



HOT TUB & SPA INSTALLATIONS (RESIDENTIAL)

REFERENCE: 2017 National Electrical Code, Article 680
2018 International Swimming Pool and Spa Code

PERMITS REQUIRED: A building, electrical, and possibly a plumbing permit are required for the installation of all hot tubs and spas. Zoning rules and life safety issues need to be followed.

This brochure is to be used as a guide and may not cover all of the requirements.

OUTDOOR HOT TUB/SPAS

- Provide a dimensioned site plan indicating where the hot tub or spa will be located in relation to the home and property lines. Property line setbacks are required to comply with the zoning ordinance.
- A 4' fence/barrier with a lockable gate is required around the hot tub/spa or yard. See "Swimming Pool" brochure for barrier guidelines. A locking, safety cover which complies with ASTM F 1346 will be accepted in lieu of a fence.
- If a hot tub/spa is installed on a deck, additional structural requirements are needed.
- All glazing within 60 inches of the water's edge and less than 60 inches above the water level shall be safety glazed.
- Hot tubs/spas shall not be located over or within 5' horizontally of any underground wiring measured from the inside wall of the hot tub/spa.
- Overhead electrical service lines or broadband communication systems shall not be within 10' horizontally of the inside walls of the hot tub/spa unless they are 22.5 feet above the water level.
- A maintenance disconnecting means shall be located at least 5 feet horizontally from the inside walls of the hot tub/spa.
- At least one 15- or 20-ampere GFCI protected receptacle on a general branch circuit shall be located not less than 6 feet or more than 20 feet from the inside edge of the hot tub/spa. The receptacle shall not be located more than 6'-6" above the platform grade or platform.
- All 15- or 20-ampere 125-volt receptacles with 20' of the inside wall of the hot tub/spa shall be GFCI protected.
- Switches shall not be closer than 5 feet from the inside wall of the tub or spa.

- New lighting or ceiling fans installed above the water or the area extending 5 ft. horizontally from the inside walls shall be installed not less than 12 ft. above the maximum water level.
- New lighting or ceiling fans installed between 5 ft. and 10 ft. horizontally from the inside walls of the pool must be GFCI protected unless they are installed more than 5 ft. above the water level.
- Existing lighting located less than 5 feet measured horizontally from the inside walls of the pool shall not be less than 5 feet above the maximum water level and be GFCI protected.
- Low voltage lighting must not be closer than 10 ft. of the hot tub/spa even if GFCI protected.
- Circulation equipment receptacles can be located as close as 6 ft. from the hot tub/spa if the receptacle is a single twist locking type and GFCI protected.
- Any metal surfaces within 5' feet shall be bonded to the hot tub/spa.

INDOOR HOT TUB/SPA

- Provide a dimensioned floor plan showing the location of the hot tub/spa in the home. Include location of windows, doors, electrical switches, receptacles, and lighting. Additional floor support may be necessary.
- All glazing within 60 inches of the water's edge of the hot tub/spa **and** less than 60 inches above the water level shall be safety glazed.
- All receptacles shall be located at least 6' from the inside walls of the spa/hot tub.
- At least one GFCI protected receptacle shall be located not less than 6 ft. and not more than 10 ft. from the inside wall of the hot tub/spa.
- Power to the hot tub/spa shall be GFCI protected.
- All switches shall be located at least 5 feet from the inside walls of the hot tub/spa.
- All 125-volt, and 30-ampere or less, receptacles within 10 ft. of the inside walls of the hot tub/spa shall be GFCI protected.
- Listed hot tub/spa packaged units rated 20 amperes or less shall be permitted to be cord-and-plug connected.
- Luminaires (fixtures), lighting outlets, ceiling fans – if located over or within 5' from the inside walls of the hot tub/spa shall comply with the following clearances measured from the maximum water level.
 1. **Without GFCI protection.** Mounting height above max. water level is 12 feet.
 2. **With GFCI protection.** Mounting height shall not be less than 7 ft. 6 in..
 3. **Below 7 ft. 6 in.** Luminaires protected by GFCI and meeting the following requirements can be installed below 7 ft. 6 in.

- Recessed luminaires with a glass or plastic lens, nonmetallic or electrically isolated metal trim, and suitable for use in damp locations.
- Surface-mounted luminaires (fixtures) with a glass or plastic globe, a nonmetallic body, or a metallic body isolated from contact and suitable for use in damp locations.
- Bonding – A solid #8 AWG wire shall bond all metal parts or surfaces within 5' of the inside walls of the spa/hot tub. Examples:
 - Metal fittings within or attached to the spa/hot tub.
 - Electrical equipment associated with the water circulating system (pump motors, filters).
 - *Exception: Metal parts of self-contained spa or hot tub do not have to be bonded.*

