

Bona Power Station Plus

Power Station Plus Electrical Wiring Requirements/Instructions



Failure to properly ground the Power Station Plus can result in serious injury and/or death

The Bona Power Station Plus is intended to be used as a buck/boost transformer. It provides the operator of a 220V wood floor sanding machine the opportunity to buck down or boost up the voltage as needed in order to provide the optimum voltage required to properly operate the motor on the sanding machine. BonaKemi sanding equipment requires 230V service as the optimum power feed.

The Bona Power Station Plus also provides a 110V duplex outlet located on the front face of the unit as a convenience to the end user to operate a small hand tool, buffer or vacuum product.

The Power Station Plus is designed as a four wire system providing two 110V hot leads, a neutral return wire and a ground wire. This four-wire arrangement allows for the inclusion of the 110V duplex outlet which may be used simultaneously with the 220V outlet on the transformer. When properly connected to a four wire 220V/230V service such as a Residential dryer or stove outlet the Power Station Plus will operate as intended.

However, when the Power Station Plus is connected to an existing three-pronged dryer or stove outlet by a *pigtail setup* consisting of a proper three-pronged male plug wired to a cable consisting of only three wires (two 110V hot legs and a ground wire), the 110V duplex outlet on the Power Station Plus will be rendered useless. The 220V motor will run properly in this arrangement and will be properly grounded.

In order for the 110V duplex to work and be properly grounded there must be a FOURTH wire (the white return wire) to complete the circuit. With regard to the above mentioned three-wire pigtail, a female four-pronged connector may be attached to the end of the three-wire cable which in turn may be connected to the four-pronged male connector coming from the four-wire cable on the input side of the Power Station Plus. Because this three-wire pigtail has no “return white wire”, the 110V duplex will be rendered

useless. If the product user wishes to activate the 110V duplex, the user must revert to a four-wire arrangement.

A CERTIFIED ELECTRICIAN MUST INSTALL A FOUR-WIRE DROP WITH A FOUR-PRONGED FEMALE NEMA CONNECTOR TO CONNECT TO THE FOUR-WIRE CABLE AND MALE CONNECTOR COMING FROM THE POWER STATION PLUS. DO NOT ATTEMPT THIS IF YOU ARE NOT A CERTIFIED ELECTRICIAN.

Three-pronged dryer and stove outlets were the common service outlets for residential construction until around 1998 when NEMA standards were changed to the four-wire system. To comply with this Standard Change when using the Power Station Plus, **EMPLOY A CERTIFIED ELECTRICIAN TO MAKE ANY ADDITIONAL ELECTRICAL CONNECTIONS TO ANY JOB SITE ELECTRICAL SERVICE THAT WILL NOT ALLOW THE SANDING EQUIPMENT OPERATOR TO CONNECT THE POWER STATION PLUS IN ACCORDANCE WITH THE PRODUCT'S INTENDED USE.**

If the sanding equipment operator chooses to have a certified electrician prepare an electrical service connection using a three wire, three-pronged plug it must be understood that the 110V convenience duplex will not be operable. **NEVER CONNECT THE NEUTRAL AND GROUND WIRES TOGETHER IN A FOUR-WIRE CABLE IN ORDER TO ACCOMMODATE A THREE-PRONGED PLUG. THIS MAY RESULT IN ELECTRICAL SHOCK DUE TO IMPROPER GROUNDING.**