



# Rex's Speed Shop

Robertsbridge - England

## XR400 - X650 Replacement Stator Fitting Guide

Covers options: Standard Output - Increased AC & DC - All DC High Power



**RM** **STATOR** 

This stator can be configured in five different ways, including as a standard, drop in replacement giving the same power as stock. Wiring must be done by a qualified and experienced motorcycle electrician. The unit can be damaged if used in an application other than specified, incorrectly connected, subjected to low quality connections or used with other voltage regulators.

**Warning: Lithium batteries must not be used with this equipment.**

**Warning: This fitting guide does not over-ride warnings or cautions given in the OEM shop manual. The OEM wiring diagram may be needed to refer to, the owner must ensure they have this available.**

## 01 Replacement for OEM stator with original lighting system

Order standard kit

## 02 Single 200 Watt high power AC lighting output

Order standard kit

## 03 Using OEM lighting circuit with additional 100W lighting circuit

Order standard kit

## 04 Split 100W AC Lighting / 100W DC Charging Outputs

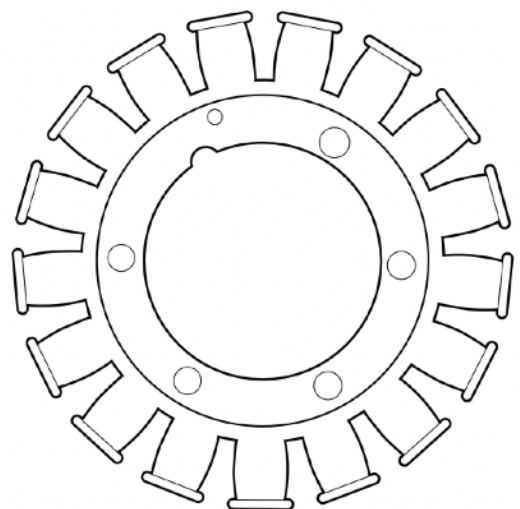
Order DC kit **RM01023DC**

## 05 Single 200 Watt high power DC charging output

Order DC kit **RM01023DC**

### 200W Stator Specifications

- Alternator - Green to white 0.6 Ohms +/- 5%
- Source - Black/red to brown 100 Ohms +/-5%
- Pick-up - Blue/yellow to Green/red 230 Ohms +/-5%
- Diameter OD 115mm
- Diameter ID 54mm
- Thickness (at centre) 15mm
- AC Regulator: RG12V-4
- DC Regulator/rectifier: RR12V-10





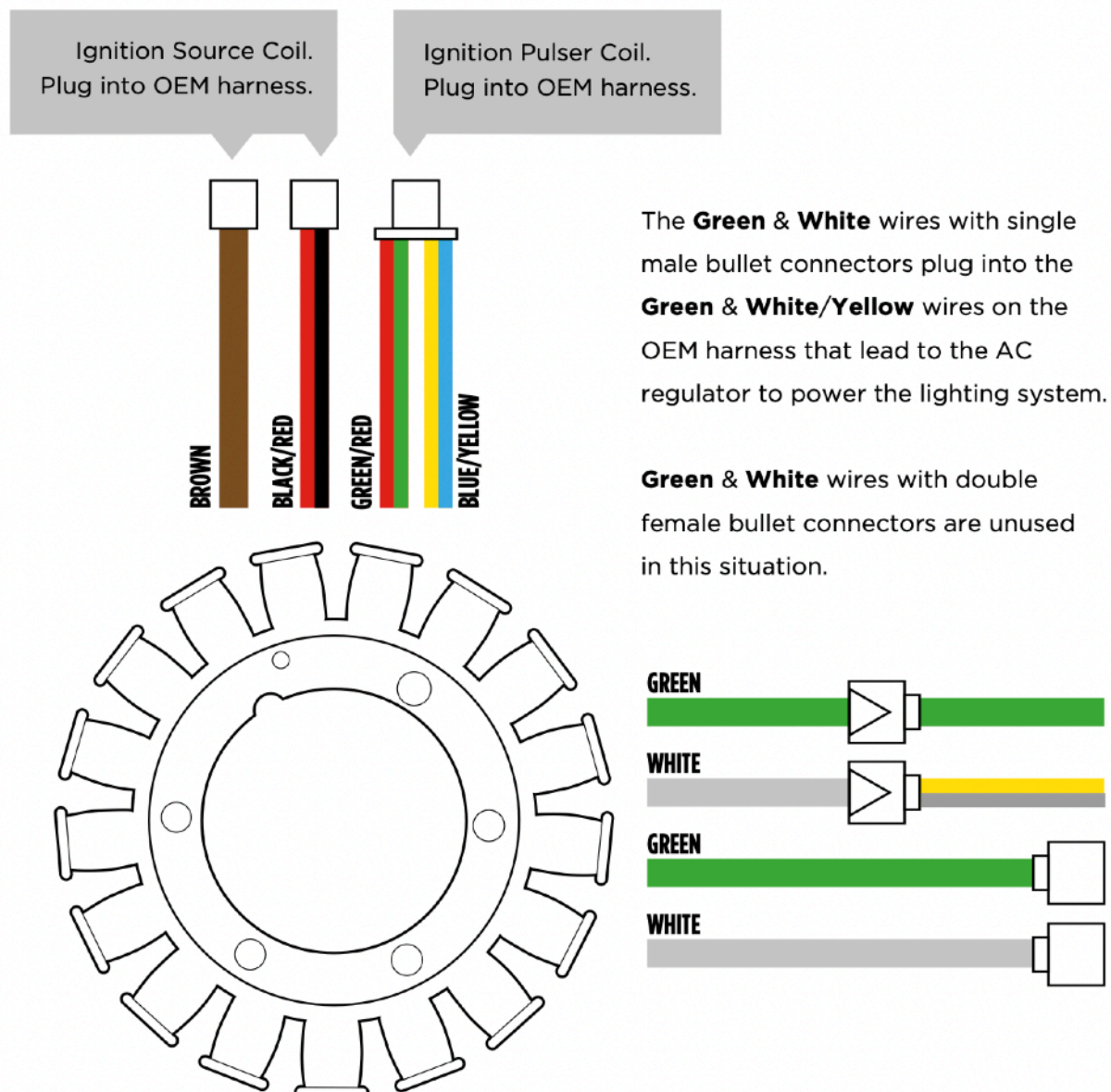
## 01. Use as a Standard Replacement Part

An OEM North American Honda XR400R/XR650R stator has a single floated (not grounded) lighting coil. Our stator is compatible with an original stator, but it has 2 completely separate floated (not grounded) 100W lighting/charging coils. This allows the stator to be used for many kinds of lighting systems, and even on non-North American models. See the diagrams below for various ways to use the stator.

### Replacement for OEM stator with original lighting system

This situation is very easy to connect, just like the OEM stator. One of the 100W coils is used to power the lighting system on the bike. The other coil is unused (insulate and tie up the unused connectors safely).

**The regulator supplied in the AC/Standard kit can be used as a spare part to replace a failed OEM AC regulator. Note it gives only regulated AC power, no DC!**

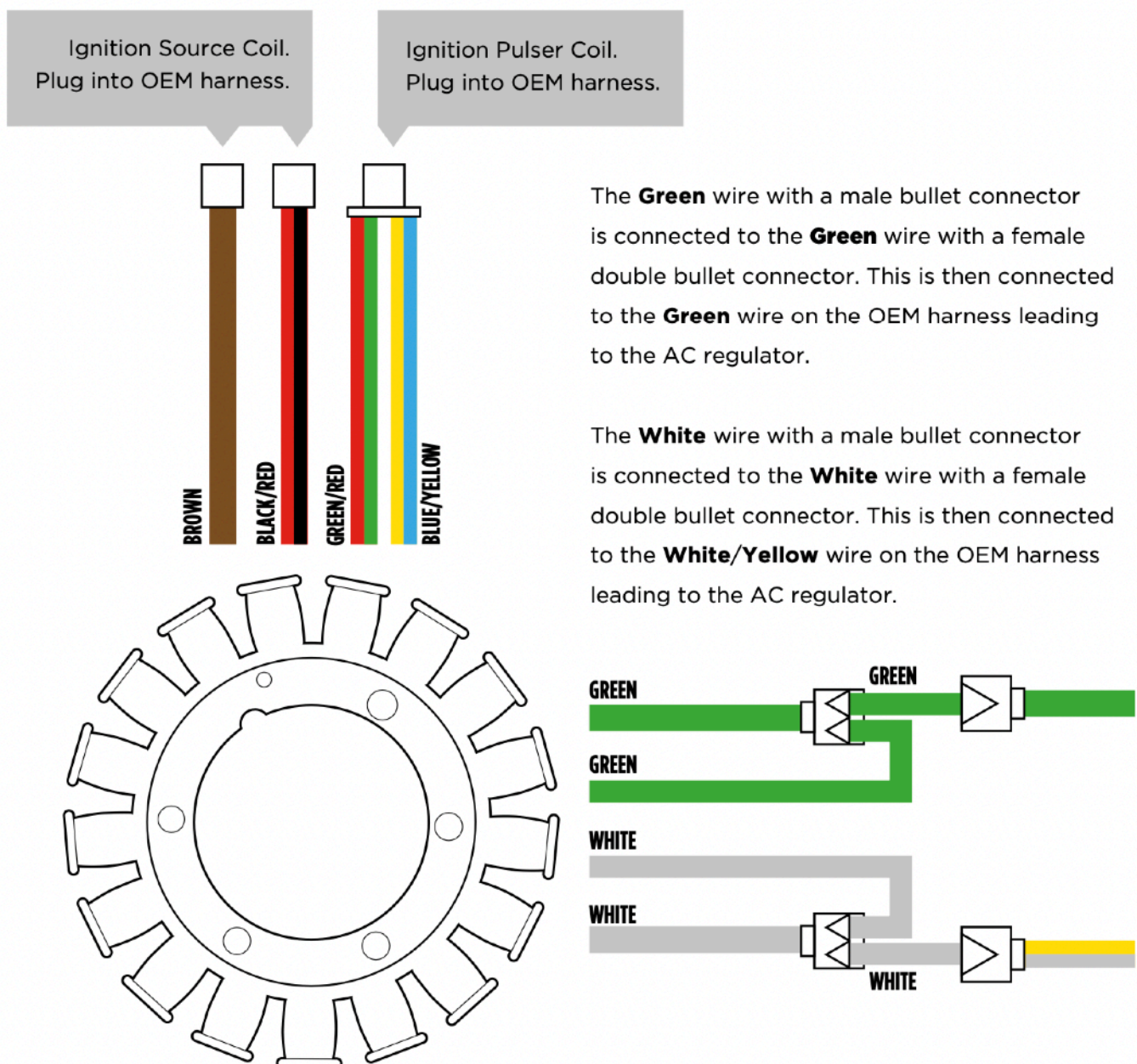




## 02. Single 200 Watt high power AC lighting output

This situation is used to power high wattage lights. You are effectively connecting the 2 separate 100W coils in series to create a single 200W coil. The diagram below shows connection to the bikes OEM harness to power a high wattage light with AC current from the stator.

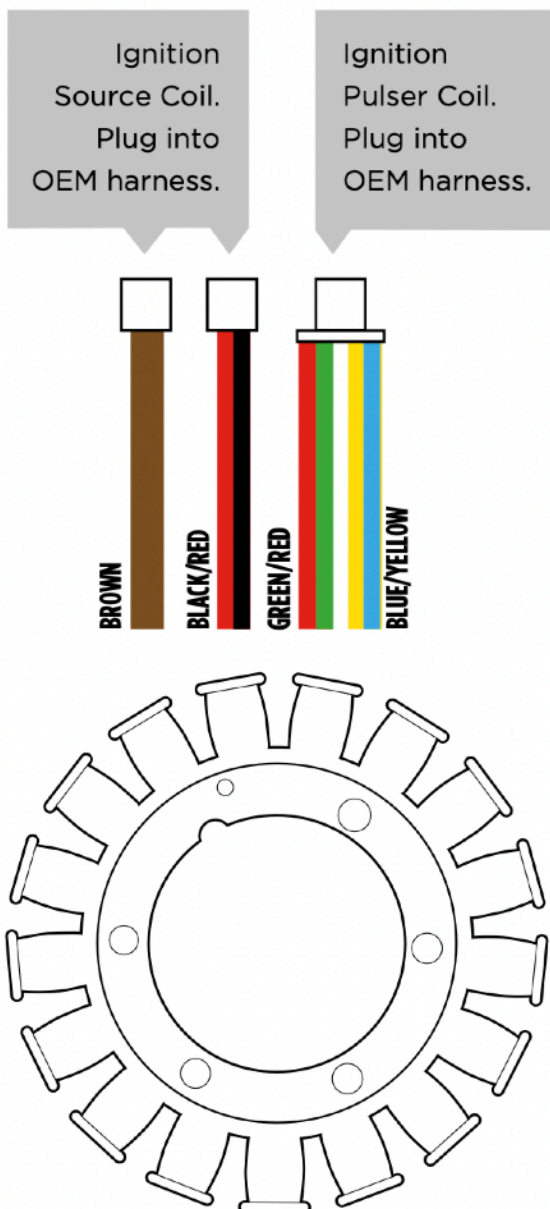
**The OEM regulator MUST be replaced with the high output AC regulator supplied in the kit when connecting the stator for full power! The OEM unit will fail in a short time!**





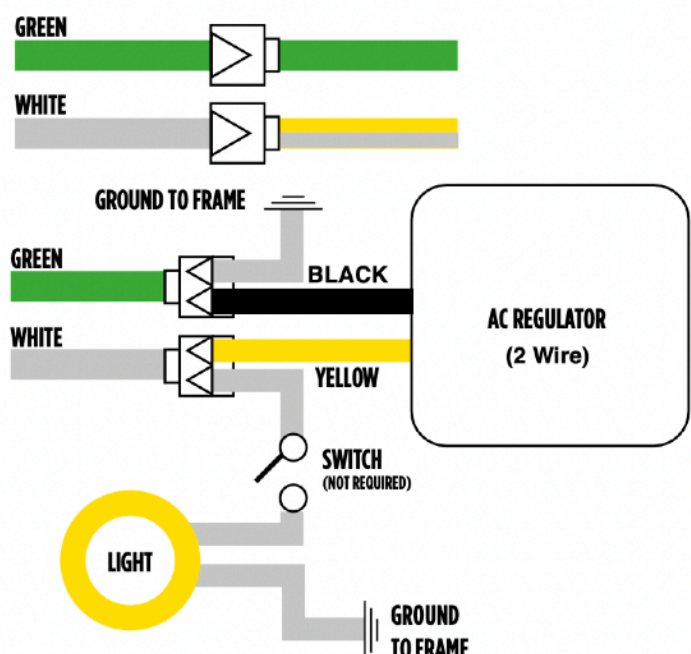
### 03. Using OEM lighting circuit with additional 100W lighting circuit

This situation is very similar to the previous page using the OEM lighting circuit, however you are also taking advantage of the additional 100W lighting circuit available. In this case one coil is plugged into the OEM wiring harness. The other coil will require it's own AC regulator, and if you would like, a switch to control your additional light.



The **Green & White** wires with single male bullet connectors plug into the **Green & White/Yellow** wires on the OEM harness that lead to the AC regulator to power the lighting system.

The **Green** wire with female double bullet connector connects to frame ground and the **Brown** wire for your new AC regulator. The **White** wire with female double bullet connector connects to the **Yellow** wire on your new AC regulator, and then on to your new headlight. You can insert a switch in this circuit if you'd like to turn on/off your new light.





Order “DC” version of the kit for options 04 & 05 (P/N: **RM01023DC**)

#### 04. Split 100W AC Lighting / 100W DC Charging Outputs

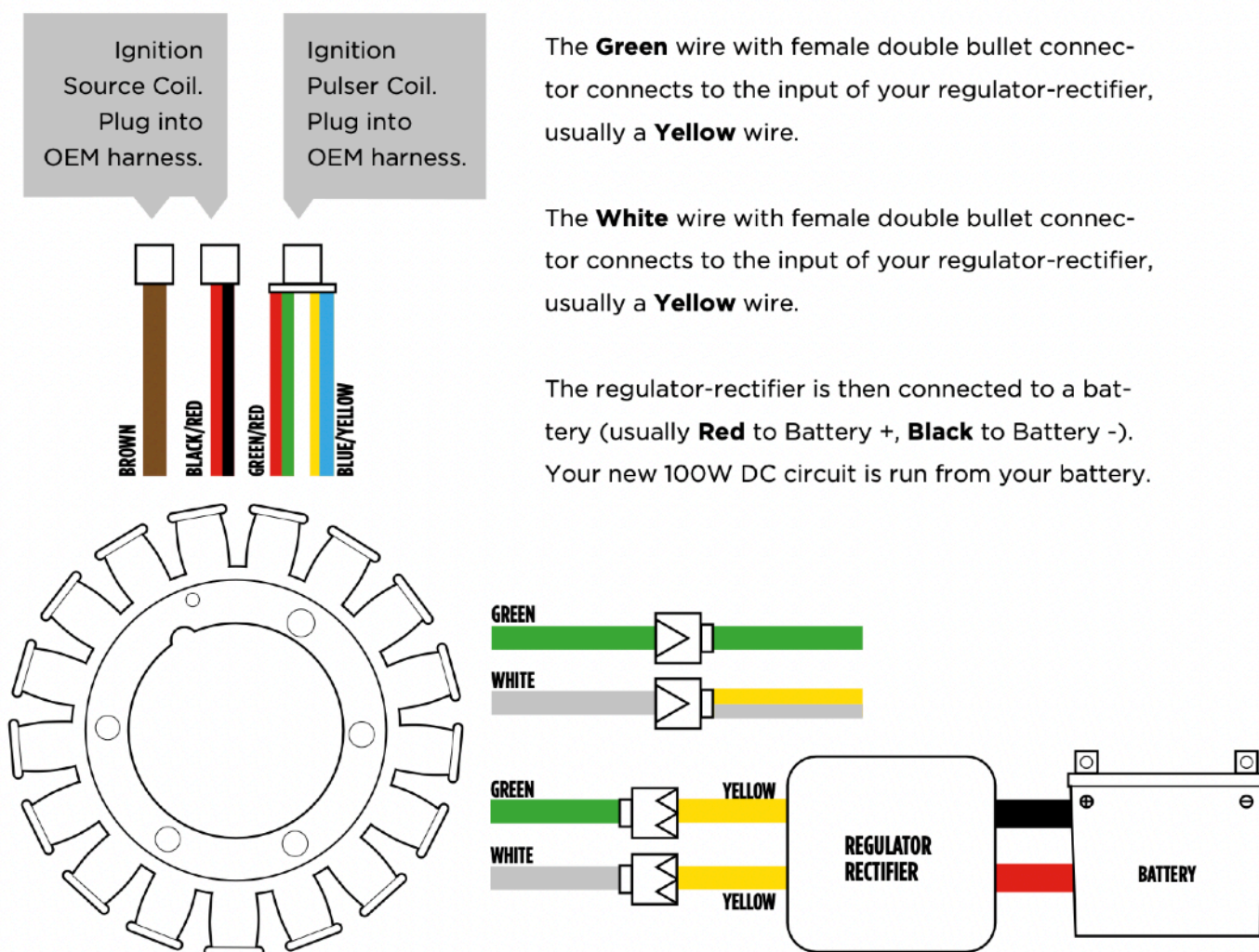
This situation is unique and takes full advantage of this stator design. Since you have 2 completely separate floated (not grounded) 100W coils available, you can use one to power your original lighting system and the other to charge a battery for a DC circuit. You will need to add a regulator-rectifier and a battery for this circuit. The DC circuit can be used for HID or LED lighting or to power your phone, GPS, heated gear and more! This situation is similar to the non-North American XR650R configuration.

The **Green & White** wires with single male bullet connectors plug into the **Green & White/Yellow** wires on the OEM harness that lead to the AC regulator to power the lighting system.

The **Green** wire with female double bullet connector connects to the input of your regulator-rectifier, usually a **Yellow** wire.

The **White** wire with female double bullet connector connects to the input of your regulator-rectifier, usually a **Yellow** wire.

The regulator-rectifier is then connected to a battery (usually **Red** to Battery +, **Black** to Battery -). Your new 100W DC circuit is run from your battery.



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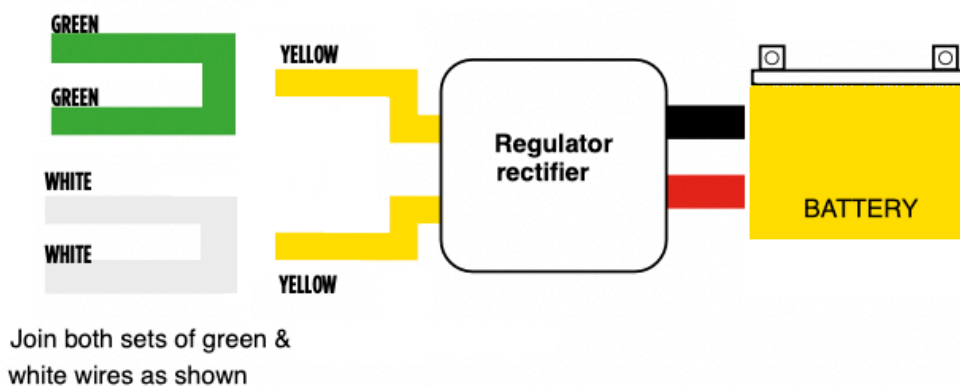
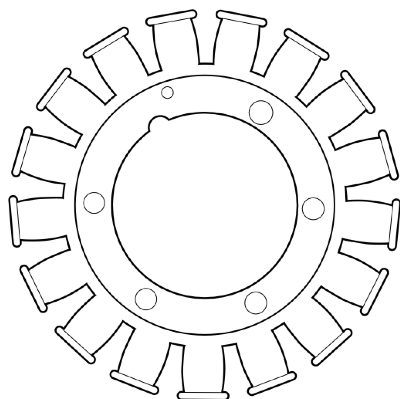
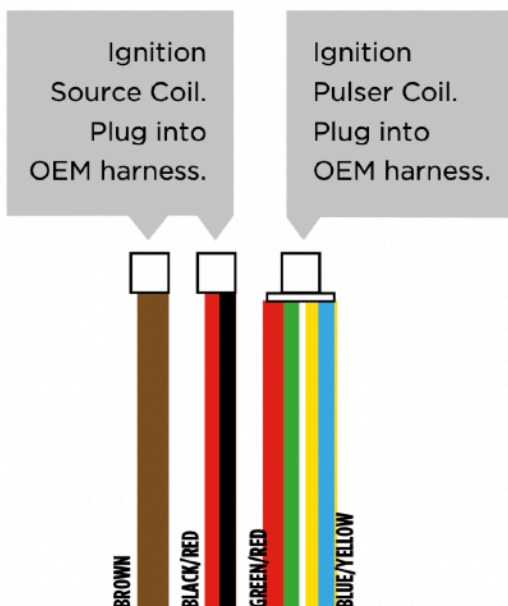
#### 05. Single 200 Watt high power DC charging output

This situation is used to power high wattage lights that need a battery for DC current, often LED or HID lighting. You are effectively connecting the 2 separate 100W coils in series, to create a single 200W coil. You will connect the output of the 200W coil to a regulator-rectifier that charges a battery. Your lighting will be powered from the battery. This situation will require custom wiring and components, as the XR650R was never set up this way from the factory.

The **Green** wire with a male bullet connector is connected to the **Green** wire with a female double bullet connector. This is then connected to the input of the regulator rectifier usually a **Yellow** wire.

The **White** wire with a male bullet connector is connected to the **White** wire with a female double bullet connector. This is then connected to the input of the regulator rectifier, usually a **Yellow** wire.

The regulator-rectifier is then connected to a battery (usually **Red** to Battery +, **Black** to Battery -). Your new 200W DC lighting circuit is run from your battery.



**Option 05 converts the entire bike to DC power. Use with LED lights.**