



Electric DTV EXT 200 Unboxing & Setup

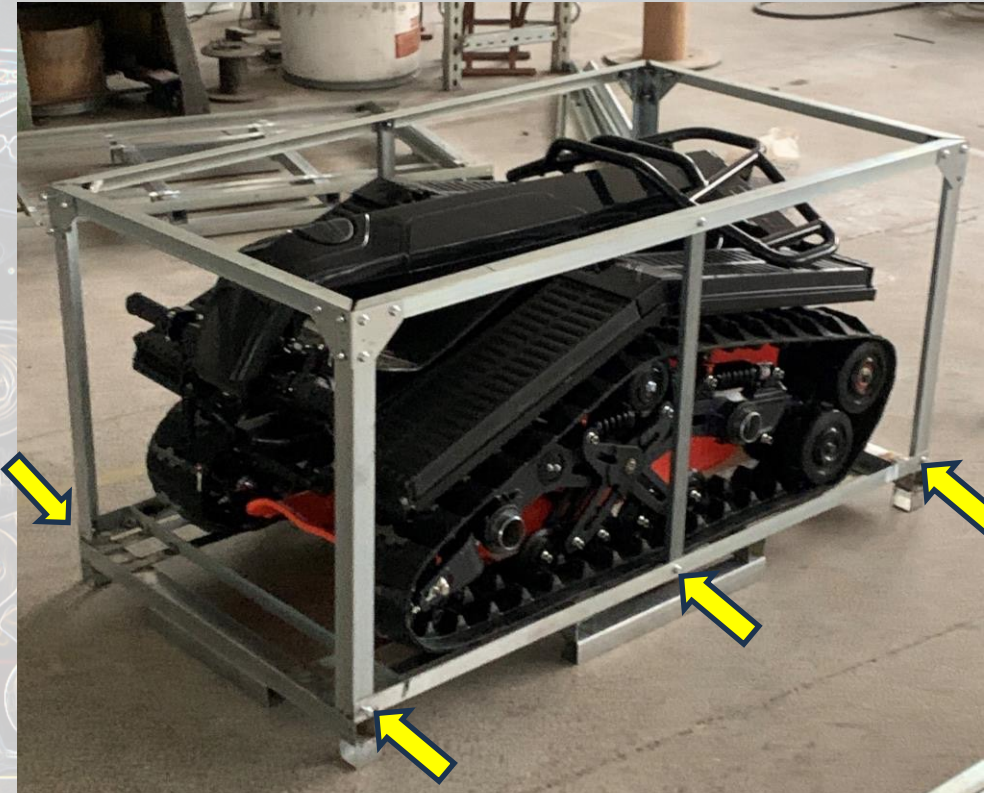


UNPACKING YOUR DTV SHREDDER



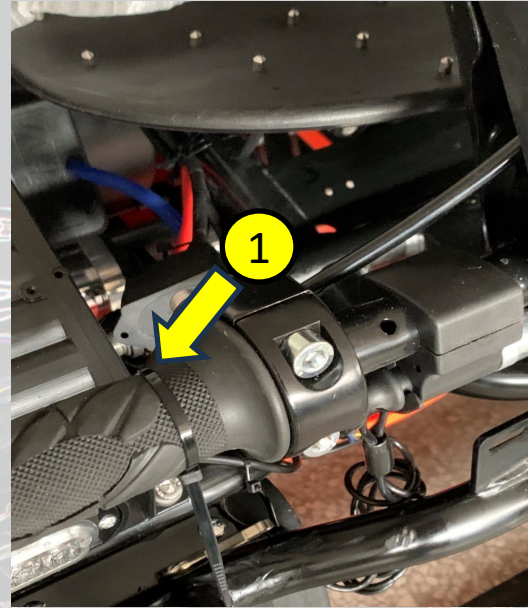
Recommend Two People

- 1) Remove the Unit and Cradle from Shipping Box
- 2) Inspect Unit for any Damage
- 3) If damage is noticed please contact DTV at support@dtvmotorcorp.com
- 4) Remove straps used to hold the unit to the cradle
- 5) Remove the (6) M6 screws with a 8mm socket
- 6) Carefully remove the top of the cradle



SETTING THE HANDLEBAR UPRIGHT

- 1) Locate the left handle bar with the Zip-Tied levers
- 2) Remove the Zip-Ties, releasing the handlebar levers
- 3) Lift the handlebar assembly to the upright position.
- 4) Ensure break lever is not compressed.
- 5) Firmly grasp the brush bar and remove the DTV from the cradle.



ADDING COOLANT

Steps to fill coolant reservoir:

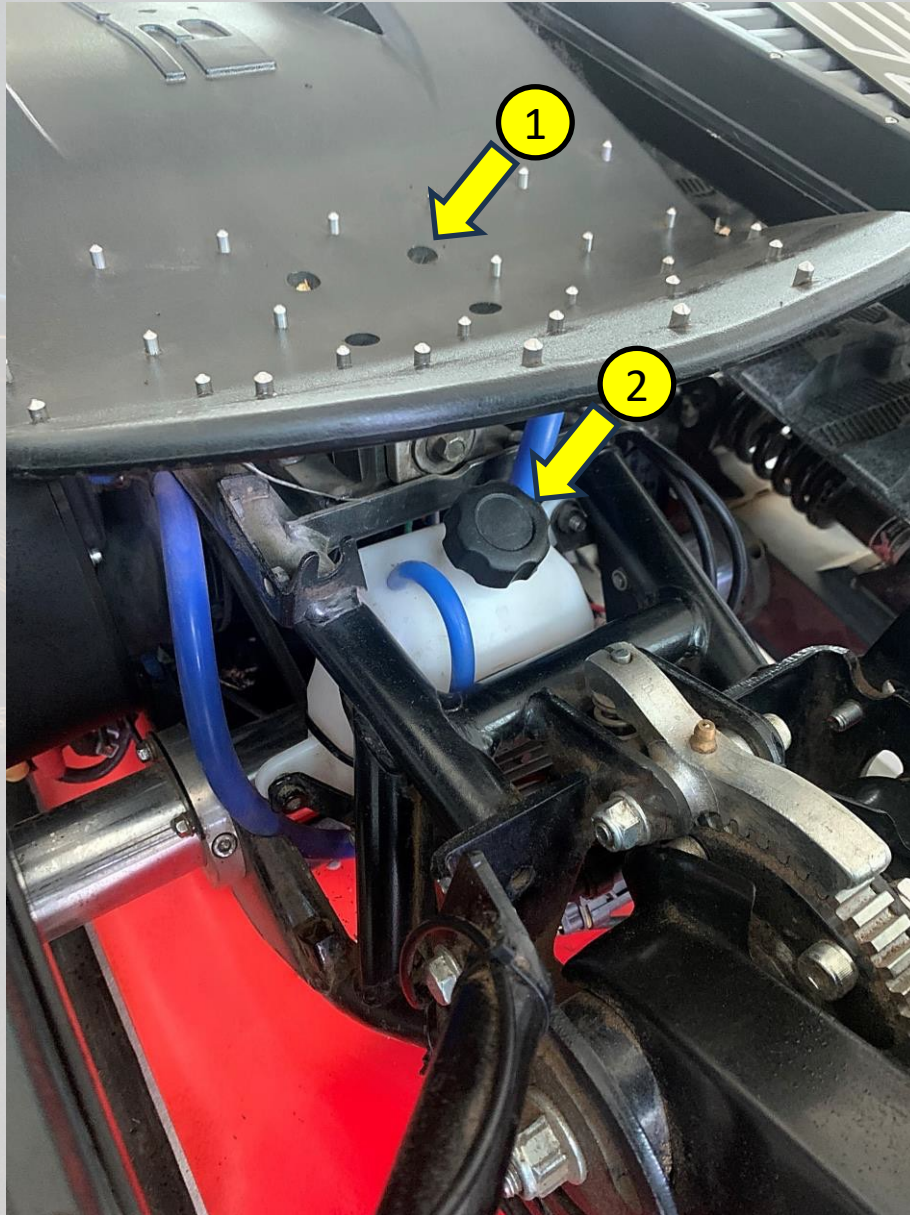
- 1) Remove top steering board to gain easier access to the reservoir (8 screws).
- 2) Remove black cap for reservoir.
- 3) Use pre-mixed general purpose automotive coolant for use with aluminum parts. **Does not have to be Chevron Delo brand.**
- 4) Using a funnel add approximately 0.5L of coolant slowly to the reservoir. The pump will circulate the fluid once the unit has power.
- 5) Once the unit has power check the reservoir again.
- 6) Fill the reservoir to 1" below the spout.
- 7) Reattach the reservoir cap.
- 8) Reattach the steering board.



General Purpose Coolant for Aluminum Parts



Note: if you overfill the reservoir, the system will automatically dump the excess. This is normal and not a leak of the system.



BATTERY CHARGING

The DTV can be charged in two ways:

- 1) The first way is to charge the vehicle is by charging the battery packs individually. This can be done by plugging directly into the battery pack plug. **This is the preferred method for first time charging using the Standard 5A charger.**
- 2) The second way is to charge all four packs together by plugging directly into the rear vehicle charge port.

IMPORTANT: Charging Process

- Let battery cool down to ambient temperature before charging.
- Put batteries in an isolated area, away from other flammable materials.
- Always have fire extinguisher for emergency use.



1

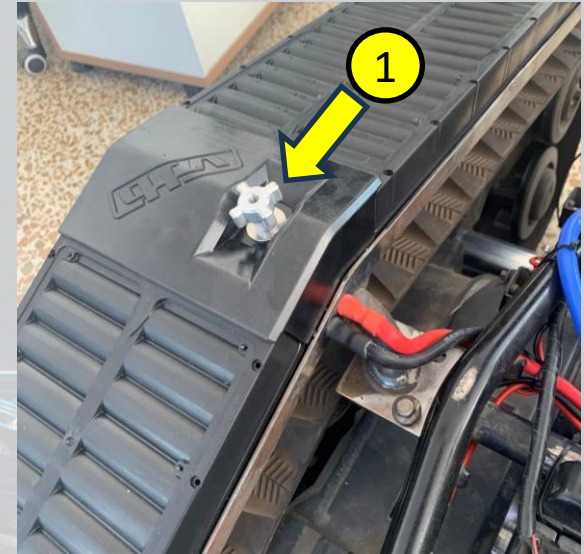


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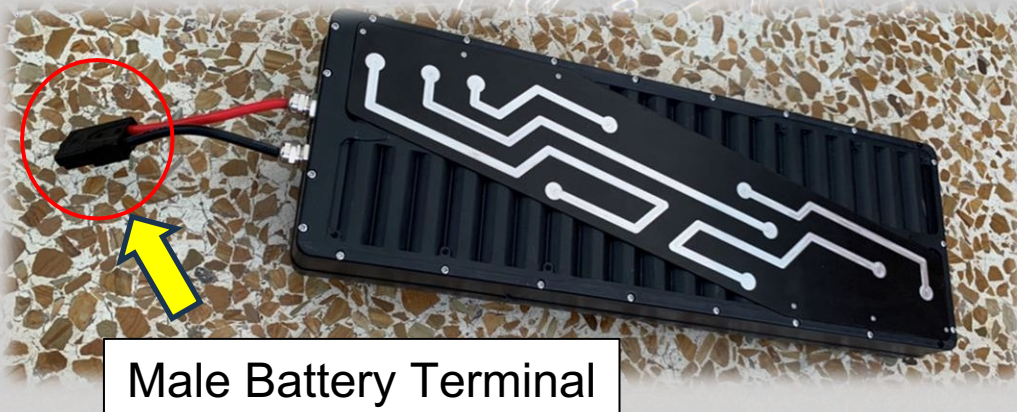
BATTERY INSTALLATION

The Batteries should be placed as shown:

- 1) Unscrew and remove the center knob and cover exposing the battery terminals.
- 2) Charge each battery individually using the provided 5A charger before first time use. (See First Time Battery Charging Page for more information)
- 3) Once charged, plug each terminal of the battery into the terminal for the unit.
- 4) Try to pull the terminals apart to ensure they are securely connected to each other.
- 5) Reattach the center knob and cover.



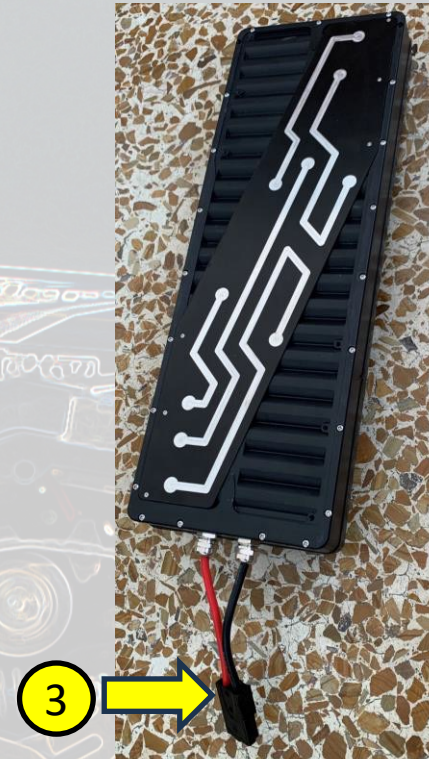
Each battery pack should look like this:



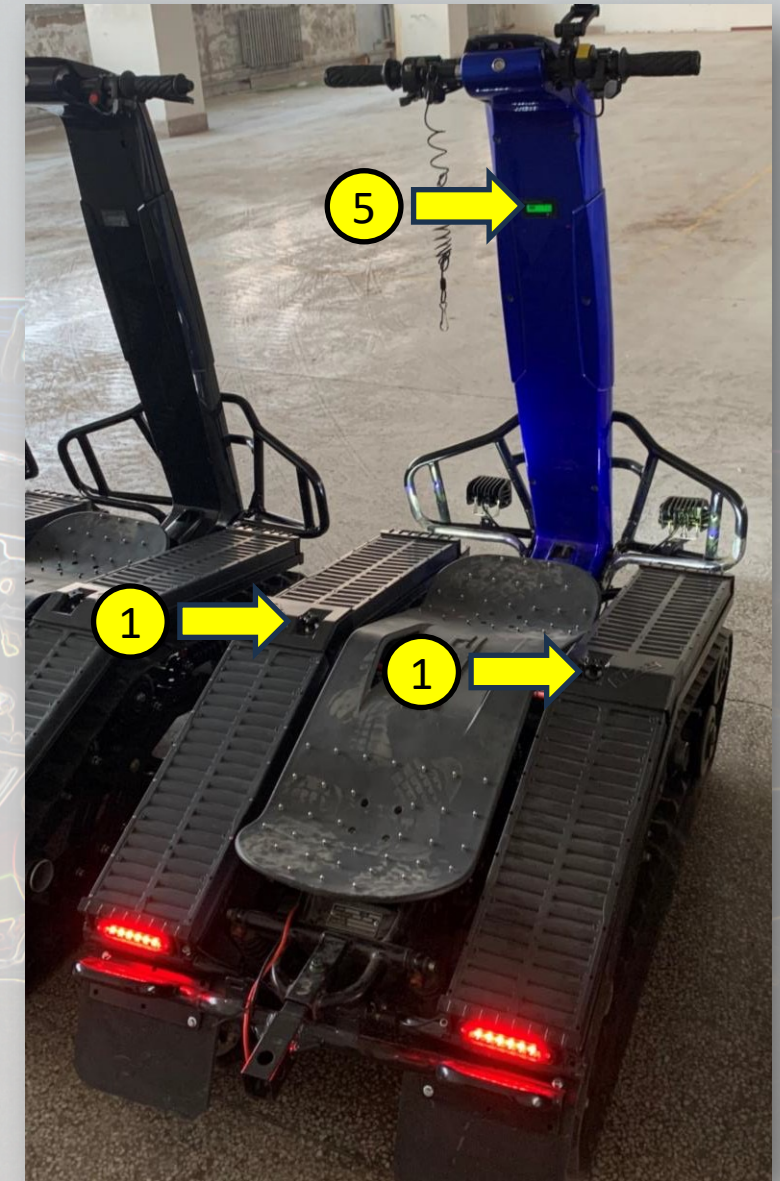
FIRST TIME BATTERY CHARGING

The DTV First Time Charging:

- 1) Remove the center knob and battery cover, exposing the battery and terminals.
- 2) Remove the batteries from the DTV unit.
- 3) Using the standard 5A charger, plug the first battery into the charger until fully charged. Estimated 2.5 hours per battery.
- 4) Charge all 4 batteries individually with this 5A charger
- 5) Once all 4 batteries are charged, plug each battery into the vehicle.



5A Charger



IMPORTANT: Charging Process

- Let battery cool down to ambient temperature before charging.
- Put batteries in an isolated area, away from other flammable materials.
- Always have fire extinguisher for emergency use.

BATTERY INSTALLATION CONTINUED

Turning on the Vehicle and Checking the Battery

- 1) Press the **ON/OFF** button at the top of the handle to turn on the vehicle.
- 2) If the vehicle has power, the battery gauge will turn on with a green light.
- 3) If the light didn't turn on, it means the battery is in "SLEEP MODE" and will require a five second charge cycle to "WAKE UP".
- 4) **IMPORTANT:** For the first charge, follow the first time charging sequence and provided on the First Time Battery Charging page.



BATTERY CHARGING CONTINUED

There are two types of chargers for the DTV:

1) Low power 5A charger

- Solid Green Light – Charging Complete
- Flashing Yellow Light - Charging
- Flashing Red Light – Fault or Issue
 - Clear fault by unplugging and plugging in the charger and battery

2) High power 30A charger

- Solid Green Light – Charging Complete
- Flashing Green Light – Above 80% Charge
- Flashing Red Light – Below 80% Charge

30A Charger



5A Charger



- The High power charger has one charge output

- The low power charger has one charge output

The battery will charge within the following times:

Rear vehicle charge port

5A = 10 **hours** charging time

30A = 2.5 **hours** charging time

Individual pack charging

5A = 2.5 **hours** charging time

30A = 1 **hours** charging time

BATTERY INFORMATION

The DTV battery can be reset at any time by pressing the green button located in the picture to the right. This will enable the charge and discharge modes of the battery.

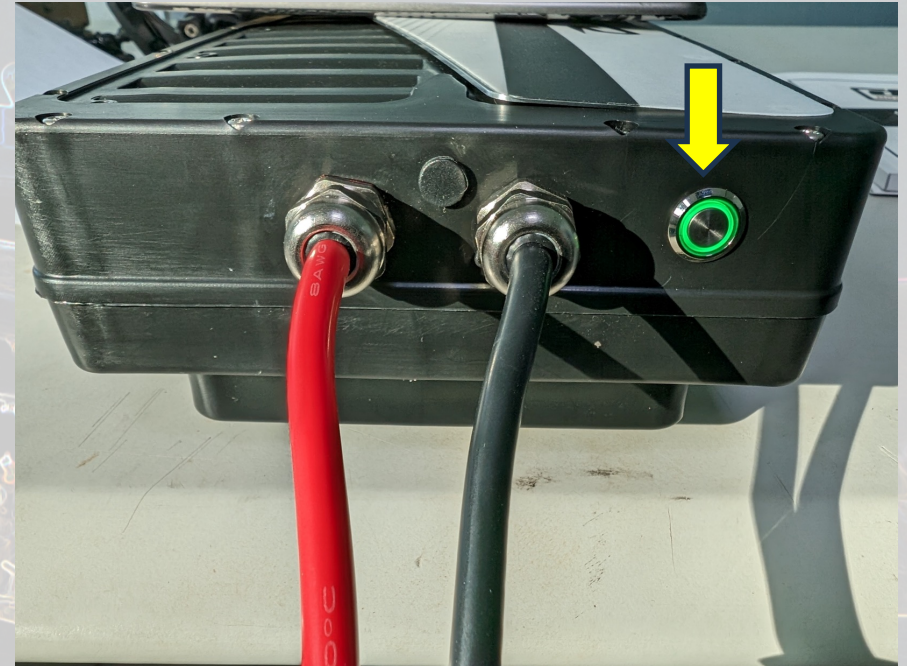
The button should be used under the following conditions:

1. The battery has entered “Sleep Mode” (green light is off).
Note: The battery may need to be plugged into a charger to activate it from “Sleep Mode”
2. Charging the battery is non-responsive.

The button should not be used under the following conditions:

1. The battery has repeatedly switched off while charging or discharging, indicating a problem. Contact DTV Support in this case.
2. There is a known defect/damage with the battery.
3. If the battery is hot or stored in a hot environment.
4. If the battery is wet or in contact with water.

Note: When the green light is on the battery is “Active” and ready to use. If the battery is functioning normally and the light turns off, then the battery has entered “Sleep Mode”. This happens if the battery has not been used and to save the battery.



IMPORTANT BATTERY INFORMATION

IMPORTANT: The batteries are designed to enter into sleep mode after 48 hours of non use. If the batteries don't get used within one month or more, it is very important to periodically charge them to prevent battery damage. If the batteries get to a low voltage state they will be **UNABLE TO BE CHARGED** and will need to be safely disposed of and replaced.

IMPORTANT: It's better for the batteries to be charged separately for the first time, after which they can be plugged into the vehicle one-by-one to check the battery voltage separately. This will ensure the battery voltage is equalized BEFORE plugging ALL four of the batteries together.

Note: The battery configuration is 12S lithium battery and has the following characteristics:

The nominal voltage: $3.6 \times 12 = 43.2$ Volts.

The MAX voltage: $4.2v \times 12 = 50.4$ Volts

The MAX current: **100A / Pack**

The MAX charge current: **18A / Pack**

IMPORTANT SAFETY INFORMATION



The E-DTV is an electric vehicle which contains significant amounts of lithium batteries and can be dangerous, even lethal if used incorrectly. The dangers include Electrical shock, lithium explosions and fires due the volatile nature of Lithium batteries. Although the E-DTV battery is equipped with a sophisticated battery management system, the following precautions should be taken very seriously and to be used alongside all other Lithium battery precautionary measures.

- 1) The battery packs **HAVE NOT** been verified as waterproof. Exposure to water should be limited as much as possible. Light washing with low pressure rinsing can be used while keeping the discharge plug free of submersion or exposure. This included using the DTV in heavy rain as this can cause water to enter the pack enclosure.
- 2) The batteries **SHOULD NOT** be left in extreme cold or heat. The temperature should be between 5°C – 40°C and long-term storage at 20°C. Storing battery at temperatures greater than 70°C for extended periods of time (more than 2 hours) may cause damage to battery and possible fire.
- 3) The battery packs **SHOULD NOT** be dropped or crushed in any way. If damage is suspected, they should be safely removed and disposed of immediately.
- 4) **DAILY ROUTINE** inspections of the packs should be performed. This included the casing, the wires from the packs as well as those the battery packs attaches to. If any damage is seen, all operation of the vehicle or use of the packs needs to be **SUSPENDED** immediately.
- 5) **DO NOT** leave the packs in direct sunlight for extended durations as this can damage the wires and cause the casing to weaken.
- 6) Only charge the pack with the designated DTV charger as this can be a significant safety risk. Let batteries cool down to ambient temperature before charging. Put batteries in an isolated area - away from other flammable materials. Always have fire extinguisher for emergency use.



Electric DTV EXT 200

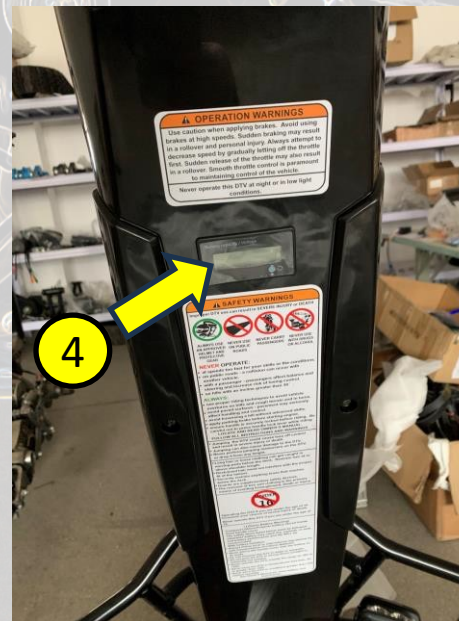
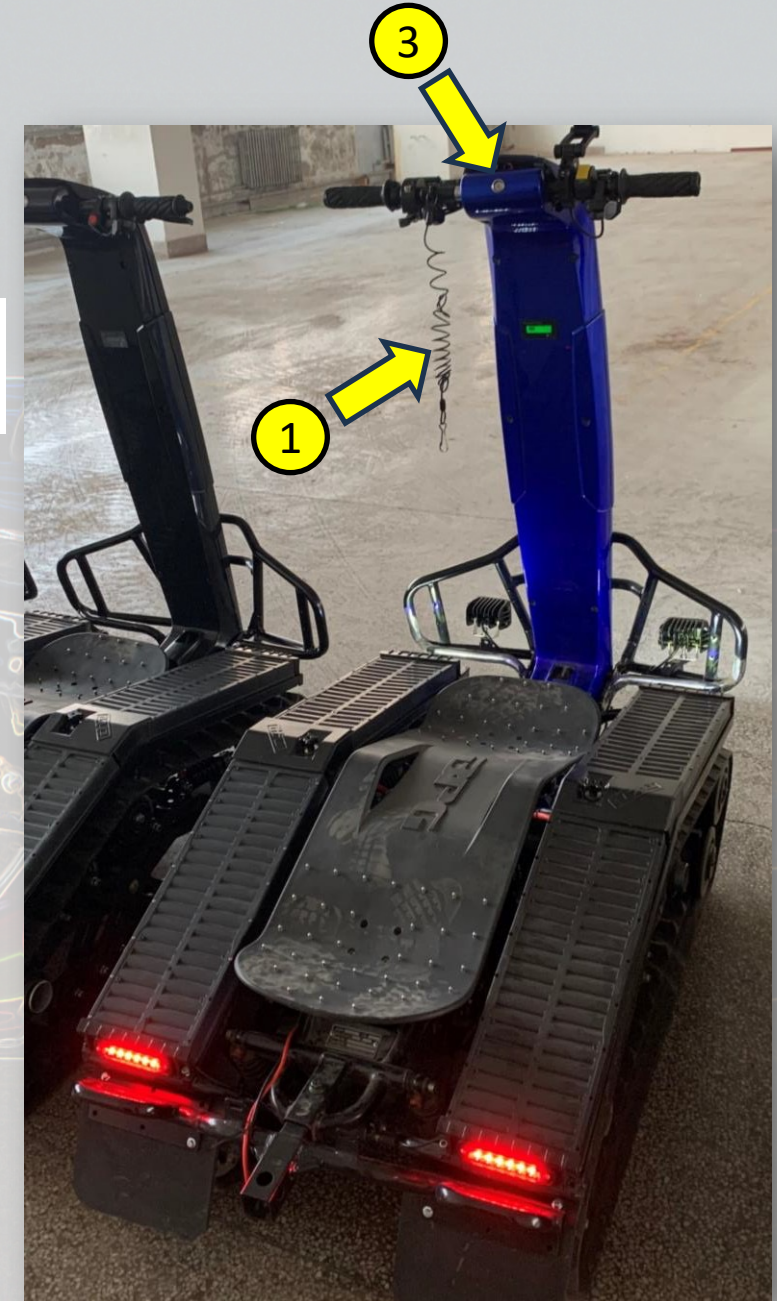
First Time Ride



STEP 1: TURNING ON THE VEHICLE

Turning on the vehicle:

1. Ensure safety lanyard is installed
2. Clip the lanyard to a point on the rider
3. Compress parking brake
4. Press ON/OFF button to turn ON Vehicle
5. Look for green light on battery gauge and battery level is sufficient
6. If everything seems normal, release parking brake and begin to ride.



STEP 2: ENGAGING THE THROTTLE

Using the Throttle and Reverse:

1. The Red Switch controls the forward and reverse gears. When the "I" position is engaged you will move forwards and engaging the "O" will put the unit in reverse.
2. The Black Switch controls the lights on the Unit.
3. The lever under the handle bar is the throttle control. The first $\frac{1}{4}$ of the movement is a dead-band zone and will not engage the throttle. After this the DTV will begin to move based on the input provided by the rider.

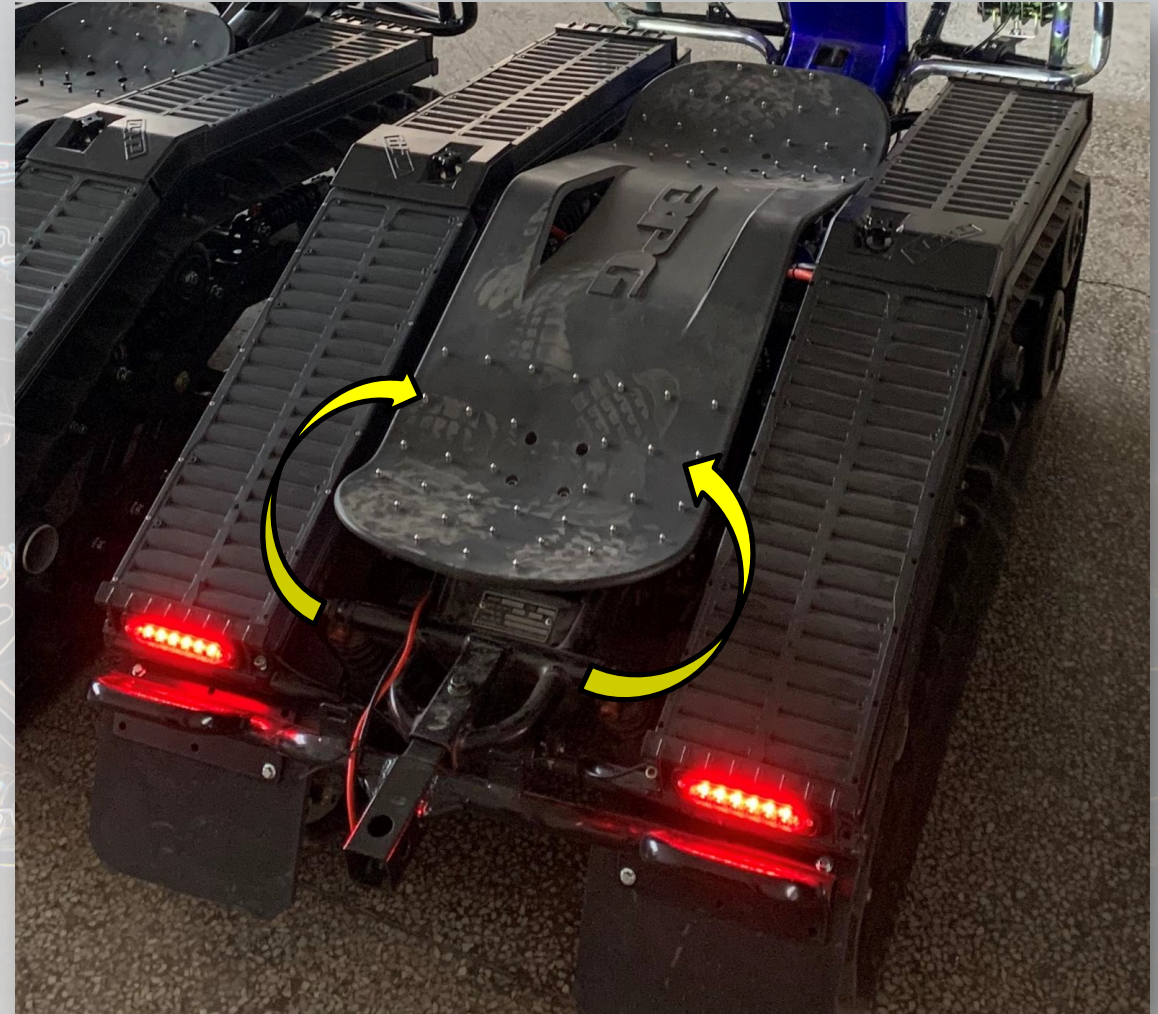


Note: Reverse will not engage until the Shredder is fully stopped to avoid injury. If the reverse is switched on while still moving forward (even at a slow creep) it will not engage, and if the throttle is applied then the Shredder will continue forward.

STEP 3: STEERING THE VEHICLE

The E DTV vehicle has 2 steering situations

- 1) **ZERO TURN** - Not moving + full board tilt + throttle lever partially pressed. This will result in the vehicle trying to turn on the spot by having one track go forward and the other going in reverse.
- 2) **NORMAL TURN** - Moving + board tilt + throttle partially pressed. This will cause the inner track to slow down and the outer track to speed up resulting in turning. The more you tilt the board the more it will try to turn.



STEP 3: STEERING THE VEHICLE – ZERO TURN

Not moving + full board tilt + throttle lever partially pressed. This will result in the vehicle trying to turn on the spot by having one track go forward and the other going in reverse.

The conditions for this steering type are the following:

- The vehicle must be in a stationary position.

- The board must be tilted to the full direction of travel.

- The throttle lever must be activated to a relatively high position.

- The motors must be warmed up. This function can also be impeded by tracks being overloaded from debris caught in the tracks, or the tracks being jammed.

This type of steering has a maximum speed differential. If the speed exceeds a preset amount, the ZERO TURN steering will exit and be shifted over to the normal steering.

Troubleshooting:

If the vehicle is not performing the ZERO TURN steering method:

- Ensure vehicle is on a flat surface.

- Ensure the tracks have proper tension and are not coming off the tracks drive sprocket.

- Ensure there is no debris lodged in the tracks.

- Ensure the motors have operated for enough time to warm them up sufficiently.

STEP 3: STEERING THE VEHICLE – NORMAL TURN

Moving + board tilt + throttle partially pressed. This will cause the inner track to slow down and the outer track to speed up resulting in turning. The more you tilt the board the more it will try to turn.

The conditions for this steering type are the following:

- The vehicle must be moving.

- The board must be tilted to either direction to any degree.

- The throttle lever must be activated to maintain a constant forward or reverse direction.

This type of steering has a speed sensitive function. This means if the vehicle increases its speed, the steering will gradually become less. At higher speeds, the steering rate will become significantly decreased which makes the vehicle more stable. Depending on the setting used in the DTV APP, the high-speed steering function can be adjusted to varying degrees. Depending on skill level, the steering rate and ability should be adjusted accordingly.

Troubleshooting:

If the vehicle is not turning as expected, try the following:

- Ensure vehicle is on a flat surface

- Ensure the tracks have proper tension and are not coming off the tracks drive sprocket

- Ensure there is no debris lodged in the tracks.

- Ensure the motors have operated for enough time to warm them up sufficiently.

COLD CONDITIONS START UP

In the case of cold conditions follow these steps:

1. Before ride start the Shredder.
2. Before ride run the Shredder back and forth in a straight line.
3. Before beginning the ride test to make sure the Shredder is functioning properly.

Note: Depending on ambient temperature and environmental conditions the Shredder may take longer to warm up.

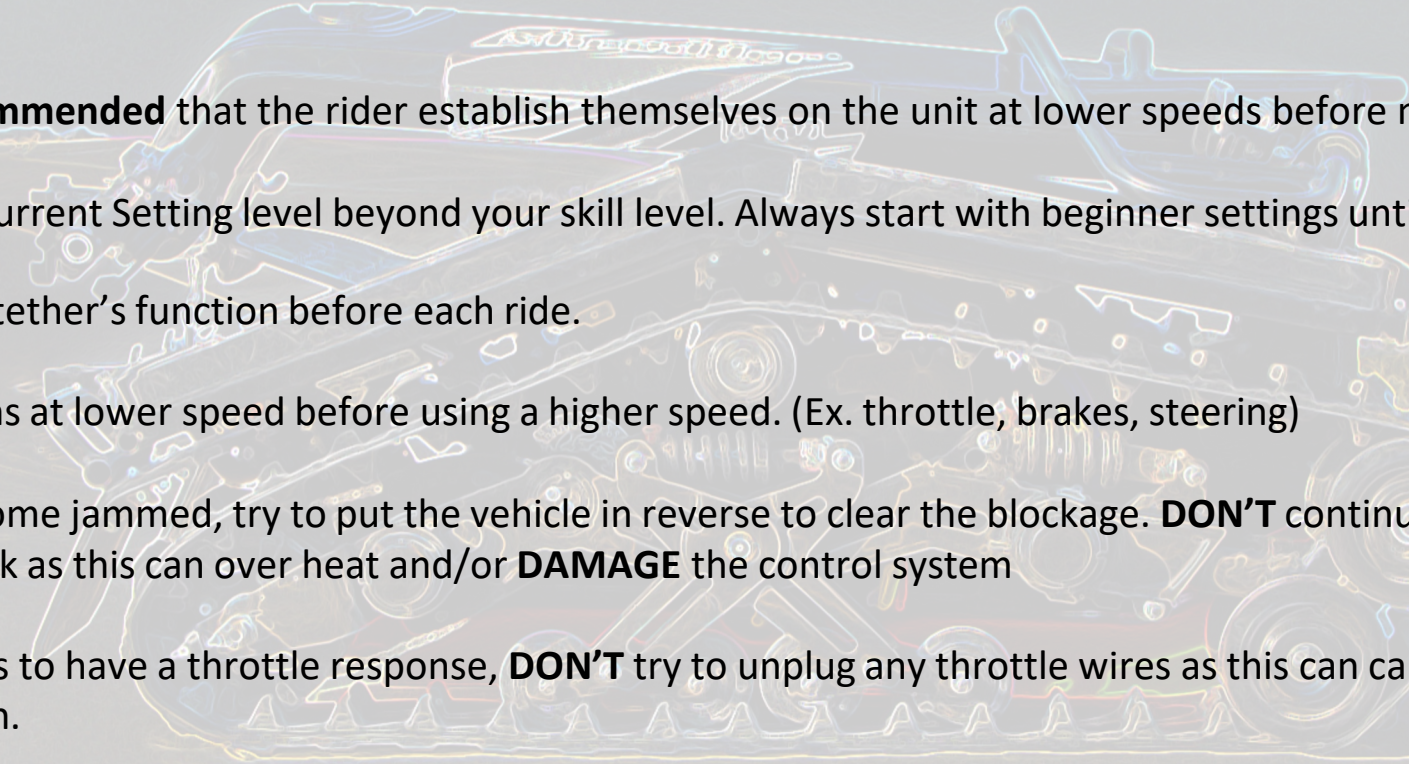
Note: Store shredder in warm, dry areas when possible.



IMPORTANT SAFETY INFORMATION



All precautionary measures should be taken before, during, and after riding the unit. Wearing full body protection including a helmet is highly recommended. See the owners manual for the full list of highly recommended personal protection equipment.

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- A faded, artistic background image of a tracked vehicle, possibly a snowmobile or a small tractor, with a person riding it. The image is rendered in a sketch-like style with light blue and yellow outlines.
- 1) It is **highly recommended** that the rider establish themselves on the unit at lower speeds before moving up to high or full speed.
 - 2) **NEVER** set the current Setting level beyond your skill level. Always start with beginner settings until your skill level improves.
 - 3) **TEST** the safety tether's function before each ride.
 - 4) **TEST** all functions at lower speed before using a higher speed. (Ex. throttle, brakes, steering)
 - 5) If the tracks become jammed, try to put the vehicle in reverse to clear the blockage. **DON'T** continue to apply forward power to dislodge the track as this can over heat and/or **DAMAGE** the control system
 - 6) If the vehicle fails to have a throttle response, **DON'T** try to unplug any throttle wires as this can cause the vehicle to accelerate in a forward direction.
 - 7) **USE** the parking brake when mounting and dismounting the vehicle. This ensures no accidental runaways occur.
 - 8) **Never** switch into reverse while the vehicle is moving forward. This can cause personal injury and damage to the drive system.