ITS-Pure Sine Wave Inverter Connection and Start-up Procedure

This document is a short form for installing the ITS PSW series of power backup units. Failing to adhere to the instructions and the sequence thereof may result in damage to the power backup unit and render the warrantee void.

Step 1: Switch off all the circuit breakers on the Power Backup Unit – AC input, AC output, Inverter, Mains Bypass, DC input.

Step 2: Switch on the System Control switch (situated on the back of the unit).

Step 3: Connect the load and supply cable to the power backup unit (Output –Live, Neutral, Earth & Input – Live, Neutral, Earth).

Step 4: Connect the battery bank (make sure using a voltmeter that the polarity is correct as well as the required voltage)

Step 5: Switch on the AC output breaker switch.

Step 6: Switch on the Battery breaker switch (on the back panel). The battery voltage panel meter should now display the battery voltage.

Step 7: Switch on the AC supply to the Power backup unit (external 220VAC from Eskom...when available) and then switch on the AC input breaker switch.

Step 8: Switch on the Inverter breaker switch – the unit should now be internally connecting the AC supplied to the input to the appliances connected to the inverter's output.

Step 9: Press the red Power On/Off push button – the battery charging indicator should now come on. Also the battery charge current should now display the charging current. The charging current is preset to about 10A which is perfect for a 4 x 100Ah battery bank.

ITS recommends setting the battery charging current to fully recharge the batteries over no less than 8 hours. Setting the charging current higher than this may shorten the life of the batteries!

Battery capacity / 8 hours = maximum charge current (eg: 100Ah / 8h = 12.5A)

The battery charging current should not be adjusted while the unit is on!

To adjust the battery charging current, first press the red On/Off push button to switch off the unit and then make an adjustment.

Step 10: If the AC input power to the unit is now interrupted the unit should automatically switch to inverter mode (inverter indicator on) after approximately three seconds (ie: the AC output will be down for about 3 seconds). When the input AC power is restored the unit will switch back to charging mode after 10 seconds. **Never load the 5kVA unit with more than 3.8kW or with heavily inductive loads.**