

# Tao Motor Owner's Manual

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TAO MOTOR

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1. Protective clothing
2. Protective Goggles
3. Protective Gloves
4. Protective Boots
5. Protective Helmet



Do not operate after or while consuming alcohol or drugs.

The operator's performance capability is reduced by the influence of alcohol or drugs.

Consuming alcohol or drugs could seriously affect your judgment, cause you to react more slowly, and affect your balance and perception.



Never consume alcohol or drugs before or while driving this ATV. You increase your chance of an accident.

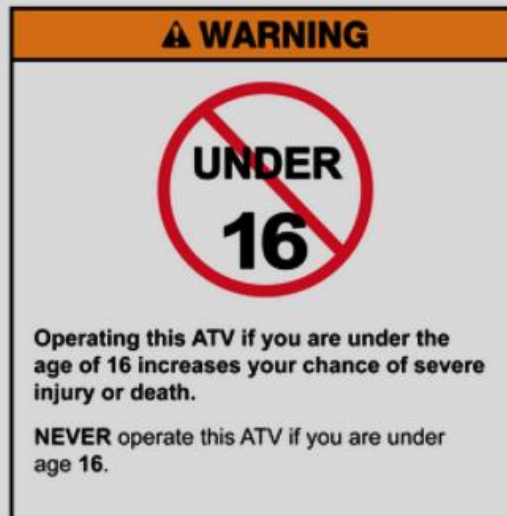
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### **WARNING**

**This is an Automatic ATV that should only be ridden on off-road dirt trails only!**

**Avoid riding on asphalt, concrete, sand, etc.**

**This ATV is meant for beginners and is not designed for riding up and down steep hills.**



## Warranty & Maintenance Information

*As the vehicle owner you are responsible for the vehicle maintenance.*

*These responsibilities included but are not limited to periodic maintenance, pre- storage maintenance, pre-ride inspections to be performed before each ride. After riding the vehicle, you are responsible for cleaning, drying, lubing, and the necessary adjustments to maintain proper vehicle maintenance.*

*You are responsible for keeping records of these maintenance and services and will be requested to provide copies of the receipts for these maintenance services along with photos or video of the vehicle when submitting a claim requesting coverage under the limited parts warranty.*

*Claims without verifiable proof of maintenance or professional PDI will be denied.*

*Our products do require some assembly. If you choose to assemble your unit you accept all liability for the unit and will void your warranty. In order not to void your warranty, you must have a licensed mechanic motorcycle assemble your unit. Be sure to save the receipt or any paperwork proving the work(s) carried out by the licensed mechanic.*

*Do not operate the machine until it has been completely inspected by a certified mechanic. Have the licensed mechanic check that all bolts and components are assembled properly. We offer assembled units but under no circumstances takes responsibility for the safety of the product.*

*The limited parts warranty covers defective parts due to manufacture error only and excludes damages caused by anything other than a defective part.*

*All parts must be returned for inspection.*

*For the 1-year engine warranty the engine must be returned to our warehouse for inspection to determine eligibility and accompanied with all maintenance records and receipts.*



## TAO MOTORS ATV ASSEMBLY MANUAL

### Tools Required:

- 10mm Socket and Wrench
- Metric Socket Set
- 13mm Socket
- Pliers
- #2 Phillip's Head Screwdriver
- Medium Sized Flathead Screwdriver
- Fuel Stabilizer (Recommended)

You will also need some supplies for the initial set up such as:

- Blue Loctite
- Premium Gasoline 91 or 93 Octane rating
- Quart of quality, Standard Type, 15W-40 oil (Castrol, Valvoline, etc.
- Battery Tender / Charger of 3 Amps or less



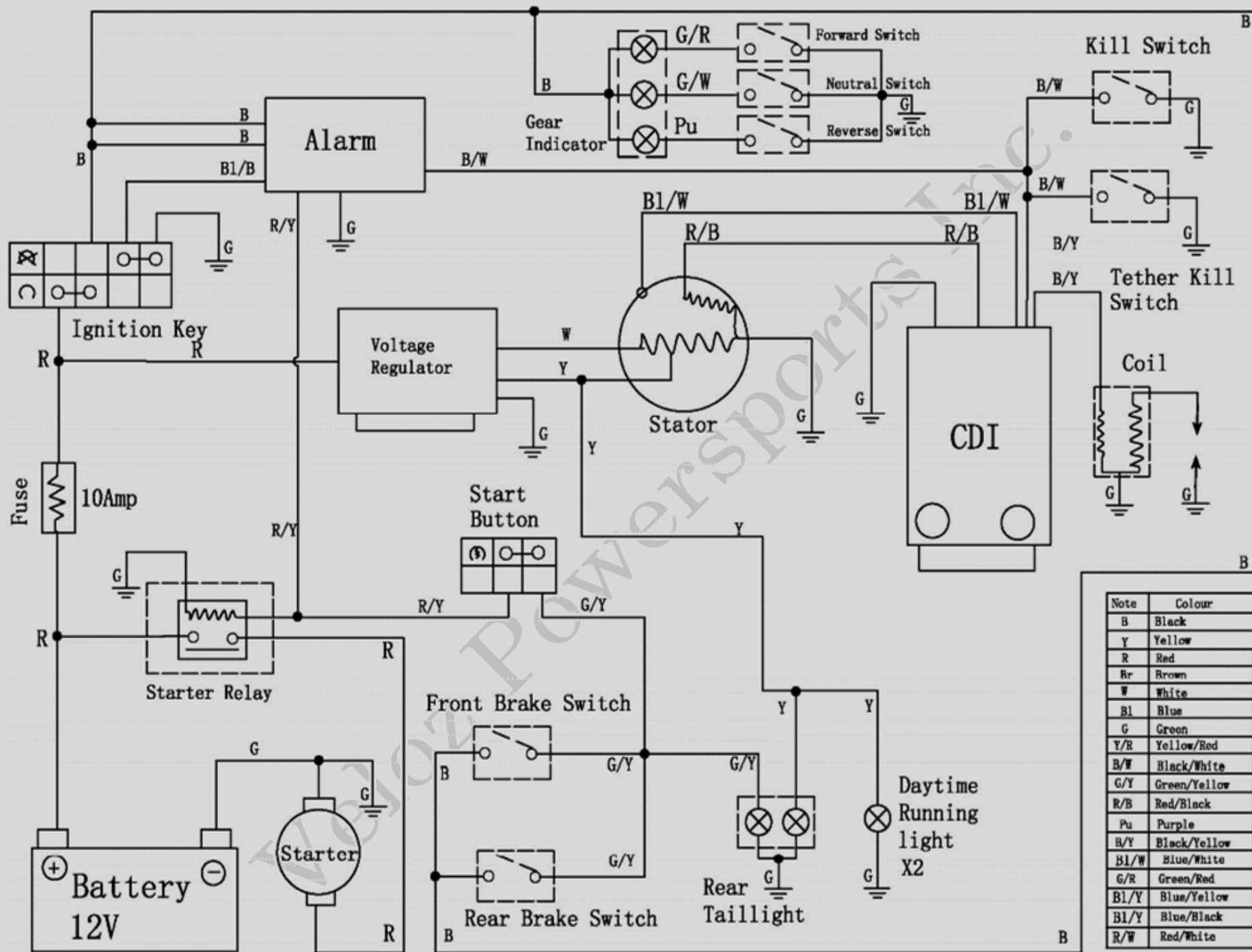
**\*\*Recommended but not required.**

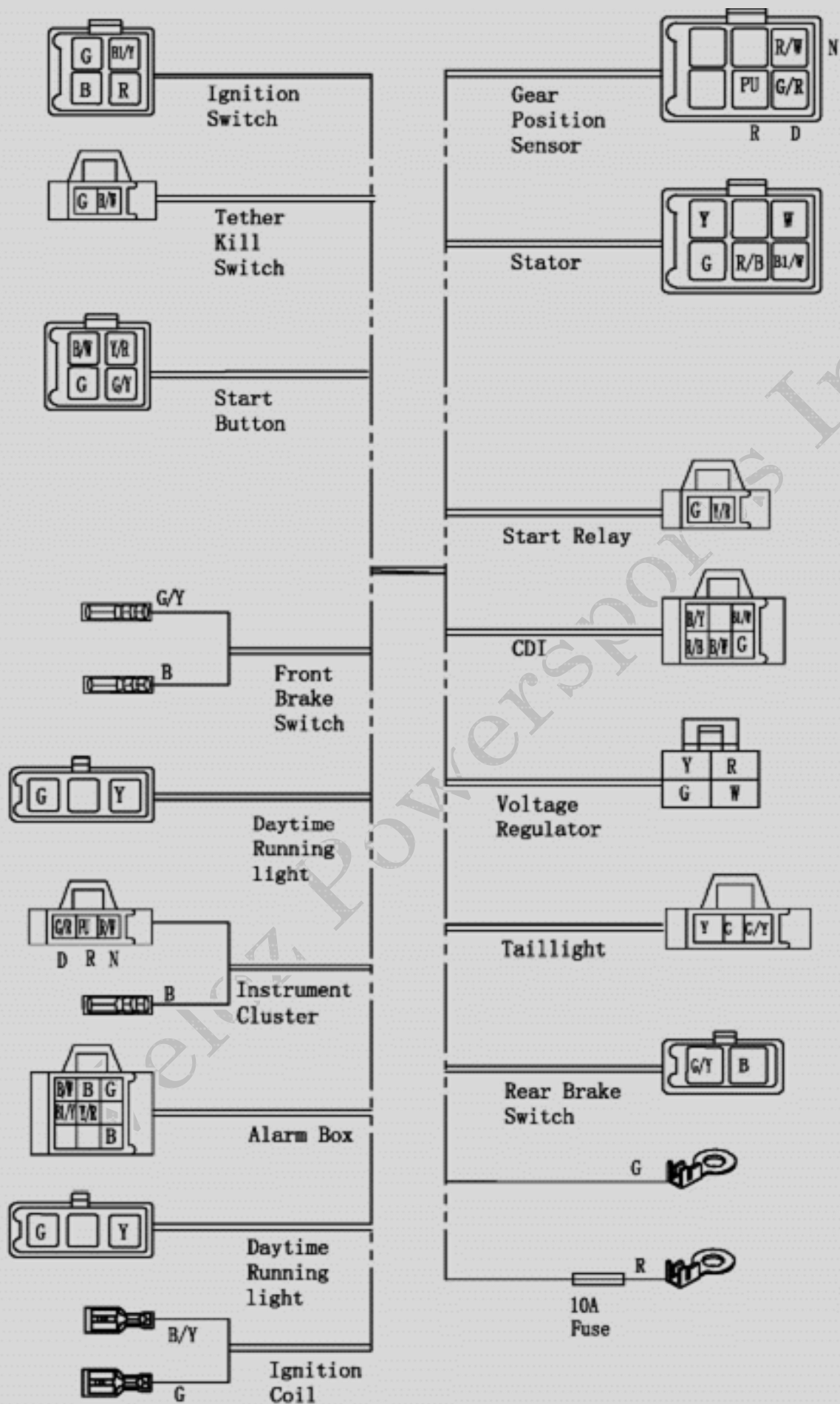
**\*\*Recommended** to have LOCTITE on major nuts and bolts including the Brake Caliper, Rotors, Front and Rear axle, Handlebar hardware, and Exhaust hardware, and any other major hardware. \*\*



## **SPECIFICATIONS**

ENGINE	
Engine Type	197cc, Air Cooled, 4-stroke, single cylinder, Manual transmission
Start Type	Electric Start
Transmission	Chain Drive
Engine Gear	4-3-2-1-N-R
Shift Gear	Foot
Max Torque	8.5N.m/5000-5500r/min
Wheelbase	43.9 inches
Ignition	CDI
Fuel Tank Capacity	1.1 Gallons
CHASSIS	
Front Hand Brake	Drum
Rear Foot Brake	Hydraulic Disc
Tire Front	23x7-10
Tire Rear	22x10-10
Front Suspension	15.7 inches
Rear Suspension	13.4 inches
Remote Control	No
Speed Limiter	Yes
Engine kill switch	Yes
DIMENSION	
Battery	12V/9Ah
G.W	363.76 LBS
N.W	308.65 LBS
Max Loading	198 LBS
Overall Size	69.3 x 42.1 x 43.3 inches
Carton Size	55.9 x 33.0 x 34.3 inches
Seat Height	31.89 inches
Ground Clearance	5.32 inches





Note	Colour
B	Black
Y	Yellow
R	Red
Br	Brown
W	White
Bl	Blue
G	Green
Y/R	Yellow/Red
B/W	Black/White
G/Y	Green/Yellow
R/B	Red/Black
Pu	Purple
B/Y	Black/Yellow
Bl/W	Blue/White
G/R	Green/Red
Bl/Y	Blue/Yellow
Bl/Y	Blue/Black
R/W	Red/White



## Torque Specs

Exhaust manifold nuts 10-14Nm

Exhaust mounting bolts 30-14Nm

Engine mounting nuts 45-50Nm

Oil drain bolt 11-15Nm

Oil filter screen cap 10-20 Nm

Spark plug 10 -14Nm

Crank case bolts 8-12Nm

Cylinder head bolts / nuts 18Nm-22Nm

Variator center nut 35-40 Nm 49cc gy6 149cc gy6 40-60NM

Clutch assembly nut for spring 50-60Nm 49cc gy6

Clutch center nut 35-40Nm 49cc gy6 149cc gy6 40-60NM

Gear box drain and fill bolt 9-15Nm 49cc -149cc gy6

Fan bolts 9Nm 49cc -149cc gy6

Valve lash adjusting nut 7 Ft Lbs

### Standard Torque Setings

M5-Bolt or Nut--5Nm

M6-Bolt or Nut--10Nm

M8Bolt or Nut--21.5Nm

M10Bolt or Nut 35Nm

M12Bolt or Nut 55Mm

M6Bolt or Nut flanged head 12Mn

M8Bolt or Nut flanged head 27Nm

M10Bolt or Nut flanged head 40Nm

## Post Delivery Inspection (PDI)

"PDI" refers to the "Post Delivery Inspection" process you are going to carry out after you have done the basic assembly. The following is a set of recommended guidelines for you to follow as you complete your own "PDI" and setup for your PRODUCT **before use**.

### **Step 1:**

Completely inspect all nuts, bolts, and fasteners to ensure that all factory assembled parts are in fact correctly assembled and secure. It is recommended that you remove the bolts, fastener listed below and apply Loctite to the threads to prevent them from rattle loose. Failure to follow this recommendation can lead to loss damage parts and even injury.

1. Brake rotor mounting bolts
2. Rear sprocket mounting bolts
3. Exhaust manifold nuts and bolts
4. Brake caliper mounting bolts
5. All Engine mounting bolts

### **Step 2:**

Visually inspect all wiring and wiring connections to ensure that all connections are secure and intact with no loose or disconnected wiring.

1. We suggest you unplug the cdi box and make sure all the wires are fully pressed into the connector and reattach the cdi.
2. Check the two wires going to the ignition coil and if they feel a little loose remove the wire and crimp the connector lightly with a pair of pliers and reattach them to the ignition coil in the same order they were removed.
3. Inspect all the wires and connectors for the stator to the main harness. These are the wires that are located on the left side of the engine and attach to the main harness.

**Step 3:** Inspect all front-end steering and suspension components, ensure all fasteners are tight and secure. Position the handlebars facing straight forward and stand in front of the vehicle and inspect the front alignment. If the alignment is not perfectly aligned within  $\frac{1}{8}$  it is highly recommended you adjust the alignment to avoid safety issues and premature tire wear.

**Step 4:** Before starting always check the engine oil before each ride. Refer to starting instructions for this step.

**Step 5:** Run the engine to normal operating temperature and adjust the carburetor idle speed screw as required to ensure that the engine runs smoothly. (See Carb Adjustment Section for this step)

**Step 6:** The bike is now ready for the "break in period". Ride the bike gently for the first 25 hours of operation to allow mating parts to wear into each other. Speed up and gear down slowly. Never hold a constant speed for an extended period. Most important!!! Do not drive the bike at high speed, full throttle speed is not recommended until the engine is broken in.

**Step 7:** After assembling the vehicle drain and replace the shipping oil with the recommended motor oil before starting the engine. After riding your new vehicle for 3 to 5 hours change the lubricating engine oil. Use the recommended oil for your bike. Usually 15W-40 Motorcycle/ATV Oil and adjust the chain, as the chain will begin to stretch with use and should be inspected before every ride and adjusted as needed.

## Pre-Ride Inspection

Inspect the ATV prior to each use to ensure it is in a safe operating condition. Always follow the inspections, procedures and schedules described in the Owner's Manual.

### **WARNING**

Failure to inspect or maintain the vehicle properly increases the possibility of an accident or equipment failure. Do not operate the vehicle if any problem is discovered. If a problem cannot be corrected by the procedures described in this manual, have the vehicle inspected by a Tao Motor dealer.

ITEM	ROUTINE
Fuel (91 octane min.)	<ul style="list-style-type: none"><li>• Check fuel level in fuel tank, and add recommended fuel if necessary.</li><li>• Add Fuel Stabilizer if using ethanol fuel.</li><li>• Check fuel line for leakage. Correct if necessary.</li></ul>
Engine Oil	<ul style="list-style-type: none"><li>• Check oil level in engine, and add recommended oil to specified level if necessary.</li><li>• Check ATV for oil leakage. Correct if necessary.</li></ul>
Front Brake	<ul style="list-style-type: none"><li>• Check operation, and correct if necessary.</li><li>• Lubricate cable if necessary.</li><li>• Check lever free play, and adjust if necessary.</li></ul>
Rear Brake	<ul style="list-style-type: none"><li>• Check operation, and correct if necessary.</li></ul>
Throttle Lever	<ul style="list-style-type: none"><li>• Make sure that operation is smooth. Lubricate cable and lever housing if necessary.</li><li>• Check lever free play, and adjust if necessary.</li></ul>
Control Cables	<ul style="list-style-type: none"><li>• Make sure that operation is smooth. Lubricate if necessary.</li></ul>
Drive Chain	<ul style="list-style-type: none"><li>• Check chain slack, and adjust if necessary.</li><li>• Check chain condition. Lubricate if necessary.</li></ul>
Wheels & Tires	<ul style="list-style-type: none"><li>• Check wheel condition, and replace if damaged.</li><li>• Check tire condition and tread depth. Replace if necessary.</li><li>• Check air pressure. Keep tires inflated per the PSI specified in manual.</li></ul>
Brake Levers	<ul style="list-style-type: none"><li>• Make sure that operation is smooth. Lubricate lever pivoting points if necessary.</li></ul>
Chassis Fasteners	<ul style="list-style-type: none"><li>• Make sure that all nuts, bolts and screws are properly tightened.</li></ul>
Instruments & Switches	<ul style="list-style-type: none"><li>• Check operation, and correct if necessary.</li></ul>

## **FUEL**

Make sure that there is sufficient fuel in the tank. Never overfill fuel tank.

## **ENGINE OIL**

Make sure that the engine oil is at the specified type. Follow manual's specifications, keep filled as needed, but never overfill.

**AIR FILTER:** The air filter has an oiled foam element. It must be inspected daily or more frequently when riding in dusty conditions. It should be cleaned and re-lubed whenever it appears dry or visible dirt is present. Refer to page 52 for instructions and recommended lubricants. A dry or dirty air filter can allow dirt to enter the engine. Engine damage due to improper air filter maintenance is not covered under warranty.

**DRIVE CHAIN :** The drive chain should be inspected daily. If it appears dry or has excessive slack, it must be adjusted and lubricated. Refer to the Owner's Manual for instructions and recommended lubricants.

## **FRONT & REAR BRAKES**

### **BRAKE LEVER**

Check for too much free play in brake levers. If there is too much free play or if the brake levers require adjusting, have your Tao Motor dealer check the brake levers and brakes and have the brakes adjusted to the driver.

### **BRAKE OPERATION**

Test the brakes at slow speed after starting out to make sure they are working properly. If the brakes do not provide proper braking performance, check the brake shoes/pads for wear.

### **THROTTLE LEVER**

Check the operation of the throttle lever. It must open smoothly and spring back to the idle position when released.

If throttle is not operating properly **DO NOT START ENGINE**. Have a Tao Motor dealer correct the issue before operating this ATV.

### **SWITCHES**

Check to ensure all switches are working properly before starting the engine.

### **DRIVE CHAIN**

Check the condition of the drive chain and check the drive chain slack. Lubricate and adjust the drive chain as necessary.



## Pre-Assembly

First get the metal frame out of the cardboard box and begin getting the ATV out of the metal frame. To remove the metal frame:

Remove the bolts at the top of the frame with the inner-hexagonal wrench

Remove the other bolts and nuts holding the iron frame together with #14-15 wrench

Remove the iron frame and the plastic

Collect the items located around the ATV body. Contents should look like such:



Contents in the cardboard box:





**STRONGLY RECOMMEND**

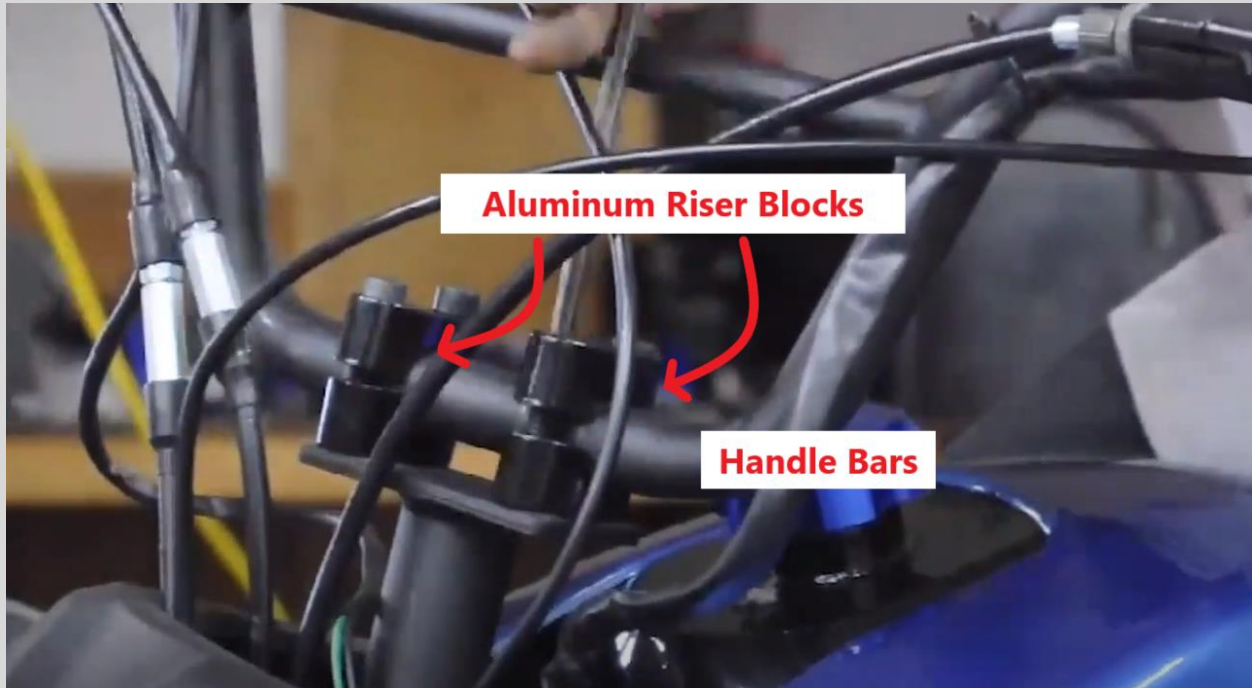
Prop the bike onto a crate or box (anything **STURDY** to put the ATV in the air). This will make the assembly process a lot easier.



Veloz Power

## Assembly

- 1) To assemble the handlebars, place the handle bars between the two holes along with the transmission indicator and place the two aluminum riser blocks to the right and left position lining the holes up with the holes on the steering stem plate. Using the L-shaped Allen wrench (8mm) tool, fasten the 4 bolts halfway (bolt type: 8x45). Adjust the handlebars to position to the riders preference then secure tightly.



- 2) Add the gas breather by directly attaching it onto the gas cap.

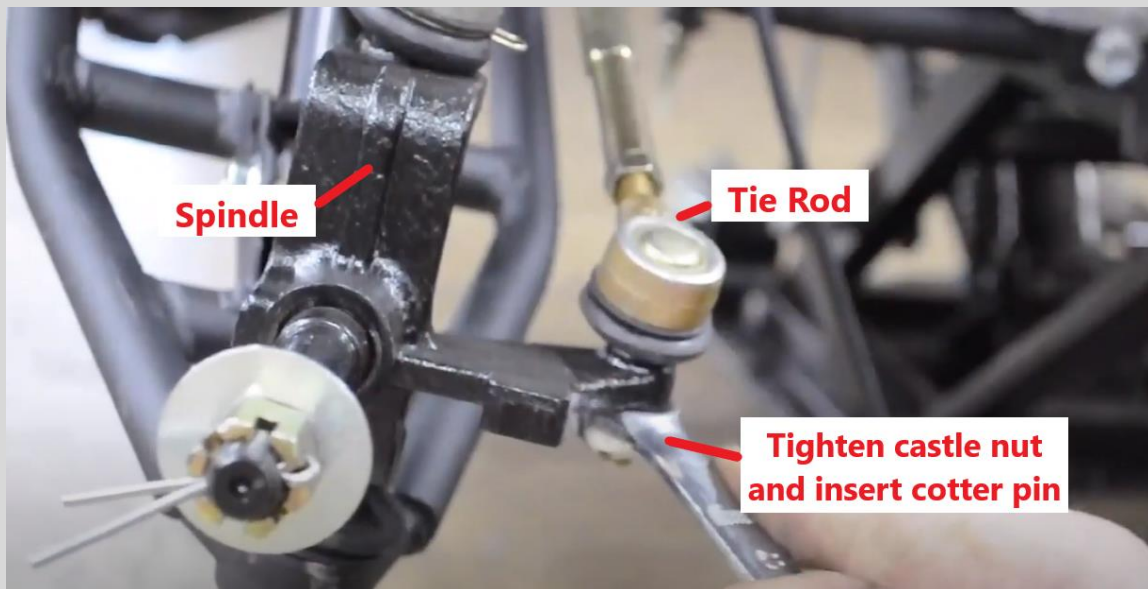


- 3) Remove the fixed screw in the 'A' arm. Connect the front shock absorber and A arm, and secure with the screw you just removed using #13-17 spanner.

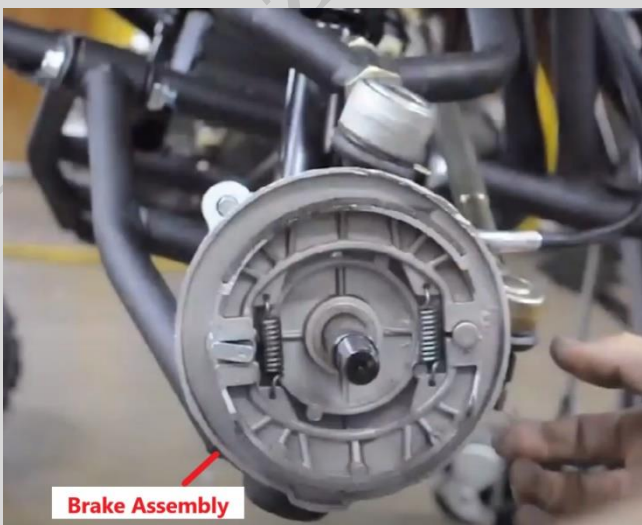




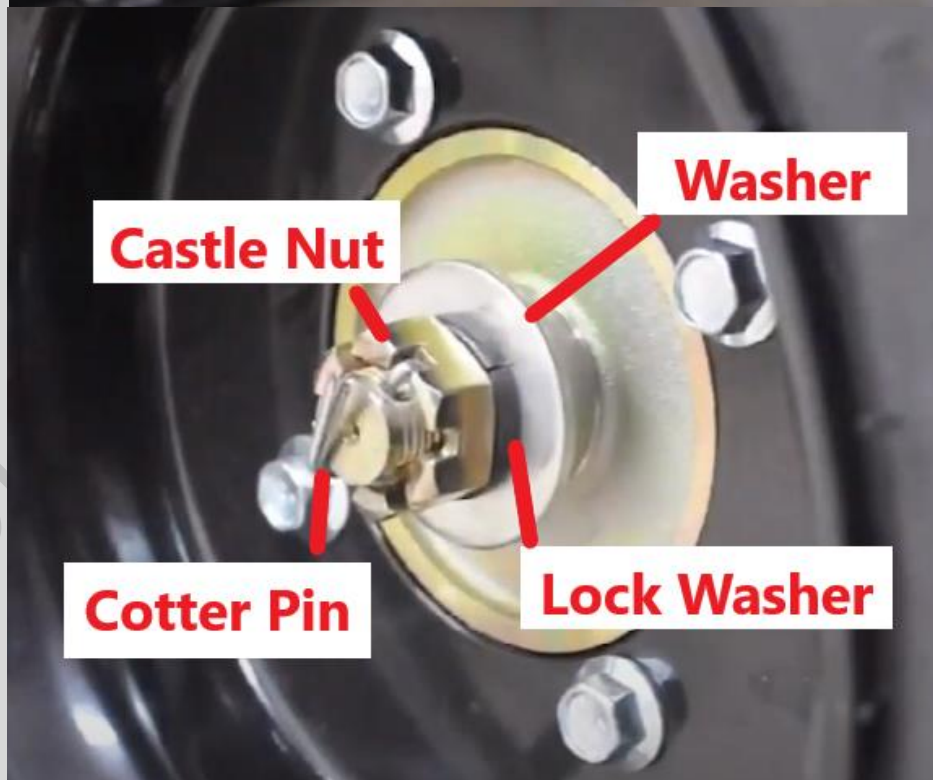
- 4) Remove the cotter pin and castle nut from the tie rod.  
Once that has been removed, connect the tie rod to the spindle and use the nut to secure them. Secure with the castle nut and cotter pin.



- 5) Take off the washer, castle nut, cotter pin on the spindle. Slide on the brake assembly on the axle. Slide the wheel on and secure with the washer, castle nut, cotter pin. Put on the dust cap for the wheel after securing it.



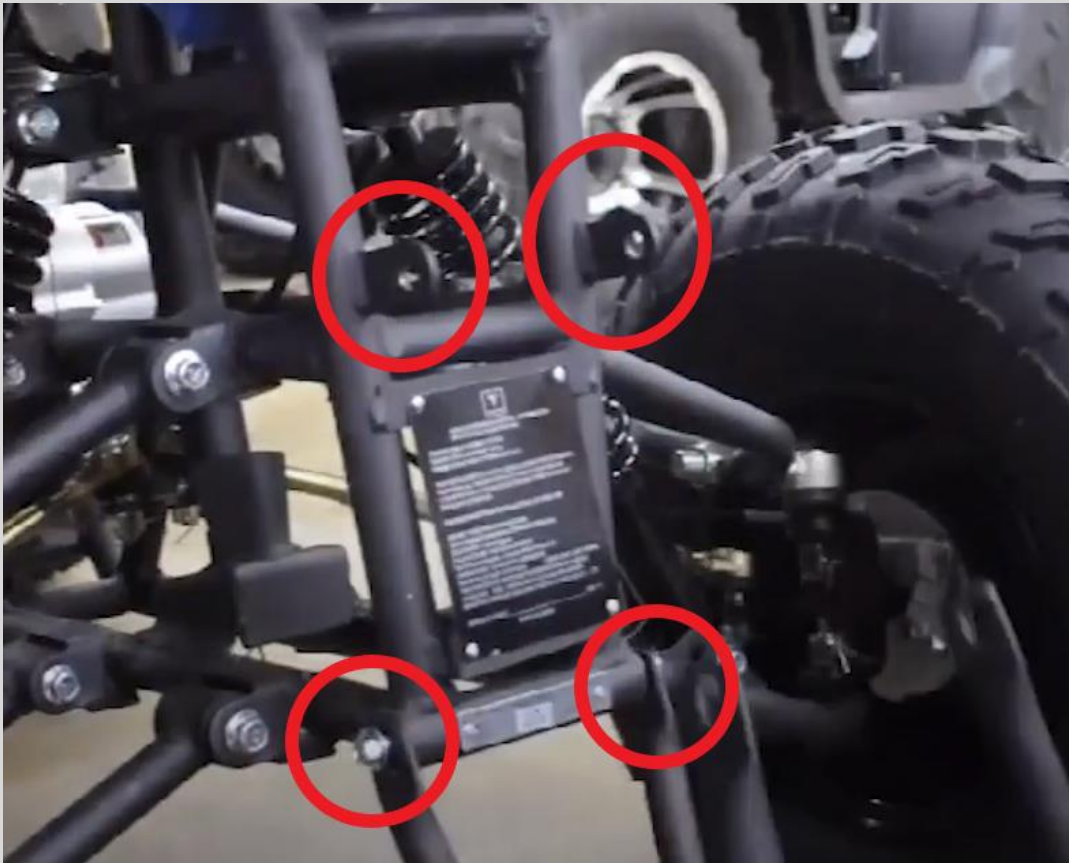
- 6) Remove the cotter pin, 24mm castle nut, washer, and lock washer. Slide the wheel on and secure with the parts in this order: Washer, Lock Washer, Castle Nut, Cotter Pin. Put on the dust cap for the wheel after securing it.



**\*\* Instructions so far are for one side. Make sure you do for both sides. \*\***



- 7) Install front guard and tighten with the bolts using #10-13 wrench. The bottom should use 10mm bolts and the middle should use 10mm bolts and 13mm nuts.



Install the front rack by securing 10mm bolts to the front guard. There are 10mm bolts that will also be on the bottom of the rack to hold it to the frame.



- 8) Install the tail light rack by securing (4) 13mm bolts to the frame. There should be 2 on each side.



Install the support rods to the tail light rack.  
10mm bolts and 13mm nuts are for the rack top



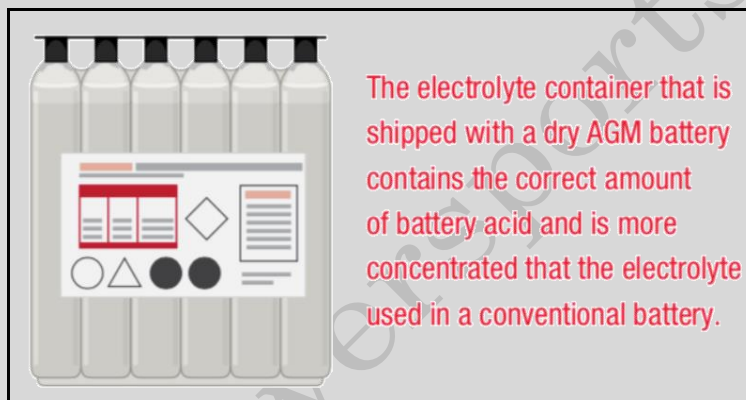
## Battery Activation

Activating a Motorcycle/ATV Battery is a simple, 7-step process that nearly any rider or mechanic can follow with success. Remember to always practice caution when handling batteries and activation equipment.

Motorcycle batteries are shipped with the electrolyte stored in a plastic container. The battery is filled with electrolyte from the container when it is ready to be activated. Once a battery is unsealed, it should be activated, charged, before it is installed. **WARNING:** If you do not follow the proper activation and charging instruction prior to use of the battery can result in damage to the battery.

Always read the precautions and instructions on the electrolyte container before handling and filling your battery.

***Do not smoke when activating a battery or handling battery acid. Always wear plastic gloves and protective eyewear.***



## The 7-Step Process to Activate an ATV Battery

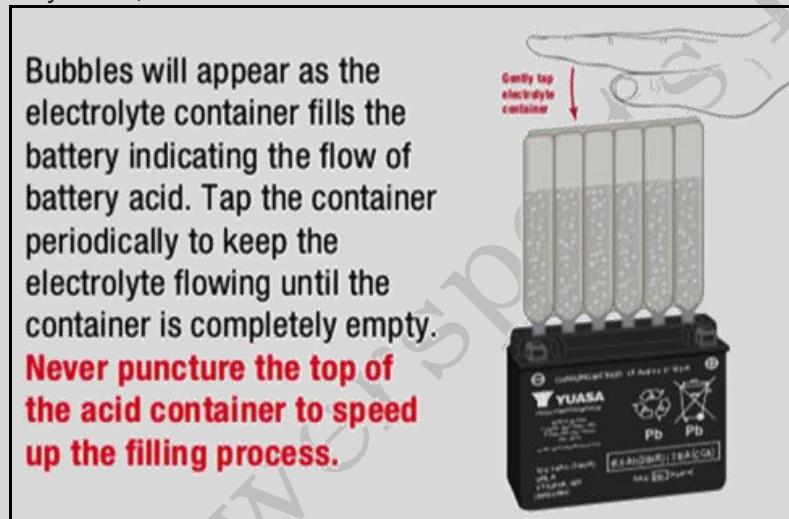
1. The battery must be out of the vehicle and sitting on a level surface.
2. Remove the electrolyte container from the plastic storage bag. Remove the strip of caps and set it aside as it will be necessary later in this process. When filling your Motorcycle battery use only the dedicated acid container that comes with the battery as it contains the proper amount of electrolyte. This is important to service life and battery performance. ***Do not pierce or otherwise open the foil seals on the electrolyte container. Do not attempt to separate the individual electrolyte containers.***



3. Place the electrolyte container with the foil seals face-down into the cell filler ports on the battery. Hold the container level and push down to break the foil seals. Electrolyte will start to flow into the battery and air bubbles will be seen inside the container. ***Do not tilt the electrolyte container.***



4. Check the electrolyte flow. **Keep the container in place for 20 minutes or longer until it empties completely.** If no air bubbles are coming up from the filler ports or if the container cells have not emptied completely after 20 minutes, then tap the container and/or battery case gently a few times to cause the electrolyte to flow into the battery. Do not remove the acid container from the battery until it is completely empty. The battery requires the entire electrolyte from the container for proper operation.
5. Carefully remove the empty electrolyte container from the battery. Fully insert the strip of sealing caps (previously removed from the electrolyte container) into the battery filling ports. Make sure the strip of caps is fully inserted and flush with the top of the battery. Insert the caps by hand, do not use a hammer or excessive force.

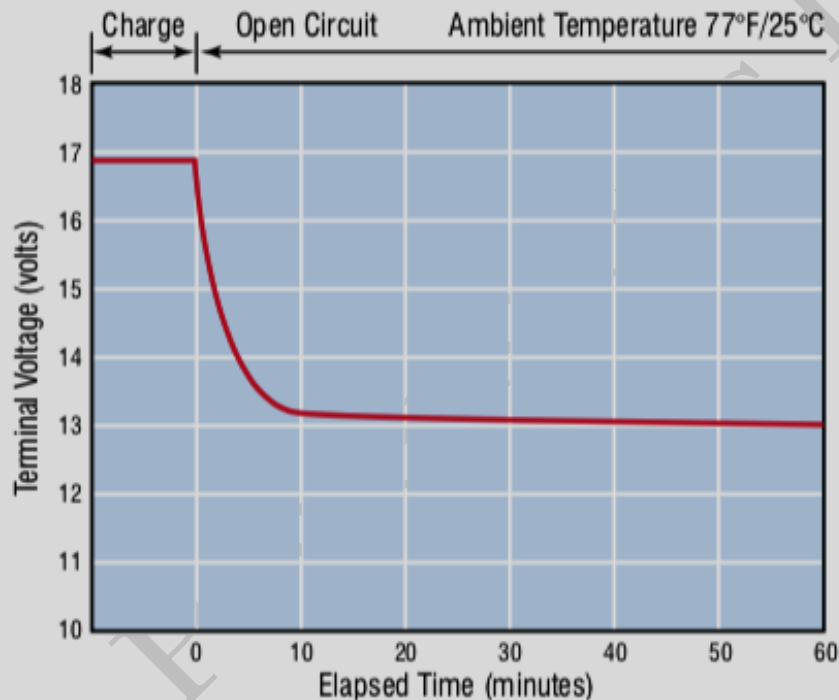


**\*Never remove the strip of caps or add water or electrolyte to the battery during its service life.**

6. **For batteries with ratings of less than 18 AH, let the battery stand for 20 to 60 minutes.** For batteries with higher AH ratings or having the **High-Performance rating (designated by an "H" in the part number/name)**, allow the battery to stand for **1 to 2 hours**. Batteries have amp hour (AH) printed on the front of the battery case. The stand or rest period allows the electrolyte to permeate into the plates for optimum performance.



7. **VERY IMPORTANT DO NOT SKIP THIS STEP!!!** IF you do not have the proper battery charger to charge the battery at slow 3amps then you will need to take the battery to your local auto parts store or motorcycle dealer and request they charge it for you at no more than 3amps. Newly activated batteries require an **initial charge**. After adding electrolyte, a new battery is approximately 75-80% charged. After the “stand” period described in step 6, charge the battery to bring it to a full state-of-charge. The battery charger used for initial charging should be able to charge at a slow no more than 3 amps for a motorcycle battery. All [Yuasa battery chargers](#) can reach this minimum voltage and initializing/activating an AGM battery.



During the initial charging period, battery voltage may reach over 16 volts. Open circuit voltage should be checked after the battery is allowed to stand between 1 and 2 hours.

## APPENDIX

### Maintenance Schedule

•For safety reasons, it is recommended that service be performed by a dealer.

<b>ITEMS</b>	<b>NOTE</b>	<i>Each ride or about 2.5 hours</i>	<i>Every 3 ride or about 10 hours</i>	<i>Every 6 ride or about 20 hours</i>	<i>Every 9 ride or about 30 hours</i>	<i>Every 12 ride or about 40.0 hours</i>
Throttle Inspection		X				
Air Filter	1	C				
Crankcase Breather		X				
Spark Plug		X				
Valve Clearance	4			X		
Engine Oil	3	X				
Engine Idle Speed		X				
Drive Chain		X,L		R		
Drive Chain Slider		X				
Drive Chain Roller		X				
Drive Sprocket		X				
Driven Sprocket		X				
Brake Fluid	2	X				
Brake Pads Wear		X				
Brake System		X				
Clutch System		X				
Control Cables		X,L				
Exhaust Pipe / Muffler		X				
Suspension		X				
Swingarm / Shock Linkage			L			
Nuts, Bolts, Fasteners		X				
Wheels / Tires		X				
Steering Head Bearings					X	

A: Adjust

L: Lubricate

R: Replace

X: Inspect and clean, adjust, lubricate, or replace, if necessary

C: Clean

#### Note:

1. For mileage higher than what is specified in the chart, the maintenance should be repeated at the same interval listed.

2. More frequent maintenance is required if the vehicle is used in dusty areas or in rain.

3. More frequent replacement is required if the vehicle is subjected to severe use, such as heavy load operation, long trips or operation in rain.

## Parking Brake

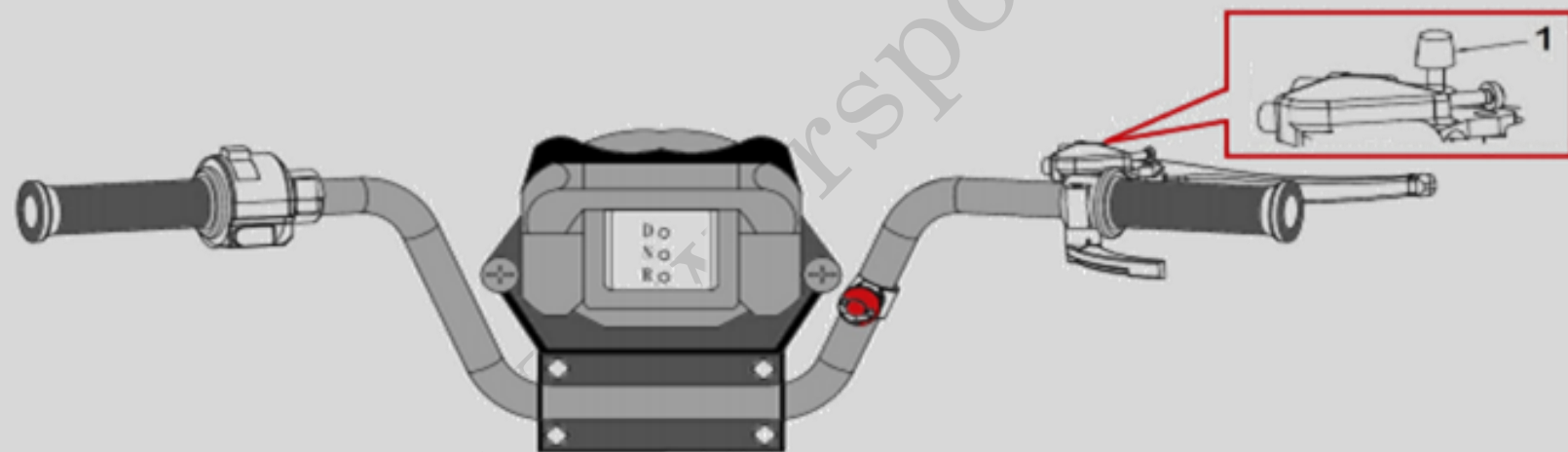
Use the parking brake before starting the engine or after parking the ATV, especially on a slope. This ATV is equipped with front axle parking brake.

**Front Axle Parking Brake:** Apply the front brake lever and push down the lock button to apply the parking brake. Squeeze the front brake lever to release the parking brake.

### **WARNING**

Always set the parking brake before starting the engine. The ATV could start moving unexpectedly if the parking brake is not applied. This could cause loss of control or a collision. Always be sure you have released the parking brake before you begin riding. The brakes could overheat if you ride the ATV without releasing the parking brake. You could lose control or cause an accident.

1. Front Axle Parking Brake Button



## Engine Oil

The engine oil level should be checked before each ride. In addition, always follow the maintenance schedule for oil changes as shown in the maintenance schedule.

### NOTE

Your new vehicle's engine comes with shipping oil, shipping oil must be changed before the engine is started for the first time. Please see specification chart for recommended oil type.

### To check the engine oil level

1. Place the ATV on a level surface.
2. Check the engine oil level on a cold engine.
3. Remove the engine oil filler cap, and then wipe the engine oil dipstick off with a clean rag.
4. Slowly thread the dipstick back in the filler hole, and then remove it again to check the oil level.
5. If the engine oil is at or below the minimum level mark, add sufficient oil of the recommended type to raise it to the correct level.

NOTICE: Be sure the engine oil is at the correct level, otherwise engine damage may result.

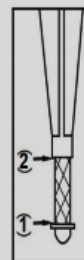
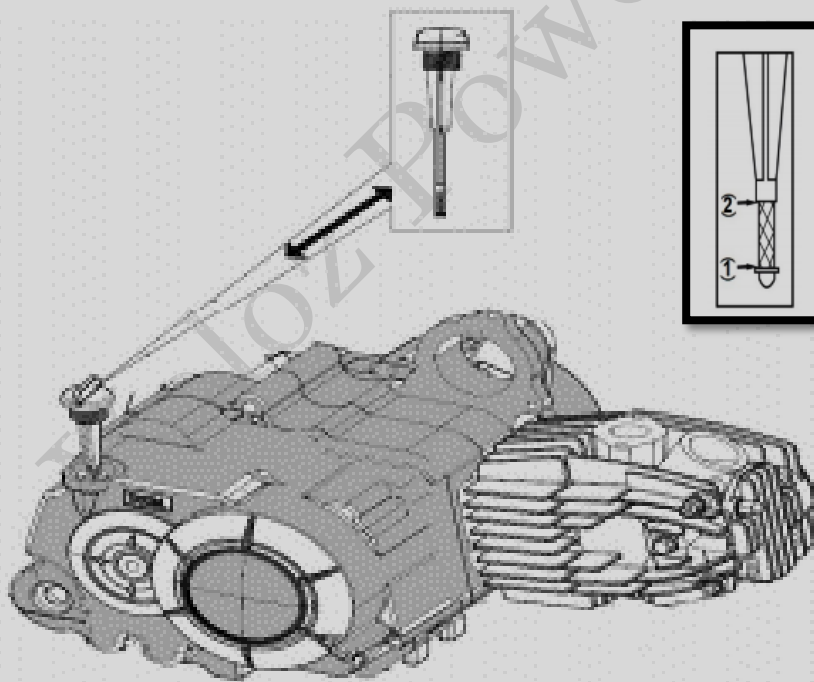
6. Check the O-ring for damage, and replace it if necessary.
7. Insert the dipstick into the oil filler hole, and then tighten the engine oil filler cap.

### TIP

If the engine was started before checking the oil level, be sure to warm up the engine sufficiently, and then wait at least ten minutes until the oil settles for an accurate reading.

### TIP

The engine oil dip stick is located on the right side of the ATV behind the right foot rest.

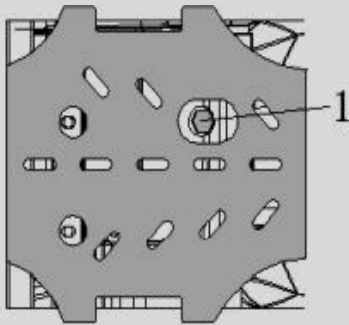


### ⚠ WARNING

Only add engine oil into the dipstick filler hole. Never pour engine oil anywhere else other than dipstick filler hole.

1. Minimum Oil Level Mark
2. Maximum Oil Level Mark

## Change Engine Oil

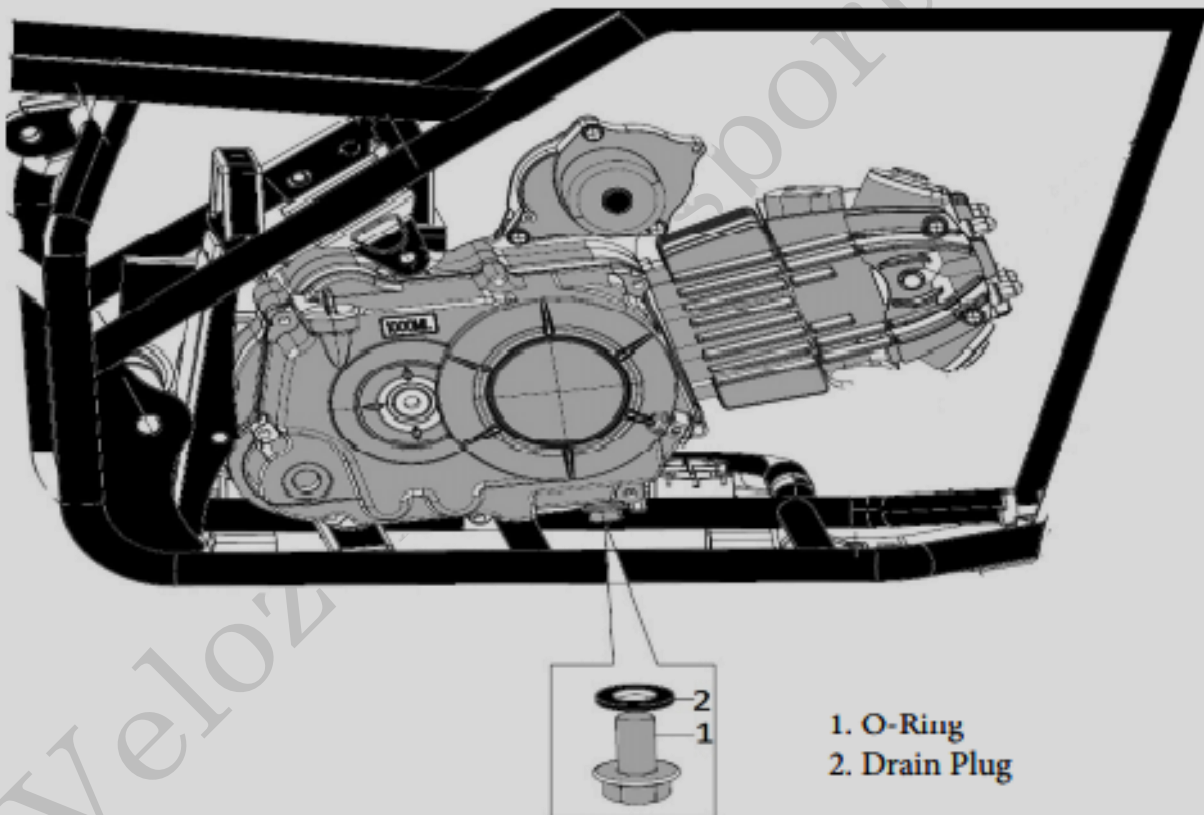


**1. Engine Oil Drain Plug (17mm)**

1. Place the ATV on a level surface.
2. Place an oil pan under the engine to collect the used oil.
3. Remove the engine oil filler cap, and then remove the engine oil drain bolt to drain the oil from the crankcase.
4. Reinstall O-ring and drain plug to the specified torque.(14 Nm / 10 ft/lbs).
5. Refill engine with specified amount of the recommended engine oil.  
Recommended engine oil is SAE 15W40 and oil capacity is 0.8 US qt. or 0.8 liters.
6. Start the engine, and then it let it idle for a few minutes .
7. Turn off engine and check engine dip stick for correct engine oil level .

**NOTICE:** When removing the engine oil drain bolt the O-ring may fall out. Take care not to lose these parts.

**NOTICE:** Before installing the engine oil drain bolt, be sure to install the O-ring, and then engine drain bolt.





## Changing Air Filter

The air filter element should be serviced at the intervals specified in the periodic maintenance and lubrication chart. Clean and replace as needed. Clean and replace air filter more frequently if used in dusty or dirty areas.

### ⚠ WARNING

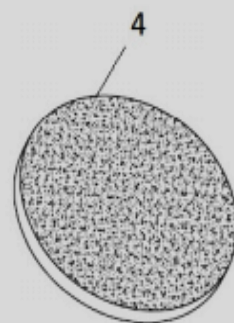
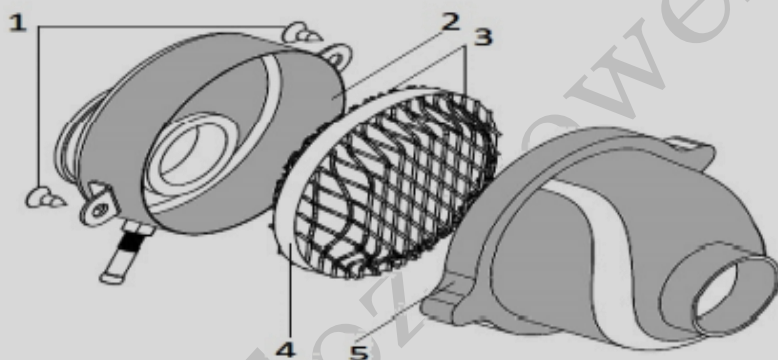
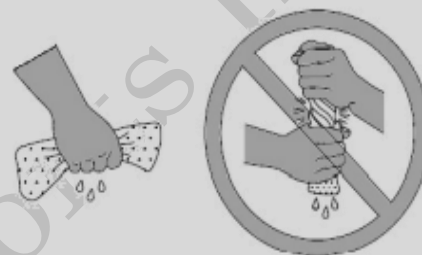
Never use low-flash-point solvents or gasoline to clean the air filter element because the engine could catch fire or explode.

### NOTICE

Do not twist the air filter element when squeezing it. Make sure that the air filter element is properly seated in the air filter case. Never operate the engine with the air filter element removed. This will allow unfiltered air to enter the engine, causing rapid engine wear and possible engine damage. Additionally, operation without the air filter element will affect carburetor jetting with subsequent poor performance and possible engine overheating.

The air filter element should be cleaned every 20-40 hours. It should be cleaned and lubricated more often if the ATV is operated in extremely dusty areas. When servicing the air filter element, be sure to check the air inlet of the air filter case for obstructions.

1. Park the ATV on a level surface.
2. Remove the seat.
3. Remove the air filter cover by removing the two phillips screws .
4. Remove the air filter element and clean it with foam air filter cleaning solution.
5. Squeeze the excess solvent out of the air filter element and let it dry.
6. Check the air filter element and replace it if damaged.
7. Apply foam air filter oil or other quality foam air filter oil to the **foam element**.
8. Insert the air filter element into the air filter housing .
9. Install the air filter cover and the two phillips screws.
10. Install the seat.



1. Air Filter Cover Screws
2. Air Filter Housing
3. Air Filter Element Screen
4. Air Filter Element
5. Air Filter Cover

## Spark Plug

### Checking the spark plug

The spark plug is an important engine component, which is easy to check. The spark plug should be removed and checked in accordance with the periodic maintenance and lubrication chart.

To remove the spark plug

1. Remove the spark plug cap.
2. Remove the spark plug as shown, with the spark plug wrench included in the owner's tool kit.
3. Turn the spark wrench counterclockwise to loosen and remove the spark plug.

To check the spark plug

1. Check that the porcelain insulator around the center electrode of the spark plug to see if it's worn out.
2. Check the spark plug for electrode erosion and excessive carbon or other deposits, and replace it if necessary.
3. Measure the spark plug gap with a wire thickness gauge and, if necessary, adjust the gap to specification.

To install the spark plug

1. Clean the surface of the spark plug gasket and its mating surface, and then wipe off any grime from the spark plug threads.
2. Install the spark plug with the spark plug wrench by turning it clockwise, to the specified torque.
3. Install the spark plug cap.

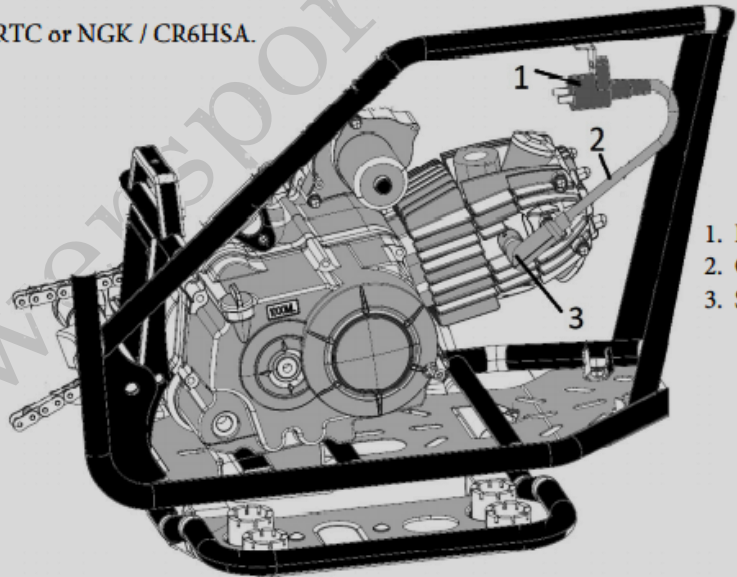
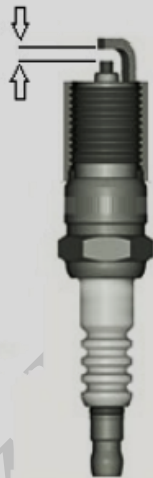
OEM manufacturer specified spark plug is either, NST/ A7RTC or NGK / CR6HSA.

4. Tightening torque: Spark plug:

12 N•m (1.2 kgf•m, 8.7 lb•ft)

Spark Plug Gap:

0.06~0.085mm (0.024-0.028 in)

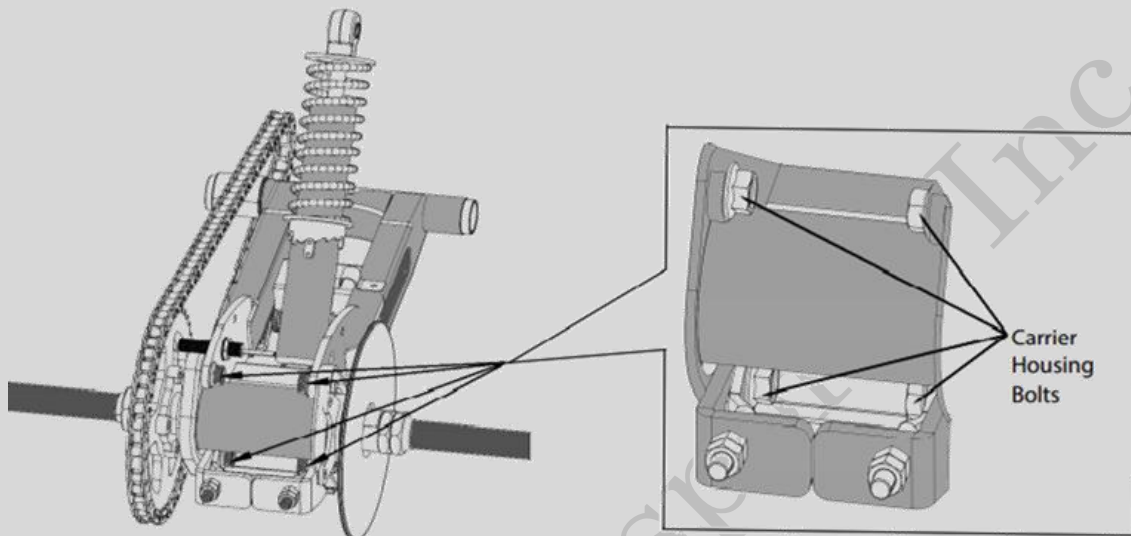


1. Ignition Coil
2. Coil Wire
3. Spark Plug Cap

## Adjust Drive Chain

To adjust the drive chain slack

1. Loosen axle carrier/housing bolts.
2. For all Tao Motor models equipped with chain tensioner, always do the following: lift and hold the chain tensioner off the chain to release chain tension until the chain adjustment is completed.

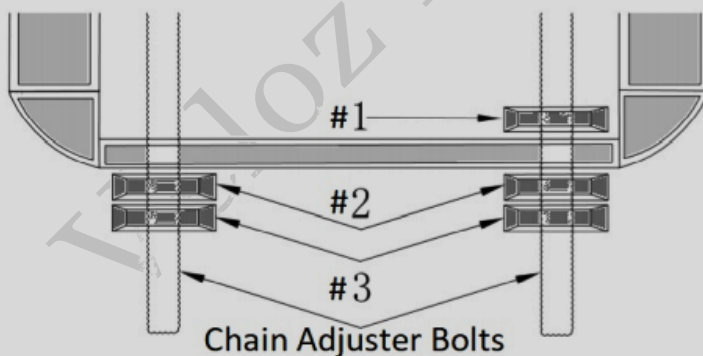


To tighten drive chain,

1. Loosen the chain adjuster nut(#1) on the back side of the carrier/housing.
2. Tighten the chain adjuster nuts(#2) to move the carrier/housing forward.
3. When proper chain slack is achieved tighten chain adjuster nuts (#1,3).

To loosen drive chain,

1. Loosen the chain adjuster nut (#1) on the back side of the carrier/housing tap.
2. Loosen the chain adjuster nuts (#2,3).
3. Tighten the chain adjuster nuts (#1) on the back side of the carrier/housing tap. To move the carrier/housing rearward.
4. When proper chain slack is achieved tighten chain adjuster nuts (#2,3).



Drive chain slack:  
6.0-12.0 mm (0.24-0.47 in)

Tightening Torques:  
14 Nm / 10 ft/lbs Chain Adjuster Nuts (#1,2,3)  
45 Nm / 33 ft/lbs Carrier/Housing Bolts

3. Tighten carrier housing bolts.

### Cleaning Lubricating Drive Chain

The drive chain must be cleaned and lubricated at the intervals specified in the periodic maintenance and lubrication chart, otherwise it will quickly wear out, especially when riding in dusty or wet areas. Service the drive chain as follows.

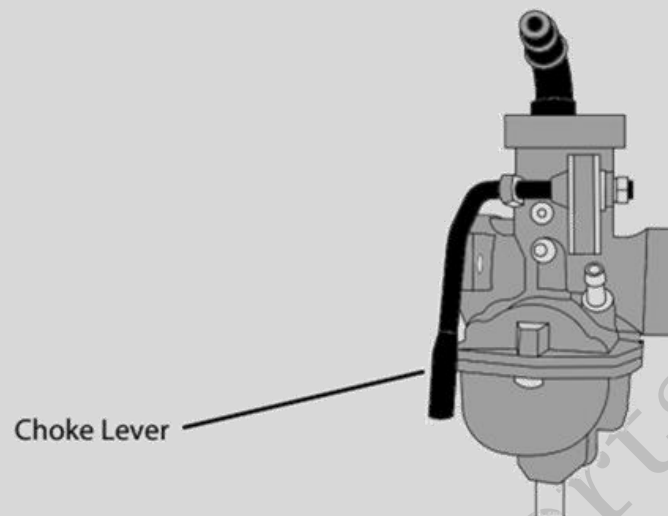
1. Remove all dirt and mud from the drive chain with a brush or cloth.
2. Spray chain lubricant on the entire chain, making sure that all side plates and rollers have been sufficiently oiled.

## NOTICE

The drive chain must be lubricated after washing the ATV or riding in the rain or wet areas.

## Choke Lever

Starting a cold engine requires a richer air-fuel mixture. Move the choke lever all the way up when starting a cold engine. Once the engine is warmed up return the choke lever all the way down in the running position.



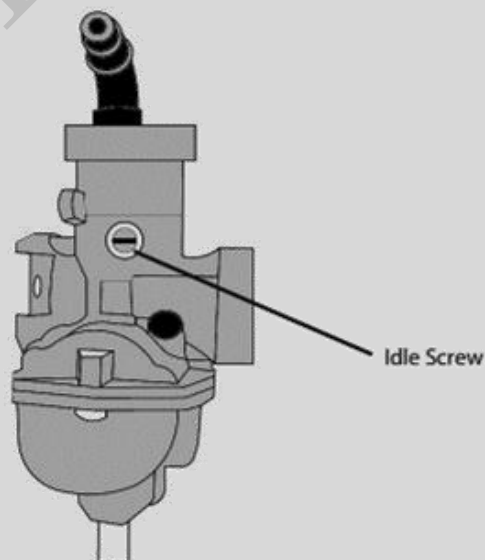
### **NOTICE**

For maximum engine life, never accelerate hard when the engine is cold or choke lever is in the on position.

## Engine Idle Adjustment

If it is necessary to adjust the carburetor idle screw due to changed outside environmental conditions, to adjust carburetor idle screw as follows;

1. Apply parking brake.
2. Warm up the engine by running the vehicle.
3. Adjust the carburetor idle screw until the desired idle RPM is reached. Turning the idle screw in (clockwise) to raise RPM. Turning the screw out (counterclockwise) will lower RPM.
4. The standard idle RPM is  $1500 \pm 150$ .





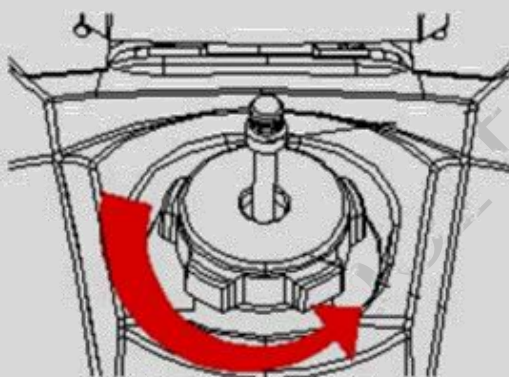
## Fuel Tank Cap



Remove the fuel tank cap by turning it counter clockwise.  
Turn the fuel tank cap fully clockwise to make sure it is securely closed

Your ATV's engine has been designed to use regular unleaded gasoline with a pump octane number of 91 or higher.

Using Ethanol-added fuel may lead to carburetor clogging due to the fuel's sulfuric content reacting with brass and aluminum components in the fuel system. Tao Motor always recommends using a fuel stabilizer to help mitigate damaging corrosion. Visit your dealer to purchase recommended stabilizers and lubricants.



## Fuel Cock/Fuel Valve

### FUEL COCK/ FUEL VALVE

The fuel cock/valve supplies fuel from the tank to the carburetor.  
The fuel cock/valve lever positions are explained as follows and shown in the illustrations.

### FUEL OFF

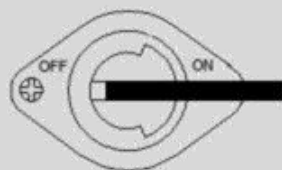
Arrow mark positioned over "OFF" position. Fuel is off and fuel will not flow to the carburetor. Always turn the fuel valve to the "OFF" position and allow the engine to idle until it burns remaining fuel in the line when the ATV is being stored. Once the fuel in the line has been cleared, drain the carburetor bowls. Following this procedure will help reduce corrosion and carburetor damage.

### FUEL ON

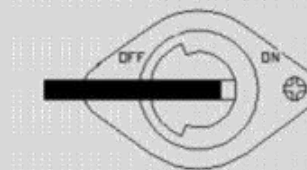
Arrow mark positioned over "On" position. Fuel is on and fuel will flow to the carburetor.

### STORAGE

Drain gasoline from the fuel tank and carburetor of the ATV if being stored for more than over 48hrs.



Fuel Off



Fuel ON



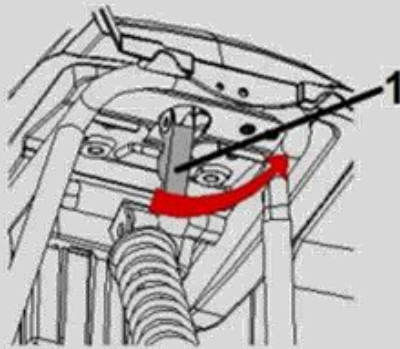
## Seat

### To Remove Seat

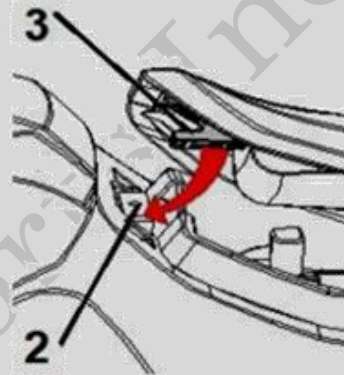
To remove the seat, pull the seat lock lever(#1) backward and then pull up the seat. The seat lock is located under the seat in the back of the ATV.

### To Install Seat

Insert tab(#3) on the front of the seat into the seat holder(#2) and push down on the seat at the rear. Make sure that the seat is securely installed in place and will not move during operation.



1. Seat Lock Lever



2. Frame 3. Seat Tab

## Battery

### Battery Removal

1. Make sure the ignition switch is set to the "OFF" position.
2. Remove seat
3. Disconnect the negative cable from the battery by unscrewing battery terminal bolt.
4. Disconnect the positive cable from the battery by unscrewing battery terminal bolt.
5. Remove battery from battery tray .

### Battery Installation

1. Insert battery into battery tray with battery terminal nuts and bolts already installed on the battery.
2. Remove battery terminal bolts.
3. Connect positive cable and re-screw battery terminal bolt.
4. Connect negative cable and re-screw battery terminal bolt.
5. Reinstall seat.

### NOTICE

Positive (+) cable is red in color.  
Negative(-) Cable is in black in color.

### ⚠ WARNING

Battery electrolyte is poisonous and dangerous, acid contains sulfuric acid, which can cause severe burns. Avoid contact with skin, eyes or clothing. Always shield your eyes when working near batteries.

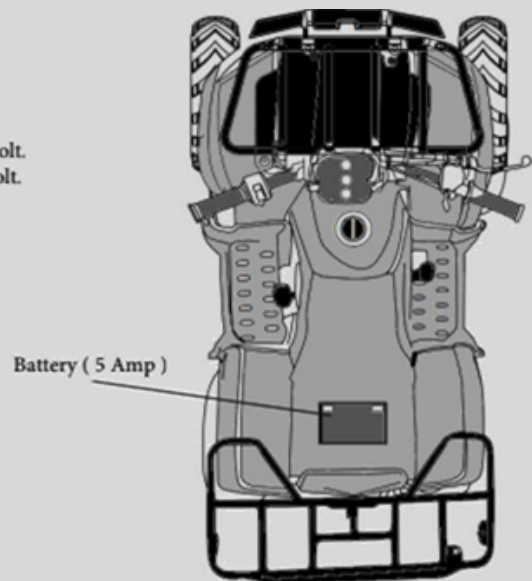
EXTERNAL: Flush with water.

INTERNAL: Call a physician immediately and get medical attention.

EYES: Rush with water for 15 minutes and get prompt medical attention.

Batteries produce explosive gases. Keep sparks, flame, cigarettes or other sources of ignition away. Ventilate when charging or using in an enclosed space.

KEEP OUT OF REACH OF CHILDREN.



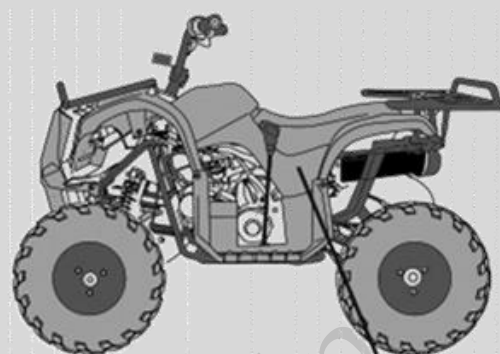
## Battery Charging

1. Before charging the battery, set ignition key to the "OFF" position.
2. Remove seat.
3. Attach battery charger clamps to battery terminals.
4. Connect low-voltage battery charger to AC outlet. Use GFI AC Type outlet if possible for additional electrical safety.
5. Check charging level and if charging is complete every 4 to 8 hours to prevent dangerous overcharging of battery.
6. When charging complete unplug battery charger from wall outlet.
7. Disconnect battery charger cables from battery terminals.
8. Reinstall seat.

### WARNING

DO NOT charge battery with more than 2 Amp trickle charger.  
DO NOT charge the battery any longer than 8 hours.  
If you notice battery is swelling or bubbling, disconnect battery charger immediately  
DO NOT continue to charge battery or attempt to recharge.

DO NOT jump start this ATV by using a car battery or any other vehicles.

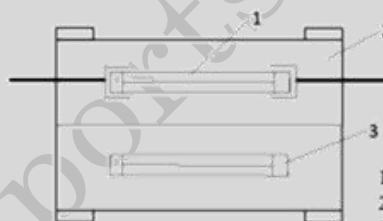


Main Fuse Location

## CHANGING FUSE

The fuse box is located behind the body on the rear left of the ATV.

1. Set ignition key to the "OFF" position.
  2. Remove the blown fuse, check for any shorts or electrical issues and then install a new fuse of same amperage as specified. And then install a new fuse of the specified amperage.
  3. Set ignition key to the "ON" position, to check if all the devices are operating.
  4. Reinstall seat.
- If a fuse continues to blow, contact your local Tao Motor dealer to check for electrical repair.



1. Main Fuse (10 Amp)
2. Fuse Holder
3. Spare Fuse

### WARNING

Always use a fuse of the specified rating. Never use any substitute fuses or larger amp fuses than the original rated fuses. Any improper fuse or substitute fuse can cause electrical damage or fire and will invalidate your vehicle's warranty.

## Tires

Check tire pressure with tire gauge to make sure that both front tires and rear tires are equally inflated and meet the recommended PSI specifications. All Tao Motor ATVs are installed with tubeless, low-pressure ATV valved tires.



## TIRE WEAR LIMIT

When the tire groove decreases to 3mm (0.12 in) due to wear, replace the tire. Never operate an ATV with worn tires, as this may cause loss of control, increasing your risk of an accident or death.



Tire Wear Limit

## Starting Engine (Cold/Warm)

### STARTING ENGINE (COLD)

1. Set the parking brake. (The engine can be started only when the rear front/rear brake lever is applied.)
2. Turn the fuel valve lever to the "ON" position.
3. Turn the ignition key to the "ON" position.
4. Set "RUN" position on main switch.
5. Set gear box to neutral position. The neutral position light will illuminate on instrument cluster.
6. Set the choke lever to cold start position (all the way up).
7. Press and hold the start button until the engine starts. Never hold the start button for more than 10 seconds per try. It may be necessary to push the throttle lever a small amount to start the engine.
8. When engine warms up, move the choke lever down. Choke lever must be in the off position (all the way to the down) in order to operate the ATV.
9. Release the parking brake.

### STARTING ENGINE (WARM)

1. Set the parking brake. (The engine can be started only when the rear front/rear brake lever is applied).
2. Turn the fuel valve lever to the "ON" position.
3. Turn the ignition key to the "ON" position.
4. Set "RUN" position on main switch.
5. Set gear box to neutral position. The neutral position light will illuminate on instrument cluster.
6. Set the choke lever to warm start position (all the way to down).
7. Press and hold the start button until the engine starts. Never hold the start button more than 10 seconds per try. It may be necessary to push the throttle lever a small amount to start the engine.
8. Release the parking brake.

## Engine Break-In

Proper engine break-in will increase the lifespan of your Tao Motor vehicle ATV. The engine break-in period is the initial 20 hours of operation. You should avoid maintaining a constant engine RPM and do not operate your ATV above 1/2 throttle during the break-in period. Do not operate your ATV at full throttle during the break-in period.

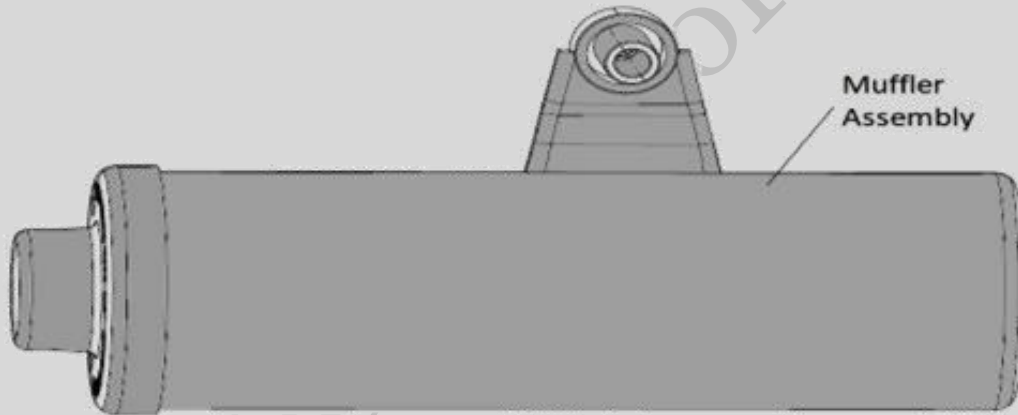
### NOTICE

First service, including the break-in service work should be performed at 10 hours. The second service should be performed at the end of the 20-hour break-in period. Subsequent service work should be performed after every 20 hours of operation.

### HOT MUFFLER & ENGINE

The muffler and other engine parts become extremely hot during operation and remain hot after the engine has stopped. To reduce the risk of fire during operation or after leaving the ATV, do not let brush, grass and other materials collect under the vehicle, near the muffler or exhaust pipe, or next to other hot parts. Check under the vehicle after operating in areas where combustible materials may have collected. Do not run the vehicle in idle or after running by parking in long dry grass or other dry combustible organic materials.

To prevent burns, avoid touching the exhaust system. Park the ATV in a place where pedestrians or children are not likely to touch it.



## Throttle Cable & Adjustment

### Throttle cable inspection

Inspect throttle cable for excessive wear, kinking or fraying. Ensure cable moves freely.

### NOTE

The throttle cable must be replaced if any signs of wear, fraying or other damages found.

## THROTTLE CABLE ADJUSTMENT

Check throttle lever free-play, adjust if necessary.

### NOTE

Please check with Tao Motor dealer if throttle cable adjustment can not be adjusted properly.

Normal throttle free-play is 5mm to 10mm 0.197 In to 0.394

### TIP

Lubricate cable using silicone cable lubricant to reduce premature wear and to ensure proper movement of the cable.

To adjust cable,

1. Pull rubber dust covers back to inspect and adjust throttle cable.
2. Loosen lock nut.
3. Turn throttle cable adjuster to make proper adjustments of throttle cable.
4. Tighten locking nut and reinstall rubber dust cable covers.

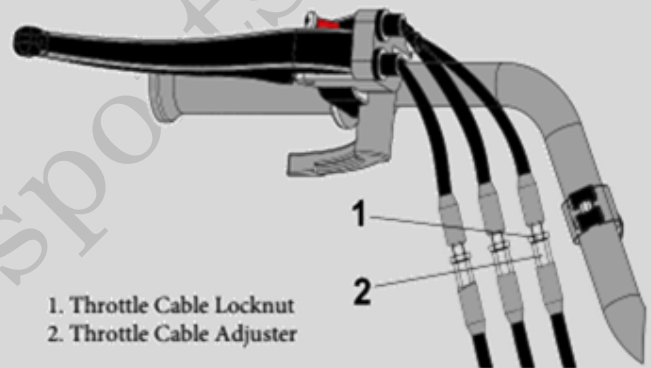
### NOTE

Measure throttle free play at the tip of the lever.

Check proper throttle cable adjustment by turning handlebars completely to the left and right. If RPM increases when turning, then re-adjust throttle cable to increase lever free-play. Check throttle cable routing to make sure there is no cable binding when turning handlebars.

### NOTE

The handlebar should move left to right without change in engine RPM.



## Front Brake Lever

### WARNING

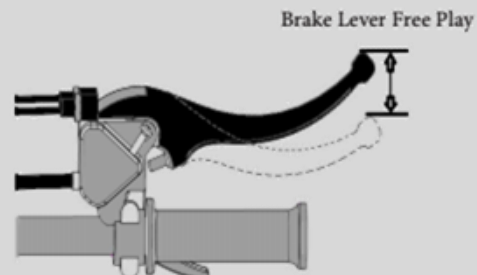
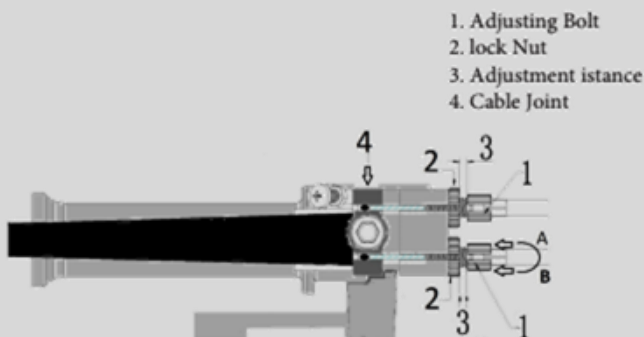
Operating with improperly adjusted brakes could lead to a loss in braking ability and or cause an accident. Brakes can become very hot during prolonged braking or use. Never touch brakes until they are cool.

How to adjust front brake lever free-play.

The front brake lever freeplay must be checked and if necessary adjusted at the intervals specified in the periodic maintenance and lubrication chart. The brake lever freeplay should measure 9.3-13.3 mm (0.37-0.52 in) as shown.

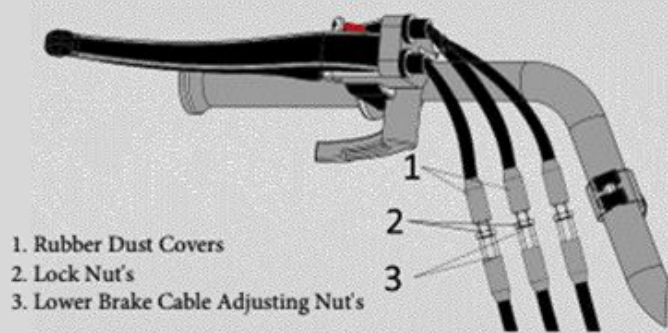
How to adjust brake lever freeplay upper

1. Loosen the locknut's (#2)
2. Adjusting bolt's (#1).
3. Adjusting bolt's (#1) in direction (a) to increase the lever freeplay, and in direction (b) to decrease it.
4. Tighten the locknut's(#2).
5. While applying the front brake the upper and lower cable lengths should be equal .
6. The cable joint(#4) will become vertical.





## Front Brake Lever Free Play Lower Adjustment



If the upper brake cable adjuster is threaded out to it's near limits, or the correct freeplay cannot be obtained, attempt to adjustment with the lower cable adjustment.

1. Pull back the rubber dust covers.
  2. loosen the lock nut's.
  3. Turn the lower adjusting nut's and check lever free play.
  4. Tighten lock nut's.
  5. Install rubber dust cover.
- Make sure both brake cables are adjusted evenly.

## Hydraulic Rear Brake

### ⚠ WARNING

New brakes will not perform to their maximum efficiency until after their initial brake-in is complete. Use extra caution.

### ⚠ WARNING

Brake fluid replacement or brake system maintenance and repairs should be performed by an authorized Tao Motor dealer.

### NOTICE

The brakes can be very hot after prolong use of the vehicle and can cause burns. Wait for the brakes to cool down.

The rear brake system is a hydraulic type and no adjustment is required. Use the following checklist before each use to maintain the brake system in good operation condition;

- Brake Fluid level
- Brake system for fluid leaks
- Brake cleanliness
- Brake disk for excessive wear and surface condition.
- Brake pads for wear, damage or looseness.

### NOTICE

Have your local Tao Motor dealer inspect brakes system for wear or damage. Always contact your local Tao Motor Dealer if you have any concerns after inspecting your brake system for wear or damage.

### Recommended Brake Fluid

Always use brake fluid type DOT 3 or 4.

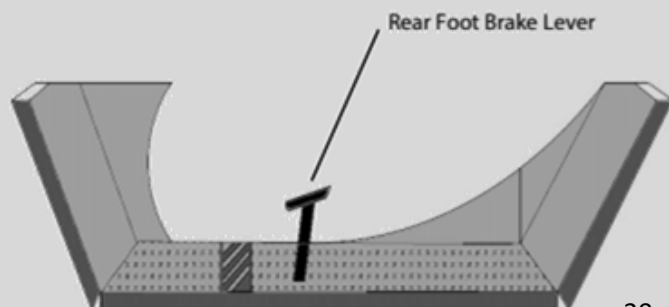
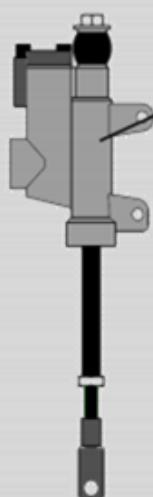
### Brake Fluid Level

Always check for the proper brake fluid reservoir level as follows;

Brake fluid reservoir is located on the frame in front of the right rear tire . With the ATV on a level surface, check brake fluid in reservoir for proper level. The fluid should above the MIN mark. Add fluid as required, but never overfill and clean filler cap before removing.

### NOTICE

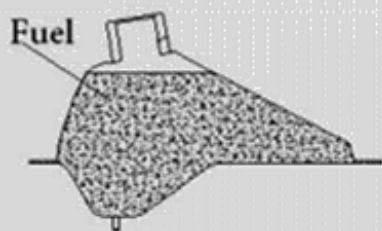
The Reservoir is full when the fluid reaches the top of the window.  
A low fluid level may indicate leaks or worn brake pads.



## Fuel Tank Capacity

### WARNING

Gasoline and gasoline vapors are extremely flammable. To avoid fires, explosions and to reduce the risk of injury when refueling, follow these instructions.



1. Before refueling, turn off the engine and be sure that no one is sitting on the vehicle. Never refuel while smoking or while in the vicinity of sparks, open flame, or other sources of ignition such as the pilot light of water heaters and clothes dryers.
2. Do not overfill the fuel tank. When refueling, be sure to insert the pump nozzle into the fuel tank filler hole. Stop filling when the fuel reaches the bottom of the filler tub. Because fuel expands when it heats up, outside heat can cause fuel to expand and overflow fuel tank.

### WARNING

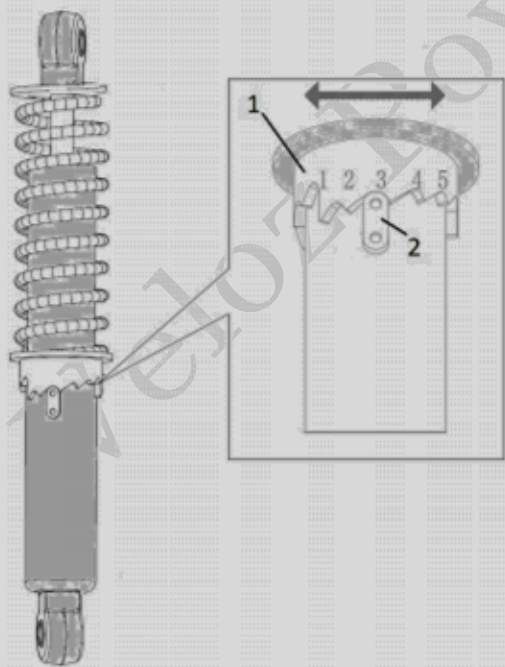
If any fuel spills during fueling please wipe quickly, fuel may deteriorate plastic body.

## Adjusting Suspension Spring Preload

This ATV is equipped with adjustable coil springs front and rear. The spring preload can be adjusted to suit the rider's weight and the riding conditions. Turn the spring preload adjusting ring to increase (stiffest= 5) or decrease (softest= 1) the spring preload. Increased spring tension will stiffen the ride. Decreasing spring tension will soften the ride.

### NOTICE

The suspension was pre-set at the factory, but can be adjusted with a special suspension adjustment tool available for purchase at your Tao Motor dealer.



1. Spring Preload Adjustment Ring
2. Position Indicator

### NOTICE

Never turn the adjusting mechanism beyond the minimum and maximum setting.

## Starting up your ATV

To start your Rhino 250 ATV, turn on the 'on key'.

Starting the vehicle in NEUTRAL is recommended.

Before starting the ATV, make sure the kill switch is reset. Do this by positioning it in the center and push it in like a doorbell.



Engage the choke by pushing the choke lever (located on the left lower side of the handlebar switch) away from you with your thumb and while holding it in place, squeeze and hold in the clutch lever and front brake lever while simultaneously pressing the starter switch.

### **\*\* Note:**

Do not hold in the starter switch for more than 5 seconds at a time or damage may occur.

It may be necessary to apply slight throttle about 1/4 while the engine is cranking over to start. simultaneously

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YEAR & MAKE	MODEL #	SERIAL #	TIRE SIZE	COMPANY #

[illegible]