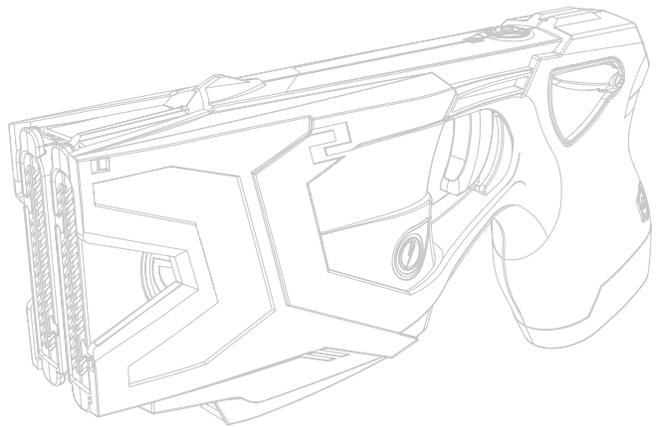




# TASER X2 Defender™

## User Manual



Models 22002, 22003



### **IMPORTANT SAFETY INSTRUCTIONS.**

Read all warnings and instructions. Save these instructions. For the most current safety and product instructions, go to [www.TASER.com](http://www.TASER.com).

MMU0044 Rev: A

# Contents

## **4 Chapter 1: Warnings**

4 Important Safety and Health Information

## **5 Chapter 2: Ownership**

## **6 Chapter 3: General Information**

6 What is the X2 Defender CEW?

6 Neuro Muscular Incapacitation (NMI)

6 Basic X2 CEW Electrical Theory

## **8 Chapter 4: Features**

8 X2 CEW Features

8 Safety Switch

9 ARC Switch

9 Performance Power Magazine (PPM) Battery Pack

9 Changing the PPM

10 Central Information Display (CID)

10 Cartridge Icons

11 System Status Icons

12 Operating Mode Icons

12 Battery Level Icons

13 Sample CID Displays

13 Probe-Deployment Mode

14 Spark Duration

14 ARC Switch

14 Top and Bottom LASERs

15 Mechanical Sights

15 LED Flashlight

15 Selector Switch

16 Trigger Switch

16 Semi-Automatic Mode

17 Configuring the X2 CEW and Viewing the System Status

17 Setting the Sighting Options

17 Viewing the System Information

18 Viewing the Battery Pack Information

<b>20</b>	<b>Chapter 5: Cartridges &amp; CEW Operation</b>
<b>20</b>	Remove the Shipping Cover from the Smart Cartridge
<b>21</b>	Standard-Range (15 ft/4.6 m) Smart Cartridges
<b>22</b>	Smart Cartridges General Instructions
<b>22</b>	AFID
<b>23</b>	Load the Smart Cartridges
<b>24</b>	Loading
<b>25</b>	Cartridge Release Button
<b>26</b>	Unloading
<b>28</b>	Practicing with the X2 CEW
<b>28</b>	Using the X2 CEW
<b>28</b>	Aiming and Probe Placement
<b>29</b>	Deployment Instructions for Self-Defense
<b>31</b>	Potential Causes of Reduced or No Effectiveness
<b>31</b>	Warning Arc Display
<b>32</b>	Electrodes
<b>32</b>	Drive-Stun Backup
<b>33</b>	<b>Chapter 6: Maintenance/Troubleshooting</b>
<b>33</b>	Function Test
<b>34</b>	X2 CEW Maintenance and Care
<b>34</b>	Dropped or Wet X2 CEW
<b>35</b>	TASER Online Troubleshooting Guide
<b>35</b>	Product Returns
<b>36</b>	<b>Chapter 7: TASER Facility Protection</b>
<b>37</b>	<b>Chapter 8: Additional Items</b>
<b>37</b>	Legality
<b>37</b>	Medical Research
<b>37</b>	Warranty
<b>37</b>	Warnings

## Important Safety and Health Information

These safety warnings are for your protection as well as the safety of others. Disregarding this information could result in death or serious injury.

 <b>WARNING</b>	
 <div style="border: 1px solid black; padding: 5px; display: inline-block;"> <p style="margin: 0;"><b>WARNING</b></p> <p style="margin: 0;"><b>Conducted Electrical Weapon</b></p> <ul style="list-style-type: none"> <li>• Can temporarily incapacitate target.</li> <li>• Can cause death or serious injury.</li> <li>• Obey warnings, instructions and all laws.</li> <li>• Comply with current training materials and requirements.</li> <li>• See <a href="http://www.TASER.com">www.TASER.com</a>.</li> </ul> </div>	
	<p><b>Read and Obey</b></p> <p>Significant differences exist between different TASER CEW models. Do not use or attempt to use any CEW model unless you have read, understood, and are following all current instructions, warnings, and relevant TASER training materials before using TASER® CEWs. Failure to do so could increase the risk of death or serious injury to the user or others.</p>
	<p><b>Obey Applicable Laws</b></p> <p>Use of CEWs must be legally justified and comply with applicable federal, state, and local laws and regulations.</p>
	<p><b>Store in a Secure Location</b></p> <p>CEWs and cartridges are weapons and as with any weapon follow safe weapon-handling practices and store your CEW securely. Store CEWs, cartridges, and accessories in secure locations inaccessible to children and other unauthorized persons to prevent inappropriate access or use. CEWs and cartridges are weapons and are not toys.</p>

For a complete list of product warnings, go to [www.TASER.com](http://www.TASER.com).

Do not point the CEW at any law enforcement officer or do anything that would cause law enforcement officers to feel threatened by your use of the CEW. Because the TASER CEW is able to incapacitate a person, law enforcement officers may be justified to use lethal force to protect themselves.

Do not give a TASER CEW away as a gift or sell it to anyone not authorized to own it or without completing the transfer notice at [www.TASER.com](http://www.TASER.com). For more information, see the **Legality** section of this manual.

Taking a TASER brand CEW out of the United States (U.S.) without the proper export license is prohibited by U.S. law (similar prohibitions may exist in other countries).

Do not carry a TASER CEW, battery pack, or cartridge on a commercial aircraft. According to the 2012 IATA Dangerous Goods Regulations for commercial airplanes, TASER CEWs, battery packs, and cartridges ARE NOT ALLOWED on your person, in your carry-on baggage, or in your checked baggage aboard commercial aircraft.

## What is the X2 Defender CEW?

The TASER® X2™ CEW is a 2-shot weapon manufactured by TASER International, Inc. The X2 CEW uses 2 replaceable Smart™ cartridges containing compressed nitrogen to deploy two small probes that are attached to the X2 CEW by insulated conductive wires. The X2 CEW deploys Smart cartridges one at a time. It is possible to apply energy beyond the initial burst to a deployed cartridge without deploying the remaining cartridges. It also is possible to apply a Warning Arc display or drive-stun without deploying any of the cartridges loaded in the CEW. The X2 CEW is sold with cartridges that have a wire length of 15' (4.6 meters).

The X2 CEW has an estimated useful life of 5 years.

## Neuro Muscular Incapacitation (NMI)

TASER technology is designed to use electrical impulses similar to those in your body's nervous system to cause stimulation of the sensory and motor nerves. Neuro Muscular Incapacitation (NMI) occurs when a CEW is able to cause involuntary stimulation of both the sensory nerves and the motor nerves to render an attacker temporarily unable to control movement. It is not dependent on pain and can be effective on people with a high level of pain tolerance.

Previous generations of stun guns primarily affected the sensory nerves only, resulting in pain compliance. An attacker with a very high tolerance to pain (e.g., a drug abuser, person in serious psychological distress, or a trained, focused fighter) may not be affected by the pain or might be able to fight through the pain of a traditional stun gun.

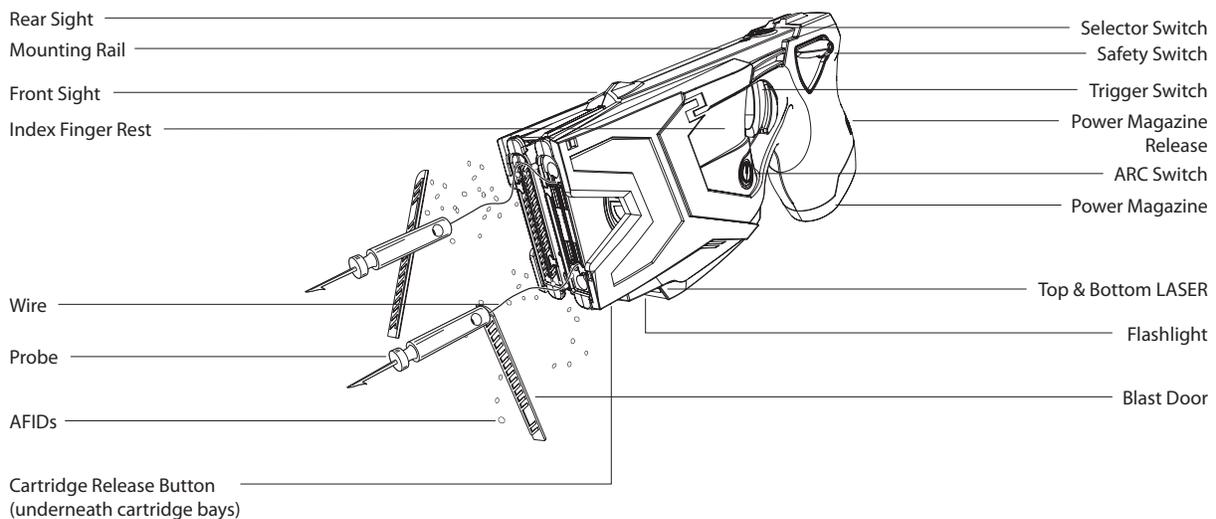
A CEW may cause incapacitation if probes are within sufficient proximity to the skin to complete a circuit, the probes have a sufficient spread, and an adequate electrical circuit is completed and maintained.

## Basic X2 CEW Electrical Theory

- Electricity must be able to flow between the probes or the electrodes to deliver an electrical charge and will generally follow the path of least resistance.
- The greater the spread between the probes on the target, generally the greater the effectiveness.
- Electricity will generally not pass to others in contact with the attacker unless contact is made directly between or on the probes, or the wires are touched.
- Exposure to water will not increase the power to the person (the delivered electrical charge is fixed inside the TASER CEW, and will not increase significantly even with environmental changes).
- As long as one top probe and one bottom probe from the X2 CEW hit the attacker, the electrical circuit can be completed, even if the probes were deployed from different cartridges.

- The Current Metering technology is designed to deliver optimal charge.
- Medical studies have found that modern pacemakers and implanted cardiac defibrillators withstand external electrical defibrillators many orders of magnitude stronger than the TASER CEW conducted energy pulses.

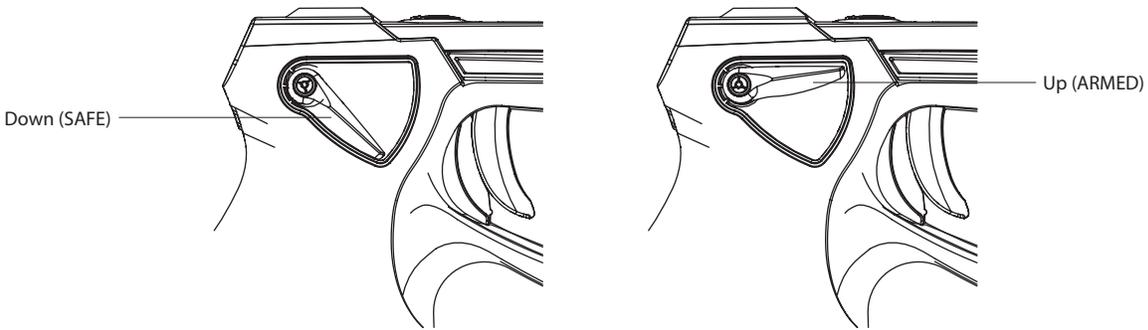
## X2 CEW Features



## Safety Switch

Ambidextrous safety can be operated from either side of the CEW.

- Safety switch down (SAFE).
- Safety switch up (ARMED) and ready to deploy.
- Do not block the safety on one side of the X2 CEW while attempting to move it on the other side. This can break the safety and disable the CEW.
- With default settings, if the X2 CEW's safety switch is left in the up (ARMED) position for more than 20 minutes, the system goes into low power mode to reduce the amount of power consumed. Power is still consumed and will eventually drain the battery if the safety switch remains in the ARMED position. To re-arm the CEW, shift the safety to the down (SAFE) position, and then shift it back to the up (ARMED) position.

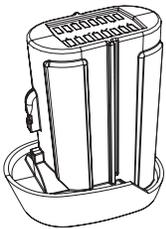


## ARC Switch

The ARC switch is used to employ a Warning Arc display, select cartridges, and select menu items during system programming and option selection. ARC switch functions are described in the *Configuring the X2 CEW and Viewing the System Status* section in this manual.

## Performance Power Magazine (PPM) Battery Pack

The Performance Power Magazine is a lithium battery power supply system for the X2 CEW.

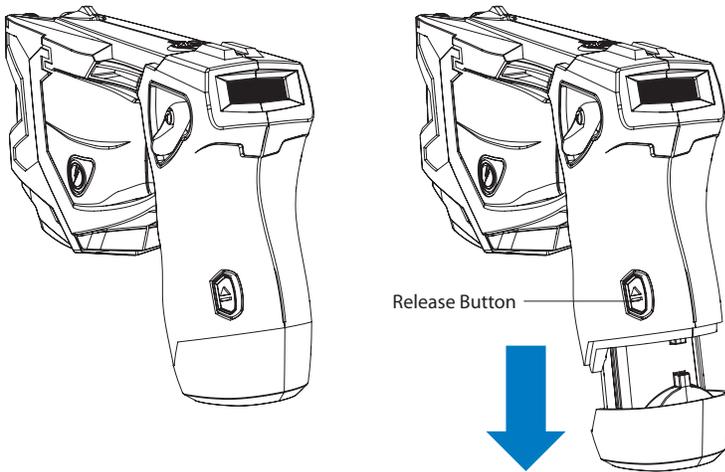


Do not store the PPM anywhere that the gold contacts on the top of the PPM may touch metal objects. If you cause an electrical short between these contacts, the short will drain the battery and may cause it to become dangerously hot.

The PPM battery has enough power for approximately 500 discharges depending on temperature, environment, use of the flashlight, and other factors. The PPM battery will deplete faster in colder weather than warm weather. Likewise, the battery will deplete faster with the flashlight active.

## Changing the PPM

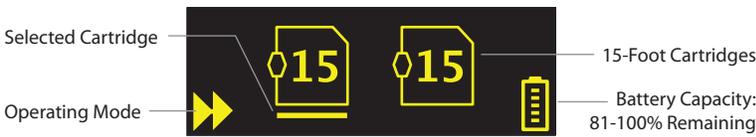
- 1 Point the CEW in a safe direction.
- 2 Ensure the safety switch is in the down (SAFE) position.
- 3 Remove the Smart cartridges (do not place any body parts in front of the cartridges). See the *Unloading* section in this manual for more information.
- 4 To unload the PPM, depress the PPM release button and remove the PPM from the handle of the CEW.



- 5 Inspect the battery contacts. Ensure that they are free from dirt or other residue that may interrupt the battery connection to the CEW.
- 6 Install the new PPM and ensure that it is fully inserted into the X2 CEW. Apply sufficient force to ensure the PPM is fully seated. When the PPM battery pack seats properly, the PPM release button should pop out from the recessed position with an audible click.

## Central Information Display (CID)

The CID is a display on the back of the X2 CEW that provides information about the CEW. When the safety switch is shifted into the up (ARMED) position, the CID will display the cartridge bays and battery status.



## Cartridge Icons



Two 15-foot cartridges. These cartridges have not been deployed.



The currently selected cartridge will have a yellow bar underneath it. If you pull the trigger switch, this is the cartridge that will be deployed.



After a cartridge has been expended, the cartridge deployed icon is displayed.



If no cartridge is loaded in the cartridge bay, the space otherwise occupied by a cartridge icon will be blank.



If something is wrong with the cartridge, the cartridge bay error icon is displayed. The cartridge might not deploy. See the **Load the Smart Cartridges** section in this manual for instructions on loading and unloading Smart cartridges from an X2 CEW.



The loaded cartridge icon indicates that the next trigger pull will deploy a cartridge.

## System Status Icons

### **WARNING**

The system status icons are designed to inform you of a fault in the X2 CEW. It is a fault indicator only, and it is the user's responsibility to heed the fault indicators, obtain proper maintenance and repair, and ensure that the CEW is working properly before any use. Failure to heed the system status icons could cause serious injury or death.

All faults are recorded in the X2 CEW's Engineering Log.



**Major Fault indication.** A yellow triangle indicates that the logging or date and time functions are not working properly. The CEW will still produce an electrical output (e.g., the CEW should still arc and deploy cartridges), but the accountability functions are compromised.

Shift the safety switch to the down (SAFE) position and then to the up (ARMED) position; the fault may clear.

Whether the fault clears or not, it will be recorded in the Engineering Log. If the fault did not clear, the CEW may need to be repaired or replaced. See the **Product Returns** section in this manual for instructions.



**Critical Fault indication.** A yellow stop sign in the upper-right side of the CID indicates a system failure.

Critical faults are rare. Shift the safety switch to the down (SAFE) position and then to the up (ARMED) position; the fault may clear.

If the fault does not clear, do NOT attempt to use the CEW. The CEW may need to be repaired or replaced. See the **Product Returns** section in this manual for instructions.

NOTE: If a fault icon appears in the position normally associated with the cartridge status icon, this usually indicates a fault with a cartridge and not necessarily a critical CEW fault. Replace the cartridge and see if the icon goes away. See the **Unloading section** in this manual for instructions on loading and unloading Smart cartridges from an X2 CEW. If the icon remains after replacing the cartridge, there may be a problem with the cartridge bay, and that cartridge bay may not deploy a cartridge.



**Invalid Battery Pack.** If you see a blinking exclamation point and battery icon, this indicates that the CEW did not recognize the battery correctly. Remove the battery pack and reinsert it. If the error is still present, try another battery pack. If the icon still displays, this usually indicates that something has happened to the battery connector inside the CEW and the CEW should be serviced. See the **Product Returns** section in this manual for instructions.

## Operating Mode Icons



The X2 CEW's method of operation is called the semi-automatic mode. This icon is displayed on the CID, representing the operating mode.

## Battery Level Icons

When the safety switch is in the up (ARMED) position, the CID will display the percentage of battery power remaining. Remaining capacity will display in 19 percent increments.

When the battery level drops to 20 percent, TASER International recommends that the battery pack be replaced.



Battery  
81–100%



Battery  
61–80%



Battery  
41–60%



Battery  
21–40%



When the battery capacity is at 1–20 percent, the CID will flash the warning **CHANGE BATTERY** on the CID when the safety switch is cycled to the up (ARMED) position.



Battery  
0 – 20%  
Blinking

If the battery capacity is at 1–20 percent, and the CEW is being discharged, this icon displays in the lower-right portion the CID.



Battery  
Depleted

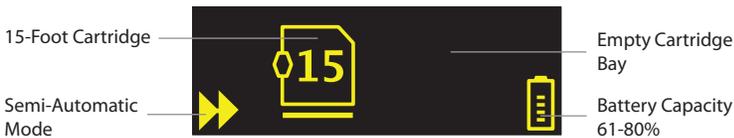
If the battery is depleted, a zero percent indication (**00%**) will flash on the CID when the safety is shifted to the up (ARMED) position. The CEW then will shut down and not operate.

## Sample CID Displays

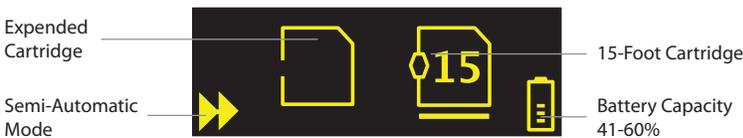
The CID below shows the X2 CEW loaded with a 15-foot cartridge. The 15-foot cartridge is selected. (The leftmost, active cartridge is always selected by default.) The battery is 61–80 percent full, and the Semi-Automatic mode icon displays. There is a cartridge fault.



The CID below shows an X2 CEW with a battery 61–80 percent full. Only 1 cartridge is loaded, and the Semi-Automatic mode icon displays.



The CID below shows the Semi-Automatic mode icon and a battery that is 41–60 percent full. The first cartridge has been deployed, and the second cartridge is selected.



## Probe-Deployment Mode

When the X2 CEW trigger switch is pulled and then released, it delivers an automatic 5-second Precision Shaped Pulse™ deployment and cycle (unless the safety switch is shifted to the down (SAFE) position during those 5 seconds).

In probe-deployment mode, the CID display shows the deployment cycle duration for the most recent cartridge deployed. If you deploy a second cartridge a few seconds later (while the first cycle is running), the CID will stop showing data for the first cartridge (though the first cartridge will still complete its deployment cycle) and start displaying the deployment cycle duration for the second cartridge.

The cycle can be stopped at any time by shifting the safety switch to the down (SAFE) position. If both cartridges are cycling and the safety switch is moved to the down (SAFE) position, then the electrical cycle will stop for BOTH cartridges.

## Spark Duration

The CID displays a count indicating how many seconds the deployment cycle lasts. The CEW will count up from the number 1 up to 99. At 99 seconds, the count will restart at 1.



## ARC Switch

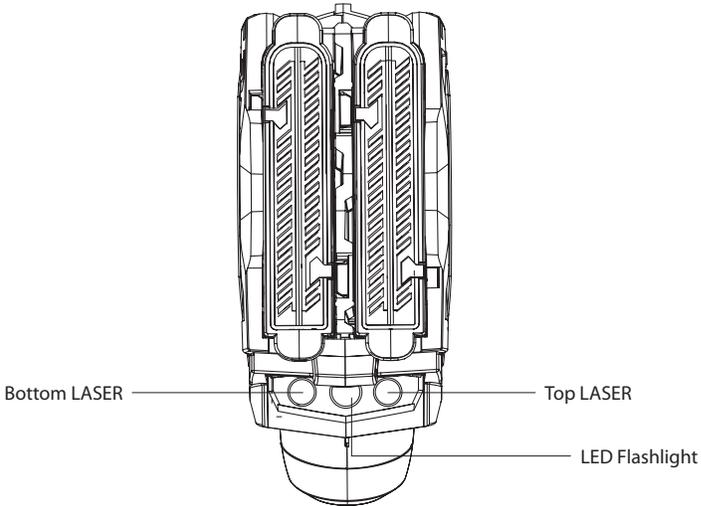
If you press the ARC switch, the CID will display the deployment cycle duration with the operating mode icon.

In the CID shown below, the Warning Arc display has been in effect for 3 seconds. The battery is 81–100 percent full.



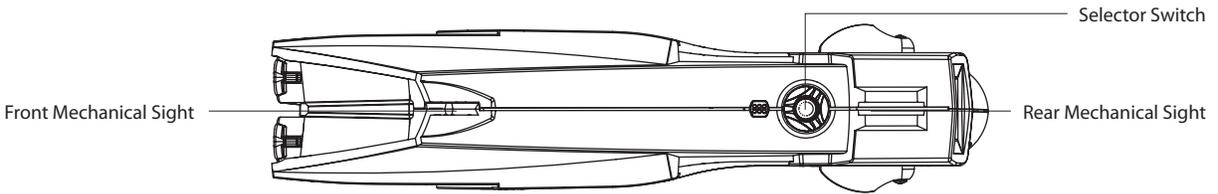
## Top and Bottom LASERs

The X2 CEW is equipped with top and bottom LASERs that are aligned to the approximate trajectories of the top and bottom probes, respectively, at a 15' (4.6 m) distance.



## Mechanical Sights

The mechanical sights on the X2 CEW are molded to provide manual aiming of the CEW. The mechanical sights are set to coincide with a top probe's trajectory at a 15-foot distance.



## LED Flashlight

The X2 CEW has a high intensity white LED to aid the user in dark environments.



## Selector Switch

The selector switch allows the user to configure the X2 CEW system. Before using the selector switch, ensure that the CEW is unloaded. See the **Unloading** section in this manual for more information. With the safety switch in the down (SAFE) position, press the selector switch on the top of the X2 CEW to configure the system. See the **Configuring the X2 CEW and Viewing the System Status** section in this manual for more information.

The selector switch is slightly recessed to ensure that it is not pressed unintentionally during normal operations. Pressing the selector switch when the safety is in the up (ARMED) position puts the X2 CEW in stealth mode—the flashlight and LASER are turned off and the CID will dim. Pressing and holding the switch a second time will turn on the flashlight and LASER.

NOTE: The stealth mode cannot activate features that were turned off during CEW configuration. If the X2 CEW is configured to not use its flashlight or LASERS, the stealth mode will not turn them on.

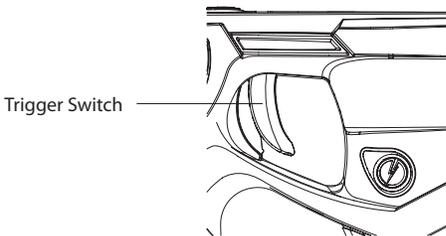
NOTE: Using pens or paper clips to attempt to press the selector switch may damage it. Only use your finger to press the selector switch.

## Trigger Switch

Unlike a firearm trigger, the X2 CEW trigger switch is a momentary electrical switch. The trigger is operational only when the safety is in the up (ARMED) position. Pulling and releasing the trigger switch will deploy the first selected cartridge and result in an approximately 5-second discharge cycle unless the safety is shifted to the down (SAFE) position to discontinue the 5-second cycle. Pulling and holding the trigger switch for more than 5 seconds will result in a continuous discharge until the trigger switch is released or the battery is depleted—whichever happens first.

### **WARNING**

In the event of an accidental discharge, immediately shift the safety switch to the down (SAFE) position to stop the discharge cycle.



## Semi-Automatic Mode

The TASER X2 CEW operates in the semi-automatic mode, which means each sequential trigger pull deploys a cartridge. At the beginning of each event, the leftmost active cartridge is selected by default. For more information on how this works, see the *Deployment Instructions for Self-Defense* section in this manual.

### **CAUTION**

**DO NOT** attempt to change the CEW's operating mode. Changing the operating mode will change how the CEW functions when the trigger or ARC switch are pressed. Contact TASER's Customer Service Department if the operating mode accidentally gets changed.

## Configuring the X2 CEW and Viewing the System Status

### WARNING

Remove the cartridges from the X2 CEW before configuring the CEW or viewing its status. See the *Unloading* section in this manual for more information.

Before using an X2 CEW, set the LASER settings and LED flashlight (if necessary). You also can view status information about your CEW on the CID.

### Setting the Sighting Options

You can set up your X2 CEW to turn the LED flashlight and LASER sights off or on, in several configurations.

Follow these steps:

- 1 Point the X2 CEW in a safe direction.
- 2 Shift the safety switch to the down (SAFE) position.
- 3 Remove the cartridges from the X2 CEW. See the *Unloading* section in this manual for more information.
- 4 Press and hold the selector switch until the main menu displays.



- 5 Press the left ARC switch to open the sighting options.
- 6 Press the right ARC switch to select the setting.



OO – Flashlight OFF and LASER OFF  
LO – LASER ON and flashlight OFF  
OF – LASER OFF and flashlight ON  
LF – LASER ON and flashlight ON

- 7 Press the selector switch to return to the main menu.
- 8 If you are done configuring the X2 CEW, press the selector switch again to exit. Or, to set other options, use the right ARC switch to scroll through the menus.

### Viewing the System Information

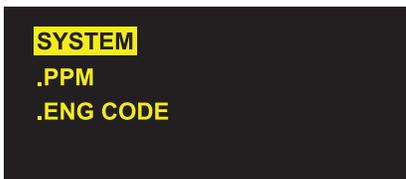
To view information about the X2 CEW system (for example, the serial number, date, time, and firmware revision level), follow these steps:

- 1 Point the X2 CEW in a safe direction.

- 2 Shift the safety switch to the down (SAFE) position.
- 3 Remove the cartridges from the X2 CEW. See the **Unloading** section in this manual for more information.
- 4 Press and hold the selector switch until the MAIN MENU displays.
- 5 Press the right ARC switch until the INFO option is selected.



- 6 Press the left ARC switch. The SYSTEM option should be highlighted by default.



- 7 Press the left ARC switch. From top to bottom the CID displays the X2 CEW's serial number, date, time (GMT), and firmware revision number.



- 8 Press the selector switch to return to the INFO MENU.
- 9 If you are done viewing the system information, press the selector switch again to go to the MAIN MENU. Or, to view other information, use the right ARC switch to scroll through the menus.

## Viewing the Battery Pack Information

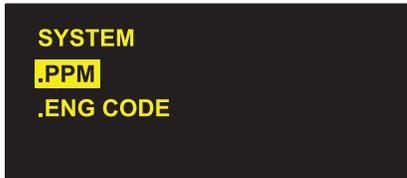
To view information about the battery pack, follow these steps:

- 1 Point the X2 CEW in a safe direction.
- 2 Shift the safety switch to the down (SAFE) position.
- 3 Remove the cartridges from the X2 CEW. See the **Unloading** section in this manual for more information.
- 4 Press and hold the selector switch until the MAIN MENU displays.
- 5 Press the right ARC switch until the INFO option is highlighted.

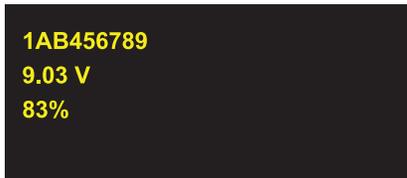


- 6 Press the left ARC switch.

- 7 Press the right ARC switch until the PPM option is highlighted.



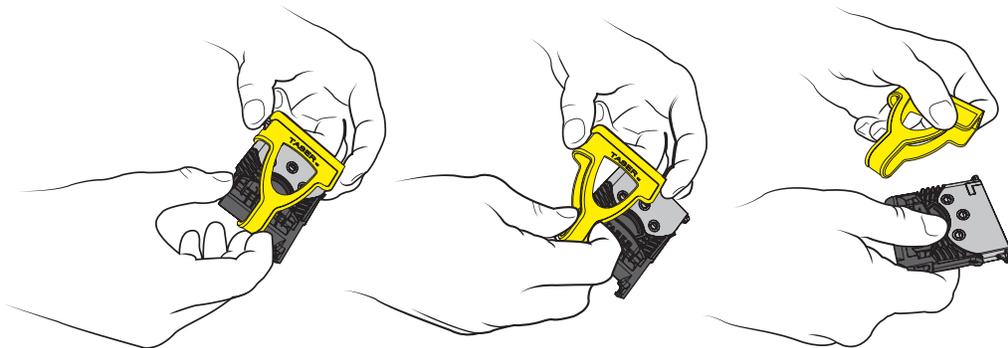
- 8 Press the left ARC switch. From top to bottom, the CID displays the battery pack serial number, remaining battery voltage, and estimated battery capacity remaining.



- 9 Press the selector switch to return to the INFO MENU.
- 10 If you are done viewing the battery information, press the selector switch again to go to the MAIN MENU. Or, to view other information, use the right ARC switch to scroll through the menus.

## Remove the Shipping Cover from the Smart Cartridge

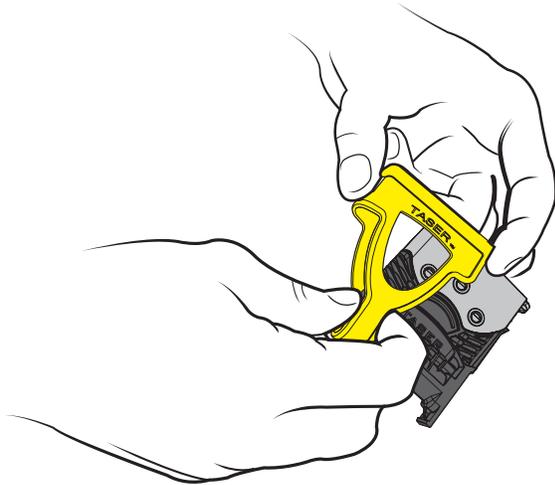
Smart cartridges (sold separately) are shipped with a shipping cover in place. Carefully remove the cover before attempting to load a cartridge into an X2 CEW.



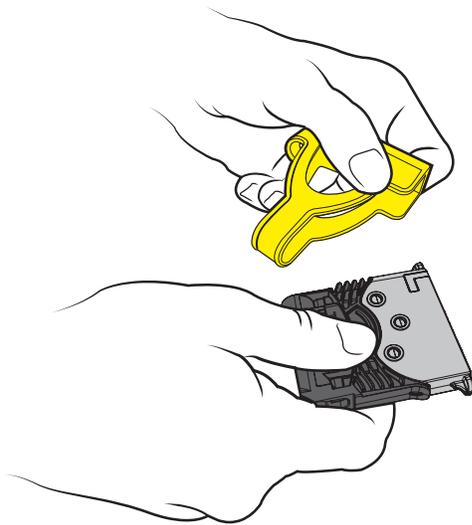
- 1 Hold the cartridge over a table or other close by surface so the cartridge will not fall to the floor if it is dropped.
- 2 Hold the cartridge so the blast doors are facing away from you and others. (The blast doors are behind the solid portion of the cartridge cover with the word REMOVE on it.)
- 3 Find the cartridge tab sticking out the rounded side of the shipping cover.



- 4 Push against this tab while pulling the cartridge out. You might consider pushing on the cartridge with your thumbs and holding the cover with your fingers. There should be an audible click when the cover releases the cartridge.

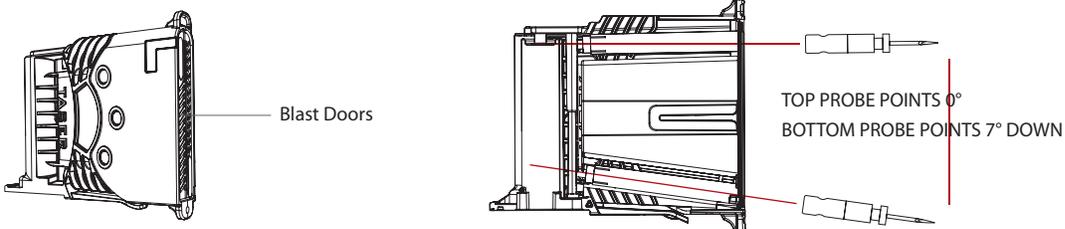


- 5 Pull the cartridge out of the cover.



## Standard-Range (15 ft/4.6 m) Smart Cartridges

A 15-foot cartridge has black blast doors.



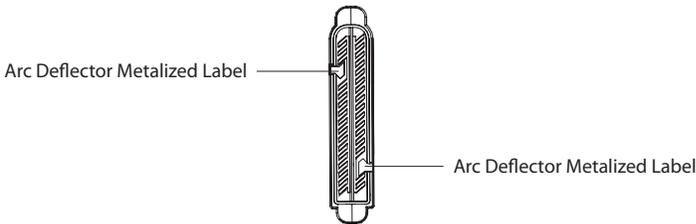
## Smart Cartridges General Instructions

### WARNING

Never attempt to open or modify a cartridge. Tampering with a live cartridge could cause it to fire or malfunction (which may result in serious injury). Remove the cartridge from the X2 CEW before inspection.

Before installing and using a cartridge, inspect the blast doors for cracks. The inspection should include checking the break seam running down the center and both sides of the front of the blast door. If the blast doors are cracked, do not use the cartridge.

Also, inspect the Arc deflector metalized labels. Over time, the labels may show signs of wear. This is normal. If the labels have worn away completely or fallen off, do not use the cartridge.

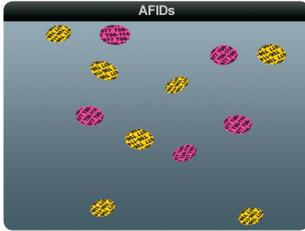


The X2 CEW can determine whether the cartridges loaded in the cartridge bays have been expended or not. The CEW also can determine whether all the cartridge bays are loaded or not. This means the CEW will not select an empty bay or an expended cartridge when a live cartridge is available. Cartridge status is displayed on the CID.



## AFID

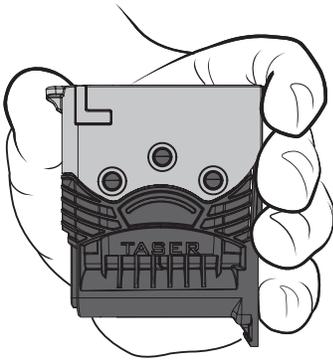
Every time a cartridge is deployed, approximately 20–30 small confetti-like Anti-Felon Identification (AFID) tags are ejected. Each AFID tag is printed with the corresponding serial number of the cartridge.



## Load the Smart Cartridges

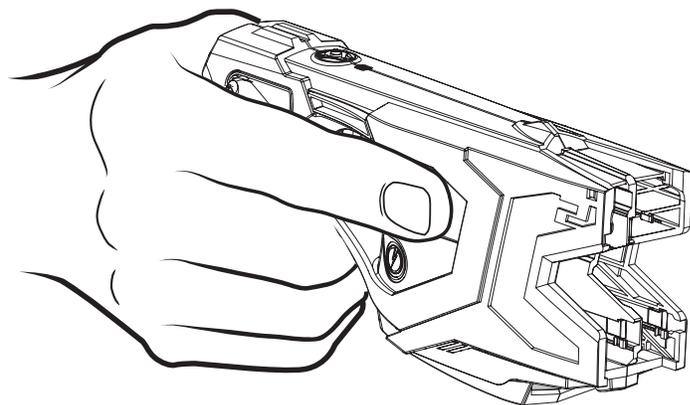
### **WARNING**

Never place your hands, fingers, or other body part in front of the cartridge. This is especially important when loading and unloading the cartridge. Serious injury could result. When loading and unloading always hold the cartridge on the sides or top.

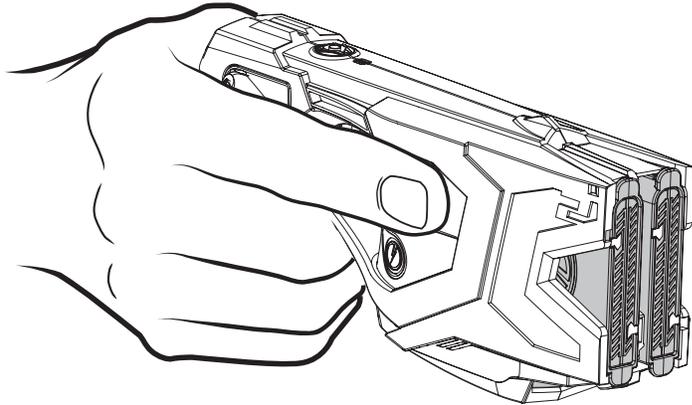


Always treat your X2 CEW as if it were loaded.

Unloaded X2 CEW viewed at an angle.



Loaded X2 CEW viewed at an angle.

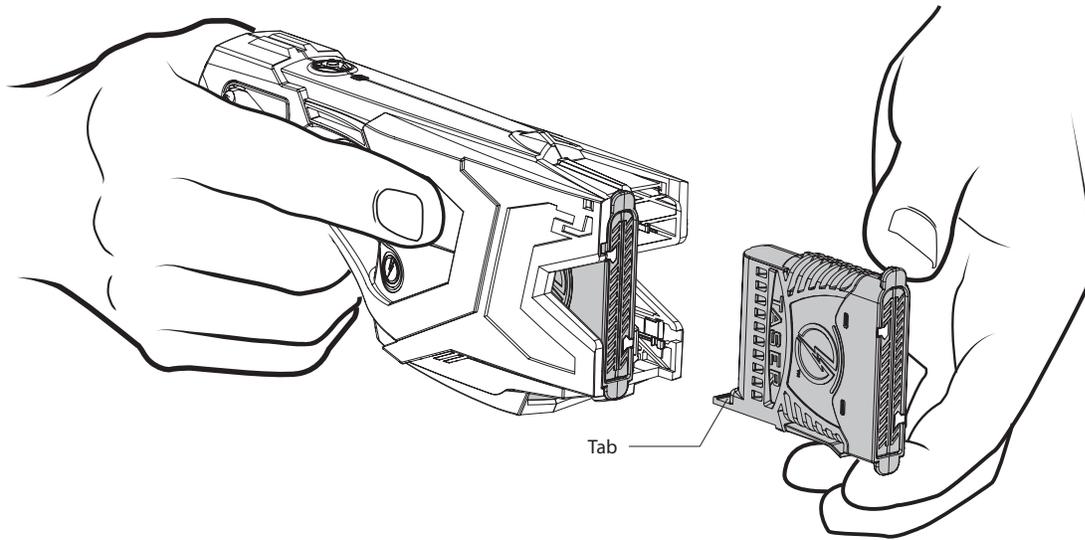


## Loading

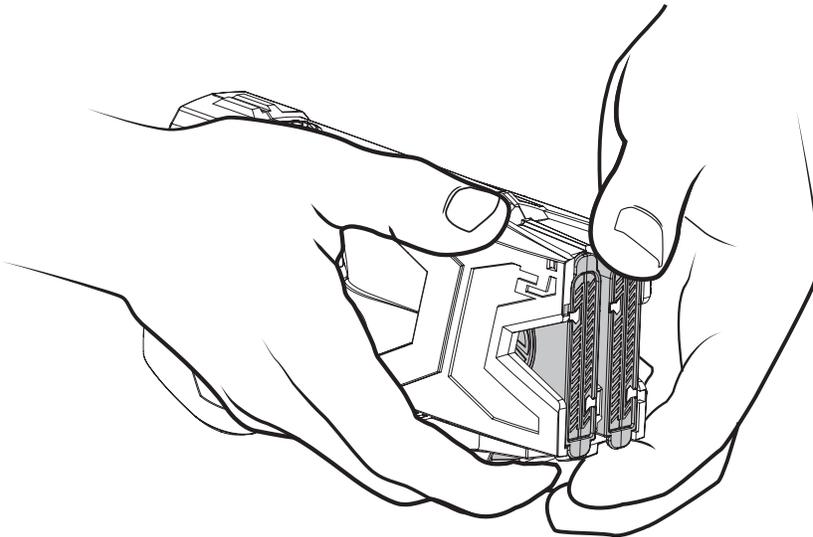
Cartridges are shipped with a shipping cover in place. Remove these covers before attempting to load a cartridge into an X2 CEW. See the *Remove the Shipping Cover from the Smart Cartridge* section in this manual for more information.

- 1 Point the CEW in a safe direction.
- 2 Ensure the safety switch is in the down (SAFE) position.
- 3 Make sure the protective shipping cover is removed from the cartridge.
- 4 Keeping your hand away from the blast doors, gently push the cartridge into the cartridge bay until an audible click is heard.

NOTE: The position of the tab on the bottom of the cartridge; this side of the cartridge goes in the bottom of the X2 cartridge bay.



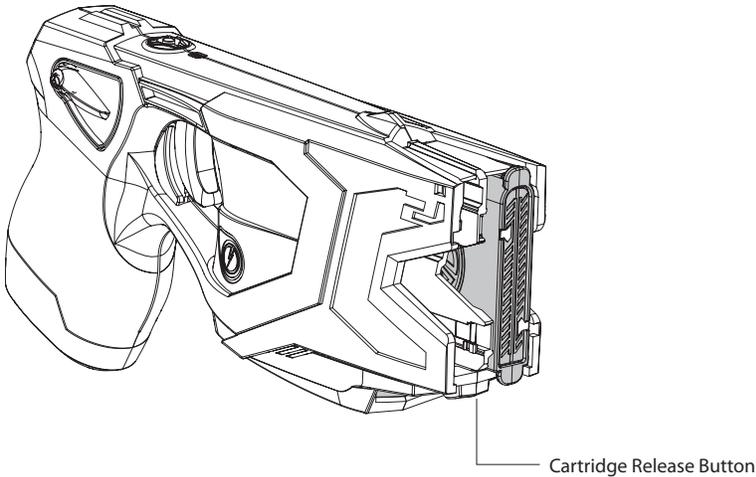
- 5 Verify that the cartridge is secure by pulling on the tabs on the lower and upper part of the cartridge.



With the CEW pointed away from you, by loading from the right cartridge bay to the left bay (or left to right if the right hand is used), it is less likely the operator will place fingers in front of the blast doors of loaded cartridges.

## Cartridge Release Button

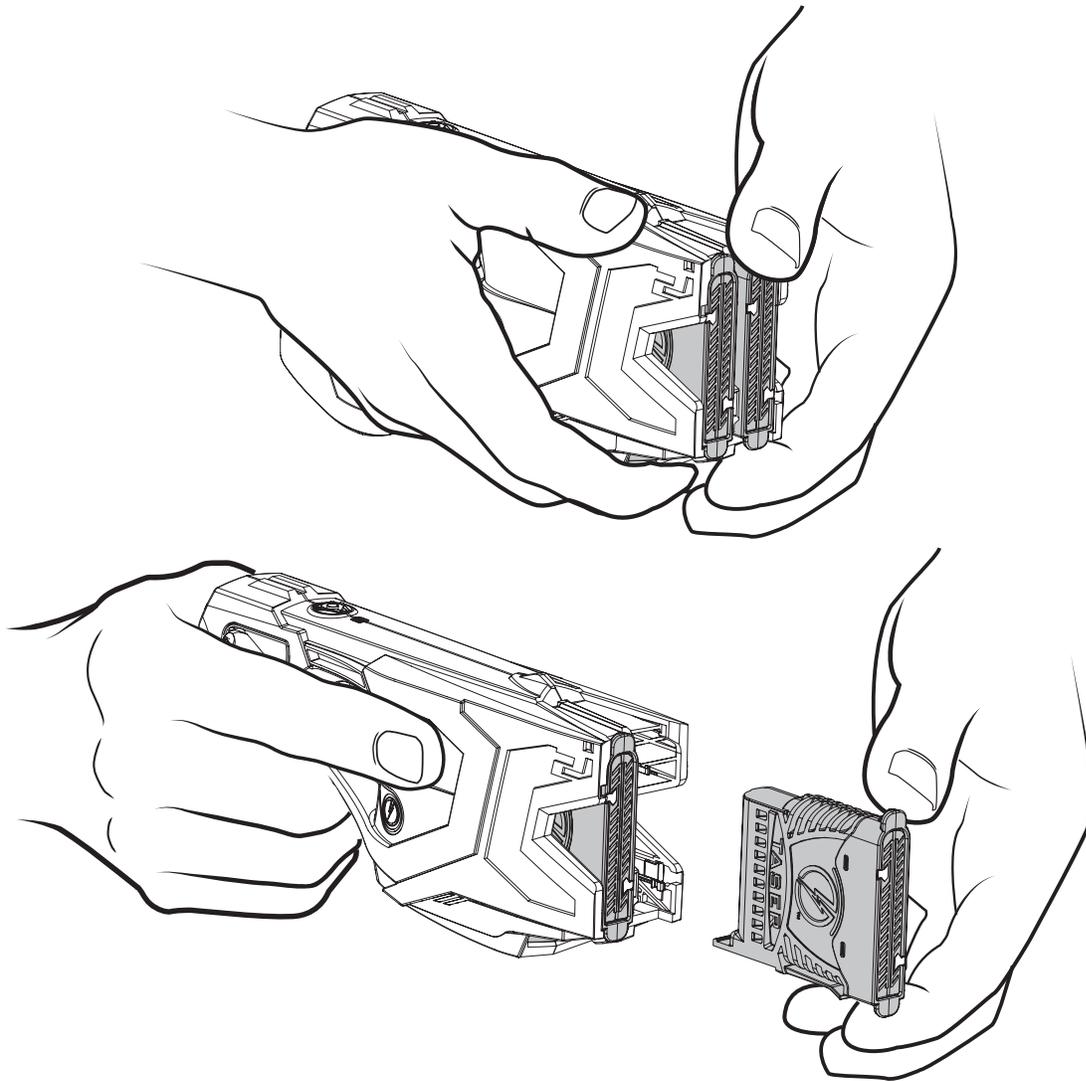
Cartridges are held in the X2 CEW after they are loaded. Press the cartridge release button to release the cartridges before attempting to remove them from the CEW. For further instructions, see the *Unloading* section in this manual.



## Unloading

- 1 Point the CEW in a safe direction.
- 2 Ensure the safety switch is in the down (SAFE) position.
- 3 Keep your hands and other body parts away from the front of the cartridges.
- 4 Press the cartridge release button with the index finger of your supporting hand.
- 5 Firmly pull the cartridge out of the bay by pulling on the upper tab and lower tab of the cartridge. If the expended cartridge feels as if it is stuck in the cartridge bay and will not easily dislodge, try firmly pressing on the cartridge release button directly below the individual cartridge that is difficult to remove.

NOTE: With the CEW pointed away from you, use the left hand to unload cartridges beginning with the leftmost cartridge bay. By unloading from left to right (or right to left if the right hand is used), it is less likely you will place fingers in front of the blast doors of loaded cartridges.



The cartridges can be reloaded independently. That is, if one of the two cartridges has been expended, you can replace the expended cartridge with a new one. You do not have to wait until both cartridges have been expended before reloading.

To replace the expended cartridge:

- 1 Point the CEW in a safe direction.
- 2 Ensure the safety switch is in the down (SAFE) position.
- 3 Press the cartridge release button.
- 4 Firmly pull the cartridge out of the bay by pulling on the upper tab and lower tab of the cartridge.
- 5 Keeping your hand away from the blast doors, gently push a new cartridge into the cartridge bay until an audible click is heard.
- 6 Verify that the cartridge is secure by pulling on the tabs on the lower and upper part of the cartridge.
- 7 Verify that the remaining cartridge is secure by pulling on the tabs on the lower and upper parts of the cartridges.

## Practicing with the X2 CEW

TASER recommends practicing with your X2 CEW to become familiar with its functions and how it deploys.

Be aware of your surroundings when deciding where to place your training target. Ensure that the target has a firm backing that will allow the probes to stick and not bounce off and strike an unintended person or object. Do not place the target anywhere a probe that misses or penetrates the target could cause damage or injury.

Training cartridges with blue blast doors and non-conductive wire are available for purchase through TASER International.

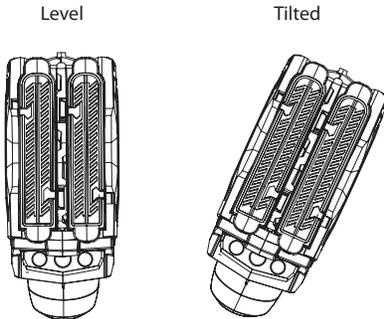
**Safety first! Always treat your X2 CEW as if it were loaded.**

## Using the X2 CEW

The X2 CEW is a serious, state-of-the-art defensive weapon and should be treated accordingly. Although the CEW is designed to be as nonviolent as possible in stopping a combatant, its use can result in injuries, including but not limited to, a probe embedded in an eye or secondary injuries related to falling. For a full list of warnings, see the product warnings at [www.TASER.com](http://www.TASER.com).

The TASER CEW is to be used only for lawful purposes, including lawful self-defense or in the defense of others. Check your state and local laws for applicable regulations.

## Aiming and Probe Placement



For most deployments, hold the CEW level. Do not tilt the CEW unless it is necessary to align the CEW with the attacker.

The top probe is designed to impact the target near the top LASER beam but exact placement can vary depending on numerous factors, including, but not limited to the distance, movement of the user or attacker, and environmental factors.

Hold the X2 CEW so that the cartridge is vertical for an upright target. If both the upper and lower LASERs are active, you should be able to estimate where each probe will hit.

**NOTE:** The LASERs are designed to coincide with the top and bottom probes of a Smart cartridge at 15 feet (4.6 m). Thus, if your target is 15 feet away the probes will strike the attacker approximately where the LASERs are projected. If the CEW is being held perfectly vertical, the top and bottom LASERs should be vertically aligned.

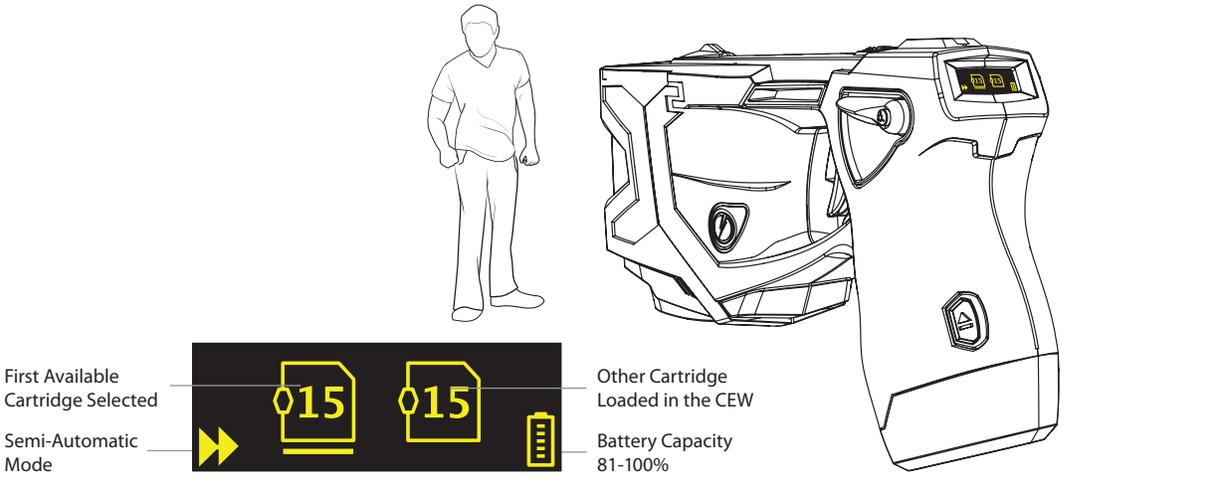
If you are significantly closer or further than 15 feet to the target, the LASERs will appear to be out of alignment. This is because the two LASERs are located almost 1 inch apart side-by-side on the CEW and zeroed to 15 feet.

Be sure not to fire at an attacker who is over 15 feet or 4.6 meters away (measure 15 feet or 4.6 meters to see how far this is – it will probably be further than you think). If you do deploy at someone more than 15 feet or 4.6 meters away, the probes will not have sufficient wire to reach them.

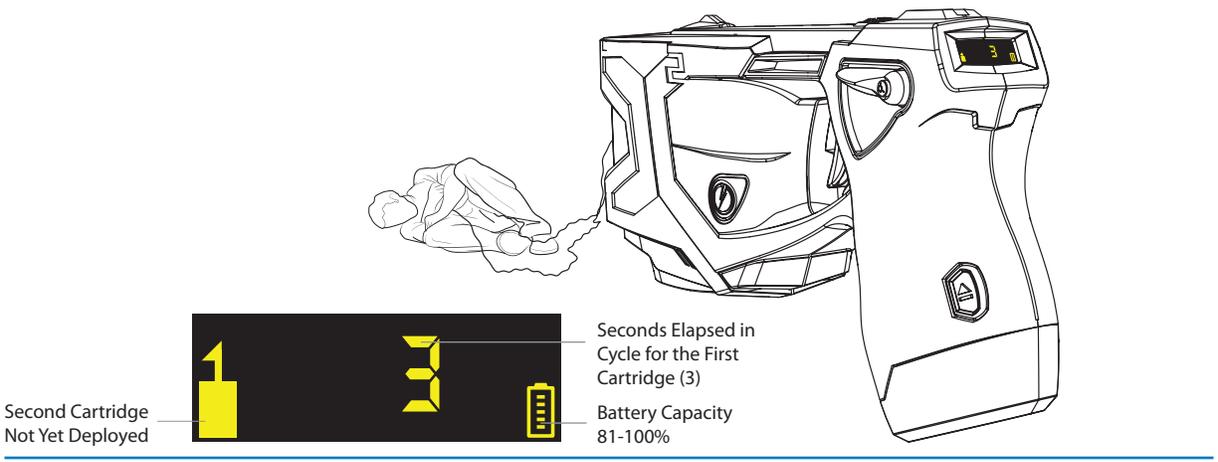
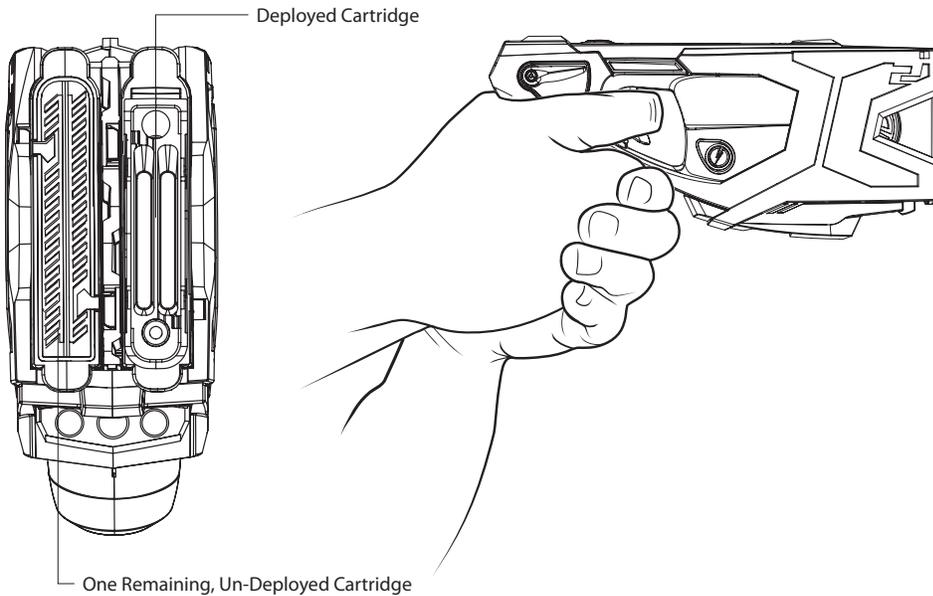
## Deployment Instructions for Self-Defense

- 1 Obtain the X2 CEW and ensure the cartridges are installed.
- 2 If a person approaches in a suspicious or threatening manner, place the safety switch in the up (ARMED) position.
- 3 Aim the LASER beam at the attacker.
- 4 Shout verbal commands to “get away,” if feasible. It is possible that the person will flee based on the verbal commands and LASER.
- 5 If you determine that you need to deploy the X2 CEW in self-defense, ensure that you are within 15 feet of the attacker.

Sequential trigger pulls can deploy an X2 cartridge. At the beginning of the event, the leftmost active cartridge is selected by default.



- 6 Pull the trigger to deploy the selected cartridge.



The X2 CEW energizes the first cartridge. Releasing the trigger automatically selects the next cartridge while the first cartridge is deploying.

If you have engaged an attacker and contact is good, pressing and holding the ARC switch will apply energy to the attacker after the first 5-second cycle is complete. This allows you to apply cycles to a continually threatening person, if needed, without expending the remaining cartridge. As necessary, press the ARC switch until help arrives or you have the opportunity to escape.

NOTE: Do not pull the trigger and press the ARC switch simultaneously. The trigger will override the ARC switch.

- 7 If the probes from the first cartridge do not make contact or good contact, consider deploying the second cartridge.
- 8 As soon as it is safe to do so, call 911 and report the specific location of the threat.

## Potential Causes of Reduced or No Effectiveness

- **Loose or Thick Clothing.** If the probes lodge in clothing and are too far away from the attacker, CEW effectiveness is reduced and can be eliminated.
- **Miss or Single Probe Hit.** The electrical current must pass between a positive probe and a negative one (top and bottom probe) in a completed and maintained circuit. If one probe misses, a second cartridge may be deployed, to complete the electrical circuit. Also, using the X2 CEW in the drive-stun mode may complete the circuit between the single probe and the CEW electrode.
- **Low Nerve or Muscle Mass.** If the probes impact in an area where there is very little muscle mass (e.g., the side of the rib cage), the effectiveness can be significantly diminished.
- **Limited Probe Spread.** Probe spreads of less than 4 inches/10 cm (including drive-stun) may result in little or no incapacitation effect and become primarily a pain compliance option.
- **Wires Break.** If a wire breaks (e.g., during a struggle), the current will not flow to the probes and an additional deployment may be required. Deploying the second cartridge or drive-stun may still be available.

## Warning Arc Display

Pressing and holding the ARC switch displays a Warning Arc discharge across the front of the X2 CEW.

With a Warning Arc display, the user may deter an attacker without having to fire the cartridges. Pressing the ARC switch does not deploy the cartridges even if the X2 CEW is loaded.



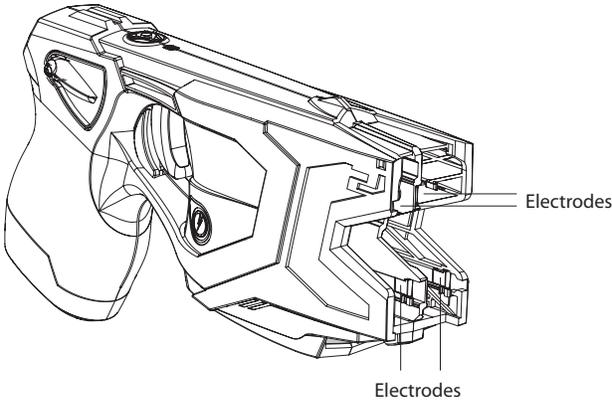
NOTE: Quickly pressing and releasing the ARC switch for a half-second or less will advance cartridge selection to the right. A sustained ARC switch press (greater than half a second) will not advance the cartridge selection.

### **WARNING**

Use the ARC switch, not the trigger switch, to employ the Warning Arc display. Pulling the trigger switch will deploy a loaded unfired cartridge.

## Electrodes

The front of the X2 CEW has 4 metal electrodes. The electrodes provide the ability to use the X2 CEW in a “drive-stun” mode as a traditional stun gun-type CEW.



## Drive-Stun Backup

Drive-stun capability is available with the X2 CEW. To apply a drive-stun, place the safety in the up (ARMED) position and press the ARC switch, just as you would to employ a Warning Arc display.

Use the ARC switch instead of the trigger to activate the X2 CEW for a drive-stun. When you use the ARC switch, energy will spark across all the electrodes or arc deflector metalized labels without deploying the cartridges.

The drive-stun mode generally becomes primarily a pain compliance option. Probe deployment is usually considered more desirable if incapacitation is the desired objective, even at close range. Some of the advantages of probe deployment include:

- Drive-stun is only effective while the CEW's electrodes are in direct contact with the attacker or when pushed against the attacker's clothing. As soon as the CEW is moved away, the energy being delivered to the attacker stops. Deploying the probes allows the user to separate from the attacker at a distance while increasing the ability to maintain control.
- Due to automatic reflex actions, most persons will struggle and fight to separate from a drive-stun because of the pain.
- If the probes are deployed, even at very close range, the user may drive-stun to another portion of the attacker's body that is further away from the probes, thereby increasing the possibility of inducing incapacitation.

If the drive-stun is not effective, evaluate the location of the drive-stun, consider an additional cycle to a different point on the attacker's body, consider deploying the cartridges or other force options, or consider escaping from the situation.

When using the drive-stun, push (drive) the front of the X2 CEW firmly against the body of the attacker. Simply “touching” the X2 CEW against the person is not sufficient. The attacker is likely to recoil and try to get away from the CEW. It is necessary to aggressively drive the front of the CEW into the person for maximum effect.

## Function Test

TASER International recommends conducting a function test at least once every 6 months. The function test is done to verify that the CEW is working properly.

To perform a function test:

- 1 Ensure the safety switch is in the down (SAFE) position.
- 2 Safely unload both cartridges. See the **Unloading** section in this manual for more information.
- 3 Point the CEW in a safe direction and away from your body.

### **WARNING**

Pulling the trigger will deploy the cartridge probes. Conversely, pressing the ARC switch will not deploy the cartridge probes. For additional safety, always unload both cartridges from the cartridge bays prior to conducting a function test.

- 4 Shift the safety to the up (ARMED) position. Keep all fingers away from the trigger and keep the CEW pointed in a safe direction. While performing a function test, **DO NOT** touch the trigger at any time.
- 5 Press the ARC switch.

A 2- to 3-second sustained press of the ARC switch should activate the Warning Arc long enough to hear and see the X2 CEW arc. It is not necessary to extend the duration.

### **WARNING**

View the arc from the top or side of the CEW. Do not point the CEW at your face or have it near your face.

- 6 Visually verify that there are 2 separate arcs.
- 7 Look at the display and verify the following.
  - The cartridge information is visible.
  - The battery icon displays a 20 percent or greater capacity.

- No fault icons appear

8 Shift the safety switch to the down (SAFE) position.

9 Reload the cartridges if appropriate to do so.

## X2 CEW Maintenance and Care

### CAUTION

The X2 CEW product is a sensitive piece of electronic equipment, and should be handled with care. Avoid dropping an X2 CEW. Do not use an X2 CEW that has a cracked handle.

- Check the battery pack regularly. Replace it when the battery percentage reaches 20%.
- Secure the X2 CEW in a safe and secure location when the CEW is not in use.
- Avoid exposing the X2 CEW to excessive moisture or water.
- See the troubleshooting guide at [www.TASER.com](http://www.TASER.com) for detailed instructions.

## Dropped or Wet X2 CEW

### WARNING

Do not immerse the CEW in water. Any CEW loaded with cartridges that is submerged in water may unexpectedly deploy the cartridges. If your CEW has been submerged in water, do not use it.

If your X2 CEW is dropped or gets wet, follow these instructions.

- 1 Point the CEW in a safe direction and away from your body.
- 2 Shift the safety switch to the down (SAFE) position.
- 3 Safely remove the battery pack.
- 4 Safely remove all cartridges.

### CAUTION

Dry the X2 CEW thoroughly (at least 24 hours). Do not use an external heat source such as a microwave oven or hair dryer to dry the X2 CEW.

- 5 Safely reinstall the battery pack.
- 6 Point the CEW in a safe direction and away from your body and ensure that the safety switch to the down (SAFE) position.

- 7 Shift the safety to the up (ARMED) position.
- 8 Perform a function test. Go to *Function Test* in this manual for instructions.

## TASER Online Troubleshooting Guide

A troubleshooting guide is available by visiting [www.TASER.com](http://www.TASER.com). If you need product support on accessories or have any other questions, please contact customer service at:

U.S.: 1.800.978.2737 or 1.480.905.2000

International: +1.800.978.2737 or +1.480.905.2000

## Product Returns

To return a TASER product for service, first follow the procedures at [www.TASER.com](http://www.TASER.com).

### **WARNING**

If the TASER CEW has been exposed to bodily fluids or other bio-hazards, contact TASER's service department at +1.800.978.2737 or +1.480.905.2000 for specific instructions BEFORE returning the X2 CEW.

# TASER Facility Protection

# 7

TASER Facility Protection (TFP) is an option for schools and other organizations to purchase an X2 CEW as part of an inclusive safety, training, and maintenance package. TFP includes training by a Certified TASER Instructor for personnel the organization authorizes to use its X2 CEW. The TFP purchase also includes a gun safe in which to store the CEW. The gun safe incorporates biometric identification technology so only authorized personnel can open it and access the CEW.

As part of TFP, a Certified TASER Instructor will visit the purchaser's site once a year to perform maintenance, including firmware updates, and battery and cartridge replacements on the CEW. The instructor who performs maintenance also can access the CEW's internal logs and provide these records to the organization if necessary. The instructor will retrain all previously trained personnel and any new authorized personnel during the visit.

## Legality

The BATFE has classified our TASER CEWs as non-firearms because they use compressed gas, rather than explosives to launch the projectiles. Because TASER CEWs are not firearms, they may be carried without a permit in certain jurisdictions (check state and local laws for requirements in your area). The TASER CEW is restricted from possession by citizen users in the following states: Hawaii, Massachusetts, New Jersey, New York, Rhode Island, Washington DC, U.S. Virgin Islands, and certain cities and counties. Check our website at [www.TASER.com](http://www.TASER.com) for a list of known state and local laws concerning TASER CEWs. Because state and local laws may change, be sure to research the applicable laws in your area prior to using, possessing or transporting the CEW.

## Medical Research

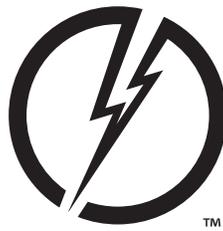
TASER CEWs are among the most extensively studied CEWs. Many CEW-related medical and field studies have been published. For more information go to [www.TASER.com](http://www.TASER.com).

## Warranty

Please see the product warranty which came with your CEW. TASER's current product warranties are also available on [www.TASER.com](http://www.TASER.com).

## Warnings

See the current product warnings that came with your CEW, for more information about your TASER product. TASER's current product warnings are also available on [www.TASER.com](http://www.TASER.com).



**TASER**



Product functions and specifications may change without notice and the actual product may vary from the illustrations in this manual.

Precision Shaped Pulse, Rotational-Pulse Drive, Smart, X2, X2 Defender and  are trademarks of TASER International, Inc., and TASER and  are registered trademarks of TASER International, Inc., registered in the U.S. © 2013 TASER International, Inc. All rights reserved.