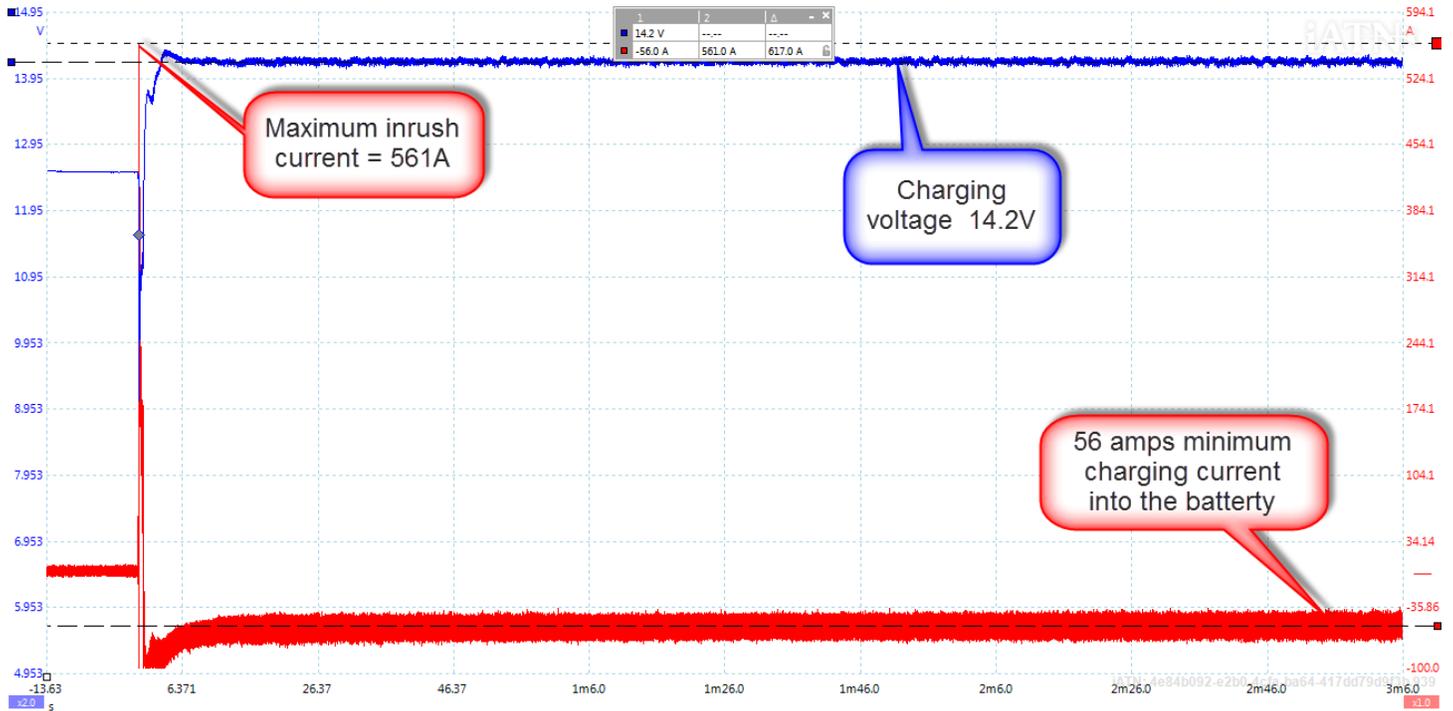


# STARTING CHARGING TEST

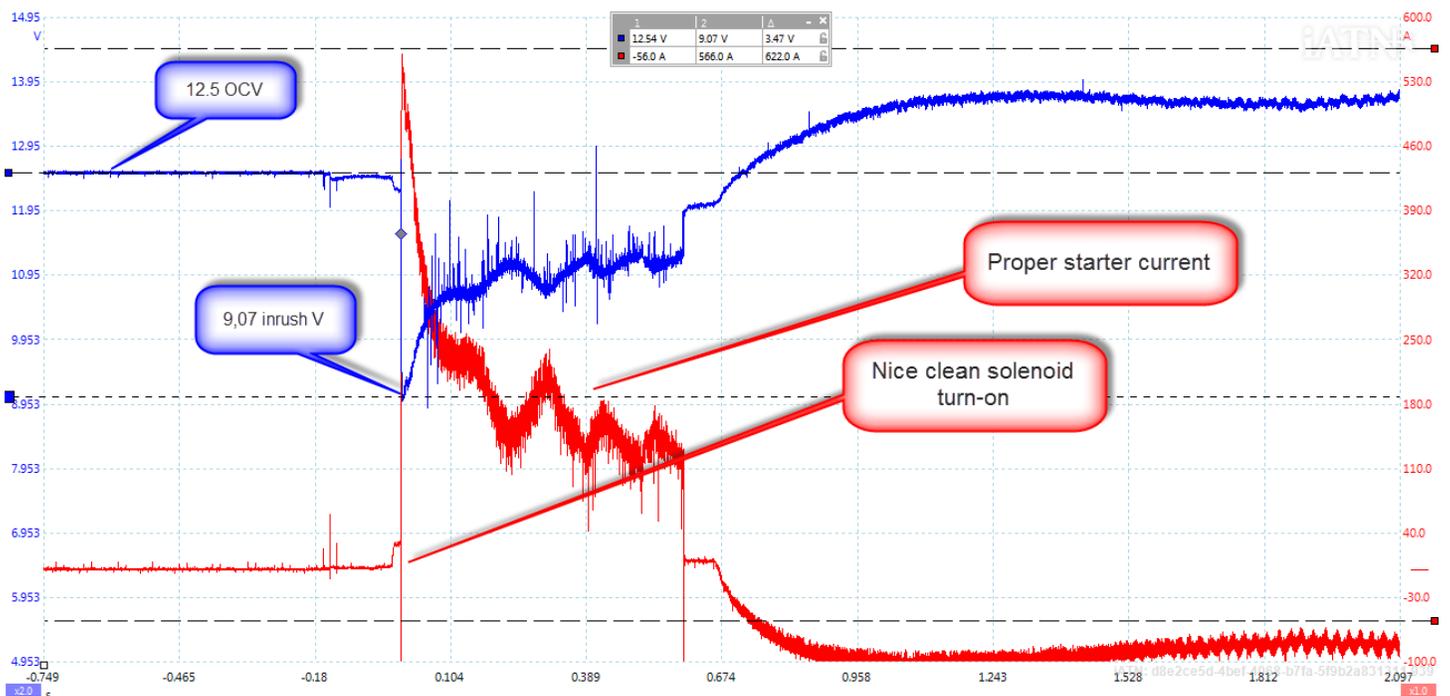
## GOOD STARTER

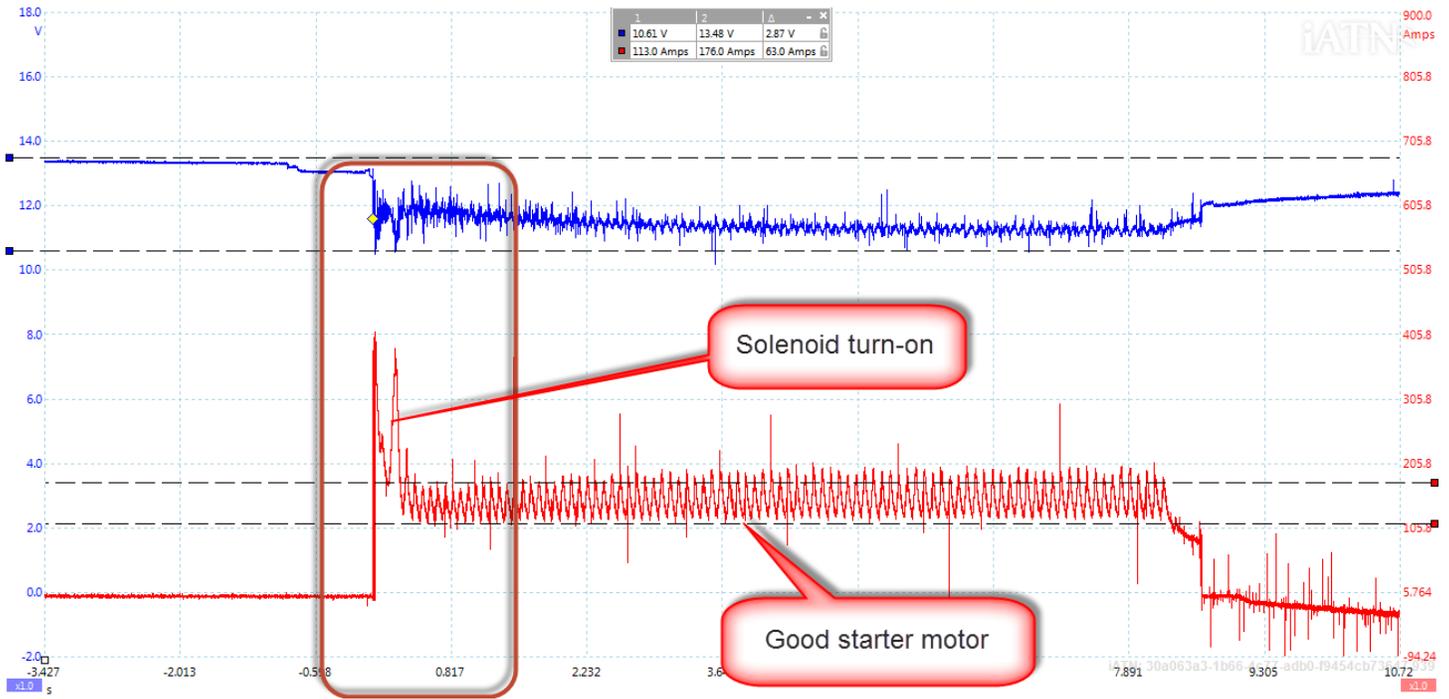
For this test, hook the voltage lead to the positive and negative lead of the , hook the current probe around the ground wire to the . If there is more than one ground lead, hook your current probe around all the ground wires. You want your to measure all the current going in and out of the.



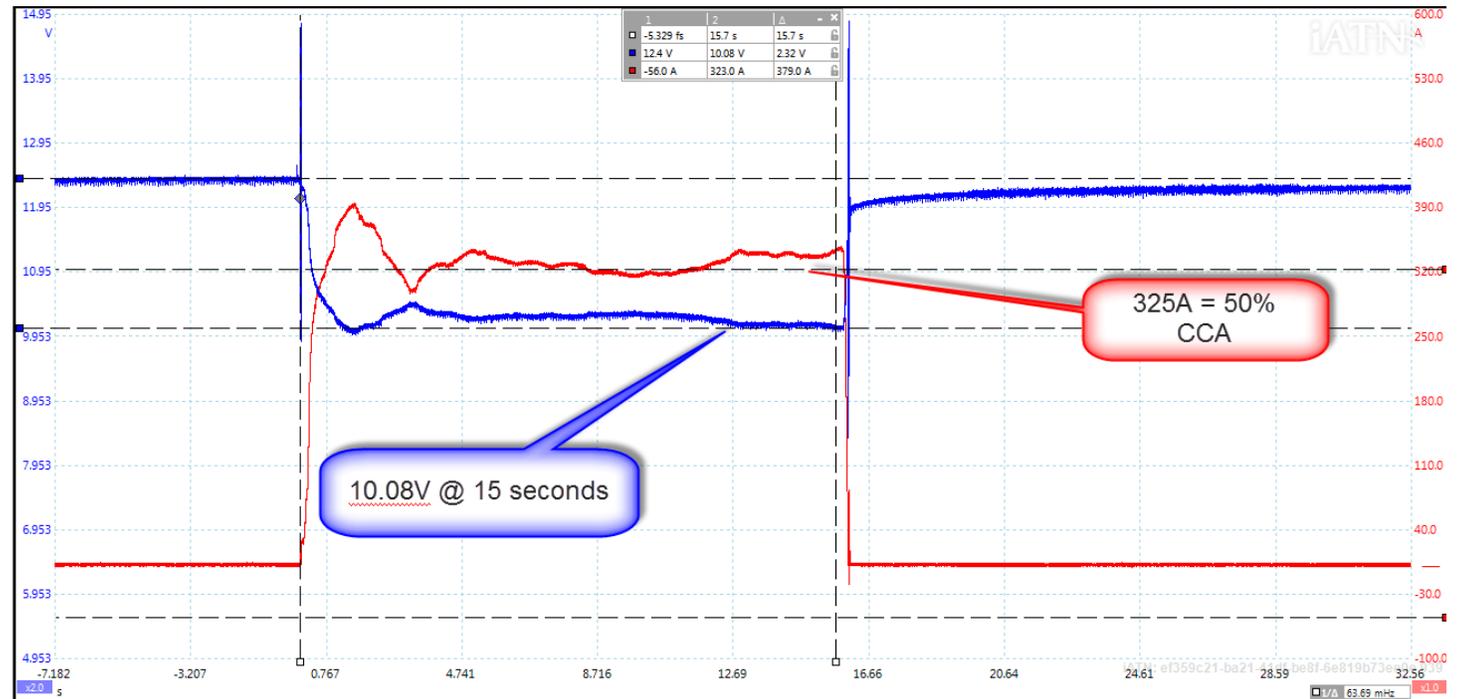
Starting at the left side of the traces, I can see the starter solenoid contacts closed nice and clean, the starter got the engine running in short order, then the generator started charging the battery. Look at the right side of the trace and notice the charging current the battery is still absorbing after a three minute charge. It is still taking in over 50 amps. This is putting the hurt on the generator, and the battery will get very hot after it charges for a while at this rate.

This is something I found on a vehicle that came in for a routine service. In this case the battery is sulfated. There are no starting complaints at this time, but just wait, there will be several starting and charging complaints if this problem is not fixed.



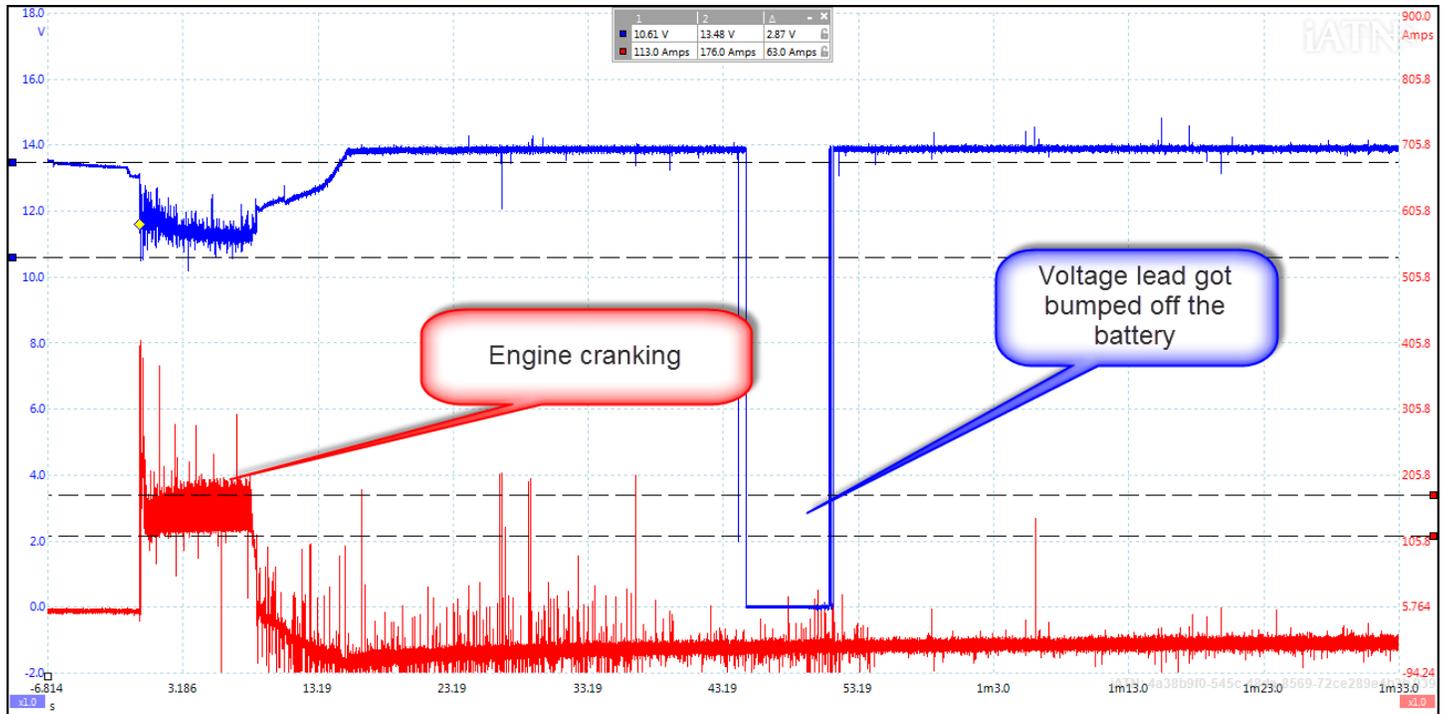


Now to use a carbon pile and load test the battery.



The load test shows nothing wrong with the , but the dynamic starting system test found the problem in short order.

# DEFECTIVE STARTER



This test found a starter solenoid with defective contacts.