

# Safety Presentation

## HT1224 – 12/24V

### Commercial Jump Starter



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## SAFETY: OPERATOR TRAINING

People typically underestimate the dangers associated with jump starting and often neglect to provide proper training for operators. Operator training on the proper use of the unit is a must for safe operation. The following sections will point out the most common perils in jump starting a vehicle and show you the proper and safe way to use your HT1224.

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**WARNING**

## READ AND FOLLOW DIRECTIONS



- Read, understand and follow instructions found in the operator's manual before using your jump starter.
- Failure to follow operating instructions may result in property damage or serious injury.



**WARNING**

## PROPER CLAMP STORAGE



- Always be sure to properly store clamps when the unit is not in use. Store clamps away from each other and other common conductors. Improper storage may cause the battery to short circuit and catch fire.

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**WARNING**

## GENERAL EXPLOSIVE WARNING



- Working in the vicinity of a lead acid battery is dangerous. Batteries generate explosive gases during normal battery operation. For this reason, it is essential that you read this manual and follow the instructions exactly. Review any cautionary markings on all batteries and related equipment.



**WARNING**

## FLYING DEBRIS WARNING



- Always wear safety equipment when working with a jump starter to protect yourself from flying debris, acid spills, or other objects in and around an engine compartment.

# SAFETY

## GENERAL PRECAUTIONS

- Read and follow the HT1224 Operator's Manual.
- Read and follow all vehicle safety instructions.
- Use proper safety equipment.
- **Do Not** attempt to jump start a vehicle with the jump starter's AC power cord connected to an AC power source.

## STORAGE

- Store unit with the voltage selector disconnected.
- Store unit in a stable and protected location.
- If possible, store the HT1224 where it will not be exposed to extreme temperature conditions.
- Do not lay the HT1224 flat. It is powered by flooded acid batteries and will leak acid if tipped.

# SAFETY

## **PERSONAL**

- Always have someone near you while using this type of product.
- Never smoke or allow a spark or flame near the vehicle or the jump starter.
- Remove all watches and metal jewelry when working with a lead acid battery.
- Always read, understand and follow all directions in the manual prior to using the unit.

## **PREPARING TO USE THE UNIT**

- Keep in mind that working around a lead-acid battery is dangerous.
- Check all connectors and cables to ensure there is no damage.

# SAFETY

## PREPARING TO USE THE UNIT (Continued)

- Batteries generate explosive gases during normal battery operations (charging and discharging).
  - Always use in a well ventilated area.
  - Always ensure that the vehicle and jump starter voltage match (12V to 12V, 24V to 24V).
    - **WARNING:** Mixing voltages will cause excessive generation of explosive gases.
- Set selector cable to the proper voltage (12V or 24V) to match vehicle.
- Verify that the clamps and jaws are undamaged and in proper working condition.
- Never spark the HT1224 clamps together.
- Make sure the AC charger is unplugged.



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## SAFETY

### USING THE UNIT (JUMP STARTING)

- Make sure the battery is fully charged.
  - NOTE: The HT1224 will only charge if the voltage selector is connected in 12 Volt mode.
- Make sure the charger has been turned off by unplugging cable from the wall outlet, and then from unit.
- Verify all connections and voltage selection.



## SAFETY

### USING THE UNIT (JUMP STARTING, continued)

- If you've made a mistake and set the jump starter to 12 Volts, and the vehicle is 24 Volts:
  - Immediately move away from the HT1224.
  - Disconnect from the vehicle's battery.
  - Allow the unit to rest for at least 30 minutes.
  - Disconnect the power selector plug.
  - Tag the unit out as non-functional.
  - Return to Clore Automotive for battery evaluation.
- If the vehicle has a 12 Volt system with dual batteries, hook up the jump starter to the battery closest to the starter.

## SAFETY

### USING THE UNIT (JUMP STARTING, continued)

- Position jump starter cables to reduce risk of damage by hood, door or moving engine parts.
- Stay clear of fan belts, pulleys, and other parts that can cause injury.
- Connect the POSITIVE (red) grip from the unit to the POSITIVE (POS, P, +) ungrounded post of the battery.
- Connect the NEGATIVE (black) grip to the vehicle chassis or engine block away from the battery – do this last!
  - DO NOT connect grip to carburetor, fuel lines, or sheet metal body parts. Connect to a heavy gauge metal part of the frame or engine block.
- After jump starting is complete, disconnect negative grip from vehicle chassis first, then remove the positive grip from the battery terminal .

# SAFETY

## RE-CHARGING THE UNIT

- Regular charging is a good practice and will extend the life of the battery (charge daily if possible).
- Make sure the voltage selector is connected in 12V mode.
- Place the unit in a stable and well ventilated location.
- Use the built in charger.
  - NEVER use an external charger. It may damage the jump starter.
  - Make sure the charger cable has not been damaged. If it has been damaged, replace it with a new cable.
  - The built in charger is automatic and will taper as the charging process nears completion (less than 1A on ammeter).



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## SAFETY

### **RECHARGING THE UNIT (continued)**

- After charging is completed, check the voltage:
  - A fully charged battery has 12.8 volts.
  - During the charging cycle, the battery may reach up to 14.4 volts.
- When full charge is confirmed, unplug the charger.

## SUMMARY

- Train operators on the proper use of the HT1224.
- Be aware of the dangers involved in jump starting a vehicle.
- Read, understand and follow the instruction manual.
- Verify your connections and your voltage selections.
- Charge the HT1224 on a regular basis in a safe environment.
- Store the HT1224 safely in a proper location.