User manual
NITROX Spirit 500W

CE

NOTE: The images in this manual may differ in some details from the actual product. This is because the manual has been written to apply to several different electric ATVs with similar appearances.

IMPORTANT: Instructions for battery maintenance and charging your electric ATV

1. Before first use, the ATV's fuse must be inserted.
2. Always charge the ATV for at least 8 hours before first use.
3. Charge the ATV immediately after each use.
4. Always charge before long-term storage. If the ATV is to be stored for a longer period, it should be charged at least once a month.
5. NEVER deep discharge the batteries. Charging should be done when 30% or more of the battery capacity remains.
6. Never store batteries in sub-zero temperatures or where they may be exposed to temperatures above 30 degrees Celsius.
7. For safety reasons, you should avoid charging the ATV for more than 24 hours.
8. Turn off the ATV when not in use.

This electric mini ATV is manufactured in accordance with the following standards: EN ISO 12100:2010, EN 15997:2011+AC:2012, EN 60204-1:2006+A1:2009+AC:2010, EN 60335-1:2012+A11:2014+AC:2014, EN 55012:2007+A1:2009, EN 61000-6-1:2007, EN 61000-6-3:2007+A1:2011+AC:2012.

Related to the following CE directives:
2006/42/EC (Machinery Directive)
2014/30/EU (EMC Directive) 2014/35/EU (LVD),
2011/65/EU (RoHS)

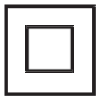
Technical specification:

NITROX Spirit 500W	
Motor power	500W 36V
Motor type	Brush motor, DC
Batteries	3 x 12V 9Ah lead-acid batteries (36V 9Ah)
Approximate top speed	16-18 km/h
Maximum driving time*	30-60 minutes
Weight	Approx. 40 kg
Charger, Output	36V DC Max 1.5A

* NOTE: Driving time is affected by a number of factors, such as load weight, road surface, driving style, air temperature, battery age, etc. Maximum range is only achieved under optimal conditions with economical driving.

Meaning of symbols:


For indoor use only


Double insulated


Risk of electric shock


Dispose of at a recycling facility

Overview

Forward and reverse switch


Switch for setting maximum speed

1. Rotary control
2. Brake handle
3. Charging input
4. Brake caliper with disc brake
5. Bumper
6. Shock absorbers
7. Ignition lock
8. Footrest
9. Rear drive
10. Switch for setting maximum speed
11. Forward and reverse switch

Explanations

Throttle control **(#1):** The throttle control is continuously variable. The more you turn the control, the faster your ATV will go. When you release the throttle control, it will slow down.

Ignition lock (#7): The ignition lock has two positions. In the first position, the ATV is turned off. Turn clockwise one notch to turn on the ATV.

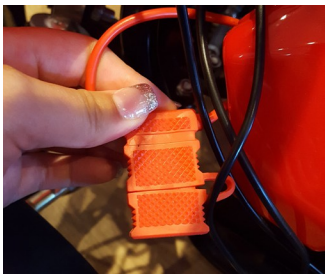
Maximum speed setting switch (#10): This allows parents to set the maximum speed of the ATV to approximately 6, 12, or 18 km/h.

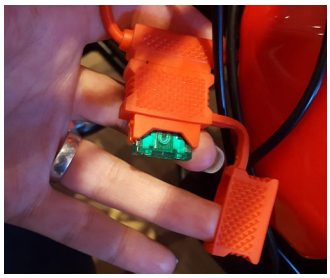
Forward and reverse switch (#2): After turning on the ignition switch, you can change between three positions on the switch. To the right, the ATV is in neutral/off. Turn one step counterclockwise to drive forward. Turn one step clockwise to reverse.

NITROX Spirit 500W in traffic

The mini ATV in this instruction manual has a 500-watt motor. This exceeds 250 watts, which is the limit for classification as an electric scooter or electric moped. This means that this model is too powerful to be driven on public roads. You should therefore only use your mini ATV in a fenced-in area.

Step





Assembly

1. Insert the fuse into the fuse holder. This is located near the batteries. Two fuses are included with delivery, but only one is used at a time.

Step

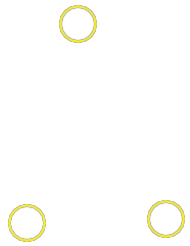
Step

2. Install the front tires by unscrewing the nut, attaching the wheel, and screwing the nut back on.

3. Install the rear tires by first placing the spacers, one on each rear tire. Then put the wheel on and secure it with nuts.

Step

Step 5



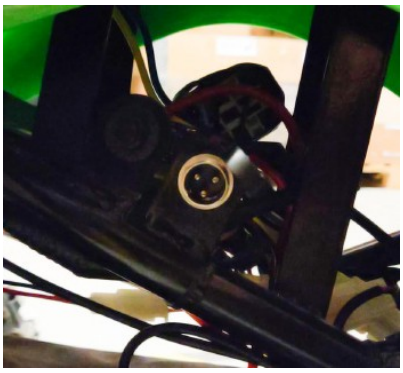
4. Install the mudguards. They are secured with two screws per mudguard.

5.

Step

6. Install the handlebars with 2 nuts.

Charging



The mini ATV comes charged from the factory. Usually, there is about 40-90% charge left in the batteries upon delivery. To maximize the service life of the batteries, we recommend charging the ATV for at least 8 hours before first use. We also recommend charging the ATV after each ride and at least once a month during long-term storage.

NOTE! Make sure that the batteries are never deeply discharged. Deep discharge will damage the quad bike's batteries.

1. Ensure that the quad bike is turned off and that the fuse is in place and intact.
2. Open the charging port located on the left side of the quad bike.
3. First connect the charger to the quad bike.
4. Then plug the charger into a standard 230V wall socket.

If the charger is only connected to the wall outlet, the "A" LED should light up green. When it is connected to the ATV and starts charging, the LED will light up red.
After a period of charging, the green light will then turn on to indicate that the ATV is fully charged. Be sure to disconnect the charger from the ATV when it indicates that it is fully charged to avoid overcharging the batteries. Then close the protective cover on the charging port after disconnecting the charger, and unplug the charger from the wall outlet.
NOTE: Never cover the charger with anything as it gets hot during charging. Always charge in a dry, cool, and well-ventilated environment.

Use

Keep in mind that this Mini-ATV is a powerful machine. Always drive with great caution and always wear a helmet. Never "stunt drive" the ATV by jumping with it or driving on the rear wheels. This can injure both you and the ATV.

Driving

1. Electric vehicles such as this quad bike with an engine power exceeding 250W may not be driven on public roads. This means that this Mini-ATV in its original design must be used in a fenced-in area and not in traffic.
2. Ensure that all screws and bolts are tightened and that the tires are inflated to a maximum of 2.0 BAR or 30 PSI before use.
3. Set the desired speed using the switch on the quad bike. When driving the quad bike for the first time, we recommend setting it to the lowest setting to begin with.
4. Turn the ignition key one step clockwise to turn on the ATV's electrical system.
5. Carefully turn the throttle control.

NOTE: If you hear your Mini-ATV sounding very strained, you must let the engine rest from time to time. Electric motors always get warm during operation, but if your motor gets VERY warm, you must stop the ATV and let the motor cool down. Be extra careful if you are riding on long uphill slopes, on soft ground, or if your tire pressure is too low.

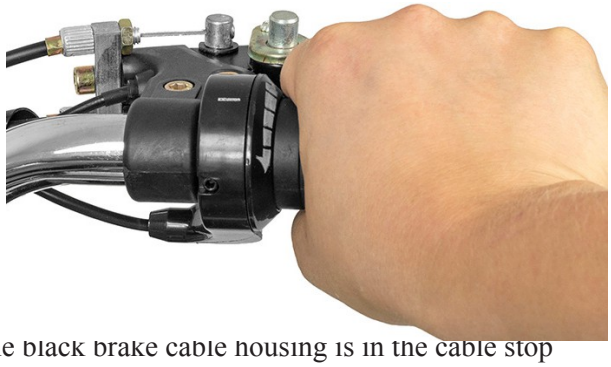
Stopping and braking

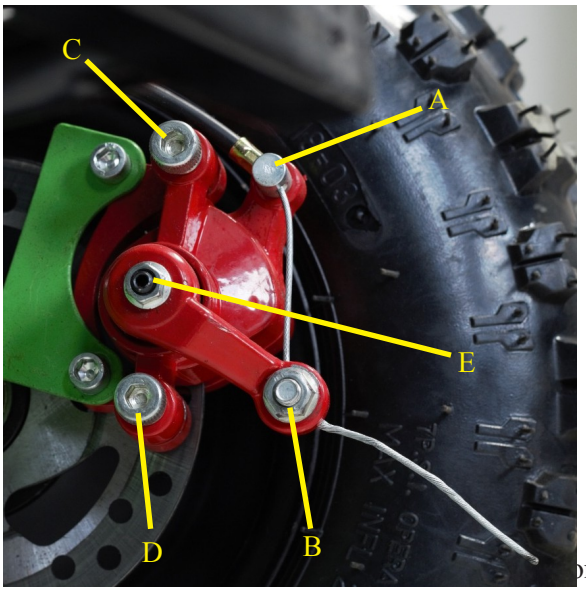
1. To brake, release the throttle and squeeze the brake levers on both sides of the handlebars.
2. Keep in mind that hard braking wears down the ATV's brake pads and tires more quickly. Plan your driving so that you have time to brake well in advance. Also remember that when driving on loose surfaces such as gravel or slippery/wet roads, the braking distance will be longer than normal.

The brake levers have a built-in switch that cuts the power to the motor when you brake, so that you cannot brake and accelerate at the same time.

Adjusting the brakes - Front

If the brake lever can be easily pushed all the way down without the brake having any effect, this is usually because the brake cable needs to be adjusted or the cable housing has slipped out of position. However, always check that none of the brake pads are completely worn out or missing.





1) Check that the black brake cable housing is in the cable stop "A". If the housing is not in place, this is probably the reason why the brake is not working properly. Also check that the housing is in place even when turning the handlebars.

2) Loosen nut "B" that secures the brake cable so that the brake cable becomes loose.

3) Tighten the brake cable.

4) Tighten nut "B".

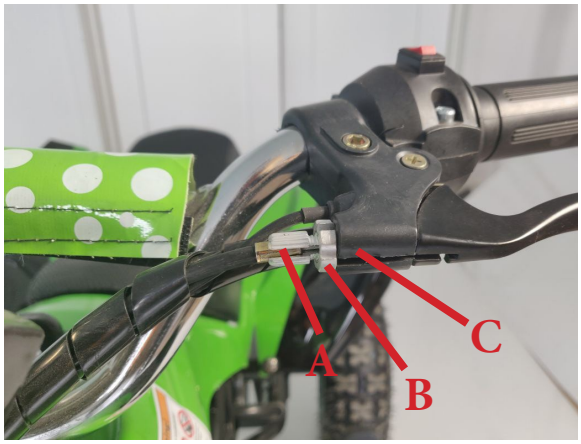
n screw, you can adjust the fixed brake shoe. This can be done if necessary, when you have already followed the other instructions for adjusting the brakes but the result needs to be fine-tuned a little more.

Adjusting the brake caliper:

To adjust the position and angle of the brake caliper, use hex screws "C" and "D" in the image above.

The brake pad should be as close to the brake disc as possible without touching it and braking. See image below.

Adjusting the brakes - Rear



Adjust the cable tension on the brake lever.

Turn the silver screw marked "A" counterclockwise to tighten the brake cable. When the cable is sufficiently tight, lock the current position by turning the nut "B" clockwise so that it locks against the black part "C" of the brake lever.

If this adjustment does not adjust the brake sufficiently, you may need to adjust the rear brake caliper.
In this case, follow the same instructions as on the previous page.

Lubricating brakes

Brake pads and brake discs should NEVER be lubricated. However, it is a good idea to drip a little light oil (e.g., bicycle oil) into the ends of the brake housing so that it runs a little way down the brake cable. Do this as a preventive measure to avoid moisture penetrating and causing rust on the brake cables. It is also recommended that you lubricate the joints on the brake caliper and brake lever on your quad bike.

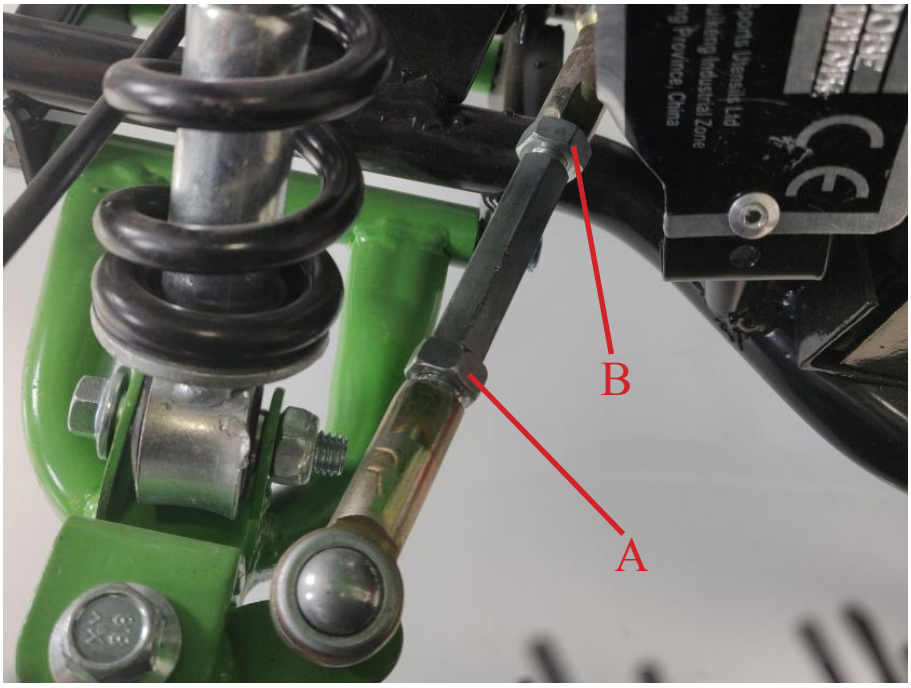
If you don't lubricate the brake cables and guides regularly, the brake levers won't spring back fully. Brake components and cables will then need to be replaced prematurely, as it's really hard to get rid of rust once it's formed.

Adjusting the front suspension - setting the angle of the wheels

The wheels of the quad bike may need to be angled inwards once you have assembled the quad bike. This is done by tightening the nuts marked "A" and "B". When you shorten (tighten) the spindle joint, the wheel is set further outwards.
When you extend (unscrew) the spindle joint, the wheel is turned more inward.

Adjust with the nuts until the wheels are straight ahead when the handlebars are in the neutral position.

It is important that the wheels are correctly adjusted, as incorrect adjustment can make the quad bike difficult to steer and reduce its range. It also causes premature wear on the tires.



Wheels and tires

Range, steering, and driving experience are greatly affected by tire pressure. For optimal performance, the tires be inflated to a maximum of 2.0 BAR or 30 PSI.

Chain and drive

The chain should be adjusted upon delivery. However, after a few rides, it is recommended that it be adjusted to function optimally and reduce unnecessary wear on the chain, motor, and drive. We also recommend that the chain be cleaned and lubricated with bicycle oil regularly.

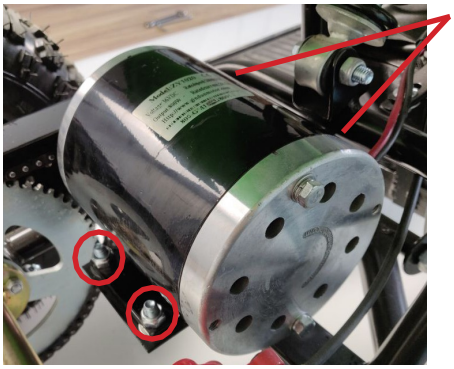
If you have problems with the chain jumping off or slipping over the sprockets, the chain is probably too loose. If you hear a humming noise from the chain or sprockets when you roll the wheel, the chain is probably too tight.

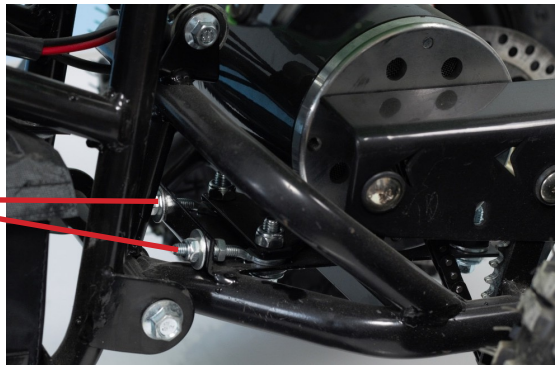
Here's how to adjust the chain tension:

1. Loosen the four nuts around the motor, two on each side of it. See the image below on the left: the other two nuts are on the opposite side (not visible in the image).

2. Then use the chain tensioners to adjust the position of the motor, which in turn affects the chain.
Tighten the bolts when the chain runs straight between both drives and there is no slack. Test by spinning the wheels to ensure that the chain is running properly and that there are no unusual noises.

The chain should be lubricated regularly with bicycle oil. If the chain is dirty, it should be cleaned to avoid unnecessary wear.





Chassis

Never hose down the quad bike with a water hose; instead, wipe off dirt with a slightly damp cloth. Check regularly that no screws or nuts have come loose. If so, tighten them.
Be extra careful to check screws that have a safety-critical function:

- Steering column and handlebars
- Wheel axles
- Brake calipers
- Front suspension

Be aware that some screws are attached to aluminum and must not be tightened too much. Moderate tightening torque together with thread locking fluid such as Loctite is recommended. This applies, for example, to

- Engine screws
- All screws in the wheels
- The screws for the brake calipers

Troubleshooting guide

Problem	Probable cause	Solution
The ATV won't start, and the battery indicator light is not illuminated	1. The fuse is not inserted or is broken 2. The power switch is not working 3. The batteries are not connected 4. The batteries are dead 5. The cord has come loose or is loose	1. Replace or insert the fuse 2. Turn to "ON" and try again 3. Connect the batteries or check that no battery cable has come loose from the battery terminals 4. Charge the batteries 5. Check that all cables are connected
The motor does not work, but the battery indicator is lit	1. The brake lever does not spring back completely 2. Brake is on 3. The throttle control is not working 4. Engine fault 5. Circuit board/electronics box malfunction	1. Release the brake lever and check that it springs back correctly* 2. Check that the wheels can turn freely without the brake caliper/brake pads touching the brake disc. Take action as described on pages 5-6 3. Check that it is connected 4. Contact your dealer for support 5. Turn off the power and wait five seconds, then restart
The rear wheels are not spinning properly	1. Brake is engaged 2. The chain needs to be tightened	1. Adjust the brakes 2. Adjust the chain

* Pull the brake levers outwards and see if the scooter starts. If this proves to be the problem, either the brake cable is pinched somewhere or the cable/casing may need to be lubricated with a little bicycle oil.

If the problem persists, try disconnecting the brake contacts (marked *"brake*") from the electronic box. If the scooter starts, the faulty brake lever needs to be replaced.

Problem	Probable cause	Solution
The charger is not working	1. There is no power in the charger 2. The charger has switched itself off because the ATV is fully charged 3. The charging input is damaged 4. The charger is broken	1. Check that all cables are correctly connected and that there is no visible damage to the charger. Try another power outlet 2. Disconnect the charger completely 3. Check that the pins look okay and that the cable has not come loose at the back 4. Contact us at Rull.se for help finding the right charger for your ATV
Short operating time	1. The batteries are not sufficiently charged 2. Low air pressure in the tires 3. Brake is engaged 4. Soft driving surface 5. Cold weather 6. Full throttle and lots of rapid acceleration 7. Battery wear	1. Charge the batteries 2. Inflate the tires to the correct air pressure, max. 2.0 BAR or 30 PSI 3. Adjust the brakes 4. Compare whether there is longer operating time on hard surfaces 5. The optimal temperature is 20 degrees 6. For longer range, use a smooth riding style 7. Replace the batteries

Nordbutiker AB Gösvägen
28
76141 Norrtälje
010-5559120
info@nordbutiker.se