

VANCOUVER ELECTRICAL REPAIR

Outlets, Switches & Circuits

Kitchen and bathroom receptacle rules, GFCI and AFCI, dedicated appliance and hot tub circuits, suite separation

4 Expert Answers from Electric IQ

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Does a window air conditioner need its own outlet in a Metrotown condo?

A window AC unit does not always need a dedicated circuit by code, but in a Metrotown condo the practical answer is almost always yes, and the electrical room situation makes it more complicated than in a house.

Here is why. Most window AC units draw 7 to 15 amps depending on their BTU rating. The BC Electrical Code requires that a single appliance drawing more than 50 percent of a circuit's rating be on a dedicated circuit, and a larger unit (12,000 BTU and up, typically 10 to 15 amps) will often cross that threshold on a standard 15-amp circuit. Even a smaller unit sharing a circuit with a bedroom's lighting and outlets can trip the breaker repeatedly under load, which is a sign the circuit is being pushed, not just an inconvenience.

The strata layer is what really shapes the answer here

In a Metrotown high-rise, your in-suite panel is typically 60 to 100 amps, fed from an electrical room on your floor. Before any new circuit is added, an electrician needs to do a load calculation to confirm there is capacity in your suite panel. If the panel is already loaded with baseboard heaters, a dishwasher, a microwave circuit and in-suite laundry, adding a 15-amp AC circuit may require a service upgrade at the electrical room level, which is common property under the Strata Property Act. That means strata council approval and likely an alteration agreement before work starts, regardless of what the electrical work itself costs.

The circuit itself, if the panel has room, typically runs \$400 to \$900 for a new dedicated 15 or 20-amp outlet in a condo, though finished walls, concrete construction and a long run from the panel to the window wall can push that toward the higher end or beyond. If a load calculation reveals the in-suite panel needs upgrading, add \$1,200 to \$2,500 for a sub-panel or service change, and factor in strata coordination time.

Because this is in Burnaby, the electrical permit and inspection go through the City of Burnaby's own electrical department, not Technical Safety BC. Your electrician pulls the permit from Burnaby, and Burnaby's electrical inspector signs off on the work. Make sure any contractor you hire knows this, confirms the permit is included in their quote, and has their Technical Safety BC contractor licence, which you should verify directly on the Technical Safety BC website before hiring.

For a smaller window unit under 8,000 BTU on a lightly loaded circuit, plugging into an existing outlet is often fine in practice, but if the breaker trips or the outlet feels warm, stop using it that way and call an electrician. A warm outlet or a breaker that trips under AC load is a real fault, not just a nuisance.

Want quotes for this? Vancouver Electrical Repair can match you with local Burnaby electricians for free.

How hard is adding a three-way switch to stairs in a Coquitlam split-level?

Three-way switch installations in Metro Vancouver typically run **\$400–\$900** for a stair or hallway application, and a Coquitlam split-level adds a few wrinkles worth knowing before you call an electrician.

What makes this job easy or hard

The core task is straightforward: two switches, one light, a three-conductor traveller cable (14/3 or 12/3) running between them. The difficulty is almost entirely about access. In a split-level, the two switch locations are often on different floor levels with a short stair run between them, which means the cable has to travel through framing that may be blocked by the landing structure, fire blocking, or finished drywall on both sides.

If the stairwell walls are unfinished or the basement side is open, an electrician can usually fish the cable in a few hours and the job lands at the lower end of that range. If both walls are drywalled and the framing is tight, expect some exploratory cuts, drywall patching, and a longer day, which pushes the cost toward \$700–\$900 or beyond. Drywall repair is a separate trade cost on top of that; find a drywall contractor through the Vancouver Construction Network at vancouverconstructionnetwork.com if you need it.

A few Coquitlam-specific points worth knowing. First, the permit path: Coquitlam is served by Technical Safety BC for electrical permits, not a municipal electrical department. Adding a new switch and rewiring an existing circuit to add a second control point is considered new work and generally requires a permit and inspection. A licensed contractor will pull this for you; the permit fee is typically in the \$75–\$150 range and should be included in a fair quote.

Second, housing stock matters here. Many Coquitlam split-levels were built in the 1965–1980 period, which means there is a real chance the existing stair circuit is on aluminum branch wiring. If the electrician opens the existing switch box and finds aluminum conductors, the terminations at both new switches need to be handled with CO/ALR-rated devices or copper pigtails using approved connectors. That adds modest cost but is not a reason to walk away from the job; it is standard remediation work.

Third, check whether the existing stair light is on a 15A or 20A circuit and whether it is already AFCI-protected. BC Electrical Code requirements for arc-fault protection on bedroom and now many living-space circuits have expanded in recent years; an electrician will flag if the circuit needs an AFCI breaker as part of the permit scope.

What a fair quote should include: labour, the 14/3 cable and two three-way switches, the permit and inspection fee, and any exploratory cuts with at least a basic patch. Ask the electrician whether they charge separately for drywall repair or whether they leave the patch to you.

Before hiring, ask for the contractor's Technical Safety BC licence number and confirm WorkSafeBC coverage is in place. You can verify both directly with those bodies.

Want quotes on this? Vancouver Electrical Repair can match you with local Coquitlam electricians for free.

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Is a tamper resistant outlet required everywhere in a Langley home now?

Tamper-resistant (TR) receptacles are required in most locations throughout a new or substantially rewired home under the BC Electrical Code, but "everywhere" is not quite accurate. Here is how it applies in Langley.

The Canadian Electrical Code, as adopted in BC, requires tamper-resistant receptacles in all 15A and 20A general-use receptacle locations in dwelling units. That covers the living room, bedrooms, hallways, dining room, home office and similar spaces. The intent is to prevent children from inserting objects into the slots, and the requirement applies to new construction and to any circuit or receptacle that is being replaced as part of permitted work.

A few locations are treated differently. Receptacles that are not readily accessible (inside an appliance garage, behind a built-in fridge, in a dedicated appliance space) may be exempt. Receptacles specifically for appliances that are not easily moved, such as a built-in dishwasher or a range, are not general-use receptacles and the TR requirement does not apply the same way. GFCI-protected receptacles in bathrooms, kitchens and garages still need to be tamper-resistant in new work as well, so the two requirements stack.

For Langley specifically, electrical permits are issued by Technical Safety BC, not by the municipality. Both the City of Langley and the Township of Langley fall under Technical Safety BC's jurisdiction for electrical permits and inspections. That means the inspector who signs off on your work is a Technical Safety BC inspector, and they will be checking for TR receptacles on any new or replaced receptacles in permitted work.

If you are simply replacing a single failed outlet like-for-like on an existing box with no other work, that is generally not a permitted job and you are not automatically required to upgrade every receptacle in the house. However, if a licensed electrician is doing a panel upgrade, a rewire or adding new circuits, they will install TR receptacles throughout as part of bringing the work up to current code.

The practical upside is that TR receptacles cost only a few dollars more than standard ones, so there is little reason to resist the upgrade. Any quote for new receptacles or a rewire in a Langley home should already include TR-rated devices as the default.

Want quotes for receptacle work or a broader electrical upgrade? Vancouver Electrical Repair can match you with local electricians for free, and you can confirm each contractor's Technical Safety BC licence before you commit.

Should exterior outlets on a Delta house be on their own circuit?

Exterior outlets in Delta do not need to be on a dedicated circuit by code, but there are good practical and safety reasons to think carefully about how they are wired.

The BC Electrical Code requires that all outdoor receptacles be GFCI-protected, installed in wet-location-rated boxes and covers, and positioned so cords are not a trip or damage hazard. None of those rules require a separate circuit. In practice, exterior outlets are often fed from a nearby interior circuit, typically a garage circuit, a basement circuit, or a general-purpose kitchen or living room circuit, and that is perfectly acceptable as long as the GFCI protection is in place and the circuit is not overloaded.

When a dedicated circuit makes sense

If you are running anything with a meaningful load outdoors, a dedicated circuit becomes worth the extra cost. Plug-in EV chargers (Level 1 draws 12A continuously), pressure washers, air compressors, outdoor kitchens with a refrigerator or electric grill, hot tub pre-wiring, and string-light setups for a large deck can all push a shared 15A circuit to its limit. A 20A dedicated outdoor circuit typically costs \$400 to \$900 in Metro Vancouver, depending on how far the run is from the panel and whether there is panel capacity available. If you are adding a hot tub or a dedicated 240V outdoor circuit, that is a separate conversation and a separate permit.

Delta is served by Technical Safety BC for electrical permits, not by a municipal electrical department. Any new circuit, including a new exterior outlet, requires a Technical Safety BC permit and inspection. A like-for-like replacement of an existing outdoor receptacle on an existing box generally does not need a permit, but adding a new outlet or extending a circuit does.

One thing worth checking in a Delta home, especially anything built between 1965 and 1976, is whether the house has aluminum branch wiring. Aluminum wiring is not illegal, but outdoor receptacles on aluminum circuits need CO/ALR-rated devices, not standard ones. Using a standard receptacle on an aluminum circuit creates a fire risk at the termination point over time. A licensed electrician will catch this; a homeowner doing a quick swap at the hardware store often will not.

For the outdoor box itself, make sure it is a listed wet-location enclosure with a while-in-use cover if a cord will be plugged in regularly. The standard flip-up covers are only rated for damp locations, not for a cord plugged in during rain.

When you get a quote, confirm it includes the Technical Safety BC permit and inspection fee (typically \$75 to \$200 for a single circuit), the correct wet-location hardware, and GFCI protection either at the outlet or upstream at the

panel. Ask the electrician whether your panel has capacity for a new breaker, and whether they noticed any aluminum wiring while they were in the box.

Want quotes for this? Vancouver Electrical Repair can match you with local Delta electricians for free.

Disclaimer: This guide is provided for informational purposes only by Vancouver Electrical Repair. It does not constitute professional advice. Always consult qualified, licensed contractors and your local electrical authority (your municipality or Technical Safety BC) before starting any electrical project. Information is current as of October 4, 2026 and may change. Visit vancouverelectricalrepair.com for the latest answers.