

Troubleshooting

Description	Possible Problem	Solution	
Engine does not start	Fuel mixture needle settings are out of range	Set the needles to the factory setting	
	Engine could be worn out	Replace piston and sleeve	
	Out of fuel	Refill fuel tank	
	Contaminated fuel	Replace fuel	
	Glow plug igniter is not charged	Charge glow igniter	
	Glow plug is bad	Replace glow plug	
	No fuel flow	Check fuel lines for cracks, leaks, and holes. Replace fuel line if necessary.	
	Engine flooded	Remove glow plug and discharge fuel	
	Engine has overheated	Allow engine to cool, richen the fuel mixture and then restart	
	Throttle valve isn't adjusted properly	Set idle and adjust needle valve to the manufacturers recommended settings	
	Air cleaner is blocked	Check air filter. Clean or replace if necessary	
	Engine starts, then stalls	Idle speed is set too low	Adjust the idle speed
		Air bubbles in the fuel line	Check for leaks or cracks in the fuel line
Glow plug is bad		Replace glow plug	
Engine is overheated		Allow engine to cool and then restart	
Airflow through system is bad		Check connections between tank, engine and exhaust	
Throttle servo is improperly set up		Set servo to neutral and reset linkages according to radio and model manufacturer's specifications.	
Throttle servo glitch		Replace the radio batteries	

Maintenance and Cleaning

Important

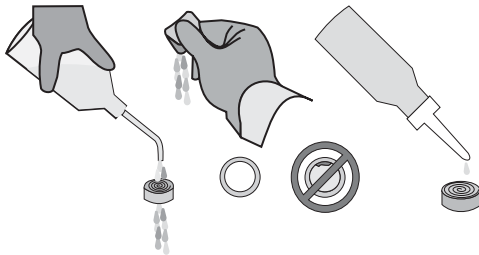
Read this section carefully. Failure to follow proper care and maintenance of your engine could result in damage to your engine and void your engine warranty!

Air Filter

Dirt is the biggest enemy to your engine. Proper air filter maintenance is one of the most important factors that will affect your engines performance and life. We recommend cleaning the element after every run. Please follow the instructions from the manufacturer recommendations on the proper cleaning and maintenance of your filter. Always check you air filter after each run to make sure it is properly seated to the filter body and the carburetor. **Never run your engine without the air filter!**

Cleaning the Air Filter:

Remove the air filter element from the air filter body. It is important to take care during this step to insure no dirt gets inside the carburetor. Flush any dirt from the element using nitro fuel. Squeeze any excess fluid from the element. Apply high quality air filter oil to the element.



Reinstalling the Air Filter:

After properly cleaning the air filter make sure it is reinstalled correctly. Make sure there are no gaps between the air filter and the body. Make sure the air filter body is seated on the carburetor and secure with a tie strap. **Never run your engine without the air filter!**

Engine Storage

Properly maintaining and storing your engine is critical to the life of your engine. Nitro fuel contains castor for lubrication. If the castor is not burned out properly over time it can gum up and damage the crank bearings. Using your fuel bottle, drain all the remaining fuel from the tank. Use a fully charged igniter and try to restart the engine to burn any remaining fuel out of the lines. Repeat this step until the engine will not start. After burning off the fuel remove the glow plug and add several drops of after run oil, then crank the engine over to spread it throughout the engine. To prepare the engine for use, use 70% Isopropyl Alcohol or Denatured Alcohol and cycle it through the engine. **DO NOT TRY TO START THE ENGINE WITH ALCOHOL!** The few minutes you spend to properly care for your engine will add valuable time to its operating life and maintain optimum performance.

Glow Plug

Proper Glow Plug Selection:

Proper glow plug selection depends on several factors. Fuel type, nitro methane content, weather, and altitude can drastically effect performance. Finding the best combination of fuel and plug temperature for your driving condition is the key to getting the maximum performance out of your engine.

Extending the Life of Your Glow Plug:

To maximize and extend the life of your glow plug follow these simple tips:

- Remove the glow igniter when using more than 1/2 throttle or if the engine does not start with a few seconds
- Do not run the engine lean. Lean conditions will overheat the plug causing the element to be damaged or fail
- Use the best Fuel/Plug combination for your driving conditions
- Use a fuel that has lower nitro content

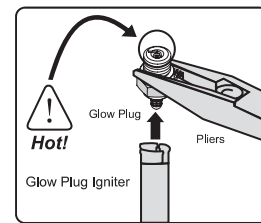
When to Replace the Glow Plug:

Fuel and temperature will have an effect on the performance, reliability, and life span of the glow plug and therefore should be considered expendable engine components. Aside from burnout or plug failure, there are several signs that can indicate the plug should be replaced.

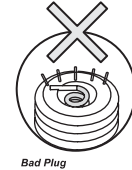
- Plug filament/body is discolored or the surface is rough
- Engine cuts out when idling
- Plug filament is distorted or bent
- Engine becomes difficult to start

Outdoor Temp	Glow Plug
Cold	Medium - 3 Medium plug for .12-.15/.21 engines
Medium Cold	Medium Cold - 4 Medium cold plug for .25 engines
Hot	Cold - 5 Cold plug for summer/hot conditions

Glow Plug Testing



Good Plug
Element glows when tested.

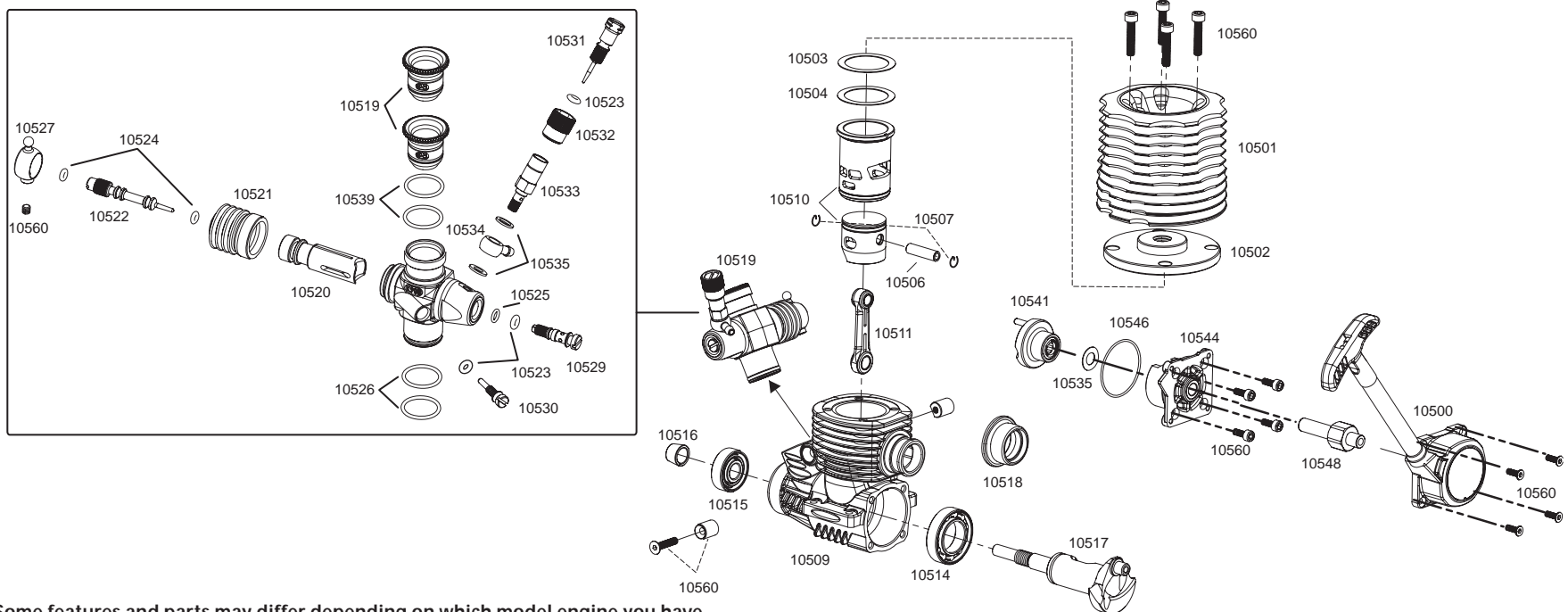


Bad Plug
Element may be damaged or broken if it doesn't light up completely.



Bad Plug
Element is broken or doesn't light up at all.

Spare Parts



NOTE Some features and parts may differ depending on which model engine you have.

Axial 28 Spec 1s

Number	Description	Number	Description
AX003	28 Cylinder/piston Set	AX018	28 Screw M3.5x16mm
AX004	28 Cylinder/piston/connectiog Rod Set	AX019	28 Dust Protection
AX005	28 Connecting Rod	AX020	28 Slide Carburetor Complete
AX006	28 Piston Pin/retainer Set	AX021	28 Slide Carburetor Main Body
AX007	28 Retainer For Piston Pin (3pcs)	AX022	28 Uniball
AX008	28 Heatsink Head (Green)	AX023	28 Idle Needle Valve With O-rings
AX009	28 Heatsink Head (Gray)	AX024	28 Slide Valve
AX010	28 Crankcase	AX025	28 Idle Adjustment Screw With O-ring
AX011	28 Crank Shaft	AX026	28 Fuel Line Fitting/washer Set
AX012	28 Pullstart Assy. (W/o One-way Bearing)	AX027	28 High Speed Needle Valve Holder
AX013	28 Gasket Set (0.15mm/0.3mm)	AX028	28 High Speed Needle With O-ring
AX014	28 Lock Pin For Carburetor	AX029	28 Mid Range Needle With O-ring
AX015	28 Pullstart Shaft Holder (Assembled)	AX030	28 High Speed Needle Valve Set
AX016	28 Starting Shaft	AX031	28 Button Head
AX017	28 Cover Plate Set		

Axial 32 Spec 1s

Number	Description	Number	Description
AX043	32 Cylinder/piston Set	AX058	32 Cover Plate Set
AX044	32 Cylinder/piston/connectiog Rod	AX059	32 Screw M3.5x16mm (4pcs)
AX045	32 Connecting Rod	AX060	32 Dust Protection Set
AX046	32 Piston Pin/retainer Set	AX061	32 Slide Carburetor Complete
AX047	32 Retainer For Piston Pin (3pcs)	AX062	32 Slide Carburetor Main Body
AX048	32 Heatsink Head (Green)	AX063	32 Uniball
AX049	32 Heatsink Head (Gray)	AX064	32 Idle Needle Valve With O-rings
AX050	32 Button Head	AX065	32 Slide Valve
AX051	32 Crankcase	AX066	32 Idle Adjustment Screw With O-ring
AX052	32 Crank Shaft	AX067	32 Fuel Line Fitting/washer Set
AX053	32 Pullstart Assy. (W/o One-way Bearing)	AX068	32 High Speed Needle Valve Holder
AX054	32 Gasket Set (0.15mm/0.3mm)	AX069	32 High Speed Needle With O-ring
AX055	32 Lock Pin For Carburetor	AX070	32 Mid Range Needle With O-ring
AX056	32 Pullstart Shaft Holder (Assembled)	AX071	32 High Speed Needle Valve Set
AX057	32 Starting Shaft		