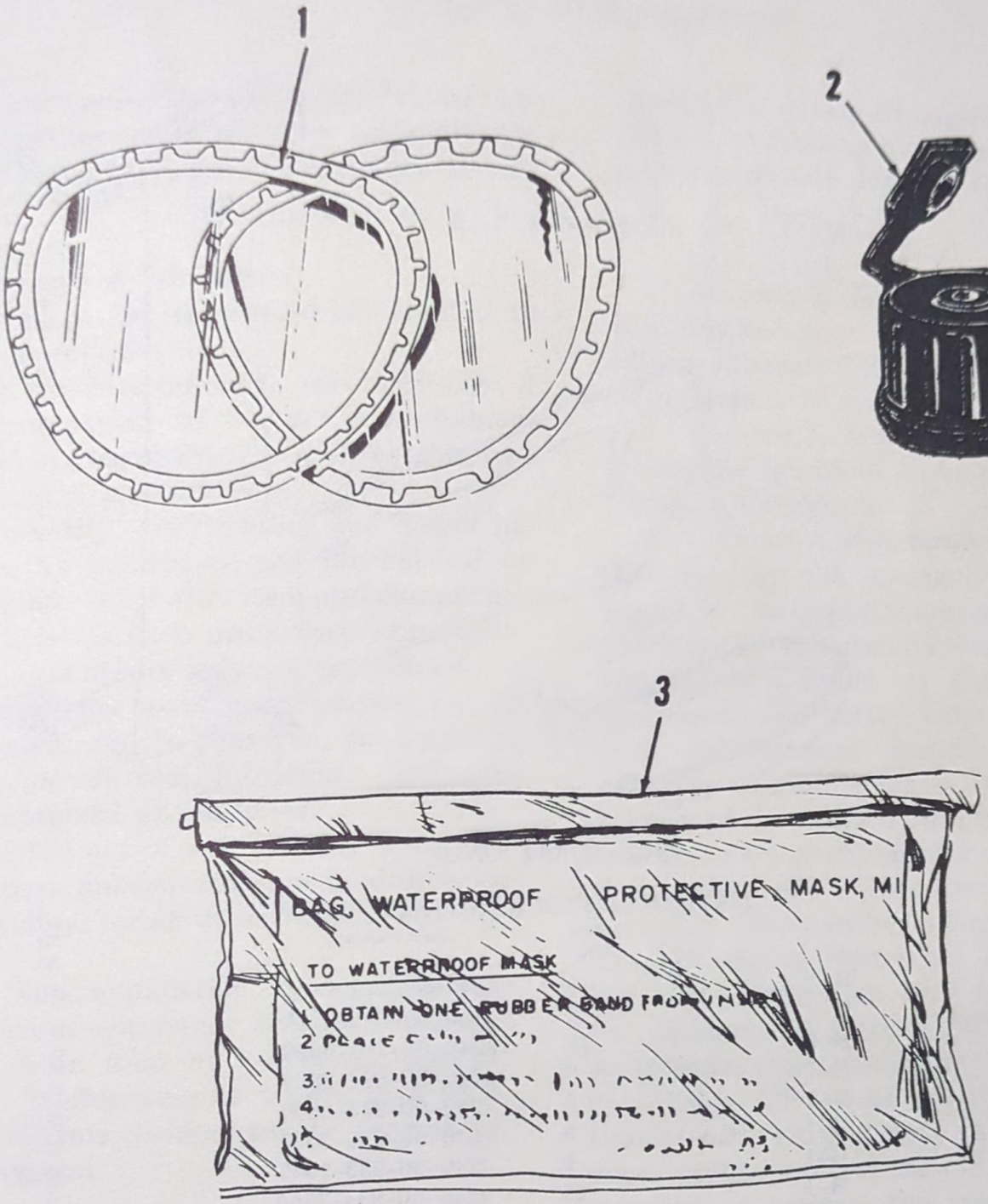
Section II. REPAIR PARTS LIST

	(1) Illus Fig. No.	(1) Illus Item No.	(2) SMR code	(3) National stock number (NSN)	(4) Part number	(5) FSCM	(6) Description	Usable On Code	(7) U/M	(8) Qty inc in unit
							GROUP: 0100 FACEPIECE			
	B-1	—			E5-1-553	81361	FACEPIECE ASSEMBLY	B		1
	B-1	—			E5-2-948	81361	FACEPIECE ASSEMBLY	A		1
N	B-1	1	PAOZZ	4240-00-903-3606	E5-81-113	81361	COVER, VOICEMITTER-OUTLET VALVE ASSEMBLY: C13R1, 2 PER BX	B	EA	1
N	B-1	2	PAOZZ	4730-00-903-4573	D5-81-114	81361	COUPLING HALF-QUICK DISCONNECT	B	EA	1

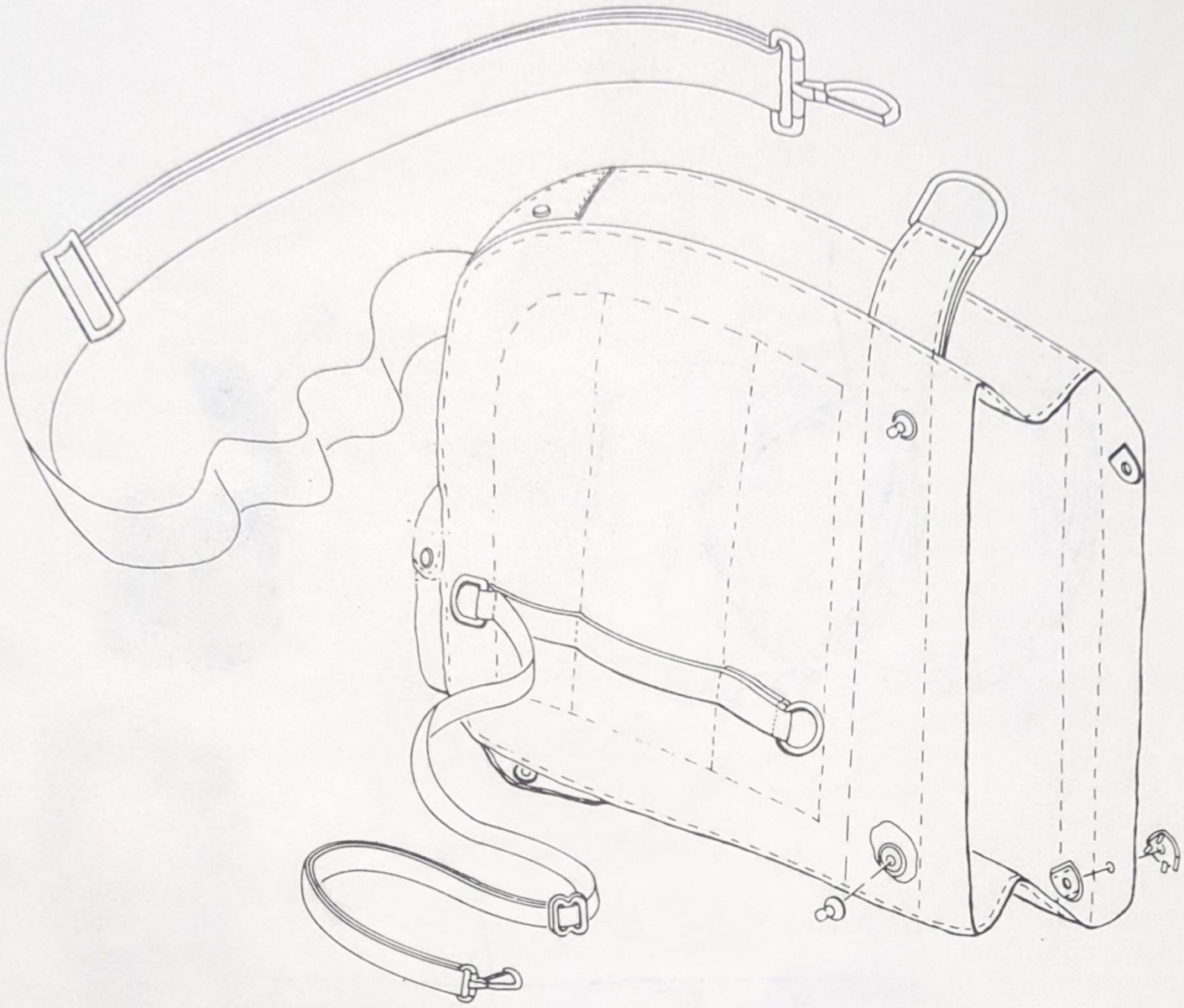
(1) Illus Fig. No.	(1) Illus Item No.	(2) SMR code	(3) National stock number (NSN)	(4) Part number	(5) FSCM	(6) Description Usable On Code	(7) U/M	(8) Qty inc in unit
B-1	3	PAOZZ	4240-00-602-2208	B5-2-965	81361	PIN, TEMPLE: 50 PER BX	EA	2
B-1	4	PACZZ	4240-00-678-0729	MIL-D-50082 TYPE II	81349	DISK, VALVE, NONMETALLIC: NOSECUP, RUBBER, 0.875 IN. OD, 0.100 IN. DIA HOSE, 0.014 IN. THK 100 PER BAG	EA	2
			4240-00-690-8765	D5-2-762	81361	HARNESS, HEAD: C8R1	EA	1
B-1	5	PAOZZ	4240-00-602-2207	B5-2-962	81361	CLIP AND BUCKLE ASSEMBLY	EA	6
B-1	6	PAOZZ	4240-00-678-8474	MIL-F-50078	81349	FILTER ELEMENT SET, M13 (BLACK CONNECTOR), 1 RIGHT, 1 LEFT	SE	1
B-1	7	PACZZ	4240-00-934-7854	D5-3-921	81361	FILTER ELEMENT SET, M13A1 (BLACK CONNECTOR), 1 RIGHT, 1 LEFT	SE	1
B-1	7	PACZZ	4240-00-165-5026	D5-3-1000	81361	*FILTER ELEMENT SET, CB MASK, M13A2 (GREEN CONNECTOR), 1 RIGHT, 1 LEFT	SE	1
						*NOTE Two additional sets of the M13A2 Filter Elements are authorized for each mask issued to elements of USARAL, USARPAC, USAREUR, USARSO, and the Joint Readiness Command (USREDCOM). These filter elements are to be retained at unit supply level.		
B-1	8	PAOZZ	4240-00-602-2209	A5-2-956	81361	BUTTON, FLAP, SHORT: 100 PER CN	EA	2
B-1	9	PAOZZ	4240-00-602-2210	A5-2-955	81361	BUTTON, FLAP, LONG: 100 PER CN	EA	2
B-1	10	PACZZ	4240-00-893-3697	C5-2-1014	81361	VALVE, INLET, CBR MASK: 10 PER CN	EA	2
B-1	11	PACZZ	4240-00-678-0728	MIL-D-50082 TYPE I	81349	DISK, VALVE, NONMETALLIC, INLET RUBBER, 0.938 IN., OD, 0.100 IN. DIA HOLE, 0.010 IN. THK, 100 PER BG	EA	1
			4240-00-712-6090	B5-2-1006	81361	DISK, VALVE, NONMETALLIC: OUTLET, 10 PER CN	EA	1
B-1	12	PACZZ	4240-00-591-5170	D5-2-954	81361	COVER, VOICEMITTER: OUTLET A VALVE, C13, 2 PER BX GROUP: 0200 COMPONENTS	EA	2
B-1	13	PAOZZ			81361	OUTSERT, EYELENS, M1 2 PER BG	EA	1
B-2	1	PACZZ	4240-00-678-0731	C5-2-998	81361	CAP, WATER CANTEEN: M1 B		
B-2	2	PACZZ	4240-00-930-2077	D5-81-139	81349	BAG, WATERPROOF, CB MASK: M1	EA	1
B-3	3	PACZZ	4240-00-377-9401	MIL-B-51170	81361	GROUP: 0300 CARRIER	EA	1
B-3	1	PAOZZ	4240-00-933-2533	E5-4-400		CARRIER, CB MASK: FIELD, M15A1		



B-1. ABC-M17/M17A1 mask facepiece.



B-2. ABC-M17/M17A1 components.



B-3. M15A1 carrier.

NATIONAL STOCK NUMBER INDEX

Stock Number	Fig. No.	Item No.
4240-00-165-5026	B-1	7
4240-00-377-9401	B-2	3
4240-00-591-5170	B-1	13
4240-00-602-2207	B-1	6
4240-00-602-2208	B-1	3
4240-00-602-2209	B-1	8
4240-00-602-2210	B-1	9
4240-00-678-0728	B-1	11
4240-00-678-0729	B-1	4
4240-00-678-0731	B-2	1
4240-00-678-8474	B-1	7
4240-00-690-8765	B-1	5
4240-00-712-6090	B-1	12
4240-00-893-3697	B-1	10
4240-00-903-3606	B-1	1
4240-00-930-2077	B-2	2
4240-00-933-2533	B-3	1
4240-00-934-7854	B-1	7
4730-00-903-4573	B-1	2

PART NUMBER INDEX

Part No.	FSCM	Fig. No.	Item No.
A5-2-955	81361	B-1	9
A5-2-956	81361	B-1	8
B5-2-962	81361	B-1	6
B5-2-965	81361	B-1	3
B5-2-1006	81361	B-1	12
C5-2-998	81361	B-2	1
C5-2-1014	81361	B-1	10
D5-2-762	81361	B-1	5
D5-2-954	81361	B-1	13
D5-3-921	81361	B-1	7
D5-3-1000	81361	B-1	7
D5-81-114	81361	B-1	2
D5-81-139	81361	B-2	2
E5-1-553	81361	B-1	-
E5-2-948	81361	B-1	-
E5-4-100	81361	B-3	1
E5-81-113	81361	B-1	1
MIL-F-50078	81349	B-1	7
MIL-D-50082 Type I	81361	B-1	11
MIL-D-50082 Type II	81349	B-1	4
MIL-B-51170	81349	B-2	3

APPENDIX C

MAINTENANCE ALLOCATION CHART

Section I. INTRODUCTION

C-1. General

The maintenance allocation chart (sec II) lists the authorized maintenance functions assigned the maintenance categories for maintenance of the Mask, Chemical, Biological, M17/M17A1. This chart is to be used by all levels of maintenance to insure complete support of the equipment.

Section II. EXPLANATION OF COLUMNS

C-2. Maintenance Functions

Maintenance functions authorized are limited to and defined as follows:

a. Inspect. To determine the serviceability of an item by comparing its physical, mechanical and/or electrical characteristics with established standards through examination.

b. Test. To verify serviceability and detect incipient failure by measuring the mechanical or electrical characteristics of an item and comparing those characteristics with prescribed standards.

c. Service. Operations required periodically to keep an item in proper operating condition, i.e., to clean (decontaminate), to preserve, to drain, to paint, or to replenish fuel, lubricants, hydraulic fluids, or compressed air supplies.

d. Replace. The act of substituting a serviceable like type part, subassembly, or module (component or assembly) for an unserviceable counterpart.

e. Repair. The application of maintenance services or other maintenance actions to restore serviceability to an item by correcting specific damage, fault, malfunction or failure in a part, subassembly, module (component or assembly), end item, or system.

C-3. Column Entries

a. Column 1, Group Number. Column 1 lists group numbers, the purpose of which is to identify components, assemblies, subassemblies, and modules with the next higher assembly.

b. Column 2, Component/Assembly. Column 2 contains the noun names of components, assemblies, subassemblies, and modules for which maintenance is authorized.

c. Column 3, Maintenance Functions. Column 3 lists the functions to be performed on the item listed in Column 2.

d. Column 4, Maintenance Category. Column 4 specifies, by the listing of a "worktime" (WT) figure in the appropriate subcolumn(s), the lowest level of maintenance authorized to perform the function listed on Column 3. This figure represents the active time required to perform that maintenance function at the indicated category of maintenance. If the number or complexity of the tasks within the listed maintenance function vary at different maintenance categories, appropriate WT figures will be shown for each category. The number of man-hours specified by the WT figure represents the average time required to restore an item (assembly, subassembly, component, module end item or system) to a serviceable condition under typical field operating conditions. This time includes preparation time, troubleshooting time, and quality assurance/quality control time in addition to the time required to perform the specific tasks identified for the maintenance functions authorized in the maintenance allocation chart. This time will be expressed in man-hours (MH) and carried to one decimal place (tenths of hours).

MAINTENANCE ALLOCATION CHART
for
M17 and M17A1 MASKS

(1)	(2)	(3)	(4)					(5)
Group number	Component/Assembly	Maintenance function	Maintenance category*					Tools and equipment
			C	O	F	H	D	
0100	FACE PIECE Facepiece Assembly	Inspect Service Repair	0.2 0.4 * * *					

(1) Group number	(2) Component/Assembly	(3) Maintenance Function	(4) Maintenance category* C	O	F	H	D	(5) Tools and equipment
		Overhaul	0.1	0.5			* *	
	Voicemitter-Outlet Valve Assembly	Inspect	0.1				* *	
		Test					* *	
		Replace					* *	
		Repair (M17A1 only)						
	Nose Cup Assembly C10	Inspect	0.1				* *	
		Replace						
0200	COMPONENTS Composed of:	Inspect	0.1					
		Replace	0.1					
		Service	0.1					
	a. Bag, Waterproof, CB Mask, M1							
	b. Cap, Water Canteen (M17A1 only)							
	c. Eyelens, outserts							
0300	CARRIER	Inspect	0.1					
	Carrier, Full, CB Mask, M15A1	Replace		0.1				

* The subcolumns are as follows:
C — operator/crew
O — organizational
F — direct support
H — general support
D — depot

* * Indicates WT/MH required. Voicemitter-Outlet valve Assemblies, Nose cups, and Eyelens may be replaced by general support when authorized and work is performed in accordance with ARMCOM DMWR 3—4240—258—A1.

* * * Crew authorized replacement of filter elements valve disks, and inlet valves.

By Order of the Secretary of the Army:

FRED C. WEYAND
General, United States Army
Chief of Staff

Official:
VERNE L. BOWERS
Major General, United States Army
The Adjutant General

Distribution:
To be distributed in accordance with DA Form 12-28, (qty rqr block no. 434). Organizational maintenance requirements for Mask, Field.

U.S. GOVERNMENT PRINTING OFFICE : 1980 O - 318-277

RECOMMENDED CHANGES TO EQUIPMENT TECHNICAL MANUALS

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7th Infantry Division
Fort Ord, CA 93941

DATE

PUBLICATION NUMBER: TM 3-4240-279-20&P

DATE: June 1975

TITLE: Mask, Chemical-Biological: Field, ABC-M17/M17A1 and Accessories

BE EXACT. . .PIN-POINT WHERE IT IS

PAGE NO.	PARAGRAPH	FIGURE NO.	TABLE NO.
17	1-8f		
37	APP A		

IN THIS SPACE TELL WHAT IS WRONG AND WHAT SHOULD BE DONE ABOUT IT:

Delete "mildewproof" and substitute mildew resistant.
REASON: The cotton duck is not mildewproof, it is mildew resistant.

Add: "SB 3-30-2 Protective Mask Canister and Filter Element: Serviceability List"
REASON: This is the document that gives the latest serviceability status of filter elements.

SAMPLE

TYPED NAME, GRADE OR TITLE, AND TELEPHONE NUMBER
J. MORGAN, SFC, Chemical Corps

SIGN HERE:
J. Morgan, SFC

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