

Troubleshoot

Stator



Requirement

Multimeter



The charging system is composed of 3 major components:

- Stator
- Rotor
- Regulator

The stator is the static part attached to the front cover of the engine.

On Kavinci Engine, the rotor is the flywheel.

These 2 components together convert the magnetic field in a AC Voltage.



Figure 1: Stator

To finish the regulator bolted on the Kavinci E-Bar Converts the AC Voltage in DC Voltage to Charge the battery when the engine is running.



Figure 2: Kavinci Regulators

1. Test GROUND Short Circuit

1. Disconnect the 3 Pins Deutch Connector
2. Take a multimeter set in Continuity or Ohm (“Ω”)
3. Test the continuity between each Phase of the Stator and the Engine (Bolt on the engine for Example)
4. Result of the Continuity test :

Black probe Red probe	Engine
Stator - Phase U	No Continuity or “OL”
Stator - Phase V	No Continuity or “OL”
Stator - Phase W	No Continuity or “OL”

If one of the tests shows Continuity, Replace the Stator

2. Test Resistance between Phases

1. Disconnect the 3 Pins Deutsch Connector
2. Take a multimeter set in Ohm (“Ω”) in 200 if manual
3. Test the Resistance between each phase

Black probe Red probe	Stator - Phase U	Stator - Phase V	Stator - Phase W
Stator - Phase U	x	0.8-1.5 Ω	0.8-1.5 Ω
Stator - Phase V	0.8-1.5 Ω	x	0.8-1.5 Ω
Stator - Phase W	0.8-1.5 Ω	0.8-1.5 Ω	x

If one of the resistance values is not in the average, Replace the Stator

3. Test AC Voltage Between

1. Disconnect the 3 Pins Deutch Connector
2. Disconnect the Pickup (Hall Effect Sensor)
3. Take the Multimeter set as AC Voltage (“V~”)
4. Test the AC Voltage between each Phases when the engine is Cranking

Black probe Red probe	Stator - Phase U	Stator - Phase V	Stator - Phase W
Stator - Phase U	x	Value 1	Value 2
Stator - Phase V	Value 1	x	Value 3
Stator - Phase W	Value 4	Value 3	x

If all the values have a big difference more than 5V between values, Replace the Stator

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