



TAYLOR RC

DIABLO 88 Operating
Instructions

TAYLOR DIABLO 88 Engine USER MANUAL AND IMPORTANT INFO

Congratulations, and thank you for purchasing your new TAYLOR engine.

This is a high-performance, two-stroke engine which produces 8-9 times the power of a standard large-scale, RC car/buggy engine. Please be prepared for the insane increase from your RC! Drive with care while you are getting used to this.

We strongly recommend fitting a **remote kill switch** to your engine, as should be the practice with all large-scale cars. All normal 1/5-scale kill switches work properly with this engine; it is also supplied with a standard kill button.

Important Safety Note:

Because of the performance potential of this engine in a vehicle, such as the HPI Baja, it is necessary to operate the vehicle in a suitable, controlled environment. It should not be operated in a public space where people are engaged in other activities, such as a public park. Do not operate in an area where there are children playing, near pets or other animals. Do not operate on a public highway.

Loss of control of such a vehicle could result in serious injury to another person, family pet, or other animal.

Be aware that the engine silencing is minimal, so do not run the engine in an area where this could cause a nuisance. You and those around you should always use ear protection during operation.

Please note: All of the manufacturer's safety instructions for the operation of the vehicle in which the engine is fitted must be followed.

Fuel Safety Guidelines

Fuel is highly flammable. Never operate the vehicle near open flames. Do not smoke while handling fuel. Always operate the vehicle in a well-ventilated area. Model car engines produce carbon monoxide fumes.

Hot Engine surfaces

DO NOT at any time when running or within 30 minutes of running touch any metal surfaces on the engine. Only the pull start handle, carburetor, and stop buttons can be considered safe to touch when hot.



Engine Fitment

Installation in Losi/Baja Hybrid

The DIABLO is at perfect home in a Hybrid build. That's really what we made the engine for to be honest! A Hybrid Throttle linkage is required for proper throttle and brake control with this engine. The DIABLO exhaust mounts to the engine with a flanged manifold & gasket. The pipe mounts to the manifold via o-ring sealed socket joint and mounting springs to hold it tight. The exhaust then mounts onto the Throttle servo relocation plate as with most other big bore pipes. Just drill a hole and fit the supplied rubber mount into the plate where it lines up on exhaust. You will have to cut the Losi/30N etc Roll cage as with most Big bore hybrid builds. The top rear section of the cage needs to be mostly cut away and then reinforced with an SRC Hybrid Basher bar or another brand that will fit this monster pipe. Then you will also need to cut a hole on the inside of the front wheel well for the stinger to poke through forwards.

OUTLAW HYBRID BUILDS

The DIABLO was designed and tested all around the Outlaw platform seeing as it's the pinnacle of Hybrids within 5th scale RC. Therefore fitment is very easy and installs like any other smaller engine (Zenoah or Taylor). The engine is secured via the same 3 holes underneath, the rear LH bracket and the RH Clutch side brace.

The only area that requires a change or mod is the rear shock tower. We have an off the shelf custom made Diablo fitment Outlaw Rear Shock Tower. Or you can simply remove the top bar of the tower and a little material at the bottom of the V shape of the tower to give exhaust clearance. See photo below of where the pipe sits.

DIY HYBRID BUILDS

Any DIY Hybrids that are therefore using a Complete Baja rear end and Baja shock tower, need to use the custom Diablo Baja Rear shock tower that we have created for pipe clearance. Please tell us you have a DIY when ordering your engine so we send the correct exhaust.

OCBAJA and Other Brand BUILDS

Any other brands of Hybrid kit may use a mixture Baja or Losi style rear shock towers for their design. Just note that you will need to modify the Rear shock tower to allow room for the huge Diablo exhaust to have clearance including exhaust springs.



Installation in the HPI Baja

Installation in the vehicle is straightforward. The DIABLO makes use of all normal Baja mounting positions just like a Zenoah or TAYLOR RC Big Bore engine.

An upgraded Baja throttle linkage is required for proper throttle and brake control with this engine. The DIABLO exhaust mounts to the engine with a flanged manifold & gasket. The pipe mounts via o-ring sealed socket joint plus mounting springs to hold it tight.

NOTE: For DIABLO Baja Fitment, you MUST use the Taylor Billet DIABLO rear shock tower to give clearance

The pipe then mounts to the chassis via a rubber mount which drops into an existing hole on the top chassis rail. Strongly recommend you to fit a Team Chase roll cage to your vehicle to protect the engine and expansion chamber in the event of a roll.

The Team Chase cage does require some trimming (fairly normal for big bore) and then re-strengthening with a Steel Basher bar (SRC make one that is designed for the DIABLO). See pics below. You will have to shorten the Front Right (ex side) body cage pin to make sure it doesn't hit the pipe. We have just left you enough room to get the pipe through and get a clip into the closest pin hole. You will need to cut off all extra length beyond this pin hole.



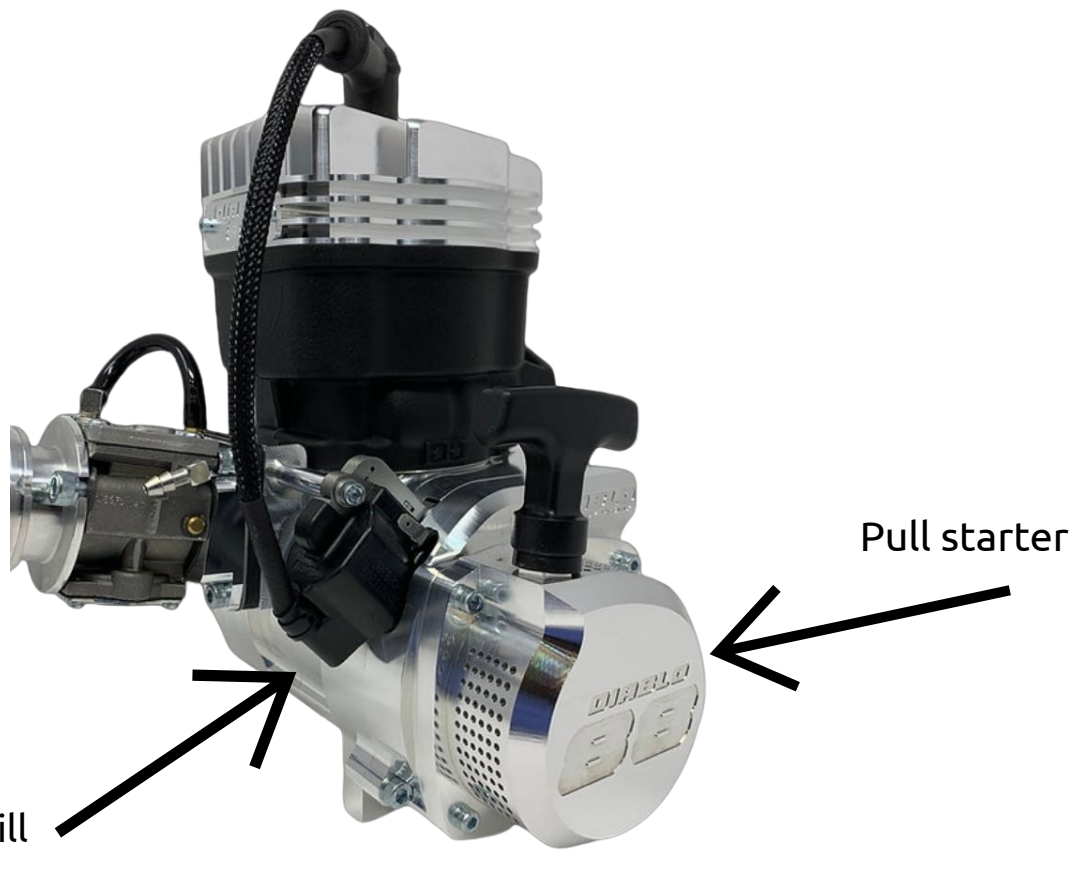
Primary drive gear (195mm Sized Tyres)

Taylor DIABLO 88: 28/46 is a great starting point. For more speed 29/45 or 30/44 will be the choice. You can find gears for the Baja on our website here: [Baja Gears](#)

Due to the considerable increase in power over the standard engine it is advisable to replace the standard drivetrain parts, such as gears and drive shafts, with heavy duty, upgrade parts. We also suggested a wheelie bar to maintain control. See below list of useful parts

Taylor RC V2 Billet Gearbox: [TAY6020](#)
Blackbone HD Transmission Gear Set: [BBR6026](#)
ALX Godzilla HD Dog bone set: [ALX6020S](#)
ALX/TAYLOR Hex Locker Drive Set: [TAY6026-05](#)
Taylor RC 7075 HD Gear Backplate: [TAY6029](#)
Taylor RC Transmission Top Plate: [TAY6006](#)
Taylor Titanium Baja Layshaft: [TAY6025](#)
[Bonehead RC](#) or [Bebop Wheelie Bar](#)
High performance [wheels and tires](#) from Taylor RC, Genesis, or BRP

Engine Starting/Break-in Procedure



Ignition coil with two terminals for remote kill switch (Zenoah Style)

Pull starter

First Time Engine Starting.

Make sure that your air filter has been oiled. When starting for the first time following engine installation, it will be necessary to draw the fuel from the fuel tank up to the carburetor. We fit the Walbro WB37 carb as standard which does not come with a priming bowl. However priming the engine is simple. Pull the engine over with you hand covering the Velocity stack to block the air flow and force the carb to draw fuel fast into itself. A clear fuel line will make this process easier. You should get a pop where it tries to start then floods. Then you can expect the engine to fire up on the next proper pull, sometimes with the aid of a small amount of throttle and choke.

The DIABLO is very easy to start compared to other big bore engines. Once the carb is primed or if the engine has been run that day. Just give it one or maybe 2 good strong pulls. The spring loaded easy starter system will do the rest. No decompression, no worries of kick back etc. If it is not starting easily, there is something wrong. Check your spark, check the engine has fuel and make sure its primed via blocking intake to carb if cold or not started for while etc.

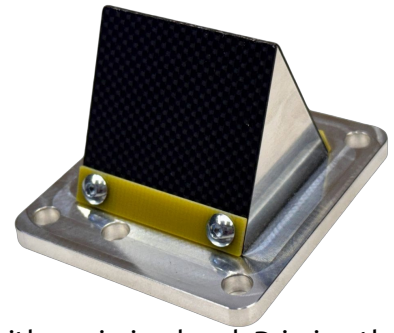
After starting the engine make sure it is fully up to operating temperature before driving the vehicle. For initial break in during the first 1-2 minutes, allow the engine to idle with intermittent blips of the throttle; then cool. For the first 1-4 tanks of fuel operate the vehicle in a large space at moderate speeds with a nice rich safe tune. This ensures there is lots of fuel/oil mix going through the motor to lubricate it with air flow over the cylinder head.

From this point on you can dial in the tune and let her true potential be unleashed as the motor loosens up!

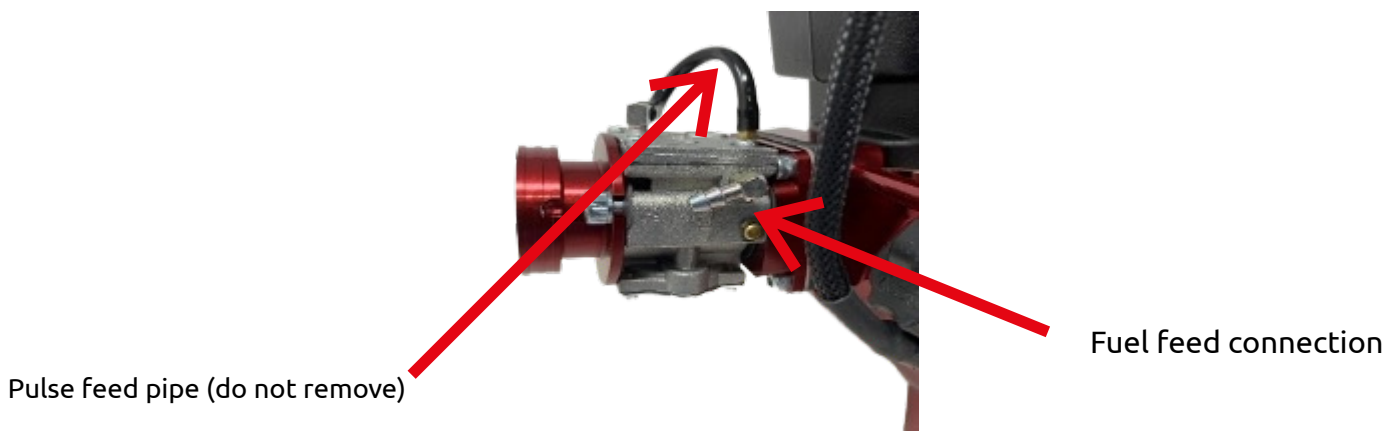
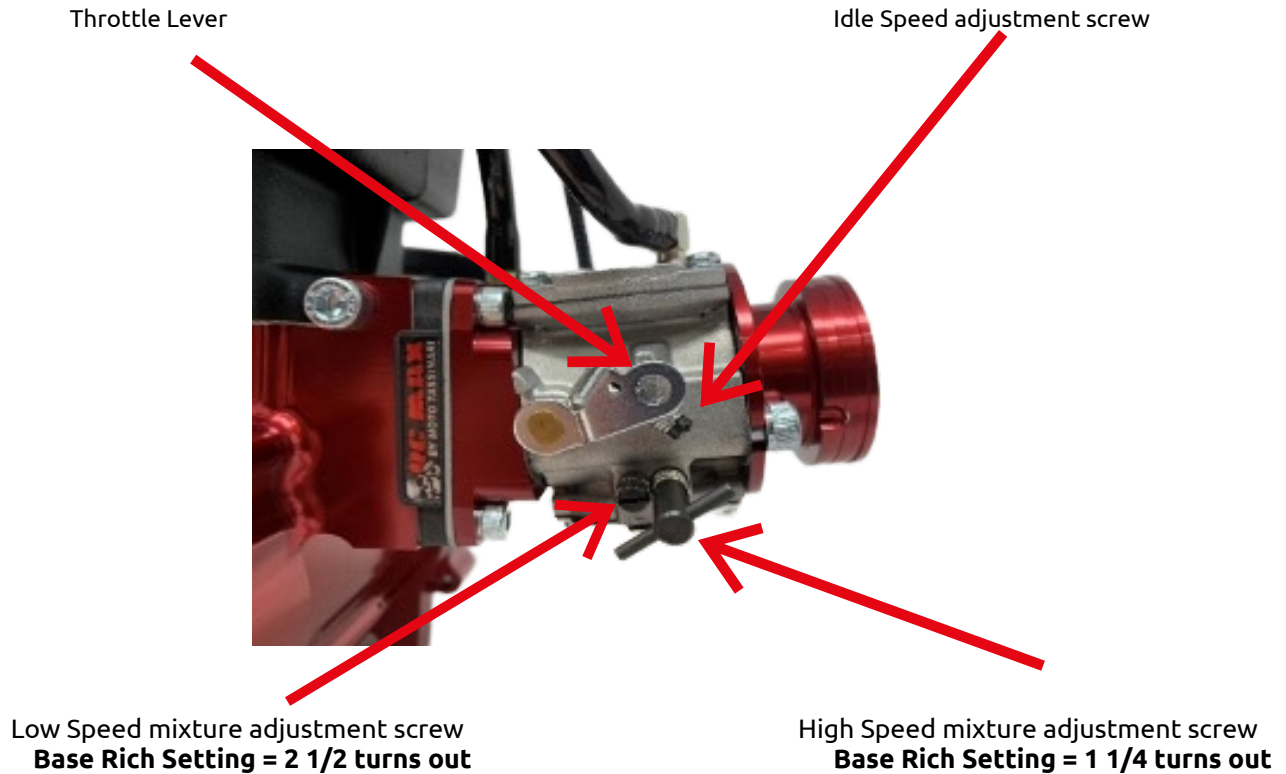
Safety note: We suggest always using ear protection during engine operation.

Taylor RC Billet High RPM Reed Valve Carb Settings

Beginning in September of 2025 all Taylor RC Big Bore engines began to include the billet High RPM Reed Valve as standard. This is a departure from the VFORCE 3 Tassinari reed block. Base needle settings for the billet reed can be viewed below. For the Tassinari reed see the following page.



The Walbro WB37 carb as standard on DIABLO 88 engines. It does not come with a priming bowl. Priming the engine is simple. Pull the engine over with your hand covering the velocity stack to block air flow and force the carb to draw in fuel into itself. It is ideal to use a clear fuel line so you can watch this process and see when the fuel reaches the carb. Then you can expect the engine to fire up, sometimes with the aid of a small amount of throttle and choke.



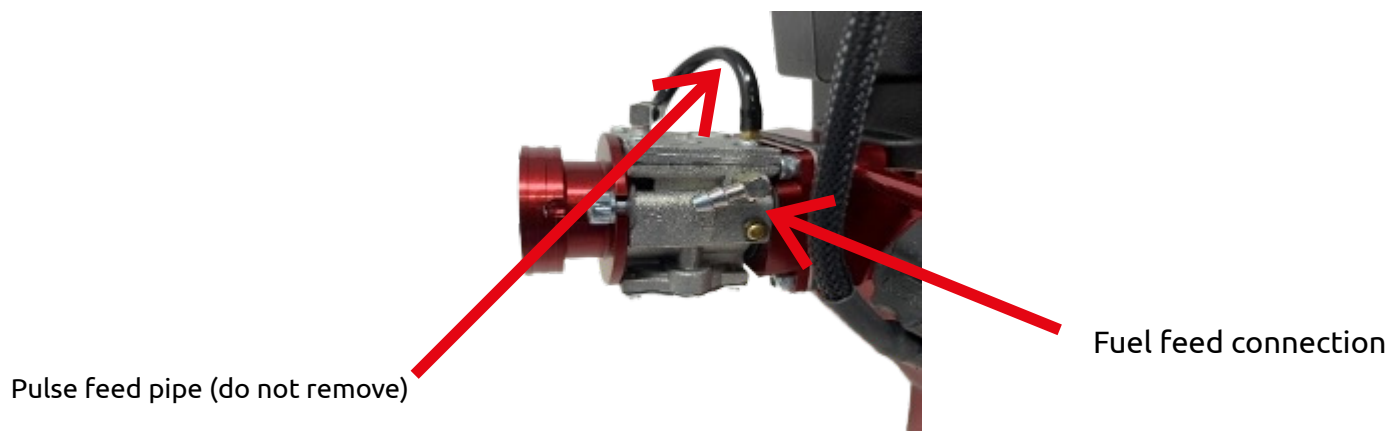
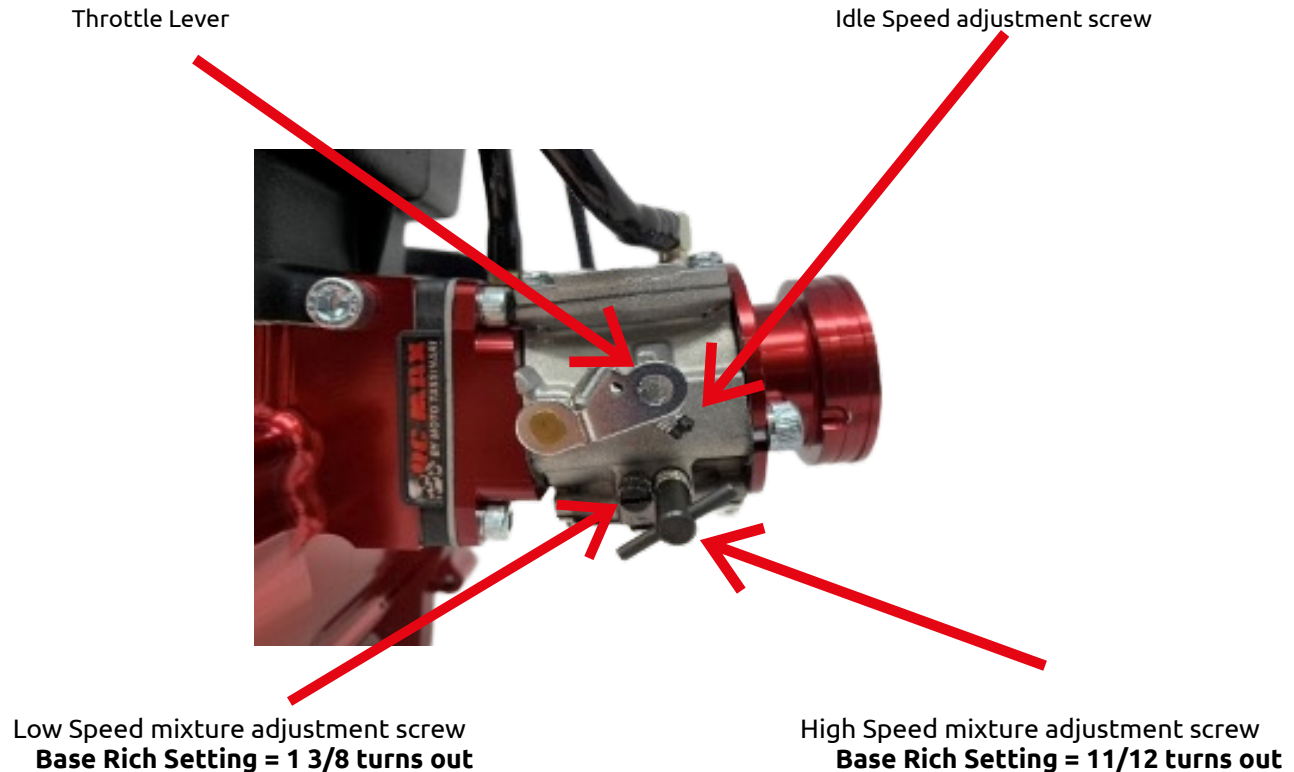
The base settings of the mixture screws may need some adjustment to suit your local atmospheric conditions e.g. temperature, humidity. If so adjustments should be made 1/16 of a turn at a time, with a test run after each adjustment. Do not exceed 1/3 turn in from the factory setting or it may result in engine damage. This carburetor has only one connection to the fuel tank. This is the fuel feed tube which must have an in tank filter fitted. There is no fuel return tube required so this should be removed and the hole blanked off using a suitable sealing plug as long as your tank has a breather, if not then fit a MX style non return breather valve in the second unused line.

Taylor RC VFORCE 3 Reed Valve Carb Settings

Beginning in September of 2025 all Taylor RC Big Bore engines began to include the billet High RPM Reed Valve as standard. This is a departure from the VFORCE 3 Tassinari reed block. Base needle settings for the older Tassinari reed can be viewed below.



The Walbro WB37 carb as standard on DIABLO 88 engines. It does not come with a priming bowl. Priming the engine is simple. Pull the engine over with your hand covering the velocity stack to block air flow and force the carb to draw in fuel into itself. It is ideal to use a clear fuel line so you can watch this process and see when the fuel reaches the carb. Then you can expect the engine to fire up, sometimes with the aid of a small amount of throttle and choke.



The base settings of the mixture screws may need some adjustment to suit your local atmospheric conditions e.g. temperature, humidity. If so adjustments should be made 1/16 of a turn at a time, with a test run after each adjustment. Do not exceed 1/3 turn in from the factory setting or it may result in engine damage. This carburetor has only one connection to the fuel tank. This is the fuel feed tube which must have an in tank filter fitted. There is no fuel return tube required so this should be removed and the hole blanked off using a suitable sealing plug as long as your tank has a breather, if not then fit a MX style non return breather valve in the second unused line.

DIABLO 88 78mm Clutch system

The DIABLO project was all about bringing power, ease-of-use and reliability into one insane new engine. So the clutch choice was very important. Based on customer feedback adjustable clutches are not preferred, so we used our Go-Ped market experience to choose the cost-effective CY 78mm Clutch

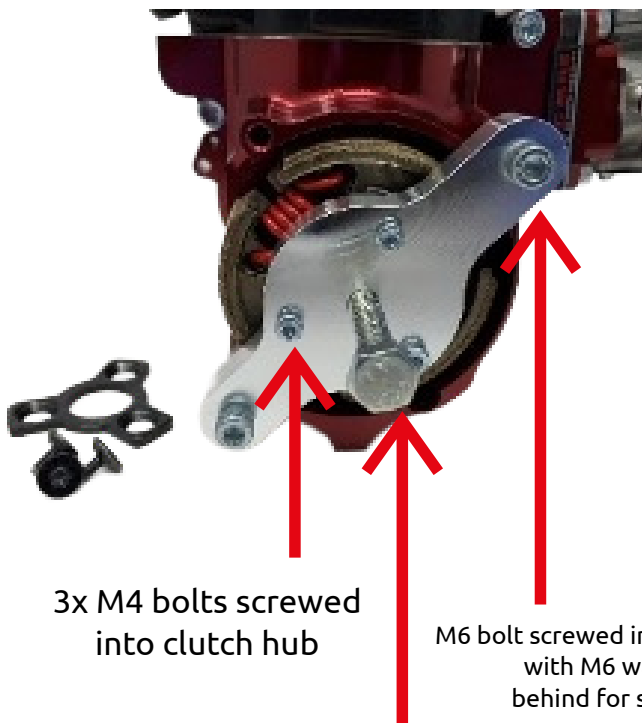
This clutch uses extremely durable fibre pads generating less heat. This big bore clutch system requires no regular adjustments. Just fit and forget.

The fitment/replacement of the clutch is simple, the whole clutch is one single replaceable unit held on by the single central bolt. You can simply check the wear by measuring the outer diameter of the clutch!



A New 78mm fibre clutch will measure around 75.9mm outside diameter. You can wear this down until the fibre pads are almost down to the metal before you need to replace it.

NOTE: There is a small hard steel taper adaptor pressed inside the clutch. Most commonly it will stay on the crank when you remove it. But if not, you will need a new one if you buy a new clutch from other 78mm clutch suppliers.



3x M4 bolts screwed
into clutch hub

M6 bolt screwed into crankcase
with M6 washer
behind for spacing

Main M8 Puller Bolt

Clutch Removal/Replacement

First remove the centre clutch bolt with a hammer gun or impact driver etc. **DO NOT use a piston stopper** instead just curl a circle of pull cord through the plug hole around the squish band to create a soft stopper.

Included with the engine is a tool designed to make clutch removal easy if required for servicing. The picture shows how to hold the clutch with the puller (once you remove the 3 TORX screws) Make sure you put the washer supplied between the puller and engine to give clearance to pop the clutch The 3x M4 bolts supplied with the puller should be screwed in by hand fully on each one till snug.

Then simply wind the central M8 bolt against the end of the crank to press the clutch off of its taper.

Fuel, Oil and Maintenance Recommendations

To ensure that you get the maximum enjoyment from this product and a good service life, TAYLOR recommends that you take a little time to clean the engine and vehicle after use. It is easy to spot a little problem such as a loose bolt on an engine mount before it becomes a much bigger problem!

It is absolutely essential that only the best quality fully synthetic two-stroke oil is used. **We recommend Putoline RS959 or Motul 800 oil but there are lots of great products on the market.**

This must be mixed at a **fuel/oil ratio of 25:1**. Only good quality **93+ Octane must be used** to prevent the possibility of detonation or seizure. Lead additive or a race fuel like VP C12 is our top suggestion

Taylor Coil Air Gap Working Range: 0.3-0.9mm, ideal setting is 0.35-0.4mm, use a **Zenoah air gap tool**.

A minimum of a dual stage air filter is very important for protecting your engine, we use **RAM Air** and the **DT1 Filters**. Proper oiling through the layers of foam is just as if not more important than the filter itself to protect in dusty conditions. Regular cleaning and re-oiling is required to keep air filtration at its best. The use of a water resistant Outerwears protective element is recommended for filtering out large debris.

Please ensure that your fuel equipment, and fuel system of the vehicle is kept in a clean condition. Dirt can play havoc with carburetors leading to much frustration and little fun. Please make sure your vehicle in-tank fuel filter is in good working order.

Due to the size of these engines, they tend to offer a longer service life from the piston and ring than you may be used to with traditional tuned RC engines. This will depend on how you use it and look after it but its not unusual for a well maintained TAYLOR Engine to go years between rebuilds.

A full range of replacement service parts is available to keep your big block powerhouse in top condition. You can view those on our website **HERE**.

If you are unsure about carrying out a rebuild, we are more than happy to do it for you for a small charge plus parts.

Please contact your dealer for advice, or service, if you are in any doubt.

Limited Warranty

What this Warranty Covers

TAYLOR RC warrants that the product purchased will be free from defects in materials and workmanship at the date of purchase by the Purchaser.

What is Not Covered

This warranty is not transferable and does not cover (i) cosmetic damage, (ii) damage due to acts of God, accident, misuse, abuse, negligence, commercial use, or due to improper use, installation, operation or maintenance, (iii) modification of or to any part of the product, (iv) attempted service by anyone other than TAYLOR or their appointed agent, or (v) products not purchased from TAYLOR or their appointed agent. (vi) the product if aftermarket components, which are not specifically approved by TAYLOR are used with the product, e.g. exhaust system.

OTHER THAN THE EXPRESS WARRANTY ABOVE, TAYLOR MAKES NO OTHER WARRANTY OR REPRESENTATION, AND HEREBY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

THE PURCHASER ACKNOWLEDGES THAT THEY ALONE HAVE DETERMINED THAT THE PRODUCT WILL SUITABLY MEET THE REQUIREMENTS OF THE PURCHASER'S INTENDED USE

Purchasers Remedy

TAYLOR's sole obligation and purchasers sole and exclusive remedy shall be that TAYLOR, will, at its option, either (i) service, or (ii) replace, any product determined by TAYLOR to be defective. TAYLOR Reserves the right to inspect any and all Product(s) involved in a warranty claim. Service or replacement decisions are at the sole discretion of TAYLOR. Proof of purchase is required for all warranty claims.

SERVICE OR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE PURCHASERS SOLE AND EXCLUSIVE REMEDY.

Limitation of Liability

TAYLOR SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES, LOSS OF PROFITS OR PRODUCTION OR COMMERCIAL LOSS IN ANY WAY, REGARDLESS OF WHETHER SUCH CLAIM IS BASED IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR ANY OTHER THEORY OF LIABILITY, EVEN IF RCMAX HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. Further in no event shall the liability of TAYLOR exceed the individual price of the Product on which the liability is asserted. As TAYLOR has no control over use, set-up, final assembly, modification or misuse, no liability shall be assumed nor accepted for any resulting damage or injury. By the act of use, set-up or assembly, the user accepts all resulting liability. If you as the purchaser or user are not prepared to accept the liability associated with the use of the Product, purchaser is advised to return the Product immediately in new and unused condition to the place of purchase.

Law

These terms are governed by the laws of England (without regard to conflict of law principals). This warranty gives you specific legal rights. TAYLOR reserves the right to change or modify this warranty at any time without notice.