

5.4 Door controls & stays

Care and Maintenance

Care and maintenance are important factors in ensuring that Allgood Hardware maintains the high quality finish for many years to come, and that working components give trouble-free operation. The frequency of maintenance will depend on the amount of use.

Fixings

All Allgood Hardware items are fixed using Pozidriv/Supadriv screws and the correct screwdrivers must be used. Ask for Allgood Hardware XX5321/2/3 drivers. Do not use Phillips drivers as they are not compatible.

Overhead door closers and floor springs

The internal mechanisms are completely immersed in oil and they are designed so that no maintenance is required. The units are also protected by overload abuse safety valves against accidental or deliberate misuse. Once the door control has been correctly fitted to suit local conditions, no further adjustments should be necessary. However, a frequent check should ensure that the door closes freely and positively into the frame without slamming (a little light oil or aerosol lubricant on the latch bolt and arm pivot point for overhead door closers may be helpful) and that all fixing screws are tight.

The storage and use of door controls should be in dry conditions between -5°C and +40°C. The shelf life is indefinite within the guarantee period.

Warning: Door controls contain powerful springs which are inserted into the body under pressure and should not be removed except by the manufacturer.

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Door controls are placed under more arduous conditions of use and abuse than nearly all other items of hardware. It is essential that their operation is smooth, efficient and reliable at all times, especially when used on fire resistant and smoke control doors.

Allgood Hardware door controls are produced to the highest standards of design and most have adjustable control features. Allgood plc is a leading UK supplier of adjustable backcheck overhead door closers including versions that have Certifire approval, and every Allgood Hardware door control carries a 10 year guarantee.

These devices are **CE** marked. Please ask for our Declaration of Conformity, or visit our website (www.allgood.co.uk). The EC Certificate of Conformity for them is 1121-CPD-AD0001.

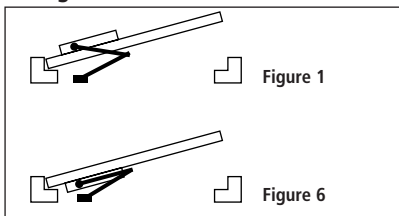
All door controls are manufactured in factories holding accreditation to the BS EN ISO 9001 2000 Quality Management System.

OVERHEAD DOOR CLOSERS

Most closers are to BS EN 1154:1997 (see main Introduction, Standards for Architectural Hardware) and Certifire approved.

Door closers are available in the full range of metallic and Spectra colour coated finishes.

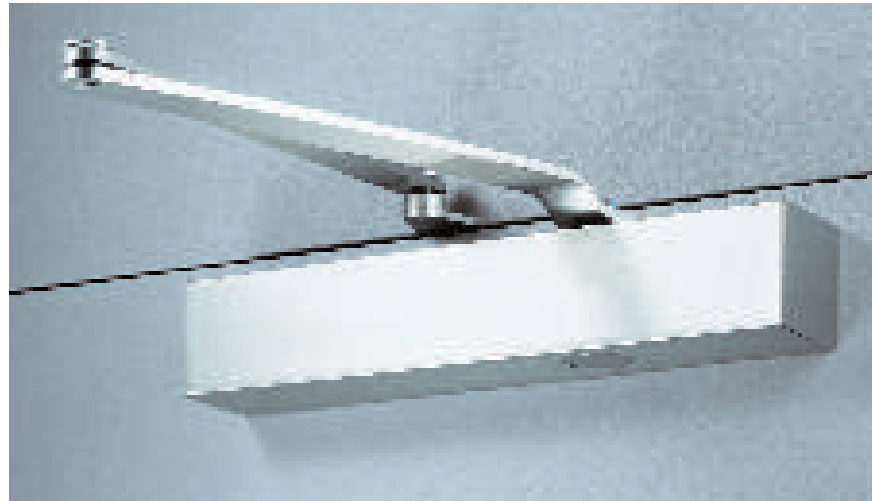
Configuration of Door Closers



FLOOR SPRINGS

Allgood Hardware floor springs are constructed to the highest specification and are available in single and double action options.

The slimline Commander and Cavalier ranges of floor springs incorporate many unique features to ensure easy installation and adjustment as well as providing attractive aesthetics and long-term reliability.



The ranges include double action and centre pivoted single action floor springs for internal and external doors: a multi-functional adjustable power (1 to 6) unit, a mechanical hold-open version and an electromagnetic hold-open model. Floor springs feature fully adjustable housing to allow fine setting of door alignment and fully adjustable closing speed and a proportional backcheck action at 90°. Commander unit installation is achieved by a unique micro-adjustable toe-in and centering control and a built-in levelling device. Satin stainless steel grade 316 cover plates are fitted as standard. All other metallic and Spectra finishes are available.

FIRE DOOR CONTROLS

Mechanical hold-open devices which permanently hold a door open until physically released are unsuitable for use on fire resisting doors. Electromagnetic release closers, however, hold open electrically and, when connected to a central fire-alarm system, will allow the door to close automatically in the event of supply failure or alarm activation.

All Allgood Hardware door releases are 'fail-safe'. The door will be released and close immediately when the alarm is set off, either manually or by the automatic smoke or heat sensitive devices. The door will also be released and closed automatically in the event of power failure. The door can always be closed manually.

Specification

Fire door holders 9408 and 9409 must be used in conjunction with an overhead door closer or floor spring. In principle, to avoid distortion of the door, the release device should be positioned at the same height as the door closing device.

Integral hold/release mechanisms (9431/4, 9451 and 9461) have an advantage over standard closing devices combined with electromagnetic door releases, since they do not induce any twisting forces to the door which can lead to warping of wooden doors after prolonged use.

Regulations

Electromagnetic release and swing free door closing devices are accepted by Fire Officers and local authorities and comply with the 1991 Building Regulations Approved Document B, 2000 Edition, Appendix B.

Maximum door mass/width

The table below shows the door masses and widths as contained in the BS EN 1154 European Standard.

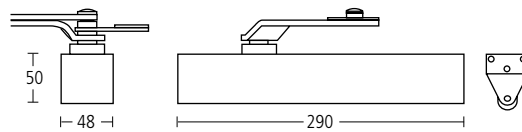
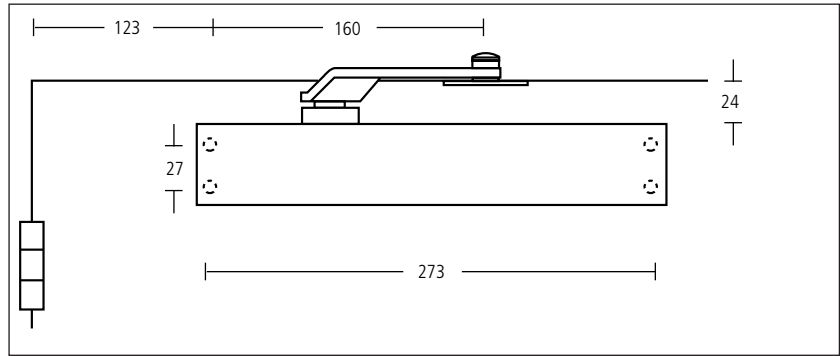
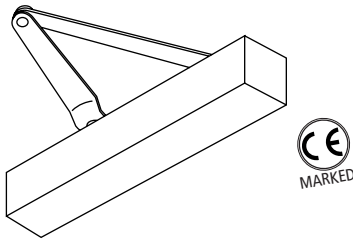
Table 1 (from BS EN 1154)

Power size of door control	Max. mass of hinged leaf	Width of door leaf
1	20kg	<750mm
2	40kg	850mm
3	60kg	950mm
4	80kg	1100mm
5	100kg	1250mm
6	120kg	1400mm
7	160kg	1600mm

However, Allgood Hardware floor springs will carry door masses up to 250kg (single action) and 400kg (double action) when fitted with the standard height spindle.

9151A

Heavy duty overhead door closer with fully adjustable power and adjustable backcheck, as well as latching and speed.



Fitting to opening face of door (Fig.1). Integral intumescent protected soffit fixing plate.

Power: adjustable EN Power 2–4.

Max. door mass/width: see Introduction.

Closing speed: fully adjustable and with independent latch action.

Backcheck: fully adjustable angle of operation, 60°–130°. To limit the opening angle, a doorstop is recommended.

Opening angle: up to 180°.

Fixings: single fixing position. Concealed screws for wood or metal. Special brackets/plates for metal doors/frames readily available to order. For internal and external doors.

9151ASO – Hold-open version: push door approximately 3° past the 90° holding position and release; the door will move back to the 90° position required (not for fire door use).

9151ADC – Delayed closing version with minimum 20 second delay between 65° and 90°. Maximum 45 seconds.

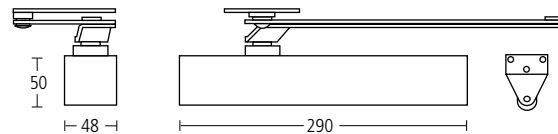
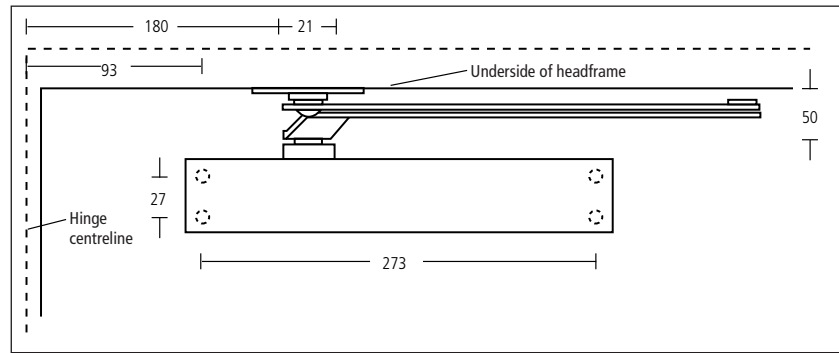
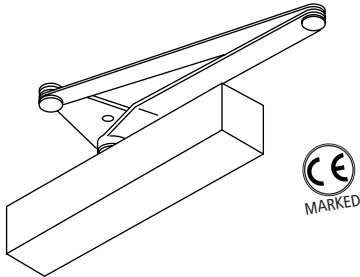
Standards performance

Independently tested and complies with the requirements of BS EN 1154:1997 **4|8|2|4|1|1|3** with backcheck and is CE marked 1121-CPD-AD0001 (see Standards for Architectural Hardware in the main Introduction). Has been included in many successful 3rd party tests on fire door assemblies to BS EN 1634-1 and BS 476 Pt 22 up to 120 minutes on timber doors and is Certifire approved, for use on certain latched and unlatched assemblies and single and double doors. UL listed.

Finishes: MA • TA • PB • PC
Satin stainless steel plated –
XX9151ASS (full ref.)

9156A

Heavy duty overhead door closer with fully adjustable power and adjustable backcheck.



Fitting to closing face of door (Fig.6).

Power: adjustable EN Power 2–4.

Max. door mass/width: see Introduction.

Closing speed: fully adjustable and with independent latch action.

Backcheck: fully adjustable angle of operation, 60°–130°. To limit the opening angle, a doorstop is recommended.

Opening angle: up to 180°.

Fixings: single fixing position. Concealed screws for wood or metal. Special brackets/plates for metal doors/frames readily available to order. For internal and external doors.

9156ASO – Hold-open version: push door approximately 3° past the 90° holding position and release; the door will move back to the position required (not for fire door use).

9156ADC – Delayed closing version with minimum 20 second delay between 65° and 90°. Maximum 45 seconds.

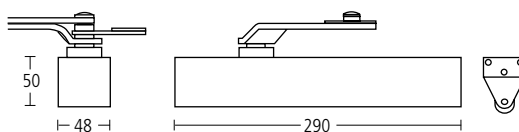
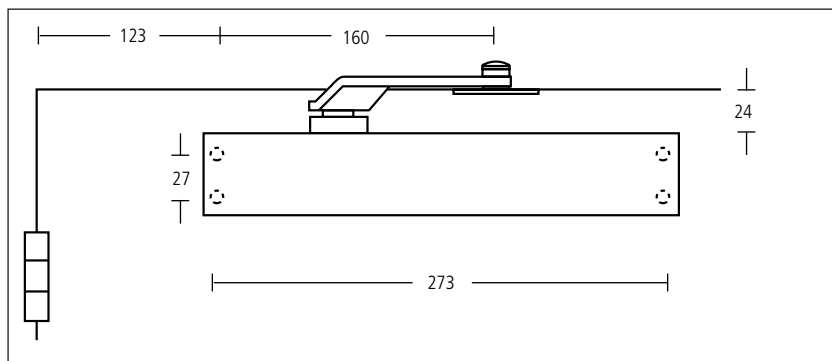
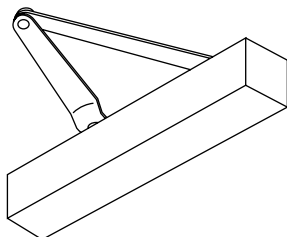
Standards performance

Has been independently tested and complies with the requirements of BS EN 1154:1997 **4|8|2|4|1|1|3** with backcheck and is **CE** marked 1121-CPD-AD0001 (see Standards for Architectural Hardware in the main Introduction). Has been included in many successful 3rd party tests on fire door assemblies to BS EN 1634-1 and BS 476 Pt 22 up to 120 minutes and is Certifire approved, for use on certain latched and unlatched assemblies and single and double doors. UL listed.

Finishes: MA • TA • PB • PC
Satin stainless steel plated –
XX9156ASS (full ref.)

9151AFF

Heavy duty overhead door closer with fully adjustable power and adjustable backcheck. For steel fire doors.



Fitting to opening face of door (Fig.1). Suitable for up to 4 hour fire doors. For internal and external metal doors. Non-flammable hydraulic fluid.

Power: adjustable EN Power 2–4.

Max. door mass/width: see Introduction.

Closing speed: fully adjustable and with independent latch action.

Backcheck: fully adjustable angle of operation, 60°–130°. To limit the opening angle, a doorstop is recommended.

Opening angle: up to 180°.

Fixings: single fixing position. Concealed screws for wood or metal. Special brackets/plates for metal doors/frames readily available to order.

Please Note: No hold-open version is available.

Standards performance

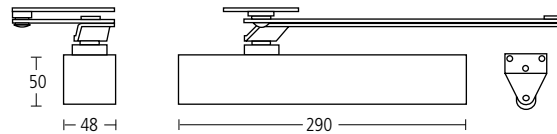
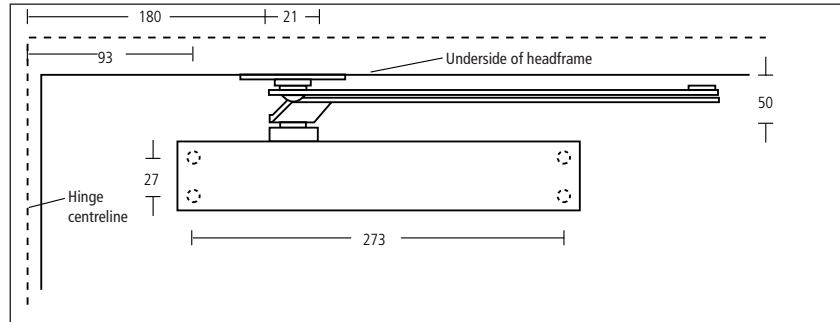
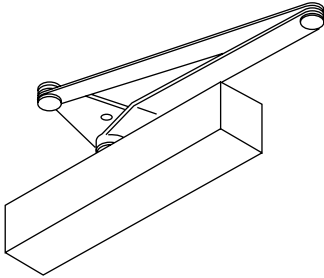
Has been independently tested and complies with the requirements of BS EN 1154:1997 48274113.

Has been included in many successful 3rd party tests on fire door assemblies to BS 476 Pt 22 up to 240 minutes and is Certifire approved, for use on certain latched and unlatched assemblies and single and double doors. UL listed.

Finishes: MA • TA • PB • PC
Satin stainless steel plated –
XX9151ASF (full ref.)

9156AFF

Heavy duty overhead door closer with fully adjustable power and adjustable backcheck. For steel fire doors.



Fitting to closing face of door (Fig.6). Suitable for up to 4 hour fire doors. Internal and external metal doors. Non-flammable hydraulic fluid.

Power: adjustable EN Power 2–4.

Max. door mass/width: see Introduction.

Closing speed: fully adjustable and with independent latch action.

Backcheck: fully adjustable angle of operation, 60°–130°. To limit the opening angle, a doorstop is recommended.

Opening angle: up to 180°.

Fixings: single fixing position. Concealed screws for wood or metal. Special brackets /plates for metal doors/frames readily available to order. For internal and external doors.

Please Note: No hold-open version is available.

Standards performance

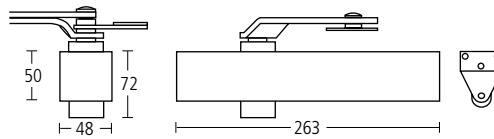
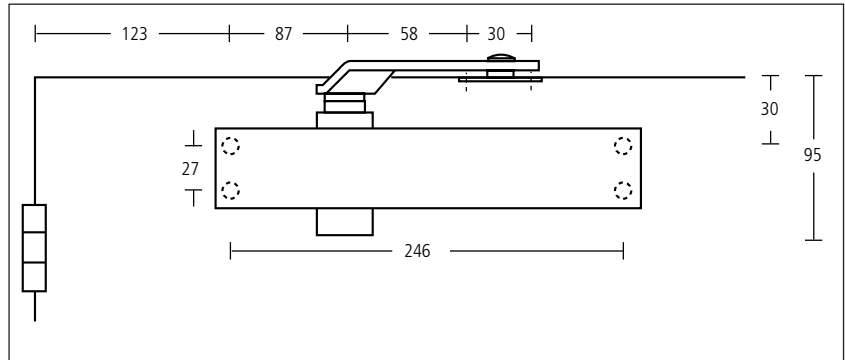
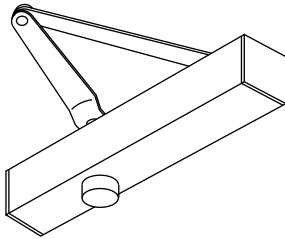
Has been independently tested and complies with the requirements of BS EN 1154:1997 [4][8][2][4][1][1][3].

Has been included in many successful 3rd party tests on fire door assemblies to BS EN 1634-1 and BS 476 Pt 22 up to 240 minutes and is Certifire approved, for use on certain latched and unlatched assemblies and single and double doors. UL listed.

Finishes: MA • TA • PB • PC
Satin stainless steel plated –
XX9156ASF (full ref.)

9171

Overhead door closer with adjustable backcheck and available in all powers 1–4.



Fitting to opening face of door (Fig.1). Integral intumescent protected soffit fixing plate.

Power: available in EN Powers 1–4. EN Power 3 supplied as standard.

Max. door mass/width: see Introduction

Closing speed: fully adjustable and with independent latch action.

Backcheck: fully adjustable angle of operation, 60°–130°. To limit the opening angle, a doorstop is recommended.

Opening angle: up to 180°.

Fixings: single fixing position. Concealed screws for wood or metal. Special brackets/plates for metal doors/frames readily available to order. For internal and external doors.

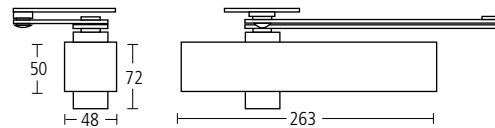
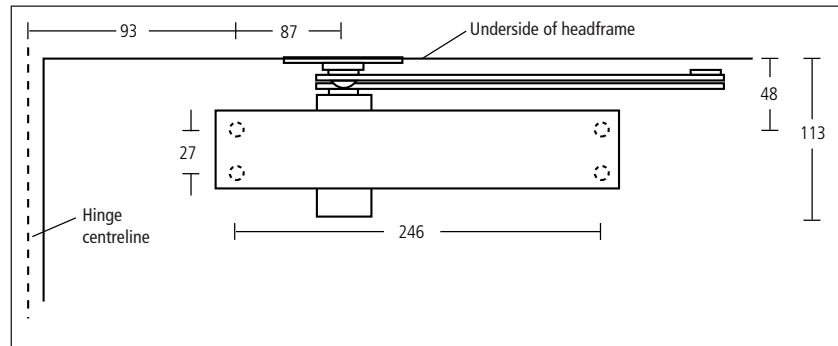
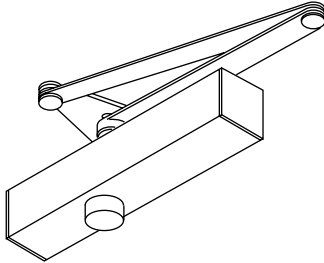
Standards performance

Has been independently assessed and is Kitemarked to BS EN 1154:1997 **4|8|4|1|1|3** with backcheck (see Standards for Architectural Hardware in the main Introduction). Has been included in many successful 3rd party tests on fire door assemblies to BS EN 1634-1, BS 476 Pt 22 up to 120 minutes on timber doors and is Certifire approved, for use on certain latched and unlatched assemblies and single and double doors. UL Listed.

Finishes: MA • TA • PB • PC
Satin stainless steel plated –
XX9171SS (full ref.)

9176

Overhead door closer with adjustable backcheck and available in all powers 1–4.



Fitting to closing face of door (Fig.6).

Power: available in EN Powers 1–4.
EN Power 3 supplied as standard.

Max. door mass/width: see Introduction.

Closing speed: fully adjustable and with independent latch action.

Backcheck: fully adjustable angle of operation, 60°–130°. To limit the opening angle, a doorstop is recommended.

Opening angle: up to 180°.

Fixings: single fixing position. Concealed screws for wood or metal. Special brackets/plates for metal doors/frames readily available to order. For internal and external doors.

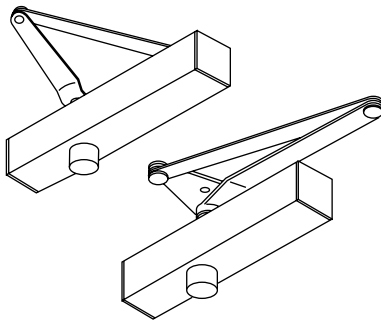
Standards performance

Has been independently assessed and is Kitemarked to BS EN 1154:1997 **4|8|4|1|1|3** with backcheck (see Standards for Architectural Hardware in the main Introduction). Has been included in many successful 3rd party tests on fire door assemblies to BS EN 1634-1, BS 476 Pt 22 up to 120 minutes on timber doors and is Certifire approved, for use on certain latched and unlatched assemblies and single and double doors. UL listed.

Finishes: MA • TA • PC
Satin stainless steel plated –
XX9176SS (full ref.)

9191/6

Selectable power overhead door closer with universal arms.



Supplied with brackets for closing face (Fig.6) and opening face fixing (Fig.1) installations.

Power: Selectable EN 3/4 (Fig.1)
EN 4 (Fig.6).

Closing speed: fully adjustable with independently adjustable latch action.

Opening angle: up to 180°. To limit the opening angle, a doorstop is recommended.

Fixings: Concealed screws for wood or metal, complete with universal Fig.1 and Fig.6 bracket and alternative face fixing Fig.1 bracket.

Handing: For clockwise or anti-clockwise closing applications.

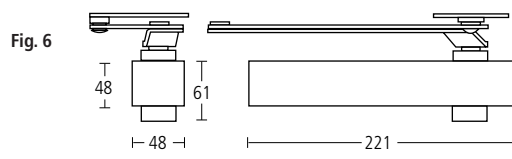
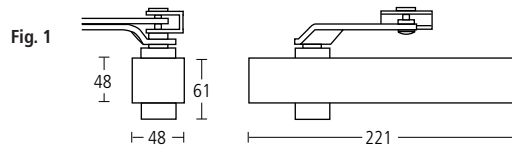
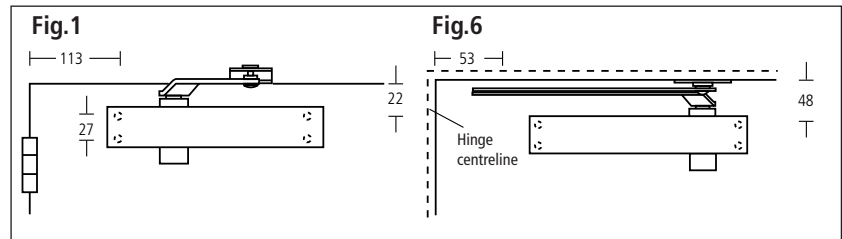
For internal and external doors.

Standards performance

Has been independently assessed to BS EN 1154: 1997 [383/4113](#) (see Standards for Architectural Hardware in the main Introduction)

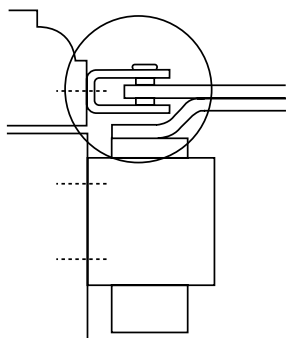
Has been included in successful 3rd party tests on fire door assemblies to BS EN 1634, up to 120 minutes on timber doors and is Certifire approved, for use on certain latched and unlatched assemblies and single and double doors. UL listed.

Finishes – Product number prefix
Silver – XX
Spectra colour coated – TX



9151FN

Alternative fixing bracket.

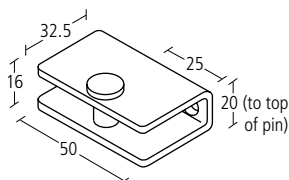


Alternative opening face fixing bracket for 9151A, 9151AFF, 9171, 9451 and 9461 door closers.

Finishes: SC • PC • MA • TA • PB

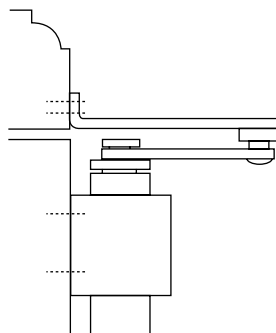
Fixing instructions

1. Fix the closer as instructed.
2. Position the face fixing bracket as shown on the template.
3. Join the arm to the bracket with the button and pivot pin provided.



9156FN

Alternative fixing bracket.

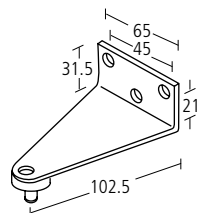


Alternative face fixing bracket for flush frame for 9156A, 9156AFF, 9176, 9456 and 9466 door closers.

Finishes: SC • PC • MA • TA • PB

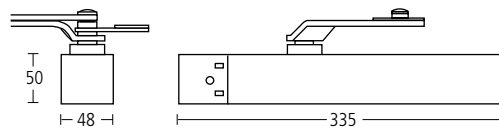
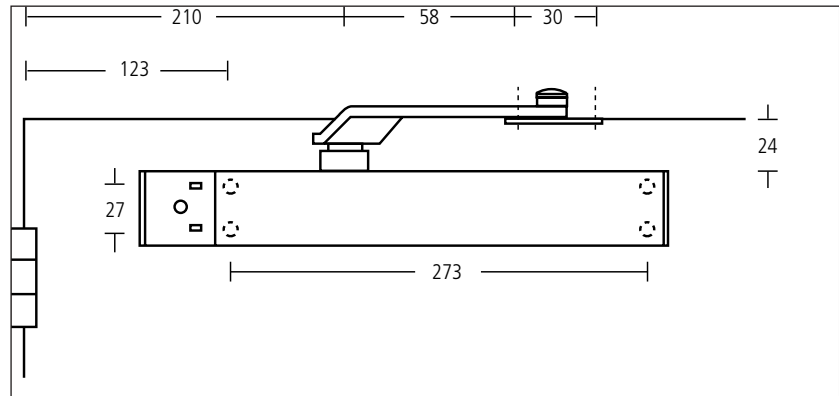
Fixing instructions

1. Fix the closer as instructed.
2. Position the face fixing bracket as shown on the template.
3. Join the arm to the bracket with the button and pivot pin provided.



9451

Fire-hold fixed power overhead door closer, with electromagnetic release.



Hold-open and adjustable delayed action facilities are incorporated, though a separate switch pack is required to activate the delayed action. Universal power conditioning module allows the use of 24V AC or DC. Angle of hold-open from 75°. Delayed action is adjustable with electronic timer (15–120 seconds). Integral function test button for simple regular system testing as required by Fire Officers. Twin LED status indicators. Optional 9471 or 79053 armoured cable loop or 8066CT power transfer hinge for simple installation.

Power: Fixed EN power 3.

Open angle: up to 180°. To limit the opening angle, a doorstop is recommended.

Fixings: Single fixing position. Fitting to opening face of door (Fig.1). Supplied with intumescent-protected soffit plate. Optional face fixing bracket, 9151FN available separately.

How it works

The 9451 firehold door closer has 2 modes of operation which are manually selectable by an internal switch.

1. In Hold mode of operation the door can be used in the normal way, opening and closing under the control of the door closer mechanism. If the door is opened beyond 75°, the closer mechanism will be de-activated and the door will remain within 5° of the position to which the door has been opened. The release, which is connected to a central alarm system, will be activated by the alarm or by a power supply failure and will close the door automatically.

2. In Delay mode the unit does not need to be connected to a central fire alarm system. Switch pack XX9450DC is required. In Delay mode the door can be used, in the same way as in Hold mode but when in the 'hold open' position the power conditioning module will automatically activate the closer after a period of time and the door will close at a controlled speed under full spring power.

On opening the door, the Delay period commences. The Delay period is adjustable between 15 and 120 seconds.

When set for either Hold or Delay the door closer can be released at any time by manually closing the door or by momentarily pressing the test button on the power conditioning module.

Power supply

Power supply to the unit can be either via a concealed cable loop or conductor hinge, or through a visible armoured cable loop fixed across the face of the door to the frame. Care should be taken not to damage the intum-escant seals if the concealed supply cable is routed around the hinge edge of the door-leaf. This unit operates on 24V AC or DC.

Maintenance

This door closer is designed to be maintenance free. It is recommended that a weekly test should be made to ensure correct operation and records should be kept.

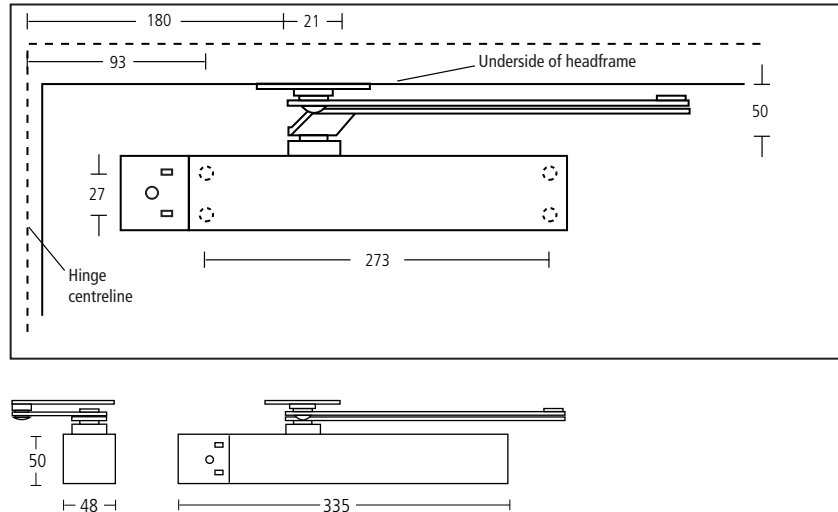
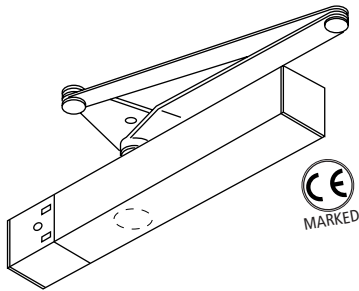
Standards performance

Has been independently assessed to BS EN 1155 [3]8[3]11[3] and is CE marked 1121-CPD-AE001 (see Standards for Architectural Hardware in the main Introduction). Has been included in many successful 3rd party tests on fire door assemblies to BS EN 1634-1, BS 476 Pt 22 up to 120 minutes and is Certifire approved, for use on certain latched and unlatched assemblies and single and double doors.

Finishes: MA • TA • PB • PC
Satin stainless steel plated – XX9451SS (full ref.)

9456

Fire-hold fixed power overhead door closer, with electromagnetic release.



Version of 9451 for Fig.6 fixing. Hold-open and adjustable delayed action facilities are incorporated, though a separate switch pack is required to activate the delayed action. Universal power conditioning module allows the use of 24V AC or DC. Angle of hold-open from 75°. Delayed action is adjustable with electronic timer (15–120 seconds). Integral function test button for simple regular system testing as required by Fire Officers. Twin LED status indicators. Optional 9471 or 79053 armoured cable loop or 8066 power transfer hinge for simple installation.

Power: Fixed EN power 3.

Open angle: up to 180°. To limit the opening angle, a doorstop is recommended.

Fixings: Single fixing position. Fitting to closing face of door (Fig.6).

How it works

The 9451 firehold door closer has 2 modes of operation which are manually selectable by an internal switch.

1. In Hold mode of operation the door can be used in the normal way, opening and closing under the control of the door closer mechanism. If the door is opened beyond 75°, the closer mechanism will be de-activated and the door will remain within 5° of the position to which the door has been opened. The release, which is connected to a central alarm system, will be activated by the alarm or by a power supply failure and will close the door automatically.
2. In Delay mode the unit does not need to be connected to a central fire alarm system. Switch pack XX9450DC is required. In Delay mode the door can be used, in the same way as in Hold mode but when in the 'hold open' position the power conditioning module will automatically activate the closer after a period of time and the door will close at a controlled speed under full spring power.

On opening door, the Delay period commences. The Delay period is adjustable between 15 and 120 seconds.

When set for either Hold or Delay the door closer can be released at any time by manually closing the door or by momentarily pressing the test button on the power conditioning module.

Power supply

Power supply to the unit can be either via a concealed cable loop or conductor hinge, or through a visible armoured cable loop fixed across the face of the door to the frame. Care should be taken not to damage the intumescent seals if the concealed supply cable is routed around the hinge edge of the doorleaf. This unit operates on 24V AC or DC.

Maintenance

This door closer is designed to be maintenance free. It is recommended that a weekly test should be made to ensure correct operation.

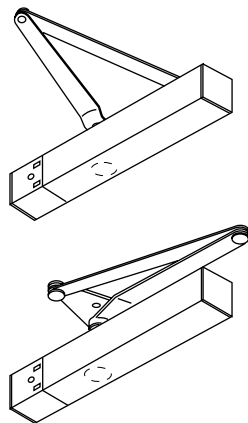
Standards performance

Has been independently assessed to BS EN 1155 383113 and is CE marked (see Standards for Architectural Hardware in the main Introduction). Has been included in many successful 3rd party tests on fire door assemblies to BS EN 1634-1, BS 476 Pt 22 up to 120 minutes and is Certifire approved, for use on certain latched and unlatched assemblies and single and double doors.

Finishes: MA • TA • PB • PC
Satin stainless steel plated –
XX9456SS (full ref.)

9461/6

Swing free door closer.



The 9461/6 swing free door closer comprising a closer unit from a 9451/6 and a special arm set. Beyond 75°, the closer is held in an 'inoperative' state and the door is free to swing. When the unit is activated by the central alarm system, or by a power failure, the closer is re-activated and will close the door. The 'hold-open/delayed action' selector switch should be in the 'hold open' position

Fixings: Dual fixing position, fitted to opening/closing face of door (Fig.1 & Fig.6).

Finishes: MA • TA • PB • PC
 Satin stainless steel plated –
 XX9461SS (full ref.) – Figure 1
 XX9466SS (full ref.) – Figure 6

Fig. 1

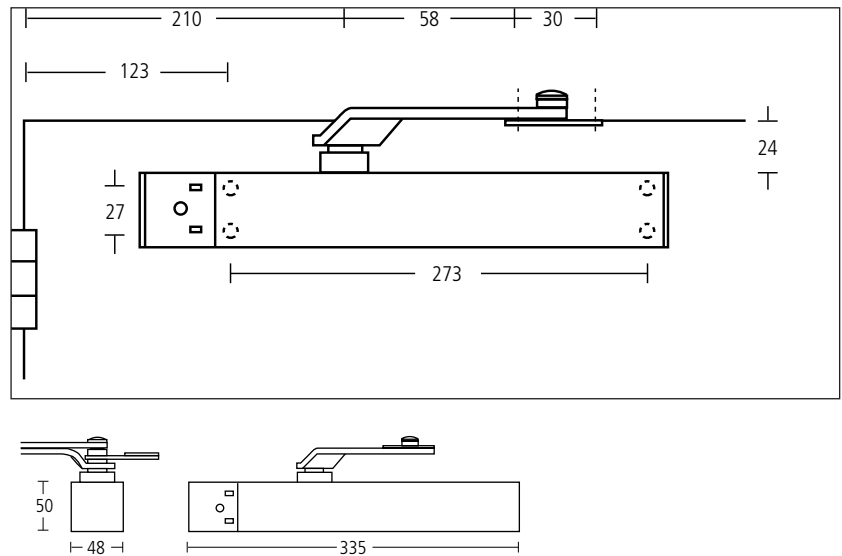
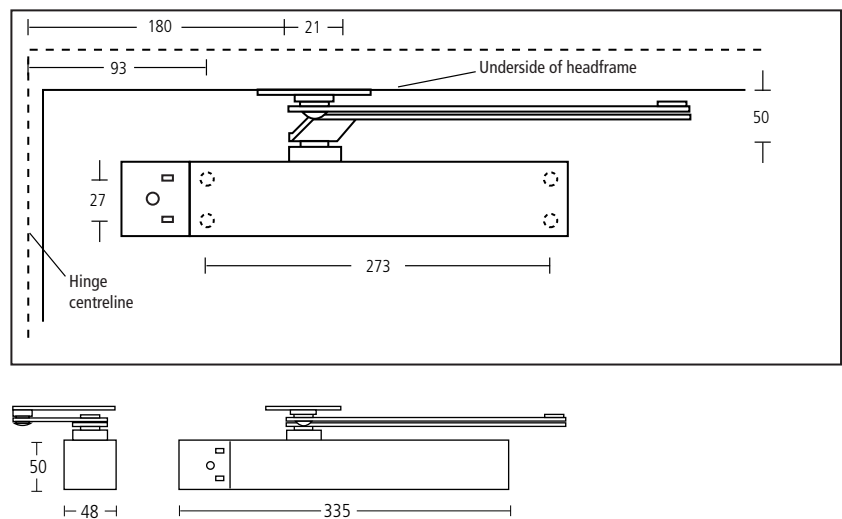
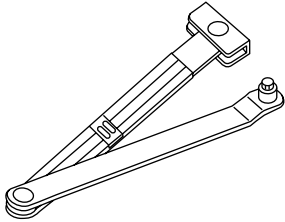


Fig. 6



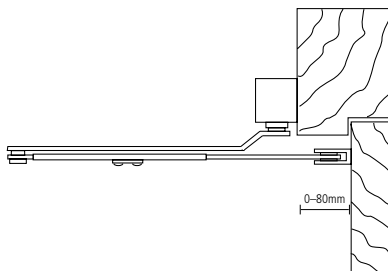
9472

Transom mounting kit for 9151A, 9151AFF and 9171/6 door closers, and 9451 electromagnetic release door closer.



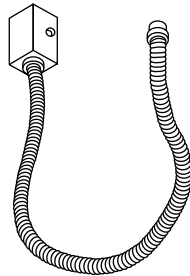
Adjustable arm suits frame projections from 0–80mm.

Finishes: MA • TA • PB • PC
Satin stainless steel plated –
XX9472SS (full ref.)



9471

Surface mounted armoured loop.

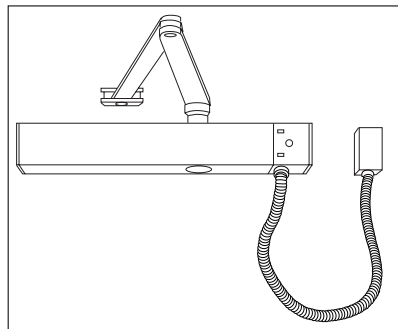


To simplify installation a surface mounted armoured loop is available to carry the power from the door frame to the door closer unit. Can be used with 9451/9461 and 9456/9466 electromagnetic release door closers.

For timber and metal door frames.

Concealed loop (XX79053 – see Secure Section 7.7) and power transfer hinges (8066CT2 and 8066CT8 – see Hinges Section 5.5) are also available.

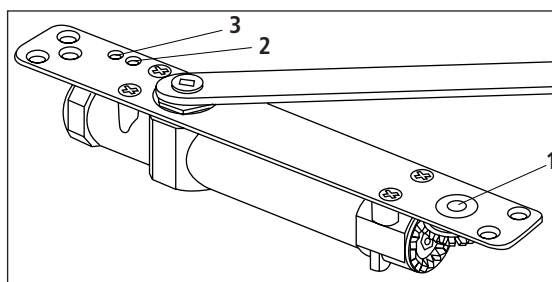
Finishes: MA • TA • PB • PC
Satin stainless steel plated –
XX9471SS (full ref.)



Adjustments and Installation Details for XX9124 Fully Concealed Overhead Door Closer

ADJUSTMENTS

Door width	Closing moment	EN
up to 850mm	Approx. 13Nm. As delivered ex works.	EN2
up to 950mm	Approx. 18Nm. Turn adjustment screw right as far as the stop.	EN3
up to 1100mm	Approx. 21Nm with installation dimensions A=200mm (max door opening angle 110°).	EN4

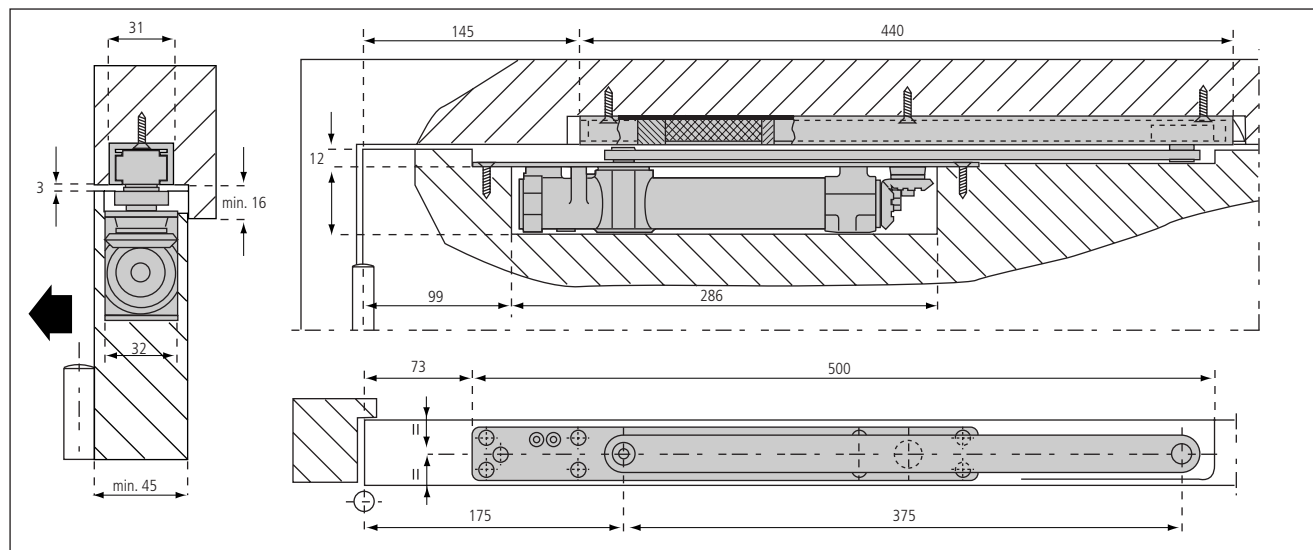


- 1 Adjustment screw for setting closing force
- 2 Valve for adjusting closing speed
- 3 Valve for latching action

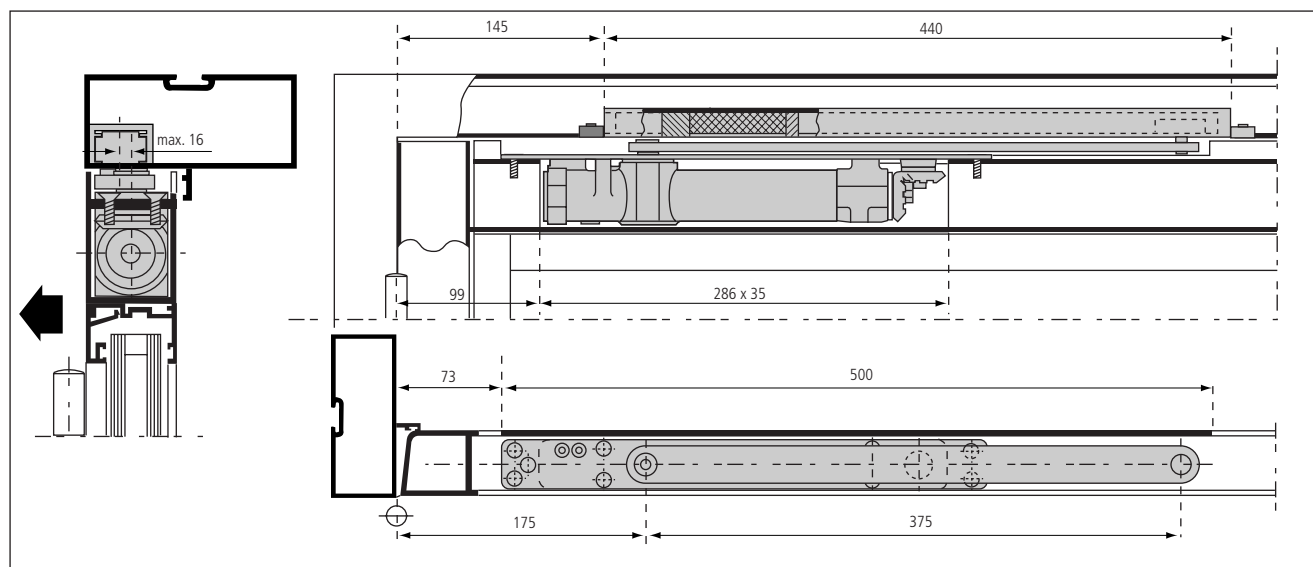
APPLICATION AND INSTALLATION

Left hand shown.

Fitting in a timber door

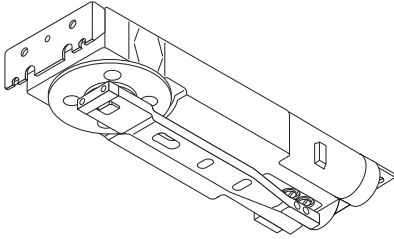


Fitting in an aluminium door



SS9136

Fully concealed transom door closer



For use on self-closing double action fire doors where there is insufficient screed (e.g. a "trough" floor) to specify a floor spring. Minimum 145mm x 70mm hardwood frame required for FD 60 application.

Features

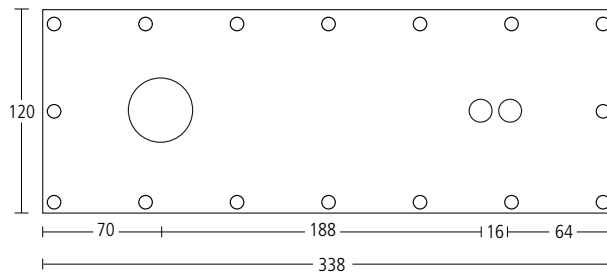
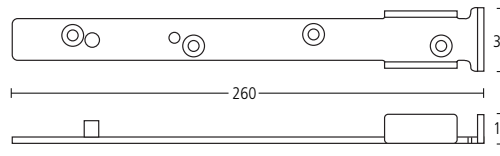
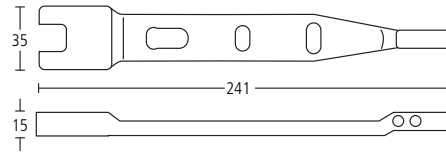
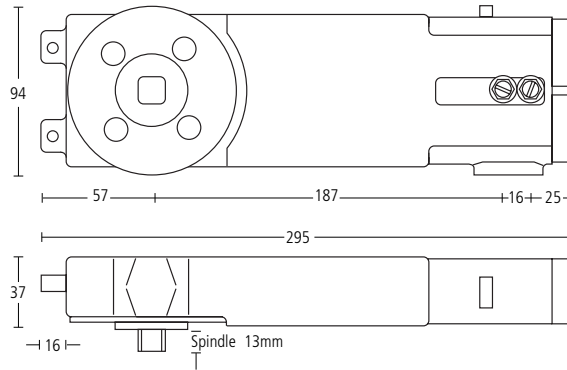
- Adjustment for both latching and closing speeds.
- Spring power size 4.
- Will suit door widths from 850mm to 1100mm.
- Maximum door weight of 80kg.
- Suitable for both interior and exterior installations.
- Non-handed.

Although the SS9136 has a built-in cushioned stop, we strongly recommend the use of a door stop to complement the closer and ensure that the swing is not taken further than 105°.

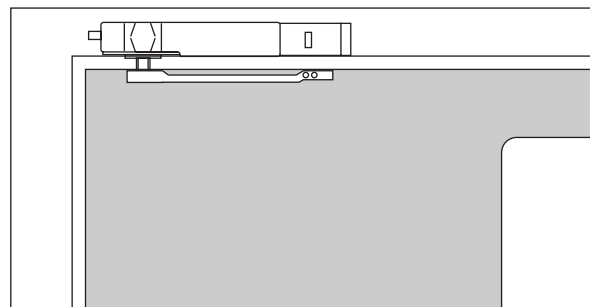
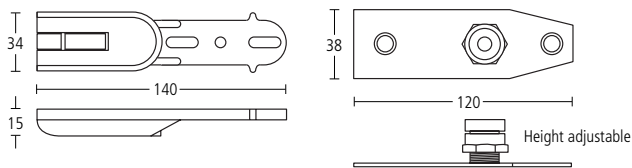
This product is enhanced with an intumescent pack to provide the required fire protection.

Standards performance

FD60 fire tested in accordance with BS476, Pt22; the product satisfied the performance requirements in excess of 75 minutes.

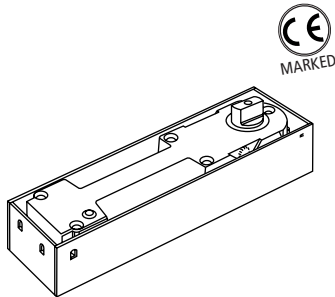


Cover plate: 1.5mm thick, grade 316 satin stainless steel.



9231

Commander multi-functional floor spring complete with accessories (see Accessories).



Adjustable power (2–6) to BS EN 1154, adjustable closing speed, proportional backcheck, levelling device and centring adjustment and micro-adjustable toe-in. With box, 60mm deep.

Max. door mass/width

All floor springs will carry door masses up to 250kg (single action) and 400kg (double action). Note: stand open version not suitable for use on fire doors.

Standards performance

Certifire listed and independently assessed to BS EN 1154 [4|8|1|6|1|1|3] and is CE marked 1121-CPD-AD002.

Incorporated in successful fire tests and assessed to BS 476 Pt 22 120 minutes and BS EN 1634.

For single action doors, specify:

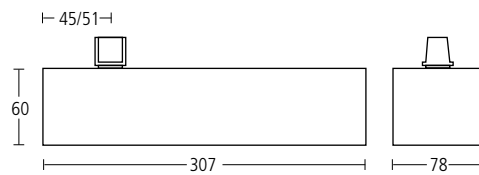
16mm offset	9231S6
16mm offset 'stand open'	9231S6S
25mm offset	9231S5
25mm offset 'stand open'	9231S5S

For double action doors, specify:

	9231D
'Stand open'	9231DSO

Finishes: SS • PS • PB

To prevent moisture entering the box, specify XX9231XG gel pack, which seals the floor spring unit in the floor box.



Maintenance

The integral mechanism of the floor spring is immersed in oil and has been designed so that it requires no maintenance. It is protected from misuse by an overload safety feature. On no account should any attempt be made to dismantle a floor spring, since it contains a pre-stressed spring which could be dangerous.

Once the floor spring has been installed and adjusted to suit local conditions, no further maintenance should be necessary. However, an annual check should ensure that:

- the door leaf closes freely and positively into its frame from any angle without slamming.
- all fixing screws to the unit and accessories are tight.

Testing

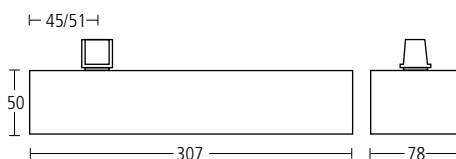
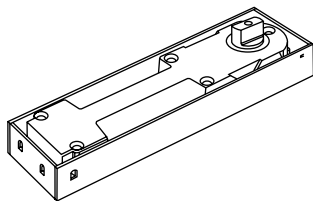
To ensure that the floor spring meets the requirements of the Building Regulations 1991 Approved Document B, 2000 Edition, Appendix B, it has to be capable of closing the door leaf from any angle against any latch fitted.

To test this, open the door to its maximum opening angle and release. The door leaf should close fully into the door frame and overcome any latch or seals.

Any failure to close the door leaf should be investigated. It may indicate that the power of the floor spring requires adjustment or that excessive force is required to close the door leaf, due to distortion or misalignment.

9247

Cavalier adjustable power floor spring complete with accessories (see Accessories).



Adjustable fixed power (1–4) to BS EN 1154, adjustable closing speed, fixed backcheck. With box, 50mm deep.

Max. door mass/width

All floor springs will carry door masses up to 250kg (single action) and 400kg (double action). Note: stand open version not suitable for use on fire doors.

Standards performance

Certifire listed and independently assessed to BS EN 1154 481/4113.

Incorporated in successful fire tests and assessed to BS 476 Pt 22 120 minutes and BS EN 1634.

For single action doors, specify:

16mm offset	9247S6
16mm offset SO	9247S6S
25mm offset	9247S5
25mm offset SO	9247S5S

For double action doors, specify:

	9247D
SO	9247DS

Finishes: SS • PS • PB

To prevent moisture entering the box, specify XX9231XG gel pack, which seals the floor spring unit in the floor box.

Maintenance

The integral mechanism of the floor spring is immersed in oil and has been designed so that it requires no maintenance. It is protected from misuse by an overload safety feature. On no account should any attempt be made to dismantle a floor spring, since it contains a pre-stressed spring which could be dangerous.

Once the floor spring has been installed and adjusted to suit local conditions, no further maintenance should be necessary. However, an annual check should ensure that:

- a) the door leaf closes freely and positively into its frame from any angle without slamming.
- b) all fixing screws to the unit and accessories are tight.

Testing

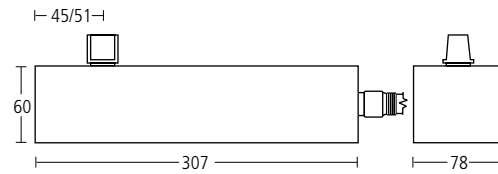
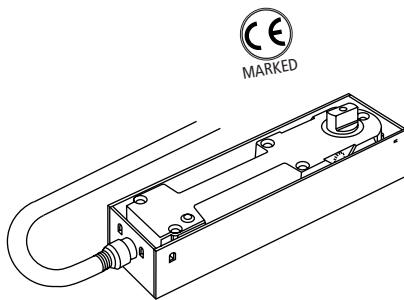
To ensure that the floor spring meets the requirements of the Building Regulations 1991 Approved Document B, 2000 Edition, Appendix B, it has to be capable of closing the door leaf from any angle against any latch fitted.

To test this, open the door to its maximum opening angle and release. The door leaf should close fully into the door frame and overcome any latch or seals.

Any failure to close the door leaf should be investigated. It may indicate that the power of the floor spring requires adjustment or that excessive force is required to close the door leaf, due to distortion or misalignment.

9431

Commander electromagnetic floor spring complete with accessories (see Accessories).



Commander electromagnetic floor spring, 24vDC / 2.8W. Fixed power 4. With micro-adjustable toe-in and unique levelling device. With box, 60mm deep and cable 3 metres long.

The unit will hold at any angle to which it is opened beyond 75°. Note that the hold open angle may be up to 5° less. To electrically release, it is recommended that a test button is located nearby.

To mechanically release, simply pull the door towards the closed position. The Commander electromagnetic floor spring is fail safe; in the event of a power failure, the unit will automatically close.

Max. door mass/width

All floor springs will carry door masses up to 250kg (single action) and 400kg (double action). Note: stand open version not suitable for use on fire doors.

Standards performance

Certifire approved and independently assessed to BS EN 1155 3841113 and is CE marked 1121-CPD-AE002.

For single action doors, specify:

16mm offset	9431S6
25mm offset	9431S5

For double action doors, specify:

9431D

Finishes: SS • PS • PB

Power supply: 24v DC.

Maintenance

The integral mechanism of the floor spring is immersed in oil and has been designed so that it requires no maintenance. It is protected from misuse by an overload safety feature. On no account should any attempt be made to dismantle a floor spring, since it contains a pre-stressed spring which could be dangerous.

Once the floor spring has been installed and adjusted to suit local conditions, no further maintenance should be necessary. However, an annual check should ensure that:

- a) the door leaf closes freely and positively into its frame from any angle without slamming.
- b) all fixing screws to the unit accessories are tight.

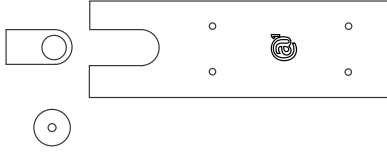
Testing

To ensure that the floor spring meets the requirements of the Building Regulations 1991 Approved Document B, 2000 Edition, Appendix B, it has to be capable of closing the door leaf from any angle against any latch fitted.

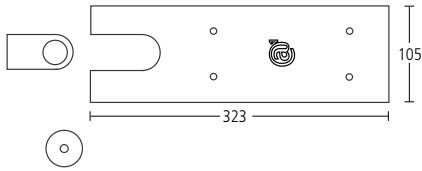
To test this, open the door to its maximum opening angle and release (with power removed). The door leaf should close fully into the door frame and overcome any latch (single action only) or seals.

Any failure to close the door leaf should be investigated. It may indicate that the power of the floor spring requires adjustment or that excessive force is required to close the door leaf, due to distortion or misalignment.

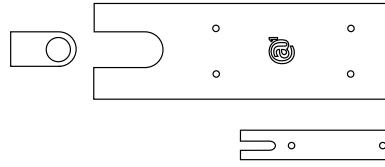
Cover plates for 16mm and 25mm single action floor springs.



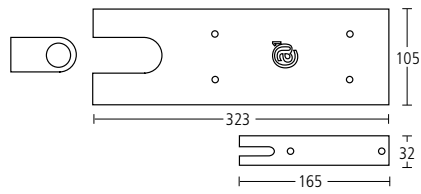
Finishes: SS • PS • TS • PB



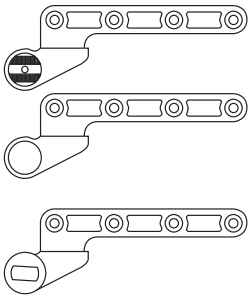
Cover plates for double action floor spring.



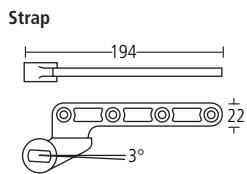
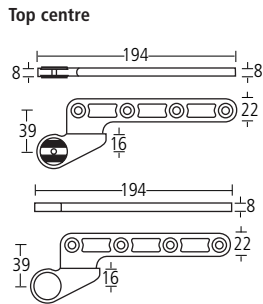
Finishes: SS • PS • TS • PB



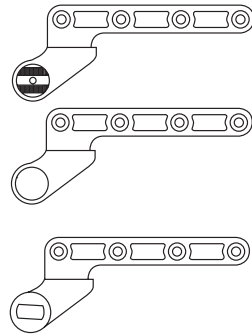
Single action offset strap and top centre.
16mm offset.



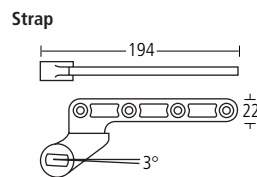
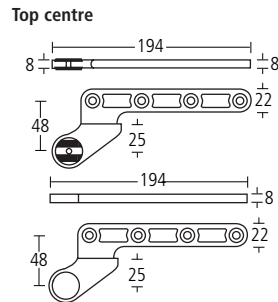
Single action strap shoe and top centre with intumescent protection for use with Commander and Cavalier floor springs. Cast 316 stainless steel with integral intumescent protection. Non-handed.



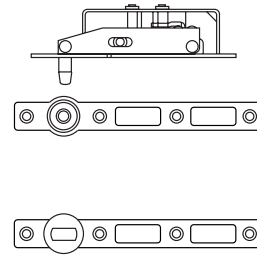
Single action offset strap and top centre.
25mm offset.



Single action strap shoe and top centre with intumescent protection for use with Commander and Cavalier floor springs. Cast 316 stainless steel with integral intumescent protection. Non-handed.

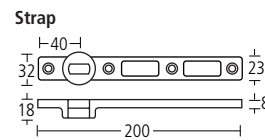
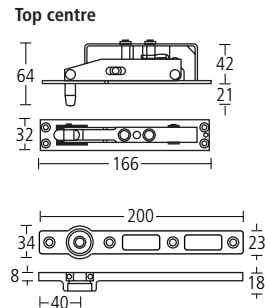


Double action strap and top centre.



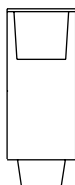
Double action strap and adjustable top centre for Commander and Cavalier floor springs. Forged steel with integral intumescent protection.

Top centre allows use within shallow head detail of 42mm, even when pin is in the raised position.



XX9231SP

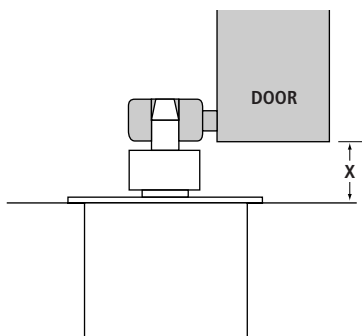
Extension spindle for Commander and Cavalier floor springs.



The standard clearance between the floor and the underside of door is 8mm. Extended spindle inserts are available to achieve clearance over thresholds, carpets, computer pans etc. (See drawing and use chart below.)

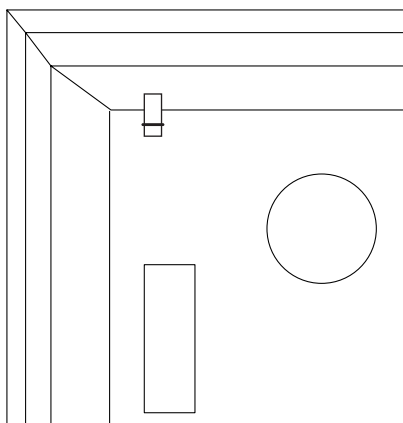
STATE DEPTH:

Depth	Full Product No.	Door Clearance 'X'
10mm	XX9231SP10	18mm
20mm	XX9231SP20	28mm
30mm	XX9231SP30	38mm
40mm	XX9231SP40	48mm
50mm	XX9231SP50	58mm



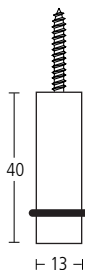
9231P

Overhead pin stop with rubber buffer for centre pivoted single action doors.



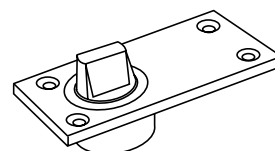
- Suitable for hardwood frames only

Finishes: SS • PS



9249

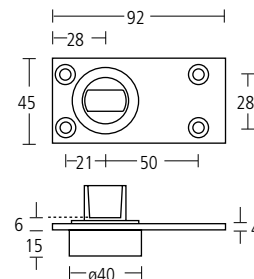
Heavy duty floor pivot set with thrust roller bearing, complete with forged 316 stainless steel straps, integrated intumescent protection and 316 stainless steel covers.



400kg load capacity.
Extended spindle height available to special order.

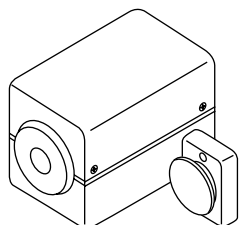
- 9249CD – Double action
- 9249CS5 – Single action 25mm offset
- 9249CS6 – Single action 16mm offset

Finishes: SS • PS • PB



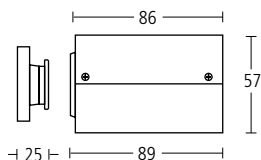
9408

Floor mounted fire door holder.



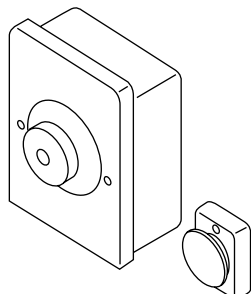
- Floor mounted, with electromagnetic release
- 24vDC / 71mA
- Can be used in conjunction with any standard door closer or floor spring
- The unit is fail-safe, holding the door open until released through alarm activation or power failure
- The keeper plate is self-aligning up to 20° in any direction

Finishes: MA • TA



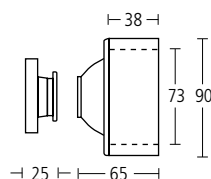
9409

Wall mounted fire door holder.



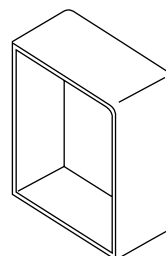
- Flush wall fixing, with electromagnetic release
- 24vDC / 71mA
- Fixed into a standard electrical back box, let into the adjacent wall
- Can be used in conjunction with any standard door closer or floor spring
- The unit is 'fail-safe', and holds the door open until released through alarm activation or power failure
- The keeper plate is self-aligning up to 20° in any direction

Finishes: MA • TA



9410

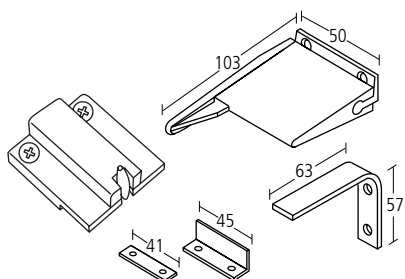
Adaptor box to convert 9409 to surface fixing



Finishes: MA • TA

9149G

Selector stay for pairs of rebated doors.

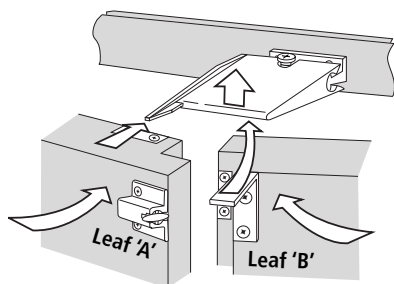


75 x 57 x 170mm door selector stay with gravity arm. Suitable for use on wood and metal fire doors. Ensures correct closing sequence. The door selector will only allow the stiles to close in the correct order maintaining the fire resistant seal.

Standards performance

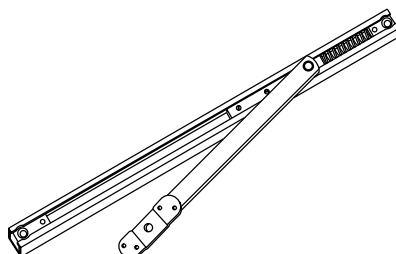
Has been tested and complies with the requirements of BS EN 1158 and achieved the following classification **[3]5[3/5]1110**, and included in successful 3rd party fire tests on fire door assemblies to BS 476 Pt 22, up to 120mins. Certifire approved CF 349 and CE marked 1121-CPD-AF0001.

Finishes: SS • MA • TA • PB • PC



XX11004

Concealed overhead door restraining stay.



- Stainless steel arm and aluminium channel and bracket with adjustable friction slide block and spring buffer to cushion door opening
- Friction can be adjusted to enable the stay to be used in conjunction with a surface mounted overhead door closer
- Not for use with concealed door closing devices
- Can be fitted to set the maximum opening to 70°, 90° or 110°

