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PRIAX CORPORATION

PepperJet

Operating and Filling Instructions

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Introduction

This manual will prepare site personnel to operate and refill the PepperJet. An orientation and training video, included in the Refill Kit, should be used in conjunction with this manual. If you feel that additional instruction or procedures are necessary, please contact Priax Corporation regarding a training class.

The PepperJet is an Optimum Pressure Technology™ (OPT) device used for riot and inmate control. The long distance shooting capability and broad-angle chemical dispersion make the PepperJet ideal for use with one individual or a large crowd of potential combatants. The PepperJet was designed in conjunction with correctional and police officers. The device must be used only by sworn police officers who have received proper training. The PepperJet is **NOT** available for sale to any individual and may only be purchased and used by an approved police or correctional facility.

Features

- Less-than-lethal pepper spray ejector
- Optimum Pressure Technology (OPT)
- Pepper spray fog up to 60 feet
- Food-grade chemicals
- 15-degree difference
- Pressure gauge
- Double transportation lock
- Aluminum bottle
- Easy filling
- Field repairable
- No more hose clamps
- Easy pressure recertification

Pre-operational Use

1. The PepperJet should only be used in conjunction with the Force Continuum established by your agency. More information on a Force Continuum is available on our and other internet websites.

2. The PepperJet contains approximately one liter of material pressurized at approximately 500 psi. Hands-on training with inert material is recommended so the officer understands how to aim and shoot the device

3. In general, short chemical bursts will maximize the number of shots available while optimizing the shooting range.

Operation of the PepperJet

1. Remove the screw-on brass cap when deploying the PepperJet.

2. Adjust the carrying strap so the PepperJet can be carried and fired when necessary.

3. Pull the safety pin before anticipated PepperJet usage. It is recommended that you carry or transport the PepperJet with the safety pin installed.

Pull safety pin.

4. The PepperJet includes the push button trigger that will inhibit inadvertent firing while being carried during an incident.

5. When preparing to fire the PepperJet, firmly grab both the black plastic handle and the firing handle. It is possible to tuck the PepperJet under your arm to absorb the "kick" that occurs when shooting.

6. Do not shoot at the face area. The PepperJet is most effective when sprayed at the center of mass and allowing

the natural distribution of chemical. The recommended minimum shooting distance is 10 feet.

7. At the completion of each shot, verify that the safety trigger is engaged. This will assure that accidental shooting does not occur.

8. Monitor the built-in pressure gauge to verify the remaining PepperJet shooting capability. The PepperJet should contain over 500 psi pressure before use. When the pressure gauge shows approximately 200 psi, the PepperJet will contain two or more remaining bursts.

9. At the completion of operations, reinsert the safety pin, reinstall the screw cap on the barrel, and return the PepperJet for refilling.

Monitor pressure gauge.

! WARNING !

ALUMINUM HIGH PRESSURE GAS CYLINDER CONTAINING OLEORESIN CAPSICUM (PEPPER SPRAY)

This device must be operated only by law enforcement personnel trained in its use.

Explosion Hazard: Improper use, filling, storage or disposal may result in personal injury, death or property damage.

Do not alter or modify this cylinder or the valve in any way.

Never fill this cylinder unless it has been hydrostatically tested within 5 years of test or re-test date stamped on the cylinder shoulder.

Never pressurize over the service pressure stamped on the shoulder of the cylinder. Stop filling this cylinder if it leaks. This unit must be filled by properly trained personnel only.

Always secure unit in a cool dry area, out of the reach of children.

Do not expose filled unit to any heat source, flame or condition where the temperature may exceed 130°F. Units exposed to fire or heat in excess of 350°F must be condemned. Units refinished or subjected to elevated temperatures must be hydrostatically tested prior to refilling.

Do not remove, alter or obscure this warning label.

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Refilling the PepperJet

Refilling the PepperJet is a simple process using the PepperJet Refill Kit (Part No. RFK-1), a PepperJet Refilling Adapter (Part No. PJA-1), one bottle of refilling solution and a bottle of CO2. The refill kit contains:

- Refilling hose
- Funnel
- Leak Detector fluid
- Replacement "O" rings and CO2 washers
- Teflon tape
- Written instructions
- Safety glasses
- Face mask
- Lubricant
- Soothe-Away Plus™ OC neutralizer
- Latex gloves

Refill kit

The PJA-1 PepperJet Adapter connects the threaded PepperJet barrel to the quick-release connector on the refill hose.

Refilling Instructions

1. Carefully inspect all cylinders and valves before refilling. Refer to warnings shown on page 5.

2. We recommend wearing protective gear (gloves, mask, safety glasses) when filling the cylinders.

3. Install the PepperJet filling adapter by firmly screwing it onto the PepperJet nozzle. Using Teflon tape and a wrench will minimize propellant leakage during filling.

4. The cylinder must be completely empty before refilling. Test the cylinder by first looking at the pressure gauge (Figure 1), then connecting the filling hose with the CO2

Install PepperJet filling adapter.

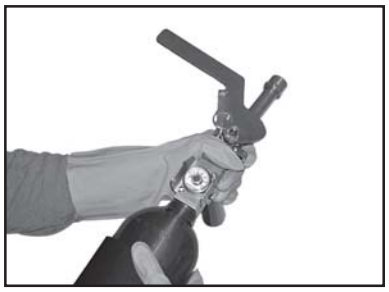
bottle end open (Figure 2) and expelling any remaining chemical and gas in a safe place. Slowly expelling a small remaining amount into a bucket half-filled with water is one method (Figure 3).

Figure 1

Figure 2

Figure 3

5. Once the cylinder is empty, with the valve open, carefully unscrew the valve and adapter from the bottle. The bottle seal uses an "O" ring and should not be over hand tight.



Unscrew valve and adapter.

6. Remove pin holding shoulder strap.

Remove pin.

7. Unscrew the bottle all the way off and remove the valve and the drawtube, leaving the valve open. Be careful not to bend the drawtube, as chemical pickup from the bottle will be affected. You can check the drawtube bend by comparing the tube to the illustration on the page 9.

8. Inspect the valve for damage. Moving parts should be lubricated with a light oil or WD-40. Set unit aside for assembly later.

Remove valve and drawtube.

WARNING

The chemical cylinder can be pressurized to 700 psi or more. Exercise extreme caution. Work slowly. Do not proceed if you are uncomfortable or feel you are not sufficiently trained. Be sure **ALL** couplings and the chemical quick release cylinder are pointed away from you and any other personnel throughout the testing and filling procedures. Contact Priax Corporation if you have any questions.

9. If the valve and/or tank are questionable or suspected of leaking, the unit can be tested for leakage. Reassemble and fill with CO2 only for testing. Follow the procedure detailed below. Check for leaks using the spray bottle of Leak Detector (soapy water) furnished in the Refill Kit. Spray the soapy solution on each threaded coupling, checking for possible leaks. Large bubbles usually show fast leaks, small bubbles show slow leaks. Following the test, discharge the cylinder as described in Step 4 above. Perform necessary repairs (see Replacement Parts list) and then continue the refilling process.

Use Leak Detector to check for leaks.

10. Remove the funnel from the plastic storage bag and place in top of bottle. Remove cap from one bottle of refill solution and carefully pour into the cylinder using the funnel. Allow funnel to drain thoroughly before removing it from the bottle. When done, place the funnel back in the storage bag. Properly discard empty bottle using standard operating procedures for OC chemicals.

Pour refill solution into cylinder using funnel.

Curvature of OC Pickup Tube

Actual tube is longer but
straight into fitting.

WARNING

The PepperJet cylinder should only be filled with **ONE** bottle of refill solution.

11. Before reinstalling the valve, inspect the "O" ring and replace it if it appears worn or questionable. Place a small amount of lubricant (WD-40, 3-in-1 Oil, or vegetable oil) on the "O" ring before assembly.

12. Carefully screw the valve assembly into the bottle. Tighten firmly, allowing the "O" ring to seal.

Screw valve assembly into bottle.

Tighten firmly.

13. Connect the filling hose assembly, first to the CO2 bottle (Figure 4) and then to the PepperJetC filling adapter by connection to the disconnect (Figure 5). Open the CO2 valve slightly and verify that the disconnect is not leaking. If CO2 appears to be leaking from the disconnect, shut off the CO2 bottle valve, wait for the pressure in the refill hose to be relieved, and replace the disconnect (Figure 6.)

Figure 4

Figure 5

Figure 6

14. If there are no leaks, open the PepperJet valve and allow the CO2 to slowly flow into the cylinder. **CAUTION:** Filling the cylinder too fast may cause valve damage.

Monitor the pressure on the gauge and fill the cylinder until the pressure reaches about 600-650 psi. This pressure may vary due to temperature. A filling pressure of 550 psi low to 700 psi high is acceptable. If you cannot achieve a minimum filling pressure of 550 psi, the CO2 bottle is probably near empty and should be replaced.

Open valve and flow CO_2 slowly.

NOTE: You will probably find that the gauge pressure will fall back about 50 psi once you close the PepperJet valve. (Example: If you fill the PepperJet to 650 psi and close the valve, the pressure will probably slowly stabilize at about 600 psi.) This is normal.

Monitor gauge.

15. Stop the filling process by first closing the PepperJet valve so the safety snap device is engaged. Press in the safety pin (hanging from the chain) before proceeding.

Close valve.

Install safety chain.

Safety chain installed.

IMPORTANT!

Verify that the PepperJet valve is closed before closing the valve on the CO2 cylinder. If the PepperJet valve is not closed, the refilling hose will be filled with OC solution as the pressure is reduced.

16. Tightly close the CO2 cylinder valve. Remove pressure from the refilling hose by opening the brass relief valve. Reclose the brass relief valve once the pressure is out of the refilling hose.

Open brass relief valve.

The cylinder refilling procedure is complete. Proceed to refill other PepperJets as necessary. Remove filling adapter and replace brass cap before deploying unit.

OC Clean-up Procedure

Always be very careful when handling Oleoresin Capsicum (OC or pepper spray) chemicals. Should there ever be a chemical spill, personnel responsible for cleanup should be aware of the procedures and cautions detailed in this section.

Clean Up of Personnel

Always provide first aid to injured personnel before cleaning the facility. In case of a spill, it is best to first remove all affected personnel to a safe and clean air location and administer first aid. Wear proper protective clothing and breathing apparatus before attempting clean up. The following page shows information provided on each RS-1 chemical solution container. These procedures should be followed in case of chemical contact with skin, eyes, gastro-intestinal tract, and/or lungs.

Clean Up of Facilities

Always wear protective clothing and breathing apparatus before attempting any clean up. The procedure for cleaning up facilities is as follows:

1. Begin by ventilating the area as well as possible.

2. Provide nonabsorbent protection for all skin surfaces of clean-up personnel.

3. Wear proper breathing apparatus and eye protection.

4. Absorb loose liquid material using absorbent materials and discard materials into a sealable container. Discard materials and container using proper procedures for hazardous materials.

5. Following removal of all loose material, scrub the area with a detergent suitable for the area. It is best to wash and rinse the area at least two times depending on the extent of the spill.

6. If there is clothing that must be laundered, it is best to soak the material first in a soapy cold water solution and drain the materials at least one time before washing. Discard the liquid after each soaking. Wash in accordance with clothing manufacturer's instructions. Do not wash the contaminated clothing with any other clothing or fabrics.

If you have any questions or need further information, please contact Priax Corporation.

WARNING

THIS PRODUCT CONTAINS EXTRACTIVES OF CHILE PEPPERS

This product has profound irritant action and should be removed completely if contact with any body surface occurs. See below:

Skin: Apply **Soothe-Away Plus™** OC neutralizer according to manufacturer's instructions. If unavailable, wash with copious amounts of soap and cold* water.

Eye: Copious lavage with water (two minutes, wait one minute and then another two minutes). Follow with topical antibiotic drop or combination antibiotic-steroid drop to the eye. NO patch.

Gastro-intestinal Tract:

Lavage with large bore tube and saline solution followed by installation of antacids and antihistamine such as Benadryl. Cimetidine also may be used to help prevent bleeding caused by secondary hyperacidity. **Do NOT Induce Vomiting!**

Lungs: If inhaled or aspirated into the throat, lungs or bronchial tubes:

1. Oxygen should be administered.
2. Transport immediately to medical center where special pulmonary care is available.

These patients should be treated as an acute upper airway burn by appropriate specialists.

*NOTE: THE USE OF ***SOOTHE-AWAY PLUS™*** AND ***COLD*** WATER WILL RESULT IN LESS DISCOMFORT.

Limited Warranty

Priax Corporation makes no warranty, expressly or by implication, except as set forth below.

Priax Corporation warrants that the products delivered hereunder will be in substantial conformity with applicable specifications and will be free from defects in material and workmanship. Priax Corporation's obligation under this warranty shall be limited to (at its option) repairing, replacing, or granting a credit at the prices invoiced at the time of shipment for any of said products which shall, within 90 days after shipment, be returned to the factory of origin, transportation charges prepaid, and which are, after examination, disclosed to Priax Corporation's satisfaction to be thus defective. This warranty shall not apply to any of such products which shall have been repaired or altered, except by Priax Corporation, or which shall have been subjected to physical or electrical abuse or misuse.

THE WARRANTIES STATED HEREIN ARE IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED, AND PRIAX CORPORATION NEITHER ASSUMES NOR AUTHORIZES ANY OTHER PERSON TO ASSUME FOR IT ANY OTHER LIABILITY. PRIAX CORPORATION SHALL NOT BE LIABLE FOR SPECIAL OR CONSEQUENTIAL DAMAGES OF ANY NATURE WITH RESPECT TO ANY PRODUCTS OR SERVICES RENDERED HEREUNDER. NO PRODUCT IS WARRANTED TO BE FIT FOR ANY PARTICULAR USE OR APPLICATION.

Technical Support

Technical support is provided by Priax Corporation at no charge starting from the date of purchase. Priax Corporation will respond to all service calls made during the normal work week within a 24-hour period during normal business hours of 8:00 AM to 5:00 PM (Pacific Standard Time).

Replacement Parts

The PepperJet is repairable in the field, and most of the parts are replaceable with standard tools. If you have any questions please contact our office for technical questions or other information. Following is a listing of replacement parts.

PepperJet Filling Adapter

Part No.	Description
PJA-1	Filling adapter, female, connector to PepperJet nozzle, 1/2" female thread to female quick release connector

PepperJet Nozzle

Part No.	Description
X-10C-121	O-ring
X-10C-123	Adapter body, cylinder adapter
X-10C-124	Pressure relief valve, 2000 psi
X-10C-125	Pressure gauge, 750 psi gauge
X-10C-126	Valve, 1/2" SS ball valve
X-10C-128	Trigger bracket w/10-24 x 5/8" screws
X-10C-129	Locktite Sealant
X-10C-130	Spring-loaded plunger, 5/16"x18"x1" w/Jamnut, 5/16"x18"
X-10C-131	Gauge guard, SS protection guard w/Screws, machine, 10-32 by 1/2"
X-10C-132	Latch pin w/chain & ring
X-10C-150	Tank, regular, 2-liter cylinder w/o valve
X-10C-151	Draw tube, regular, hard copper w/connector
X-10C-153	PepperJet handle, SS straight valve handle w/trigger and screw

Additional Replacement Parts

Part No.	Description
X-PJ-154	Nozzle Pipe, brass, 1/2" by 4"
X-PJ-155	Nozzle cap, brass, 1/2"
X-PJ-156	Quick release pin, 1/4" x 1-1/4" (two required)
X-PJ-157	Neoprene bottle sleeve
X-PJ-158	Carrying strap
X-PJ-159	Rear carrying strap attachment

Tools/Chemicals

The following is a list of tools and chemicals that may be ordered from Priax Corporation.

Part No.	Description
RFK-1	PepperJet Refilling Kit
RFK-1-100	Refill hose, w/fittings & manual relief valve
RFK-1-101	Bottle connector, CO^2
RFK-1-102	Bottle nipple
RFK-1-103	Fitting, Male, Connector to bottle
FFK-1-104	Manual Relief Valve
RFK-1-105	Funnel
RFK-1-106	Lubricant - WD40
RFK-1-107	Soothe-Away Plus OC neutralizer
RFK-1-108	Test fluid in spray bottle
RFK-1-109	O-ring, replacement
RFK-1-110	CO2 washer replacement

Refilling Solution

6015 RS-OC	PepperJet Refilling Solution, OC
6018 RS-IN	PepperJet Refilling Solution, IN (inert)