

Instruction Manual

1/14 SCALE 4WD NITRO HIGH PERFORMANCE MINI CAR

MODEL NO.: HI902T



MEGAP

MINI-M

Features:

- *Four wheel drive system and big feet offer good off-road ability.*
- *50c.c. fuel tank offers a long running time.*
- *Lower center of gravity offers better handling.*
- *Qualifide 05# or 07# Engine offers stableness and durability.*
- *Four color silk-screened car body.*
- *Chassis with polished surface, Anodised different colors for choosing.*
- *Sealed geeabox, waterproff and dustproff. durable and stable*
- *Fuel tank 50c.c.*
- *Precise sealed ball bearing.*
- *2 Channels(27 MHZ AM radio)*

Technical Data:

<i>Length</i>	<i>Width</i>	<i>Height</i>	<i>Wheelbase</i>	<i>Tires size</i>	<i>Weight</i>	<i>Engine</i>
<i>305mm</i>	<i>196mm</i>	<i>140mm</i>	<i>205mm</i>	<i>74*38mm</i>	<i>1.1 kg</i>	<i>05, 07cxp</i>

Required equipment for operation

1. Tools required for building and maintenance:



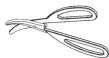
● Hobby knife



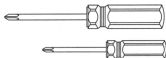
● Precision ruler or caliper



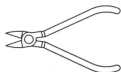
● Needle nose pliers



● Hobby scissors



● Flat and Phillips screwdriver



● Wire cutters



● Cross wrench



● CA glue & rubber cement



● Thread locking compound



● Hex wrench

WARNING!

Do not use power screw driver install screws into nylon or plastic materials. The fast locking may heat up the screws being installed that may be molded parts or strip the threads during installation.

2. Additional items needed for operation:



B7001
Transmitter



B7012
Servo



B7011
Receiver



HI902-062
6.0v Battery Pack



B7010
Fuel bottle



8pcs AA alkaline
batteries for transmitter



B7004
Glow igniter & its charger



HI902-063
Slow Charger

IMPORTANT!!!

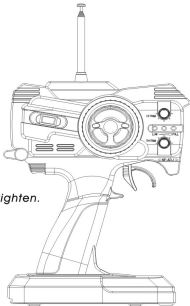
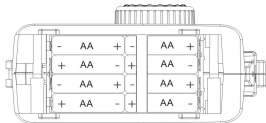
Check all the screws are tight before playing the car!
Use thread lock on all screws that work



Please read the instruction carefully before start the assembly.

1. Please assembly and install this product without children. As the product includes small and sharp parts.
2. Do not run the truck in public street or highways. As it might cause serious accidents, personal injuries and property damage etc.
3. During the middle of racing and after operation , the engine and exhaust will become HOT. Therefore please do not touch them before cooling down.
4. Please make sure everyone is using different frequencies while racing the truck in the same area.

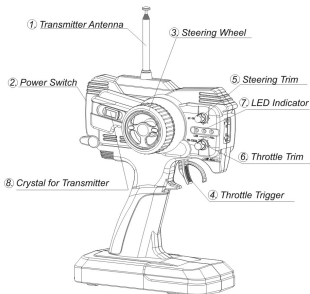
Transmitter Preparation



- Install eight "AA" batteries into transmitter making sure the polarity is correct.
- Insert the antenna into the top of the transmitter and tighten.
- Turn the transmitter on and check the battery light.
- If all LED's light up, the batteries are acceptable. If only the red LED lights up, immediately replace the batteries..

- After the pattern authentication qualified low power radio frequency electrical machinery, must passes through the permission, the company or the user does not have arbitrarily the frequency, characteristic and the function to enlarge power or to change the original design.
- Use the low power radio frequency for electrical machinery which does not affect the navigation security and the disturbance legitimate correspondence; If the disturbance phenomenon arose, should stop using immediately, after fixing the disturbance, it is ready for continue use.
- Antecedents the legitimate correspondence, according to the telegraphy stipulation work the radio traffic.
- The low power radio frequency electrical machinery must endure the legitimate correspondence or the industry, the science and the medical service disturbance of with the electric wave radiative electrical machinery equipment.

Glossary of transmitter



1. The transmitter antenna is for transmit the radio waves.
2. The power switch is for switching the power on/off.
3. The steering wheel is for controlling the direction of right/left.
4. The throttle trigger is for controlling the throttle and brake.
5. The steering trim is for adjusting the position of neutral.(right/left)
6. The throttle trim is for adjusting the carb in idle position.
7. The LED indicator is for s howing the remaining amount of the battery when turn on the power switch.
8. Crystal for transmitter is for changing the radio frequency by replacing the crystal.

Before The Operating

- Install the receiver antenna.
- Install the transmitter antenna.
- Loading the battery on the transmitter.
- Install the charged battery on the truck.

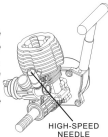
RC Operating Procedures

- 1.Please pull out the transmitter antenna and then turn on the power switch first, before turning on the receiver.
- 2.Please raises the tires off the ground and check up the control is respond.
- 3.Hold the throttle trigger to let truck running. If it doesn't work please adjust the throttle servo and trim.
- 4.Please replace the battery, when speed drops down.
- 5.When you finish the racing, please turn the receiver switch off first, and then the Transmitter.
- 6.Please make sure the battery is disconnect and remove the battery after finishing the racing.

Engine Tuning Guide

High-speed Needle

The "high-speed" needle is sticking up from the carburetor. This controls the fuel to air mixture of the carburetor. The needle is pre-set for break-in from the factory at 2-1/2 turns out from fully closed. Once the engine is broken-in, the high-speed needle would typically run from 2 to 2-1/2 turns out from closed, depending on the weather, humidity and altitude above sea level. To richen the mixture turn the needle counterclockwise. To lean it, turn the needle clockwise.



The Low-Speed Needle (For 18# engine)

The "low-speed" needle is the screw in the carb body opposite the throttle arm. it controls the fuel to air mixture at low throttle settings. There is a simple way of adjusting the low-speed needle correctly called the "pinch test." With the engine at idle, pinch the fuel line and listen to how the engine speeds up or slows down. If the engine increases its speed for about 2 or 3 seconds and then loses speed, the needle is set correctly. If the engine loses RPM quickly, it is set too lean and the low speed needle needs to be opened (counterclockwise) to richen the mixture. Pinch again to check the mixture. If the engine takes longer than 4 seconds to slow down, lean (clockwise) the low-speed needle and then pinch again to check the mixture.



Idle Stop Screw

The "idle stop" screw is located on the backside of the carburetor. This increases or decreases the idle speed without changing the fuel mixture. The barrel should be approximately 1mm from fully closed.

IMPORTANT!!

To insure long life and good performance from your engine, you **MUST** break-in the engine. The break-in period is critical for long life of the internal parts of the engine. This should be done over the first 5 tanks of fuel.

Running The Engine

Starting The Engine

IMPORTANT! Your radio system must ALWAYS be turned on and the transmitter antenna fully extended when running the engine!

1. Fill the fuel tank.
2. Prime the engine-while the engine is cool, place your finger over the tuned pipe's exhaust hole and pull the recoil gently several times. Do not over-prime! Stop when you see fuel in the fuel line at the carb.
3. Install a "C" alkaline into the glow starter and attach the starter to the glow plug.
4. With the throttle at idle, start the engine by pulling the recoil using short, quick pulls. Do NOT pull the recoil starter's string to the end. You only need 10 to 12 inches of pull to start the engine with the throttle at idle.

Sometimes it is helpful to start the engine at around half throttle. When the engine starts, immediately return the throttle to idle. If this is not done the engine can over rev and cause engine damage.

Stopping the engine

Pinch the fuel line that runs to the carburetor. Pinching this line will restrict fuel flow and the engine will quit within a few seconds. Never place your finger over the exhaust to stop the engine. This could result in serious burns on your finger. It also causes fuel to back up in the engine, making it harder to start the next time you run your truck.

Important! Fixing a flooded engine

If the engine is difficult to turn over with the recoil starter, especially if it is brand new, loosen the glow plug a half turn before starting the engine. This allows some compression to escape, but the engine will still start. Make sure you tighten the glow plug after the engine starts. If the recoil starter is still difficult to pull, the engine is flooded-there is too much fuel inside the engine. Remove the glow plug, then turn the buggy upside down and pull the recoil 5 or 6 times. This will clear the engine of fuel, and you will notice the recoil pulls easier. Replace the glow plug and repeat the starting procedure.

Break in procedure

Some things to remember during break-in

1. Run with the body off. This will keep the engine cooler.
2. Keep the air cleaner on at ALL time.
3. Run on a smooth, hard surface. An empty parking lot is Perfect.
4. Use the same fuel that you will use for normal running.
5. Resist the urge to accelerate and decelerate quickly.
6. Break-in puts stress on the glow plug or two on hand.
7. DO NOT overheat the engine. You can check the head temperature by using one of the temperature gauges .

TANK 1

Your first tank of fuel should be running the truck at a very rich needle valve setting. This allows the fuel to carry as much oil as possible into the engine to properly lubricate the internal parts during the break-in.

1. Open the high speed needle valve 4-1/2 turns from fully closed (counterclockwise). This is factory set already. But check it to make sure. When closing the high-speed needle, close until you feel some resistance. DO NOT overtighten or you will damage the engine.
2. Fill the fuel tank and start the engine.
3. Run the buggy on a smooth surface with the body off.
4. Run back and forth at medium speeds, slowly accelerating and decelerating the buggy.
5. Run the buggy until the tank is almost out of fuel. Do not allow the tank to run out of fuel during break-in. This leans out the engine and can cause overheating.
6. Stop the engine and allow it to cool. This normally takes around 10-15 minutes.

NOTE: if your engine does not stay running consistently, increase the idle speed by turning the idle stop screw clockwise.

TANK 2

Lean the high-speed needle 1/12 turn from "tank 1" setting. Run the buggy for the complete tank and then let cool.

TANK 3

Lean the high-speed needle another 1/12 turn from "tank 2" setting. Run the buggy for the complete tank and then let it cool.

TANK 4

Lean the high-speed needle another 1/12 turn from "tank 3" setting. Run the buggy for the complete tank and then let it cool. You should notice the engine running much better at this point.

TANK 5

*Lean the high-speed needle another 1/12 turn from "tank 4" setting. Run the buggy for the complete tank and then let it cool. The engine is now ready to be performed tuned. **Important!** At this point, the engine will likely be running at a faster idle than needed (This is typical after break-in). Adjust the idle stop screw to lower the idle speed so that the wheels do not. Or just barely, rotate when you lift the buggy off the ground.*

TUNING TIPS

After break-in, run the truck where you plan to do most of your driving (grass, street, track, etc). Tune the high speed needle so the engine makes good power without overheating. Using a temperature gauge, tune the engine so that it will consistently stay under 270 F (132C). Bare in mind. RC engines usually take a minute or two to warm up. It is common not reaching full power right away. Never tune a cold engine!

ENGINE CARE

Never store your car with fuel in the tank. We recommend that after the final run of the day, you empty the fuel tank and then run the engine at idle until all the fuel is out of the fuel lines and engine. Remove air filter and glow plug. Then place two drops of the After Run Engine Oil in the carburetor and two into the cylinder to help prevent corrosion. Pull the re-coil few times to circulate the oil.

10 WAYS TO ENSURE LONG LIFE FROM YOUR ENGINE

- 1. Keep your engine and air filter clean. Dirt will act as insulation on an engine. it will not be able to shed heat as easily. Clean and re-oil the element often.*
- 2. Do not over-lean your engine.*
- 3. Do not run your engine with little or no load. Don't throttle up the engine to full throttle when the wheels are not in contact with the ground.*
- 4. Do not overheat the engine.*
- 5. Do not use a fuel with a low oil content. Make sure you use a model car fuel from a reputable manufacturer, such as O'Donnell Fuels.*
- 6. Avoid using old fuels in the engine.*
- 7. Do not use a fuel with a nitromethane (often called niteo) content over 20%.*
- 8. Do not scratch the piston or cylinder sleeve. Avoid jamming something into the exhaust port when removing or re-installing the clutch or flywheel. Use a special tool called the Ultimate Flywheel Wrench to keep the crankshaft from moving.*
- 9. Do not use silicone sealer on the engine joints. Silicone sealer contains acetic acid, which is corrosive if it gets inside your engine.*
- 10. Do not allow any water to get inside the engine. This sounds easy, but temperature changes can cause condensation inside the engine. This is a good reason to use an after-run oil. Store your engine inside the house, not in a garage or shed where will be temperature extremes.*

HI902 PARTS LIST

Item No. Description

HI901-001	Tyre & insert (pair)-2pcs
HI901-002	Tyre complete R/L (pair)-2pcs
HI901-003	Wheel R/L (pair)-2pcs
HI901-011	C-hub w/pin #2-1pair
HI901-012	Front knuckle arms R/L -1pair
HI901-013	Front lower susp.arms-2pcs
HI901-014	Rear lower susp.arms-2pcs
HI901-015	Upper susp. Arms-2pcs
HI901-016	Front shock complete, plastic-2pcs
HI901-017	Rear shock complete, plastic-2pcs
HI901-027	Bumper w/brace-1pc
HI901-028	Front susp.hinge pin set-1pc
HI901-029	Rear susp.hinge pin set-1pc
HI901-030	Rear hub carrier set-1pc
HI901-040	Ball studs-6pcs
HI901-041	Front turnbuckle w/ball end mount-2pcs
HI901-043	1.5*8mm pin #3-12pcs
HI901-044	1.0*7.8mm pin #4-12pcs
HI901-046	4*8*3 ball bearing-2pcs
HI901-047	5*0.6 E-ring-12pcs
HI901-048	3*0.6 E-ring-12pcs
HI901-049	2.5*4 E-ring-12pcs
HI901-050	1.0 body clip-12pcs
HI901-051	BT2*20mm Screw-12pcs
HI901-052	BT2*16mm Screw-12pcs
HI901-054	BT2*10mm Screw-12pcs
HI901-055	BT2*8mm Screw-12pcs
HI901-056	BT2*6mm Screw-12pcs
HI901-060	TPF2*8mm Screw-12pcs
HI901-061	TPF2*6mm Screw-12pcs
HI901-062	ISO2*8mm Screw-12pcs
HI901-064	M3*3 grub screw-12pcs
HI901-066	M3 locknut-5pcs
HI901-067	Antenna pipe w/cap-3pcs
HI901-071	Front aluminum shocks-2pcs
HI901-072	Rear aluminum shocks-2pcs
HI901-080	Crystal set 2# (gold)
HI901-081	Crystal set 4# (red)

Item No. Description

HI901-082	Crystal set 6# (fuchsia)
HI901-082	Crystal set 6# (fuchsia)
HI901-082	Crystal set 6# (fuchsia)
HI901-085	Crystal set 12# (blue)
HI901-086	Servo gear-1bag
HI901-087	Chrome tyre complete R/L-2pcs
HI901-088	Chrome wheel R/L-2pcs
HI901-089	Chrome bumper set-1pc
HI901-093	Front plastic chassis
HI901-094	Rear plastic chassis
HI902-001	Gear box housing, F/B
HI902-002	Diff gear assembly
HI902-003	Diff.gear (big and small)
HI902-004	Driving gear/driven gear/driven gear shaft
HI902-005	Diff.case complete
HI902-006	Univ.joint cup A w/screw-4set
HI902-007	Univ.joint cup B w/screw-3set
HI902-008	Axle shaft w/ pin-2set
HI902-009	Servo saver complete
HI902-010	Body mount-2pcs
HI902-011	Body bracket, F/R
HI902-012	Battery holder/receiver cap
HI902-013	Chassis
HI902-014	Reinforce rack ,L/R
HI902-015	Chassis mount, front
HI902-016	Chassis mount, back
HI902-017	Drive shaft set-2pcs
HI902-018	Center drive shaft(front)
HI902-019	Center drive shaft(rear)
HI902-022	Fuel tank complete w/bracket
HI902-023	Oil pipe-2pcs
HI902-024	Handle
HI902-025	exhaust pipe complete
HI902-026	Flywheel, metal taper bush and pins for engine
HI902-027	Engine fixed axle, w/E-ring
HI902-028	Clutch shoe / clutch spring
HI902-029	Clutch gear (17T) /clutch bell

HI902 PARTS LIST

Item No. Description

HI902-030	Clutch gear (19T) /clutch bell
HI902-031	Air filter,w / insert
HI902-032	Servo mount C / D, servo rack A and screw
HI902-033	6*10*3mm ball bearing 2pcs
HI902-034	Exhaust pipe bracket w/ screw and nut
HI902-035	Engine brackte / washe / hex round head screw
HI902-036	Clear body w/ sticker and screw
HI902-037	Silk-screen body w/sticker and screw
HI902-038	Brake disk /brake pad /screw
HI902-039	Brake shaft set
HI902-040	Servo mount A/B, servo rack B and screw
HI902-041	Throttle linkage rod/holder/stopper/spring/ grub screw
HI902-042	Brake linkage rod / stopper / grub screw
HI902-043	BA2*6mm screw 12pcs
HI902-044	BM2.6*10mm screw 12pcs
HI902-045	BM3*8mm screw 12pcs
HI902-046	BM2*10mm screw 12pcs
HI902-047	BM2.5*25mm screw 6pcs
HI902-048	BT2*4mm screw 12pcs

Item No. Description

HI902-049	ISO2*4mm screw 12pcs
HI902-050	M2.5*10mm Hexagon socket screws 12pcs
HI902-051	BT3*10mm screw 12pcs
HI902-052	Central gear box housing, F /R
HI902-053	Gear 2 (27T)
HI902-054	Double gear (18-23T)
HI902-055	Gear 1 (23T)
HI902-056	Gear 3 (40T)
HI902-057	3# shaft /pin/ E-ring
HI902-058	1# shaft /pin/ E-ring
HI902-059	2# shaft /pin/ E-ring
HI902-060	Gear 5(43T) /43T fixer /1# spring /nut
HI902-061	Central gear box complete
HI902-062	6V battery 2/3AA 600Mah
HI902-063	6V battery charger
HI902-064	Switch complete
HI902-065	Center joint cup (metal) w / grub screw
HI902-066	BT2*18 screw 12pcs
B7001	Transmitter complete
B7011	Receiver
B7012	Mini servo (1.3Kg)
B7020	Engine

HIMOTO

www.himotoracing.com

⚠ SAFETY PRECAUTIONS:

- *This radio controlled racing car is not a toy!*
- *This high-performance R/C model is recommended for ages 14 and older.*
- *First-time builders should seek the advice of experienced modellers before commencing assembly.*
- *Take enough safety precautions prior to operating this model.*
You are responsible for this model's assembly and safe operation!