

Supplement to the Wisconsin State Electrical Code

Amendments effective August 12, 1927.

Second Edition, January 1, 1925

The changes in and additions to the orders of the 1925 State Electrical Code given below refer to the orders and pages as indicated. It is suggested that these changes be pasted in where indicated.

Pursuant to Sections 101.01 to 101.28 inclusive, of the Statutes, the Industrial Commission has amended General Safety Orders 1312-3, 1340-c, 1350-h, 1352-b-2, 1352-b-6, 1354-b-1, 1375-b-3, and adopted a new General Safety Order to be numbered 1347, all of which orders are a part of the orders collectively known as the Wisconsin State Electrical Code. Such orders to read as follows:

Order 1312-3 Page 179

Devices and apparatus which tend to create sparks or arcs and thus ignite highly inflammable materials shall not be placed in extra hazardous locations unless such devices and apparatus are of the totally inclosed type, especially approved for the location.

Order 1340-c Page 192

Twin Wires. Twin Wires shall not be used except in conduits, armored cable, metal raceways, approved non-metallic sheathed cable, or flexible cords.

Order 1347-Non-Metallic Sheathed Cable Page 207

Definition: Non-metallic sheathed cable designates an approved assembly of copper conductors having rubber insulation and protective coverings consisting of helically wound paper tape and cotton braid. Individual conductors are inclosed within the outer braid saturated with moisture resisting and flame retarding compound.

Where cable is mentioned in this order, the above described non-metallic sheathed cable will be understood.

(a) Cable shall not be used for circuits exceeding 300 volts between conductors.

(b) Cable shall not be used except for all circuits in residence occupancies, and in out-buildings on the same premises where other types of wiring are not required by this Code.

(c) Cable shall be of approved types and of 2 and 3 conductor assemblies in sizes Nos. 1 $\frac{1}{2}$ to 6, inclusive.

(d) Cable may be used in exposed wiring work under the following conditions:

1. Mounted directly upon surfaces of woodwork, plaster, cement, brick or other building finish.
2. Secured between outlets with approved fastenings spaced at intervals not exceeding 4 feet.
3. Used only in dry places, and in no place run along the wall nearer than 6 inches above the floor.
4. Protected within 8 feet of floor by wood or metal protecting strip placed over the cable and securely fastened in place.

(e) Cable may be used in concealed wiring work under the following conditions:

1. Only in dry places; in wood joists or stud partitions, floors and walls.
2. When secured between outlets by approved fastenings spaced at intervals not exceeding four feet or by other practicable means which will provide for the entire installation being securely fastened in place.

3. Where it is impracticable in concealed wiring to provide the supports specified in the preceding paragraph, runs may be fished between the outlet box or plates.

(f) Cable shall be run without joints, splices or taps from outlet box to outlet box (or junction boxes or plates) and shall be provided with approved outlet (or junction) boxes or plates at each outlet, into which the cable shall be run and to which it shall be rigidly fastened by means of approved fittings, which completely close the opening. If cable enters boxes from the side in concealed work, boxes of $1\frac{1}{2}$ inch depth are required.

It is recommended that for all side wall and partition outlets in concealed work in new buildings under construction, outlet boxes having a depth of approximately $1\frac{1}{2}$ inches be used.

(g) All bends shall be so made and other handling shall be such that the non-metallic covering of the cable will not be injured.

(h) Cable shall not be buried in plaster, cement, or similar finish.

(i) When cable is installed in conduit, the provisions of Orders 1331 and 1342 shall apply as far as practicable.

(j) When in exposed or in concealed wiring, cable is run through holes in studs, joists or similar wood members, the holes shall be located at the approximate center of studs and not less than 2 inches from the nearest edge of joists or other members whose depth permits this spacing.

(k) In attics and roof spaces where within five feet above floor or joists, the cable shall be considered as exposed to mechanical injury, and shall be protected by suitable wood or metal strips securely fastened in place. Cable shall not be used across top of joists in unfinished attics or roof spaces, nor in similar locations.

(l) Cable in basements, if used in other than concealed work, shall be run on under side of running board, not less than $\frac{7}{8}$ inch by 2 inches, or on side of floor joists or timbers.

Order 1350-a and 1350-b-2 Pages 207-208

These orders shall be interpreted as at present; that is, to require a switch ahead of the fuse in the range circuit and one at the range where the first switch is not within sight of the range.

Order 1350-h Page 210 Guarding Live Parts of Switches.

(See also Orders 1310, 1351-d and 1354.)

All manual switches, including service entrance switches, shall have suitable casings or inclosures of such design as to permit of operation without opening the inclosure and so that the operator is at all times protected against danger. Cases shall be made inaccessible to other than qualified persons, by locking, sealing, or the use of other suitable methods.

Exception: Switches on switchboards and panelboards which are guarded as required by Order 1310, are exempted from this order. The panelboards which have no live parts of switches, fuses or other equipment exposed at any time when operating the switches or changing fuses, need not be installed in locked cabinets. Single-pole, three-way and four-way switches for use in two-wire branch circuits are not included under this order.

Order 1352-b-2 Page 216

On a two-wire branch circuit and on either side of a three-wire branch circuit the number of outlets (see definition 3 Order 1020) shall not exceed 12.

Exception: (1) In cove lighting, outline lighting, foot lighting, proscenium side lighting, marquees and canopies, 24 outlets will be allowed providing not larger than 15 ampere fuses are used.

(2) For sign lighting, there will be no definite limit as to the number of sockets, but the fuses must not be larger than 15 amperes. A sign shall be understood to be an assembly of letters, words or symbols within or upon which are mounted receptacles or sockets for lamps to electrically illuminate such symbols, the whole assembly to be operated as a single unit.

Order 1352-b-6 Page 216

Each motor shall be supplied by a separate branch circuit protected in accordance with (a) above.

Exception: (2) Motors may be grouped under the protection of a single set of branch circuit fuses provided the rated capacity of the fuses do not exceed 15 amperes.

Order 1354-b-1 Panelboards Page 218

Panelboards and cut-out bases for lighting distribution centers shall be enclosed in metal cabinets and the combination of cabinet and enclosed device shall be of such design as to be dead-front. A device is considered to be dead-front if it is so designed as to allow the replacement of fuses and the operation of switches without the possibility of unqualified persons coming in contact with live parts.

Order 1375-b-3 Page 239

Footlights of metallic trough construction may be wired with rubber covered or varnished cambric insulated wire except that where the construction and arrangement is such that the temperature inside of the trough approximates 120° F only slow burning wires shall be used. For wiring of borders and proscenium side lights, wire with slow burning insulation shall be used.

Order 1394 Page 252

Add the following note: It is recommended that a proper fuse (not larger than 10 or 15 ampere size) be inserted in the "A" battery circuit of every radio receiving set. Such a fuse will not be necessary if the "A" batteries are of the dry type.