

Park trailers equipped with electrical loads similar to those used in mobile homes are not uncommon. It also is not uncommon for a park trailer to be located in the same park trailer community for several years without relocation.

Park trailers are somewhat similar to mobile homes and recreational vehicles (RVs), and many requirements in Article 552 parallel those contained in Articles 550 and 551. Article 552, therefore, is similar in structure to Articles 550 and 551.

Δ **552.4 General Requirements.** A park trailer is intended for seasonal use. It is not intended as a permanent dwelling unit or for commercial uses such as banks, clinics, offices, or similar. Units designed for such purposes are classified as relocatable structures and are covered in Part II of Article 545.

Δ **552.5 Labels.** Labels required by Article 552 shall be made of etched, metal-stamped, or embossed brass or stainless steel; plastic laminates not less than 0.13 mm (0.005 in.) thick; or anodized or alclad aluminum not less than 0.5 mm (0.020 in.) thick or the equivalent.

Informational Note: See ANSI Z535.4-2011, *Product Safety Signs and Labels*, for guidance on other label criteria used in the park trailer industry.

Part II. Low-Voltage Systems

In some park trailers, 12-volt systems are used for interior lighting and other small loads. The 12-volt system often is supplied from an on-board battery or through a transfer switch from a 120/12-volt transformer in conjunction with a full-wave rectifier.

552.10 Low-Voltage Systems.

(A) Low-Voltage Circuits. Low-voltage circuits furnished and installed by the park trailer manufacturer, other than those related to braking, shall be subject to this *Code*. Circuits supplying lights subject to federal or state regulations shall comply with applicable government regulations and this *Code*.

The requirements of Part II apply to the low-voltage wiring within the park trailer that would be used in place of 120-volt ac supplies. These requirements do not apply to the trailer braking circuits.

(B) Low-Voltage Wiring.

(1) Material. Copper conductors shall be used for low-voltage circuits.

Exception: A metal chassis or frame shall be permitted as the return path to the source of supply.

The sidewalls or the roof of a park trailer are not permitted to serve as the ground return path. See the definition of the term *frame* in Article 100.

(2) Conductor Types. Conductors shall conform to the requirements for Type GXL, HDT, SGT, SGR, or Type SXL or shall have

insulation in accordance with Table 310.4(1) or the equivalent. Conductor sizes 6 AWG through 18 AWG or SAE shall be listed. Single-wire, low-voltage conductors shall be of the stranded type.

Informational Note: See SAE J1128-2015, *Low Voltage Primary Cable*, for Types GXL, HDT, and SXL, and SAE J1127-2015, *Low Voltage Battery Cable*, for Types SGT and SGR.

(3) Marking. All insulated low-voltage conductors shall be surface marked at intervals not greater than 1.2 m (4 ft) as follows:

- (1) Listed conductors shall be marked as required by the listing agency.
- (2) SAE conductors shall be marked with the name or logo of the manufacturer, specification designation, and wire gauge.
- (3) Other conductors shall be marked with the name or logo of the manufacturer, temperature rating, wire gauge, conductor material, and insulation thickness.

(C) Low-Voltage Wiring Methods.

(1) Physical Protection. Conductors shall be protected against physical damage and shall be secured. Where insulated conductors are clamped to the structure, the conductor insulation shall be supplemented by an additional wrap or layer of equivalent material, except that jacketed cables shall not be required to be so protected. Wiring shall be routed away from sharp edges, moving parts, or heat sources.

(2) Splices. Conductors shall be spliced or joined with splicing devices that provide a secure connection or by brazing, welding, or soldering with a fusible metal or alloy. Soldered splices shall first be spliced or joined to be mechanically and electrically secure without solder, and then soldered. All splices, joints, and free ends of conductors shall be covered with an insulation equivalent to that on the conductors.

(3) Separation. Battery and other low-voltage circuits shall be physically separated by at least a 13-mm (1/2-in.) gap or other approved means from circuits of a different power source. Acceptable methods shall be by clamping, routing, or equivalent means that ensure permanent total separation. Where circuits of different power sources cross, the external jacket of the nonmetallic-sheathed cables shall be deemed adequate separation.

(4) Ground Connections. Ground connections to the chassis or frame shall be made in an accessible location and shall be mechanically secure. Ground connections shall be by means of copper conductors and copper or copper-alloy terminals of the solderless type identified for the size of wire used. The surface on which ground terminals make contact shall be cleaned and be free from oxide or paint or shall be electrically connected through the use of a cadmium, tin, or zinc-plated internal/external-toothed lockwasher or locking terminals. Ground terminal attaching screws, rivets or bolts, nuts, and lockwashers shall be cadmium, tin, or zinc-plated except rivets shall be permitted to be unanodized aluminum where attaching to aluminum structures.