Technical Article

Terminology

Product: Renoir® II Architectural Wall Box Dimmers **Article ID:** 20091214-DLB-RenoirII-03

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Summary: Defines terminology commonly used in this product line.

Information: Please find below the following terms and their definitions used in this product line:

- Master Dimmer – In a system with multiple dimmers and/or remotes, the master dimmer is the dimmer connected to the load.
- Remote – In a system with multiple dimmers and/or remotes, the remotes are used to control master dimmers from remote locations. Renoir II supports both remote dimmers and switches. This means you can implement a traditional 3-way system where you have a master dimmer and remote switch, or, you can implement a Renoir II master/remote dimming system where you have a master and remote dimmer. With Renoir II, you can also dim from a remote location.
- Volts – Technically the term voltage or volts describes electrical potential. However, it is somewhat easier to think of it in terms of "pressure". United States voltages are either 120V or 277V. It's important to know the voltage of your system to ensure that the dimmer you select is capable of handling the voltage of your load. One of the unique features of the Renoir II line is that all products with a neutral support both voltages.
- Amps – Amps is a term that describes the flow rate of electricity "flow". Amps is the most accurate method to measure the load capacity of a dimmer or switch. You'll find amps as one of the terms we consistently use to describe the load handling capability of the Renoir II dimmers. Other load capacity terms are "Watts" and "VA." However, these forms of measurement are dependent on the voltage being used, amps are not. Many Renoir II dimmers support multiple voltages.
- Watts – Helps us quantity the "work" performed by electricity.
  - Calculated as follows: Watts = Volts * Amps
  - Only valid for resistive load such as an incandescent light bulb. Ballast or transformer loads are not resistive loads. They are transformer or ballasted loads, AKA inductive, capacitive, etc.
- VA – The VA is unit describing the "real power" or "apparent power" in circuit. VA is the abbreviated form of the phase Volt-ampere. For a resistive load, the two are equal.
  - For example, it is common that the VA rating of a transformer would be higher than the Watts rating of the transformer. This is because the voltage & current are not fully in sync with each other.
  - "Input Power" of a transformer or ballast is often rated in VA. It also is sometimes labeled "Input Watts"

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- Min – The lowest level a dimmer will dim to. If not 0, then the dimmer will not shut off. All Renoir II dimmers have a factory set minimum level of 0, this can not be changed.
- Max – The highest level a dimmer will dim to. All Renoir II dimmers have a factory set maximum level of 100%, this can not be changed.
- Cut-off Level – The levels just above the minimum. Different load types require different cut-off levels. For example, an Advance Mark 10® fluorescent dimming ballast has a cut-off level of ~56VAC. If you feed the ballast with any voltage lower than this, you can cause damage to the ballast or have a less-than-satisfactory user experience. Periodic flashing or flickering is common.
  - All Renoir II dimmers have configurable cut-off levels that are pre-set to their intended load type.
  - Sometimes the term “minimum level” is used when the better term is cut-off level. Consider the context of the term when evaluating what the author really means.

Contact: If you have any questions or concerns, please call LES technical support at (800) 959-6004.

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