

(2) When the supply is from an underground service-line service cut-outs shall be fixed as near the point of entry as possible, and in a permanently accessible position reasonably distant from, or protected from, combustible material.

42-23. Where supply from an external source can be derived from more than one service-line suitable switches or circuit-breakers shall be provided to prevent such service-lines from being interconnected.

42-24. (1) All supply from an underground service-line shall be controlled by a master-switch (not necessarily a circuit-breaker) placed in a conveniently accessible position.

(2) Where the main switch is in the above position it may be used as the master-switch.

(3) Where the master-switch is protected by a case, the case shall have a hinged wooden or clear glass front. If the front is of wood it shall have the words "MASTER-SWITCH" conspicuously painted thereon in block letters not less than 1 in. in height.

42-25. In all cases where more than one consumer is connected to a service-main the various consumers' switchboards shall be clearly and permanently labelled for purposes of identification.

42-26. (1) The service cut-outs of any building to which Part 52 hereof applies shall not be used in connection with the supply of electrical energy to any other installation whatever.

(2) Where failure of light might cause panic or be otherwise dangerous, the lighting shall be controlled by independent service cut-outs, and no apparatus other than permanent lighting shall be connected with such service cut-outs.

42-27. (1) Where the full-load current of any submain or subcircuit exceeds 100 amperes per conductor—

(a) There shall be provided in addition to the main circuit-breaker a separate circuit-breaker to control each such submain or subcircuit, except in the case of a subcircuit supplying a single motor or piece of apparatus equipped in each case with overload protective devices provided that such protective devices are—

- (i) Mounted on the distribution board; or
- (ii) Installed at such motor or apparatus and cut-outs are mounted on the distribution board to protect such subcircuit; and

(b) Where an installation consists of only one subcircuit, or one submain supplying a distribution board, the main switchgear may also be used to control and protect such subcircuit or submain.

(2) The full-load current shall be assessed as the maximum demand in accordance with Regulation 43-13 hereof.

42-28. (1) No switch or circuit-breaker shall be included in any neutral conductor or earthed conductor in such a manner as will permit such conductor to be opened before, or closed after, the corresponding live conductors, but this requirement shall not prohibit the provision of an isolating-link for testing purposes.

(2) In the case of a non-earthed two-wire system all single-pole switches or circuit-breakers shall be fitted in the same conductor throughout.

(3) This regulation does not apply to a switch mounted on a portable appliance unless otherwise specified in these regulations.

SWITCHES AND CIRCUIT-BREAKERS.

42-41. Every single-throw tumbler switch shall be so mounted that the handle points in the upward direction when the switch is in the "Off" position.

42-42. Any switch or circuit-breaker which, in the opinion of an Authorized Inspector is exposed to the weather, to drip, or to an excessively moist atmosphere shall be contained in a weatherproof case, which shall be provided with cable glands or bushings, or be adapted to receive screwed conduit, according to the manner in which the cables are run.

42-43. No pendant switch or other switch connected to a flexible cord shall be used in any bathroom, lavatory, or wash-house, nor in any position where the person operating it would be likely, under normal conditions, to be simultaneously making contact with earth or earthed metal, nor for any current exceeding 1.25 amperes.

42-44. Every circuit-breaker shall comply with the following requirements:—

- (a) In the case of all apparatus other than motors, the circuit-breaker shall be set to operate before the current exceeds more than $1\frac{1}{2}$ times full-load current; and
- (b) In the case of motors the circuit-breaker shall be set to operate within one minute before the current exceeds more than twice full-load current; and
- (c) No circuit-breaker need be set to operate at a current less than 6 amperes.

42-45. Circuit-breakers and switches shall be so arranged and placed that no electrical hazard can result from their normal operation.

CUT-OUTS.

42-51. (1) The fusing current of every fuse-link shall not exceed twice full-load current, provided that no fuse-link smaller than one rated to blow at 6 amperes need be inserted to protect any subcircuit.

(2) The fusing current in free air shall be taken as that specified in column 3 of Tables XIII and XIV in Division VII hereof.

42-52. Every cut-out shall be of such construction, or be so guarded or placed, as to prevent danger from overheating, arcing, and the scattering of hot metal or other substances when the fuse-link blows.

PART 43.—CIRCUITS AND CONDUCTORS.

SUBDIVISION OF CIRCUITS.

43-01. (1) Except as provided in clause (2) of this regulation and in Regulations 45-31, 52-05, and 56-03 hereof, the maximum number of points that may be connected to a subcircuit shall not exceed ten and the maximum rating shall not, except as provided in clause (3) of this regulation, exceed 15 amperes. The minimum size of cable or flexible cord shall be in accordance with the following table:—

Current Rating of Fuse-link or Circuit-breaker.	Maximum Size of Copper Fuse-wire.	Minimum Number and Diameter (inches) of Wires comprising Conductor.		
		Cable.	Flexible Cord.	
			4.	5.
1.	2.	3.	4.	5.
Amps.	S.W.G.			
3	36	1/·044	23/·0076	11/·012
5	33	1/·044	40/·0076	16/·012
10	26	3/·036	70/·0076	28/·012
15	24	7/·029	110/·0076	44/·012

Conductors of larger cross-sectional area than those prescribed by columns 3, 4, and 5 shall be used if necessary to comply with the requirements of Regulation 43-21 hereof for fall in pressure. Fittings and accessories shall be of such design as to permit of conductors being effectively looped in and terminated.

(2) The maximum number of points that may be connected to a subcircuit used solely for plug-sockets shall not, except as provided in Regulation 43-03 hereof, exceed two and the maximum rating shall not, except as provided in clause (3) of this regulation, exceed 20 amperes.

(3) Subcircuits supplying one lamp or appliance are not limited as to current-carrying capacity.

(4) Notwithstanding anything to the contrary in these regulations an electric clock may, in addition to the points provided in clauses (1) and (2) of this regulation, be connected to any subcircuit.

(5) Notwithstanding anything to the contrary in these regulations radio receiving-sets and gramophones in domestic installations may, in addition to the points provided in clauses (1) and (2) of this regulation, be connected to any subcircuit provided that where the connection is made by means of a plug-socket the plug-top shall be equipped with a fuse-link and the plug-socket shall be installed in the same room as an existing plug-socket and shall be used for no other purpose.

(6) The maximum number of lamps which may be connected to a subcircuit used solely for cornice lighting, panel lighting, and the like in which the lamp-holders are grouped in close proximity to each other and are connected to the circuit without flexible cords shall be such that the total current supplied from such subcircuit does not exceed 15 amperes.

43-02. For the purposes of calculating the current of a lighting circuit, except as provided in Regulations 52-05 and 56-03 hereof, no lamp shall be rated at less than 60 watts, lamps of larger wattage (if any) being allowed for in full.

43-03. For the purpose of calculating the current of a plug circuit each plug-socket shall be rated at not less than 2,000 watts, consuming devices of larger capacity (if any) being allowed for in full, save that in the case of domestic installations where there are three or more plug-sockets in any one room, other than a room normally used for cooking purposes, three such plug-sockets may be connected to one subcircuit, and the total rating of such subcircuit shall be assessed at not less than 4,000 watts.

SIZE OF CONDUCTORS.

43-11. (1) No cable having a conductor of a cross-sectional area less than 0.0015 sq. in. (1/·044 in. or its equivalent) and no flexible cord having a conductor of a cross-sectional area less than 0.001 sq. in. (23/·0076 in. or its equivalent) shall be