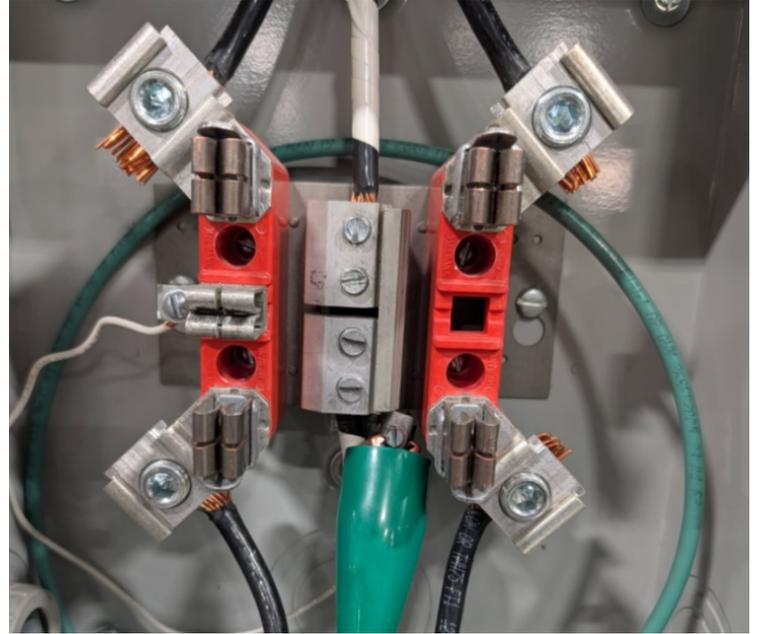


Operating Instructions



1. Align and plug the neutral lead into the jack on the front of the EK Line Buster device.

2. Attach the neutral lead alligator clip to the neutral connector in the meter socket.

3. Switch the power source switch UP for using the meter socket to power the device.

4. Ensure the "line" switch is in the central/middle position.



5. Plug the EK Line Buster into the meter socket. The left and right line voltages will be displayed.

6. Use the photo in this step as a reference for testing during all next steps of the process.

Voltage Display		Line Buster Operation
120	120	The left line-to-neutral and right line-to-neutral voltages are balanced with no load applied.
120	120	No significant change observed after run in time has elapsed.
110	120	Left line shows a 10 volt drop, right line does not change. This means there is additional resistance in the left conductor/connections but the neutral is okay.
105	125	Left line shows a 15 volt drop and right line shows a 5 volt increase. The 10 volt drop (15 volt drop - 5 volt rise = 10 volts) is caused by additional resistance in the left conductor/connections. The 5 volt rise on the right meter indicates resistance in the neutral conductor/connections.
	120	The left meter is blank, indicating the voltage on the left line has dropped below 85 volts (voltmeter range 85-265). There is a significant resistance in the left conductor/connections which caused the voltage to drop.
	210	The blank left meter and the extreme rise in the right meter indicates the neutral conductor/connections are open (grounds at the meter socket and transformer can provide an alternative path) or in very poor condition. 90 volts (210 volts - 120 volt starting = 90 volts) is the voltage drop across the ground and/or poor neutral conductor/connections.
	240	The blank left meter and the extreme rise in the right meter indicates the neutral conductor/connections are open. 120 volts is being dropped across the neutral conductor/connections. No current is flowing through the transformer and meter socket grounds. There are problems with the neutral conductor/connections and with the ground(s).

7. Flip the load switch to "Left Line" momentarily to apply load to the left side of the circuit. Record the voltage readings and compare to chart from Step 6. Flip the switch back to center when complete.

8. Flip the load switch to "Right Line" momentarily to apply load to the right side of the circuit. Record the voltage readings and compare to the step 6 chart.

9. Once all data is verified, testing is complete. The EK Line Buster and neutral clip can be ejected and removed from the meter socket.



10. For cable testing: In Step 3, you will move the switch to "Cable Adapter". Additionally, instead of plugging the EK Line Buster into the meter socket in step 5, you will connect the cable leads to the left and right side connectors on the line side of the meter socket. All other steps remain the same.



11. Additional information on open neutral: This photo shows the unit with the neutral wire disconnected. With no load on the feed, voltages will look normal.



12. When load is applied on an open neutral, the voltage will drop on the loaded side and indicate high voltage on the non-loaded side as shown in the photo. Load was applied using the "Left Line" load switch.