

INSTALLATION OF COOKER SWITCHES AND COOKER CONTROL UNITS

A cooker switch or cooker control unit may serve the following functions, where applicable, in respect of a cooking appliance:

- **A means of isolation** (Section 461 and Regulation Groups 476-02 and 537-03), to facilitate, for example, electrical repair of the appliance without having to isolate at the consumer unit
- **A means of switching off for mechanical maintenance** (Section 462 and Regulation Group 537-03), to avoid the risk of burns, such as from a heating ring, or mechanical injury, such as from an oven fan, as a result of a switch on the appliance being accidentally turned on during cleaning or mechanical repair of the appliance
- **A means of interrupting the supply on load.** Such a means is required by Regulation 476-03-04 for every fixed or stationary appliance that may give rise to a hazard in normal use. Alternatively, a suitable means incorporated in the appliance may be used to fulfil this function.

At a nominal voltage of 230 V, a current rating of 30 or 32A is generally suitable for the cooker switch/control unit (and the associated dedicated final circuit) supplying most household cookers, which consist typically of four heating rings, a grill and an oven. However, a higher current rating may be necessary where supplying a cooker having additional cooking facilities and/or a large capacity oven. An assessment of the likely maximum demand of a household cooker can be made by taking the first 10 A of the rated current plus 30 % of the remainder of the rated current plus 5 A for the socket-outlet of a cooker control unit, if one is fitted.

A cooker switch/control unit may be used to control two or more cooking appliances in the same room (such as

an oven/grill and a separate hob unit), as permitted by Regulation 476-03-04, provided it has sufficient current rating.

Positioning

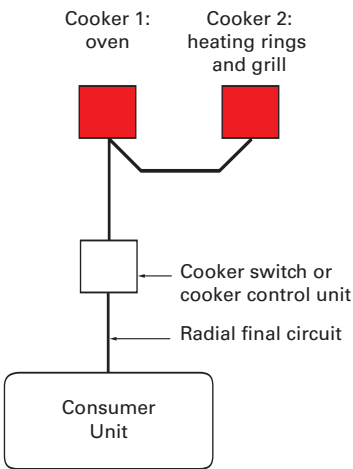
The switch or control unit should be readily accessible. It should not be positioned behind or above a cooking appliance such that a person would have to reach over the appliance in order to access the switch/control unit.

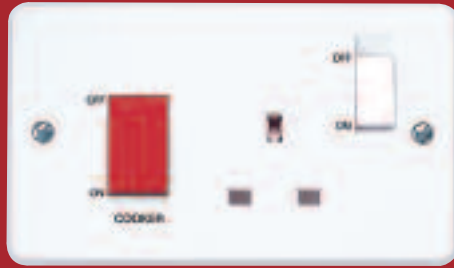
The horizontal distance between a cooker switch/control unit and the appliance(s) it serves must be sufficiently short for the switch to be under the control of persons relying on it for safety. This requirement is likely to be met if the distance does not exceed 2m.

The height of a cooker switch or control unit in an installation in a new dwelling should be suitable to facilitate access by persons in wheelchairs and others whose reach is limited (as should the heights of all wall-mounted switches and socket-outlets). Based on the recommendations of Approved Document M, applicable for new dwellings in England and Wales, the height of the switch or control unit should not exceed 1.2 m above finished floor level.

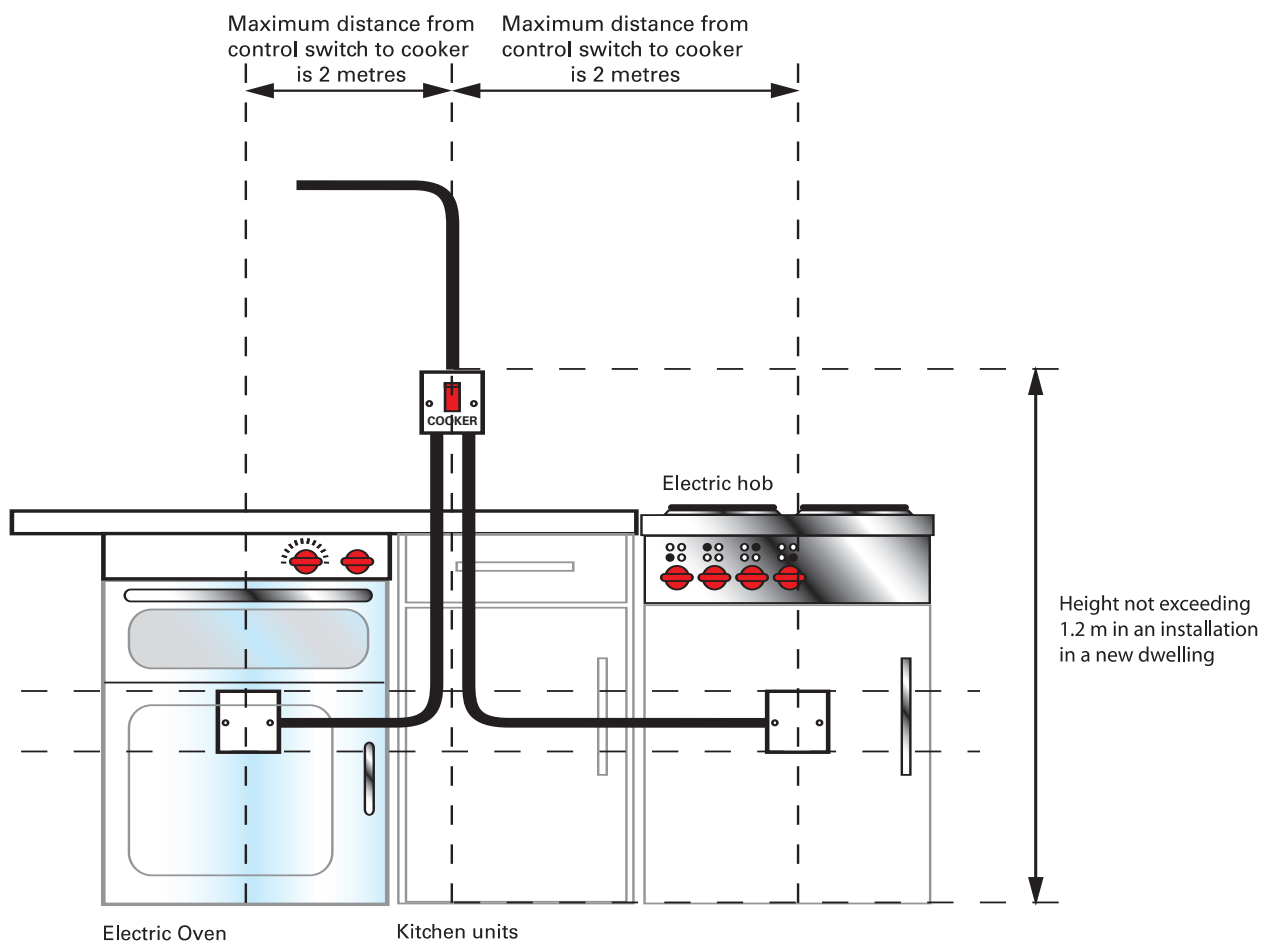
Installation of a cooker switch or control unit in a cupboard or cabinet is not recommended. Potential users of the switch/control unit may not be aware that it is there, or items stored in the cupboard may obstruct access to the switch/control unit. In any event, wiring and other electrical equipment should generally not be fixed to a cupboard or cabinet, which may be removed in the future; they should be fixed to the building fabric.

It is also not recommended to locate a cooker switch or control unit in a central wall-mounted control panel together with other switching devices, as this may result in the switch not being under the control of persons relying on it for safety or otherwise not being suitably accessible. Where a cooker switch or control unit is positioned in such a central control panel, then, as for any other item of switchgear or controlgear, a label or other suitable means of identification must be provided to indicate the purpose of a cooker switch/control unit, except where there is no possibility of confusion (Regulation 514-01-01 refers).





A cooker switch complying with BS 3676 or a cooker control unit complying with BS 4177 (a cooker switch incorporating a socket-outlet) is usually installed where a cooking appliance is to be connected other than by means of a plug and socket-outlet. For reasons explained at the end of this article, it is usually better to provide a cooker switch rather than a cooker control unit.



Particular considerations relating to cooker control units

The installation of a cooker control unit can lead to accidents due to trailing cables and/or portable equipment being located near to or on hot surfaces. Where a cooker control unit is provided, it should be positioned so as to minimize the risk of such accidents. If this is not practicable, it may be better to install a cooker switch (without a socket-outlet), bearing in mind

that a modern kitchen installation should have a sufficient number of socket-outlets provided from the dedicated socket-outlet circuits.

If a cooker control unit is situated where its socket-outlet may reasonably be expected to supply portable equipment for use outdoors, the unit will require supplementary protection against direct contact by a residual current device (Regulation 471-16-01 refers). The device

must have a rated residual operating current ($I_{\Delta n}$) not exceeding 30 mA and an operating time not exceeding 40 ms when type-tested at a residual current of $5 I_{\Delta n}$. Unwanted tripping of such an RCD can be caused by the protective conductor current of a cooker in normal service, especially when the heating elements are switched on from cold. This is another reason why it may be better to install a cooker switch rather than a cooker control unit.