

GenerLink Technical Questions

1

1. **What is the nature from a safety standpoint of the switch in the GenerLink? When it separates from the utility grid is it physically open or is it like a dyad?**
 - a. The ASCO switch inside the GenerLink is Electrically Positioned and Mechanically held according to section 700, 701, and 702 of the National Electric Code. This means that the switch is physically open.
2. **When the power comes, back on does it still run from the Generator or does it switch back to the Utility Grid?**
 - a. When the Power is out from the Utility Lines the GenerLink automatically transfers from the Utility lines to the GenerLink, when the generator is running. When the power comes back on it will not switch back to the utility lines until the generator runs out of gas or is turned off. The GenerLink takes priority when the Generator is running. So if there is power on the utility grid and you turn on your generator the GenerLink will still transfer from the utility line to the Generator.
3. **Why does the disk in the meter still turn when the Generator is running?**
 - a. The disk in the meter should not be turning. If it is either the customer is using over 30 amps or they do not have the unit installed correctly.
4. **Does the GenerLink Surge Suppressor Protect both the line side and the house side?**
 - a. The surge only protects the house side it is running from the Generator.
5. **What if I have a surge suppressor already in my meter?**
 - a. If the customer already has a surge suppressor already in the meter, they will need to remove the surge in the unit and get our surge suppressor. The reason for this is that if our unit is on top of that surge suppressor it will de-rate the surge suppressor.
6. **What if my Generator has a bonded neutral?**
 - a. If your generator has a bonded neutral, you will need to go to your generator-operating manual and find out how to un-bond the neutral.
7. **What is the Maximum wattage that my generator can be in order to work with the GenerLink?**
 - a. In order for your generator to work with the GenerLink, your continuous wattage max is between 7500 and 8500.
8. **Do I need a generator in order to use GenerLink?**
 - a. Yes. GenerLink is an interconnection device that enables you to connect your portable generator directly to your home's wiring system. During a power outage, your generator becomes your source of emergency back-up power. GenerLink is designed as an alternative to expensive transfer switches and hazardous extension cords.
9. **How is GenerLink different from a transfer switch?**
 - a. GenerLink offers several advantages over traditional transfer switches:
 - i. GenerLink is installed outside your home at the electric meter in less than 30 minutes. And, in most cases, you do not need to be at home for the GenerLink installation. Installation of a transfer switch can take about two to three hours and requires re-wiring your home's electrical system.
 - ii. With GenerLink, you have the flexibility of selecting the appliances you want to run from your home's breaker panel, up to the capacity of your generator. Most basic transfer switches have 6 to 8 hard-wired circuits. This limits the number of circuits you can connect to the transfer switch.
 - iii. Since GenerLink uses your existing breaker panel, you can run any large 120 or 240-volt appliance up to your generator's capacity. Your well pump, water heater, sump pump, electric range, clothes dryer and electric baseboard heat are just some of the appliances that can be run on a rotation basis with GenerLink. Many transfer switches and sub panels have only one or two 240-volt circuits rated at 10 or 20-amps. These transfer switches and sub panels may not accommodate heavier loads, such as hot water heaters and electric ranges.

10. **Is there any potential for damage to my appliances?**
 - a. GenerLink is designed to function as an interconnection device and serves to connect your generator to your home. There is no risk damage to your appliances created by the GenerLink device. You should exercise care when selecting your generator to ensure you are buying a high quality generator.

11. **I want surge protection for my home and appliances, can I still use GenerLink?**
 - a. Yes, GenerLink is now available with an optional feature - HomeGuard surge protection. GenerLink with HomeGaurd surge protection will protect your home and wired appliances from surges over 600 volts.

12. **I have meter-based surge protection, but want GenerLink. Should I get hard-wired surge protection?**
 - a. If your GenerLink unit is equipped with whole house surge protection, it will eliminate the need for meter based or hard-wired surge protection devices.

13. **Why can't I run my whole house from a portable generator?**
 - a. The appliances in the average home consume relatively low amounts of electricity to operate once they are started. However, many of them require a significant amount of electricity to start up the appliances. Please review the appliance guide to determine the start-up wattage required for individual appliances.

14. **What maintenance is required for GenerLink?**
 - a. There is no regular maintenance required for GenerLink.

15. **Does my utility meter continue to run when using GenerLink with my generator?**
 - a. No, your utility meter will only run when the utility is providing electric power to your home. When using GenerLink, with your portable generator, you are automatically disconnected from the utility power supply and will not reconnect until you turn off your generator.

16. **How can I tell when the utility power is restored?**
 - a. There are three indicator lights on GenerLink, one green, one yellow and one red. When the green light is illuminated, this represents a normal condition where utility power is present. When your utility has restored power, you can de-energize and disconnect your generator from GenerLink. If the red light is illuminated at any time or in conjunction with the green light, there is a potential problem and you should have the unit serviced immediately. (Refer to the Terms and Conditions for service instructions)

17. **Can I use GenerLink during inclement weather?**
 - a. GenerLink is completely sealed inside the meter socket and does not represent a hazard; however, generators should not be operated during rain or snow unless they are protected from the elements. Please consult your generator manufacturer, distributor and/or owner's manual for instructions on the safe operation of your generator.

18. **What happens if the generator gets overloaded?**
 - a. Your generator should have a circuit breaker that will activate in the event of an overload. If it does not have this feature, it is not suit-able for use with GenerLink. If the generator's circuit breaker trips, turn off all the household circuit breakers in your breaker panel, reset the circuit breaker on the generator, and restart the generator. Please refer to your generator owner's manual for complete instructions on the safe operation of your generator.

19. **Where should the generator be placed?**
 - a. Remember, generator exhaust gases contain deadly carbon monoxide. The generator should never be operated inside; this includes basements, crawl spaces and/or attached garages. Please consult your generator owner's manual for complete instructions on the safe location for and operation of your generator.

20. What is a power cord?

- a. A power cord consists of:
 - i. a standard GenerLok connector that will attach to GenerLink,
 - ii. A four wire, 10 gauge cable that is
 - iii. Insulated, heavy duty, outdoor rated, water-resistant and
 - iv. An appropriate NEMA connector for your generator.

Your generator may have a 20-amp or 30-amp, 120/240-volt output that will require a 20-amp or 30-amp NEMA connector. The length of the power cord should be as close to the actual measured distance from the meter to the generator as possible in order to maintain your generator's power quality.

21. What gauge wire is used to make the cord?

- a. 10-gauge wire is used for the 20 and 30 amp and an 8-gauge wire is used for the 50amp. The cord is heavy duty, outdoor rated, fire and water resistant and is appropriate for cords up to 65 feet for a 30- amp circuit.

22. What if my generator connector does not have a straight or locking 14-20 or 14-30 connector?

- a. Some generators are fitted with connectors that are not 14-20 or 14-30. Consult with your local utility or a GenerLink Authorized Reseller to determine if your generator can be used to connect with GenerLink.

23. What happens if I want GenerLink removed from my home?

- a. To remove, replace, or repair your GenerLink, you must contact an Approved Installer. Only technicians authorized by the electric utility or licensed electricians may have access to GenerLink. Do not, under any conditions, attempt to remove and/or repair GenerLink yourself.

24. If the customer has two meters, can it be installed where the old meter is?

- a. No, it will back feed if the GenerLink is installed where the old meter is. The GenerLink has to be installed where the new meter is located.

25. Is there anyway you can tell what amperage the GenerLink unit is once installed to the meter by looking at the unit?

- a. No, the only way to tell what amperage the unit is would be by looking at the plug end that goes into the Generator.

26. Does the GenerLink back feed the house and how do you know?

- a. No, because the switch has an airway which pushes it off of the grid.

GenerLink Technical Questions

27. Can the GenerLink run my AC unit?

a. Appliance Usage Guide

Equipment	Starting Factor	Running Wattage (avg.)
Water Heater (50 gallon)	1	4500-5000
Portable Heater with fan	2	500-1500
Furnace Fan (Central) - 1/4 HP	3	400
1/3 HP	3	450
1/2 HP	3	600
Computer	1	200
Fax Machine	1	50-1000
Space Heater	1	500-1500
Refrigerator/Freezer	3	750
Home Security System	1	200
Lights	1	40-150
Range w/Oven	1	12200
- Small Burner	1	1300
- Large Burner	1	2400
Garage Door Opener - 1/3 HP	3	750
- 1/2 HP	3	1050
Well Pump - 1/3 HP	3	750
1/2 HP	3	1000
3/4 HP	3	1500
Submersible Sump Pump - 1/2 HP	3	1000
Electric Heat Pump	3	6000
Central A/C 3 ton	3	6000
Dishwasher w/o hot water	2	1200
Television	1	150-400
Radio	1	70-200
Microwave	1	600-1500
Coffee maker	1	750-1200
Toaster	1	1100
Hair Dryer	2	600-1400
Washing Machine w/o Hot Water	2	1000
Clothes Dryer	2	4850
Air Cleaner	2	50
Dehumidifier	2	840
Humidifier	1	177
Vacuum Cleaner	1	800

28. Will my Generator work with the GenerLink?

- a. For a GenerLink to work your generator must have an L14-20, L14-30, L14-50 Straight and 120/240 VAC Twist Lock..
- b. It will work as long as the cord is one mentioned above. The Maximum wattage needs to be no more than 12800. If it is higher it will still work, but the Generator will have extra wattage that will not be pulled through the GenerLink. To find out how much will be pulled out you will need to use the formula $P=V$ (voltage) * I (Current). Voltage will always be 240. Current will be the amperage of the plug socket.
 - i. Ex. $P=240*30$ amp in this case $P=7200$ watts.
 - ii. Ex. $P=240*50=12000$

GenerLink Technical Questions

5

29. **Will an L14-30 or 20P work with the GenerLink?**
- The Generator should never have an L14-20 or 30P on it. The P stands for plug, where the R stands for receptacle.
30. **Is your 20AMP cord with a NEMA L14-20 connector made with 10AWG wire as opposed to 12AWG?**
- The Minimum cord size is a 10AWG the next biggest is 8AWG.
31. **Does Global Power Products have a solution for a 300-amp panel that has 2 service entrances of both 200amps?**
- You can still use the GenerLink on a 300-amp meter as long as it is a form 2s. If the meter is not a form 2s the only other solution is an inside transfer switch. The customer would be out of luck with Global Power Products.
32. **Can you run without a meter or do you need a meter?**
- You cannot run without the meter.
33. **Does the Surge Suppressor trip anything so that the generator goes off?**
- No it protect the household appliances from spikes and transients that may be caused by bad weather.
34. **Is a 7.5 KW Generator going to do damage to the GenerLink and void the warranty?**
- Any size generator up to a 22kw will work as long as it has an L14-20 or an L14-30 plug socket.
35. **Do you need to throw the main when the power is out?**
- No or the GenerLink will not work.
36. **Say you hook the power Cord into the Generlink but not the Generator. Is there power running through the cord?**
- There is no power running through the cord unless you hook the cord up to the generator and turn the Generator on.
37. **At what voltage does the GenerLink have to be to switch back to the Utility lines?**
- In order for the GenerLink to switch from utility to generator, the generator must be at 240 volts.
 - In order for the GenerLink to switch from generator to Utility lines the voltage must be at zero, meaning that the cord must be unplugged from the generator end and the generator must be turned off.
38. **What is a Floating Neutral?**
- Floating (Ground): A conductor that exists primarily to help protect against faults and which in normal operation does not carry current.
 - Neutral: A circuit that carries current in normal operation, and which is connected to the earth.
 - Neutral Floating at generator: neutral not switched at transfer panel, which happens to be the correct configuration. The neutral is bonded at the main service panel. There will be no ground conductor current.
39. **Can a computer be used with the GenerLink?**
- A computer can be used with the GenerLink and not get damaged.

GenerLink Technical Questions

6

40. **Does the meter get read when the GenerLink is in use?**
- As long as there is power on the Utility lines, the meter can be read. When there is no power on the utility lines it will not.
41. **After 30 amps and the disconnecting of the GenerLink. How do you restart so that you are getting power?**
- If there is no power present then it will reset itself in less than 1 minute.
 - If the utility is present, then there is too much load and it will not disconnect.
42. **How is the plug end of the Cord supposed to hook in the GenerLink if they hear a click?**
- The smaller part goes into the middle part and the larger part goes on top of the middle size part you will hear a click when you have the bigger piece over the middle sized part.
43. **How will the customer know if the unit is installed correctly?**
- Green LED light will come on.
44. **How will the customer know if the unit has a bad board?**
- The Red LED light will turn on.
45. **What does the customer do if they do not hear the ASCO switch transfer and why would they not hear the ASCO switch transfer from the utility lines to the Generator?**
- Too much load must turn shut stuff off.
46. **Why will the LED lights not come on when the power is out from the utility?**
- No utility is present to power LEDs.
47. **What is the Surge Current?**
- Total Surge Current= 100,000amps
 - Max Surge Current= 50,000 amps L1-G and L2-G
48. **Why do you have to turn the idle off on the Generator?**
- If the generator does not have 240 volts, it will have lack of motion and or energy to transfer over, from the line to the GenerLink or visa versa.
49. **Why is the Yellow and Green Light Showing?**
- The Green is illuminated to show that the utility is present.
 - The Red is illuminated to show that it needs to come in for repair.
 - It is okay if the yellow light is illuminating.
50. **How do you know if a Generator has the AVR?**
- AVR: regulates generator voltage, is a device indispensable for operation, it is required to have superior reliability in addition to easy maintenance or repair features.
 - Your Generator will have a switch.

GenerLink Technical Questions

7

51. **How much is the surge rated up to?**
- The surge is rated up to 100,000AMPS.
52. **Why are the warnings about the cord not being able to stay plugged into generator and the meter there?**
- You can keep the unit plugged in at all times. It is suggested not to, because it is like an extension cord.
 - If you were to keep it plugged in and a lawnmower were to run over the cord...
53. **Will the GenerLink work with a 400amp meter socket?**
- The GenerLink will work with a 400-amp meter as long as it is a 200-amp meter socket and is 4 jaw.
54. **Is the 50 amp straight plug a twist lock? If not do we make a converter to make the plug end a twist lock?**
- The 50-amp plug is a straight plug. You have to make your own converter to have the plug fit into the plug receptacle.
55. **What is the Maximum sustained current carrying capability when utility power is flowing through the GenerLink device?**
- Maximum sustained current: The ASCO transfer switch used in the GenerLink is their 200 Amp continuous switch, however because it is in an enclosure, the continuous rating is $0.8 * 200$ or 160 Amps. This matches the rating on a 200 amp load center. The switch was also tested by American Electric Power in Columbus Ohio, and one test required the unit be switched under a 300 Amp load, multiple times. The unit was switched 50 times at 300 Amps and still operated properly.
56. **What is the Maximum fault current rating of the GenerLink device?**
- Maximum Fault Current: The GenerLink has a 10,000 Amp fault rating. An interesting web site that addresses short circuit ratings is http://interfire.org/res_file/fseab_sc.asp.
57. **Electrical Single line showing the electrical path, both under normal operations (Power supplied by the utility) and emergency operations (power supplied by Generator).**
- See attached file.
58. **Is the switch device a 2 pole (both legs of the 240V) mechanical switch?**
- The GenerLink uses an ASCO 2 pole switch that is electrically positioned and mechanically held in place. These are the requirements as set by UL section 1008.
59. **What is the electrical rating data on the GenerLink's internal transfer switch?**
- The ASCO transfer switch is a 200 Amp Switch; however it is de-rated by a .8 multiplier because of the National Electric Code.**
 - What is the GL's switch normal current rating? - 200 Amps
 - What is the GL's switch load break rating? - 200 Amps even though it will pass at 300 amps.
 - What is the GL's switch load make rating? - 200 Amps and again, it will pass at 300 amps.
60. **The Tech Spec shows the GenerLink to be 200A compatibility, however the GI is limited to 7.2kW (30Amps @ 240V) continuous, or 9.6kW (40Amps @ 240V) short term. Could you please provide some more information clarifying the difference?**
- Inside the GenerLink there is a 200 amp transfer switch for the utility voltage and a 40 amp relay that controls the generator. Please see the attached Power Point presentation for details.

GenerLink Technical Questions

61. **I noticed that the Tech Specs limits the GI to 7.2kW continuous and the published list of “approved” Gens compatible with the GenerLink goes as high as 10 kW, could you please explain the difference.**
- a. We manufacturer 2 versions of the GenerLink the MA-23 is good for 30-35 amps continuously. It will also handle a surge of about 50 amps for 10 minutes. The MA-24 is good for 40-45 amps continuously and will handle a surge of 60 amps for 10 minutes and 100 amps for 3 seconds. The internal over-load protection utilizes 2 thermal circuit breakers. Some generators (i.e. Guardian Ultra Source 17.5 KW) have a L14-30 connector which will work fine with the GenerLink, the user will just not be using the maximum capacity of the generator.
62. **While the customer’s service in normal utility power mode, what is the GenerLink’s operational mode if the generator is started while connected to the GenerLink via the cord.**
- a. The generator will always takes priority. This operational feature is great for testing a generator and to see what it will run in the house, even when the utility is present. From a utility perspective, any customer using a GenerLink will be left on generator power even when the utility is trying to bring everyone up and online. The “Cold Load Pick-up” will be reduced by the number of customers using a GenerLink.