

The image features a dark blue background on the left side, transitioning to white on the right. The background is decorated with a complex pattern of thin, light green lines that form a series of overlapping, curved shapes, resembling a stylized fan or a series of overlapping arcs. The 'bre' logo is positioned on the left side of the blue area.

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DCLG Final Research Report :

BD2541

Collecting information on householder interaction with door closure devices

226789

CI 71-5-32

Prepared for :

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Fire Safety

BD 2541

Collecting information on householder interaction with door closure devices

Final Research Report

Prepared for Mr A Burd

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BRE output ref. 226789

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Executive Summary

As part of the consultation process associated with the revision of Approved Document B (Fire safety) of the Building Regulations, DCLG stated that they were 'minded' to remove the provision for the installation of door closers in dwellings (and flats).

This proposal follows considerable advice from stakeholders that they believe these devices are regularly disabled by householders since they are obstruct what occupiers might regard as movement in and around their own home. They also raised the issue of such devices being a potential risk to children and the infirm.

This study was commissioned by DCLG Buildings Division in an attempt to provide further evidence that Stakeholders beliefs are well-founded and that the proposal is consequently robust.

Following completion of the appropriate approvals required to meet the requirements of the Building Regulations, typically no further checks or inspections of a privately owned and occupied property is undertaken. Hence the continued operation or existence of self-closing door devices is not monitored or controlled after installation.

This project sought to determine the current level of satisfaction with these devices when in use and current practice within the domestic environment.

In the early stages of the process it became obvious that when people were made aware of the issue they felt that there was a 'right' answer and that by admitting to disabling, removing or even responding to the study there maybe some 'comeback.'

This concern became a barrier to the provision of detailed information which was exemplified by refusals of our requests to visit candidate developments.

We contacted a number of local and national house builders, social landlords etc and despite being promised information, hardly any was forthcoming.

Reliance on gathering more information was therefore placed on a formal presentation to members of the BRE Housing Group, interviews with professional and social contacts of project team members and feedback from a questionnaire sent to house builders and social landlords.

In addition to further anecdotal evidence, twenty two responses were received from householders and one social landlord.

This work has yielded a limited amount of new data (other than more anecdotal evidence), it does suggest that for the majority of those properties where self-closing devices are provided, users are likely to disable them to meet family needs. This may involve permanent removal or temporary stopping to prevent operation during parts of the day or night. Given these limited findings it is recommended that a further, more detailed, investigation is undertaken to see if these findings are repeated in a larger sample population.

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1 Introduction and Objectives

This study was commissioned by DCLG Buildings Division to undertake the following project titled “Collecting information on householder interaction with door closure devices” - DCLG Contract reference CI 71-5-32, BD 2541. The aim of this project is to produce a short research report on data collected from householders on their interaction with door closure devices.

2 Programme of work

The project was undertaken as two tasks:

2.1 Task 1 – Establish scenarios to be investigated

Section 2 of the AB D [2] currently provides guidance on the use of self-closing devices in dwellinghouses. The current guidance recommends that in houses with floors more than 4.5m above ground level that self-closing door devices are fitted in locations as given in paragraphs 2.13 and 2.14 (diagrams 3 and 4). This guidance is continued in paragraph 2.18, 2.19 and 2.22 dealing with the enclosure of existing stairs, doorways and fire separation of new storeys.

The guidance goes on, in Section 3, to provide information on the use of closers in flats and maisonettes. Again this guidance deals with scenarios where floors exist above 4.5m and outlines where self-closing door devices should be used within the property as part of the internal planning of the property (paragraph 3.12 and diagrams 7, 9 and 11). This section also provides guidance on the use of self-closing door devices in the communal areas of these properties as part of the means of escape requirements such as paragraph 3.25 and diagrams 12, 13 and 14.

Further guidance on the use of self-closing door devices is provided in Sections 4 and 6 to assist in providing adequate means of escape from buildings; paragraph 18.1 makes reference to their use as part of a firefighting shaft.

The AD B consultation document issued in July 2005 (Volume 1 – dwellings)[1] included the following statement:

The ODPM is minded to remove the need for self-closing devices within dwellings. This is because they can present a hazard to children; they can interfere with the day-to-day convenience of the occupants and many of our stakeholders tell us they are often disabled soon after occupation. The fire safety benefits of closing doors, particularly at night, remain and it is proposed to reinforce this message through national and local Community Fire Safety programmes (see www.firekills.gov.uk) and other fire safety initiatives. We would therefore particularly welcome consultees’ views on this particular proposal.

In order to assess the potential impact of removing the need to install self-closing door devices from Section 2 and Section 3 dealing with internal property layout, this project set out to try to determine the current level of satisfaction with these devices when in use and to try to determine current practice within the domestic environment in relation to these products.

2.2 Task 2 – Target audience and questionnaire

Following completion of the appropriate approvals required to meet the requirements of the Building Regulations, typically no further checks or inspections of privately owned and occupied property is undertaken. Hence the continued operation or existence of self-closing door devices is not monitored or controlled after installation. Anecdotal data suggests that these devices are often disabled or removed over the course of time. To reinforce this view anecdote evidence from social landlords, who will enter and refurbish their properties once tenancies have ended, suggest that one of the common elements requiring repair or replacement are self-closing door devices which have either been removed or disabled.

In order to try to determine some foundation for these views and to assess the potential impact on residents of these proposed changes a number of stakeholders were identified and approached.

These included:

- owner occupiers,
- landlords (both private and social) and
- house builders.

A questionnaire (included in Annex A) was developed and this together with supporting document was circulated to :

- members of BRE Housing Group and BRE staff (>500 individuals),
- members of the team undertook a number of interviews with professional and social contact, friends and family (>50), and
- a private house builder – who had indicated he would respond

In addition to the questionnaires, a presentation was made to members of the BRE housing group (a forum for social landlords and other housing providers) and were invited to participate in this study by providing any data or views. The response received can be split into two categories; those who are occupants (users) of these properties and those who are responsible for their management and repair.

2.2.1 Survey responses – private ownership

The target audience for these surveys were those living in single family occupancy properties with floors more than 4.5m above ground level and those living in flats (flats or maisonettes) with floors more than 4.5m above ground level. Hence, the primary data source throughout this study was the individual occupants of these properties. In the early stages of the process it became obvious that when people were made aware of the issue they felt that there was a 'right' answer and that by admitting to disabling, removing or even responding to the study there maybe some 'comeback'. This concern became a barrier to the provision of detailed information which was exemplified by refusals of our requests to visit candidate developments.

We contacted a number of local and national house builders, social landlords etc and despite being promised information, hardly any was forthcoming.

Hence personal interviews with friends and family proved to be the most effective and reliable data source. Of the nominal 550 questionnaires circulated 22 were returned covering 26 properties and of these 4 were not applicable to this study due to the age or date of conversions of the properties. Three types of property were identified in this study:

- Type 1 – Flats
- Type 2 – Loft Conversions
- Type 3 –Town houses (3-storeys or higher)

Table 1 summarise the findings from the questionnaires.

Type	Age of construction	Date of Conversion	Closer fitted moving in	Closer fitted now	Type of closer	Current closer status	Reason closer removed/disabled	Normal closer status - day	Normal closer status night
Apartment	1850	1989	Yes	Yes	Chain	Disabled	N/A	Disabled	Disabled
Apartment	1896	1980	Yes	Yes	Chain	Disabled	N/A	Disabled	Operational
Apartment	1980	N/A	Yes	No	Auto closer	Removed	Inconvenient	Removed	Removed
Apartment	1990	N/A	Yes	Yes	Chain	Disabled	N/A	Disabled	Operational
Apartment	2003	N/A	Yes	Yes	Chain	Disabled	N/A	Disabled	Disabled
Loft conversion	1850	1980	No	No	Not Present	Not Present	Not Present	Not Present	Not Present
Loft conversion	1930	2004	No	Yes	Auto closer	Operational	N/A	Operational	Operational
Loft conversion	1930	2005	No	Yes	Auto closer	Disabled	Children	Disabled	Sometimes
Loft conversion	1930	2005	No	Yes	Auto closer	Disabled	Children	Disabled	Sometimes
Loft conversion	1960	1988	No	No	Not Present	Not Present	Not Present	Not Present	Not Present
Loft conversion		2000 (?)	No	Yes	Chain	Disabled	Children	Disabled	Disabled
'Town House'	1983	N/A	Yes	Yes	Auto closer	Disabled	Inconvenient	Disabled	Disabled
'Town House'	1989	N/A	No	No	Not present	Not present	Not Present	Not present	Not present
'Town House'	1989	N/A	Yes	No	Auto closer	Removed	Inconvenient	Removed	Removed
'Town House'	1989	N/A	Yes	No	Auto closer	Removed	Inconvenient	Removed	Removed
'Town House'	1989	N/A	Yes	No	Auto closer	Removed	Inconvenient	Removed	Removed
'Town House'	1989	N/A	Yes	No	Auto closer	Removed	Inconvenient	Removed	Removed
'Town House'	1998	N/A	Yes	No	Chain	Removed	Sound / light	Removed	Removed
'Town House'	2000	N/A	Yes	Yes	Chain	Operational	N/A	Operational	Operational
'Town House'	2000	N/A	Yes	Yes	Chain	Disabled	N/A	Disabled	Disabled
'Town House'	2001	N/A	Yes	No	Chain	Removed	Family life	Removed	Removed
'Town House'	2003	N/A	Yes	Yes	Chain	Disabled	Sound / heat / children / infirm	Disabled	Disabled

Table 1 Summary of householders' responses

From the data, based on 22 properties, the indications suggest that only two of the respondents had fully operational self-closing door devices. The data shows that seven devices had been removed by the present occupiers and that in three cases they may have been removed by previous residents. The ten remaining devices were either disabled or 'stopped' for all or part of the day.

Eight of the respondents regularly held open the doors during the day or when the house was occupied; citing children or family life as the reason for this. Another factor raised related to heat and light. Of this group only two appeared to actively / regularly remove the door stops at night.

In three cases the devices had been removed prior to occupancy of the property. It is not clear how many more cases like these occur in practice where current occupants would not be aware of the need for such devices (if they are no longer present).

2.2.2 House Builders

Information was sought from the New Home Builders sector. Comments received from them included the view that when they returned to undertake other remedial works self-closing devices were either removed or disabled.

Another view expressed concern that, due to the improved insulation properties of many homes, the degree of force required to ensure the closure of the doors meant that with some types of self-closing device, the doors were perceived as closing very rapidly and putting children or the infirm at risk of injury. This theme of injury was regularly repeated in interviews throughout this project.

2.2.3 Social Housing

Where a private or social landlord inspected property prior to re-letting, the repair or re-instatement of these devices appears to be more likely to occur. No data was received from the occupants of these properties.

Data was received from one social landlord detailing the repairs to fire doors and self-closing devices in their properties over a twelve month period. Analysis of their records shows that 40 door chain closers were replaced during the year. It was not possible to establish if they were replaced due to wear and tear or because they had been removed by residents.

3 Conclusion

Although this work has yielded a limited amount of new data (other than more anecdotal evidence), it does suggest that for the majority of those properties where self-closing devices are provided, users are likely to disable them to meet family needs. This may involve permanent removal or temporary stopping to prevent operation during parts of the day or night. Given these limited findings it is recommended that a further, more detailed, investigation is undertaken to see if these findings are repeated in a larger sample population.

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4 References

1. The Building Act 1984. The Building Regulations 2000. Approved Document B: *Fire Safety*. DCLG 2002.
2. The Building Act 1984. The Building Regulations 2000. Approved Document B: *Fire Safety*. The proposed new edition of Volume 1 (*Dwellings*). A consultation document. DCLG July 2005.

Appendix A – Typical questionnaire

Questionnaire for door closer project

Thank you for help with this study. All responses will remain anonymous and are used solely to gain an understanding of the topic. If you have any queries please contact Stephen Howard or Norman Marshall at BRE on 01923 664954 or 01923 664969

Question 1 – We would like to identify the property type and rough age:

Type 1 - Apartment or Flat

Single storey unit

Approx year of construction _____

Maisonette unit

Approx year of construction _____

Type 2 - Two storey property with loft conversion

Approx Year of construction _____

Approx Year of conversion _____

Type 3 - Purpose built three storey property
(i.e Town house)

Approx Year of construction _____

1. Were the internal doors within your home fitted with door closers when you moved in?

Yes/No

2. Are the internal doors currently fitted with door closers?

Yes/ No

If Yes can you describe the type:

Rising butt hinges

'Perko'

Auto closers

Other _____

3. If the doors are not fitted with closers, do you know why they were removed?

Reason _____

4. If door closers are fitted, do you do anything to stop the door closing during:

- The day? Yes/No

a. If yes, what action do you take _____

- At night? Yes/No

b. If yes, what action do you take _____

5. If you do have operational door closers, could you score their operation on the following scale?

Score 0 – Intention to permanently disable

Score 5 – Happy with the operation.

6. Do you know why door closers were/are fitted?

Yes/No

If yes why?