



# TOOLS OF THE TRADE

## POWER DISTRIBUTION: SPECIAL RELOCATABLE POWER TAPS

**T**HE INCREASE IN THE NUMBER OF DEVICES USED IN PATIENT CARE AREAS HAS CREATED PROBLEMS with supplying power safely and conveniently. Recent changes in Underwriters Laboratories (UL) regulations have helped to identify safety requirements in patient care areas for power distribution. There are few pieces of equipment common to virtually all healthcare facilities, but portable power devices or power strips happen to be one of them. Whether it's in a hospital, surgery center, doctor's office or veterinarian's office, power strips are pervasive as the expansion of electronic equipment continues.

While everyone recognizes portable power devices, and almost everyone has at least one at home, there are significant differences between various types and the protection they afford medical staff and patients. In particular, recent changes in UL standards mean that different products might be purchased in the future. To complicate matters further, different areas of medical facilities require different types of portable power devices.

### PATIENT CARE AREAS

One important definition in the National Electric Code is that of patient care areas. "General care areas" are places where patients receive general medical treatment and include bedrooms, examining rooms, treatment rooms, clinics and similar areas where patients will come in contact with ordinary appliances. "Critical care areas" are places where patients undergo invasive procedures and include special care units, intensive care units, coronary care units, angiogra-



THE ONLY POLE-MOUNTED POWER TAP CURRENTLY APPROVED BY UNDERWRITERS LABORATORIES FOR USE IN PATIENT CARE AREAS IS AIV'S POWERMATE.

phy laboratories, cardiac catheterization laboratories, delivery rooms, operating rooms and similar areas where patients

will be connected to line-powered medical devices.

There is also a definition of "wet procedure locations," which are places where there are either standing fluids on the floor or drenching of the work area; these wet areas are "intimate" to either the patient or staff. "Patient care vicinity" is the space with surfaces that patients, or attendants who can touch patients, are likely to touch. In a patient room, this is typically an area 6 feet beyond the perimeter of the bed.

In the United States, UL has published a number of standards for relocatable power taps (portable power strips), including a general standard, UL1363. Until late 2006, UL was testing general-purpose portable power devices to UL 1363, for devices for attachment to furniture to UL962A and medical-use devices to UL 60601-1. In late 2006, it published UL 1363A, an outline of investigation that it now uses to test portable power devices designed and then certified for use in patient care areas. UL1363A



details tests included in both UL 1363 and UL 60601-1 that must be passed to receive recognition under UL 1363A. Since the introduction of UL 1363A, UL has announced that it will no longer certify medical-related portable power taps (power strips) to any standard/outline other than UL 1363A.

**POWERMATE**

The only pole-mounted power tap currently approved by UL for use in patient care areas is AIV's PowerMATE®. This device has three dual, hospital-grade receptacles (total of six outlets) mounted in an angular base that allows room for multiple AC adapters. The face of the PowerMATE features a green power-on indicator. The unit and the devices plugged into it are protected by a 15-amp circuit breaker.

Furthermore, a large thumbscrew on the rear of the unit allows it to be mounted to IV poles up to 1.5 inches in diameter. A special nut on the screw can be tightened to lock the unit to the pole and prevent it from being easily removed. Mounting holes on the unit's back also allow it to be attached to the side of a mobile cart. An extra locking screw cap is supplied to secure the PowerMATE on a flat surface and requires a tool for its removal. Because the PowerMATE is so often mounted on an IV pole, it features a drip guard. In addition, a 15-foot hospital-grade cord and Nema 5-15 plug

increase the mobility of the devices connected to the unit and help eliminate extra power-cord clutter.

**ISOMATE**

The IsoMATE® is a PowerMATE that includes an isolation transformer for areas where the power tap itself is required to maintain leakage-current limits. These units are used most often in operating rooms or other potential "wet areas" within hospitals. The IsoMATE controls the total leakage current of all the devices plugged into it to less than 100 µA, making it ideal for use by personnel not trained on leakage-current requirements.

It can be used with carts holding multiple devices whose combined leakage current would otherwise exceed this limit. The IsoMATE is rated for 5 amps service and features the same receptacle/outlet front configuration as the PowerMATE. The unit can be mounted on a pole up to 2.5 inches in diameter. It is UL listed to UL60601-1 and CSA C22.2. ⚡

*For more information regarding this product, contact 888-702-1534 or visit [www.aiv-inc.com/ttprm](http://www.aiv-inc.com/ttprm).*



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