

CANADIAN ELECTRICAL CODE

SUBJECT: Section 68 - Pools, Tubs and Spas

Rule 68-058 Bonding to Ground

Although there may be no electrical equipment or electrical wiring associated with a pool during the initial stages of construction, the likelihood of introducing electrical equipment in the future is high. When electrical equipment is added later, it becomes very difficult, if not impossible to ground the structural or reinforcing steel at that time. It is therefore recommended that the structural and reinforcing steel be grounded for all swimming pools at the initial stages of construction in accordance with Rule 68-058, even though electrical equipment or electrical wiring is not involved.

Rule 68-308 Other Electric Equipment

Hydromassage Bathtubs in Other Than Bathrooms

Rule 68-308 also applies when hydromassage bathtubs are installed in rooms other than bathrooms. Communication equipment installed in a room containing a hydromassage bathtub must also comply with Rule 60-400, Communication Equipment in Bathrooms.

Pumps for Hydromassage Bathtubs

The location of the pump for hydromassage bathtubs must comply with Rule 2-118. It states: "Electrical equipment shall be so installed as to ensure that after installation there is ready access to nameplates and access to parts requiring maintenance."

To comply with Rule 2-118, pumps, or any other electrical equipment, for hydromassage bathtubs are to be readily accessible. This could be in the form of a removable panel or other similar arrangement that will provide suitable access.

Spas and Hot tubs

Rule 68-400 General

There are two options for installing a spa or hot tub. One is to apply the requirements of Rules 68-400 to 68-408 for field assembled units and the other is to install a pre-manufactured unit and supply power to it accordingly.

Pre-manufactured units must be certified as a complete package to the appropriate Canadian recognized standard (CAN/CSA-C22.2 No. 218.1 – *Spas, Hot Tubs, and Associated Equipment*). This standard contains the requirement for ground fault protection. The manufacturer has the option of either including GFCI protection as an integral part of the hot tub or providing a cautionary marking to the effect that GFCI protection must be provided by the installer. Regardless of which method is chosen by the manufacturer, you are cautioned to ensure that a ground fault circuit interrupter ultimately protects any

electrical equipment, forming an integral part of a manufactured spa or hot tub. This is consistent with the requirements of Rule 68-302.

Furthermore, *certified* pre-manufactured spas and hot tubs are identified as certified by an acceptable certification mark found on the nameplate located on the outside of the spa or hot tub. Certification marks located on associated equipment identifies the equipment as certified but does not suggest that the entire spa or hot tub unit is certified. In situations where a certification mark cannot be found on an exterior nameplate, even though the associated equipment is certified, the spa or hot tub must be considered a field assembled unit subject to the requirements of Rules 68-400 to 68-408.

Field-Assembled Units are normally assembled or built on the site where it is intended to operate. There may be situations where spas and hot tubs are assembled in a manufacturing setting and transported for permanent installation at a field site. In either case, the spa or hot tub must meet the requirements of Rules 68-400 to 68-408 with all associated equipment specifically approved for use with spas and hot tubs in accordance with Rule 68-408(2).

The Code requirements for spas and hot tubs are in keeping with standard CAN/CSA-C22.2 No. 218.1, with the notable exception of not specifically mandating the use of GFCI protection. To be consistent with the standard, the Electrical Technical Council strongly recommends that GFCI protection be installed for all installations of field-assembled spa and hot tub units.

Electrical permits, regardless of whether the spa or hot tub is pre-manufactured or field-assembled, are required from the inspection authority having jurisdiction. Inspectors will be responsible for determining the depth of inspection based on the type of installation.