

# **OPERATOR MANUAL**

BN Products-USA™ Customer Service (800) 992-3833 | mail@bnproducts.com

#### Inverter Generator Parallel Kit | 120V | 30A - 50A

# **BNGPB** Parallel Kit



#### FOR USE WITH INVERTER GENERATOR MODELS:

BNG2300iSAC | BNG2800iE | BNG3800iAEFIC

#### SAVE THIS MANUAL - KEEP IN A SAFE PLACE

This manual contains important details regarding safety and operation of this accessory product. Before using this product, read all warnings, instructions, and labels. Serious personal injury and/or property damage may occur if cautions and recommendations are not followed.



#### **BN Products-USA**<sup>™</sup>

3450 N Sabin Brown Road Wickenburg, AZ 85390

(800) 992-3833 BNProducts.com

### **Important Safety Instructions**



#### WARNING! Read all instructions.

Failure to follow all instructions listed below may result in fire, serious injury and/or DEATH FROM ELECTRIC SHOCK.

The warnings and precautions discussed in this manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

#### **Setup Precautions**

- 1. Set up and use only on a flat, level, dry, well-ventilated surface.
- 2. All connections and conduits from the generators to the load must only be installed by trained and licensed electricians, and in compliance with all relevant local, state, and federal electrical codes and standards, and other regulations where applicable.
- 3. Wear safety goggles during set up.
- 4. Inspect thoroughly before each use. Do not use if damaged.
- 5. Do not plug more than the specified number of watts into this cord.
- 6. Do not run Parallel Kit through doorways, holes in ceilings, walls or floors.
- 7. Use two of the same model generator. Do not use two different generator models.
- 8. Turn generators off before connecting the Parallel Kit.
- 9. Fully insert cable plugs into outlets.
- 10. Do not remove, bend or modify any metal prongs or pins of the Parallel Kit.
- 11. Do not use excessive force to make connections.
- 12. Keep away from water.
- 13. Keep Parallel Kit dry and away from wet ground and mud.
- 14. Do not drive, drag or place objects over Parallel Kit Cords.
- 15. Do not walk on Parallel Kit Cords.



WARNING!

TO PREVENT SERIOUS INJURY, DEATH, AND GENERATOR AND/OR EQUIPMENT DAMAGE FROM ELECTRIC SHOCK AND FIRE:

#### **Operating Precautions**

- 1. Never use generators indoors, including in garages, basements, crawl spaces and sheds. Opening doors and windows or using fans will NOT prevent carbon monoxide build up in the home.
- 2. When using generators, keep them outdoors and far away from open doors, windows, and vents to avoid toxic levels of carbon monoxide from building up indoors.
- 3. If you start to feel sick, dizzy, or weak while using generators, get to fresh air right away. The carbon monoxide from generators can quickly lead to full incapacitation and death.
- 4. Keep children and pets away from the Parallel Kit, especially while it is operating.
- 5. Do not exceed the maximum power rating of the generators. Make sure that the total electrical rating of the all of the tools or appliances plugged into the generators at the same time does not exceed that of the generator. Check that the startup surge will not be beyond the limit of the generators.

- 6. Avoid substantially overloading which will trip the circuit breaker. Slightly overloading the generators may not trip the circuit breaker, but will lead to premature generator failure.
- 7. Do not attempt to connect or disconnect load connections while standing in water, or on wet or soggy ground.
- 8. Do not touch electrically energized parts of the generators and interconnecting cables or conductors with any part of the body, or with any noninsulated conductive object.
- 9. Insulate all connections and disconnected wires.
- 10. Guard against electric shock. Prevent body contact with grounded surfaces such as pipes, radiators, ranges, and refrigerators.
- 11. Only connect two identical Inverter Generators together using the Parallel Kit.
- 12. Connect Parallel Kit only to terminals marked "Parallel Outlets" on the front of the generator.
- 13. Do not remove or connect Parallel Kit while generators are running.
- 14. Do not attach a Parallel Kit to only one generator.
- 15. Do not attach a heavy load to any other outlet on a Generator that has a Parallel Kit attached.
- 16. Wear safety glasses during use.
- People with pacemakers should consult their physician(s) before use. Electromagnetic fields in close proximity to a heart pacemaker could cause pacemaker interference or pacemaker failure. Caution is necessary when near the engine's magneto or recoil starter.
- 18. Accessories that may be suitable for one piece of equipment may become hazardous when used on another piece of equipment.
- 19. Stay alert, watch what you are doing and use common sense when operating this parallel kit. Do not use while tired or under the influence of drugs, alcohol or medication.
- 20. Dress properly. Do not wear loose clothing or jewelry. Keep hair, clothing and gloves away from moving parts. Loose clothes, jewelry or long hair can be caught in moving parts.
- 21. Use the equipment, accessories, etc., in accordance with these instructions and in the manner intended for the particular type of equipment, taking into account the working conditions and the work to be performed. Use of the equipment for operations different from those intended could result in a hazardous situation.
- 22. WARNING: This product contains or, when used, produces a chemical known to the State of California to cause cancer and birth defects or other reproductive harm. (California Health & Safety Code § 25249.5, et seq.)
- 23. Before use, check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the equipment's operation. If damaged, have the equipment serviced before using. Many accidents are caused by poorly maintained equipment.
- 24. Use the correct equipment for the application. Do not modify the equipment and do not use the equipment for a purpose for which it is not intended.

#### **Service Precautions**

- 1. Before service, maintenance, or cleaning, unplug the Parallel Kit from both generators.
- 2. Keep all electrical equipment clean and dry. Replace any wiring where the insulation is cracked, cut, abraded, or otherwise degraded. Replace terminals that are worn, discolored, or corroded. Keep terminals clean and tight.
- 3. Do not alter or adjust any part of the equipment or its engine that is sealed by the manufacturer or distributor. Only a qualified service technician may adjust parts that may increase or decrease governed engine speed.
- 4. Wear safety goggles during service.
- 5. Maintain labels and nameplates on the equipment. These carry important information.
- 6. Have the equipment serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the equipment is maintained. Do not attempt any service or maintenance procedures not explained in this manual or any procedures that you are uncertain about your ability to perform safely or correctly.
- 7. Store equipment out of the reach of children.

### Operation



Figure 1 - Parallel Kit Components

#### Parallel Kit Components (Figure 1)

- 1 Left and Right parallel wiring
  - A Connectors (Red)
  - B Connectors (Black)
  - C Ground Connector (ring)
- 2 120V AC 30A Socket
- 3 Ground Terminal
- 4 30A Circuit Breaker
- 5 50A Circuit Breaker
- 6 120V AC 50A Socket
- 7 Mounting clamp adjustment (knob)
- 8 Cable adapters (for BNG2800iE inverter generator)



#### **GENERATOR COMPATIBILITY**

This parallel kit is designed for use with BN Products-USA<sup>™</sup> inverter generator models BNG2300iSAC, BNG2800iE, and BNG3800iAEFIC. Generators used in parallel must be identical model generators producing the same output to combine through the use of the BNGPB parallel kit.

#### Using Parallel Connection (120V Only)

\*Generators must NOT be running when connecting the BNGPB Parallel Kit

1. Plug the the parallel wiring into the generator; plug each connector into the corresponding color on the generator parallel ports.

a. BNG2800iE model generators only: Use the Cable adapters to fit on the end of the red/black cables if connecting to the BNG2800iE inverter generators

- 2. Connect the ground ring to the ground terminal ring on the generator panel.
- 3. Connect the second generator in the same manner as step 1 and step 2.
- 4. See the example in Figure 2.







#### Grounding the Parallel Kit

The grounding terminal of the parallel kit should be connected using the ground scrw, and grounded to a proper ground source.



Figure 3 - Connect Parallel Kit to Ground

#### **Running Generators in Parallel**

- With the parallel kit properly grounded and connected to both generators, the generators may be started.
- Do NOT use a parallel kit with only one generator running.
- Do NOT attempt to operate equipment with the parallel connection that exceeds the rating of the 30A or 50A circuits when in use.
- Do NOT attempt to operate equipment that requires power greater than the combined capacity of the generators running that are connected to the parallel kit.

#### **Output Sockets**

This parallel kit is equipped with two 120V AC Sockets (Figure 4). Both outputs may be used at the same time, but the overall load cannot exceed the load capacity of the generators running in parallel:

- 120V AC 30A L5-30R
- 120V AC 50A 14-50R

Both outlet sockets are protected by a separate circuit breaker on the parallel kit (30A & 50A circuits)



Figure 4 -BNGPB Outlet Receptacles

### Troubleshooting



PREVENT SERIOUS INJURY FROM EQUIPMENT FAILURE: Do not use damaged equipment. If abnormal noise, vibration, or excess smoking occurs, have the problem corrected before further use. Procedures not specifically explained in this manual must be performed only by a qualified technician.

#### Before Each Use

Inspect the general condition of the charger. Check for:

- Loose hardware or cabling
- Cracked or broken parts
- Damaged electrical wiring or cable insulation
- Any other condition that may affect the safe operation of this kit

#### After Each Use

• Clear external surfaces of the kit with a clean cloth, store in a clean dry place

Problem	Possible Cause(s)	Possible Solution(s)
Parallel Kit does not have power	<ol> <li>Device not connected</li> <li>Circuit Breaker may be tripped</li> <li>Damaged parallel kit</li> </ol>	<ol> <li>Turn generator(s) off and check outlet connections; restart</li> <li>Turn off/unplug parallel kit, reset breaker, reconnect parallel kit - restart</li> <li>Contact Customer Service if damaged or defect kit requires service</li> </ol>
Circuit Breaker tripped	Rate load capacity exceeded	Reduce load by disconnecting equipment plugged into parallel kit; always maintain load within capacity

### Compatibility

<b>BNG2300iSAC</b> (x 2) 2800W Starting - 2300W Rated Connects to BNGPB using connector cables directly to control panel of the BNG2300iSAC inverter generator
BNG2800iE (x 2) 3000W Starting - 2800W Rated Connects to BNGPB using connector cables to control panel of the BNG2800iE inverter generator; cable adapters included with the BNGPB parallel kit are required to plug the parallel cables into the control panel of the generator.
<b>BNG3800iAEFIC</b> (Fuel Injected with Remote Start) (x 2) 4600W Starting - 3800W Rated Connects to BNGPB using connector cables directly to control panel of the BNG3800iAEFIC inverter generator

### **Company Information**

Email

## **BN Products-USA**<sup>™</sup>

A DIVISION OF BENNER-NAWMAN, INC.

#### Address

3450 N Sabin Brown Road Wickenburg, AZ 85390 United States of America

#### Telephone

(928) 684-2813 (800) 992-3833 Website BNProducts.com

mail@bnproducts.com



