To be read before starting your vehicle,

FAQ / Starter Guide

Contents

Things To Check Out The Box

When your buggy arrives and you open the box give the buggy a good look over, checking for any loose screws, including the screw on the inside of the pullstarter and use thread lock where needed, pay close attention to the large wheel nuts. Grease your diffs and fill your shocks with shock oil with the weight required for your terrain, once you have checked over the buggy it is time to charge it. The charging port is located on top of the radio box under a protective rubber cap on most of the buggies and in the battery box on most short course trucks. Plug the charger into the wall and the buggy. The first charge is 8hrs only trickle chargers are included, a good idea is to purchase a 2amp charger or higher for them to speed up further charges. Next place 8 AA batteries in the transmitter and check the servos function correctly, note when testing the steering servo keep the car lifted off the ground failure to do this can damage the servos as they are not designed to be used when the car is stationary.

Fuel Mixture

The buggy runs on a mix of petrol and 2-stroke oil, the recommended mixture is 25-1. This is easy to create using the supplied mixing bottle. The mixing bottle has 2 chambers fill the large chamber with petrol up to the line marked 10, replace cap and tighten. Next, fill the smaller chamber with 2-stroke oil also to the line marked 10. Replace cap and tighten, shake the bottle thoroughly until the fuel is mixed it is now ready to use. Our advice is to always use good quality fuel oil, the buggy uses a high-performance engine and could be damaged by low quality fuel and 2-stroke oil.

Servo Endpoints

You will be required to set your endpoints on the servos so to not over work them. You only want the servo to move you wheels and throttle to their full turn and open position, anymore will burn out the servo. This is done via end point adjustment (EPA) on most radios.

Starting The Buggy

To start the car, follow these basic instructions.

- Check radio and kill switch is functioning correctly.
- Check the carb settings are correct.
- Oil the inner air filter sponge
- Turn on the transmitter, then the car
- Press the primer bulb on the carburettor about 3-5 times until full of fuel
- Turn choke on (Red/Black Lever on side of carburettor) (Vertical Position)
- Gently pull the Pull-Start a couple of times to draw fuel through the engine, then give it a short, hard pull until the engine tries to start (Do NOT pull the cord out fully, this will damage the Pull-Start)
- Turn off the choke (Horizontal Position) and pull the Pull-Start, the engine should start after about 3-4 pulls (sometime a little throttle can help, you can do this using butterfly lever that idle screw sits against). If the car doesn't start after about 6-7 pulls, stop as you will flood the engine. This may mean your carburettor needs adjusting; this is covered in the section Carburettor Settings & Adjustment. (to unflood, see Flooding below) If your car starts but keeps cutting out try turning in your Idle screw a little.

Running the Engine In

The engine must be run in before the buggy can be used fully, failure to do so could result in damage your engine.

- To run the engine in, it will require going Easy for a few tanks.
- Firstly, check to see if your carb is set (see below)
- Secondly let the engine idle for 10-15mins then let it cool completely (do 3-4 times)
- Thirdly drive at ¼ to ½ throttle for 10-15mins then let cool completely (do 3-4 times).
- Fourthly drive around nice and easy with small bursts on the throttle, occasionally returning to idle, do this for 2-3 tanks.
- Also be sure to check head bolts and exhaust screws as engine settles.

Things To Check After Running the Engine

Once you have run the engine you need to check for any loose screws from vibration and use thread lock where needed, pay close attention to the screws around the engine and exhaust.

Flooding

If you flood your engine and its failing to start.

Close the high and low needle (DO NOT overtighten) then remove plug and give it 10 pulls on its side. Then replace plug, turn off choke and try to start until it fires (open butterfly for more air will help). At this point you can reset the needles to factory and then see if it starts for you.

Make sure you get high and low the correct way around. (see Carburettor Settings)

Carburettor Settings & Adjustment

Walbro Factory Carb Settings Guide Only. This is not a set-in stone running just a get you started guide.

There is no need to be scared of your carburettor, it is not as complicated as you think. All model engine carburettors are essentially the same. There are 3 adjustment screws on the side of the carburettor, these are the high-speed needle, the low speed and the idle speed needle. Let's start with the low needle, this is located near the top of the carburettor on the left side (closest to the engine). The low needle controls fuel flow from idle to mid throttle. The high needle is located next to the low needle, this controls fuel flow from mid to full throttle.

You should check your carburettor to ensure it is set correctly, follow this guide to reset it to the default settings. (668/997) You **MUST** check to see which carb you have before adjusting! See table below for more carb settings.

(Be careful when closing the needles as over tightening them will damage the needle and the carburettor itself)

- high needle 1 ½ turns out from closed
- Low needle 1 ¼ turns out from closed

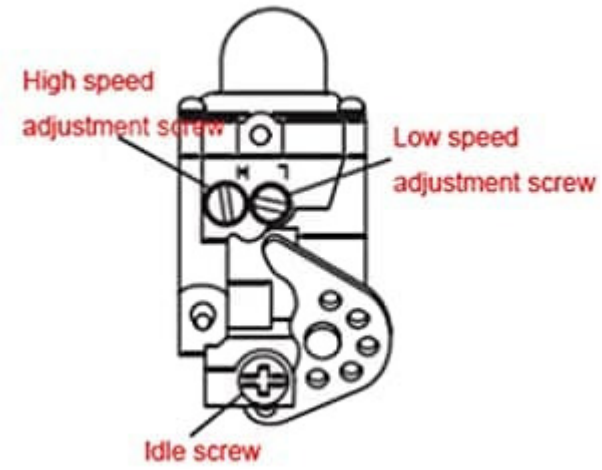
If the buggy will not start with these settings turn the low needle 1/8 of a turn and try again.

The idle screw is very simple to adjust and rarely needs adjustment, if the engine keeps cutting out increase the idle by turning it to the right slightly. If the engine is revving to high at idle simply turn it a little to the left.

To tune the carburettor, adjust the high needle then perform a high-speed run. Always only adjust a little at a time until you have the desired tune. A point to note is that it is not always the case; you need to lean the carburettor to get maximum speed sometimes you need to richen the mixture to get the best from the engine.

Below is base setting for some popular carbs and may require tuning by ⅛ of a turn +/- after initial running in.

CARB.	HIGH NEEDLE	LOW NEEDLE
997 / 618	1 ½	1 ¼
998 / 813	1 ⅝	1
990	1 ⅝	1 ⅛
1107 / 1191	1 ⅞	1 ⅜



General Cleaning & Maintenance

The vehicles sold by Rcmodelz are advanced models and will require knowledge of them to be able to maintain and repair them.
If you are unable or unwilling to do this, then we regrettably ask you not to purchase any of our vehicles.

It is always a good idea to keep your buggy clean, cleaning your buggy will prolong the life of parts and also make it easier to identify any broken or worn out parts. It is a good idea to fit an air filter wear and a pull-start wear on your buggy to avoid dirt entering these components. If dirt builds up on your filter it can restrict airflow and damage your engine. It is essential that the air filter is always clean. To clean the filter, wash it out with warm soapy water and rinse, leave to dry and re-fit to the car. To clean the car, you can either spend

hours getting into every space in the car with a small brush or remove the radio gear, cover the air filter and jet wash the car. Afterwards, let it dry and the spray with a PTFE spray to stop rusting. Once clean, give the buggy a good look over for screws that may have become loose or broken, now is also a good time to look for worn out parts. It is important to keep on top of maintenance as it will help you get the most from your buggy.

Fail-Safe

The buggy has a fail-safe built into the receiver. What a fail-safe does is in the event of the buggy losing signal from the transmitter is to move the servo to the brake/neutral position (user to set up). This however relies on battery power. So, if your battery goes flat or your servo fails, it will not work. This means it has multiple points of failure meaning it is not a sure way to stop your car from losing control.

Your best option is a kill switch outlined below and not rely on the Fail Safe.

Kill-Switch

A kill-switch is an aftermarket device that will shut down the engine in the case of any radio failure and should be installed prior to starting the car for the first time. A kill-switch works off the 3rd channel of the transmitter. It must be wired from the coil pack to the receiver. Once fitted, your buggy is protected from all radio glitches. If the battery in the car goes flat, the kill-switch stops the engine. If you lose radio signal, the kill-switch stops the engine. If you press the 3rd channel button on the radio, the engine stops this means that you are covered for any eventuality. Everybody should have a kill-switch fitted these are extremely powerful vehicles and can cause a lot of damage if out of control!
If you are not wanting to fit a kill switch then please do not purchase one of these vehicles, as these vehicles could not only cause damage to yourself, your car but also to others. Running without a kill switch is done at your own risk!

Storage

If you plan on not using your buggy for a long period of time, E.g. over the winter months, drain the fuel out of the car and dis-charge the battery. Spray the buggy with a light coat of PTFE or similar and store.

Fail To Start

If your car won't start check these;

- Check to make sure your car is not flooded, this can be de-flooded following Flooding. (this is the most common issue)
- Check to make sure the holes in the fuel cap are not blocked (cap, Rubber bung, Plastic bung)
- Check to make sure there is a good spark (remove plug then fit plug into coil lead and then rest the other end of plug on the engine and pull the starter)
- No Spark (check spacing between coil pack and flywheel (a business card width))
- Ensure your kill switch is in run mode and not kill mode.
- Make sure you have compression.
- Make sure you have fuel.
- Ensure you fuel lines are the correct way around (pipe with filter goes to bottom of carb)

These are the usual things that could stop your car from starting.

More Help

If you need any help or just want to chat with other RC enthusiasts, please visit our Facebook group at:

facebook.com/groups/rcmodelz/

If you don't have Facebook, then you can send an email to:

support@rcmodelz.co.uk

Unfortunately there is no Tech help on the phones. If tech can't help by email they will call you!

Oils

With regards to the WT/CST of the oil is all down to your personal preference; a safe start would be:

60k Diff Oil: https://www.rcmodelz.co.uk/catalogsearch/result/?q=60k+diff

30 WT Front Shocks: https://www.rcmodelz.co.uk/catalogsearch/result/?q=30wt

45 WT Rear Shocks: https://www.rcmodelz.co.uk/catalogsearch/result/?q=45wt

However, We must stress that these are all personal preferences once you start to use the car and you understand your driving style/ the terrain you're driving on you can then put thinner/thicker oils in to get the car handling exactly how you want it to handle 😊

Batteries

Please make sure to read the instruction and safety information contained with both the batteries and charger you will be using to charge. Important information is contained with both the products and failure to follow this information will risk damage to your batteries.

Never store your batteries flat (low voltage) and make sure to follow the first charge procedure in these manuals to ensure longevity of your batteries.

When storing your batteries make sure you put them in storage mode; failure to do so may result in a dead irreparable battery.

If the charger you have purchased does not have a voltage monitor then we recommend purchasing a voltage capacity checker: https://www.rcmodelz.co.uk/overlander-8s-battery-capacity-meter.html

This allows you to see the voltage per cell of your Lipo batteries allowing you to take care of your batteries more effectively maximizing the life of your battery pack.