Circuit Switching Functionnality

The DCC Circuit Switching application functions as an automatic interlock, ensuring a secondary load (e.g., an EV charger) is only active when a primary load (e.g., an electric oven or spa) is not in use. In this configuration, both loads are supplied by a single source breaker, and their simultaneous operation is prevented to ensure the electrical infrastructure's safety.

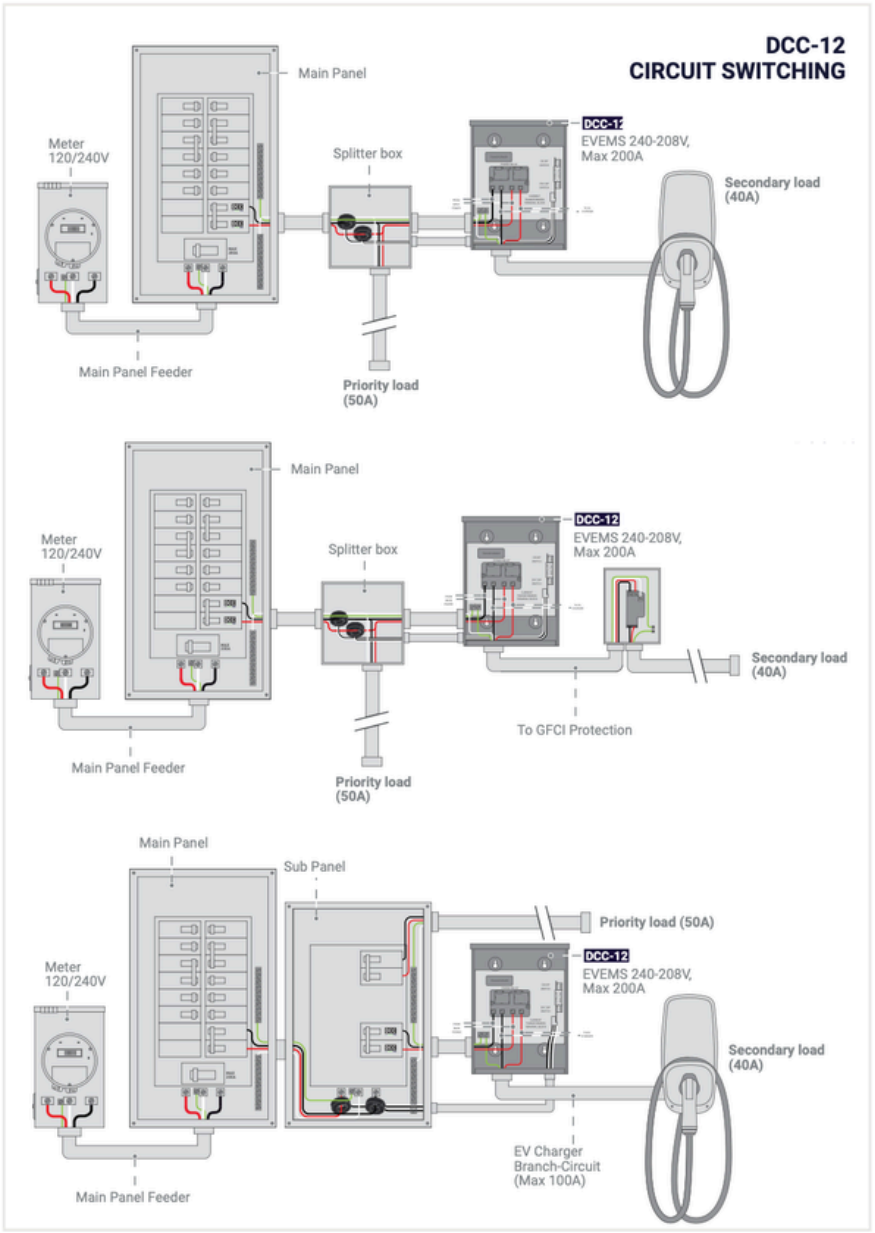
This strategy provides key benefits:

- only the highest load is considered in the electrical service load calculation;
- solution when there is no additional physical space in the distribution panel;
- avoid costly replacements of electrical panels with insufficient capacity.

How to enable this function: The DCC's Current Transformers (CTs) are installed to monitor the sum of the priority and secondary loads. The DIP switch settings for the "Main Circuit Breaker (CB)" and "Secondary Load Supply (EVC)" must correspond to a combination explicitly permitted by the configuration chart found on the device label.

Example of a valid application:
A residence has a 40 A branch circuit supplying an oven (priority load) and you're planning to add a new 30 A EV charger (secondary load).

- **Installation:** The CTs are installed around the conductors of the 40 A main circuit to monitor the combined load. The DCC's power relay is wired to control the 30 A EV charger circuit.

- **DIP Switch Configuration:**
  - Circuit Breaker for priority load (CB): Set to 40 A to match the branch circuit breaker.
  - Secondary Load Supply (EVC): Set to 30 A to match the EV charger's protection.
  - Trip Percentage (TP): Set to 80%. This ensures that if the combined load exceeds 32 A (80% of 40 A), the DCC will immediately de-energize the EV charger circuit.

INSTALLATION EXAMPLES