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X-10 OC Extension Device

Operating and Filling Instructions

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Introduction

This manual will prepare site personnel to operate the X-10 OC Extension Device and to refill the X-10C chemical cylinders. 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 the factory regarding a training class.

The X-10 is an OC (pepper spray) extension device, also called a barricade removal device (BRD). The principal use of the X-10 is to remove cell door obstructions and, if necessary, to inject pepper spray into a barricaded cell area. The X-10 was designed in conjunction with correctional officers for correctional use. The device must be used only by correctional officers who have received proper training. The X-10 is **NOT** available for sale to any individual and may only be purchased and used by an approved correctional facility.

Features

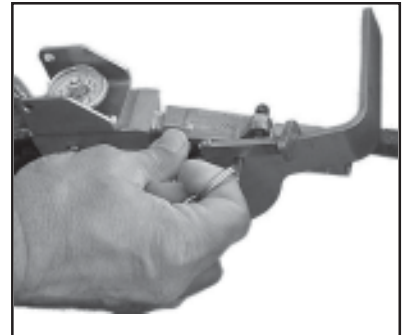
- Lightweight, about 28 lbs, can be carried by one officer to upper tiers
- Designed to be operated by 2, 3, 4 or 5 officers
- Provides 13-15 chemical bursts per filled cylinder
- Shoots approximately 8 grams of OC per burst
- Non-skid material on handles assists gripping
- Refillable and exchangeable chemical cylinder
- Cylinder has combination handle (carrying plus operating), with safety switch and storage pin
- Built-in pressure gauge indicates current cylinder pressure and indicates chemical bursts remaining
- Heavy-duty plate stops at food pass-thru. Inmate cannot pull unit into cell.
- Long probe with rounded end used to push aside barricade.
- Smooth probe surface difficult for inmates to grab
- Chemical injection holes a short distance back from end so mattress barricade will not impede chemical injection

Pre-operational Use

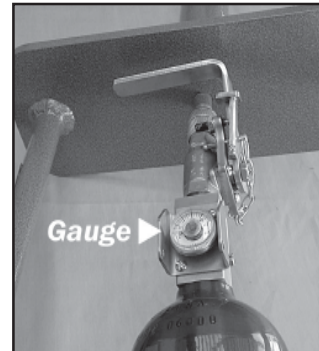
1. Try to talk inmate out of the cell.
2. Evaluate the barricade and the attitude of the inmate.
3. Decide the best location for probe insertion.
4. Assemble officers who will operate X-10. Position each for best results depending on the amount of room available on the floor or tier.
5. Inform inmate that you will be using the X-10 and allow the inmate to come out voluntarily.

Operation of X-10 OC Extension Device

1. Pull safety pin to enable valve operation before inserting X-10 through doorway.
2. Insert the probe with reasonable speed and force, remembering that the inmate(s) may try to stop or grab the probe.
3. Move the probe from side-to-side or in-and-out in order to push away the barricade and allow the unhampered injection of pepper spray.
4. Note that there are injection ports all the way around the probe, so it is very difficult for the inmate to grab the probe and stop the chemical flow.
5. When in position, one officer should grab the cylinder handle, press release lever, and quickly pull back, then forward, on the handle to release one burst of pepper spray. The length of spray should be determined by the officer depending on standard operating procedures.



6. Evaluate the situation in the barricaded cell and release extra bursts if needed.
7. Retract the X-10 probe and wait for pepper spray to take effect. If necessary, reintroduce X-10 probe to clear barricade and release additional bursts of pepper spray.
8. Monitor the pressure gauge to verify that the X-10C has sufficient chemical remaining before beginning to use the unit. The X-10C at full pressure should be between 550 psi and 700 psi, depending on the temperature. The pressure will reduce with each burst. When the gauge indicates around 200 psi, there are at least one or two bursts remaining.



Installation of X-10C Chemical Cylinder

Please review the warning information on the following page before attempting to use, fill, store, or dispose of the X-10C unit. Each X-10C cylinder is labeled with this information.

The chemical cylinder is easily removed or installed by following these steps:

1. Unsnap back clamp.
2. Pull back on quick connector



! 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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3. Slide cylinder back to disengage connector, then forward to remove.



Back



Forward

4. Reverse process to install new cylinder.

Refilling the X-10C Chemical Cylinder

Refilling the chemical cylinder is a simple process using the X-10 Refill Kit (Part No. RFK-1) along with 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



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. 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 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



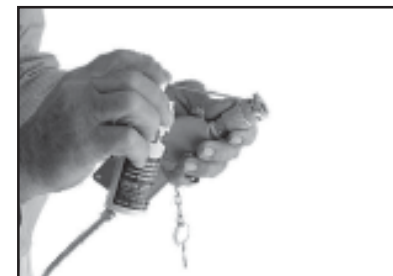
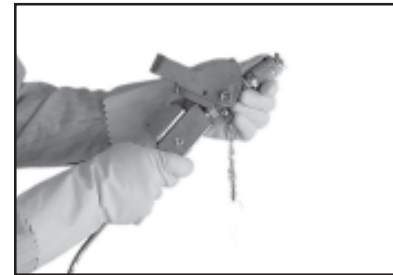
Figure 3

4. 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.
5. 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 next page.

6. Inspect the valve and disconnect connector for damage. Verify that the disconnect connector slides freely, snaps back in place, and that the disconnect plunger (inside throat of connector) is working properly. If disconnect plunger is not seating properly, the connector should be replaced. If the disconnect does not slide freely, the slide area can be lubricated with a light oil or WD-40. Set unit aside for assembly later.



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 the factory if you have any questions.

7. 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



Curvature of OC Pickup Tube

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 3 above. Perform necessary repairs (see Replacement Parts list) and then continue the refilling process.



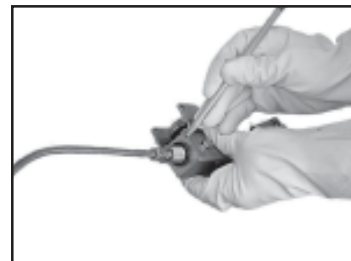
8. Remove the funnel from the plastic storage bag and place in top of bottle. Remove cap from one bottle of refill solution and carefully pour into the cylinder using the funnel. Allow funnel to drain thoroughly before removing it from the bottle. When done, place the funnel back in the storage bag.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



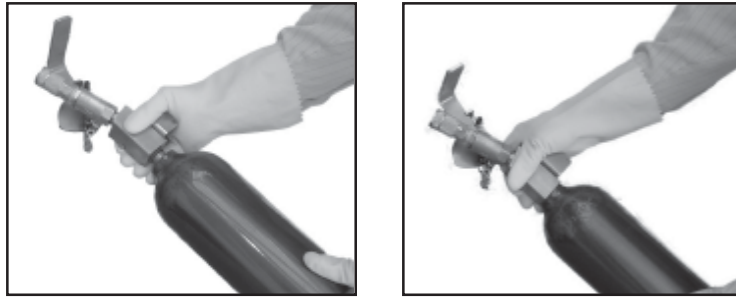
WARNING

The X-10C cylinder should only be filled with **ONE** bottle of refill solution.

10. 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.



11. Carefully screw the valve assembly into the bottle. Tighten firmly, allowing the “O” ring to seal.



12. Connect the filling hose assembly, first to the CO2 bottle (Figure 4) and then to the X-10C cylinder 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.)

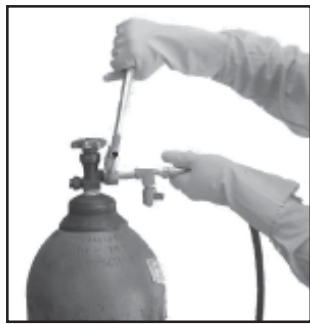


Figure 4



Figure 5



Figure 6

13. If there are no leaks, open the X-10C valve and allow the CO2 to slowly flow into the cylinder. **CAUTION:** Filling the cylinder too fast may cause damage to the disconnect.

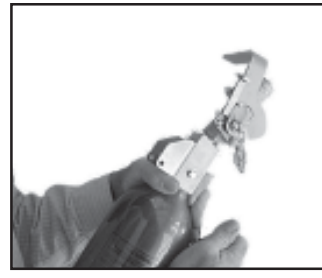
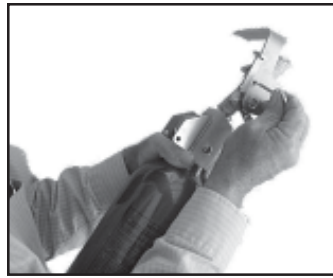


Monitor the pressure on the gauge and fill the cylinder until the pressure reaches about 600-650 psi. This pressure may vary due to temperature. A filling pressure of 550 psi low to 700 psi high is acceptable. If you cannot achieve a minimum filling pressure of 550 psi, the CO2 bottle is probably near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



NOTE: You will probably find that the gauge pressure will fall back about 50 psi once you close the X-10C valve. (Example: If you fill the X-10C to 650 psi and close the valve, the pressure will probably slowly stabilize at about 600 psi.) This is normal.

14. Stop the filling process by first closing the X-10C valve so the safety snap device is engaged. Press in the safety pin (hanging from the chain) before proceeding.



IMPORTANT!

Verify that the X-10C valve is closed before closing the valve on the CO2 cylinder. If the X-10C valve is not closed, the refilling hose will be filled with OC solution as the pressure is reduced.

15. 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.



The cylinder refilling procedure is complete. Proceed to refill other cylinders as necessary.

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 the factory.

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 X-10 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.

X-10 Unit

Part No.	Description
X-10-005	Fitting, male, connector to bottle, 3/8" thread x 3/4" coupling

X-10C Cylinder

Part No.	Description
X-10C-120	Tank, regular, M-9 cylinder w/o valve
X-10C-121	O-ring
X-10C-122	Draw tube, regular, 8-inch, 1/4" soft copper
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-127	Handle, SS 90 deg. valve handle w/trigger and screw
X-10C-128	Trigger bracket w/10-24 x 5/8" screws
X-10C-129	Loctite 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-133	Fitting, female, connector to probe, 1/2" by 3/4"

Tools/Chemicals

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

Part No.	Description
RFK-1	X-10 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	CO ₂ washer replacement

Refilling Solution

6015 RS-OC	X-10 Refilling Solution, OC
6018 RS-IN	X-10 Refilling Solution, IN (inert)

X-10 Canisters

6100 X-10C	Chemical Cylinder, OC
6103 X-10C	Chemical Cylinder, IN (inert)
6110 X-10C	Unfilled - 1 Liter
6111X-10C	Unfilled - 2 Liter