



TS185 & TS250 Kokusan Denki Generator Guide

Stator Coil & Information

Lighting and Charging Coil Variations

The Kokusan charging system on the TS185 & TS250 has several different combinations of lighting and charging coils. These fall in to distinctive sets and we have compiled this list to aid owners in choosing the coils to use together. We state that it is not definitive or complete, different variations than those shown could yet come to light.

The CDI source coil assembly is always the same, however when replacing lighting and charge coils you must pay close attention to the thickness of the iron core and position on the stator plate of each winding. Make drawings and take pictures, carefully note dimensions and positions of coils and wire routing. We charge our normal hourly rates to talk you through fitting parts.

The most common configuration is for a separate lighting and charge coils however some bikes, for example TS250 K models, have a single lighting coil (932120-30020). We offer a repair service for this combined lighting and charge coil.

Customers MUST check what parts are actually fitted before ordering as we can't tell you!

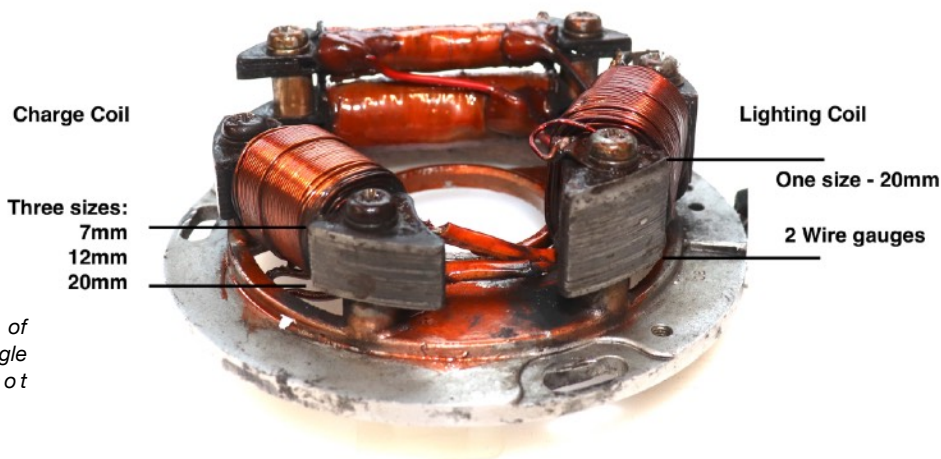
There are several options for repair:

Option 1: Remain with the standard 6 volt lighting system. Order the same parts as fitted. In this situation the system will show the same charging characteristics and issues as per the original Suzuki system. We suggest you consider this carefully as the system was un-regulated and has well documented issues. It is also more expensive to up-grade to option 2 later.

Option 2: Remain 6V but up grade to the voltage stabiliser kit. This will reduce the tendency for the system to over charge and damage batteries.

Option 3: 12V conversion. This is not currently available due to costs. Should demand be sufficient we will look at producing a kit. The 12V options give bright headlamps and controlled charging without battery damage.

Charge & Lighting Coil Combinations



Shown is the most common type of stator. Some versions had a single lighting coil. These are not interchangeable.

Caution, replacing windings in generators is given an 'expert' rating, requiring a high level of skill, the correct tools and knowledge.

After age, flywheel puller damage to the winding is the second most common reason for generator failure!

Best information to date: Coil Compatibility Guide				
Charge Coil Thickness	Charging OEM	Charge Coil P/N	Lighting coil P/N	Lighting OEM
7mm	32130-29612	LC-9 →	LC-12	32120-29612
12mm	32130-30511	LC-10 →	LC-12	32120-29612
20mm	32120-29611	LC-11 →	LC-13	32130-29611
12 Volt conversion	Not yet available			

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CDi Coils

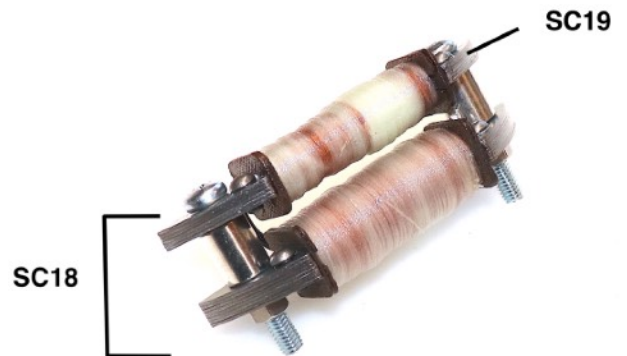
You can be sure that electronic parts over 25 years old will be past their best. NOS electrical parts are also not reliable, many prove to be a failed part in the box the replacement came in. Testing is useful to spot a winding in trouble however a good reading does not guarantee that part will work under real load. If you do not overhaul the generator with new parts it can be compared to not rebuilding a worn engine.

The CDi source winding are a very hard working part, they run at over 200 volts and so the insulation on the fine wire in the windings is under a heavy load all the time the engine is running. As insulation ages it becomes weak allowing power to seep away from the CDi box. It is the random way old windings break down that causes a range of confusing symptoms.

We manufacture a new source coil assembly (SC18) with both windings, which is the recommended repair.

The pulser is available separately. The intention is to offer a replacement in the case of a new SC18 assembly which has been damaged by a careless use of the flywheel puller.

The SC19 must not be used with old windings or any other option as this gives unpredictable results and can cause ignition faults.



Checking CDi source coil resistance

<p>1. Source coil test</p> <p>At the black rubber stator plug measure the resistance between the black/white and the red/white wire.</p> <p>Kokusan Specification = 200Ω</p> <p>Low limit: 190Ω. High limit 210Ω</p> <p>Readings taken at 20 degrees C</p> <p>Your reading:</p> <p>Temperature: C or F (delete as appropriate)</p>	A diagram showing three stator coils connected in a triangle. The top coil is black with a red center. The bottom-left coil is red with a white center. The bottom-right coil is black with a white center. Two black arrows point upwards towards the bottom two coils, indicating measurement points.
<p>2. Pulser coil test</p> <p>At the black rubber stator plug measure the resistance between the red/white and the black/red wire.</p> <p>Specification = 38Ω</p> <p>Low limit: 36Ω. High limit 40Ω</p> <p>Readings taken at 20 degrees C.</p> <p>Your reading:</p>	A diagram showing three stator coils connected in a triangle. The top coil is black with a red center. The bottom-left coil is red with a white center. The bottom-right coil is black with a white center. Two black arrows point horizontally towards the left two coils, indicating measurement points.