10 ELECTRICAL SERVICE QUESTIONS

1. Question: What is a consumer/ customer service?

Answer: All that portion of the consumer's installation from the service panel (1st over current device either a breaker or fuse) through the meter base, up to and including the point at which the supply authority makes connection.

2. Question: Is there a maximum distance I can go, inside a building, to my panel?

Answer: Yes, in Alberta the maximum distance is **10 feet** or **3meters** to your 1st over current device, you may go **25 feet** or **7.5 meters** if rigid **steel pipe** is used.

3. Question: Does the supply authority's breaker and wiring methods, within their approved enclosure mounted on their pole on a farm or acreage, meet the intent of the C.E.C. as a service?

Answer: **NO.** There is uncertainty surrounding the operating characteristics of the breaker along with other issues.

4. Question: Is the skirted area **under** a mobile home considered **outside** the building?

Answer: **NO.** The building code states that this area is considered **inside** the building.

5. Question: What is an **approved** service box?

Answer: An enclosure that can be locked or sealed, containing either fuses or a circuit breaker that can be turned off when the enclosure is closed. Example: a combination panel or disconnect switch that contains fuses or a breaker. (not a loadcenter)

6. Question: Can I use the pilings of my trailer to ground my service at my trailer?

Answer: **Yes** (provided they are a minimum of 2 feet/600mm deep)

7. Question: Does the ground wire from the electrode or piling attach to the lug, on the enclosure, or the neutral bar in the customer service portion (top) of the combination panel?

Answer: To the **NEUTRAL** bar (no exception)

8. Question: When and why would I want to install a combination meter/ disconnect service on my residence?

Answer: If your home does **not** have a meter socket and switch supplied by the supply authority, and you would like to locate your breaker panel more that **10 feet** inside, you may use your own meter/disconnect, provided it is wired and grounded as per the C.E.C. (Keep in mind, if the meter/disconnect is mounted on the home, you **can not** use USEB service cable between the meter/disconnect and panel box.)

9. Question: When can I use a load center? (a panel without a main breaker)

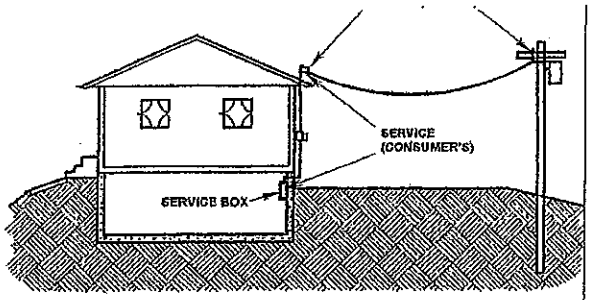
Answer: Never for a service panel, only as a subpanel with a breaker ahead of it.

10. Question: What does a typical underground consist of?

Answer: The trench should be a minimum of 3 feet deep no rocks or frozen dirt. A warning/ caution tape installed after backfilling approximately half way. A rigid conduit protecting the cable vertically is to be installed over the cable with sufficient slack to allow for any settlement.

Note: *Mobile homes and factory built relocatable structures (RTM) will probably require additional up-stream protection*

Check with your local inspection authority.



SERVICE PARTS

here the service conductors extend underground, it should be noted that the point of tachment to the supply service might vary from installation to installation. In one case the pply authority might extend the supply conductors up to the meter-mounting device, in which se that is the point of connection. In another case the consumer's service conductors might tend out to a padmount transformer, in which case the point of connection will be at the condary of the transformer.

Rule 6-206 Consumer's Service Equipment Location

Length of Service Conductors in Buildings

Rule 6-206(1)(e) requires that service equipment be located as close as practicable to the point where the service conductors enter the building. Rule 6-208 outlines where the conductors must be located. Both rules recognize that service conductors must enter the building to make connection to the service equipment. While it is generally agreed that in the interest of safety the unfused conductors within the building should be as short as possible, this distance is not clear.

A recommended practice in Alberta is to limit the length of service conductor in the building to 3m. Where this is not practicable, service conductors may extend further inside the building provided they are mechanically protected in rigid metal conduit. The maximum distance for service conductors inside a building should not exceed 7.5 m.

Alternatively, Rule 6-206(1)(d) may be applied in situations when the service panel cannot be located near the point of entry of the consumer's service conductors. In this case, a Safety Code Officer must evaluate each situation on an individual basis.

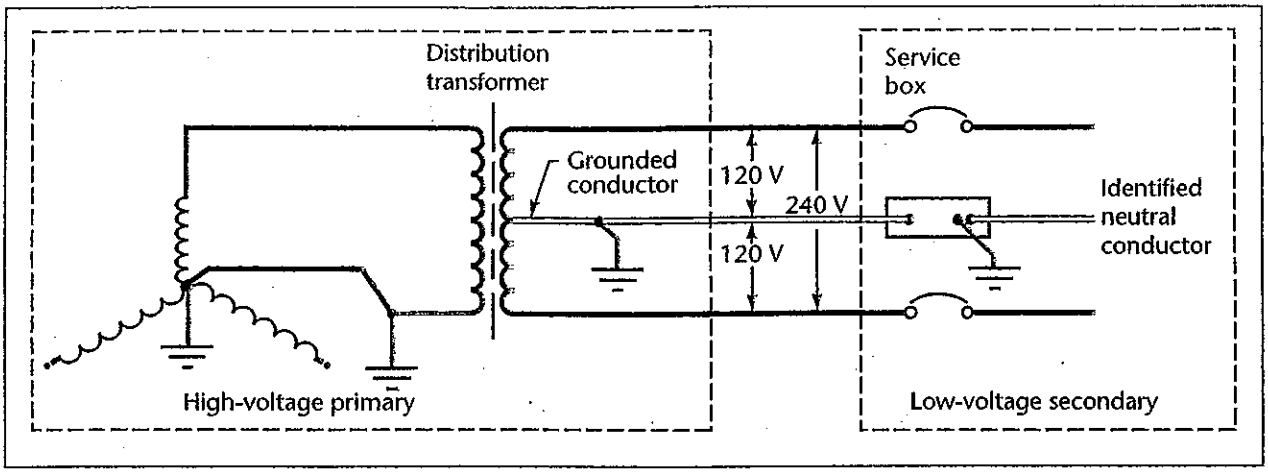
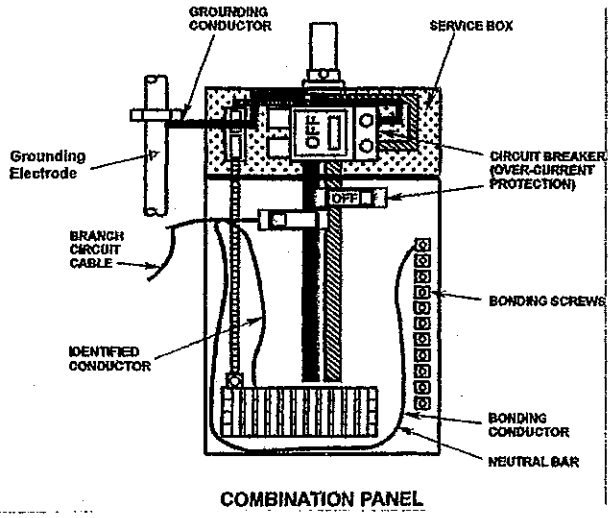
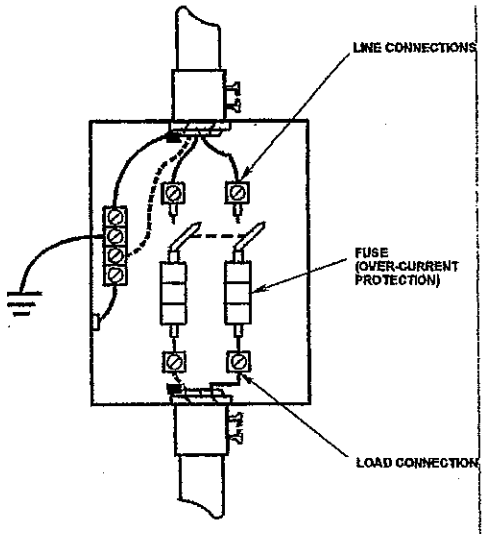


Figure 10-15
Grounded conductor for single-phase, 3-wire system (e.g., household)



COMBINATION PANEL



SEPARATE SERVICE BOX