

1 MD 3031V22 INFLATABLE PFD INSPECT/ACCEPT

REFERENCES

MPC RSS583054.0

TOOLS/TEST EQUIPMENT:

NONE

EXPENDABLES:

Accessory Pocket, (selected):

Mustang Survival, Orange, P/N: MA6000, CAGE: 1CJ91, NIIN: 01HS21188, (2)

LSC Pro Lite Orange, P/N: 481-P, CAGE: 04CY8, NIIN: 01HS21153, (2)

Nylon Cord, Type I, P/N: MIL-C-5040, CAGE: 81349, NIIN: 002402154

CONSUMABLES:

Marker, Permanent, P/N: 7520-00-973-1059, CAGE: 83421, NIIN: 009731059

A INSPECT PFD

1. Apply locally generated serial number to the PFD on the yellow portion of the right inflation cell using permanent marker, P/N: 7520-00-973-1059, (Refer to Figure 1).
2. Attach an accessory pocket, P/N: (see expendables list), to each side of the PFD waist strap, (Refer to Figure 1).
3. Inspect PFD, (Refer to Item 3, Step 3 A of this MPC).
4. Function test PFD, (Comply with Item 4 of this MPC).

B ATTACH SURVIVAL EQUIPMENT

1. Select appropriate survival equipment to be attached to the rescue pouches, (Refer to MPC RSS583054.0).
2. Inspect all selected survival equipment to be attached to the rescue pouch, (Refer to MPC RSS583054.0).

NOTE: Finished length of line from knot to knot shall be 36-inches or greater.

3. Attach the following survival equipment to the designated accessory pocket using a 42-inch length of Type I nylon cord, P/N: MIL-C-5040, secured with a bowline and overhand knot on each end, (Refer to Figure 2):



NOTE: Sirius LED strobe lights are furnished with a manufacturer installed 42 inch lanyard. The manufacturer installed lanyard is acceptable for use until no longer serviceable.

- a. Attach strobe light to right accessory pocket.
- b. Attach signal whistle to right accessory pocket.
- c. Attach signal mirror to right accessory pocket.

NOTE: Previously purchased McMurdo Fastfind and Fastfind Plus 406 MHz Personal Locator Beacon's shall remain in service until they are no longer serviceable.

- d. Attach Personal Locator Beacon (PLB) to left accessory pocket.
 - e. Attach survival knife to survival knife pouch of the right accessory pocket.
 - f. Attach MK-79 Personal Distress Kit to the right accessory pocket.
4. Attach the MK-124 Smoke and Illumination Signal as follows:
- a. Attach an 80-inch length of Type I nylon cord to the MK-124 with two surgeon's knots, (Refer to Figure 3).
- NOTE: Finished length of line from knot to knot shall be 36-inches or greater.*
- b. Attach the opposite end of the Type I nylon cord to the right accessory pocket using a bowline with an overhand knot.
5. Document acceptance and any discrepancies in the MD3031v22 Maintenance Log.



2 MONTHLY MD3031V22 CHEMICAL BOBBIN REPLACE

REFERENCES:

NONE

TOOLS/TEST EQUIPMENT:

Scale, P/N: CS200, CAGE: 85973, NIIN: 015148863, (or equivalent) (If required)

EXPENDABLES:

CO2 Cylinder, 33g, P/N: IC33SGL-00-000, CAGE: 63806, NIIN: 014872933, (If required)

Safety Pin, P/N: MA7159, CAGE: 1CJ91, (If required)

CONSUMABLES:

Actuator Bobbin, P/N: MA9210, CAGE: 1CJ91

A REPLACE

1. Lay out the PFD in a clean area, free from obstructions.
2. Open right PFD bladder to access inflator assembly.
3. Remove CO2 cylinder from inflator assembly.
 - a. Check CO2 cylinder primer for the following, (Refer to Figure 4):
 - (1) Punctured primer.
 - (2) Dents.
 - (3) Damage.

CAUTION

TO PREVENT ACCIDENTAL INFLATION OF THE MD3031V22,
DO NOT RE-INSTALL CO2 CYLINDER UNTIL THE CHEMICAL
BOBBIN REPLACEMENT IS COMPLETE.

CAUTION

ALL REPLACEMENT CO2 CYLINDERS SHALL BE WEIGHED
BEFORE INSTALLATION. DO NOT USE IF CYLINDER IS NOT
WITHIN 2 GRAMS OF ITS STAMPED WEIGHT.

- (4) Replace CO2 cylinder, P/N: IC33SGL-00-000, if any of the above discrepancies are noted.



CAUTION

**TO PREVENT ACCIDENTAL INFLATION OF THE MD3031V22,
ENSURE THE CO2 CYLINDER IS REMOVED BEFORE
REPLACING INFLATOR TABLET.**

4. Replace chemical bobbin as follows, (Refer to Figure 5):
 - a. Remove automatic capsule cap.
 - b. Remove bobbin.
 - c. Place new bobbin onto the spring loaded plunger.
 - d. Place the automatic capsule cap onto the inflator.
 - e. Tighten capsule cap until the green indicator shows at the bottom of the capsule cap.
5. Arm PFD as follows, (Refer to Figure 6):

CAUTION

**DO NOT OVER TIGHTENING THE CO2 CYLINDER. OVER
TIGHTENING WILL CAUSE DAMAGE TO THE INTERNAL
GASKET. TIGHTEN CO2 CYLINDER ONLY HAND TIGHT.**

- a. Install CO2 cylinder into the inflator assembly hand tight.
 - b. Check the following auto inflator armed indicators:
 - (1) Green indicator visible at bottom of capsule cap.
 - (a) Replace bobbin if green indicator is not visible.
 - (2) Green safety pin installed through inflator housing.
 - (a) Install safety pin, P/N: MA7159, if required.
6. Pack PFD, (Refer to Figure 7).
 7. Document inspection any discrepancies in the MD3031v22 Maintenance Log.



3 SEMI-ANNUAL MD3031V22 INSPECT/LEAK TEST

REFERENCES:

MPC KB0107.0

TOOLS/TEST EQUIPMENT:

NONE

EXPENDABLES:

Accessory Pocket, (selected) (If required):

Mustang Survival, Orange, P/N: MA6000, CAGE: 1CJ91, NIIN: 01HS21188, (2)

LSC Pro Lite Orange, P/N: 481-P, CAGE: 04CY8, NIIN: 01HS21153, (2)

Life Preserver, P/N: MD3031v22, P/N: MD3031-22, CAGE: 1CJ91, (Discontinued)

CONSUMABLES:

Leak Test Compound, P/N: MIL-PRF-25567E, CAGE: 81349, NIIN: 006211820

Pad, Scouring, P/N: 7920-00-753-5242, CAGE: 80244, NIIN: 007535242 (If required)

A INSPECT PFD

1. Lay out the PFD in a clean area, free of obstructions.
2. Inspect PFD for the following:
 - a. Check PFD over its entire surface for the following:
 - (1) Cuts.
 - (2) Tears.
 - (3) Seam separation.
 - (4) Loose stitching.
 - b. Check the attached D-ring for the following:
 - (1) Corrosion.
 - (2) Damage.
 - (3) Security of attachment.
 - c. Check waist/chest buckles for proper operation.
 - d. Inspect required PFD markings for legibility.
 - e. Inspect reflective tape for the following:
 - (1) Wear.



- (2) Adhesion to PFD.
- f. Remove PFD from service if any above items are noted.
 - (1) Send PFD to repair facility, if repair cost does not exceed the replacement cost.
 - (2) Replace PFD if repair cost exceeds the replace cost.
3. Inspect PFD accessory pockets for the following:
 - a. Cuts.
 - b. Tears
 - c. Operability of slide fasteners.
 - d. Replace accessory pocket(s), P/N: (see expendables list), if any of the above discrepancies are noted.
4. Inspect unit serial number marking inside the right bladder cover for legibility.
 - a. Restore serial number marking, if required.
5. Remove CO2 cylinder from the inflator assembly.
6. Inspect inflator assembly components for the following:
 - a. Corrosion.
 - (1) Remove light using a scouring pad, P/N: 7920-00-753-5242.
 - b. Damage.
 - c. Cut or frayed manual inflation lanyard.
 - d. Presence of CO2 cylinder seating O-ring.
 - e. Remove PFD from service, if any discrepancies are noted.
 - (1) Send PFD to repair facility, if repair cost does not exceed the replacement cost.
 - (2) Replace PFD, if repair cost exceeds the replace cost.

B LEAK TEST PFD

NOTE: If functional test is due, perform the function test prior to conducting the leak test.

1. Manually inflate PFD as follows, (Refer to Figure 8):
 - a. Open left, right and back bladder covers.
 - b. Remove the dust cap from the oral inflation tube.
 - c. Inflate the PFD through the oral inflation tube until firm.

WARNING

AVOID EYE CONTACT, INHALATION, AND PROLONGED SKIN CONTACT WITH LEAK TEST COMPOUND. USE IN A WELL VENTILATED AREA. FAILURE TO COMPLY MAY RESULT IN PERSONAL INJURY.

2. Apply leak test compound, P/N: MIL-PRF-25567, to the following areas.



- a. Between inflator and bladder.
- b. Inflator cap nut area.

CAUTION

DO NOT SUBMERGE THE PFD IN WATER TO CHECK FOR LEAKS.

NOTE: If leaks are present, the leaking area will begin bubbling or foaming within five seconds and continues for about two minutes.

3. Inspect inflated PFD for signs of leakage.
4. Remove PFD from service, if leaks are found.
 - a. Send PFD to repair facility, if repair cost does not exceed the replacement cost.
 - b. Replace PFD if repair cost exceeds the replace cost.

NOTE: The PFD must be set aside, undisturbed, for two hours before proceeding.
5. Inspect PFD for signs of leakage or pressure loss after two hours.
 - a. Remove PFD from service if it shows loss of pressure.
 - (1) Send PFD to repair facility, if repair cost does not exceed the replacement cost.
 - (2) Replace PFD if repair cost exceeds the replace cost.

CAUTION

TO PREVENT DAMAGE TO THE PFD, DO NOT WRING OR TWIST IT WHILE DEFLATING.

6. Deflate the PFD by inverting the oral tube dust cap.
 - a. Gently squeeze the inflated bladder until all air is expelled.
7. Install CO2 cylinder into the inflation assembly.

CAUTION

DO NOT OVER TIGHTENING THE CO2 CYLINDER. OVER TIGHTENING WILL CAUSE DAMAGE TO THE INTERNAL GASKET. TIGHTEN CO2 CYLINDER ONLY HAND TIGHT.

- a. Tighten CO2 cylinder in the inflator hand tight.
8. Pack PFD, (Refer to Figure 7).

C INSPECT SURVIVAL EQUIPMENT

1. Inspect survival equipment, (Refer to MPC RSS583054.0).
2. Inspect lanyards attaching survival equipment to accessory pockets for the following:
 - a. Cuts or frays.

NOTE: Finished lanyard length shall be 42- inches or greater.
 - b. Correct length.



U.S. COAST GUARD
MAINTENANCE PROCEDURE CARD

RESCUE AND ASSISTANCE

RSS583032.0

REV'D: 02/14/12

- c. Security of lanyard attachment to equipment and pouch.
3. Replace or re-tie lanyards as required, (Refer to Item 1, Step 1 B).
4. Verify survival equipment is stowed in correct location, (Refer to Item 1, Step 1 B).
5. Document inspection and any discrepancies in the MD3031v22 Maintenance Log.



4 ANNUAL MD3031V22 FUNCTION TEST

REFERENCES:

NONE

TOOLS/TEST EQUIPMENT:

Scale, P/N: CS200, CAGE: 85973, NIIN: 015148863 (or equivalent)

Stopwatch, P/N: LCD-200, CAGE: 86582, NIIN: 011064303 (or equivalent)

EXPENDABLES:

CO2 Cylinder, 33g, P/N: IC33SGL-00-000, CAGE: 63806, NIIN: 014872933

Safety Pin, P/N: MA7159, CAGE: 1CJ91

CONSUMABLES:

NONE

A FUNCTION TEST

1. Lay out the PFD in a clean area, free of obstructions.
2. Pull the beaded inflation lanyard to actuate PFD inflation.
3. Verify PFD inflates to design shape within 30 seconds.

NOTE: Failure of the PFD to inflate correctly may be due to an improperly installed CO2 cylinder, or internal inflator malfunction.

- a. Check CO2 cylinder for condition, proper installation if PFD fails to inflate correctly within 30 seconds.
 - (1) Repeat PFD function, (Refer to Step 4 A 1. through 4 A 3.).
 - b. Remove PFD from service if cause of failure cannot be determined.
 - (1) Send PFD to repair facility, if repair cost does not exceed the replacement cost.
 - (2) Replace PFD if repair cost exceeds the replace cost.
4. Leak test inflated PFD, (Refer to Step 3 B).
5. Deflate the PFD by inverting the oral tube dust cap.
 - a. Gently squeeze the inflated bladder until all air is expelled.
6. Remove expended CO2 cylinder from inflator housing.
7. Reset manual inflation lever.
8. Install new green safety pin, P/N: MA7159.



CAUTION

ALL REPLACEMENT CO2 CYLINDERS SHALL BE WEIGHED BEFORE INSTALLATION. DO NOT USE IF CYLINDER IS NOT WITHIN 2 GRAMS OF ITS STAMPED WEIGHT.

CAUTION

DO NOT OVER TIGHTENING THE CO2 CYLINDER. OVER TIGHTENING WILL CAUSE DAMAGE TO THE INTERNAL GASKET. TIGHTEN CO2 CYLINDER ONLY HAND TIGHT.

9. Install new CO2 Cylinder, P/N: IC33SGL-00-000, into inflator hand tight.
10. Pack PFD, (Refer to Figure 7).
11. Document inspection and any discrepancies in the MD3031v22 Maintenance Log.





Serial Numbering

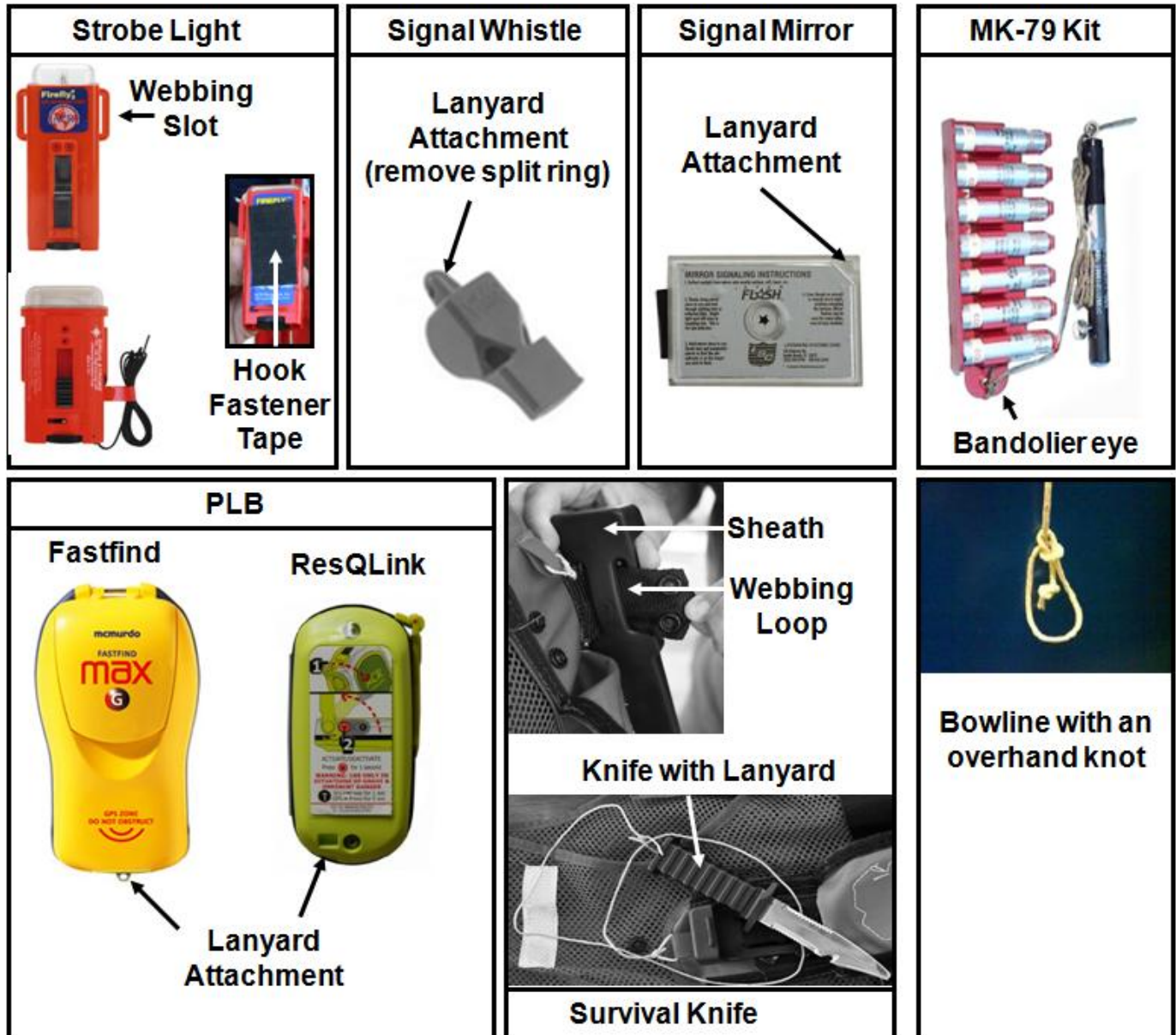


Bowline with an Overhand Knot

MD3031V22

Figure 1



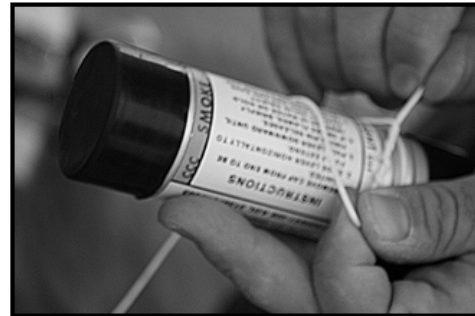
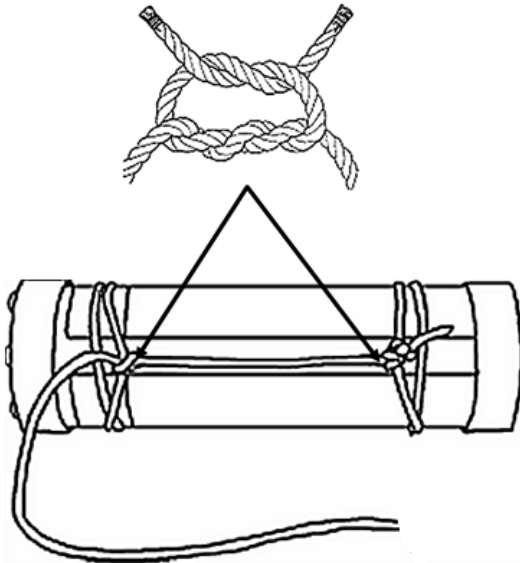


SURVIVAL EQUIPMENT

Figure 2

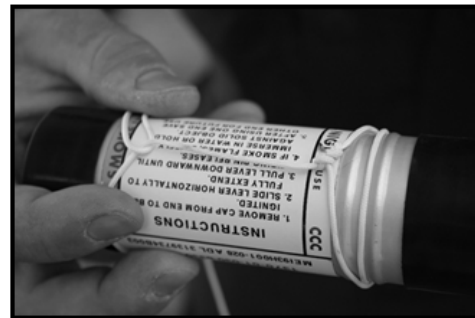


The surgeon's knot is similar to the square knot, except that the first overhand tie is wrapped around the cord or line twice.



Wrap two turns of the cord around one end the MK-124 flare and tie with a surgeons knot followed by an overhand knot.

The turns shall overlap and the knots shall be tied snugly against each other.



Route the cord to the other end and repeat the two turns followed by a surgeon's and overhand knot.

1. Tie an overhand knot 1/4-inch from the end of the lanyard.
2. Wrap two overlapping turns of cord around the end of the signal flare.
3. Tie with a surgeons knot followed by an overhand knot, position the knots snugly together.
4. Route the remaining cord along the length of the flare to the opposite end.
5. Draw the length of cord between the two ends tight.
6. Wrap two overlapping turns of cord around the opposite end of the signal flare.
7. Tie with a surgeon's knot followed by an overhand knot, position the knots snugly together.

SURGEONS KNOT

Figure 3





1. Open PFD Bladder



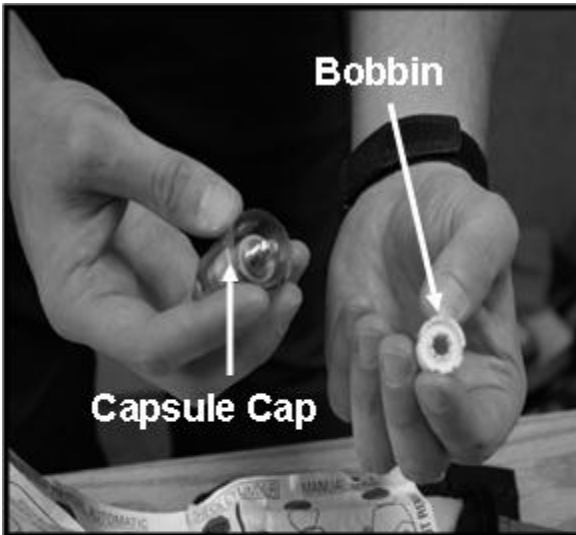
2. Remove the carbon dioxide cylinder and inspect the cylinder puncture seal for punctures.

Replace punctured cylinders.

CO2 CYLINDER

Figure 4





- 1. Remove the automatic capsule cap and discard the chemical bobbin.**



- 2. Place fresh chemical bobbin onto the spring loaded plunger and replace into the inflator. Screw the capsule cap onto the inflator hand tight until the green indicator shows at the bottom of the cap.**

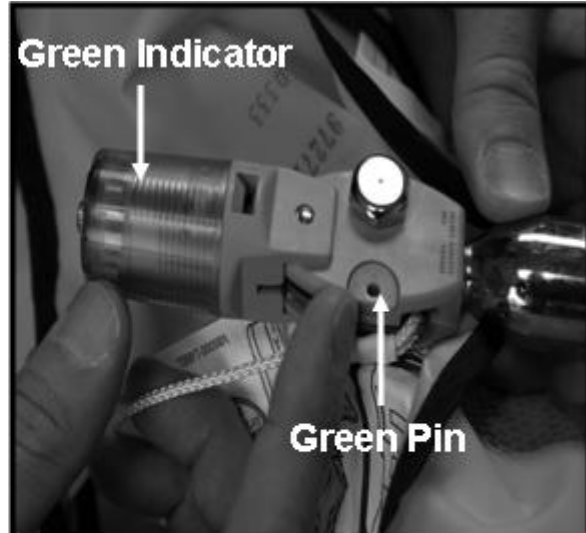
CHEMICAL BOBBIN REPLACEMENT

Figure 5





1. Screw the CO2 Cylinder completely into the inflator.

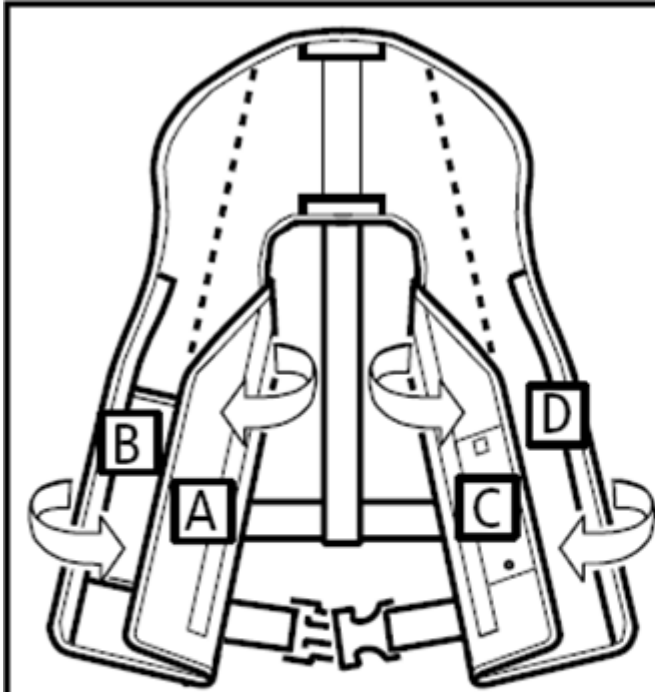


2. Check for armed indicators

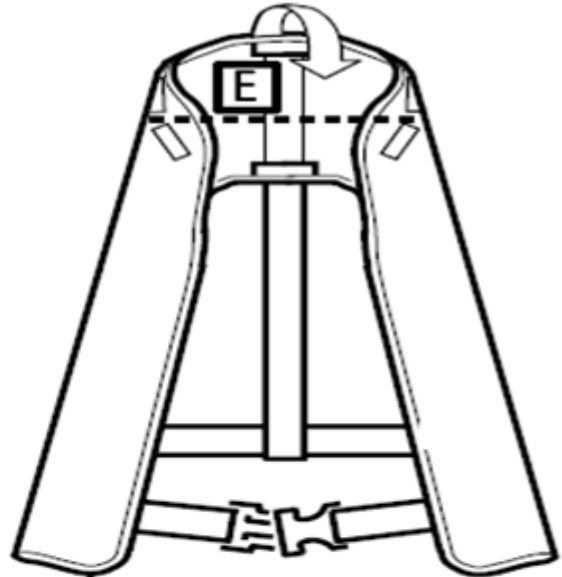
ARMING

Figure 6





1. Fold lapel "A".
2. Cover with side "B".
3. Secure with Velcro.
4. Repeat for "C" and "D".



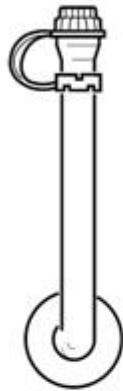
5. Fold down collar "E".
6. Secure collar with velcro.

PACKING PROCEDURES

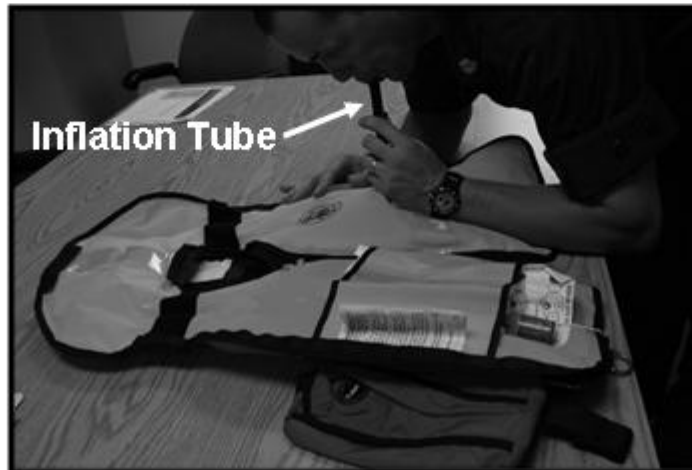
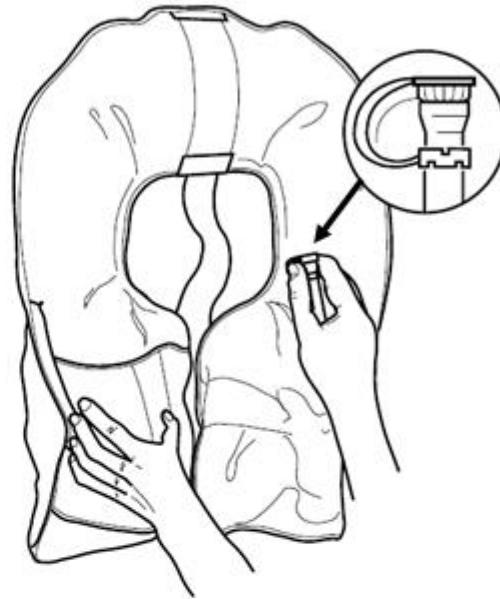
Figure 7



Inflation Tube Dust Cap,
"stowed" position



Inflation Tube Dust Cap,
"inverted" position for
deflation.



MANUAL INFLATION

Figure 8

