



The RMS900-105941 kit is a high power 90 Watt stator & regulator charging system for Honda CRF450X models. The stator and voltage regulator are easy to install, and fit just like the OEM parts. The primary advantage of this kit is the DC headlight conversion. With a single wire to install, the headlight is reconfigured to be powered from the battery, supported by the more powerful stator, resulting in brighter and more stable light output at all engine RPM.

The voltage regulator includes an internal relay to control a DC lighting circuit for bikes with no key or light switches. The lighting relay will automatically turn on when the motor is running, and turn off with the motor, so there is no need to worry about leaving your light on and killing your battery! The relay delay can be adjusted to keep your light on for various lengths of time after turning off the motor. The regulator also features an adjustable output voltage to fine tune your battery charging circuit. See the last step in these instructions for adjusting these features.

Follow these **twelve (12)** steps to successfully install your new AC to DC conversion kit:

- |   |  |  |  |
|---|--|--|--|
| <b><u>01</u></b> Remove seat and gas tank     | <b><u>02</u></b> Unplug stator connectors    | <b><u>03</u></b> Remove OEM regulator            | <b><u>04</u></b> Install new regulator                         |
| <b><u>05</u></b> Remove stator wiring harness | <b><u>06</u></b> Remove OEM stator           | <b><u>07</u></b> Reinstall stator cover to motor | <b><u>08</u></b> Remove headlight                              |
| <b><u>09</u></b> Remove the Blue wire         | <b><u>10</u></b> Tape the Blue wire terminal | <b><u>11</u></b> Secure new wires                | <b><u>12</u></b> Adjust regulator relay delay & output voltage |

## **STEP 01** Remove seat and gas tank

Remove seat and gas tank/shrouds.

## **STEP 02** Unplug stator connectors

Unplug stator connectors (2). They are on the left side of frame, behind radiator.



## STEP 03 Remove OEM regulator

Remove OEM regulator with single 10mm mounting nut. It is mounted to bottom front of the airbox behind the rear shock. Unplug regulator connector inside air filter hinged cover on left side of bike.



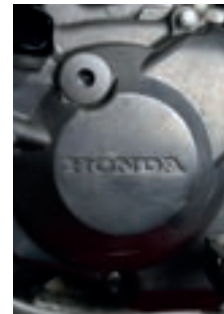
## STEP 04 Install new regulator

Install new RMSTATOR regulator using 10mm mounting nut. Orient with adjustment pots towards the top, so they are accessible. Route wires along subframe under airbox cover, and plug in to harness.



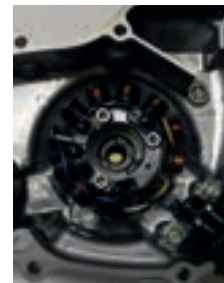
## STEP 05 Remove stator wiring harness

Remove stator wiring harness from routing through the frame, so it is loose and can move freely with left side stator cover. Drain crankcase oil, or lay bike down gently on right side. Remove (8) 8mm mounting bolts for left side stator cover (one mounting bolt is the top bolt of oil filter cover). Remove left side stator cover from motor.



## STEP 06 Remove OEM stator

Remove OEM stator from left side stator cover. Use #3 phillips screwdriver to remove stator mounting bolts (3), they can strip easily if wrong size screwdriver tip is used. Remove 8mm pickup coil mounting bolts (2). Install new stator and reuse hardware, making SURE to use threadlocker compound.



## STEP 07 Reinstall stator cover

Reinstall left side stator cover to motor, using new gasket and RTV gasket sealer as needed. Tighten 8mm mounting bolts evenly. Make SURE to refill crankcase oil if necessary. Route stator wiring along original path to connectors on left side of frame behind radiator. Plug in stator wiring harness connectors.

## STEP 08 Remove headlight

Remove headlight, and unplug 3-wire headlight connector.

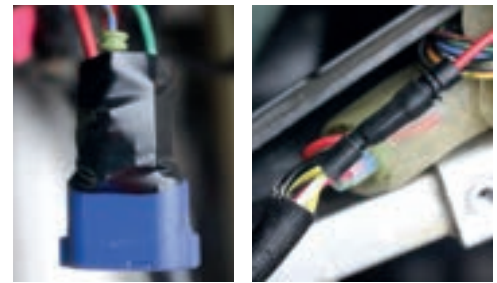
## STEP 09 Remove the Blue wire

Using a small screwdriver or pick, de-pin and remove the Blue wire from the 3-wire headlight connector.



## STEP 10 Tape the Blue wire terminal

Tape or heatshrink the Blue wire terminal, and secure to connector. It provided AC power to your headlight, and will no longer be used. Insert the included Red wire into the previous location of the Blue wire in the 3-wire headlight connector. 2005-2007 models will use the Red wire with Male terminal. 2008-2017 models will use the Red wire with Female terminal. Run the Red wire back along frame to the regulator connector area. Plug the Male bullet terminal into the individual White wire from the new voltage regulator harness. This provides DC power to your headlight.



## STEP 11 Secure new wires

Secure new wires as necessary with zip ties. Reinstall headlight, gas tank, and seat. You're ready to ride with new battery powered lighting, and high output charging system installed!

## STEP 12 [OPTIONAL] Adjust regulator relay delay & output voltage

The voltage regulator has adjustable dials for the lighting relay delay and the output voltage. This lets you fine-tune the amount of time your lights stay on after turning off the motor, and your charging system output. Each adjustment can be made by gently turning the adjustment screw with fine tip Phillips screwdriver. Be careful while making adjustments, the screw can strip easily.



When mounted on the bike, the relay delay adjustment is on the bottom. The voltage adjustment is on the right. The adjustment procedure is as follows:

### Lighting Relay Delay:

Turn clockwise to decrease amount of time lighting stays on when motor is turned off. Turn counter-clockwise to increase amount of time lighting stays on when motor is turned off.

### Output Voltage:

*This is generally not necessary to adjust, the factory setting will work fine for most applications. You can damage your battery with too high of a voltage. RM Stator is not liable for any damage caused from improper adjustment!* Turn clockwise to increase the output voltage. Turn counter-clockwise to decrease the output voltage.