

# **Tippmann Ordnance Company Inc.**

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**CB-32 Field Manual E1.01**

The **CB-32A** IED is a pneumatically powered Training Aid that is used to simulate an Improvised Explosive Device in training exercises and to stimulate the fragmentation effects caused by an improvised explosive device such as a "Roadside IED", or a Suicide Attack Vehicle (Car Bomb)..etc. the unit is capable of being deployed in multiple scenarios through the use of individual "adapter kits". The adapter kits modify the configuration of the device to fit unique operational tasks and different training scenarios where "Roadside IED's", "Mobile Attack Vehicles", or other types of real world encounters where IEDs are a threat.

The individual CB-32A kits are suited to be installed on location (below ground, vehicle implant...etc) temporarily or permanently if required. The CB-32A's CO2 Power Supply Unit is the device's primary component and is the only part of the CB-32A that is required to activate the individual Adapter Kits, giving MOUT operators the option of choosing which kit to activate by simply moving the Power Supply Unit to that kit's location (simultaneous kit activation control systems used by automated MOUT facilities are available upon request).

The CB-32A is constructed in a US Military rocket box that is impervious to the elements and is suitable to be buried indefinitely in a Road de IED configuration to provide for concealment.

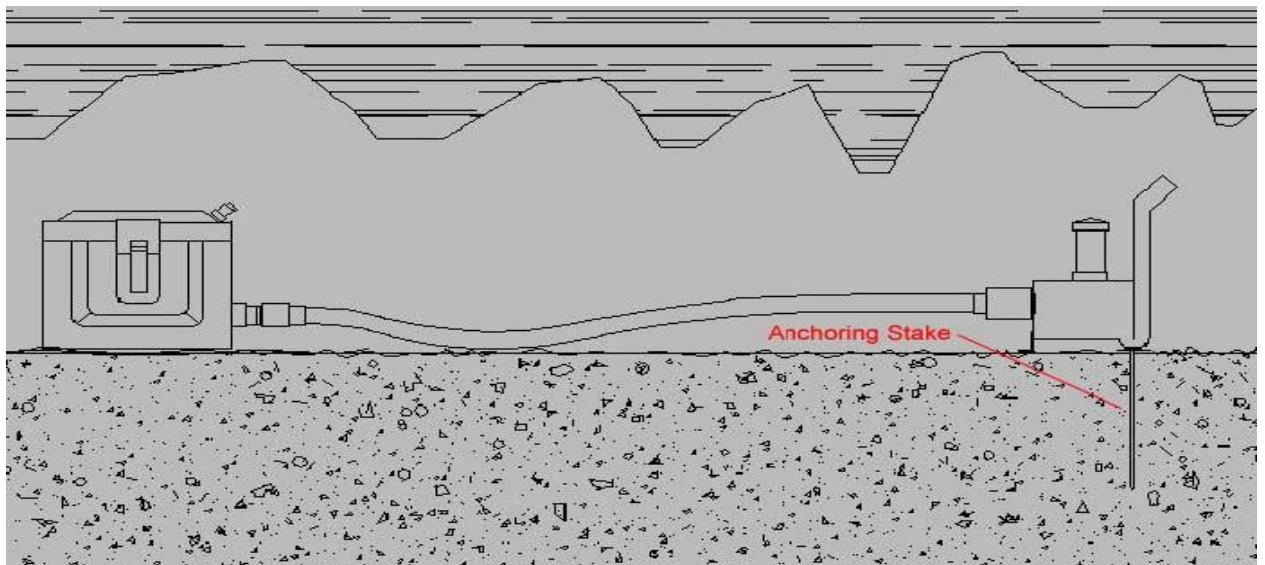
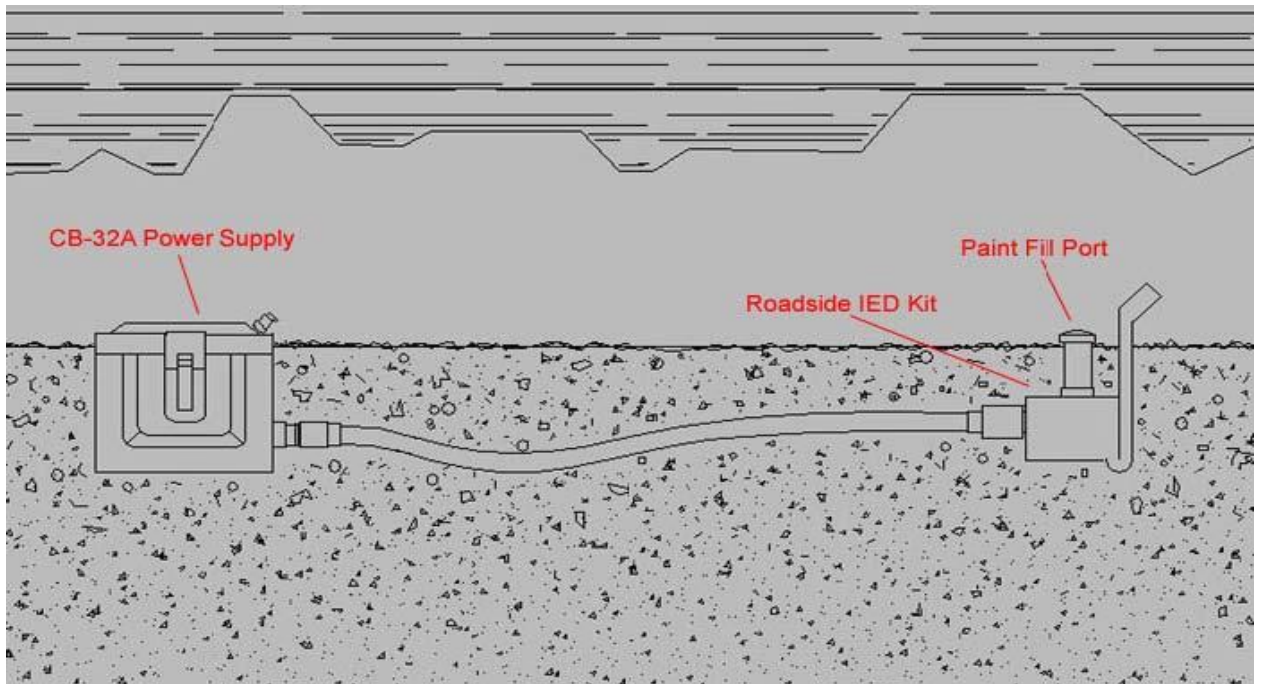
The CB-32A can also be deployed as a mobile attack vehicle (car bomb) quickly and easily with the "Mobile Attack Kit" (MAK). Once the MAK has been installed into a vehicle the unit can be deployed by simply placing the power supply into the chosen vehicle (trunk, pickup bed, under hood..etc) and plugging the MAK header into the quick connect at the side of the Power Supply Unit.

**Detonation control options/kits include:**

- Pneumatic Momentary Pilot Button with 100ft lead (Roadside IED Kit)(Manned)
- Embedded Pressure Sensitive Road House (Roadside IED Kit)(Un-Manned)
- Pneumatic Momentary Pilot Button with 20ft lead (Mobile Attack Kit)



The CB-32A is designed to be concealed in a below ground placement when using the Roadside IED Kid (RIED). If surrounding concealment opportunity is available, the unit can also be used in a ground level setting using anchoring stakes and surrounding concealment material. The CB-32A Mobile Attacker Kit (MAK) is designed to be installed into a motor vehicle turning the vehicle itself into the attacker. Follow the operating procedures in this field manual to correctly deploy the CB-32 device.



Picture 1 is a simulation picture IED explosive device buried underground out of eye sight.

Picture 2 is a simulation of an IED explosive device set above ground while being secured with anchoring stakes included with this kit.

## Section A: Deploying the CB-32A (Roadside IED):

**Step 1:** Determine the correct angle to set the RIED muzzle to create the desired field of fire.

**Step 2:** Place the CB-32A's Power Supply and Roadside IED Kit in a ground level position using two stakes to secure the RIED muzzle to the ground at the determined field of fire as shown in above picture. You may choose to embed the CB032A's Power Supply and RIED Kit in a below ground emplacement at the determined field of fire as shown in picture above.

**Step 3:** Connect the RIED and the Power Supply using the 50ft. Line Command Detenator that is supplied with the RIED Kit.

## Section B: Filling the Roadside IED Marking Paint Reservoir

**\*NOTE: ALWAYS FILL THE RIED WITH PAINT BEFORE PRESSURIZING THE SYSTEM!**

**Step 1:** Remove the paint reservoir fill port lid/cap shown below.

**Step 2:** Pour the required amount of liquid marking paint into the reservoir.

-1 bottle (32oz.)=50% capacity.

-2 bottles (64oz.)= 100% capacity.

**Step 3:** Replace the cap/lid and conceal as necessary.

**NOTE:** The CB-32A will create approximately the same kill zone pattern using 50% or 100% load.



## Section C: Charging the CB-32A CO2 System

**Step 1:** Locate the CO2 quick connect near the filling cap of the RIED. Connect the CB-32A Charging Kit quick connect to the external CO2 charging port shown in the picture below by pulling back on the spring loaded snap ring on the female side of the quick connect.



**Step 2:** Turn the knurled knob at the top of the liquid CO2 bottle on the Charging Kit clockwise until the sound of rushing gas is heard. "Wait" approximately 60 seconds or longer. Turn the knurled knob counterclockwise until the knob becomes loose.

**Step 3:** Remove the CHARGING Kit quick connect and replace dust cover.

**NOTE:** Male quick connect should be clean and free of dirt before attaching the CB-32A Charging Kit.



## Section D: Detonating the RIED Kit



### Manual Detonation

**Step 1:** The RIED power supply can now be opened and turned on. The red switch should be turned to the on position, once the switch is illuminated the RIED is ready to be fired. To fire the RIED device manually, simply press the red button down and the RIED device will detonate.

**Step 2:** Before refilling the RIED with paint, the red on/off switch should be turned off.

### Remote Detonation

**Step 1:** The RIED power supply can now be opened and turned on. The red switch should be turned to the on position, once the switch is illuminated the RIED is ready to be fired. To fire the RIED device remotely, remove the remote from the lid of the power supply.

**Step 2:** When in position, press the left button and the RIED device will detonate. If you press the right button, a 5-10 pause will occur before the device will detonate.

**Step 3:** Before refilling the RIED with paint, the red on/off switch should be turned off.

### Embedded Pressure Sensitive Road Hose Detonation

**Step 1:** Locate the quick connect port on the rear of the RIED power supply (picture is shown on the following page).

**Step 2:** Connect the quick connect to the rear of the power supply. Do this by pulling the coupling on the hose end in press the hose onto the quick connect and let go of the coupling.

**Step 3:** Pull the 25' cord over the selected road area.

**Step 4.** The RIED power supply can now be opened and turned on. The red switch should be turned to the on position, once the switch is illuminated the RIED is ready to be fired.



## Section G: Accessing the Power Supply Unit

The CB-32A Power Supply is a closed system that does “not” need to be accessed to operate the device. The closure/lid of the device should not be removed except to perform repairs..etc. all operating valves, pressure control components, and gages.. etc are preset to load the system to normal operating pressure during the charging process. Factory settings should not be altered or reset by anyone except Tippmann Ordnance Company Inc personnel.

If it does become necessary to remove the lid from the main body of the power supply, follow the steps illustrated below.

**Step 1:** Bleed excess compressed CO2 gas out of the system by firing the unit repeatedly until all gas pressure has been exhausted from the CO2 system.

**Step 2:** Remove the lid of the Power Supply Box by releasing the six cam lock latches at all four sides of the box. Place the box lid next to the unit in a top down position as shown in [pic7] below

**Step 3:** Unsnap the three Quick Release CO2 connectors by pulling back the spring loaded snap ring at each connection.

Make note of the placement of each quick connectors as they are being removed to insure that each connector is replaced in its proper location during the re-assembly process (identifying color or number markings showing matching connector locations suggested).

**NOTE: Re-assembling the Quick Release Connectors in the “wrong” locations may cause damage to the CO2 Power Supply Unit.**

## Section H: CB-32A Cleaning and Maintenance

The CB-32A is a closed unit that needs very little maintenance. Keeping the unit's Quick Connectors clean and free of dirt or debris is the primary requirement for maintaining the proper function of the device.

Individual Kits may require additional steps to clean and stow as described below.

Cleaning the Roadside IED Kit:

**Step 1:** Attach the Roadside IED Kit to the CO2 power supply box. Fill the IED with clean water to full capacity.

**Step 2:** charge the CO2 power supply as described in the CB-32A Field Operation Manual.

**Step 3:** Fire/Detonate the unit.

**Step 4:** Repeat steps 1-3 until the reservoir is clear water (via a garden hose).

**Step 5:** Wash the outside of the Power Supply box with clear water (via a garden hose)

## **Section I: Cleaning the Mobile Attack Kit:**

**Step 1:** Attach MAK the power supply box. Charge the kit with clean water through the paint fill port as described in the CB-32A Field Operation Manual. Fire the Unit.

**Step2:** Charge the co2 power supply as described in the CB-32A Field Operation Manual.

**Step 3:** Fire/Detonate the unit.

**Step 4:** Repeat steps 1,2 and 3 until the Kit's reservoir tubes are clear or thick marking paint (some marking paint may remain in the reservoir tubes).

**Step 5:** Wash the outside of the MAK with clear water (garden hose).

