

[DOCUMENTATION SAMPLE 2 – REDACTED FOR CLIENT PRIVACY] [CHRIS WILLIAMS]

1. TRAINER MODE

IMPORTANT NOTE: Weapon Barrel Lock is engaged at all times while in Trainer Mode.

Trainer Mode allows users to become familiar with the operation of the [REDACTED] system and engage in [REDACTED] training.

With [REDACTED] transmitters and receivers on the WSP (Weapon Sensor Package), you can also undertake force-on-force exercises. The [REDACTED] transmitter "shoots" the attackers and the [REDACTED] detector detects "damage" inflicted on the system.

To enter Trainer Mode, the Supervisor and Operator stations set switches as follow:

Supervisor station:

Control	Type	Position
EMERGENCY STOP	Push/pull button	Pulled Out
ENABLE/DISABLE	Switch	ENABLE

[REDACTED] Panel Controls:

Control	Type	Position
TRIGGER	Switch	DISABLE
MODE	Switch	TRAINER

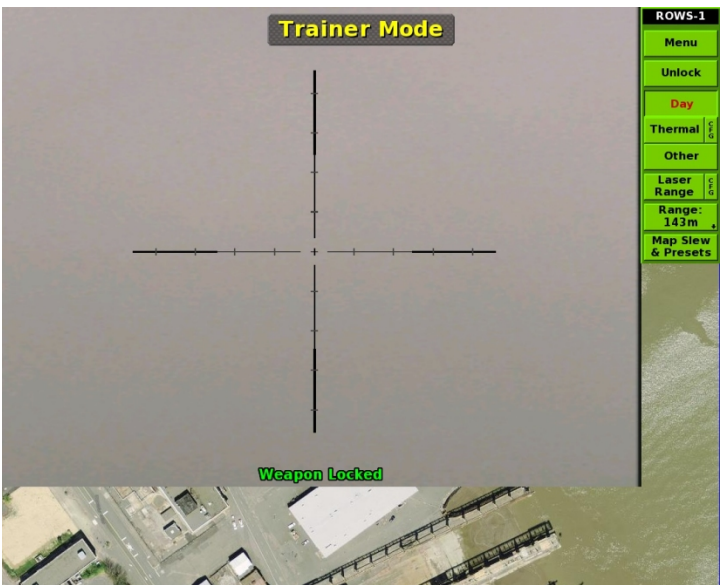
Operator Station Controls:

Control	Type	Position
EMERGENCY STOP	Push/pull button	Pulled Out
ENABLE/DISABLE	Switch	ENABLE

When in Trainer Mode, the map view display shows the words "Trainer Mode" along the top. Each of the [REDACTED] icons will also show the word "TRAINER".

Trainer Operation

Select a [REDACTED] in Trainer Mode. The Targeting view displays the target from the camera with the usual [REDACTED] graphics. You'll see the words "TRAINER MODE" along the top of the window and "WEAPON LOCKED" along the bottom of the window.



The TRIGGER switch must be in the DISABLE position in Trainer mode. In all other respects the Trainer behaves is just like the [REDACTED] system. Speed and range of motion, camera views and other features are accessible from the targeting view, and are identical to an actual [REDACTED] system. The training icon animation also simulates the [REDACTED] opening and closing.

Incurring Enemy Fire

When [REDACTED] shots directed at the [REDACTED] housing are detected by the [REDACTED] receivers, the Trainer is disabled, and the Trainer icon displays a wrench. The Trainer will not respond to [REDACTED] shots when the emulated housing is closed (Indicated by the [REDACTED] pointed down). The number of shots required to disable the Trainer is determined in the site configuration. The Trainer [REDACTED] Status Report Window will show that the Trainer [REDACTED] had been disabled by enemy fire.

[NUMBER OF HITS IMAGE]

With a level 2 password entered, you can modify the number of [REDACTED] hits that will disable the [REDACTED]. Press Alt-H and enter in the desired hits, see picture above. This setting is made to each [REDACTED] independently.

	<p>[STATUS REPORT IMAGE 1]</p> <p>[STATUS REPORT IMAGE 2]</p>
	<p>Touching the [REDACTED] icon on the Supervisor map view will show the number of [REDACTED] Hits the [REDACTED] has taken.</p>

Once disabled, the Trainer will remain inoperable until the Supervisor switches MODE back to [REDACTED] and then back to TRAINER.

The E-Stop button on the Operator panel will not turn off the [REDACTED], but will simulate it being shut down. If something requires shutting down the [REDACTED], you must do so from the Supervisor station.

Trainer Mode Safety Aspects

The [REDACTED] Panel contains the controls to switch between [REDACTED] mode and Trainer mode. Trainer Mode is accomplished by turning the MODE switch from [REDACTED] to TRAINER. The MODE switch operates both software and hardwired controls.

[MODE SWITCH IMAGE]

In Trainer Mode, the user operates the [REDACTED] Trainer Optics Actuator in place of the [REDACTED] elevation actuator. The weapon is safely locked and disabled inside the [REDACTED] housing. The weapon cannot be armed or deployed while in Trainer Mode.

[REDACTED] software and circuitry of the Command Control and [REDACTED] is designed such that the weapon can never deploy or fire when in Trainer Mode. Multiple redundant safety features are employed, including:

- Housing cover power off prevents deploying of the weapon
- Trigger actuator power off prevents firing of the weapon.
- The software disables the [REDACTED] and will not send arm or fire commands
- Trainer Mode is displayed on the monitors
- Software disables both Operator stations if the cover opens
- Software disables both Operator stations if the [REDACTED] fails
- Extensive testing to verify proper operation

Trainer mode uses the same [REDACTED] fire control safety features to prevent an inadvertent firing of the weapon. In addition to the fire control safety features, the [REDACTED] housing cover power is shut off preventing the Operators from opening the housing and exposing the weapon to training personnel.

The MODE switch on the [REDACTED] Panel determines the condition of the system. When the switch is in the TRAINER position, the software disables all fire control commands to the [REDACTED] and Trainer Mode is displayed on the monitors. The hardwired signals to the [REDACTED] shut off power to the trigger actuator and the housing cover power.

In order to successfully enter Trainer Mode, the following requirements must be met:

1. The TRIGGER switch on the [REDACTED] Panel must be set to OFF.
2. The EMERGENCY STOP button must not be pressed.
3. All [REDACTED] housings must be closed.
4. Any [REDACTED] displaying a wrench must be STOPPED.

Failure to meet any of these requirements when the MODE switch is set to TRAINER will result in an error message like this:

[CANNOT SWITCH TO TRAINER MODE IMAGE]

To clear the error message, set the MODE switch back to [REDACTED]. Make the necessary changes before attempting to switch back to Trainer Mode again.

Note: While an error is displayed on the Supervisor system, the Operator systems will be disabled.

Prior to entering Trainer Mode, all [REDACTED] housings are closed with each weapon platform properly parked, locked, and disabled within its closed housing. In this condition the muzzle of the weapon is locked into the bullet trap, and fire circuit is disabled. If these conditions have not occurred, a FAULT indication will appear on the monitor.

When the Supervisor switches to Trainer Mode by turning the MODE switch from [REDACTED] to TRAINER, two hardwired signal lines are switched OFF; the trigger and the cover signal lines (the electrical connection is disconnected at the switch). The trigger signal line interrupts power to the weapon to prevent it from firing. The cover signal line shuts off power to the cover preventing opening of the housing.

Barrel Lock:

The Barrel Lock secures the weapon barrel into the bullet trap. When the weapon is not deployed, its muzzle is guided into place facing the bullet trap, pointing downward. Two steel 'keys' lock into the sides of the muzzle, stopping it from moving even if the weapon is sent an ARM command improperly.

This prevents the weapon from rising during Training Mode.