



**PURKEYS**

# Auto Meter: Testing the Whole System

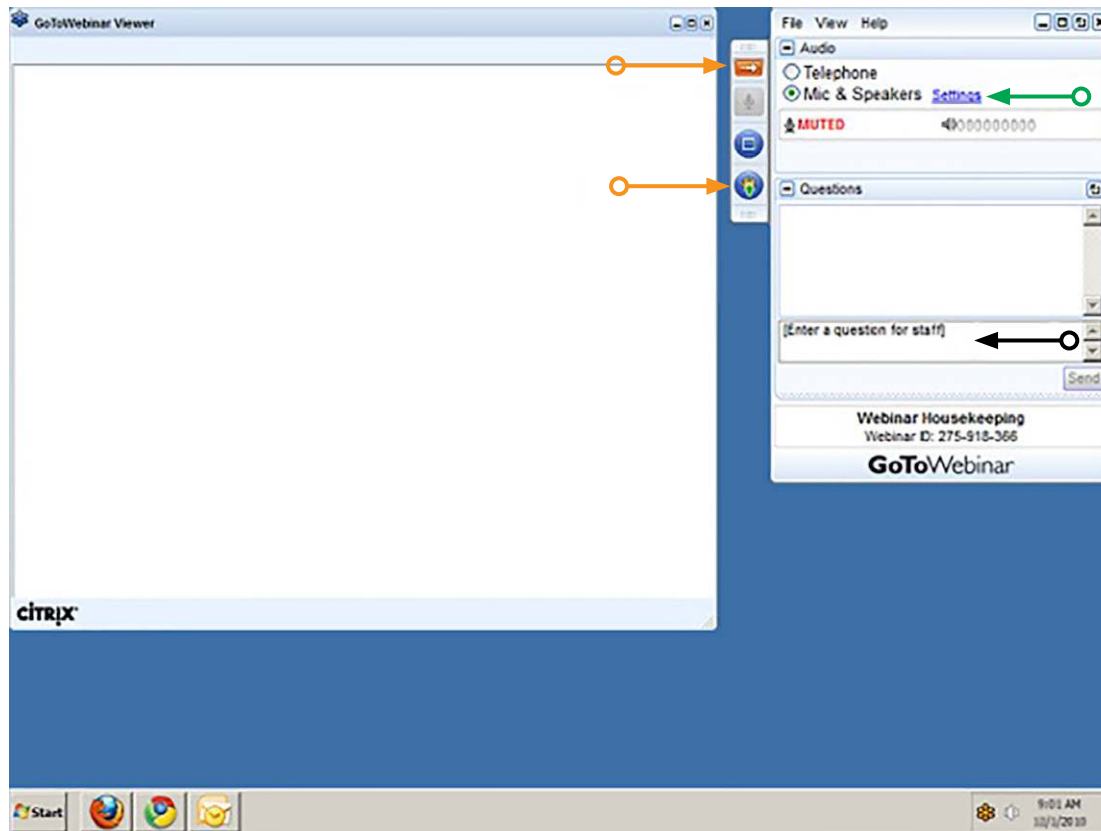
Thur., Feb. 19, 2015

***WATT Keeps You Trucking***

# House Cleaning

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This Webinar is being Recorded  
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# About the Presenter



## **Charley Gipe | Sales & Service Engineer, N.E. Region**

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Charley graduated from the University of South Dakota/Springfield in 1984 with an Associates degree in Automotive Technology and a Bachelors Degree in Automotive Science and Technology. He has spent 30 years in the automotive and heavy-duty truck industry working as a technician, trainer, warranty engineer, technical writer and service engineer. He has a wealth of electrical experience and knowledge and uses it for solving the modern day electrical problems fleets face on a daily basis. Charley is an ASE automotive master technician.

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# Auto Meter BCT-200J

The Auto Meter is an automated tester that guides a technician through testing the following items on a heavy duty vehicle:

- Charging systems
- Batteries (flooded and AGM)
- Cranking systems
- Liftgate Electrical Systems
- Voltage Drops of Various Circuits



# PM Test



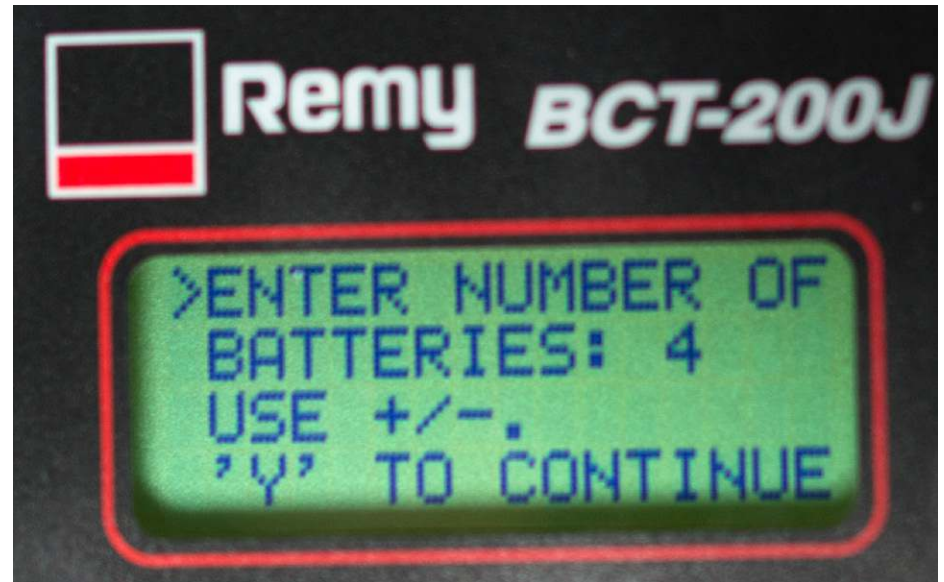
The “PM Test” is:

- An accurate preventative maintenance check
- A quick way to check electrical system state of health

# PM Test

To run the test select “PM Test”. The tester will prompt you to:

- Enter the number of batteries
- Connect the large test leads
- Enter the battery temperature
- Enter the battery type
- Enter the battery CCA
- Start the test



# PM Test

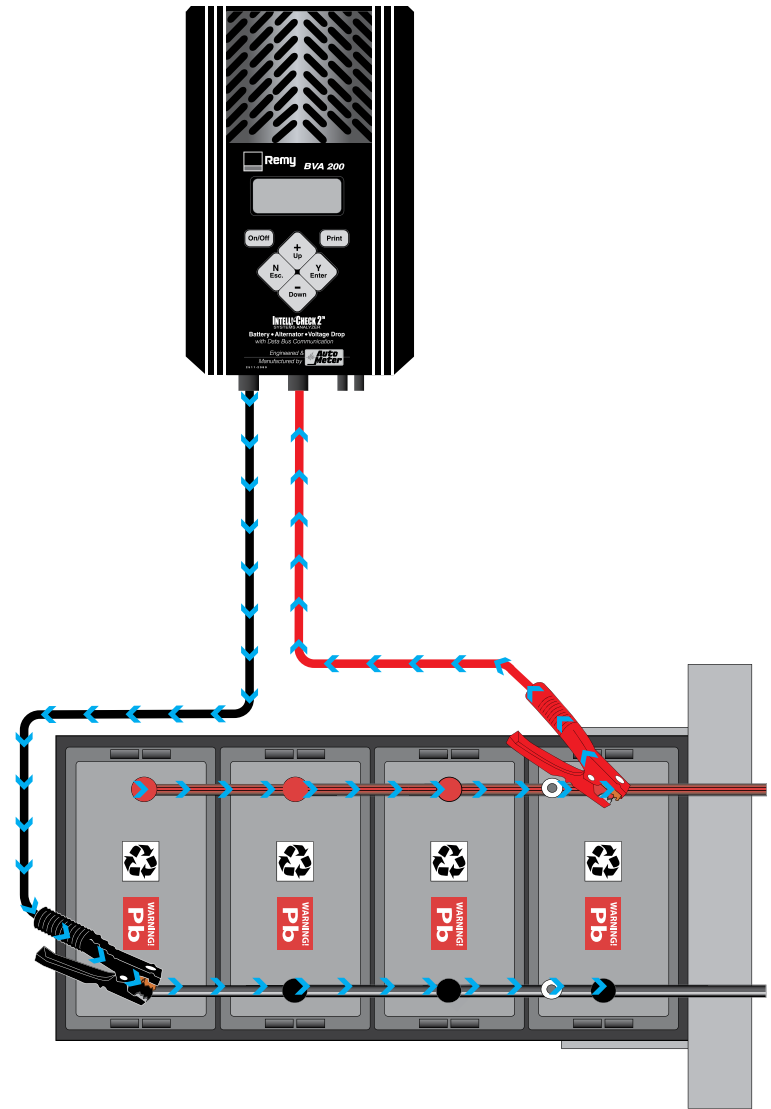
The tester:

- places a calibrated load on the pack
- monitors voltage
- determines the condition based on the results

Once completed the tester will prompt you to connect the small test leads to the alternator

This is necessary for determining:

- starting circuit condition
- charging circuit condition



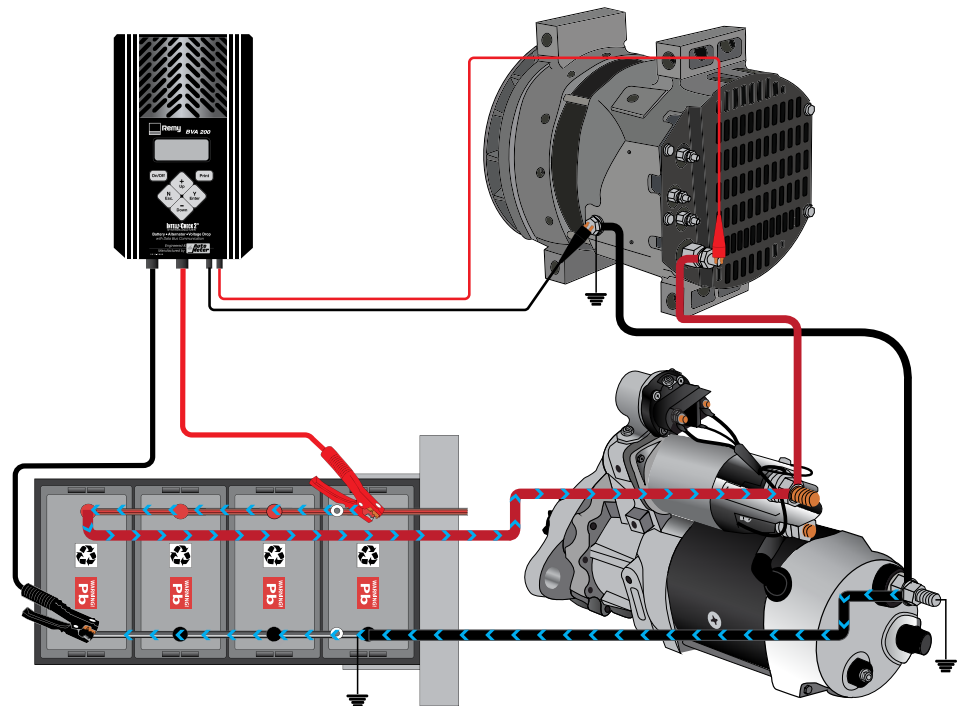
# PM Test

After the connections are made the tester will:

- load the battery pack
- prompt you to start the engine and rev to high RPM

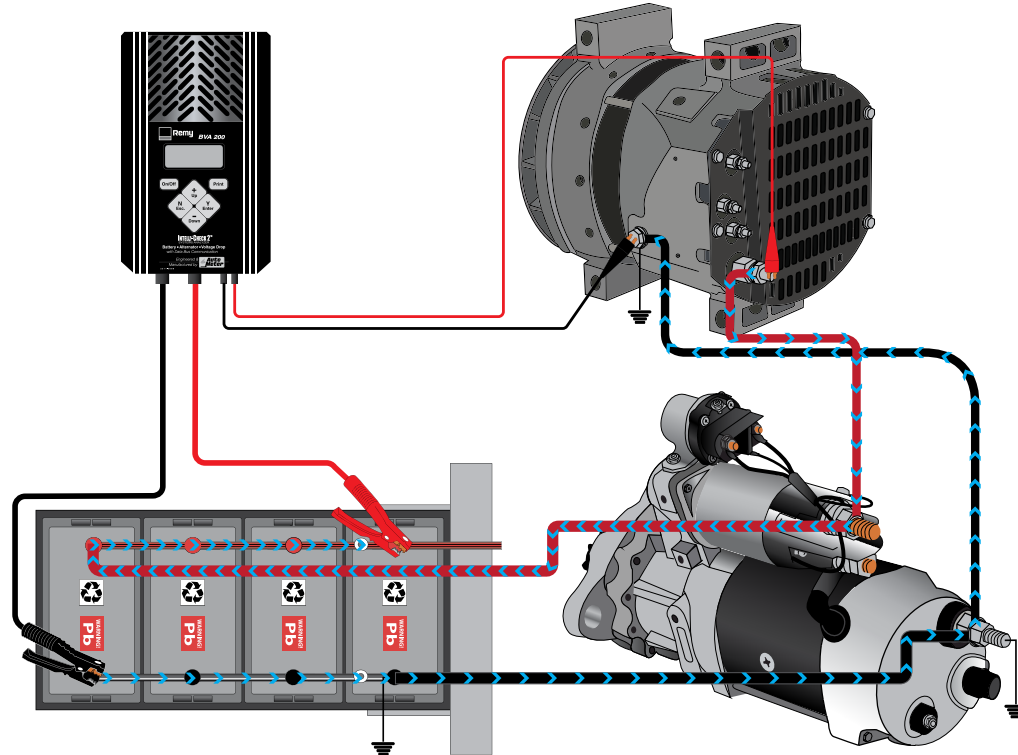
During this portion of the test the following items are being tested:

- Starter cable condition via voltage drop
- Charging circuit condition via voltage drop
- Voltage regulator set point (over charge/under charge)





# PM Test

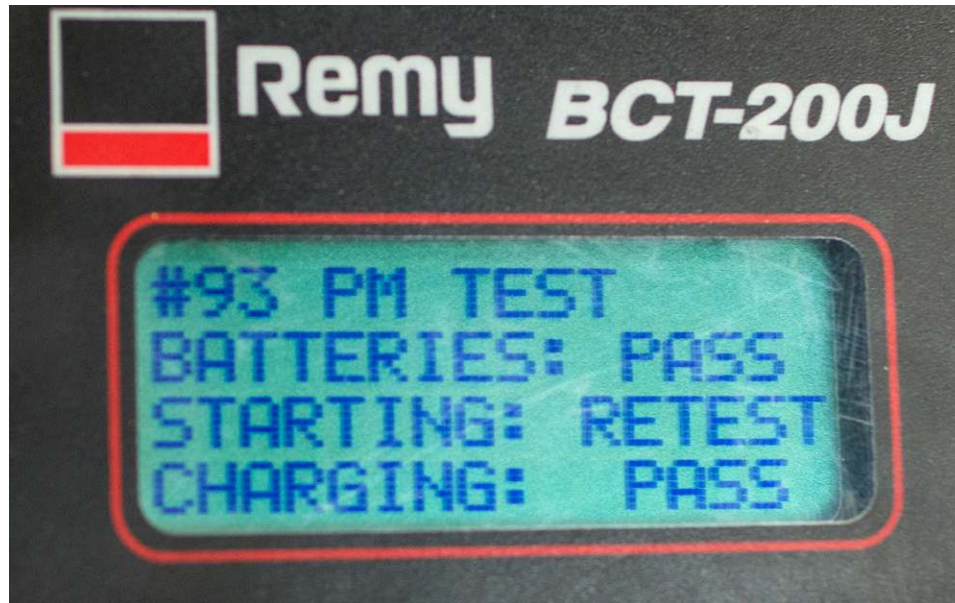


After running the engine at high RPM the tester will prompt you to operate the engine at approximately 1000 RPM.

During this portion of the test the following item is being tested:

- Alternator ripple voltage (checking for performance problems)

# PM Test



Once the PM test is completed the results can be viewed, including:

- Batteries
- Starting
- Charging

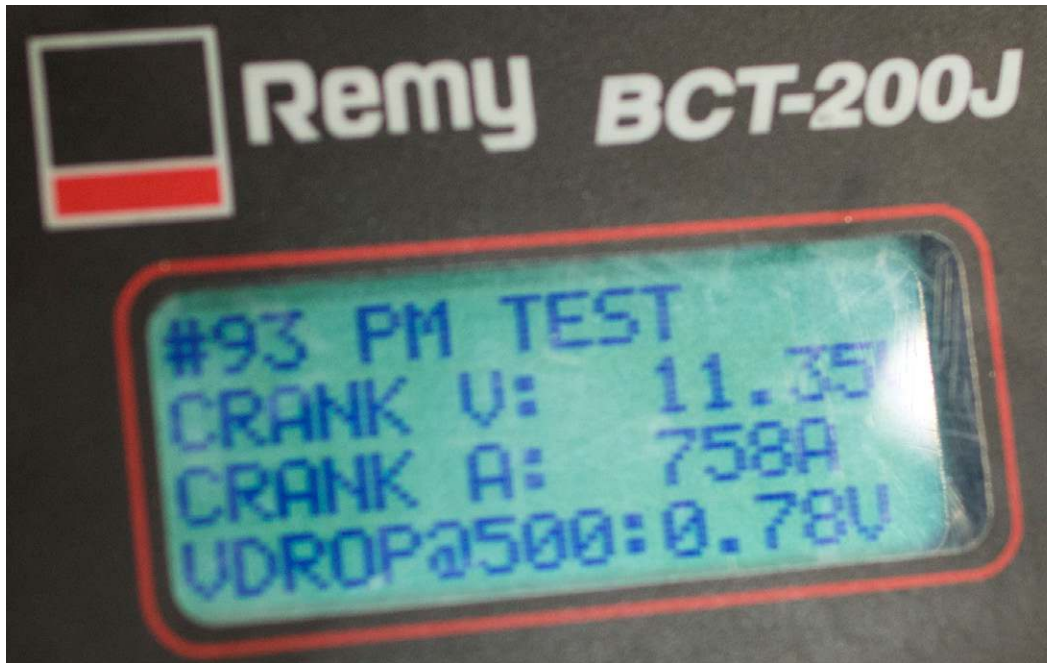
Each result will be shown as a pass or retest

# PM Test

Besides the high level test results, detail results are shown for the battery pack including:



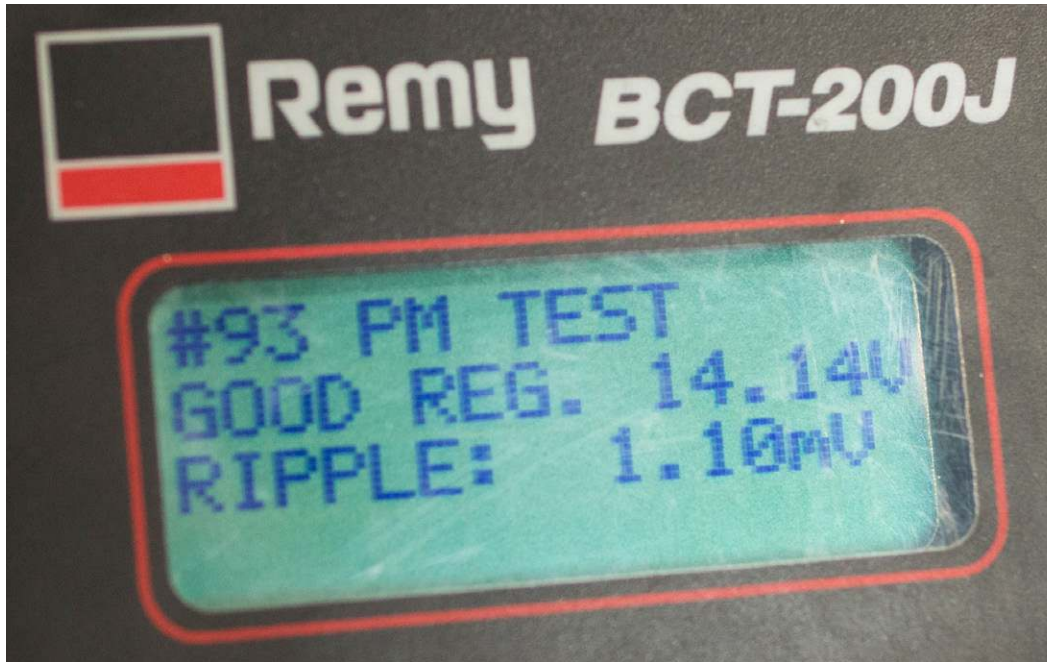
# PM Test



Detail results of the cranking system including:

- Voltage at the starter while cranking
- Estimated starter current draw
- Voltage drop of the starter cables at a 500 amp load

# PM Test



Detail results of the charging system, including:

- The voltage regulator set point
- The output ripple voltage

# Good Results

If ALL tests provide good results:

- Electrical system is working properly
- Ready to hit the road





# More Tests

If some of the results say retest:

- Further tests needed
- Auto Meter has more detailed tests



# Questions & Answers



# Thank You!

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