



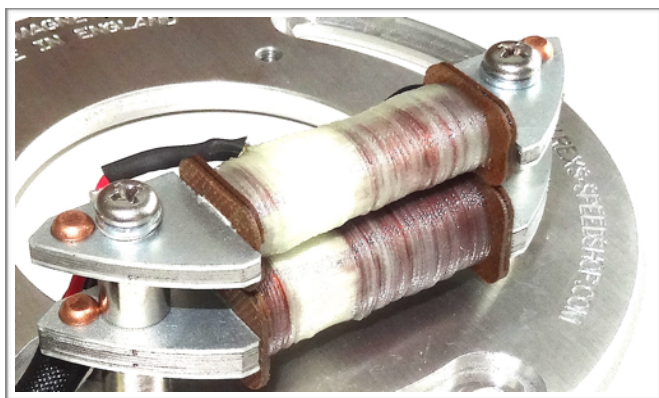
OFF ROAD ELECTRONICS DIVISION

TY250 Mono Shock Electronic Ignition RMK-5 Fitting Guide

Applicable to Clubman & Pro kits

Thank for purchasing Rex's electronic ignition kit. Its "Dual Power" stator makes it the most powerful self generating ignition available for the TY. Its designed to be simple to fit and it gives a modern, dynamic timing curve that automatically compensates for the slight timing variation between the different models. We take away all the guess work from the set up, just bolt on and enjoy outstanding performance.

Our 'Clubman' & 'Pro' electronic ignitions both feature our unique "Dual Power" source coil stator. It gives significantly more electrical energy than ignitions with only a single source winding, delivering a significantly hotter and stronger spark - right from kick starting to full throttle.



Dual power systems give more power than ignitions with only a single source coil.

'Clubman' kits have a single advance curve for "all round" Trials conditions.

'Pro' versions have a boosted "Hill Climb" timing curve (the "advance" setting) selectable via a handlebar switch in addition to the "all round" setting.

We take away all the guess work from the ignition set up - just bolt on and go.

No strobe lamp needed (standard kits). No fiddling about repeatedly removing the flywheel!

Warnings & Cautions:

Working on motor vehicles requires specialist tools, knowledge and training. Serious injuries or accidents may result if parts are not correctly fitted or adjusted. Loss, serious accident, injury or misadventure may occur where parts are modified or incorrectly fitted or adjusted or where the fitting guide or shop manual or industry standard procedures or conventions are not followed or ignored.

This guide must be used in conjunction with the Yamaha shop manual for your bike. You must refer to the latest revision of Yamaha manual for torque figures, assembly procedures and safety precautions. This guide does not over-ride any safety warnings or cautions.

Only use strobe lamps with an inductive clamp that fits around the HT lead when checking ignition timing. The type of strobe lamp that is connected between the spark plug and HT lead, interrupting the HT supply must **NEVER** be used as this type can cause the system HT voltage to rise to dangerous levels that can result in severe electric shocks which may be lethal or could cause serious injury.

People with heart conditions or those fitted with a pacemaker must not work on or adjust our ignition systems, nor work on the machine whilst the engine is running in case of electric shock from the ignition.

Please note, the index mark on the stator is **NOT** a timing mark and does not align with marks on the engine. It is there for our technicians to use when calibrating these systems.



Fitting Guide

1. Start by removing the flywheel. You will need a flywheel puller (p/n: FWP-1). A pneumatic or electric impact driver makes this job much easier. The flywheel can be virtually impossible to remove without the correct tools.

Damage to the engine and/or flywheel will be caused if you use other tools than the correct puller

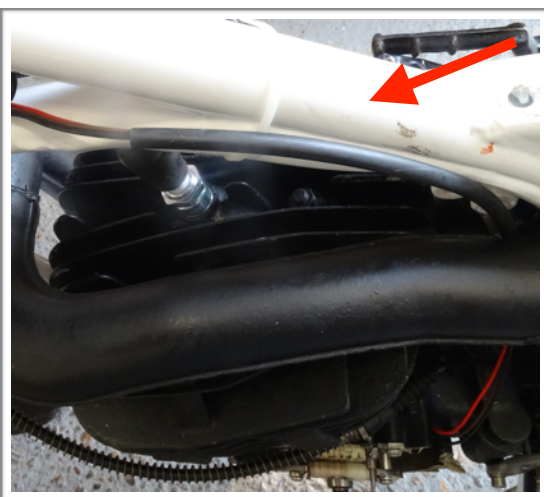
2. Undo both stator retaining screws (indicated by white arrows) and remove the stator along with the wiring.

3. Fit the electronic ignition stator with windings as shown. Use the 2 x M6 c'sunk screws from the kit to fasten it to the engine at the two mounting positions as shown.

The stator plate can be a tight fit, ensure it pulls down flat against its mounts! When the flywheel is fitted the gap must be even all the way round.

4. Fit the grommet to the engine case. Thoroughly check that the wires are pressed well back and do not rub on the flywheel. Refit the fly-wheel. Torque tighten to the specification given in the shop manual.

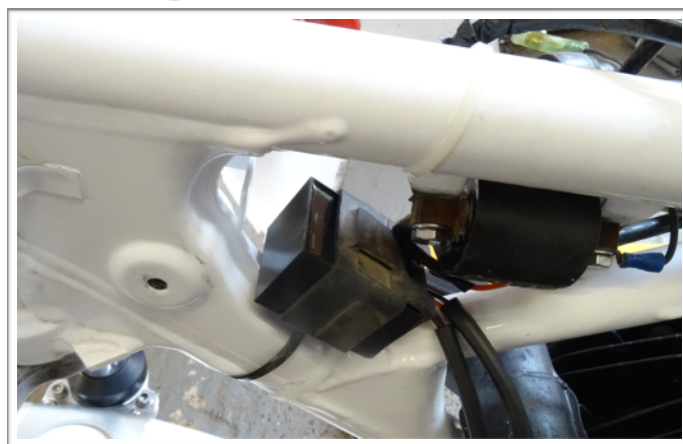
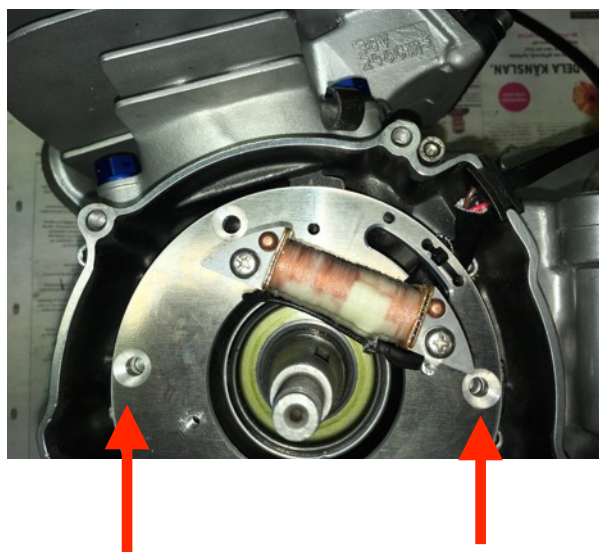
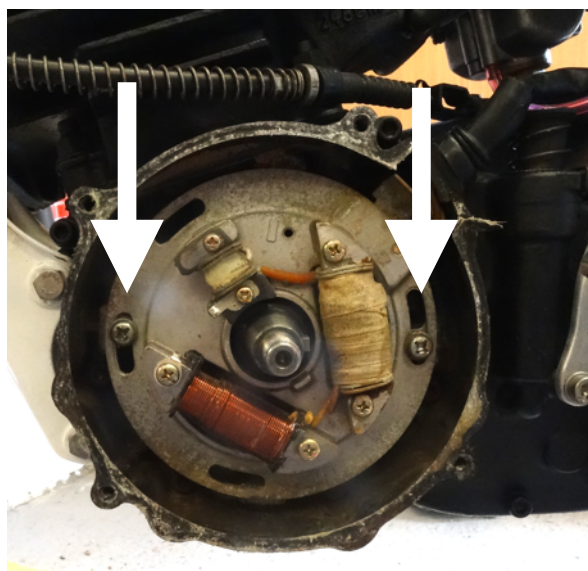
5. Route the stator wire up along the frame as shown. Secure the wires so they cannot touch the exhaust.



6. Remove the standard CDI. The new ignition unit should be cable tied in this area. We accept this is not the most elegant of solutions however we do not have a smaller version of the electronic ignition unit at this time.

7. Connect the generator wires to the new ignition unit.

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8. Mount the new HT coil with the HT lead pointing towards the rear wheel.

9. Ground the CDI unit black wire to the HT coil mounting bolt. This is also the best place to ground one wire of the kill switch.

10. Plug in the orange "hot" wire to the HT coil.

11. Connect the black/white wire from the CDI to the other kill switch wire.

12. Fit the new waterproof NGK HT cap supplied in the kit.

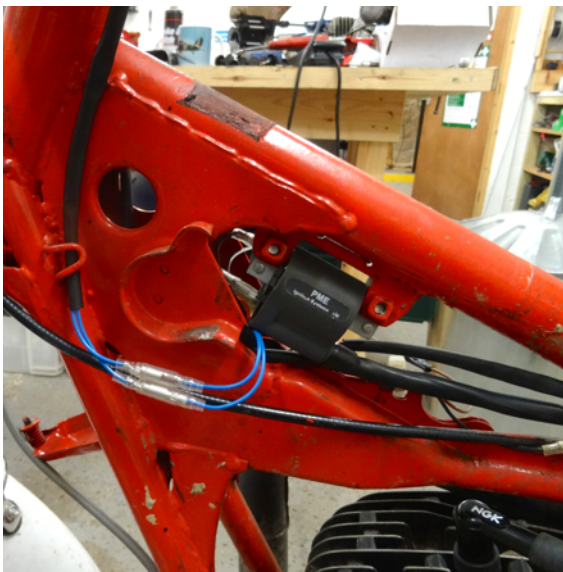
‘Pro’ versions only

Fit the switch to the handle bar, it is designed for traditional 7/8” bars. You should loop the wires under the brake lever and then along the back of the handle bars so that branches or bushes on the course don’t catch in the wire.



The switch will not fit to “fatbars” between the bar clamps.

Route the wires down and pass them around the tank mount flange on the LHS of the headstock gusset. Secure the wire to the bars with cable ties. Ensure the steering is free to move and that the wire does not interfere with or impede other controls.



Maintenance of the Dual Timing Curve Switch

The switch should be removed from the handle bars, any dirt, green sludge or corrosion removed using brake or contact cleaner at least once a year, ideally at the end of the season. The internal parts must be treated with petroleum jelly, which must be pressed in to the contacts from inside the switch housing. This will ensure trouble free operation of the ignition curve selector.

If the switch is repeatedly submerged in water the switch may need more frequent servicing. Dirty, wet or corroded contacts may cause the timing to change randomly. If a fault develops, stop riding the machine immediately and replace or repair any faulty parts before riding it again.

WARNING: Only start the engine in the “normal” position.

Warning: The throttle **MUST** be closed when switching between timing curves.

Danger: Operating the selector switch with the throttle open may cause the engine to have a power surge or falter, this may lead to loss of control and/or personal injury.

Carry out low speed practise runs on solid, level ground and learn how the engine feels when the different curves are selected.

Hill Climbing or when more power is needed. Push the front of the switch down, towards the ‘advance’ for boosted engine power. Close the throttle while operating the switch!

Normal Trials terrain. Press the rear of the switch down, towards the rider. This position should also be used for starting the engine.

The switch is shown in the standard position in the pictures above.

