

# Powering instruNet From +12VDC or Batteries

Application Note #143, 5/22/2003

## To Power instruNet Devices from +12VDC

This can be done by converting the 12VDC to 120VAC with a simple \$40 upconverter, and then plugging the iNet-3xx.x power supply input connector into the upconverter, and then attaching the 3xx output connector to the instruNet Device. Several suppliers are listed below:

- \* 12V DC-to-AC converter, 140W, manufactured by Linksys, "Power2Go" brand name, \$40
  - search "Power2Go" at [www.cdw.com](http://www.cdw.com)
- \* 12V DC-to-AC converter, 300W, manufactured by Tripp Lite #PV300, \$60
  - visit <http://www.tripplite.com/products/product.cfm?productID=185>
  - type "pv300" into part # search field at [www.mouser.com](http://www.mouser.com)
- \* Type "power inverter" into the Search field at [www.digikey.com](http://www.digikey.com)
- \* Type "power inverter" into the Search field at [www.cdw.com](http://www.cdw.com)
- \* Type "power inverter" into the Advanced "key word" search field at [www.mouser.com](http://www.mouser.com)
- \* Visit [www.tripplite.com](http://www.tripplite.com), drill to Inverters, Compact

The Power2Go device from Linksys consumes approx .7A @12V when there is no load, and an additional .25A for each iNet-100 devices attached.

## To Power instruNet Devices from Batteries

This can be done with a simple \$100 battery back up UPS system, where the iNet-3xx.x power supply input connector is plugged into the UPS, and the 3xx output connector is plugged into the instruNet Device. Each instruNet box draws approximately 5Watts, therefore, a 35Watt-Hour UPS should last approximately 7hrs with one instruNet 100 device. For longer run times, one can acquire a larger and more expensive UPS. Several suppliers are listed below:

- \* BC Personal Standby Backup 300VA, 110Vac, 300W, manuf by Tripp Lite, Part #BC PERS 300, \$80 35W-Hr  $((175W * .5 \text{ load}) / (60 \text{ minPerHr} / 17 \text{ min}))$ ,
  - type "545-300" into Part # Search field at [www.mouser.com](http://www.mouser.com)
  - type "BC PERS 300" into Search field at [www.digikey.com](http://www.digikey.com)
  - visit <http://www.tripplite.com/products/product.cfm?productID=2>
- \* Type "ups systems" into the search engine at [www.digikey.com](http://www.digikey.com), and then select an output power rating (e.g. 180W) or a brand name (e.g. BC Series) in the product selection system
- \* Type "ups/battery backup up to 500va" into the Search field at [www.cdw.com](http://www.cdw.com)
- \* Type "standby ups" into the Advanced Search field at [www.mouser.com](http://www.mouser.com), Keyword Type "contains", Precision "all words"
- \* Visit [www.tripplite.com](http://www.tripplite.com), drill to Ups Systems, BC Series