

Motorcycle Rectifier Test

Rectifier Types

A Rectifier is the part of the charging system that converts the AC voltage from the alternator into DC voltage which can be used to charge the battery.

An **ORIGINAL RECTIFIER** looks like this ⇨



The diodes on the original units were prone to rattling off, due to the vibrations on cars and bikes.

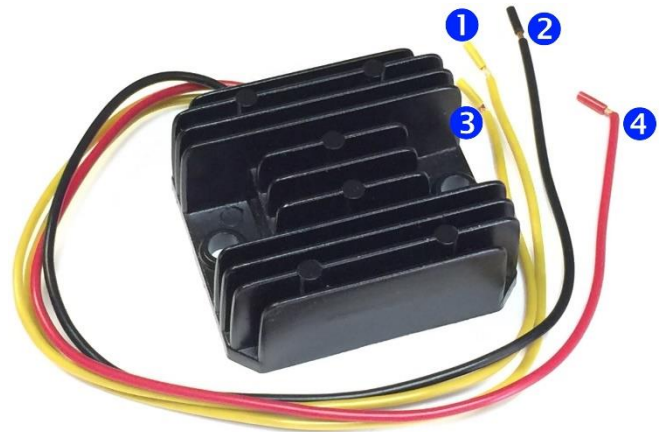
So, the more modern equivalent **AFTERMARKET RECTIFIER** is potted in an epoxy resin encapsulant.

⇨ It looks like this.



A popular upgrade is to combine the rectifier and regulator (the zener diode) with one, single unit.

An **AFTERMARKET REGULATOR/RECTIFIER** looks like this ⇨



Testing

In the tests overleaf, you should produce a set of 8 numbers – follow the process closely, and write the numbers down as you go, so you don't lose track.

In the tests – the **GREEN ARROW** on tests 1, 3, 5 and 7 indicate that you should see a value on your multimeter.

This value will vary per unit but importantly the value from all four readings should be the same or very nearly the same.

For the remaining tests – the **STOP SIGN** on tests 2, 4, 6 and 8 shows no voltage is flowing.

Results

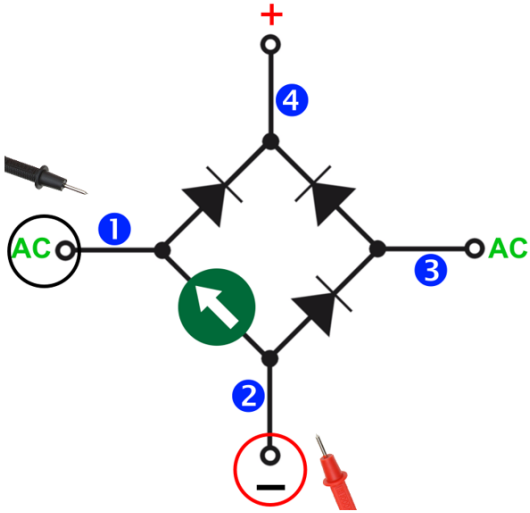
If you are not seeing the desired values on just one of these tests, it means that you have a malfunctioning component (diode) within the rectifier.

Unfortunately, these are not user serviceable or repairable, so you need to replace it.

Make sure you throw the defective part away, rather than put it in a drawer in your workshop. This will make sure it doesn't find it's way back on to a bike in the future!!!

Motorcycle Rectifier Test

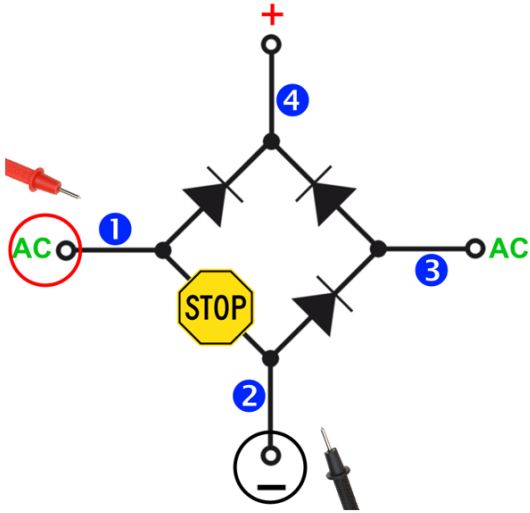
TEST 1



RESULT _____

✓ current SHOULD flow on this test ✓

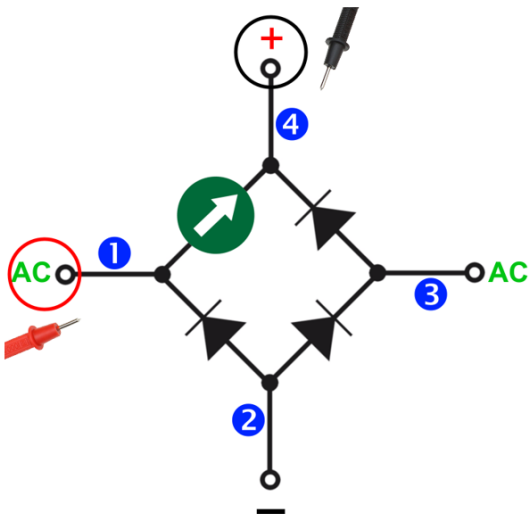
TEST 2



RESULT _____

✗ current SHOULD NOT flow on this test ✗

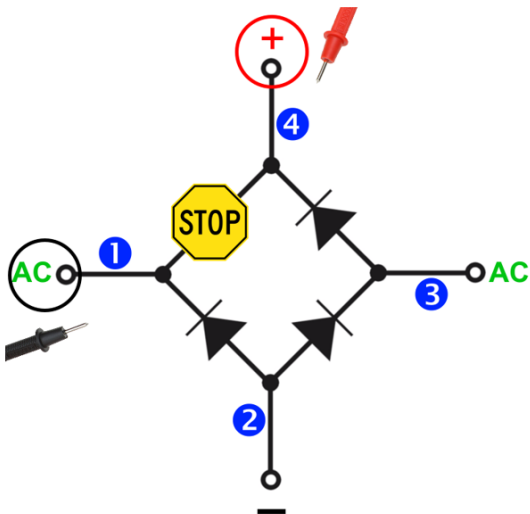
TEST 3



RESULT _____

✓ current SHOULD flow on this test ✓

TEST 4

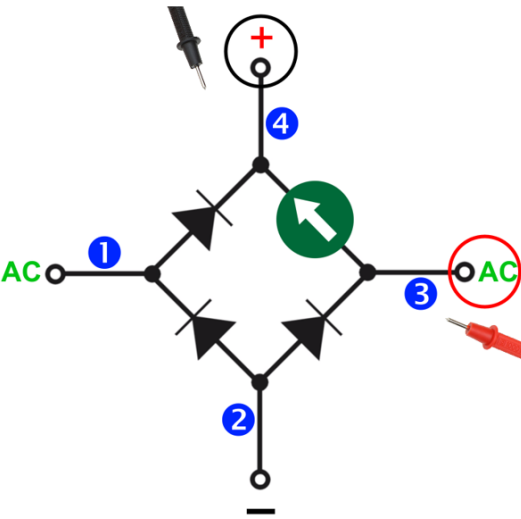


RESULT _____

✗ current SHOULD NOT flow on this test ✗

Motorcycle Rectifier Test

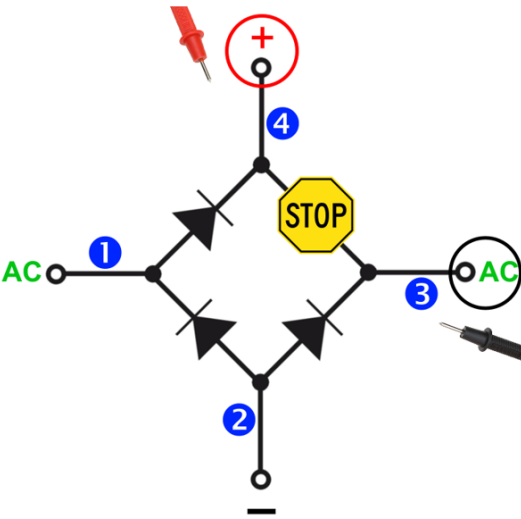
TEST 5



RESULT _____

✓ current SHOULD flow on this test ✓

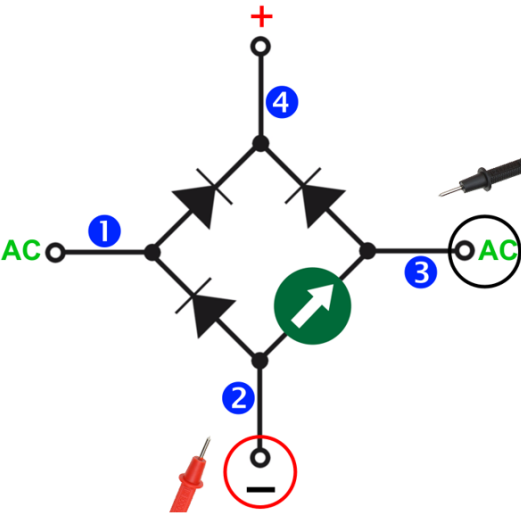
TEST 6



RESULT _____

✗ current SHOULD NOT flow on this test ✗

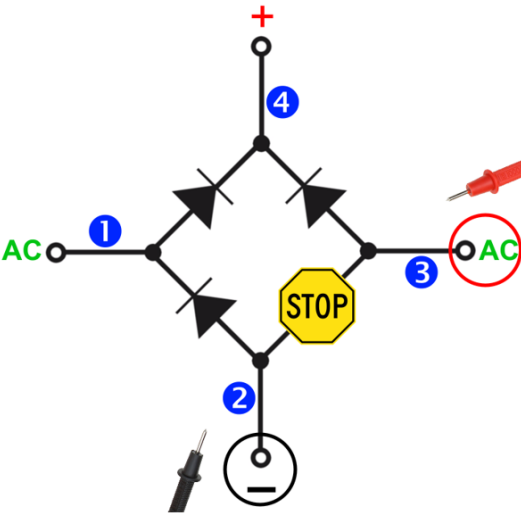
TEST 7



RESULT _____

✓ current SHOULD flow on this test ✓

TEST 8



RESULT _____

✗ current SHOULD NOT flow on this test ✗