The Word

A look at terms used in home inspection reports

Electrical Panel Cabinet

By BRUCE BARKER, ACI

ONCE AGAIN, The Word invites you to travel into the dark realm of terms that often are misused or misunderstood in home inspection reports. The Word hopes you will find this trip informative and maybe a little entertaining.

The Word's term today is electrical panel cabinet. The Word finds this term interesting because we tend to pay more attention to wires and overcurrent protection devices (usually circuit breakers) inside the cabinet than we pay to the cabinet itself.

What's in a Name?

That which many people call the electrical panel (also known as a load center) really is two separate components, although in residential configurations they usually are shipped as one component. The interior component is the panelboard on which the circuit breakers are mounted. The exterior component is the cabinet. Not that this has much practical importance; however, if you are describing a deficiency on or near the cabinet, it is more accurate to refer to the electrical panel cabinet and not to the electrical panelboard inside.

The Service Equipment

Do we all remember the basic service equipment requirements? This is important because our Standard of Practice requires us to inspect the service equipment and to describe its location. The service equipment is where you shut off all electricity to a building using six or fewer switches or circuit breakers in a cabinet or in a group of separate cabinets. The service equipment cabinet(s) should be located outtertrich cabiner to cellund

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side or, if located inside, they should be as close as possible to where the service entrance wires enter the building. This is because there is no overcurrent protection on the property for service entrance wires. The service equipment cabinet (and other electrical panel cabinets) should not be located in a bathroom, clothes closet, storage area or above stairs. The service equipment circuit breakers or fuses

That which many people call the electrical panel (also known as a load center) is really two separate components, although in residential configurations they usually are shipped as one component. within should be readily accessible and not more than 79 inches above the surrounding grade or floor when the handle is in the up position.

Readily accessible?

The service equipment (and electrical panelboards) should be readily accessible. Something is readily accessible if you can reach it quickly without moving or climbing over objects and without using portable ladders. Owner belongings that block access to panelboards prevent ready access. So do mirrors, art and similar hanging objects that seem as though they are used to hide these components from inspectors. Obstructions that prevent ready access are a deficiency, and you should report them as such.

Do locks prevent ready access? Strangely enough, they do not. This makes sense in occupancies other than single-family residential because one does not want to allow access to this equipment by unauthorized persons and because, in theory, access to the key or combination should be readily accessible to authorized persons.

In single-family residential occupancies, locked electrical panel cabinets can create access problems. In The Word's world, where most electrical panel cabinets are outside, people often lock them. When The Word requests access, there is frequent fumbling and mumbling as people search, sometimes in vain, to find the key. Fumbling and mumbling, in The Word's opinion, is not ready access. So, while people may have good reasons to lock exterior electrical panel cabinets, The Word advises clients that the key or combination should be readily accessible to all occupants at all times.

Cabinet Access

Speaking of access, what about clearances around electrical panel cabinets? We all probably remember that the clear area in front of these cabinets should be at least 36 inches deep, 30 inches wide (or the width of the cabinet, whichever is wider) and at least 78 inches high. But did you know that this clearance space also applies to components like air conditioner condenser disconnects? The disconnect does not have the required access if it is located behind the condenser. Other lesser-known access requirements include: (1) nothing other than electrical components

is allowed directly below the electrical panel cabinet and within 6 feet directly above the cabinet or to the finished ceiling; and (2) artificial light is required near electrical panel cabinets.

Communication Breakdown

It is important that occupants know not only where the service equipment and other electrical panel cabinets are located, but also what circuits are protected by the components within. The service equipment should be clearly labeled as such using a non-technical term such as main electrical shut-off. Use of non-technical terms is not required, but it's a good idea.

Individual branch circuits should be clearly labeled as to which specific circuits they protect. Terms like general lighting and receptacles are not sufficient. Labeling of individual circuits is a recent requirement; however, even in older homes, branch circuit labeling is a good safety upgrade to recommend.

The Bottom Line

The location of electrical panel cabinets and the functions performed by the components within are important parts of the client education aspect of a home inspection. Access and service clearances are important safety issues. If injury or property damage is prevented based on the education you provide, you will have performed a service far beyond your inspection fee.

Memo to the electrical gods: The Word does not reside on Mt. Olympus (just at its base) and welcomes other viewpoints. Send your lightning bolts or e-mails to inspectorbruce@cox.net. The thoughts contained herein are those of The Word. They are not ASHI standards or policies.



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