



OWNER'S MANUAL

WARNING

**FAILURE TO FOLLOW SAFE OPERATING PRACTICES MAY RESULT IN
SERIOUS INJURY OR DEATH.**

**Read this manual in its entirety before attempting to operate the eNVy
Neighborhood Vehicle.**

REMEMBER - YOUR MACHINE IS ONLY AS SAFE AS THE OPERATOR!

HAZARD CONTROL AND ACCIDENT PREVENTION ARE DEPENDENT UPON THE AWARENESS, CONCERN, PRUDENCE, AND PROPER TRAINING OF THE PERSONNEL INVOLVED IN THE OPERATION, TRANSPORT, MAINTENANCE, AND STORAGE OF THE EQUIPMENT.

This manual provides procedures for minor maintenance, but major repair information can be found in the eNVy Neighborhood Vehicle Service Manual. Major repair should only be performed by an authorized Intimidator Service Dealer.

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All available manufacture manuals can be found on our website at,
<https://ridewithenvy.com/manuals/>

Introduction

Read this owner's manual

The eNVy neighborhood vehicle is not a toy. It can be hazardous to operate and should never be operated by anyone other than a trained adult. Failure to follow the warnings and instructions in this manual can result in severe injury or death. For any questions on material contained in this manual, contact an authorized dealer for clarification.

Product Identification Number (PIN)

Your machine's PIN can be found in two places. The first location is under the hood, just above the fuse and relay box. The second location is in the battery compartment on the panel in front of the batteries.

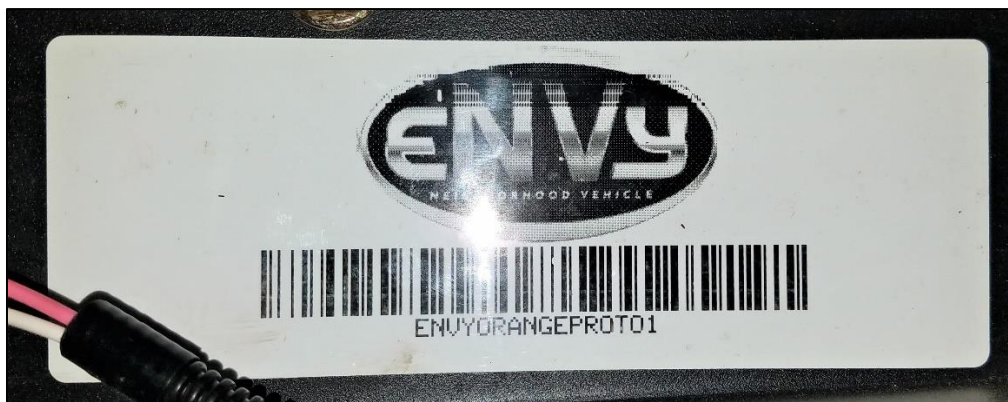


Figure 1: PIN Label

Definitions

Throughout this manual there is content which requires extra attention. These points are especially important for the safety and satisfaction of the owner experience of the eNVy, and are highlighted by the following headlines:

Danger:

Indicates a hazardous situation that, if not avoided, may result in serious injury or death

Warning:

Indicates a situation that, if not avoided, may result in property damage

Notice:

Indicates a situation that could result in property damage

Safety

Safety Labels

For your awareness, warning labels are placed on the vehicle. Read and follow the instructions on the vehicle carefully. If any label becomes illegible or comes off contact your authorized dealer to acquire a replacement.

eNVy Warning Statement Label

⚠ WARNING

Failure to follow these instructions can result in SERIOUS INJURY or DEATH

Never drive on public roads unless permitted by law. • Drivers may need a valid driver's license if required by local or state law. • Keep entire body within the vehicle while moving. • Do not start moving until all occupants are properly seated and holding on. • Drive cautiously and slowly in congested areas, on wet or loose surfaces and when backing up. • Drive slowly while turning and do not make sudden stops. • Drive straight up and down sloped areas and do not operate on slopes greater than 14° (25%). • Drive responsibly and do not allow children on the machine unattended or give them the start code. • Occupant capacity is two per bench seat. Consult owner's manual for maximum weight capacity. • Do not modify this vehicle to increase speed in excess of factory setting. Doing so could create a dangerous situation and it will cancel your warranty. Only the Intimidator Group Engineering Department can authorize changes to EnvY machines using factory approved components.

Warning:

Failure to follow these instructions can result in SERIOUS INJURY or DEATH

- Never drive on public roads unless permitted by law.
- Drivers need a valid driver's license as required by local or state law.
- Keep entire body within the vehicle while moving.
- Do not start moving until all occupants are properly seated and holding on.
- Drive cautiously and slowly in congested areas, on wet or loose surfaces and when backing up.
- Drive slowly while turning and do not make sudden stops.
- Drive straight up and down sloped areas and do not operate on slopes greater than 14° (25%).
- Drive responsibly and do not allow children on the machine unattended or give them the start code.
- Occupant capacity is two per bench seat. Consult the owner's manual for maximum weight capacity.
- Do not modify this vehicle to increase speed in excess of factory setting. Doing so could create a dangerous situation and it will cancel your warranty. Only the Intimidator Group Engineering Department can authorize changes to eNVy machines using factory approved components.

eNVy Warning Pictorial Decal



Warning:

- Read the entire Owner's Manual before operating the eNVy.
- Exercise extra caution when operating the eNVy in inclement weather.
- Do not operate the eNVy while under the influence of alcohol or drugs.
- Do not operate the vehicle on slopes greater than 14°.
- Remain seated and keep all limbs inside the vehicle during operation.
- Never drive on public roads unless permitted by law.

General Safety

Never Operate

- If you are under age 16 or without a valid driver's license.
- At speeds too fast for your skills or conditions.
- While under the influence of alcohol or drugs.
- On hills 14 degrees or steeper.
- With more passengers than seats.
- With passengers on the cargo bed.
- With non-approved accessories or modifications.

Always

- Perform a pre-ride inspection prior to operating the eNVy. A checklist is located on the last page of this manual.
- Reduce speed and use extra caution while carrying passengers.
- Avoid sharp turns or turns while applying heavy throttle.
- Operate slowly in reverse and avoid sharp turns or sudden braking.
- Make sure passengers read and understand all safety labels.
- Exercise extreme caution when operating in an area where pedestrians are present
- Do not operate vehicle when lightning is present or in severe weather.

Operator Safety

- Always use the proper size and type of tires specified in this manual and maintain proper tire pressure as specified on safety labels.
- Never modify this vehicle through improper installation or use of accessories.
- Never exceed the stated load capacity for this vehicle. Cargo should be properly distributed and securely attached. Reduce speed and follow the instructions in this manual for hauling cargo and allow greater distance for braking.
- Always ensure that the power is “OFF” before attempting to connect the charging cable.
- Do not carry a passenger until you are thoroughly comfortable operating the eNVy.
- Always keep hands and feet inside the vehicle at all times.
- Always inspect the vehicle before each use to make sure it is in safe operating condition. Follow inspection procedures described in this manual.

Operating a Damaged Vehicle

Operating a damaged vehicle can result in an accident. In the case of an overturn or other accident, have a qualified service dealer inspect the entire machine for possible damage, including (but not limited to) brakes, batteries, and steering systems.

Operating at Excessive Speeds

On hills it is possible for this vehicle to coast at greater than normal speeds than those encountered on level surfaces. Operating this vehicle at excessive speeds increases the operator's risk of losing control. Limit speeds to no more than the maximum speed on level ground.

Turning Improperly

Turning improperly could cause loss of traction, loss of control, accident, or overturn. Never turn abruptly or at sharp angles. Never turn at high speeds. Never abruptly accelerate while turning. Always make smooth, controlled movements to complete safe turns.

Jumps and Stunts

Attempting wheelies, jumps, and other stunts increases the risk of accident or overturn. Never attempt wheelies, jumps, or other stunts.

Improper Hill Climbing

Climbing hills improperly can cause loss of control or vehicle overturn. Do not climb a hill or drive down a hill with a slope of 15 degrees or more.

Stalling While Climbing a Hill

Stalling or rolling backwards while climbing a hill could cause an overturn. Always maintain a steady speed when climbing a hill.

If all forward speed is lost:

- Apply the brakes. Switch the drive system to reverse and slowly allow the vehicle to roll straight downhill while applying light brake pressure to control speed.

If you begin rolling downhill backwards:

- Never apply throttle power
- Apply the brakes gradually until the vehicle is fully stopped.
- Switch the drive system to reverse and slowly allow the vehicle to roll straight downhill while applying light brake pressure to control speed.

Improper Tire Size, Type, or Maintenance

Operating this vehicle with improper tire size or type will void the warranty. See your dealer for details. Operating this vehicle with uneven or low tire pressure could cause loss of control or accident. Always use the size and type of tires specified for your vehicle. Always maintain proper tire pressure as described in the owner's manual and on the safety labels.

Equipment Modifications

We strongly recommend that consumers do not install any after-market equipment that may increase the speed or power of the vehicle, or make any other modifications to the vehicle for these purposes. Any modifications to the original equipment of the vehicle

create a substantial safety hazard and increase the risk of bodily injury.

Notice:

- The warranty of the eNVy will void if any unauthorized equipment is added to the vehicle, or if any modifications are made to the vehicle that increase the speed or power.

The addition of certain accessories may change the handling characteristics of the vehicle. Use only factory approved accessories, and familiarize yourself with their function and effect on the vehicle.

UNDER FEDERAL LAW modified this vehicle to become a Low Speed Vehicle (LSV) is subject to the strictures and requirements of Federal Motor Vehicle Safety Standard 571.500. In these instances, pursuant to Federal law the Distributor or Dealer MUST equip the product with headlights, rear lights, turn signals, seat belts, top, horn, and all other modifications for LSV's mandated in FMVSS 571.500, and affix a Vehicle Identification Number to the product in accordance with the requirements of FMVSS 571.565. Pursuant to FMVSS 571.500, and in accordance with the State laws applicable in the places of sale and use of the product, the Distributor, Dealer, or customer modifying the vehicle also will be the Final Vehicle Manufacturer for the LSV, and required to title or register the vehicle as mandated by State law.

eNVy will NOT approve Distributor, Dealer, or customer modifications converting eNVy products into LSV's.

Ventilation

Hydrogen gas is generated during battery charging. Hydrogen is explosive in concentrations as low as 4%. To prevent this concentration, ensure that the vehicle is charged in an area with at least five air exchanges per hour at a minimum.

Never charge a vehicle in an area where flames or sparks may be present. Be especially careful of natural gas or propane water heaters and furnaces.

Always use a dedicated circuit for each battery charger. Do not plug other appliances into the same receptacle as the charger during charging.

Features, Controls, and Operation

Control Center

The 7" LCD display and surrounding buttons and switches contain the controls necessary to operate the eNVy. The display will allow access to the machine, notify the user of maintenance needs, and help to show relevant information during operation.

Danger:

- Do not attempt to operate the display while the vehicle is in motion

Notice:

- Do not expose the display to excessive moisture or attempt to clean it with a pressure washer



Figure 2: eNVy Control Center

Ignition

The eNVy is equipped with a push-button start, and is passcode protected to prevent unauthorized use.



Figure 3: eNVy Power Button

Start-Up

Press the power button at the top-left of the control console and allow the system to boot up. Insert your personal 4-digit passcode and press “Enter” to allow access to the heads-up display.

The default passcode is “1234”. The passcodes for user/operator and owner can be changed from the Menu screen. If both passcodes are the same, then it defaults to the owner. This screen will also provide time, date, and BDI information.

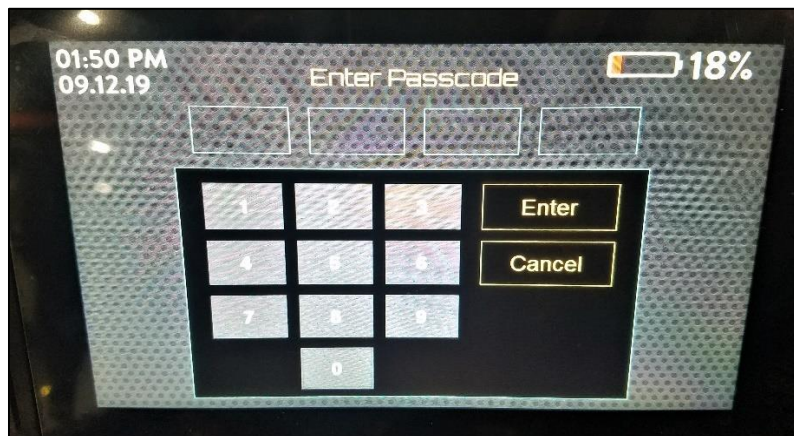


Figure 4: PIN Input Screen

The display will accept two passcodes: one for owner and one for user/operator.

Notice:

- If an incorrect passcode was entered the soft interlock message won't be communicated to the motor controller and the vehicle would not start and the incorrect passcode window would popup. The user can press cancel to access the main screen. If the user pressed cancel at the passcode screen, none of the buttons on the main screen will be active except the message box which will take the user back to the Enter Passcode screen.
- **Passcode lockout:** if the user enters the passcode incorrectly 5 times, a popup will appear notifying the user that the passcode entry is disabled for 5 minutes. The main screen will then appear, and all touch functions are disabled. After 5 minutes, the user will be able to touch the message box to return to the passcode screen.
- **Reset Passcode Screen:** The reset passcode should be entered when first installing the display in the vehicle and should be printed in the manual or stored elsewhere separate from the vehicle. When the display is first powered up, this screen will appear allowing the installer to enter that reset passcode (a second time as well for confirmation). The display will store this number in memory and will not display that screen again.

The user will be able to reset the regular passcode by entering the reset passcode. When the user needs to reset the regular

passcode, they will enter the reset passcode screen through a button on the regular passcode screen. The button will only be visible if the regular passcode was entered incorrectly at least once. The reset passcode would be 6 digits. After it's entered, the owner and operator passcodes will be reset to 1234.

- If the reset passcode is lost, there is no way for the owner to reset the regular passcodes. (Please contact dealer)

Home Screen

Home screen main items are motor current, speedometer, and BDI gauge (left to right). Battery current is provided as a number only, capable of displaying up to 5 digits with a decimal point. Time and date are provided by RTC incorporated in the Display at the top. Two sets of icons show light switches status inside speedometer body. When BDI level is below 25% the gauge arc becomes yellow and then red when below 10%. If the unit is in "Tow-Mode" the tow icon will flash at a rate of about 1 second on, 1 second off. The other information that is available on the home screen is gear position (N, F, R), total mileage, motor or vehicle hours, charge range to empty battery.



Fault Screen

This screen is accessible by touching the message box only when a fault is active. This screen will list active faults.

Menu Screen

Menu screen allows the user to change LCD brightness, units of measurement, passcodes, date and time, eNVy logo color, and vehicle settings. Access to changes is restricted based on the passcode entered. Vehicle settings, units, change passcode, clock and date, and eNVy logo color are only accessible with the Owner passcode. The idle timeout can be set to 5, 10, 15min. or off, which will shut off the display if the vehicle is not moving or inputs detected.

Status & Info is a multipage screen with the following pages:

- **Battery**

Check Battery Terminals Default Interval: 100 hours

Check Battery

Levels Default Interval: 20 hours



- **Faults**



- **Vehicle Settings Screen**

The display will store Max Speed, Acceleration and Deceleration parameters in NVM. They can be changed through this screen or through the process described in 10.1.9. Default values for the 3 parameters: Speed: 20; Acceleration: 5; Deceleration: 5.



Shut-Down

Ensure that the vehicle is safely stopped on a flat, level surface. Press and hold the power button until the control console turns off.

The eNVy is also equipped with an “Idle Shut-Down” feature which will turn off the console if there is no control input for a set amount of time.

Battery Meter

Notice:

- If the vehicle batteries are low and not allowed to charge for a sufficient period of time, the battery meter may display an incorrect charge percentage.
- When charging, always allow enough time for the batteries to charge completely.

The battery discharge indicator (BDI) is an auxiliary gauge that displays the percentage of battery life remaining, an hour meter, and any error codes present.

Switches

Lights

All models come equipped with automotive style headlights. Press the switch down to turn on the low beam lights. Press the switch up to turn on the high beam lights. To turn the lights off, place the switch into the middle position.



Figure 5: Headlight Switch

Diagnostic Indicators

All of the warnings and lights can be found either on the main screen of the display gauge or under the diagnostics screen. Under diagnostics you will find all of the error codes that you've received.

Electrical

Accessory 12V Electrical Outlet and Double USB Port



Figure 6: 12V and USB Ports

- This outlet is activated when the power is turned on.
- Do not connect any device that draws more than 120 watts to this connector or the battery may discharge rapidly or the outlet may fail.
- Do not use as a cigarette lighter.
- Do not use when wet.
- Unplug all accessories when the vehicle is turned off.

Parking Brake

Warning:

- Always tie down your vehicle with chains or straps when transporting it on a truck or trailer. Never rely on the parking brake alone. See “Transporting the eNVy.”

The eNVy is equipped with a motor brake which engages when the machine comes to a full stop or when the power is turned off. Always park on level ground. To engage the motor brake, stop the vehicle completely.

Direction Selection

Warning:

- Do not attempt to change direction while the vehicle is in motion.
- Always come to a complete stop and hold the brake before attempting to change direction.

The eNVy is equipped with a direction selector switch at the bottom-left of the control console. Make sure to bring the vehicle to a complete stop before making a direction selection. Press up on the rocker switch to shift into forward, down for reverse, and the middle setting will set the system to neutral, which will engage the motor parking brake.



Figure 7: Shift Switch

Seating

Danger:

- Remain seated at all times while the vehicle is being operated.
- Do not attempt to carry more passengers than there are seats on the vehicle.

Seat Removal and Replacement

Pull up on the rear of the seat and pull it up and to the rear to disengage the seat tabs. To install the seat, slide the seat tabs into the slots located at the front of the under-seat compartment. Push down firmly on the rear of the seat until the seat is in full contact with the seat base.

Rear Facing Passenger Seats

Danger:

- Remain seated at all times while the vehicle is being operated.
- Do not place fingers or hands between the seat base and cargo bed.
- Exercise caution when mounting and dismounting the rear step. Use the handholds for better stability.

Tilt Steering

Warning:

- Do not attempt to adjust the steering wheel while the vehicle is in motion.
- Bring the vehicle to a complete stop before attempting to adjust the steering wheel position.



Figure 8: Tilt Steering Adjustment Lever

The eNVy is equipped with tilt steering that can be adjusted by pulling the tilt steering lever towards you, then moving the steering wheel to the desired position. The tilt steering lever is located on the steering column, directly below the steering wheel.

Hauling Cargo

Danger:

Always follow these precautions when hauling cargo:

- Refer to the cargo bed safety warning label, located in the cargo bed.
- Driving with passengers in the cargo bed can result in severe injury or death. Never allow passengers to ride in the cargo bed. Passengers must always ride in available seats.
- Hauling cargo improperly can alter vehicle handling and may cause a loss of control which can result in serious injury or death.
- Never exceed the maximum weight capacity of the vehicle. When determining the weight that you are adding to the vehicle, include the weight of the operator, passengers, accessories, cargo loads, and the load on the trailer tongue. The combined weight of these items must not exceed the maximum weight capacity.
- Reduce speed and allow greater distances for braking when hauling cargo.
- Always load the cargo box with the load as far forward and as low as possible.
- When operating over rough or hilly terrain, reduce speed to maintain stable driving conditions.
- Always operate the vehicle with extreme care when hauling loads.
- Secure all loads before operating.
- Use extreme caution when applying brakes with a loaded vehicle. Avoid terrain or situations that may require braking downhill. Allow extra distance for braking.

- Use extreme caution when applying brakes with a loaded vehicle. Avoid terrain or situations that may require braking downhill. Allow extra distance for braking.

Flip Down Cargo Area

Warning:

- Keep body parts clear of pinch points when flipping the rear seat to prevent pinching or crushing.
- Do not use the cargo configuration to transport passengers.



Figure 9: Flip-Down Cargo Bed

Maintenance

Careful periodic maintenance will keep your vehicle in the safest, most reliable condition. Inspection, adjustment, and lubrication of important components are explained in this section.

Inspect, clean, lubricate, adjust, and replace parts as recommended by the periodic maintenance chart in this manual. When an inspection reveals the need for replacement parts, use genuine eNVy parts, available from your authorized eNVy dealer.

Maintenance intervals in the periodic maintenance chart are based upon average riding conditions. Vehicles subject to severe use must be inspected and serviced more frequently.

Severe Use Definition

- Operation at extremely high or low temperatures
- Prolonged low-speed, heavy-load operation.
- Frequent or prolonged operation in dusty environments.
- Frequent exposure to mud, water, or sand.

If your vehicle falls under the severe use definition, perform all maintenance at intervals more frequent than stated on the chart.

eNVy Lubrication and Fluid Chart

Recommended factory fluids

Item	Lubricant	Quantity	Method
Battery Water Level	Distilled Water	½” below fill cap neck, no less than ¼” above plates	
Brake Fluid	DOT 3	Between min and max	Maintain level between fill lines
Transmission/Gearbox Oil	Valvoline SYN 75W-140	750 ml	

Periodic Maintenance Schedule

Item	Interval (whichever comes first)	Remarks
Clean motor, battery charger and components of debris	Pre-ride	Remove all debris
Brake Fluid	Pre-ride	Check level and pressure. Adjust if necessary
Steering	Pre-ride	
Front Suspension	Pre-ride	
Rear Suspension	Pre-ride	

Tires	Pre-ride	
Wheels/Fasteners	Pre-ride	
Frame	Pre-ride	
Headlights, Tail Lights	Pre-ride	
Axle, Steering Joint Boots	Pre-ride	
Battery Water Level	Monthly	Inspect. Add distilled water if necessary
Battery Terminals	Monthly	Torque to 14 ft. lb. Apply dielectric grease
Brake Pads	50hr /3 months	Inspect for wear, replace if necessary
Transmission/Gearbox Oil	50hr /3 months	Inspect level, change yearly
Front/Rear Suspension	100hr /12 months	Lubricate polyurethane joints
Steering	150hr /12 months	Inspect, lubricate
Throttle	150hr /12 months	Inspect, lubricate, replace if necessary
Wiring	250hr /24 months	Inspect for wear, apply dielectric grease to connectors subject to water, mud, etc.
Brake Fluid	500hr /24 months	Replace fluid
Front Wheel Bearings	500hr /36 months	Inspect, replace as necessary
Toe Adjustment	500hr /36 months	Inspect, adjust as necessary

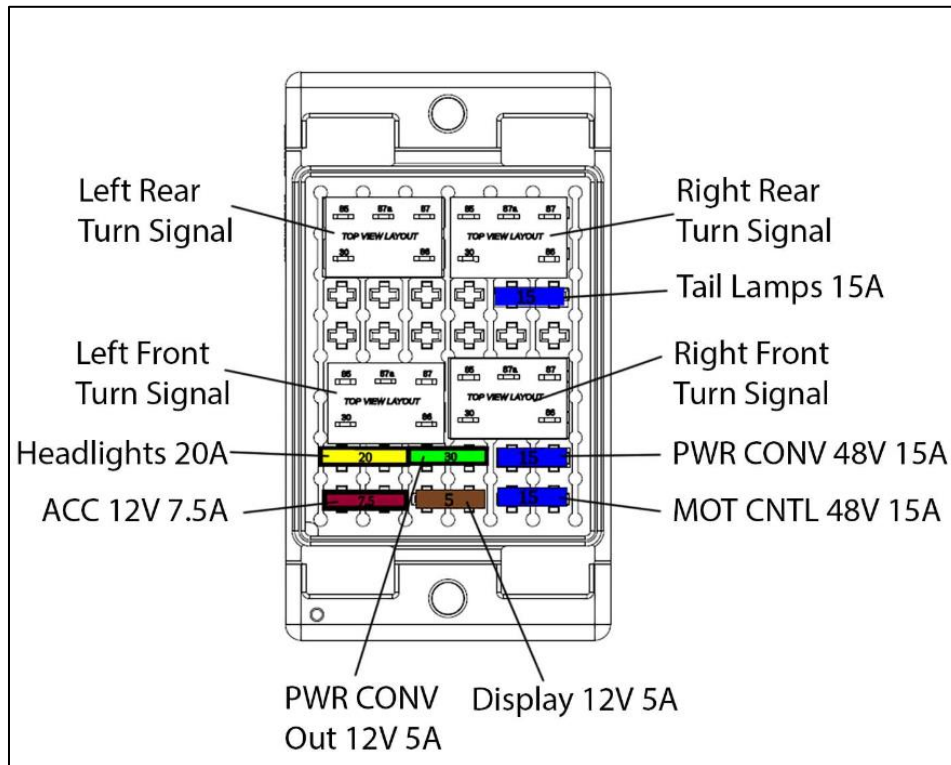
Fuses and Relays

Fuses and relays can be found in a fuse box under the front hood.



Figure 10: Fuse Block

eNVy Fuse Chart



Electric Motor



Figure 11: Electric Motor

The eNVy is powered by a brushless 48V motor. The motor is water resistant, but is not water proof. If the motor should overheat, the display will show a trouble code indicating the overheat. Stop the vehicle and allow time for the motor to cool down before resuming vehicle operation.

eNVy Electric Motor Information

Model	48V AC, 5.0kW, brushless
Peak HP	14.8 HP
Peak Torque	52.2 ft-lb.

Controller

Notice:

- The controller is water resistant, not waterproof.
- Avoid spraying the controller with high-pressure water.
- Do not submerge the controller.
- Do not attempt open, repair, or otherwise modify the controller.
- Contact your authorized eNVy dealer if error codes display.

The controller, or computer, is the brain of the vehicle. The vehicle's rate of acceleration and deceleration can be adjusted by the owner. If a fault occurs, the controller will display error codes on the digital display.

Controller LED Status

The two LEDs located on the controller have four different display modes, indicating the type of information they are providing.

Controller LED Status Chart

Display	Status	Action
Neither LED illuminated	Controller is not powered on; or vehicle has dead battery; or severe damage.	If machine will not turn on, or turns on with this indicator, contact an authorized dealer.
Yellow LED flashing	Controller is operating normally.	None
Yellow and red LEDs both on solid	Controller is in Flash program mode.	None (occurs during software updates)
Red LED on solid	Watchdog failure or no software loaded.	Contact dealer
Red LED and yellow LED flashing alternately	Controller has detected a fault.	See "Controller Troubleshooting"; contact dealer.

Battery Bank Care

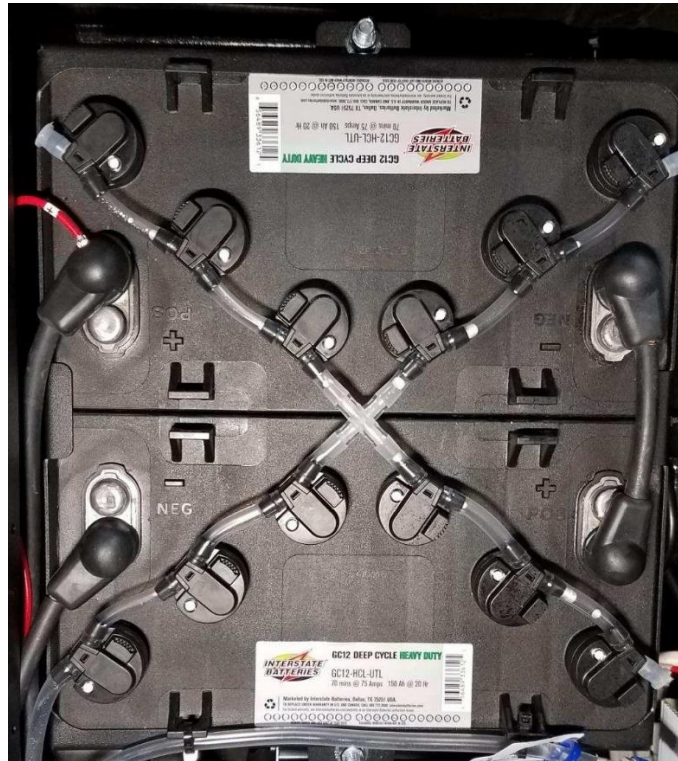


Figure 12: Electric Vehicle Battery Bank w/ Watering-Kit (2 of 4 Batteries)

Electric motors and batteries require consistent maintenance to ensure peak performance and longevity.

Safety

Warning:

- Flooded batteries contain corrosive acid which can damage material and cause severe chemical burns. Wear the appropriate protective attire and sufficient eye protection while working with batteries.
- Batteries produce flammable hydrogen gas while charging. Ensure that the charging area has sufficient ventilation and keep all sources of flame and spark away from the batteries.
- There is a danger of electric shock when working with electricity. Use insulated tools to perform maintenance to prevent a dangerous short.

Lead-Acid Battery information

Battery Disposal

Lead-acid batteries are recyclable. Return whole scrap batteries to the distributor, manufacturer, or lead smelter for recycling. Contact local and/or state environmental officials regarding disposal information.

Battery Health

The batteries on the eNVy perform best when recharged fully and often. Recharge the batteries daily or after each use of the vehicle.

Battery Watering System

The battery watering system connects directly to all of the batteries in the bank and allows for easy, uniform watering to the exact required level. Each fill spout cover contains a small white indicator that will disappear if the battery level falls below optimal levels. When this occurs, **distilled water** must be added to bring the water levels back up.

To add water to the batteries:

1. Ensure that the vehicle is safely parked on a level surface with the power off.
2. Remove the front seat.
3. Connect the quick-fill hand pump to the blue nozzle on the battery watering kit.
4. Place the other end of the hand pump into a clean, distilled water source and pump until there is resistance within the pump.

5. Check the indicators on the top of the batteries to ensure water levels are correct.
6. Disconnect the quick-fill pump and replace the seat.

Notice:

- Do not change the battery model in the machine

In order to gain the highest performance from the eNVy:

- Fully charge the batteries prior to the first use, and keep the batteries fully charged to keep them healthy.
- The batteries will not perform to their fullest capacity until they have been discharged up to 50% and recharged 20-30 times.
- Never discharge the batteries more than 80% of their capacity. Deeply discharging the batteries will shorten their life span.
- Discharged batteries can freeze in freezing temperatures. Do not use, charge, or load test a frozen battery as it could explode.
- Keep batteries fully charged when not in use.
- If you observe ice in the cells, or the case is swollen or split, allow the battery to warm up before testing or charging.
- Do not charge batteries at temperatures of 110° F or higher.
- Range may change depending on terrain, trail conditions, temperature, and driving habits.
- If the electrolyte level is low, add distilled or deionized water up to a maximum of ½” below the bottom of the fill cap neck. Do not overfill.
- Adding too much electrolyte may cause a boil-over during charging. ¼” Over the plates is sufficient.

Full Interstate manual can be found on the website,
<https://ridewithenvy.com/manuals/>

Lithium Battery General Information

- These lithium batteries come with an on/off switch. This switch allows the user to turn the batteries off after operation.
- The batteries are equipped with internal timers that, after a certain period of time with no activity, will go to sleep to protect themselves from draining.
 - To wake the batteries from their sleep, turn the on/off switch off and back on

Battery State of Charge (SOC)	Idle time before batteries go to sleep
100% to 50%	48 hours
0% to 49%	24 hours

- Upon initial install of lithium batteries (or if noticing performance issues) it is important to ensure the correct number of batteries are online and communicating in the system. This can be done by going to the Battery Information Tab (in the settings menu).
 - If the number of batteries online does not match the number of batteries physically installed in the unit, perform the Battery Learn Procedure by toggling the on/off switch 3 times (on and off) quickly.

- After turning battery switch on, it is important to wait approximately 10 seconds before attempting to turn the unit on.
 - If done too quickly, a clicking noise can be heard and the unit will not turn on
 - If this happens, the batteries will need to be turned off and back on.

Full Alliance User Manual can be found on the website,
<https://ridewithenvy.com/manuals/>

Operating Environment

Alliance Intelligent Battery Series™ batteries are engineered to disconnect from the host system under a variety of conditions in order to avoid internal damage. When this occurs in equipment with Alliance batteries, all power will be lost. In certain types of equipment, an abrupt interruption of power can cause undesirable and unexpected equipment behavior, such as braking loss or sudden braking. The system installer must understand the consequences of this behavior and ensure that proper system features are in place to avoid potentially harmful changes in equipment behavior without properly notifying the operator. The system installer assumes all responsibility and liability for any damages that may occur if these features are not properly implemented.

Recycling/Disposal

Do not incinerate or dispose of the battery. Return end-of-life or defective batteries to your nearest recycling center per the appropriate local regulations.

Over-Charge Protection (Over-Voltage Protection)

Similar, but opposite to the case at low states of charge, the Alliance Intelligent Battery Series™ terminal voltage begins to rise rapidly at high states of charge. The Alliance Intelligent Battery Series™ is considered at 100% SOC when the cells are balanced and terminal voltage measures 57.4 volts or above. At this point, the average cell voltage is the terminal voltage divided by 14, or 4.1 volts. The Alliance Intelligent Battery Series™ is designed to enter an Over Voltage Protection (OVP) state if any cell rises above 4.1 volts. In the OVP state, the Alliance Intelligent Battery Series™ will disconnect its terminals and not accept further charge current. To exit the OVP state, apply a load to discharge the Alliance Intelligent Battery Series™. The battery's internal balancing circuitry will also cause an automatic exit of this state, but it may take longer. The Alliance Intelligent Battery Series™ will return to Normal State once the cell voltages fall below 4.08 volts. For further details, refer to the section: "Balancing".

The Alliance Intelligent Battery Series™ battery supports 3 level of Over Voltage protection.

1. **Overvoltage Warning** – Overvoltage Warning sets a warning flag if any of the Battery cell voltage goes above Maximum Charge Voltage. This notifies the user to take appropriate actions and will not allow entry into charging without opening the FETs.
2. **Overvoltage Moderate** - Overvoltage Moderate flag is set if any of the Battery cell voltage goes further above Maximum Charge Voltage. This fault will exit the charge state to stop further charging of the battery without opening the FETs.
3. **Overvoltage Severe**– Overvoltage Severe protections is set if any of the Battery cell voltage goes above the Charge Over Voltage Protection limit. Setting this fault opens the FETs. This helps battery from protecting itself from over Charge conditions.

Over-Temperature Protection

The Alliance Intelligent Battery Series™ battery's circuitry continuously monitors the battery's temperature. The battery will open its terminals before the temperature is too high for safe operation. Do not operate the battery outside of the operational temperature range specified in Table 6.

Both charge and discharge functions increase battery temperatures. High rate battery usage causes the largest temperature increase. The Alliance Intelligent Battery Series™ over temperature protection (OTP) circuitry disconnects the terminals if the battery exceeds the temperature limits. During high rate battery usage, the user must ensure that ambient operating temperature combined with the charge or discharge rate does not exceed the operational temperature limits.

Under certain conditions, the Alliance Intelligent Battery Series™ terminals will exceed the 70 °C touch temperature limit as described in UL 1973. For operation beyond those touch temperature limits, not to exceed 90 °C, the Alliance Intelligent Battery Series™ will require the placement of guards to prevent accidental contact. American Battery Solutions recommends that additional testing be conducted under specific use cases. The gauge of wire may be changed depending on final temperature requirements and application.

1. **Over Temperature Warning** - Over Temperature Warning sets a warning flag if any of the Battery cell Temperature goes above Maximum operating temperature. This notifies the user to take appropriate actions and use the battery efficiently without opening the FETs.
2. **Over Temperature Moderate** - Over Temperature Moderate flag is set if any of the Battery cell Temperature goes above Charge Over Temperature Protection Limit. This fault restricts the user from operating the battery pack in charging mode by opening the FETs in Charge Mode. This helps the battery from protecting itself from charging at above the rated temperature to maintain the life of the Battery.
3. **Over Temperature Severe** - Over Temperature Severe flag is set if any of the Battery cell Temperature goes above Discharge Over Temperature Protection. This fault restricts the user from operating the battery pack during Driving mode by opening the FETs in Drive Mode. This helps the battery from protecting itself from discharging at above the rated temperature to maintain the life of the Battery.

**Note**

Cell life will be limited by exposure to high temperatures.

Low Temperature Operation

At low temperatures, the maximum available discharge power decreases due to increased internal impedance at lower temperatures.

1. **Under Temperature Warning** – Under Temperature Warning sets a warning flag if any of the Battery cell Temperatures go below minimum operating temperature. This notifies the user to take appropriate actions and use the battery efficiently without opening the FETs.
2. **Under Temperature Moderate** - Under Temperature Moderate flag is set if any of the Battery cell Temperatures go below Charge under Temperature Protection Limit. This fault restricts the user from operating the battery pack during charging mode by opening the FETs in Charge Mode. This helps the battery protect itself from charging at below the rated temperature to maintain the life of the Battery.
3. **Under Temperature Severe**– Under Temperature Severe flag is set if any of the Battery cell Temperature goes below Discharge under Temperature Protection. This fault restricts the user from operating the battery pack during Driving mode by opening the FETs in Drive Mode. This helps the battery protect itself from discharging at below the rated temperature to maintain the life of the Battery.

**Note**

Do not operate the battery outside of the operational temperature range specified in table 7, on page 23.

Charging a Single Battery Module

The Alliance Intelligent Battery Series™ is compatible with most common 48-volt, lithium-ion battery chargers. A single Alliance Intelligent Battery Series™ can accept continuous charge current up to 20 amps for 48V module and 40 amps for 24V module at certain temperature and SOC range. Higher current for short durations is allowed. However, in some situations, internal component temperatures may be exceeded causing performance to be curtailed by the battery's protection circuitry.

Charging System

The eNVy is equipped with an onboard battery charger. When the battery charging system is connected, the battery status indicator, located on the charger toward the rear of the under-seat compartment, will provide charging information utilizing four LED indicators.

Full manual for the Lester Summit Charger can be found on the website, <https://ridewithenvy.com/manuals/>

Bluetooth® Wireless

The charger features Bluetooth wireless communication, which can be accessed using an Apple® or Android™ smart phone, tablet or similar device. Download the ChargerConnect app for your device by scanning the QR code on the charger or visiting the App Store® or the Google Play™ store and searching for “ChargerConnect”.

Full guide on the “ChargerConnect” app can be found on the website, <https://ridewithenvy.com/manuals/>

Notice:

- Disconnecting and reconnecting the AC power supply cord will reset the charger.
- Do not attempt to change the battery profile using the ChargerConnect app. Changing the battery profile can cause damage to the batteries and charging system.

Battery Charging

Warning:

- Keep the charging area well ventilated and keep all flames and sparks away during charging.
- Utilize a heavy-duty extension cord connected to an outlet of sufficient capacity to charge the machine
- Do not use a ground fault interrupt (GFI) type cord on a GFCI-protected outlet. The circuit should be rated for a minimum of 20 amps.
- The eNVy is equipped with an interlock system that will not allow it to move while the charging cable is plugged in. A small blue plug icon will blink on the display when charging is in process.

In order to charge the eNVy:

1. Ensure that the vehicle is safely parked on a level surface with the switch off.
2. Connect the power cord to an appropriate live AC outlet which is indicated by the blue “AC PRESENT” LED turning on. The charger will start automatically as indicated by the yellow “CHARGE STATUS” LED beginning to blink slowly.
3. If the charger must be disconnected from the battery while a charge cycle is in progress, disconnect the AC power cord from the AC outlet.
4. The charge cycle 80% point is indicated by the yellow LED beginning to blink quickly.
5. The finish charge cycle phase is indicated by the solid illumination of the yellow LED. There may be a light Sulphur smell and a soft boiling noise coming from the batteries during this phase. This is normal.

6. An extended balance/equalize charge cycle phase is indicated by the green “CHARGE COMPLETE” LED beginning to blink quickly.
7. The charger automatically terminates the charge cycle when the batteries reach full charge. Which is indicated by either:
 - a. The solid illumination of the green LED
 - b. The green LED beginning to blink slowly indicating a post-charge phase
8. Before operating the eNVy, disconnect the onboard charger AC power cord from the outlet.

Storage Mode Operation

Storage Mode is designed to keep your batteries maintained during storage periods that last a few weeks to several months at a time. Do not disconnect the AC power until the machine is needed for use. Disconnecting and reconnecting the charger from the batteries or AC power may start a charge cycle, but disconnection disrupts the storage mode so optimum battery maintenance is not achieved. After several months of storage, the batteries should be serviced and the charger reset by disconnecting the AC power supply for a minimum of 10 minutes before continuing another storage season.

LED Indicators

The charger has four (4) LEDs to indicate charger status and fault information. LED function is outlined below and in the following table.

- **AC Present (blue)** – Indicates charger is connected to a live AC inlet.
- **Fault (red)** – Indicates when a charger or battery fault has occurred.
- **Charge Status (yellow)** – Indicates charge cycle status.
- **Charge Complete (green)** – Indicates when a charge cycle completes successfully, when an extended balance/equalize charge cycle phase is active, or when a post-charge phase is active.

Fault (red) LED	Charge Status (yellow) LED	Charge Complete (green) LED	Description
Solid On	Solid On	Solid On	LED check for a few seconds during charger initialization
	Slow Blink	Off	Bulk/Start charge cycle phase (constant power or constant current).
	Fast Blink	Off	Absorption/Plateau charge cycle phase (constant voltage). Greater than 80% charged.
	Solid On	Off	Finish charge cycle phase (constant current). Not all charge profiles include a Finish phase.
	Off	Fast Blink	Balance/Equalize phase. An extended charge cycle is occurring because a trigger condition has been met (cycle count, etc). Not all charge profiles include a Balance/Equalize phase.
	Off	Solid On	Charge cycle complete.
	Off	Slow Blink	Charge cycle complete. Post Charge phase (constant voltage float, etc). Not all charge profiles include a Post Charge phase.
Slow Blink	Slow Blink	Slow Blink	Charger Bluetooth connected to a smart phone or device, LEDs blink at the same time.

Charger LED Faults

	Fault (red) LED	Charge Status (yellow) LED	Charge Complete (green) LED	Description
Charger	Slow Blink	Solid On	Solid On	DC Disconnect: DC disconnect detected via the third-pin, but DC (battery) voltage is still present at the charger output.
	Slow Blink	Off	Solid On	Over Temp: Maximum temperature was met. Charge cycle was halted and will restart when the temperature decreases.
	Slow Blink	Fast Blink	Slow Blink	Low Temp: Temperature is too low to start a charge cycle (< -25°C). Charging will start when temperature increases.
	Slow Blink	Solid On	Off	Low DC: DC (battery) voltage is too low to start charging (< 10V).
	Slow Blink	Off	Off	No AC: AC power was lost during charging. Charge cycle was halted and will restart

				when AC power returns.
	Slow Blink	Solid On	Slow Blink	Hardware Fault: Contact dealer.
	Slow Blink	Slow Blink	Off	Hardware Fault: Contact dealer.
	Slow Blink	Slow Blink	Slow Blink	Comm Fault: LEDs blink one at a time in a rotating pattern. Contact dealer. Unit is still able to charge.
	Slow Blink	Slow Blink	Solid On	Hardware Fault: Contact dealer.
	Fast Blink	N/A	N/A	Hardware Fault: Contact dealer. Unit is still able to charge.
Battery	Solid On	Off	Off	Phase: A fault condition (most commonly maximum time) was met during a particular charge cycle phase (start/bulk, plateau/absorption, finish, etc).
	Solid On	Off	Slow Blink	Max Voltage: Maximum voltage was met.
	Solid On	Off	Solid On	Min Voltage: Minimum voltage was NOT met after a specified time from the start of the charge cycle.

	Solid On	Slow Blink	Off	Max Amp-Hours: Maximum amp-hours for the overall charge cycle was met.
	Solid On	Slow Blink	Slow Blink	Max Time: Maximum time for the overall charge cycle was met.

Power Converter

The eNVy has a 48V-to-12V power converter that allows 12V electronics to operate off of the main power system. Small electrical accessories, such as lights, can be added with no modification to the electronics system.

Transmission/Gearbox

Check and change the transmission oil at the intervals outlined in the Periodic Maintenance Chart. Refer to the lubrication and fluid recommendations chart for type and capacity.

Oil Check

To check the Transmission/Gearbox oil:

1. Ensure that the vehicle is safely parked on a flat surface.
2. Remove the level check/fill plug. Observe the oil level.
3. Add the recommended oil as required.
4. Reinstall check/fill plug.

Oil Change

To change the Transmission/Gearbox oil:

1. Ensure that the vehicle is safely parked on a flat surface.
2. Place a drain pan under the gear case.
3. Remove the drain plug and the check/fill plug. Allow the oil to drain completely.
4. Clean and reinstall the drain plug.
5. Add the recommended oil to the appropriate level.
6. Reinstall the check/fill plug.
7. Inspect for leaks.

Vehicle Submerged in Water

Notice:

- If your vehicle becomes immersed in water, major motor damage can result.
- Intimidator warranty does not cover vehicles submerged in water.
- If your vehicle does become submerged above the electric motor, thorough inspection is necessary.
- It is recommended that you take the vehicle to your dealer before turning on the power.

Headlights

The headlights are controlled by a three-way switch in the dash. The LED light strips are daytime running lights. The outside set of lights are low-beams, while the inside set are the high-beams.

Brakes

The braking system consists of front hydraulic disc brakes, and rear drum brakes activated by the brake pedal.

Brake Fluid

Inspect the brake fluid level before each operation. Always keep the fluid level between the minimum and maximum fill line on the reservoir. Change the brake fluid either every two years, or any time the fluid becomes contaminated.

To change the brake fluid:

1. Ensure that the vehicle is safely parked on a flat surface.
2. Inspect the brake fluid level at the reservoir located in the driver's side wheel well. The level should be between the MAX and MIN indicator lines.
3. If the fluid level is low, remove the cap and fill until the fluid level falls between the indicators.
4. Reinstall the cap.
5. Apply the brake forcefully for a few seconds and inspect for fluid leakage around the fittings.

Brake Pressure Switch and Safety Switch

The brake pressure switch is located on the master cylinder. It is not necessary to depress the brake pedal in order to start the machine, but is recommended for safety reasons.

Brake Inspection

To inspect the brake system:

1. Visually inspect all hoses and fittings for fluid leaks.
2. Check the brake pedal for excessive travel or a spongy feel.
3. Check the friction pads for wear, damage and looseness.
4. Inspect the brake disc spline and pad wear surface for excessive wear.
5. Change pads when worn to 3/64" (1 mm)

Tires

Danger:

- Installation of non-standard tires, use of oversized tires, or use of different tread patterns can change or impair the handling of the vehicle and result in severe injury.

Tire construction characteristics and inflation pressure can greatly influence vehicle handling. Intimidator recommends that you replace tires with standard OEM tires. It is also important that all tires on the machine are of the same type and height, inflated to the recommended pressure.

Tire Tread Depth

Replace your tires when the tread depth is worn to 1/8" or less.

Lug Nuts

Torque lug nuts to 65 ft/lb.

Steering

Steering Wheel Inspection

Check the steering wheel for the specified free play and smooth operation at the intervals outlined in the periodic maintenance chart. To inspect the steering wheel:

1. Ensure that the vehicle is safely parked on a flat surface.
2. Lightly turn the steering wheel left and right. There should be no more than 1” of free play.
3. If there is excessive free play, strange noises, or the steering feels rough, have the steering system inspected by an authorized dealer.

Storage

Washing the eNVy

Notice:

- High water pressure may damage components including wheel bearings, brakes, plastic panels, safety labels, electrical switches, electronic components, and wiring.
- Wash the vehicle by hand or with a garden hose using mild soap.
- Certain products, including insect repellents and chemicals, will damage plastic surfaces. Do not use these types of products.
- Mud can stain the vehicle's seat and plastic. Immediately wash mud off of the vehicle with mild soap and water.

Keeping your vehicle clean will not only improve its appearance, but it can also extend the life of various components. Below are some guidelines for keeping your eNVy clean:

- Avoid the use of harsh or abrasive cleaners that can scratch the finish.
- Use automotive adhesive remover to clean sticker residue from plastic.
- Do not use a pressure washer to clean the vehicle.
- Always use clean microfiber cloths, towels, and pads for cleaning and polishing.
- Replace any safety labels damaged by cleaning immediately.

Storage

Notice:

- Do not store the vehicle in direct sunlight.

Preparation for Storage:

1. Thoroughly clean the entire vehicle.
2. Place boards under the tires to keep moisture away from the rubber.
3. Fully charge the batteries. You may leave the charger plugged in if the area has sufficient ventilation to allow gasses to disperse. It is important to regularly check on the vehicle to ensure that there are no charging/electrical issues.
4. Put a cover over the vehicle to keep dust and dirt from collecting, and to discourage small animals from taking up residence. Do not leave the battery charger plugged in when covered. Remove the cover to charge the batteries.

Removal from Storage:

1. Remove the cover
2. Clean the battery terminals, charge the battery fully.
3. Check each point listed in the “Pre-Ride Checklist” at the end of this manual.
4. Lubricate any fixtures as required.

Transporting the eNVy

Danger:

- When transporting your vehicle on a trailer or truck bed, secure the vehicle to the trailer/truck by attaching the frame of the vehicle to the trailer/truck using properly rated straps or chains.
- Do not attach straps or chains to the suspension arms.

The best way to transport the eNVy to different locations over the road is to load it onto a trailer or flatbed truck. Below are some considerations while transporting your machine:

- Use extra caution with any and all activities involved with loading, securing, transporting, and unloading your machine.
- Make sure that the trailer/truck is parked safely on flat ground and that the tires are immobilized.
- Do not use a ramp at an angle of more than 14 degrees.
- Use extra care when driving the eNVy up and down the ramps.
- Ensure that the straps/chains used for securing the machine are rated sufficiently for the weight of the machine.

Tow Procedure

Danger:

- Do not attempt to tow an eNVy while on an incline
- Secure the machine prior to initiating any of the towing procedures outlined below.

The procedure for towing the eNVy will vary depending on the state of charge within the batteries.

To tow an eNVy with battery charge:

1. Safely attach a sufficiently rated tow strap to a secure location on the eNVy frame.



Figure 12: Front Tow Attachment Points

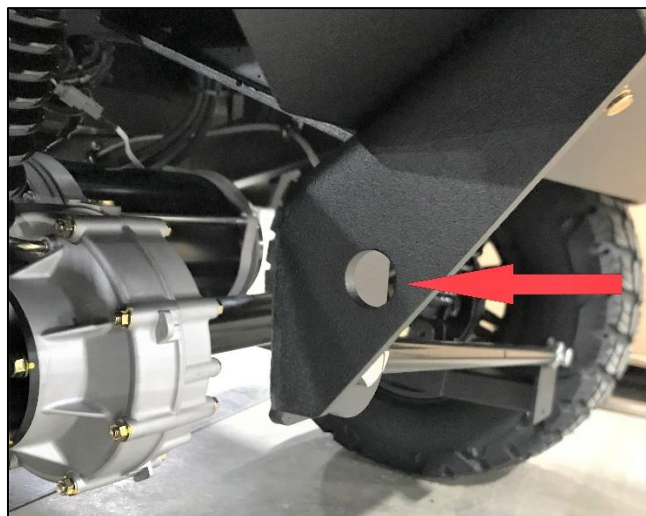


Figure 13: Rear Tow Attachment Point

2. Remove the seat to access the battery compartment.
3. Turn the machine on and input owner or user code to view main screen
4. Locate the internal tow switch mounted to the passenger side battery bank, and switch it to the “TOW” position.



Figure 14: Tow Switch

5. With an operator in the driver’s seat to control the machine, slowly tow the eNVy to the desired location.
6. Return the tow switch to the “RUN” position to complete towing, and turn the machine off.

To tow an eNVy with NO battery charge:

1. Safely attach a sufficiently rated tow strap to a secure location on the eNVy frame.
2. Remove the seat to access the battery compartment.
3. Remove the cap of the two-pin Deutsch connector located near the controller and attach the off-board jump pack (sold separately) to the connector. This will disengage the parking brake.
4. Slowly tow the eNVy to the desired location.
5. Detach the jump pack to complete towing.

Accessories

For a complete line of genuine eNVy accessories, visit:
www.baddawgaccessories.com.

Specifications

CORE COMPONENTS	
Frame	Powder Coated, Fusion-Bonded, Solid Steel Frame
Body	Automotive Quality Acrylic Plastic
Front Tires	24x1200R12 – 4 ply
Rear Tires	24x1200R12 – 4 ply
Wheels	12" Steel
Front Suspension	Dual A-Arm
Rear Suspension	Trailing Arm
Steering	Rack and Pinion
Braking System	Front Disc and Rear Drum Brakes
Parking System	Automatically Engaging Electric Brake
Seating	2 Forward Facing and 2 Rear Facing
Auxiliary Power	12V Auxiliary Plug and Double USB Port
Cargo Bed Space	37"x44" (93.9cm x 111.8cm)
Warranty	2-year Bumper-to-Bumper
DRIVE SYSTEM	
Motor	48 Volt Brushless
Battery System	Four 12V Deep Cycle Lead Acid Batteries with Included Watering Kit
Charging System	On-Board Charging System
Torque (Peak)	52.2 ft lb.
Max. Horsepower	6.7 hp (5 kW)
Max. Speed	20 mph
MEASUREMENTS	
Weight	1,389 lb. (630.0 kg)
Length	124" (315.0 cm)
Width	55" (139.7 cm)
Height	78" (198.1 cm)
Turning Radius	115" (292.1 cm)
Wheelbase	69" (175.3 cm)
Frame Clearance	8" from the trailing arm bracket 14" from the frame
Cargo Bed Capacity	450 lb. properly loaded
Vehicle Payload	1,000 lb. passengers + cargo
SAFETY	
Front Protection	1.75" (4.5 cm) Diameter Tubing Bumper/Brush Guard
Shift Indicator	3 Position Gear Indicator Switch
Headlights	High and Low Beam Headlights
Brake/Tail Light	Standard

Service Record

Number	Date	Hour Meter Reading	Dealer Stamp
1			
2			
3			
4			
5			
6			
7			
8			

Owner's Reference

(Keep original copy on file at your dealership)

VIN/PIN	
Model	
Date of Purchase	
Dealer	

Last Name (owner)	
First Name (owner)	
Address	
City	
State	
Postal Code	
Day Phone	
Evening Phone	

Pre-Ride Checklist

Complete this checklist before every operation of the Intimidator to ensure a safe and enjoyable ride.

Tires and Wheels

- Check condition for cuts or gouges
- Check for adequate tread
- Check air pressure and ensure that it is even in all tires
- Check wheel lugs for tightness

Controls

- Adjust steering wheel to ideal position
- Confirm that brake and throttle pedals operate smoothly
- Ensure proper brake and parking brake operation
- Ensure that the gear selector operates properly

Lights

- Make sure lights (high and low beams) operate properly as well as brake lights

Fluids

- Differential Oil – check level and condition
- Leaks – inspect inside and underneath the machine for evidence of fluid leaks

Chassis and Accessories

- Ensure all shocks, fasteners, and undercarriage are free from damage and securely fastened
- Check A-Pillar and B-Pillar for secure attachment and damage
- Inspect all accessories for secure attachment and damage