

About our 12 volt conversion and what's involved

These machines are iconic motorcycles but although there are plenty of parts to make the bike run and handle better, in the past you were stuck with a glow worm for a headlamp. Our 12 volt conversion changes that, giving a much brighter headlamp and more reliable indicators. We have devised a way of doing this that is easy to fit, cost effective and blends seamlessly in to the bike's electrical system so that apart from a couple of crimp connectors there is no wiring to do!

This kit is intended to convert standard Yamaha electrical systems so the generator will supply 12 volts, power up to a 45 watt headlamp with battery & full street lighting or a 55 watt headlamp with just a rear position marker lamp and no battery. It comes with a new 12 volt winding, 12 v regulator/rectifier, wiring, terminal & hardware kit. You will need to purchase a 12 volt battery (or eliminator), bulbs, indicator relay & horn separately. We offer accessory packs with bulbs, horn and indicator relays that offer a saving over buying the parts separately. Also we stock wiring supplies, batteries and vintage Yamaha connectors.

**There are no changes to the ignition which remains as standard in all cases.
This kit will also fit our own "RMK" electronic ignition conversions**



First - the problems

DT/IT/MXs have good interchangeability between generators meaning you can swap them between different engine sizes and years. Yamaha also issued many service bulletins that altered the original generator so it is entirely possible to find you have a modified or different generator to the one listed for your model. Over the years Yamaha experimented with different lighting coils and had dealers rewind them to different specifications or even add extra wires or extra coils which means there is no sure way of knowing what is actually fitted or how good the output from it is - this is why it is not possible to simply add a 12 volt regulator to convert to 12 volts on these bikes.

The answer is a standard lighting coil that fits all generators Yamaha used on these models. We have designed a high output 12 volt lighting coil that replaces all the 6 volt versions. For simplicity we use a full wave, combined regulator/rectifier which gives better charging and makes altering the wiring straight forward - so easy in fact that there are no complicated wiring diagrams to follow.

The key to keeping the job simple is to first identify what system you actually have. The way to do this is look at the wires coming from the generator. If there are two green wires and a yellow this is an 'early' system. Late systems (1977 on) have just one green and one yellow wire. Our kit is equally simple to fit to both versions. Ignition type has no affect on the lighting system.

Batteries

If the standard bike has a 6N2-2A or a 6N4-2 battery we have very small 12 volt battery (part number DT12-1.2) that will fit in to the smaller carriers. The MB3U is a 12 volt direct replacement for the 6N6-6 that used on later models.

Another option is a battery eliminator (BE1 or BE2), this neatly avoids having to modify the battery carrier, but consider that lights and indicators will not work well with the engine below 2,000 RPM when using a battery eliminator. Again its good to decide which way to go first, before starting.

IT models have their own kit with a battery eliminator included - so there is no need of a battery. The kit part number is "IT-12VC". A DC supply is available if needed which will run mobile or sat nav chargers.

One final thing to watch for

Many early DT systems will have had a 6 volt AC voltage regulator fitted under a factory recall or by a previous owner to stop bulbs failing. You may find that there is a voltage regulator tucked away on you bike when the parts list and manual state that there is none fitted to that particular model. Dealing with this is very simple: remove the offending regulator.



What's involved in actually fitting the kit?

Difficulty rating:



Fitting the parts is straight forward. First we deal with the generator itself. The old lighting coil, including any auxiliary lighting coils and wiring are removed.

Next, the new lighting coil is mounted where the old main lighting coil was fitted. The new wires are combined with the wiring loom and the new crimp terminals added.

We supply all the crimp terminals needed in the kit, also new retaining screws for the winding and even a new rubber grommet to seal the generator case.

That covers the generator, which can now be refitted. No changes to the ignition are needed.

Wiring

First the 6 volt rectifier is removed, along with any 6 volt regulators fitted.

The new solid state regulator/rectifier is fitted to where the old rectifier went. The 2 rectifier wires are ready crimped and will simply plug in to the bike's existing connectors.

There are two crimps for you to do, the earth wire and the yellow lighting wire.

And thats it, done. All thats needed now is a 12 volt battery, bulbs, horn and indicator relay. The standard wiring loom is fine with 12 volts. The fuse remains the same as standard too.

What tools will I need?

In addition to a normal tool kit you'll need a flywheel puller (order number: FWP-1), multimeter (order number: TM-2) and crimping pliers for Japanese bullet connectors (order number: CP-Pro). Removing the flywheel is much simpler if you have an air or electrically driven impact driver.

Finally

You may wish to have us install the new lighting coil for you. We can also fully refurbish your stator at the same time, adding new leads and connectors and rewinding the ignition coils on our CNC winding machines so the whole stator will be as new - leaving you just a simple wiring job to do. Some examples of our work:

