
**NO. 2009 Oregon Electrical Specialty Code
Article 424.19 - Disconnect Requirements**

- Code Section:** OESC 440.3(B)&(C), 430.109(B), 424.19, 422.31(A)
- Code Edition:** 2008 Oregon Electrical Specialty Code
- Date:** Issued August 2009
- Subject:** Provisions for a local disconnect at the indoor components of a zonal ductless mini-split HVAC system.
- Question:** **Is a separate disconnect required at the indoor unit or component of a mini-split system used in a residential application?**
- Answer:** **Indoor components, with a unit switch that complies with NEC article 424.19(C) or 422.34, are adequate to meet the intent of the OESC for personnel protection. Where there is no switch on the indoor unit, article 422.31(A) applies, and a lockable disconnect at the outdoor unit shall be permitted to serve as the disconnecting means.**
- Analysis:** The Northwest Energy Efficiency Alliance is engaged in an effort to market ductless mini-split systems to displace electric resistance space heating in existing northwest homes. Zonal ductless mini-split HVAC systems are being manufactured by companies that build heating and air conditioning equipment, and mechanical/electrical contractors are installing them throughout the northwest.
- There is a significant difference between these systems and the traditional split system. A single branch circuit feeds the outdoor component, and the indoor unit is fed from the outdoor component. Article 424.19 of the 2008 NEC requires a lockable disconnecting means within sight of both the outdoor unit and the indoor unit. Because the indoor unit fits the definition of an appliance in Article 100 and in Administrative Rule, it is determined that Article 422 shall govern their installation. Because the circuit feeding the indoor unit is derived within the outdoor unit, a lockable disconnecting means at the outdoor unit can serve as the disconnecting means permitted in 422.31(A). A lockable disconnect at the outdoor unit provides adequate protection if extensive maintenance is required.
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