



Yamaha did not seriously believe that anyone would want to fit lights to the TT500. It becomes blatantly apparent when you try and use their lighting kit that it simply wasn't well thought out and just doesn't work properly. Nowadays many owners have a requirement for proper lighting on their TT500 and the purpose of this guide is to offer sound advice with well proven and effective solutions at reasonable costs.

To start the TT500 lighting coil must be replaced with a much more powerful unit, plus a voltage regulator to stop bulbs blowing. Rex takes all the guess work out of this, we have a couple of well tried and tested options to give you a reliable 12 volt supply.

Next we look at two possibilities; if you require full road bike lighting with indicators, then a full set of XT electrical running gear is the simplest way to go. Our complete XT500 wiring loom kit WLK-1 comes with the loom, ignition switch and handle bar switch, although you still need a generator, voltage control system, lights and all the associated brackets etc.

Secondly if you don't need the complexity of the XT system its possible to build a simpler loom referring to our universal DT - XT wiring diagram, available free of charge from the tech support page of our website. The second option with all AC lights is great for the TT500 as it will allow a full UK MOT and it works with no battery. As the schematics are free of charge we will make a charge if you want our technicians to answer any questions you have regarding them.

## **Lets Start at the Generator.**

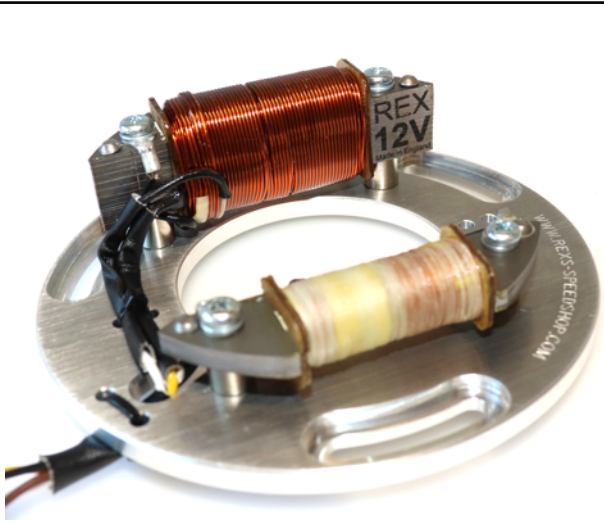
Its as good as any place to start and once you have this under control the rest of the electrical system falls in to place.

If you have one of our 'RMK' electronic ignitions this is easy, if its a 12 volt version its super simple. With the 12 volt kits you just need to connect up the wires coming from it. If using an XT wiring loom the 12 volt stator plugs straight in - no additional wiring is required. If yours is currently an 'ignition only' RMK kit our LC-1 lighting coil can be fitted to it.

We understand that electronic ignition isn't for everyone so we made our 12 volt lighting coil (LC-1) fit the stock TT stator plate. You can also fit a XT500 lighting coil. Rex's 12 volt regulator will make sure that the (6volt) XT500 lighting coil produces 12 volts so long as the XT lighting coil is in good condition. Please note an old XT lighting coil with corrosion, loose windings or missing insulation at the ends of the copper isn't going to be suitable.

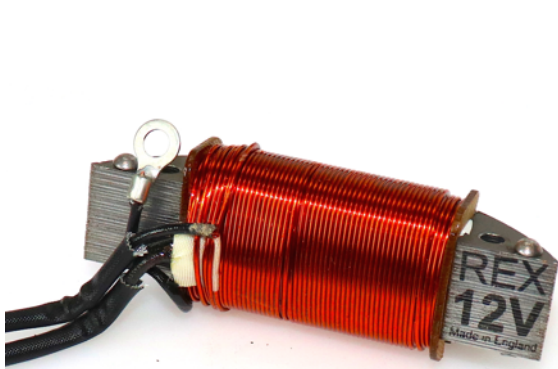
# TT500 Wiring Essentials

## Generator - choose one of these options:



A Roadster RMK-2 or the "Full Race" RMK-4 electronic ignition system. If its already a 12 volt version, great.

**If you have bought a 12 volt RMK ignition kit the regulator is included so you don't need to buy another.**

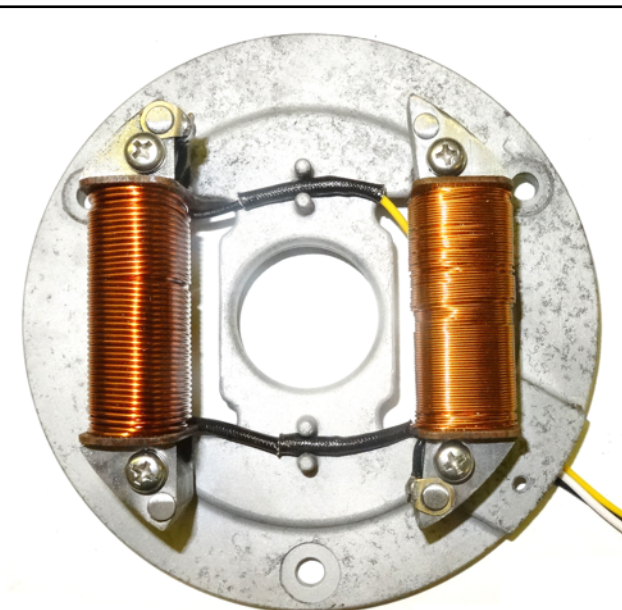


Rex's 12 volt lighting coil (LC-1)

This fits both stock Yamaha XT & TT500 stators and our billet stator supplied in our 'RMK' ignition kits.

If you have our "ignition only" kit, this part can be added to give power for lights.

**You need to buy the RR12V-1 regulator separately.**



A lighting coil from a XT500. The lighting coil is the larger on the left when mounted on the engine. The TT lighting coil is in the same position, but is much smaller.

This option is more fiddly to wire than fitting the LC-1 but if you have one in good order using it can save some money and be used to give 12 volts too.

Be sure to carefully note the wiring, make a drawing or take detailed pictures on your phone to help you re-fitting it.

**You need to buy the RR12V-1 regulator separately with this option and a hard ware kit if fitting this to our RMK stator.**

# TT500 Wiring Essentials

## Power control & storage: A regulator is a must, choose battery-less or a battery



Rex's OEM quality regulator rectifier, P/N RR12V-1 is the correct rating for the LC-1 lighting coil and is also powerful enough to convert a 6 volt XT winding to 12 volts.

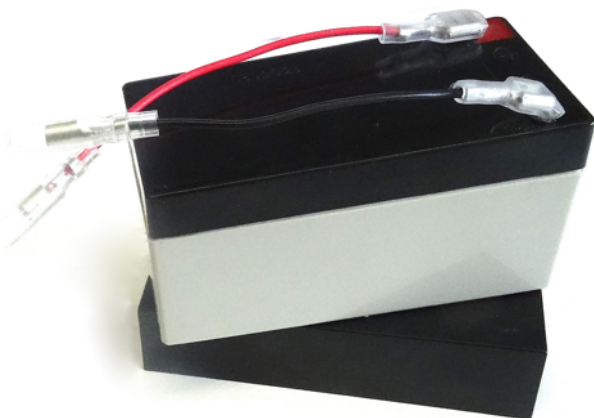
Our 12 volt RMK ignition kits and 12 volt conversions are designed to work only with this part.



Choose battery-less with an eliminator. The regulator must always have a battery or a battery eliminator connected even if you are only using the AC lights.

Battery eliminators are recommended only for off road competition machines.

P/N: BE-1 is the recommended eliminator



A battery will make the system more suited to road use than running battery-less but the TT 500 is not well equipped as there never was a battery carrier fitted. With a battery you have the option of lights when the engine isn't running.

The largest battery: Motobatt MB3U.  
The smallest is our DT12V-Batt.

Due to shipping regulations batteries cannot be exported outside the UK.

# TT500 Wiring Essentials

## To recap:

1. Fix the generator so it produces enough power. This can be one of our 12 volt ignition kits or a modified TT500 stator.
2. Select a wiring loom option. You can download for free a stripped down XT universal wiring diagram from the Tech Support page of our website. Alternately we can supply a XT500 wiring kit.
3. Add the lights and accessories you need. The XT500 is a great reference source for what you may need.

## FAQ

### 1. Do I need a battery?

-No, an all AC system can run with a battery eliminator. You do need one or the other.

### 3. Can I add a battery?

-Yes. The battery eliminator can be replaced with a small 12 volt AGM sealed battery

### 4. Can I use the TT500 lighting coil if I have it rewound or add a different regulator?

-No. This must be replaced, it is not possible to run road lighting with the TT500 winding.

### 5. Can I use the wiring loom from the Yamaha TT500 lighting kit?

- No. The wiring TT500 loom Yamaha supplied is completely unsuitable for road lighting, the only realistic option is to replace it. A free to download wiring diagram is available from the Tech Support page on our website. Its for XT & DT models.

### 6. What headlamp bulb can I use?

-The most common are 45/45W APF fitting, or a 35/35 halogen in either H4 or MPF fitting.

### 7. Can I use a LED headlamp?

-No. The headlamp runs on AC power and this will cause problems with LEDs so it is not recommended to use LED headlamps. Use only filament bulbs in the headlamp.

### 8. Can I use LED tail lighting?

-In theory yes. However as LEDs are not the recommended option any problems will be yours to fix.

### 9. Do I need to do any wiring?

-Yes, so you should be confident with electrics.

### 10. Can I have indicators?

-Yes, the easiest way is to use XT500 wiring loom kit (P/N WLK1).

### 11. Can I use a lithium battery?

-Any battery you connect must be able to accept the output of a charging system designed for lead acid battery technology. This system is a split AC/DC and while vastly superior to the old AC regulators used in the 1970s and 80s, BUT it is still a basic system with wide voltage control tolerances.

For safe, trouble free operation a small lead acid AGM technology battery is recommended.