Power Taps Proper Use

A Re-locatable Power Tap (RPT), or power strip, is used to provide multiple receptacles from a single facility outlet. It has a 1.5 ft to 25 ft integrated power cord, and a housing containing several receptacles (typically 3 to 8). In addition, it may contain:

- power switch
- over-current protection (a resettable breaker)
- surge suppression or EMI filter

Where – Very common in offices, especially with computers, small kitchen areas, and laboratory areas.

Rules – The following must be followed.

(1) The power strip must be NRTL listed (UL, CSA, etc.)

(2) The power strip must be plugged into a facility receptacle (including those that are permanently wired in a laboratory or office raceway)

(3) The power strip must NOT be permanently mounted. No tools can be used to mount the power strip, and any screws used to hang the strip cannot be accessible for tightening.

(4) Do NOT plug a power strip into another power strip, into an extension cord, or into a UPS.

(5) Never exceed the maximum rated load (1800 W total for a 120 V, 15-A power strip). Add them up!

(6) Avoid any single load at 1000 W or more.

Allowed Electrical Loads

Most power strips are rated for 15 Amps. But, you should not approach this rating with one load. Since most appliances are rated in power (Watts), then the 15 A power strip is rated at 1800 W total, for a 120V strip. You can also add currents using P = VxI, where P is power in Watts, V is 120 Volts, and I is current in Amps. Then, I = P/V for each load. Keep I total < 15 Amps.

To help, here are some typical ratings for office and light kitchen areas:

NEVER plug into a power tap

- Large refrigerator 600 – 800 W running, > 1500 W startup
- Any motor 1/3 hp or greater >750 W running, 1500 W startup
- Microwave oven 1100- 2000 W
- Toaster oven, hot plate 1200 – 1500 W
- Large Coffee maker 1220 W
- Laser Printer 600 – 1500 W
- Window AC 1200 – 3000 W
- Space heater 1000- 1800 W

ALLOWED in a power tap, add up to get total

- Small coffee pot (4 cup) 650 W
- Inkjet or dot matrix printer 100 – 200 W
- Clock radio, small radios, VCR 50 – 100 W
- Slow cooker (for that chili) 200 W
- Laptop power supply 60 – 80 W
- Computer with monitor 200 – 500 W
- Small refrigerator 300 W
- Small portable fan 200 – 300 W
- Charger (cell, PDA, etc.) < 5 W