

## Watts Aware-118d Power-Use Monitor Solution "Bill of Materials"

- **6 Split Core AC Current Transducers Sensors**
  - 3 sensors measure up to 500 A (AC) in power cables up to 1.06" in diameter
  - 3 sensors measure up to 200 A (AC) in power cables up to 0.85" in diameter
- **Off-the-Shelf Netbook Computer**
  - Typically like HP Mini 311 w/ 1.6 GHz Intel Atom processor
  - 11.6" diagonal screen, 160 GB hard disk, & MS XP Operating System
- **Data Acquisition Unit -- WA-118 Network Enabled Equipment Monitor (NEEM)**
  - Acquires analog sensor signal and converts to digital data - modeled on IEEE-1451.2 to create virtual smart sensors.
  - Locally stores data into Flash memory resident in the NEEM unit for data backup - data for 4 channels can be stored every 30 seconds onto NEEM hardware for 6+ months.
  - Transforms analog sensor data into web formatted data with sensor properties.
  - Included embedded MicroWeb server to connect acquired data to Ethernet networks
  - Each unit supports up to 6 AC current sensors & 1 Type-K thermocouple sensor.
  - Each unit includes unlimited license to Sensor Synergy's Dashboard console software loaded onto Netbook computer to display data, store data, and analyze data.
  - Configuration software for optional set-up on the WA-118 NEEM data acquisition unit
- **Dashboard Software for Watts Aware**
  - Acquires power-use data from all sensors every 2 to 3 seconds.
  - Displays data on main screen in graphs and dial gauges including power consumption in \$/hr
  - Factory loaded onto netbook and preconfigured for Watts Aware with selected sensor suite. No additional software configured required to operate but can be customized by user.
  - User can review prior data from any sensors or groups of sensors using included Data Browser.
  - User can enter notes onto graphs to annotate events and activities
  - User has continuous and unlimited access to all data files - which are stored on the Netbook. The data files have 2-second resolution for all sensors and all groups of sensors.
  - User can create/export data files with custom time ranges (hours to months) in CSV - text format compatible with Excel, Notepad, Word and most spreadsheet or text viewing programs.
  - Computer hardware is preconfigured to operate with included router to immediately track power-use data with no necessary network setup.
  - Includes mini-mouse, netbook locking cable, and USB memory stick.
- **Wireless G Broadband Router for mini, 3-node, wireless network -- preconfigured for use with Watts Aware 118 -- typical hardware is Cisco/Linksys WRT54G2**
- **Wireless-G Repeater / Range Expander preconfigured -- typically Cisco/Linksys WRE54G**
- **Printed manual, electronic manual, CD with backup copy of Dashboard and Utility software**
- **Heavy duty mounting brackets and Type K thermocouple temperature sensor**
- **Power supply and cables necessary for installation with 15' sensor cables**

## Photo illustrating typical components included with WA-118d

The Watts Aware 118 product line delivers a complete hardware/software solution including:

- netbook computer
- data acquisition unit with micro-web server (blue-box)
- Dashboard data logger software
- AC "clip-on" sensors
- sensor to data acquisition unit cables
- Ethernet patch cables
- serial cables
- USB to serial adapter
- network router
- network repeater
- cable lock for computer
- USB thumb drive
- instruction manual
- software back-up CD
- quick-start guide

