Main Contactor Testing

Start

With the main disconnect and ignition key on

Do you hear the main contactor click when first turning vehicle on? → **No**

-If equipped with dump box make sure its in the down position.

-If equipped with DC drive some vehicles need to be switched to forward or reverse before contactor will close.

Check to see if any active error code/s are present? If so see Troubleshooting error codes which can be found in section 4.4 of the service manual.
If error codes are related to main contactor continue this test procedure.
If LED light on controller does not light see flowchart
Vehicle will not turn on

Test voltage between small red wire on contactor and B– of the main controller. Note that if vehicle is equipped with hydraulic dump box the box must be down completely.
Is pack voltage present? → **Yes** →

Test continuity between the two small post of the main contactor. Do you have about 30 ohms? → **No** / **Yes**

No →

If vehicle is equipped with hyd. dump box see hyd. dump box testing flow chart prior to proceeding with this flow chart.

The speed controller supplies ground to the main contactor. Either you have a wiring issue or the speed controller needs to be replaced.

Install new main contactor.

Yes

Test voltage between negative post of battery pack and pin# 87 of ignition relay. Keep relay plugged in Is pack voltage present? → **No** →

Test voltage between negative post of front pack battery and pin# 30 of ignition relay. Is pack voltage present? → **No** / **Yes** →

Check voltage between pin# 85 and pin# 86 of ignition relay. Is 12-14 volts present? → **No** →

Check wiring

Does the contactor continue to hum after clicking? → **No** →

In this case the main controller should have a fault code. The main controller supplies ground to the contactor .Either the code being set is causing this which in the case such as contactor not closing fault you may have a wiring issue or intermittent contactor issue.

Yes

Is the main controller throwing any error codes? → **No** →

Main contactor is operating correctly.

Yes

Ignition relay is bad. Replace relay.

Error code present? If so see Troubleshooting error codes which can be found in section 4.4 of the service manual.