

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.

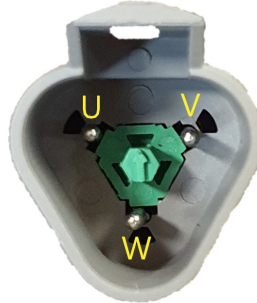
On Kavinci Engine, the rotor is the flywheel.

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

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.

## 1. Test GROUND Short Circuit

1. Disconnect the 3 Pins Deutsch Connector



2. Take a multimeter set in Continuity or Ohm ( $\Omega$ )
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 :

Red probe \ Black 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 ( $\Omega$ ) 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 $\Omega$	0.8-1.5 $\Omega$
Stator - Phase V	0.8-1.5 $\Omega$	x	0.8-1.5 $\Omega$
Stator - Phase W	0.8-1.5 $\Omega$	0.8-1.5 $\Omega$	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 Deutsch Connector
2. Disconnect the Pickup (Hall Effect Sensor)
3. Take the Multimeter set as AC Voltage (“ $\tilde{V}$ ”)
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 3	x	Value 4
Stator - Phase W	Value 5	Value 6	x

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

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