

Closing Devices



Smooth Door Closing



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1600 Series	CA6
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2000 Series	CA8
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CF550 Series	CA20
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BS EN Standard / Professional / Economical Type Door Closers

CA4-12



Track Arm Surface Door Closers

CA13



Concealed Door Closers

CA14-16



Concealed Track Arm Door Closers

CA17



Electro-Magnetic Door Closers

CA18



Concealed Floor Spring Hinges / Revolving Floor Spring Hinges

CA19-24



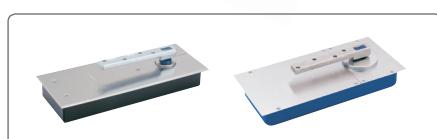
Exit Panic Devices

CA25-28



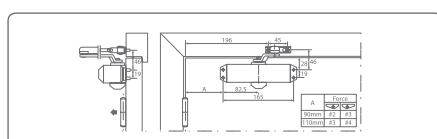
Transom Door Closers

CA29



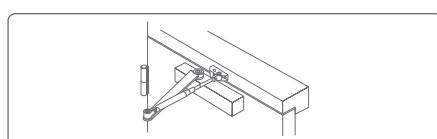
Floor Spring Hinges

CA30-34



Fixing Details

CA34-58



Installation Instructions

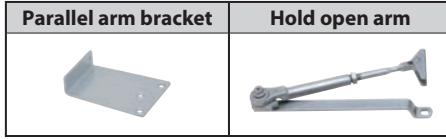
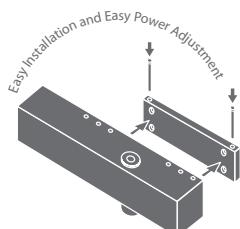
CA59



Table of Closing Devices / Table of Test Reports

CA60-61

PROFESSIONAL / ECONOMICAL TYPE DOOR CLOSER



EN Fire Tested by Warrington APT Laboratories, UK

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BS EN 1634-1:2014



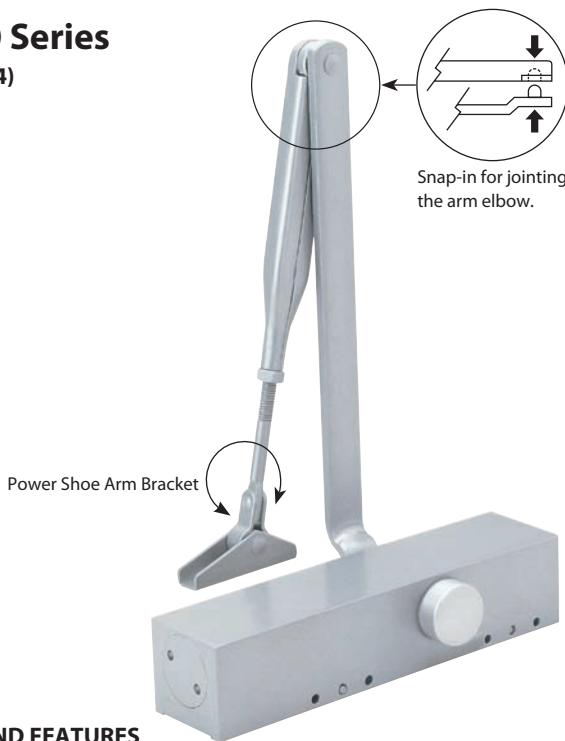
Snap-in assembling for the arm's elbow for easy installation.

Closing speed can be used from -15°C to +40°C range.

Anti-explosion device: In case of fire, the "door closer" will expand due to the high temperature of oil and may

1000 Series

(size 2-4)



Snap-in for jointing the arm elbow.

DATA AND FEATURES

Sizes		2	3	4
Variable closing force standard doors		≤850mm	≤950mm	≤1100mm
Spring Strength (EN)		≤40kg	≤60kg	≤80kg
Arm	Standard	without hold-open	1000	
		with hold-open	1000H	
	Parallel	without hold-open	P1000	
Parallel		with hold-open	P1000H	
	Track	without hold-open	1000TA	
		with hold-open	1000TAH	
Body Dimension (Length x Height x Projection)		207 x 48 x 45 (mm)		
Rack and pinion		✓		
Power shoe arm bracket		✓		
Angle of opening		180°		
Power adjustable by spring		✗		
Power adjustable by position		✓		
Sweep speed adjustable		✓		
Latching speed adjustable		✓		
Back-check	Self-regulating	✗		
	Adjustable at valve	1000BC		
Delayed action adjustable		✗		
Non-handed		✓		
With cover		✓		
Application	Regular	✓		
	Parallel arm			
	Transom	✓		
Guarantee/years		5 years		

✓ = yes ✗ = no = option

cause explosions. This anti-explosion device can automatically release the oil out from the door closer to avoid damages to firemen and those evacuees due to explosions.

Guarantee: A free replacement ex-works of any closer proved defective by reason either of faulty manufactured or defect in materials.

Power shoe arm bracket: Designed to be reversed to increase final closing power by approximately 15%.

Back check: Provides a cushioning effect when the door is forcibly thrown open but does not serve as substitute for a door stop.

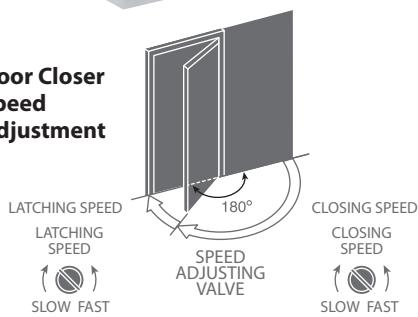
Finishes: F71 Gold, F72 Silver, F73 Bronze F78 Black, F79 White

BS EN STANDARD DOOR CLOSERS

With stainless steel arm and stainless steel cover (option)



Door Closer Speed Adjustment



Parallel arm bracket



Hold-open arm



EN Fire Tested by Warrington APT Laboratories, UK

bsi.

BS EN 1634-1:2014

BS EN 1154

1997 / A1:2002



A Tested to EN 1154 **483113**
by Warrington APT Laboratories,
UK Power Adjustable by Spring
EN Fire Tested



FM 578071



GA/T93-2004
FIRE PROOF DOOR CLOSER

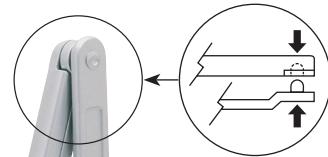
Anti-explosion device: In case of fire, the "door closer" will expand due to the high temperature of oil and may cause explosions. This anti-explosion device can automatically release the oil out from the door closer to

1500 Series

(size 2-5)

1550 Series

(size 3-6)



Snap-in for jointing the arm elbow.

Power Shoe Arm Bracket

POWER
ADJUSTMENT
STRONG WEAK

DATA AND FEATURES

Sizes		2	3	4	5	6
Variable closing force standard doors		$\leq 850\text{mm}$	$\leq 950\text{mm}$	$\leq 1100\text{mm}$	$\leq 1250\text{mm}$	$\leq 1450\text{mm}$
Spring Strength (EN)		$\leq 40\text{kg}$	$\leq 60\text{kg}$	$\leq 80\text{kg}$	$\leq 100\text{kg}$	$\leq 120\text{kg}$
Arm	Standard	without hold-open		1500		1550
		with hold-open		1500H		1550H
	Parallel	without hold-open		P1500		P1550
		with hold-open		P1500H		P1550H
	Track	without hold-open		1500TA		1550TA
		with hold-open		1500TAH		1550TAH
Body Dimension (Length x Height x Projection)			$236 \times 60 \times 39 \text{ (mm)}$		$275 \times 60 \times 45 \text{ (mm)}$	
Rack and pinion					✓	
Power shoe arm bracket					✓	
Angle of opening					180°	
Power adjustable by spring					✓	
Power adjustable by position					✗	
Sweep speed adjustable					✓	
Latching speed adjustable					✓	
Back-check	Self-regulating				✗	
	Adjustable at valve			1500BC		1550BC
Delayed action adjustable				1500D		1550D
Non-handed					✓	
With cover					○	
Application	Regular				✓	
	Parallel arm				○	
	Transom				✓	
Guarantee/years				10 years		20 years

✓ = yes ✗ = no ○ = option

avoid damages to firemen and those evacuees due to explosions.

Guarantee: A free replacement ex-works of any closer proved defective by reason either of faulty manufacture or defect in materials.

Power shoe arm bracket: Designed to be reversed

to increase final closing power by approximately 15%.

Back check: Provides a cushioning effect when the door is forcibly thrown open but does not serve as substitute for a door stop.

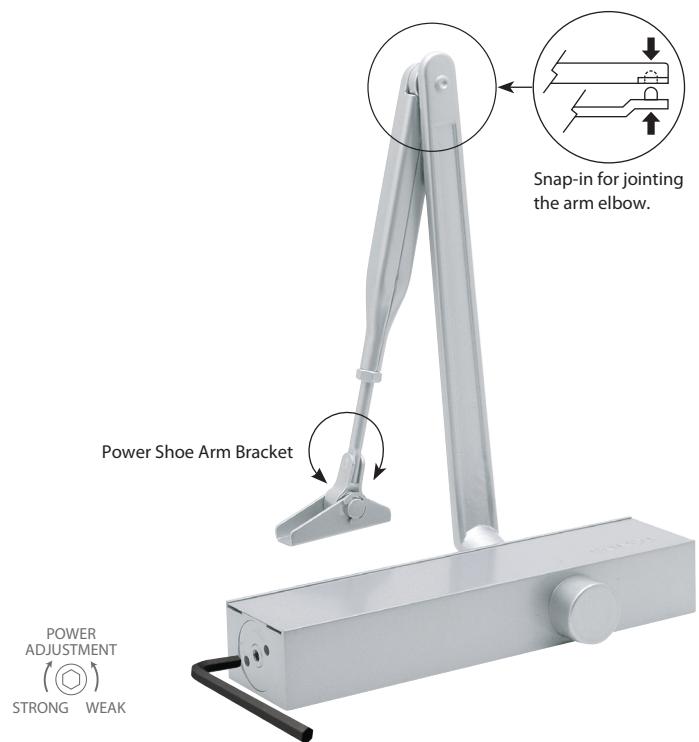
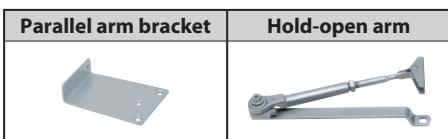
Finishes: F71 Gold, F72 Silver, F73 Bronze, F78 Black, F79 White

1600 Series

(size 2-5)



With stainless steel arm and
stainless steel cover (option)



EN Fire Tested by Warrington APT Laboratories, UK

bsi.

BS EN 1634-1:2014

BS EN 1154

1997 / A1:2002



A Tested to EN 1154 **482113**
by Warrington APT Laboratories,
UK Power Adjustable by Spring
EN Fire Tested



DATA AND FEATURES

Sizes			2	3	4	5
Variable closing force standard doors			≤ 850mm	≤ 950mm	≤ 1100mm	≤ 1250mm
Spring Strength (EN)			≤ 40kg	≤ 60kg	≤ 80kg	≤ 100kg
Arm	Standard	without hold-open	1600			
		with hold-open	1600H			
	Parallel	without hold-open	P1600			
		with hold-open	P1600H			
	Track	without hold-open	1600TA			
		with hold-open	1600TAH			
Body Dimension (Length x Height x Projection)			236 x 55 x 39 (mm)			
Rack and pinion			✓			
Power shoe arm bracket			✓			
Angle of opening			180°			
Power adjustable by spring			✓			
Power adjustable by position			✗			
Sweep speed adjustable			✓			
Latching speed adjustable			✓			
Back-check	Self-regulating		✗			
	Adjustable at valve		1600BC			
Delayed action adjustable			1600D			
Non-handed			✓			
With cover			○			
Application	Regular		✓			
	Parallel arm		○			
	Transom		✓			
Guarantee/years			20 years			

✓ = yes ✗ = no ○ = option

Guarantee: A free replacement ex-works of any closer proved defective by reason either of faulty manufacture or defect in materials.

Power shoe arm bracket: Designed to be reversed to increase final closing power by approximately 15%.

Back check: Provides a cushioning effect when the door is forcibly thrown open but does not serve as

substitute for a door stop.

Delayed action: Provides prolonged closing time to assist passage of trolleys, wheel chairs, elderly people etc.

Finishes: F71 Gold, F72 Silver, F73 Bronze, F78 Black, F79 White

Produced by ISO 9001 approved factory.

Anti-explosion device: In case of fire, the "door closer" will expand due to the high temperature of oil and may cause explosions. This anti-explosion device can automatically release the oil out from the door closer to avoid damages to firemen and those evacuees due to explosions.

BS EN STANDARD DOOR CLOSERS



With stainless steel arm and stainless steel cover (option)



EN Fire Tested by Warrington APT Laboratories, UK

bsi. BS EN 1154
BS EN 1634-1:2014 1997 / A1:2002



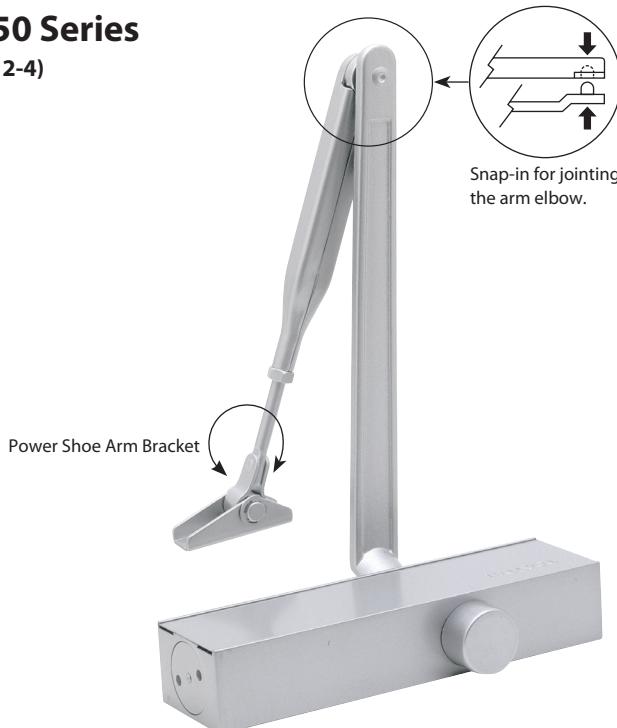
A Tested to EN 1154 **482113**
by Warrington APT Laboratories,
UK Power Adjustable by Spring
EN Fire Tested
NUMBER 2812



Anti-explosion device: In case of fire, the "door closer" will expand due to the high temperature of oil and may cause explosions. This anti-explosion device can automatically release the oil out from the door closer to avoid damages to firemen and those evacuees due to explosions.

1650 Series

(size 2-4)



DATA AND FEATURES

Sizes		2	3	4		
Variable closing force standard doors		≤ 850mm	≤ 950mm	≤ 1100mm		
Spring Strength (EN)		≤ 40kg	≤ 60kg	≤ 80kg		
Arm	Standard	without hold-open	1650			
		with hold-open	1650H			
	Parallel	without hold-open	P1650			
		with hold-open	P1650H			
	Track	without hold-open	1650TA			
		with hold-open	1650TAH			
Body Dimension (Length x Height x Projection)		204 x 55 x 39 (mm)				
Rack and pinion		✓				
Power shoe arm bracket		✓				
Angle of opening		180°				
Power adjustable by spring		✗				
Power adjustable by position		✓				
Sweep speed adjustable		✓				
Latching speed adjustable		✓				
Back-check	Self-regulating	✗				
	Adjustable at valve	1650BC				
Delayed action adjustable		1650D				
Non-handed		✓				
With cover		○				
Application	Regular	✓				
	Parallel arm	○				
	Transom	✓				
Guarantee/years		10 years				

✓ = yes ✗ = no ○ = option

Guarantee: A free replacement ex-works of any closer proved defective by reason either of faulty manufactured or defect in materials.

Power shoe arm bracket: Designed to be reversed to increase final closing power by approximately 15%.

Back check: Provides a cushioning effect when the door is forcibly thrown open but does not serve as substitute for a door stop.

Finishes: F71 Gold, F72 Silver, F73 Bronze, F78 Black, F79 White

Produced by ISO 9001 approved factory.

BS EN PROFESSIONAL / ECONOMICAL TYPE DOOR CLOSERS

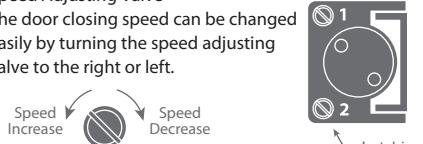
With stainless steel arm and stainless steel cover (option)



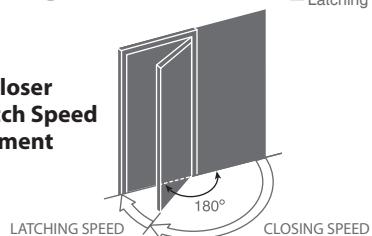
Door Closer Speed Adjustment

Speed Adjusting Valve

The door closing speed can be changed easily by turning the speed adjusting valve to the right or left.



Door Closer and latch Speed Adjustment



Parallel arm bracket



Hold-open arm



Tested according to **BS EN 1154**
1997 / A1:2002

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BS EN 1634-1:2014



GA

GA/T93-2004
FIRE PROOF DOOR CLOSER

Reversible - right and left hand operation.

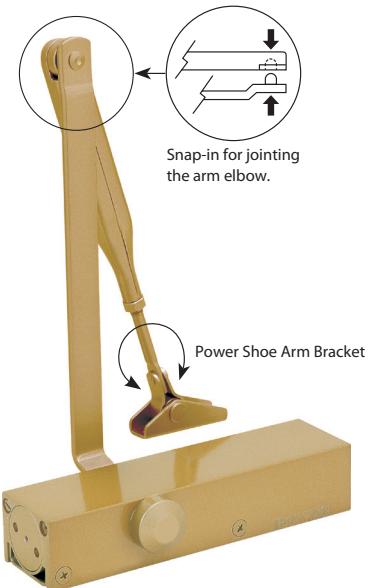
Piston & spindle heat treated for high strength.

Heat treated high tensile springs.

Full hydraulic control.

Compact design with low-profile, 38mm projection allows

2000 Series



DATA AND FEATURES

Sizes		2	3	4	5
Variable closing force standard doors		≤ 850mm	≤ 950mm	≤ 1100mm	≤ 1250mm
Spring Strength (EN)		≤ 40kg	≤ 60kg	≤ 80kg	≤ 100kg
Arm	Standard	without hold-open	2002	2003	2004
	Standard	with hold-open	2002H	2003H	2004H
	Standard	with build in hold-open	2002S	2003S	2004S
	Parallel	without hold-open	P2002	P2003	P2004
	Parallel	with hold-open	P2002H	P2003H	P2004H
	Parallel	with build in hold-open	P2002S	P2003S	P2004S
Track	Track	without hold-open	2002TA	2003TA	2004TA
	Track	with hold-open	2002TAH	2003TAH	2004TAH
	Track	with build in hold-open	2002TAS	2003TAS	2004TAS
Body Dimension (Length x Height x Projection)		182 x 46 x 37 (mm)	203 x 47 x 38 (mm)		
Rack and pinion				✓	
Power shoe arm bracket				✓	
Angle of opening		110° - 180° *Doors can be opened max.180°, in case of Track Arm or Parallel Arm installation.			
Power adjustable by spring				✗	
Power adjustable by position				✓	
Sweep speed adjustable				✓	
Latching speed adjustable				✓	
Back-check	Self-regulating			✗	
	Adjustable at valve	2002BC	2003BC	2004BC	2005BC
Delayed action adjustable				✗	
Non-handed				✓	
With cover				○	
Application	Regular			✓	
	Parallel arm			✓	
	Transom			✓	
Guarantee/years		5 years			

✓ = yes ✗ = no ○ = option

Installation on doors with adjacent walls at 90°.

Closing speed can be used from -15°C to +40°C range.

Anti-explosion device: In case of fire, the "door closer" will expand due to the high temperature of oil and may cause explosions. This anti-explosion device can automatically release the oil out from the door closer to avoid damages to firemen and those

evacuees due to explosions.

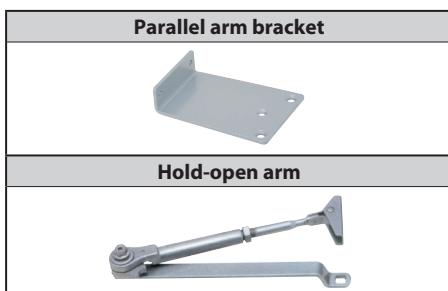
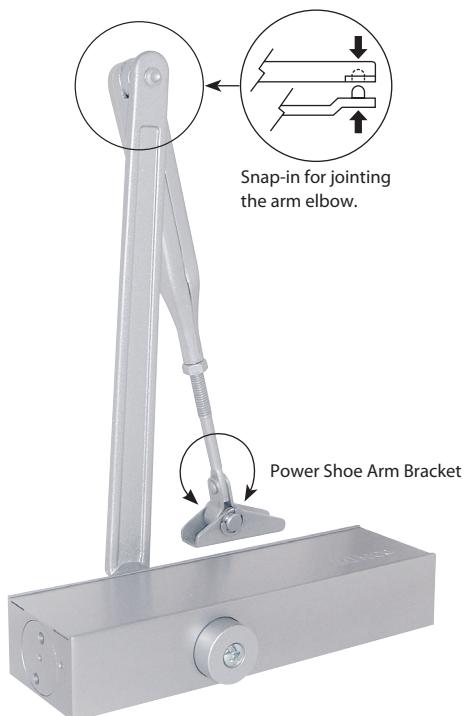
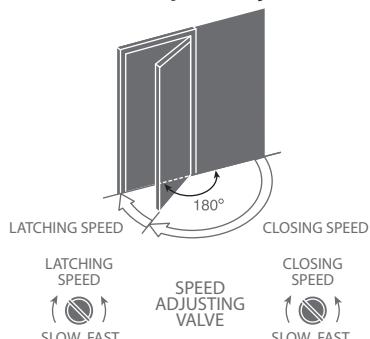
Guarantee: A free replacement ex-works of any closer proved defective by reason either of faulty manufactured or defect in materials.

Power shoe arm bracket: Designed to be reversed to increase final closing power by approximately 15%.

Finishes: F71 Gold, F72 Silver, F73 Bronze, F78 Black, F79 White

5000 Series

Door Closer Speed Adjustment



EN Fire Tested by Warrington APT Laboratories, UK

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BS EN 1634-1:2014 BS EN 1154

1997 / A1:2002



A Tested to EN 1154 483113
by Warrington APT Laboratories,
UK Power Adjustable by position
NUMBER 2812



GA
GA/T93-2004
FIRE PROOF DOOR CLOSER

Closing speed can be used from -15°C to +40°C range.

Anti-explosion device: In case of fire, the "door closer" will expand due to the high temperature of oil and may cause explosions. This anti-explosion device can automatically release the oil out from the door closer to avoid damages to firemen and those evacuees due to explosions.

DATA AND FEATURES

Sizes		2	3	4	5	6			
Variable closing force standard doors		≤850mm	≤950mm	≤1100mm	≤1250mm	≤1450mm			
Spring Strength (EN)		≤ 40kg	≤ 60kg	≤ 80kg	≤ 100kg	≤ 120kg			
Arm	Standard	without hold-open	5002	5003	5004	5005			
		with hold-open	5002H	5003H	5004H	5005H			
	Parallel	without hold-open	P5002	P5003	P5004	P5005			
		with hold-open	P5002H	P5003H	P5004H	P5005H			
	Track	without hold-open	5002TA	5003TA	5004TA	5005TA			
		with hold-open	5002TAH	5003TAH	5004TAH	5005TAH			
Body Dimension (Length x Height x Projection)		207 x 60 x 39 (mm)		246 x 62 x 45 (mm)					
Rack and pinion		✓							
Power shoe arm bracket		✓							
Angle of opening		180°							
Power adjustable by spring		✗							
Power adjustable by position		✓							
Sweep speed adjustable		✓							
Latching speed adjustable		✓							
Back-check	Self-regulating	○							
	Adjustable at valve	5002BC	5003BC	5004BC	5005BC	5006BC			
Delayed action adjustable		5002D	5003D	5004D	5005D	5006D			
Non-handed		✓							
With cover		○							
Application	Regular	✓							
	Parallel arm	○							
	Transom	✓							
Guarantee/years		10 years							

✓ = yes ✗ = no ○ = option

Guarantee: A free replacement ex-works of any closer proved defective by reason either of faulty manufacture or defect in materials.

Power shoe arm bracket: Designed to be reversed to increase final closing power by approximately 15%.

Back check: Provides a cushioning effect when the

door is forcibly thrown open but does not serve as substitute for a door stop.

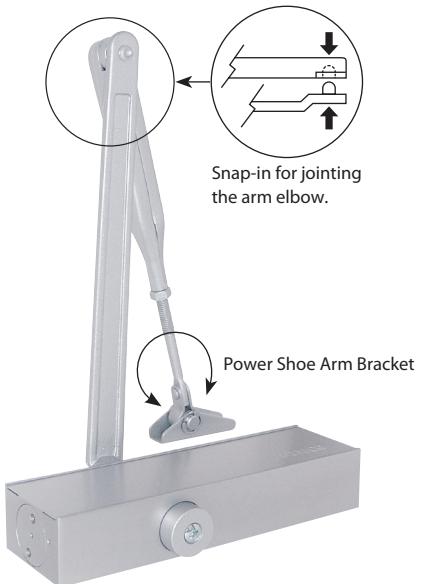
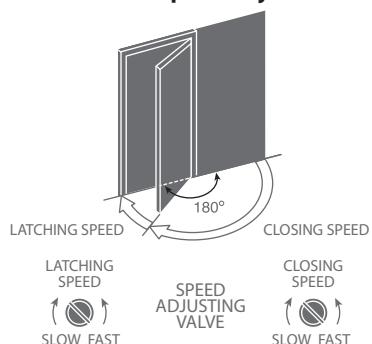
Delayed action: Provides prolonged closing time to assist passage of trolleys, wheel chairs, elderly people etc.

Finishes: F71 Gold, F72 Silver, F73 Bronze, F78 Black, F79 White

Closing Devices

7000 Series

Door Closer Speed Adjustment



DATA AND FEATURES

Sizes		2	3	4
Variable closing force standard doors		≤ 850mm	≤ 950mm	≤ 1100mm
Spring Strength (EN)		≤ 40kg	≤ 60kg	≤ 80kg
Standard	without hold-open	7002	7003	7004
	with hold-open	7002H	7003H	7004H
	with Build in hold-open	7002S	7003S	7004S
Parallel	without hold-open	P7002	P7003	P7004
	with hold-open	P7002H	P7003H	P7004H
	with Build in hold-open	P7002S	P7003S	P7004S
Track	without hold-open	7002TA	7003TA	7004TA
	with hold-open	7002TAH	7003TAH	7004TAH
	with Build in hold-open	7002TAS	7003TAS	7004TAS
Body Dimension (Length x Height x Projection)		207 x 55 x 40 (mm)		
Rack and pinion		✓		
Power shoe arm bracket		✓		
Angle of opening		180°		
Power adjustable by spring		✗		
Power adjustable by position		✓		
Sweep speed adjustable		✓		
Latching speed adjustable		✓		
Back-check	Self-regulating	7002BC	7003BC	7004BC
	Adjustable at valve			✗
Delayed action adjustable		✗		
Non-handed		✓		
With cover		○		
Application	Regular	✓		
	Parallel arm	○		
	Transom	✓		
Guarantee/years		5 years		

✓ = yes ✗ = no ○ = option
against rust and high quality steel internal components.

Closing speed can be used from -15°C to +40°C range.

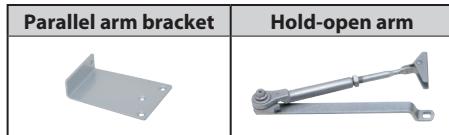
Anti-explosion device: In case of fire, the "door closer" will expand due to the high temperature of oil and may cause explosions. This anti-explosion device can automatically release the oil out from the door closer to avoid damages to firemen and those evacuees due to explosions.

Guarantee: A free replacement ex-works of any closer proved defective by reason either of faulty manufactured or defect in materials.

Power shoe arm bracket: Designed to be reversed to increase final closing power by approximately 15%.

Back check: Provides a cushioning effect when the door is forcibly thrown open but does not serve as substitute for a door stop.

Finishes: F71 Gold, F72 Silver, F73 Bronze, F78 Black, F79 White



Tested according to **BS EN 1154**
1997 / A1:2002

bsi.
BS EN 1634-1:2014



GA
GA/T93-2004
FIRE PROOF DOOR CLOSER
FM 578071



Reversible - right and left hand operation.

Efficient closing and latching is assured from an easily adjust two speed control.

Stable hydraulic fluid for any climatic operation and constant lubrication.

7000 series door closer are constructed with extruded anodised aluminium body, forged steel arms passivated

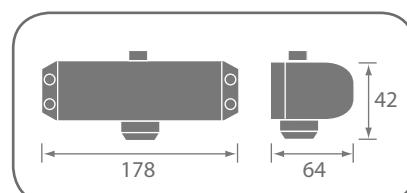
BS EN STANDARD DOOR CLOSERS



EN Fire Tested by Warrington APT
Laboratories, UK

bsi.
BS EN 1634-1:2014

Tested according to **BS EN 1154**
1997 / A1:2002



Door Closer Selection Chart

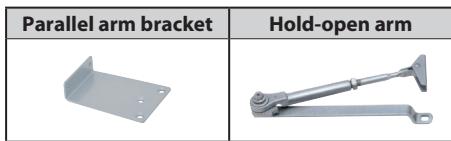
S I Z E S	Standard Arm installation			Parallel Arm Installation		Track Arm Installation		Back Check Adjustable at Value	Applicable Door Dimensions DW x DH (mm)	Maximum Door Weight (kg)
	Without Hold-Open	With Build In Hold-Open	With Hold-Open Arm	Without Hold-Open	With Build In Hold-Open	Without Hold-Open	With Hold-Open			
2	8202	S8202	8202H	P8202	P8202S	8202TA	8202TAH	8202BC	900 x 2100	50
3	8203	S8203	8203H	P8203	P8203S	8203TA	8203TAH	8203BC	1050 x 2100	65
4	8204	S8204	8204H	P8204	P8204S	8204TA	8204TAH	8204BC	1200 x 2100	85

hydraulic surface applied door closer for all interior or exterior doors, with standard, backcheck, hold-open.

- Rack and pinion mechanism.
- One compact body size for both spring strengths.
- Die-cast aluminum body protected by coat lacquer finish.
- Efficient closing and latching is assured from an easily adjusted two speed control.
- Regular arms are equipped with power adjustment bracket to increase or decrease closing power.
- Reversible, right and left hand operation.
- Closing speed can be used from -15°C to + 40°C range.

BS EN STANDARD DOOR CLOSERS

With stainless steel arm and stainless steel cover (option)



EN Fire Tested by Warrington APT Laboratories, UK

bsi. BS EN 1154
BS EN 1634-1:2014 1997 / A1:2002

CE A Tested to EN 1154 **382113**
by Warrington APT Laboratories,
UK Power Adjustable by Spring
EN Fire Tested
NUMBER 2812



FM 578071



GA
GA/T93-2004
FIRE PROOF DOOR CLOSER

QB
QB/T3893-1999

One compact body size for both spring strengths.

Die-cast aluminum body protected by coast lacquer finish.

Reversible, right and left hand operation.

Closing speed can be used from -15°C to + 40°C range.

Anti-explosion device: In case of fire, the "door closer"

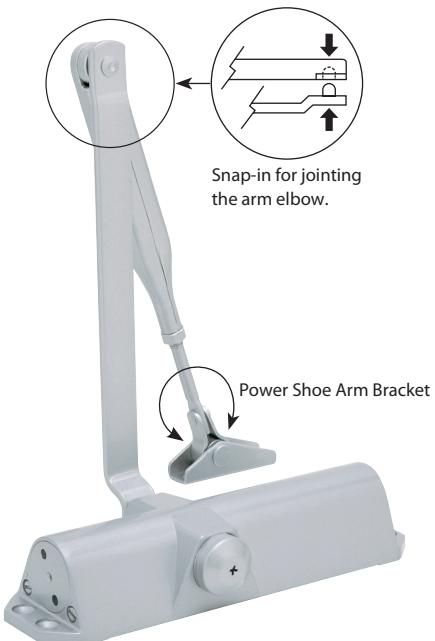
8300 Series

8325 Series

(size 2-5)

8336 Series

(size 3-6)



DATA AND FEATURES

Sizes		1	2	3	4	5	6
Variable closing force standard doors		≤ 750mm	≤ 850mm	≤ 950mm	≤ 1100mm	≤ 1250mm	≤ 1450mm
Spring Strength (EN)		≤ 20kg	≤ 40kg	≤ 60kg	≤ 80kg	≤ 100kg	≤ 120kg
Arm	Standard	without hold-open	8301	8302	8303	8304	8325
		with hold-open	8301H	8302H	8303H	8304H	8325H
	Parallel	without hold-open	P8301	P8302	P8303	P8304	P8325
		with hold-open	P8301H	P8302H	P8303H	P8304H	P8325H
	Track	without hold-open	8301TA	8302TA	8303TA	8304TA	8325TA
		with hold-open	8301TAH	8302TAH	8303TAH	8304TAH	8325TAH
Body Dimension (Length x Height x Projection)		162 x 44 x 36 (mm)	220 x 59 x 42 (mm)			248 x 59 x 42 (mm)	297 x 62 x 46 (mm)
Rack and pinion						✓	
Power shoe arm bracket						✓	
Angle of opening		120°	180°	180°			
Power adjustable by spring		✗	✗	✗			✓
Power adjustable by position		✗	✓	✓			✗
Sweep speed adjustable					✓		
Latching speed adjustable					✓		
Back-check	Self-regulating				✗		
	Adjustable at valve	✗	✗	✗			✓
Delayed action adjustable					✗		
Non-handed					✓		
With cover					✗		
Application	Regular				✓		
	Parallel arm				○		
	Transom				✓		
Guarantee/years		5 years			10 years		

✓ = yes ✗ = no ○ = option

will expand due to the high temperature of oil and may cause explosions. This anti-explosion device can automatically release the oil out from the door closer to avoid damages to firemen and those evacuees due to explosions.

Guarantee: A free replacement ex-works of any closer proved defective by reason either of faulty manufactured or defect in materials.

Power shoe arm bracket: Designed to be reversed to increase final closing power by approximately 15%.

Back check: Provides a cushioning effect when the door is forcibly thrown open but does not serve as substitute for a door stop.

Finishes: F71 Gold, F72 Silver, F73 Bronze, F78 Black, F79 White

TRACK ARM SURFACE DOOR CLOSERS

With stainless steel arm and stainless steel cover (option)



EN Fire Tested by Warrington APT Laboratories, UK

bsi. BS EN 1154
BS EN 1634-1:2014 1997 / A1:2002



A Tested to EN 1154 **382113**
382113
by Warrington APT Laboratories,
UK Power Adjustable by Spring
NUMBER 2812 EN Fire Tested



FM 578071



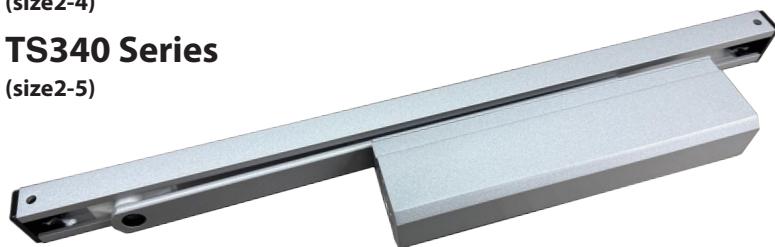
Anti-explosion device: In case of fire, the "door closer" will expand due to the high temperature of oil and may cause explosions. This anti-explosion device can automatically release the oil out from the door closer to

TS320 Series

(size 2-4)

TS340 Series

(size 2-5)



DATA AND FEATURES

Sizes		2	3	4	5		
Variable closing force standard doors		≤ 850mm	≤ 950mm	≤ 1100mm	≤ 1250mm		
Spring Strength (EN)		≤ 40kg	≤ 60kg	≤ 80kg	≤ 100kg		
Arm	Track	without hold-open	TS320		TS340		
		with hold-open	TS320H		TS340H		
Body Dimension (Length x Height x Projection)		210 x 53.5 x 32 (mm)		212 x 60 x 40 (mm)			
Double Action		✓					
Rack and pinion		✓					
Power shoe arm bracket		✗					
Angle of opening		120°					
Power adjustable by spring		✓					
Power adjustable by position		✗					
Sweep speed adjustable		✓					
Latching speed adjustable		✓					
Back-check	Self-regulating	✗					
	Adjustable at valve	TS320-BC		TS340-BC			
Delayed action adjustable		✗					
Non-handed		✓					
With cover		○					
Application	Regular	✓					
	Parallel arm	✗					
	Transom	✓					
Guarantee/years		10 years					

✓ = yes ✗ = no ○ = option
avoid damages to firemen and those evacuees due to explosions.

Guarantee: A free replacement ex-works of any closer proved defective by reason either of faulty manufacture or defect in materials.

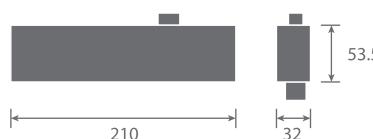
Back check: Provides a cushioning effect when the door is forcibly thrown open but does not serve as substitute for a door stop.

Finishes: F71 Gold, F72 Silver, F73 Bronze, F78 Black, F79 White

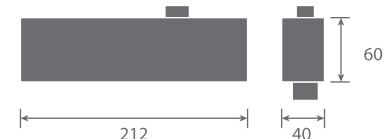
Cover: Stainless steel

TRACK ARM SURFACE CLOSER

DIMENSIONS
IN MILLIMETERS



TS320



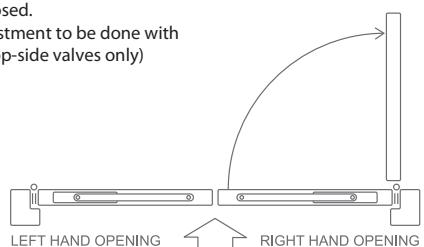
TS340

CONCEALED DOOR CLOSERS

CR-280 Series



Bottom side valves have to be closed.
(Adjustment to be done with the top-side valves only)



2.8cm Thickness Narrow Body



Tested according to **BS EN 1154**
1997 / A1:2002

DATA AND FEATURES

Sizes		2	3
Variable closing force standard doors		$\le 850\text{mm}$	$\le 950\text{mm}$
Spring Strength (EN)		$\le 40\text{kg}$	$\le 60\text{kg}$
Arm	Track	without hold-open	CR-282
		with hold-open	CR-S282
Body Dimension (Length x Height x Projection)		$225 \times 61 \times 28\text{ (mm)}$	
Rack and pinion		✓	
Power shoe arm bracket		✗	
Angle of opening		120°	
Power adjustable by spring		✗	
Power adjustable by position		✗	
Sweep speed adjustable		✓	
Latching speed adjustable		✓	
Back-check	Self-regulating	✗	
	Adjustable at valve	✗	
Delayed action adjustable		✗	
Non-handed		✓	
Application	Regular	✓	
	Parallel arm	✗	
	Transom	✓	
Guarantee/years		5 years	

✓ = yes ✗ = no O = option

Anti-explosion device: In case of fire, the "door closer" will expand due to the high temperature of oil and may cause explosions. This anti-explosion device can automatically release the oil out from the door closer to avoid damages to firemen and those evacuees due to explosions.

Back Check: Provides a cushioning effect when the door is forcibly thrown open but does not serve as substitute for a door stop.

Finishes: F71 Gold, F72 Silver, F73 Bronze, F78 Black, F79 White

Remarks: Left or Right hand opening should be indicated when ordering.

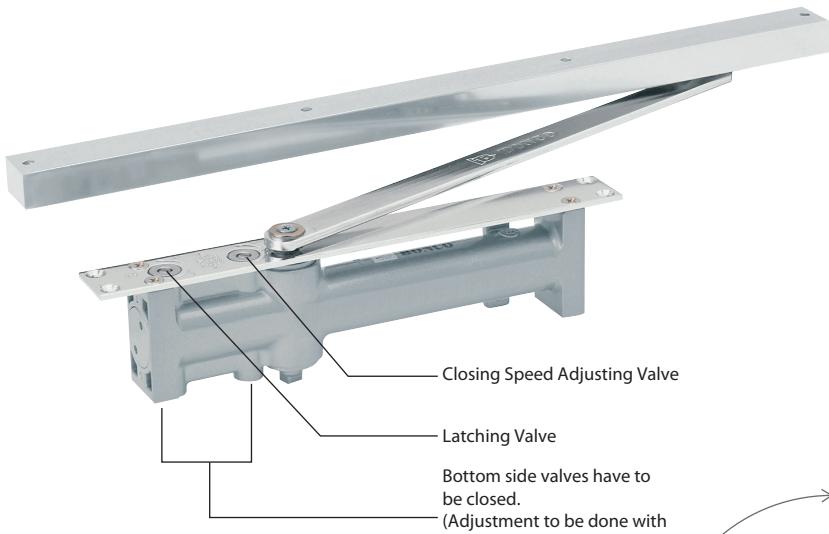
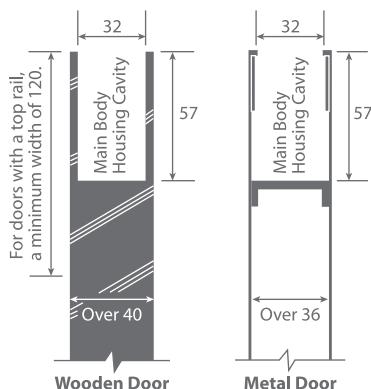
bsi.
BS EN 1634-1:2014



Guarantee: A free replacement ex-works of any closer proved defective by reason either of faulty manufactured or defect in materials.

CR-380 Series

Minimum Door Depth Dimensions



CR-S380

EN Fire Tested by Warrington APT Laboratories, UK

bsi.

BS EN 1634-1:2014

BS EN 1154

1997 / A1:2002



GA
GA/T93-2004
FIRE PROOF DOOR CLOSER

QB
QB/T3893-1999

DATA AND FEATURES

Sizes		2	3
Variable closing force standard doors		≤ 850mm	≤ 950mm
Spring Strength (EN)		≤ 40kg	≤ 60kg
Arm	Track	without hold-open	CR-382
		with hold-open	CR-S382
Body Dimension (Length x Height x Projection)		230 x 57 x 32 (mm)	
Rack and pinion			✓
Power shoe arm bracket			✗
Angle of opening		120°	
Power adjustable by spring			✗
Power adjustable by position			✗
Sweep speed adjustable			✓
Latching speed adjustable			✓
Back-check	Self-regulating		✗
	Adjustable at valve		✗
Delayed action adjustable			✗
Non-handed			✓
With cover			✗
Application	Regular		○
	Parallel arm		✗
	Transom		○
Guarantee/years		5 years	

✓ = yes ✗ = no ○ = option

Concealed installation inside door or upside-down even into transom installation.

Anti-explosion device: In case of fire, the "door closer" will expand due to the high temperature of oil and may cause explosions. This anti-explosion device can automatically release the oil out from the door closer to avoid damages to firemen and those evacuees due to explosions.

Guarantee: A free replacement ex-works of any closer proved defective by reason either of faulty manufactured or defect in materials.

Back check: Provides a cushioning effect when the door is forcibly thrown open but does not serve as substitute for a door stop.

Finishes: F71 Gold, F72 Silver, F73 Bronze, F78 Black, F79 White

Reversible - right and left hand operation.

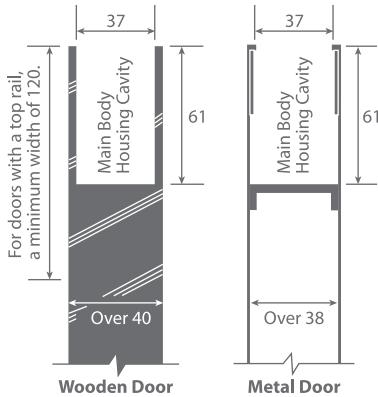
Flexible easy adjustment of hold-open position even after installation.

Very thin compact body size.

Single body size, powerful enough to meet for medium to heavy duty door weights and sizes.

CONCEALED DOOR CLOSERS

Minimum Door Depth Dimensions



EN Fire Tested by Warrington APT Laboratories, UK

bsi.

BS EN 1634-1:2014

Tested according to **BS EN 1154**
1997 / A1:2002



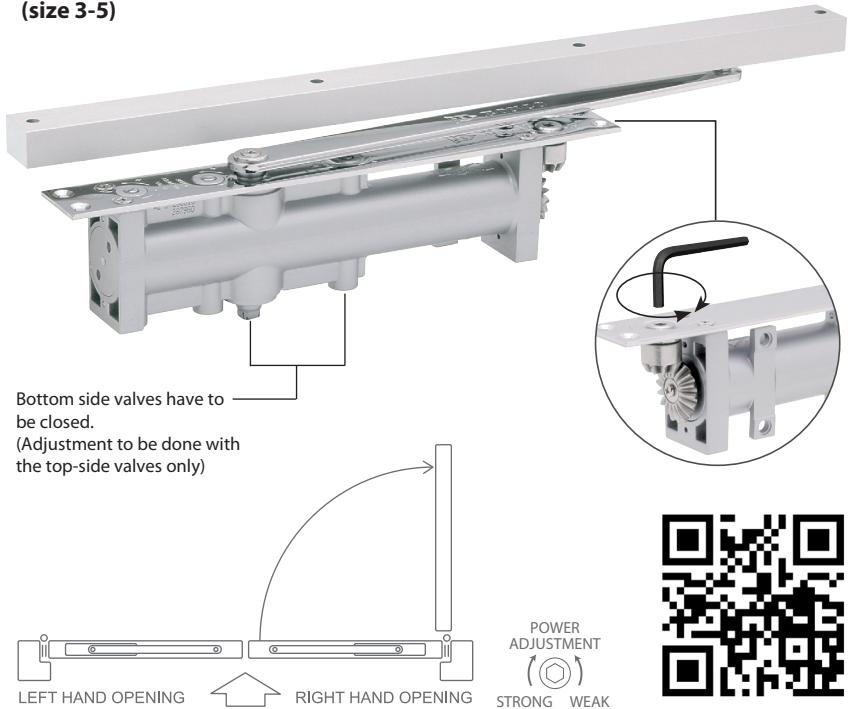
Reversible - right and left hand operation.

Single body size, powerful enough to meet for medium to heavy duty door weights and sizes.

Easy adjustment of hold-open position even after installation.

CR-3835 Series

(size 3-5)



CR-S3835

DATA AND FEATURES

Sizes		3	4	5
Variable closing force standard doors		≤ 950mm	≤ 1100mm	≤ 1250mm
Maximum Door Weight (kg)		≤ 60kg	≤ 80kg	≤ 100kg
Arm	Track	without hold-open	CR-3835	
		with build in hold-open	CR-S3835	
Body Dimension (Length x Height x Projection)		239 x 61 x 37 (mm)		
Rack and pinion		✓		
Power shoe arm bracket		✗		
Angle of opening		120°		
Power adjustable by spring		✓		
Power adjustable by position		✗		
Sweep speed adjustable		✓		
Latching speed adjustable		✓		
Back-check	Self-regulating	CR-3835-BC		
	with build in hold-open	CR-S3835-BC		
	Adjustable at valve	○		
Delayed action adjustable		✗		
Non-handed		✓		
With cover		✗		
Application	Regular	○		
	Parallel arm	✗		
	Transom	○		
Guarantee/years		5 years		

✓ = yes ✗ = no ○ = option

Very thin compact body size.

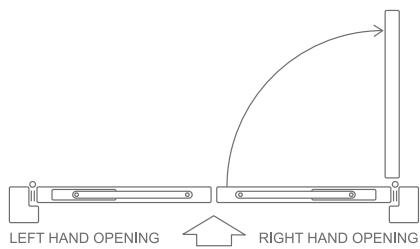
Anti-explosion device: In case of fire, the "door closer" will expand due to the high temperature of oil and may cause explosions. This anti-explosion device can automatically release the oil out from the door closer to avoid damages to firemen and those evacuees due to explosions.

Guarantee: A free replacement ex-works of any closer proved defective by reason either of faulty manufactured or defect in materials.

Back check: Provides a cushioning effect when the door is forcibly thrown open but does not serve as substitute for a door stop.

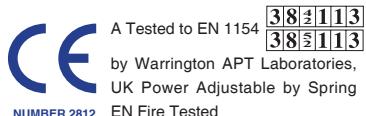
Finishes: F71 Gold, F72 Silver, F73 Bronze, F78 Black, F79 White

CONCEALED TRACK ARM DOOR CLOSERS



EN Fire Tested by Warrington APT
Laboratories, UK

bsi.
BS EN 1634-1:2014 BS EN 1154
1997 / A1:2002



FM 578071



TC320 Series

(size 2-4)

TC340 Series

(size 2-5)



DATA AND FEATURES

Sizes		2	3	4	5		
Variable closing force standard doors		≤ 850mm	≤ 950mm	≤ 1100mm	≤ 1250mm		
Spring Strength (EN)		≤ 40kg	≤ 60kg	≤ 80kg	≤ 100kg		
Arm	Track	without hold-open	TC320	TC340			
		with hold-open	TC320H	TC340H			
Body Dimension (Length x Height x Projection)		210 x 53.5 x 32 (mm)		212 x 60 x 40 (mm)			
Double Action		✓					
Rack and pinion		✗					
Power shoe arm bracket		✗					
Angle of opening		120°					
Power adjustable by spring		✓					
Power adjustable by position		✗					
Sweep speed adjustable		✓					
Latching speed adjustable		✓					
Back-check	Self-regulating		✗		✗		
	Adjustable at valve	without hold-open	TC320-BC	TC340-BC			
		with hold-open	TC320H-BC	TC340H-BC			
Delayed action adjustable		✗					
Non-handed		✓					
With cover		✗					
Application	Regular		○				
	Parallel arm		✗				
	Transom		○				
Guarantee/years		10 years					

✓ = yes ✗ = no ○ = option

Anti-explosion device: In case of fire, the "door closer" will expand due to the high temperature of oil and may cause explosions. This anti-explosion device can automatically release the oil out from the door closer to avoid damages to firemen and those evacuees due to explosions.

Guarantee: A free replacement ex-works of any closer proved defective by reason either of faulty manufactured or defect in materials.

Back check: Provides a cushioning effect when the door is forcibly thrown open but does not serve as substitute for a door stop.

Finishes: F71 Gold, F72 Silver, F73 Bronze, F78 Black, F79 White

ELECTRO-MAGNETIC DOOR CLOSERS

1560 Series

(size 3-6)

Automatic Hold-Open: Engages at 75 degrees when 24V AC Power is supplied.
 Full Fail - Safe Operation: The door releases and closes automatically during any power loss.
 Alarm - Triggered Compliance: Integrates seamlessly with fire alarm systems for guaranteed closure in an emergency.

1560E



1560ES



1560ET



1560EST



dimensions in millimeters

Tested according to **BS EN 1154**
1997 / A1:2002

Back check: Provides a cushioning effect when the door is forcibly thrown open but does not serve as substitute for a door stop.

Finishes: F71 Gold, F72 Silver, F73 Bronze, F78 Black, F79 White

Cover: Stainless steel

DATA AND FEATURES

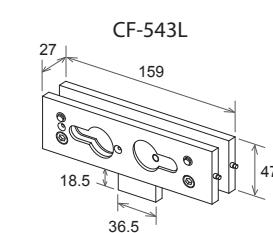
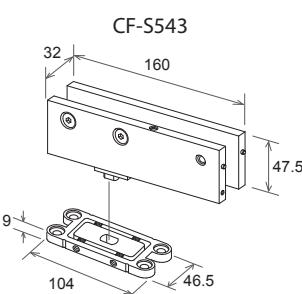
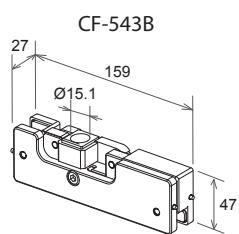
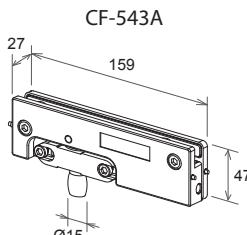
Sizes		3	4	5	6			
Variable closing force standard doors		≤ 950mm	≤ 1100mm	≤ 1250mm	≤ 1450mm			
Spring Strength (EN)		≤ 60kg	≤ 80kg	≤ 100kg	≤ 120kg			
Arm	Standard	w/o smoke detector	1560E					
		w/ smoke detector	1560ES					
	Track	w/o smoke detector	1560ET					
		w/ smoke detector	1560EST					
Body Dimension (Length x Height x Projection)		275 x 62 x 45 (mm)						
Input Voltage (AC)		240 V. AC						
Output Voltage (AC)		24 V. AC						
Angle of opening		180°						
Electro hold open		✓						
Latching speed adjustable (15° ~ 0°)		✓						
Sweep speed adjustable (180° ~ 15°)		✓						
Swing free function		○						
Non-handed		✓						
With cover		✓						
Parallel arm bracket		○						
Guarantee/years		10 years						

✓ = yes

✗ = no

○ = option

CONCEALED FLOOR SPRING

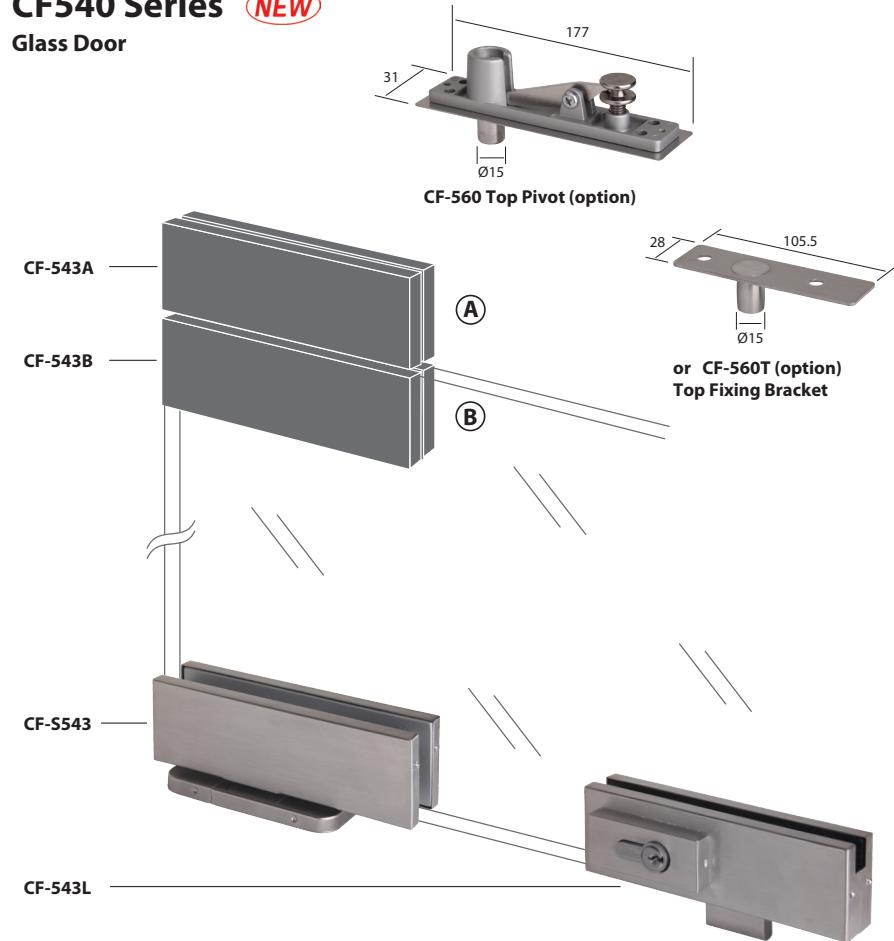


body dimensions in millimeters

Tested according to **BS EN 1154**
1997 / A1:2002

CF540 Series **NEW**

Glass Door



DATA AND FEATURES

		CF-S543
Variable closing force Standard doors		≤ 850mm
Suitable door thickness		≥ 8~13mm
Spring Strength (EN)		≤60kg
Body Dimension (Length x Wide x Projection)	CF-543A/B/L CF-S543	159 x 47 x 27 (mm) 160 x 47.5 x 32 (mm)
Cover Dimension (Length x Height)		163 x 50 (mm)
Ambient temperature		-15°C ~ +40°C
Angle of opening		150°
Closing speed adjustable		150° ~ 10°
Braking speed adjustable		10° ~ 0°
Hold-open with build in hold open at 90°		✓
Non-handed		✓
With cover		✓
Guarantee/years		5 years

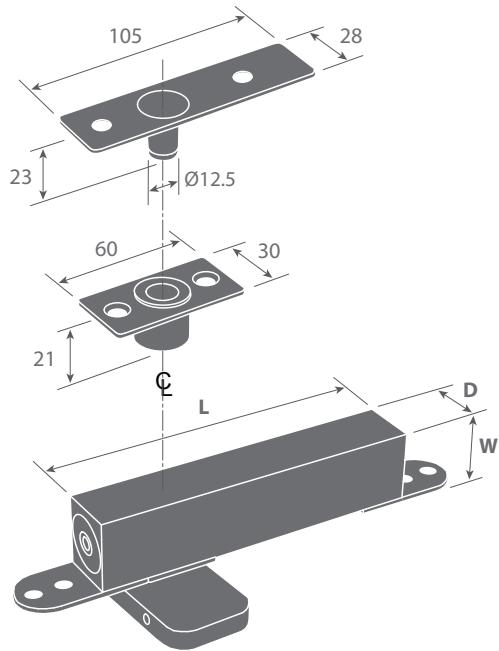
✓ = yes ✕ = no O = option

Quick and easy installation with base seat adjustable for ±3mm backward and forward, ±3mm left and right, and for ±4° alignment adjustment. No need to have the pre-set on the floor.

Guarantee: A free replacement ex-works of any closer proved defective by reason either of faulty manufactured or defect in materials.

Finishes: stainless steel cover, powder coating, PVD

CONCEALED FLOOR SPRING



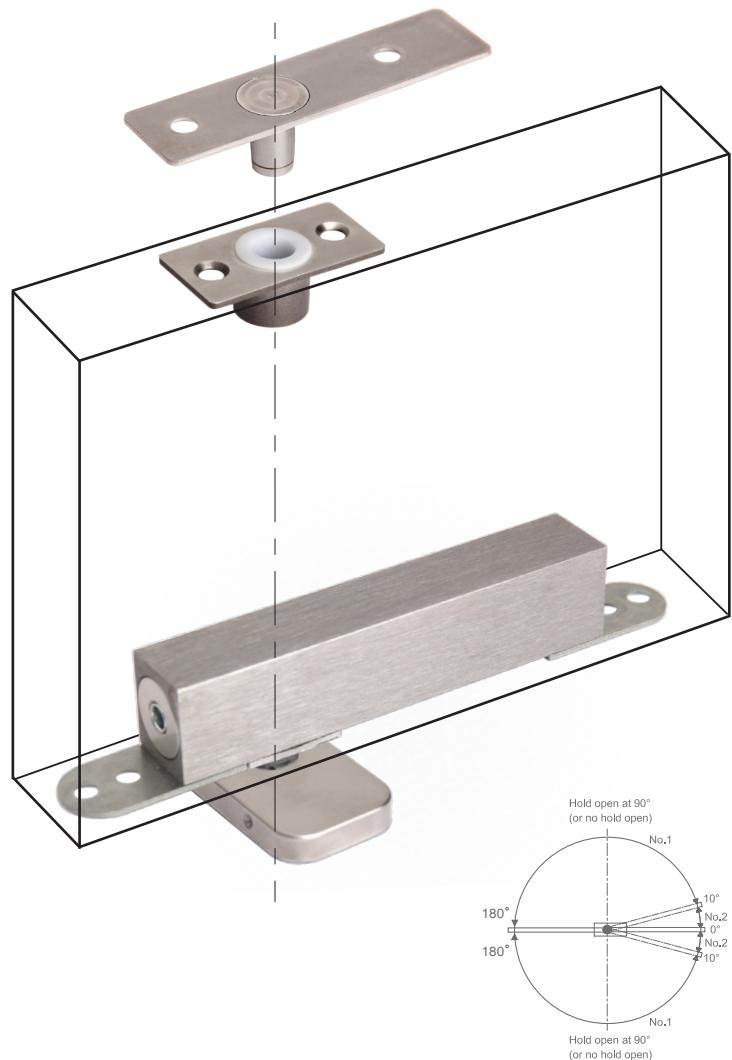
dimensions in millimeters

Tested according to **BS EN 1154**
1997 / A1:2002

DATA AND FEATURES

Quick and easy installation with base seat
adjustable for backward and forward, left
and right, and alignment adjustment.
Smooth movement.

No need to have the pre-set on the floor
Reduce the installation time and cost
Guarantee: A free replacement ex-works
of any closer proved defective by reason
either of faulty manufactured or defect
in materials.



	CF-S553	CF-553
Variable closing force Standard doors	≤ 850mm	
Suitable door thickness	≥ 30~50mm	
Body Dimension (Length x Wide x Projection)	140 x 30 x 25 (mm)	
Spring Strength (EN)	≤60kg	
Angle of opening	180°	
Closing speed adjustable	150° ~ 10°	
Braking speed adjustable	10° ~ 0°	
Hold-open	without hold-open	✓
	with build in hold open at 90°	✓
Non-handed		✓
With cover		✓
Guarantee/years		5 years

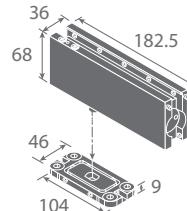
✓ = yes

✗ = no

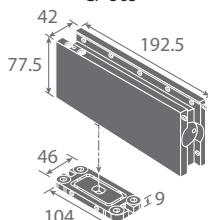
○ = option

CONCEALED FLOOR SPRING

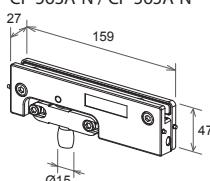
CF-563A/ CF563B/ CF563



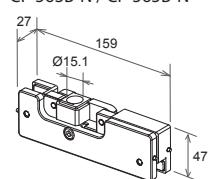
CF-565



CF-563A-N / CF-565A-N



CF-563B-N / CF-565B-N



body dimensions in millimeters

Passed and approved with
EN Testing (EN1154:1997) under
classification 383013

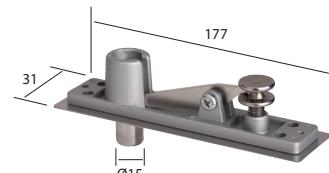


CF560 Series

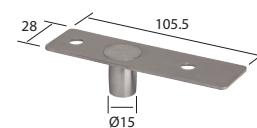
Glass Door



CF-560 Glass Door



CF-560 Top Pivot (option)



or CF-560T (option)
Top Fixing Bracket

CF-563A
CF-563A-N
CF-565A-N

CF-563B
CF-563B-N
CF-565B-N

CF-563
CF-565

DATA AND FEATURES

		CF-S563	CF-S565
Variable closing force Standard doors		≤ 950mm	≤ 1250mm
Suitable door thickness		8 ~ 13mm	10 ~ 15mm
Spring Strength (EN)		≤ 100kg	≤ 100kg
Body Dimension (Length x Height x Projection)	CF-563A/B	182.5 x 68 x 36 (mm)	
	CF-563A-N/565A-N		159 x 47 x 27 (mm)
	CF-563B-N/565B-N		
	CF-S565		192.5 x 77.5 x 42 (mm)
Cover Dimension (Length x Height)		186.5 x 71 (mm)	197 x 80.5 (mm)
Ambient temperature		-20°C ~ +50°C	
Angle of opening		150°	
Closing speed adjustable		150° ~ 10°	
Braking speed adjustable		10° ~ 0°	
Hold-open	without hold-open	CF-563	CF-565
	with build in hold open at 90°		✓
Non-handed			✓
With cover			✓
Guarantee/years			5 years

✓ = yes ✕ = no O = option

Quick and easy installation with base seat adjustable for ±3mm backward and forward, ±3mm left and right, and for ±4° alignment adjustment. No need to have the pre-set on the floor.

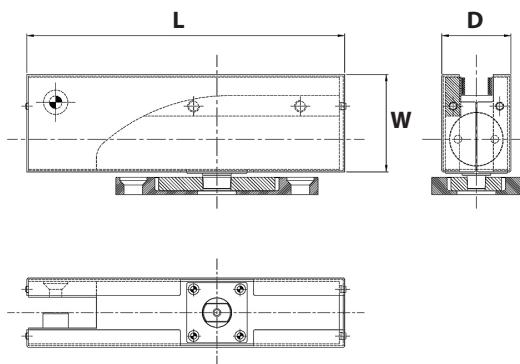
Guarantee: A free replacement ex-works of any closer proved defective by reason either of faulty manufacture or defect in materials.

Finishes: stainless steel cover

REVOLVING FLOOR SPRING



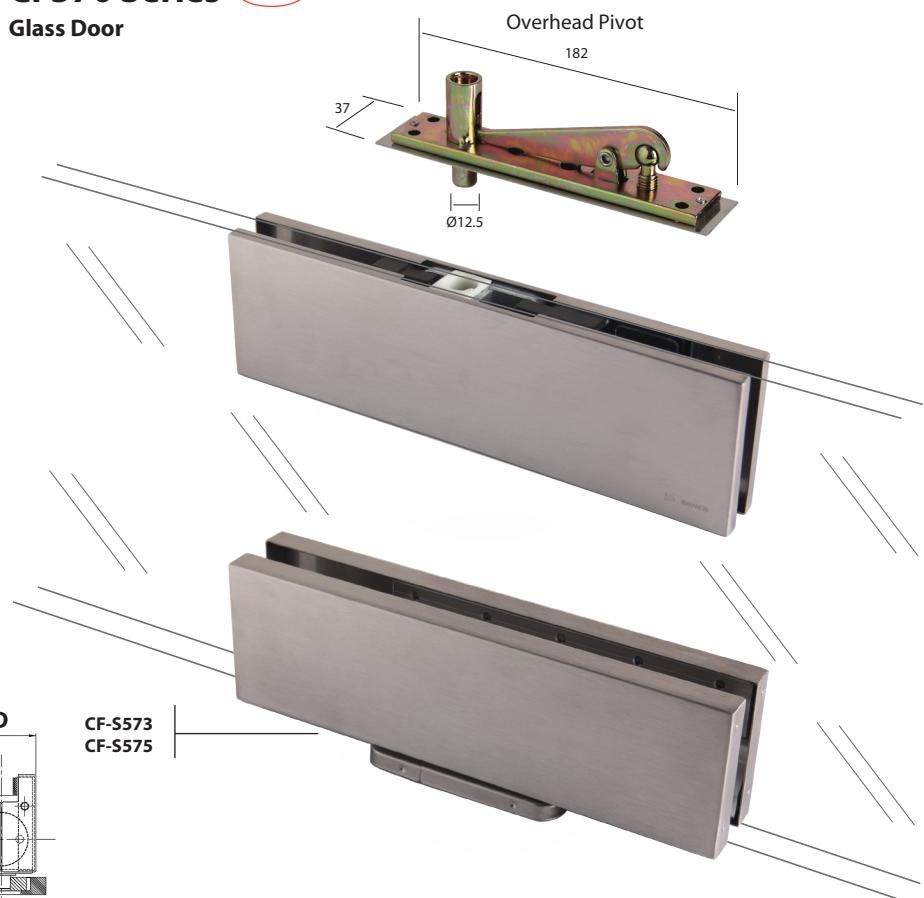
CF-570 (Glass Door)



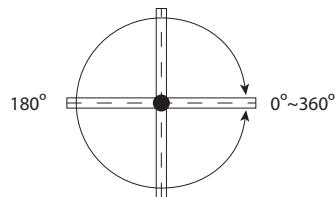
Tested according to **BS EN 1154**
1997 / A1:2002

CF570 Series **(NEW)**

Glass Door



Hold open at 90°($\pm 15^\circ$)
(or no hold open)



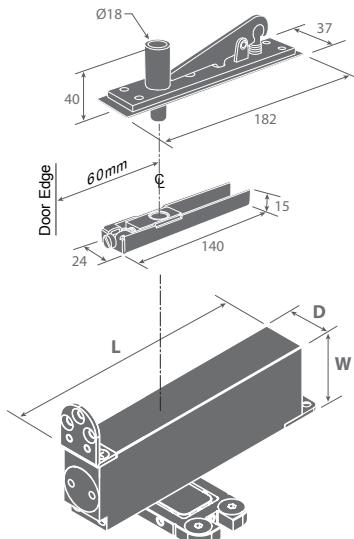
Hold open at 270°($\pm 15^\circ$)
(or no hold open)

DATA AND FEATURES

	CF-573 / CF-S573	CF-575 / CF-S575
Variable closing force Standard doors	≤ 1700 (mm)	≤ 2500 (mm)
Suitable door thickness	10-15 (mm)	
Body Dimension (Length x Wide x Projection)	192 x 77 x 42 (mm)	
Spring Strength (EN)	≤ 100 kg	≤ 200 kg
Angle of opening	360°	
Closing speed adjustable	150°~10°	
Braking speed adjustable	10°~0°	
Hold-open	without hold-open ✓ with build in hold open at 90° ✓	✓ ✓ ✓
Non-handed		✓
With cover		✓
Guarantee/years		5 years

✓ = yes ✕ = no O = option

CONCEALED FLOOR SPRING



dimensions in millimeters

Passed and approved with
EN Testing (EN1154:1997) under
classification 383113

bsi.

BS EN 1634-1:2014



NUMBER 2812



Quick and easy installation with base seat adjustable for backward and forward, left and right, and alignment adjustment.

Smooth movement.

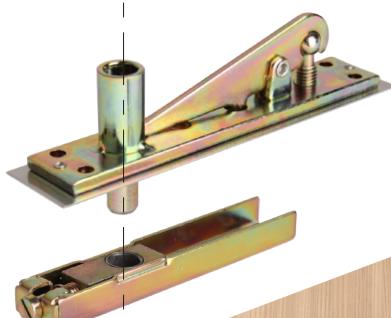
No need to have the pre-set on the floor.

Reduce the installation time and cost.

Guarantee: A free replacement ex-works of any closer proved defective by reason either of faulty manufactured or defect in materials.

CF580 Series Wood / Metal Door

Overhead Pivot

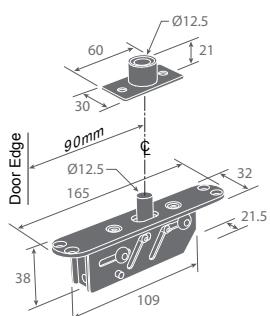
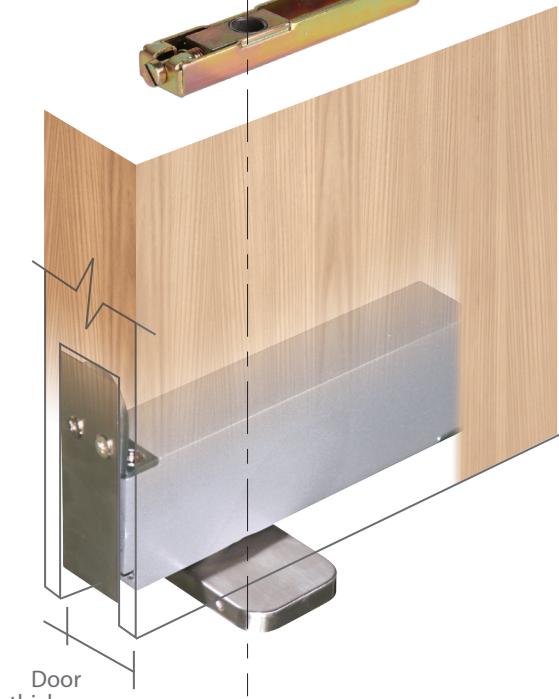


BP-1 (option) NEW

Top Pivot



OR



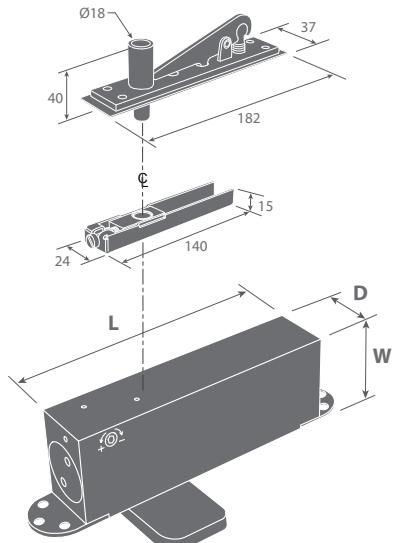
CF-580 Wood Door

DATA AND FEATURES

		CF-S583	CF-S585
Variable closing force Standard doors		≤ 950mm	≤ 1250mm
Suitable door thickness		≥ 40mm	≥ 50mm
Body Dimension (Length x Wide x Projection)		181 x 56 x 32 (mm)	184 x 64 x 40 (mm)
Spring Strength (EN)			≤100kg
Angle of opening			150°
Closing speed adjustable			150° ~ 10°
Braking speed adjustable			10° ~ 0°
Hold-open	without hold-open	CF-583	CF-585
	with build in hold open at 90°		✓
Non-handed			✓
With cover			✓
Guarantee/years			5 years

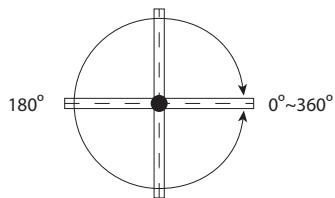
✓ = yes ✕ = no O = option

REVOLVING FLOOR SPRING



dimensions in millimeters

Hold open at 90° ($\pm 15^\circ$)
(or no hold open)



Hold open at 270° ($\pm 15^\circ$)
(or no hold open)

Tested according to **BS EN 1154**
1997 / A1:2002

Quick and easy installation with base seat adjustable for backward and forward, left and right, and alignment adjustment.

Smooth movement.

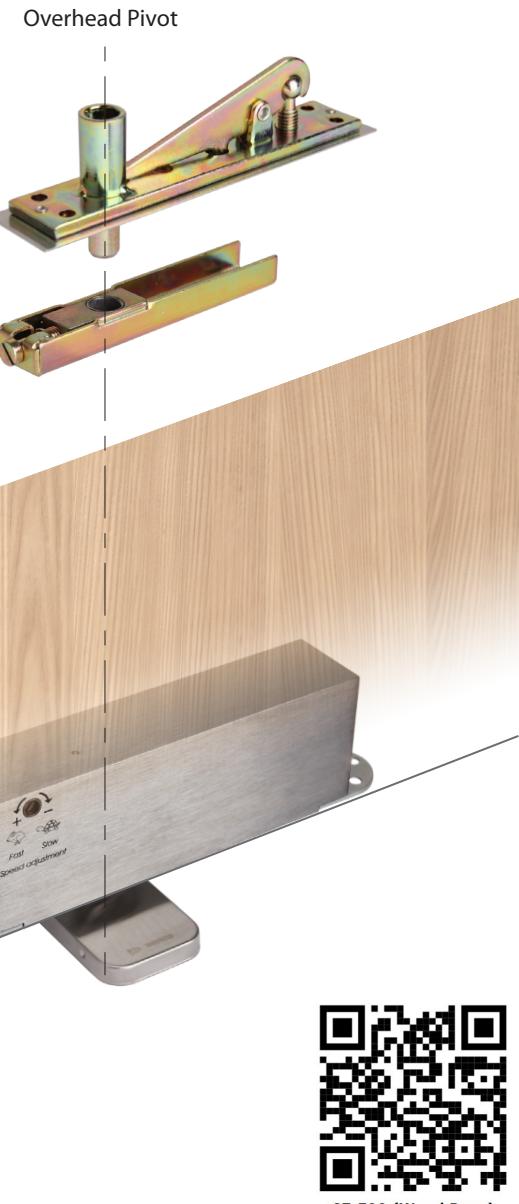
No need to have the pre-set on the floor.

Reduce the installation time and cost.

Guarantee: A free replacement ex-works of any closer proved defective by reason either of faulty manufactured or defect in materials.

CF590 Series NEW

Wood / Metal Door



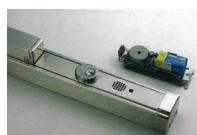
CF-590 (Wood Door)

DATA AND FEATURES

		CF-593 / CF-S593	CF-595 / CF-S595
Variable closing force Standard doors		≤ 1700 (mm)	≤ 2500 (mm)
Suitable door thickness		≥ 40 (mm)	≥ 50 (mm)
Body Dimension (Length x Wide x Projection)		181 x 56 x 32 (mm)	184 x 64 x 40 (mm)
Spring Strength (EN)		≤ 100 kg	≤ 200 kg
Angle of opening		360°	
Closing speed adjustable		$150^\circ \sim 10^\circ$	
Braking speed adjustable		$10^\circ \sim 0^\circ$	
Hold-open	without hold-open	✓	✓
	with build in hold open	✓	✓
Non-handed		✓	
With cover		✓	
Guarantee/years		5 years	

✓ = yes ✕ = no O = option

EXIT PANIC DEVICES

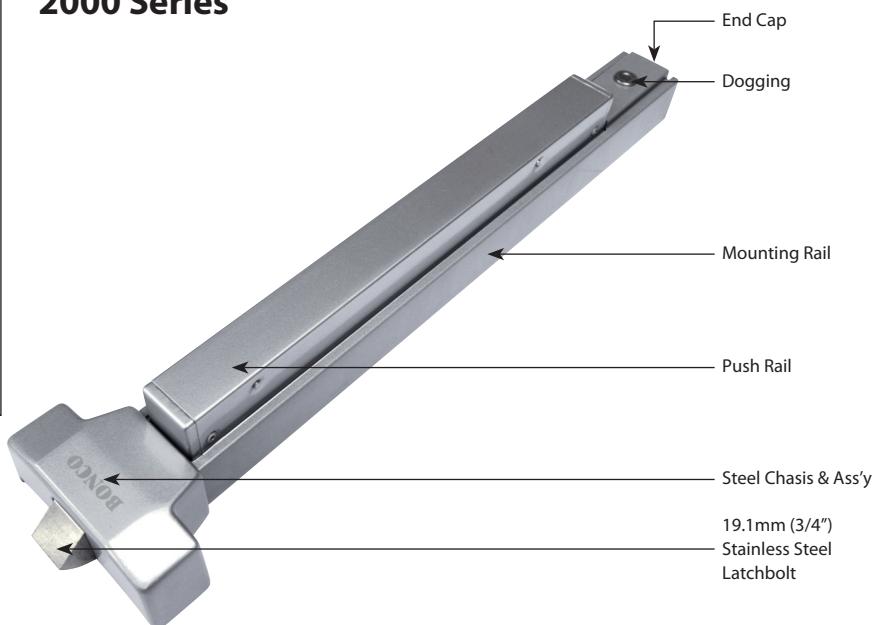


(ALM) Exit device with alarm (optional)



(OTL) Outside trim with lever handle and EURO profile cylinder (optional)

2000 Series



Finishes: F24 stainless steel, F72 silver (steel)

Tested according to EN 1125:2008

bsi.

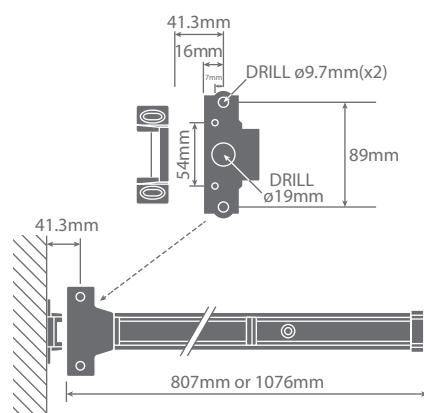
BS EN 1634-1:2014

DATA AND FEATURES

	2000
Suitable door width	914.4mm & 1219.2mm
Suitable door thickness	$\geq 44.5\text{mm}$
Latch bolt	19.1mm
Strike	16mm stop, plus shim for 12.7mm stop
Reversible	Non-handed
Backset	41.3mm
Guarantee/years	10 years

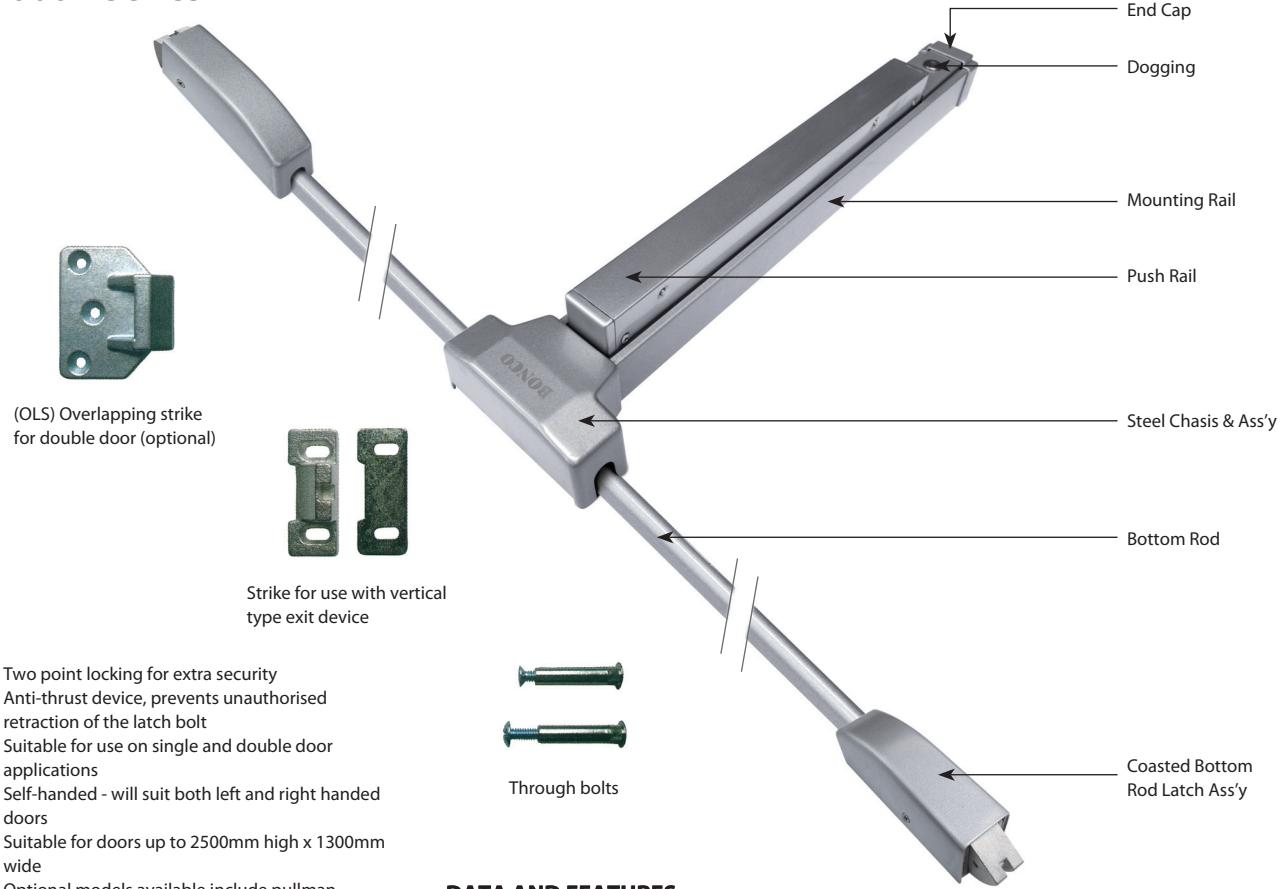
EXIT PANIC DEVICE

**DIMENSIONS
IN MILLIMETERS**



Closing Devices

2000V Series



- Two point locking for extra security
- Anti-thrust device, prevents unauthorised retraction of the latch bolt
- Suitable for use on single and double door applications
- Self-handed - will suit both left and right handed doors
- Suitable for doors up to 2500mm high x 1300mm wide
- Optional models available include pullman latches, alarmed and manually dogged (hold open) functions
- Adjustable top and bottom stops
- Supplied with an easy clean socket
- Metal door variant available with metal door strikes and machine screws
- Metal: stainless steel or steel

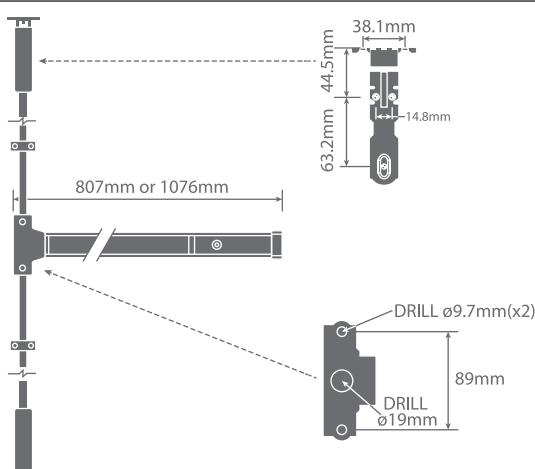
Finishes: F24 stainless steel, F72 silver (steel)

Tested according to EN 1125:2008

bsi.
BS EN 1634-1:2014

DATA AND FEATURES

	2000V
Suitable door width - vertical type	914.4 x 2133.6mm (3' x 7') 1219.2 x 2133.6mm (4' x 7') 914.4 x 2438.4mm (3' x 8') 1219.2 x 2438.4mm (4' x 8')
Suitable door thickness	≥ 44.5mm
Latch bolt	19.1mm
Strike	16mm stop, plus shim for 12.7mm stop
Reversible	Non-handed
Backset	41.3mm
Guarantee/years	10 years



Understanding BS EN1125

These standards will effectively become MANDATORY.

Every new build or replacement panic and emergency exit application is required to comply with European safety legislation. The European standards BS EN 1125 covering exit devices for buildings have now been designated to demonstrate compliance with this legislation. Together they replace BS 5725:pt1:1981 which is now withdrawn.

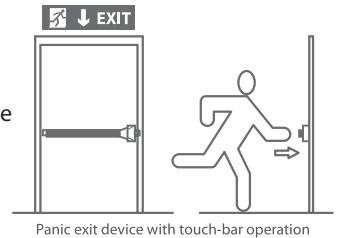
Two standards instead of one - which one for which application?

Panic Application - BS EN 1125

A panic application is where the exit door is used by the public and provides "safe and effective escape through the door way with minimum effort and without prior knowledge of operation".

For example:

Theatres, Shops, Schools, Hospitals and Cinemas.



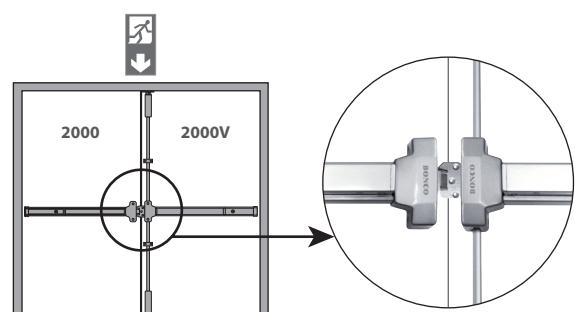
Products to EN 1125

"The most important thing you must consider when specifying panic exit hardware is who might be in the building in the event of an emergency."

Where personnel have not been trained in the location and operation of the buildings exit devices or members or the public have access, exit devices conforming to EN 1125 must be specified and installed.

IMPORTANT: If you are in any doubt at all ALWAYS use products that conform to EN 1125

The following range consists of a vertical panic bolt, rim panic latch and a mortice nightlatch operator. Each product is operated by a horizontal push bar, which when pushed in a downward arc withdraws either the bolts or the latch, releasing the door for immediate escape in the event of an emergency.



Double door strike

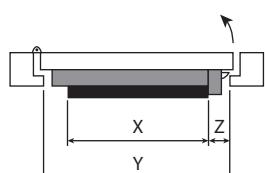
For use on double rebated door applications with a rim panic latch on the first opening leaf and a vertical bolt on the second opening leaf.

Bar length

The design of a panic exit device is the effective length (dimension X) of the horizontal bar shall be as near as possible to the effective width (dimension Y) of the door opening for which it is recommended, but never less than 60%. See Figure.

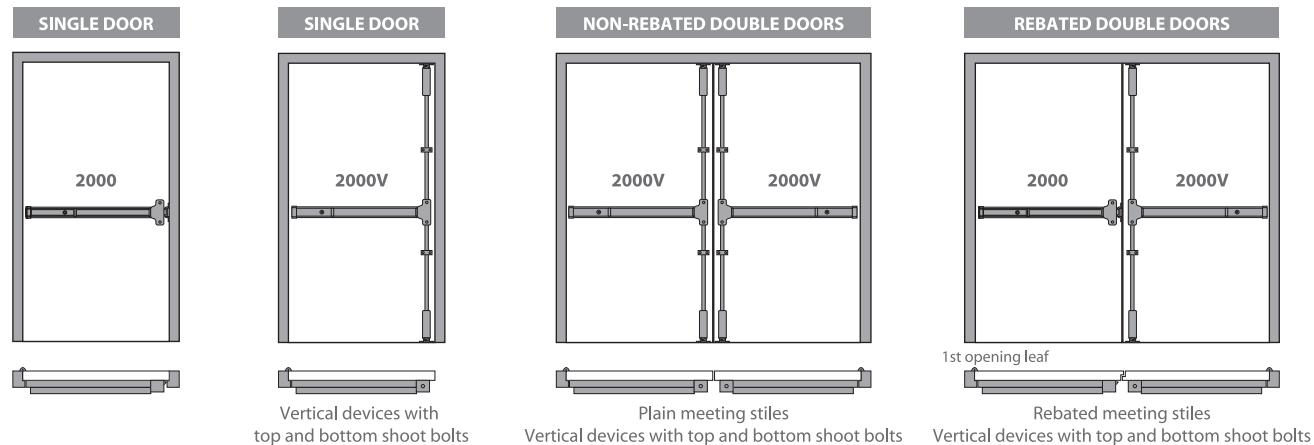
panic exit device

Z - distance from door stop
 X - effective length of horizontal bar
 Y - effective width of door opening



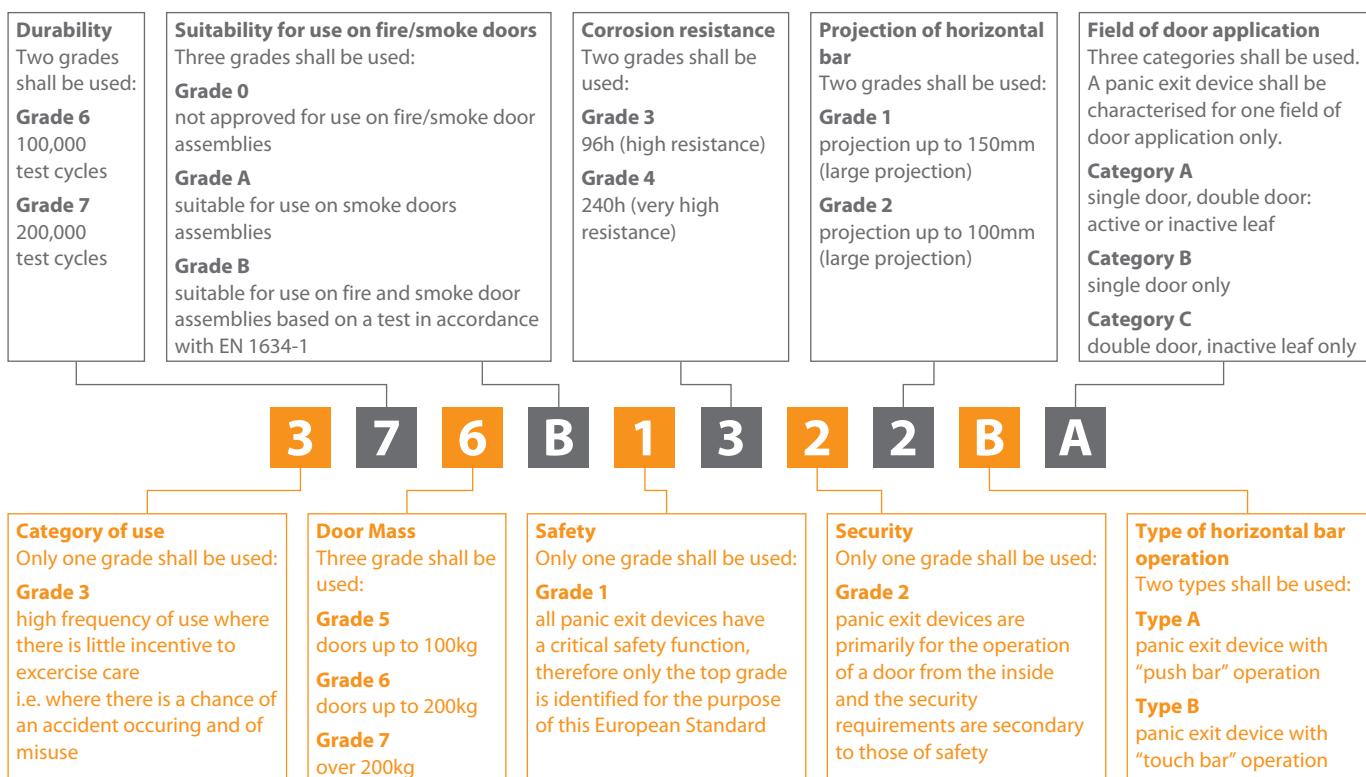
Application Guide

Panic and Emergency exit hardware is suitable for application to single doors, and in combinations on non-rebated and rebated double doors.



CE Marking Guide

BONCO exit devices with the CE mark will show the EN 1125 classification numbers (see below) and the test house logo on the product.

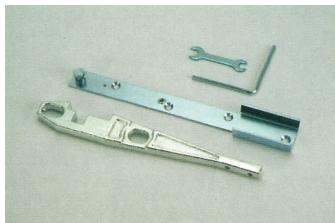


Double panic bolts are not permitted under the EN Standards.

On double devices the crossbars project beyond the end boxes often snagging the firefighters' clothing or equipment as they enter the burning building to extinguish the fire and save lives.

These projections can waste valuable seconds, which could be the difference between life and death...

TRANSOM DOOR CLOSERS



Top and bottom pivot



Screw pack for fixing bracket



Screw pack for side-load top arm and channel



Screw pack for side-load bottom pivot

Tested according to **BS EN 1154**
1997 / A1:2002



FM 578071

CR-360 Series



DATA AND FEATURES

Sizes		2	3	4
Variable closing force standard doors		≤ 850mm	≤ 950mm	≤ 1100mm
Spring Strength (EN)		≤ 70kg	≤ 105kg	≤ 150kg
Arm	Standard	without hold-open	CR-362	CR-363
		with build in hold-open at 90°	CR-S362	CR-S363
Body Dimension (Length x Height x Projection)		271 x 87 x 40 (mm)		
Double-action		✓		
Angle of opening		130°		
Sweep speed adjustable		✓		
Latching speed adjustable		✓		
Back-check	Self-regulating	✗		
	Adjustable at valve	○		
Delayed action adjustable		○		
Non-handed		✓		
Guarantee/years		10 years		

✓ = yes ✗ = no ○ = option

These are concealed overhead door closers mainly for aluminium transom.

Recommended for medium traffic doors.

An auxiliary stopper is recommended to be used together.

Guarantee: A free replacement ex-works of any closer

proved defective by reason either of faulty manufactured or defect in materials.

Back check: Provides a cushioning effect when the door is forcibly thrown open but does not serve as substitute for a door stop.

Finishes: F71 Gold, F72 Silver, F73 Bronze

FLOOR SPRING HINGES



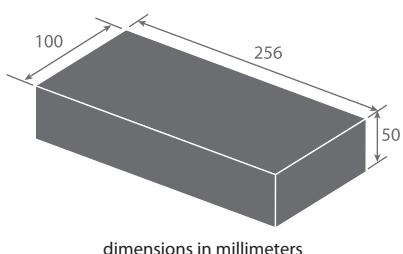
Standard strap, top and bottom pivot (DMA)



Standard strap, top and bottom pivot (NSA)



Offset pivot



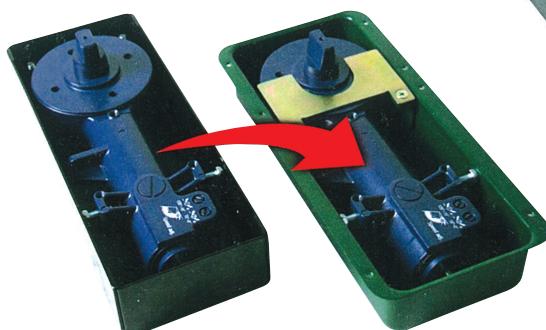
dimensions in millimeters

Tested according to **BS EN 1154**
1997 / A1:2002

bsi.

BS EN 1634-1:2014

FH-210 Series



For replacement market use. No need to change the cement box

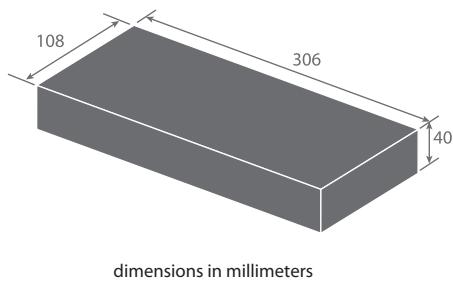
DATA AND FEATURES

Sizes	2	3	4
Variable closing force standard doors	$\le 850\text{mm}$	$\le 950\text{mm}$	$\le 1100\text{mm}$
Spring Strength (EN)	$\le 70\text{kg}$	$\le 105\text{kg}$	$\le 150\text{kg}$
Centre hung	Without hold-open	FH211	FH212
	With build in hold-open 90°	FH-S-211	FH-S-212
Offset hung	Without hold-open	FH-O-211	FH-O-212
	With build in hold-open 90°	FH-OS-211	FH-OS-212
Double action			✓
Angle of opening			120°
Sweep speed adjustable			✓
Latching speed adjustable			✓
Hold-open	at 105°		○
Back-check	Self-regulating		✗
	Adjustable at valve		✗
Delayed action adjustable			✗
Non-handed			✓
Guarantee/years			5 year

✓ = yes ✗ = no ○ = option

Guarantee: A free replacement ex-works of any closer proved defective by reason either of faulty manufactured or defect in materials.

FLOOR SPRING HINGES



dimensions in millimeters

**EN Fire Tested by Warrington APT
Laboratories, UK**

bsi. BS EN 1154
BS EN 1634-1:2014 1997 / A1:2002

**Passed and approved with
EN Testing (EN1154:1997) under
classification 383113
384113**



FM 578071



QB/T3884-1999

FH-300/300X Series



FH-300X

DATA AND FEATURES

Sizes	2	3	4	5
Variable closing force standard doors	≤ 850mm	≤ 950mm	≤ 1100mm	≤ 1250mm
Spring Strength (EN)	≤ 70kg	≤ 105kg	≤ 150kg	≤ 200kg
Centre Hung	without hold-open	FH-311	FH-312	FH-313
	with build in hold-open at 90°	FH-S-311	FH-S-312	FH-S-313
Offset Hung	without hold-open	FH-O-311	FH-O-312	FH-O-313
	with build in hold-open at 90°	FH-OS-311	FH-OS-312	FH-OS-313
Double action				✓
Angle of opening				130°
Sweep speed adjustable				✓
Latching speed adjustable				✓
Hold-open at 105°				○
Back-check	Self-regulating			✗
	Adjustable at valve	FH-300		✗
		FH-300X		○
Delayed action adjustable				○
Non-handed				✓
Guarantee/years				10 years

✓ = yes ✗ = no ○ = option

FH-300X Series: Interchangeable Shaft with Adjustable Back Check.

Guarantee: A free replacement ex-works of any closer proved defective by reason either of faulty manufactured or defect in materials.

Back check: Provides a cushioning effect when the door is forcibly thrown open but does not serve as substitute for a door stop.

Closing Devices

FH-410 Series

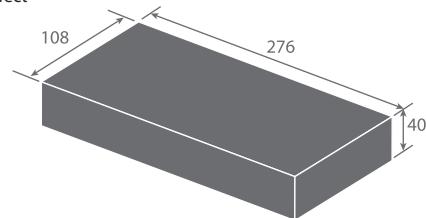


DATA AND FEATURES

Sizes	2	3	4
Variable closing force standard doors	≤ 850mm	≤ 950mm	≤ 1100mm
Spring Strength (EN)	≤ 70kg	≤ 105kg	≤ 150kg
Centre hung	without hold-open	FH-411	FH-412
	with build in hold-open at 90°	FH-S-411	FH-S-412
Offset hung	without hold-open	FH-O-411	FH-O-412
	with build in hold-open at 90°	FH-OS-411	FH-OS-412
Double-action			✓
Angle of opening			130°
Sweep speed adjustable			✓
Latching speed adjustable			✓
Hold-open at 105°			○
Non-handed			✓
Guarantee/years			5 years

✓ = yes x = no O = option

Guarantee: A free replacement ex-works of any closer proved defective by reason either of faulty manufactured or defect in materials.



dimensions in millimeters

Tested according to:

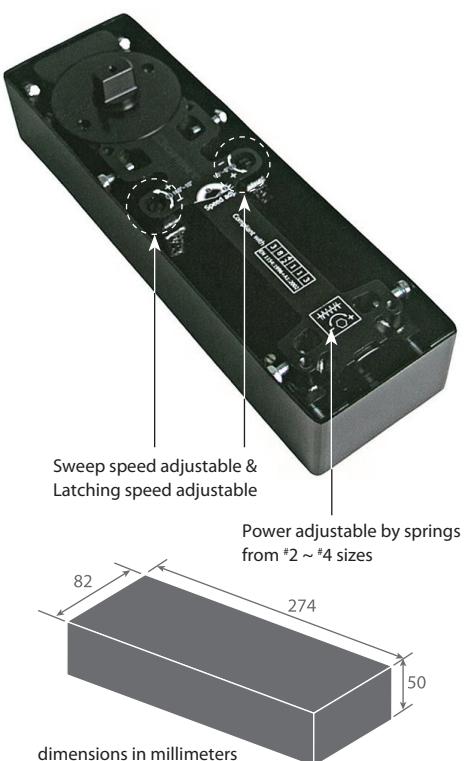
bsi.

BS EN 1154

BS EN 1634-1:2014 1997 / A1:2002

FH-700 Series

(size 2-4)



DATA AND FEATURES

Sizes	2	3	4
Variable closing force standard doors	≤ 850mm	≤ 950mm	≤ 1100mm
Spring Strength (EN)	≤ 70kg	≤ 105kg	≤ 150kg
Centre hung	without hold-open	FH-700	
	with build in hold-open at 90°	FH-S-700	
Offset hung	without hold-open	FH-O-700	
	with build in hold-open at 90°	FH-OS-700	
Double-action			✓
Angle of opening			160°
Power adjustable by springs from #2 ~ #4			✓
Sweep speed adjustable			✓
Latching speed adjustable			✓
Hold-open at 105°			○
Back-check	Self-regulating		✗
	Adjustable at valve		✗
Delayed action adjustable			✗
Non-handed			✓
Guarantee/years			10 years

✓ = yes x = no O = option

Guarantee: A free replacement ex-works of any closer proved defective by reason either of faulty manufactured or defect in materials.

Tested according to:

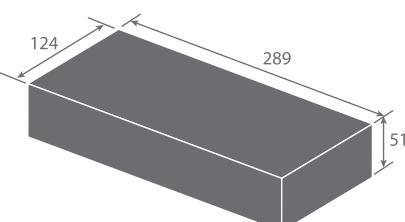
bsi.

BS EN 1154

BS EN 1634-1:2014 1997 / A1:2002

FLOOR SPRING HINGES

FH-800 Series



dimensions in millimeters

Tested according to **BS EN 1154**
1997 / A1:2002

bsi.
BS EN 1634-1:2014



FM 578071



QB/T3884-1999

DATA AND FEATURES

Sizes	2	3	4		
Variable closing force standard doors	≤ 850mm	≤ 950mm	≤ 1100mm		
Spring Strength (EN)	≤ 70kg	≤ 105kg	≤ 150kg		
Centre Hung	without hold-open	FH-811	FH-812		
	with build in hold-open at 90° or 105°	FH-S-811	FH-S-812		
Offset Hung	without hold-open	FH-O-811	FH-O-812		
	with build in hold-open at 90° or 105°	FH-OS-811	FH-OS-812		
Double action	✓				
Angle of opening	120°				
Sweep speed adjustable	✓				
Latching speed adjustable	✓				
Back-check	Self-regulating	✗			
	Adjustable at valve	✗			
Delayed action adjustable	✗				
Non-handed	✓				
Guarantee/years	10 years				

✓ = yes ✗ = no O = option

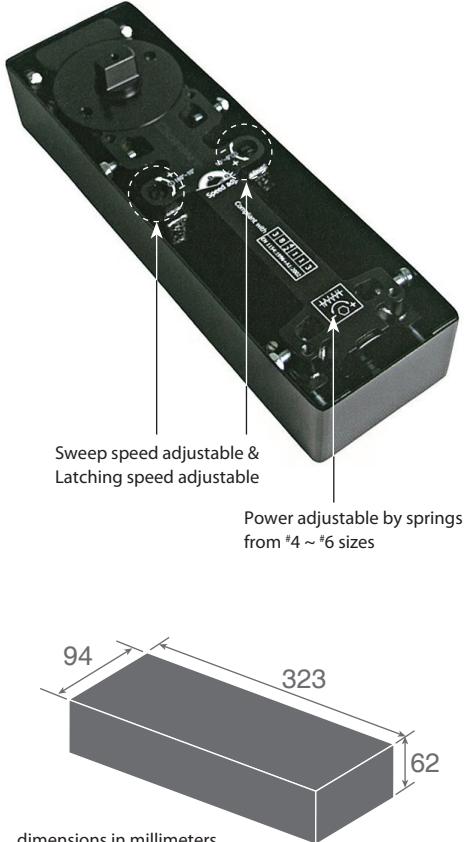
Guarantee: A free replacement ex-works of any closer proved defective by reason either of faulty manufactured or defect in materials.

Back check: Provides a cushioning effect when the door is forcibly thrown open but does not serve as substitute for a door stop.

Closing Devices

FH-900 Series **(NEW)**

(size 4-6)



DATA AND FEATURES

Sizes	4	5	6
Variable closing force standard doors	≤ 1100mm	≤ 1250mm	≤ 1450mm
Spring Strength (EN)	≤ 105kg	≤ 150kg	≤ 300kg
Centre hung	without hold-open	FH-900	
	with build in hold-open at 90°	FH-S-900	
Offset hung	without hold-open	FH-O-900	
	with build in hold-open at 90°	FH-OS-900	
CAH-action		✓	
Angle of opening		150°	
Power adjustable by springs from #4 ~ #6		✓	
Sweep speed adjustable		✓	
Latching speed adjustable		✓	
Back-check	Self-regulating	✗	
	Adjustable at valve	✗	
Delayed action adjustable		✗	
Non-handed		✓	
Guarantee/years		10 years	

✓ = yes ✗ = no O = option

Guarantee: A free replacement ex-works of any closer proved defective by reason either of faulty manufactured or defect in materials.

Tested according to:

bsi.

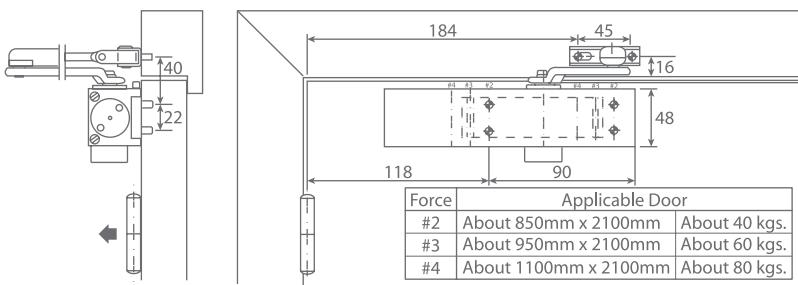
BS EN 1154

BS EN 1634-1:2014 1997 / A1:2002

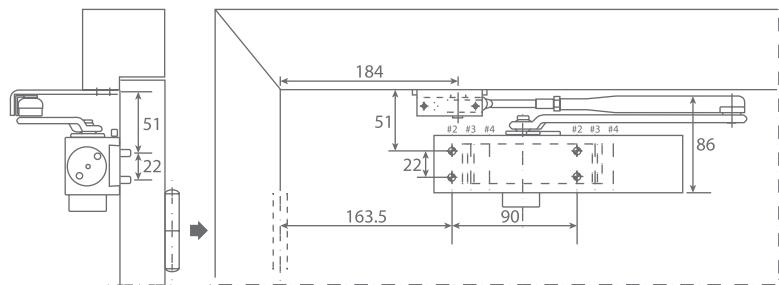
Fixing Details - Door Closers

1000 Series

Standard arm fixing, pull side
(Example refers to left-hand door; mirror image applies to right-hand door)



Parallel-arm fixing, push side
(Example refers to left-hand door; mirror image applies to right-hand door)

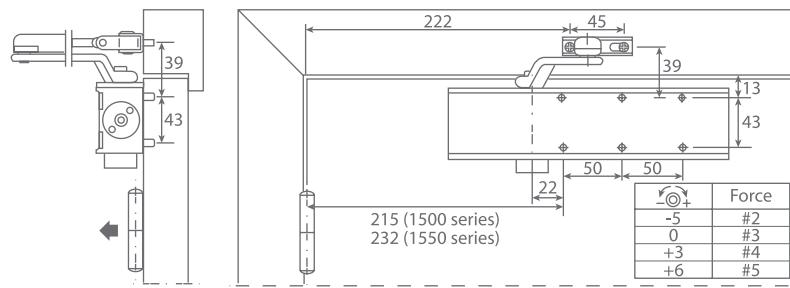


Fixing Details - Door Closers

1500 Series 1550 Series

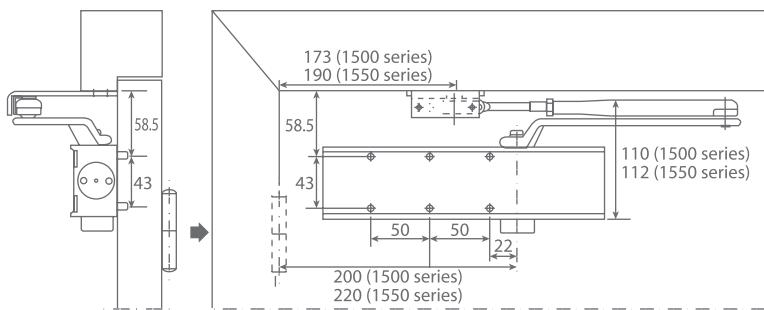
Standard arm fixing, pull side

(Example refers to left-hand door; mirror image applies to right-hand door)



Parallel-arm fixing, push side

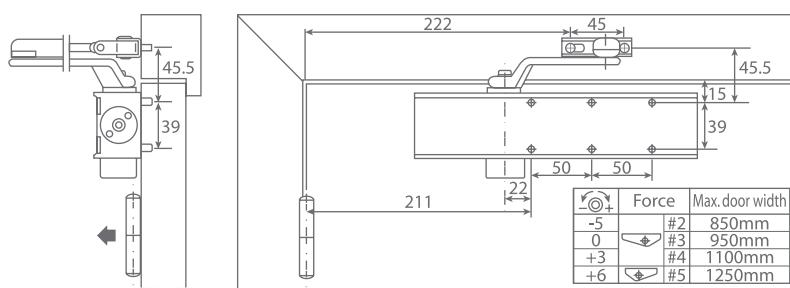
(Example refers to left-hand door; mirror image applies to right-hand door)



1600 Series

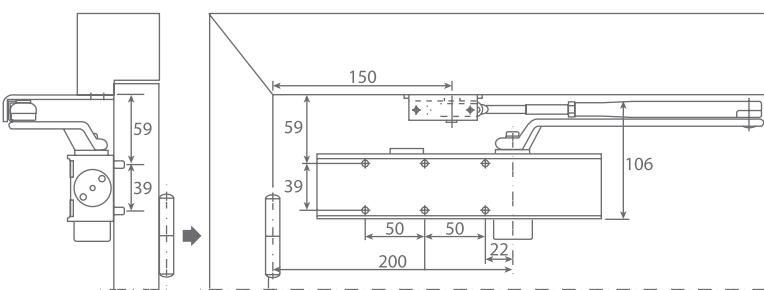
Standard arm fixing, pull side

(Example refers to left-hand door; mirror image applies to right-hand door)



Parallel-arm fixing, push side

(Example refers to left-hand door; mirror image applies to right-hand door)

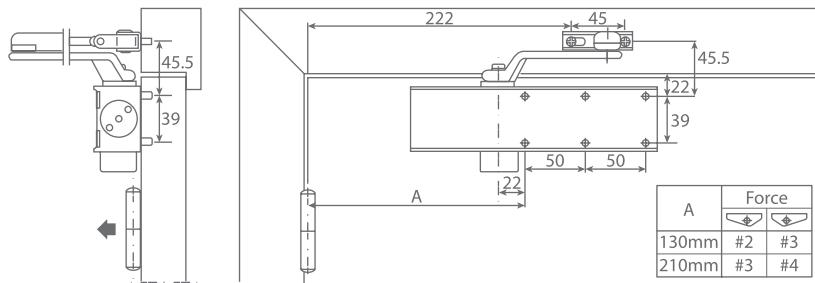


Fixing Details - Door Closers

1650 Series

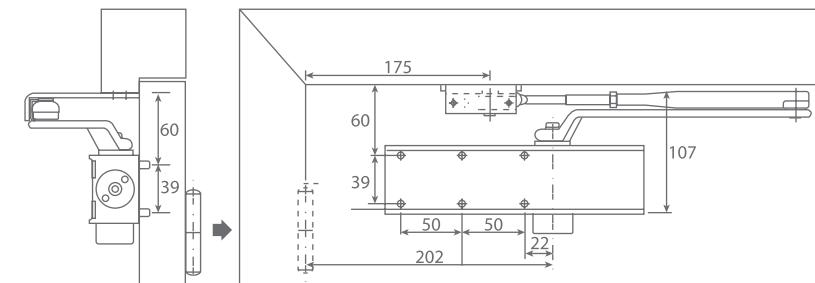
Standard arm fixing, pull side

(Example refers to left-hand door; mirror image applies to right-hand door)



Parallel-arm fixing, push side

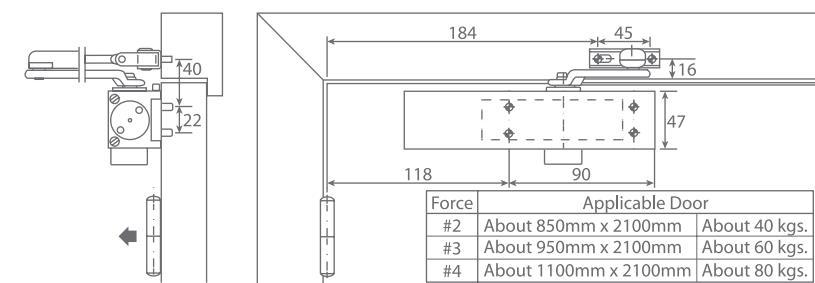
(Example refers to left-hand door; mirror image applies to right-hand door)



2000 Series

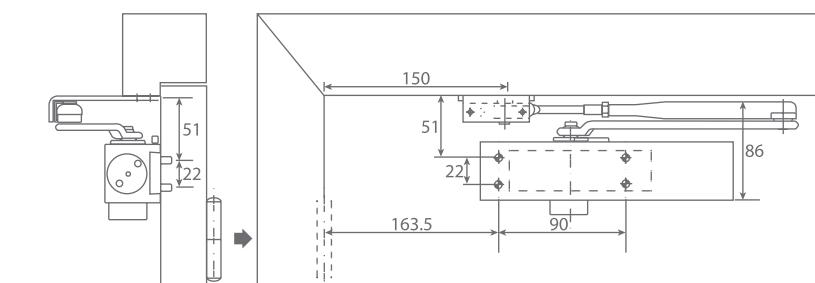
Standard arm fixing, pull side

(Example refers to left-hand door; mirror image applies to right-hand door)



Parallel-arm fixing, push side

(Example refers to left-hand door; mirror image applies to right-hand door)

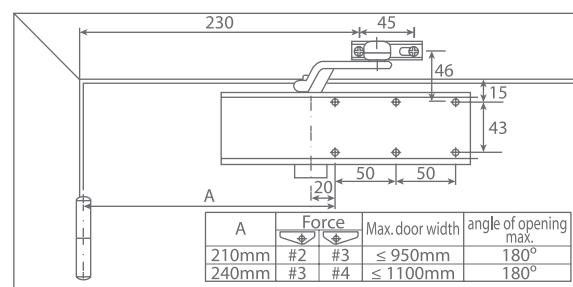
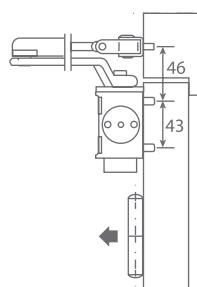


Fixing Details - Door Closers

5000 Series

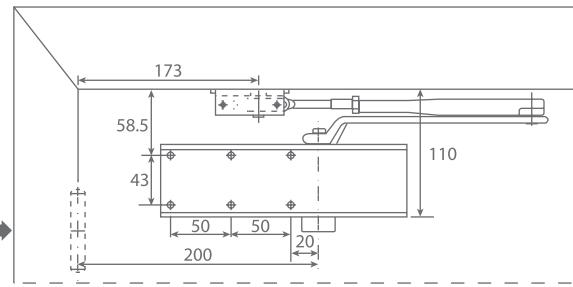
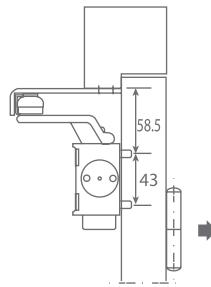
Standard arm fixing, pull side

(Example refers to left-hand door; mirror image applies to right-hand door)



Parallel-arm fixing, push side

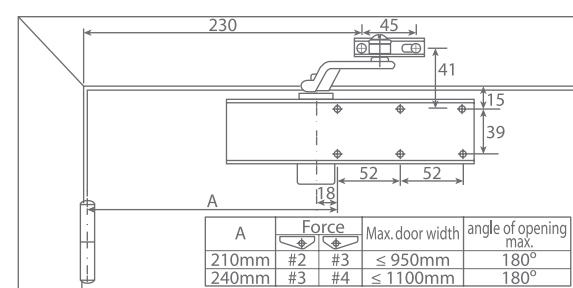
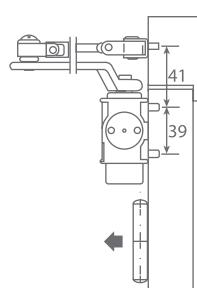
(Example refers to left-hand door; mirror image applies to right-hand door)



7000 Series

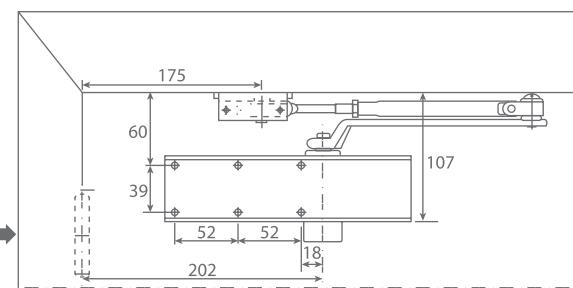
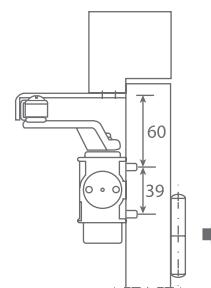
Standard arm fixing, pull side

(Example refers to left-hand door; mirror image applies to right-hand door)



Parallel-arm fixing, push side

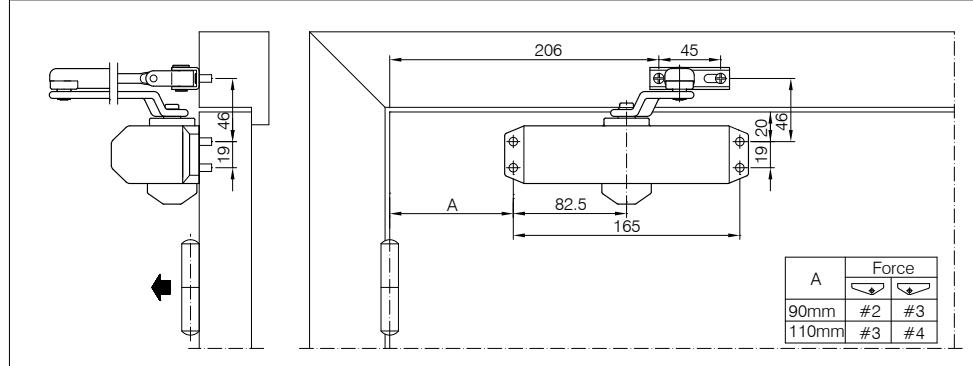
(Example refers to left-hand door; mirror image applies to right-hand door)



Fixing Details - Door Closers

Door leaf fixing, pull side

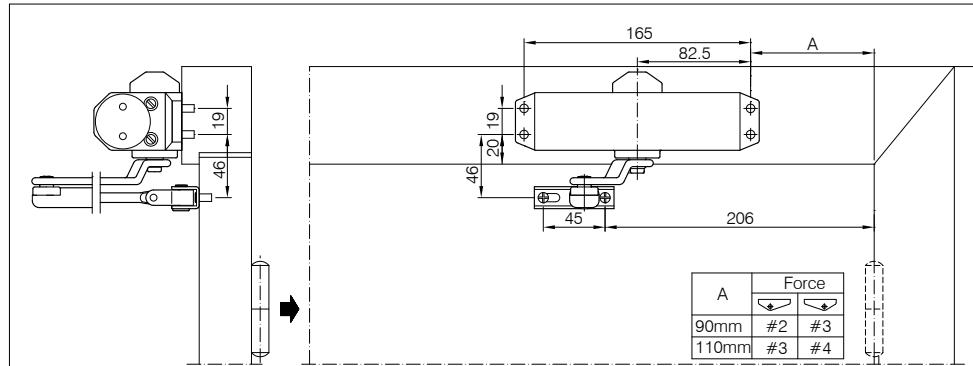
(Example refers to left-hand [ISO 6] door; mirror image applies to right-hand [ISO 5] door)



Transom fixing (overhead frame installation), push side

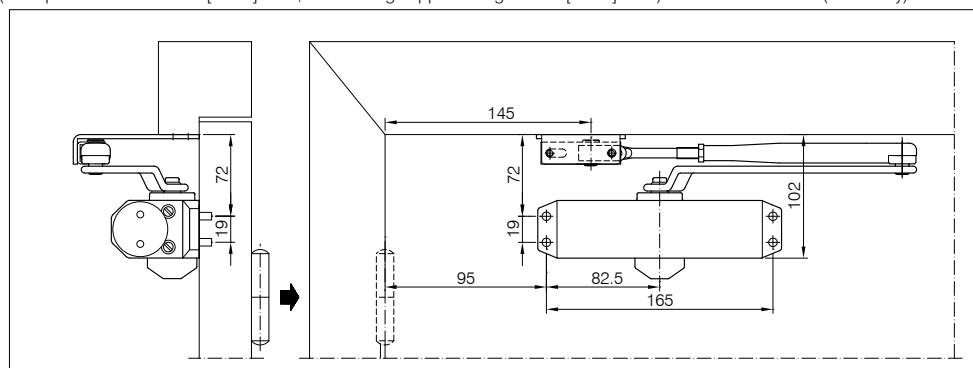
(Example refers to left-hand [ISO 6] door; mirror image applies to right-hand [ISO 5] door)

8200 Series



Parallel-arm fixing, push side

(Example refers to left-hand [ISO 6] door; mirror image applies to right-hand [ISO 5] door). Parallel-arm bracket (accessory) necessary

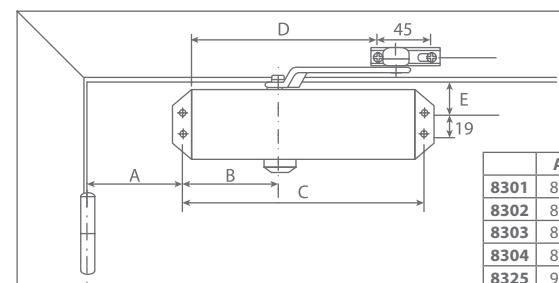
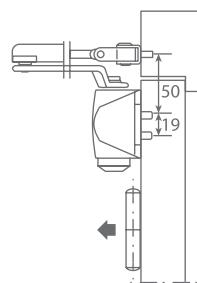


Fixing Details - Door Closers

8300 Series
8325 Series
8336 Series

Standard arm fixing, pull side

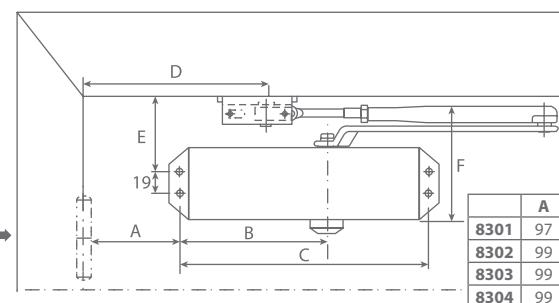
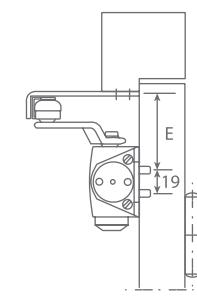
(Example refers to left-hand door; mirror image applies to right-hand door)



	A	B	C	D	E
8301	80	64.4	148	174	20
8302	80	82	203	100	20
8303	80	82	203	100	20
8304	80	82	203	100	20
8325	96	87.5	231	200	20
8336	100	92	297	230	25

Parallel-arm fixing, push side

(Example refers to left-hand door; mirror image applies to right-hand door)

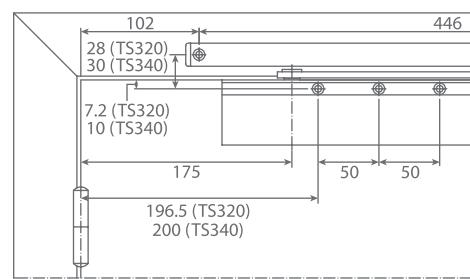
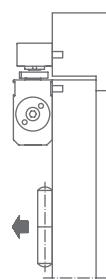


	A	B	C	D	E	F
8301	97	83.6	148	146	68	100
8302	99	120.8	203	190	70	109
8303	99	120.8	203	190	70	109
8304	99	120.8	203	190	70	109
8325	72.5	147.5	231	190	70	110
8336	-	-	297	190	70	110

Standard arm fixing, pull side

(Example shows LH door; RH doors mirrored arrangement)

Provided conditions allow, an opening angle of 130° is possible with this method of fixing.
 In most cases, however, a wall recess will have to be provided for the door closer.



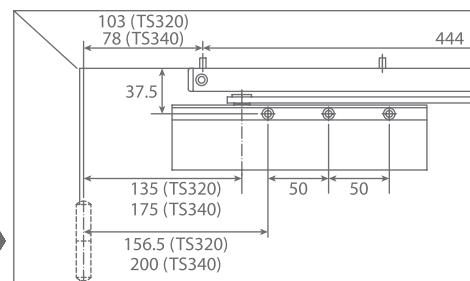
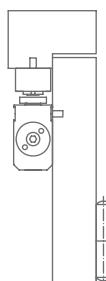
Force
-4 #2
0 #3
+6 #4

TS320 Series
TS340 Series
 Standard installation

Door leaf fixing, push side

(Example shows RH door; LH doors mirrored arrangement)

Depending on the structural conditions, the door opening angle with this method of fixing is limited to approx. 110° ~ 130°. In order to avoid damage to the door or door closer, users are recommended to install a cushioned backstay or a door stop.

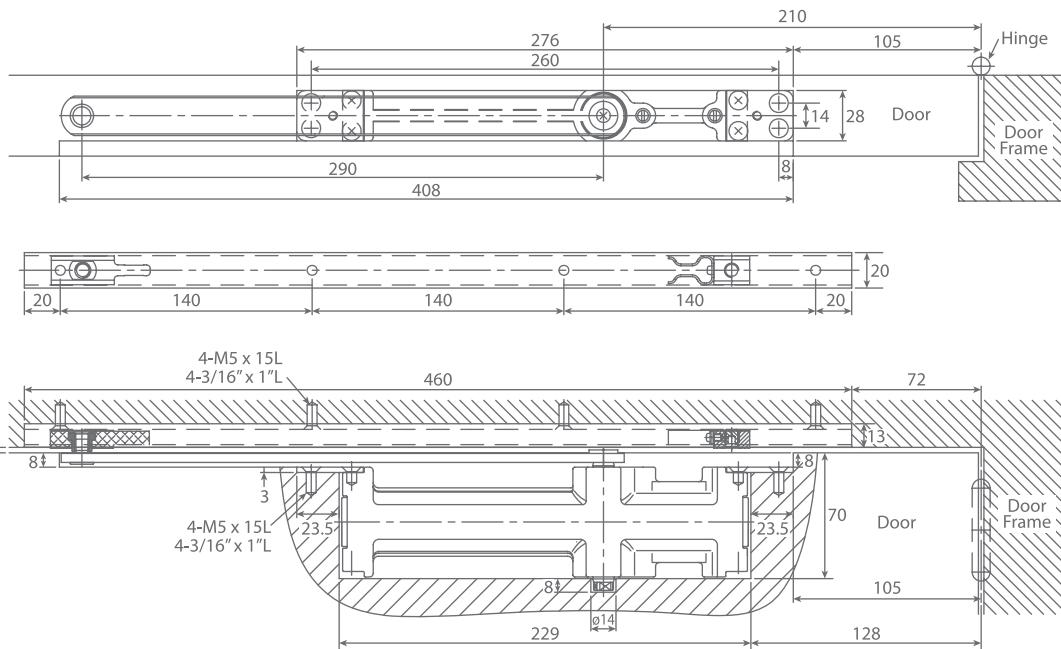


Force
-4 #2
0 #3
+6 #4

Fixing Details - Concealed Door Closers

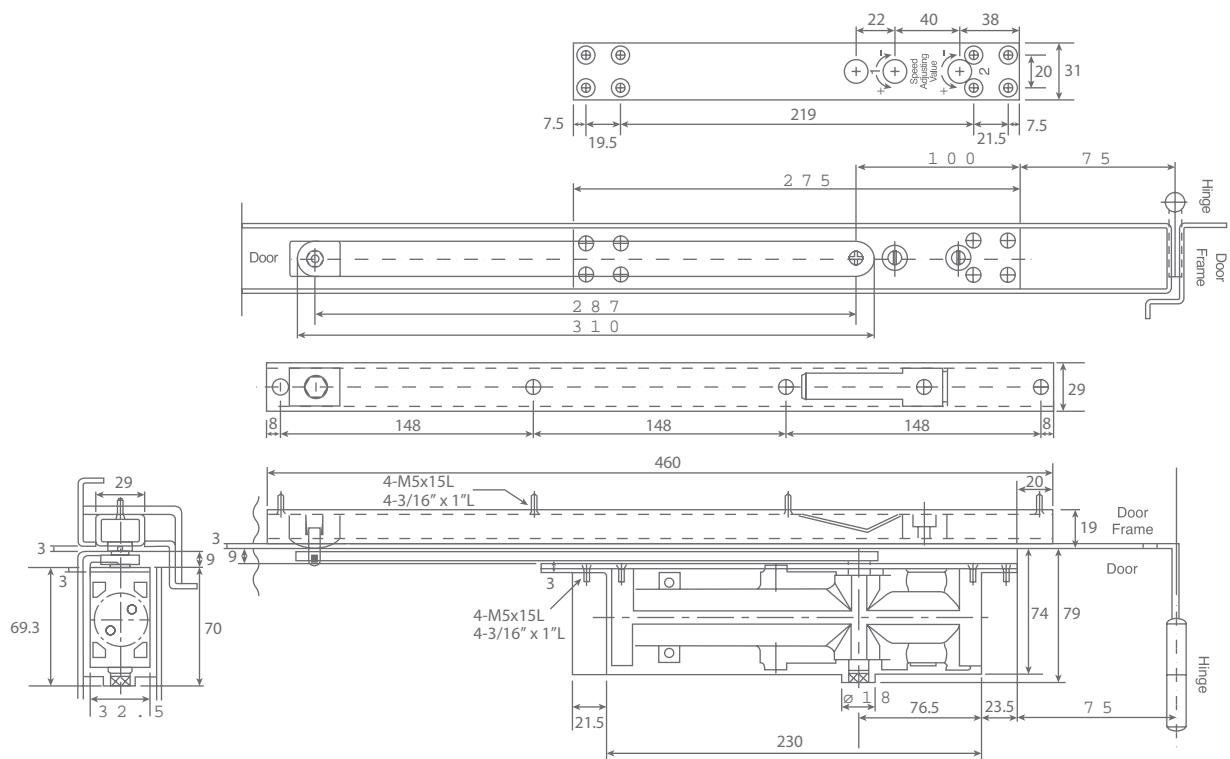
CR-280 Series

(Standard Installation)



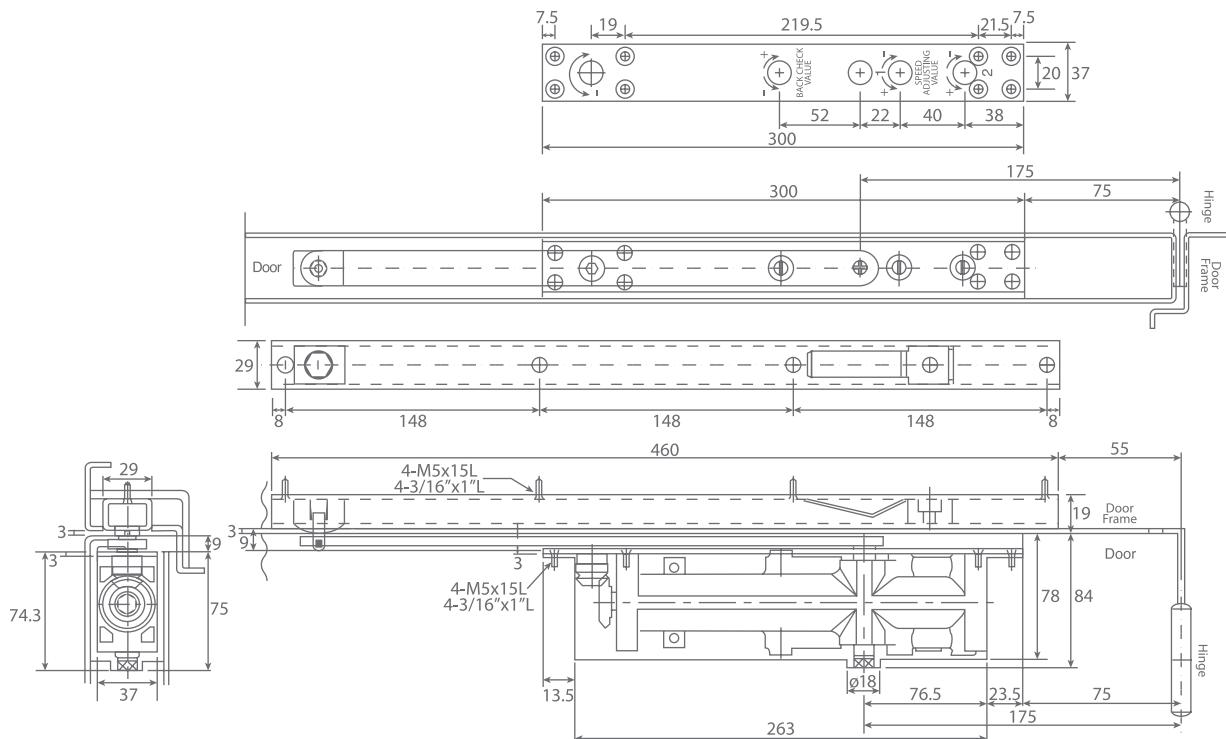
CR-380 Series

Standard Installation (Example shows left-hand LH door, RH door, mirror arrangement)



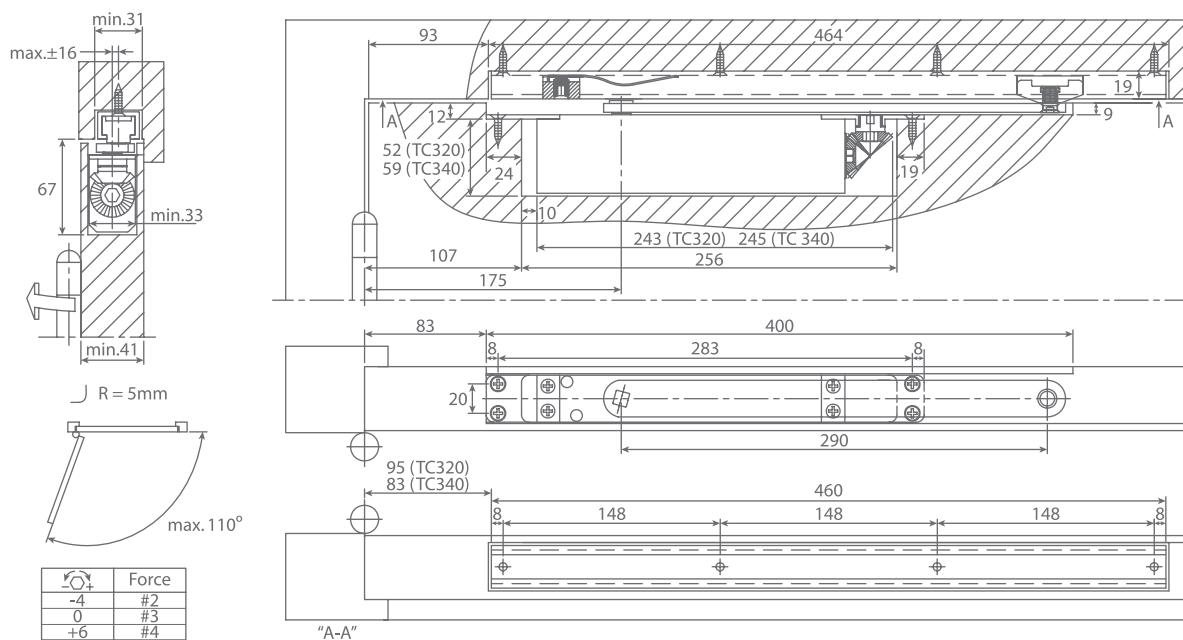
Fixing Details - Concealed Door Closers

CR-3835 Series Standard Installation (Example shows left-hand LH door, RH door, mirror arrangement)



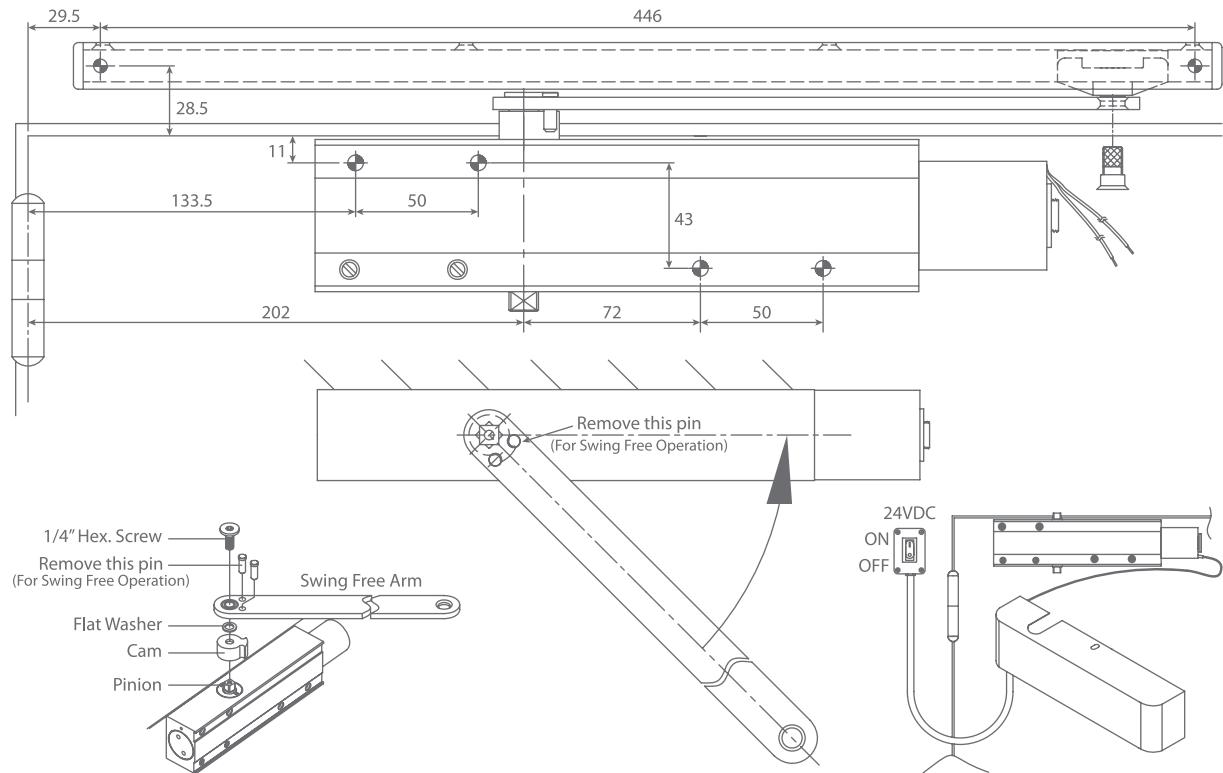
TC320 Series TC340 Series

Depending on the structural conditions, the door opening angle with this method of fixing is limited to approx 110°-115°. In order to avoid damage to the door or door closer, users are recommended to install a cushioned backstay or a door stop.

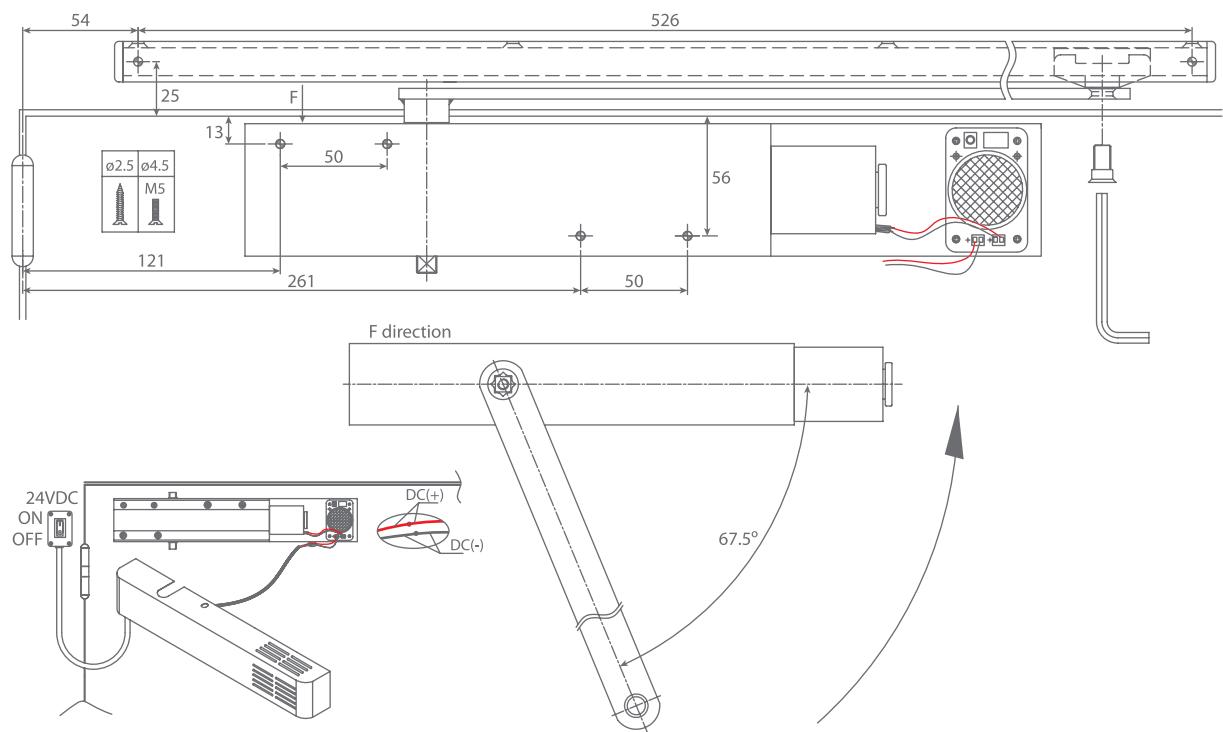


Fixing Details - Door Closers

1560 ET Series Standard installation



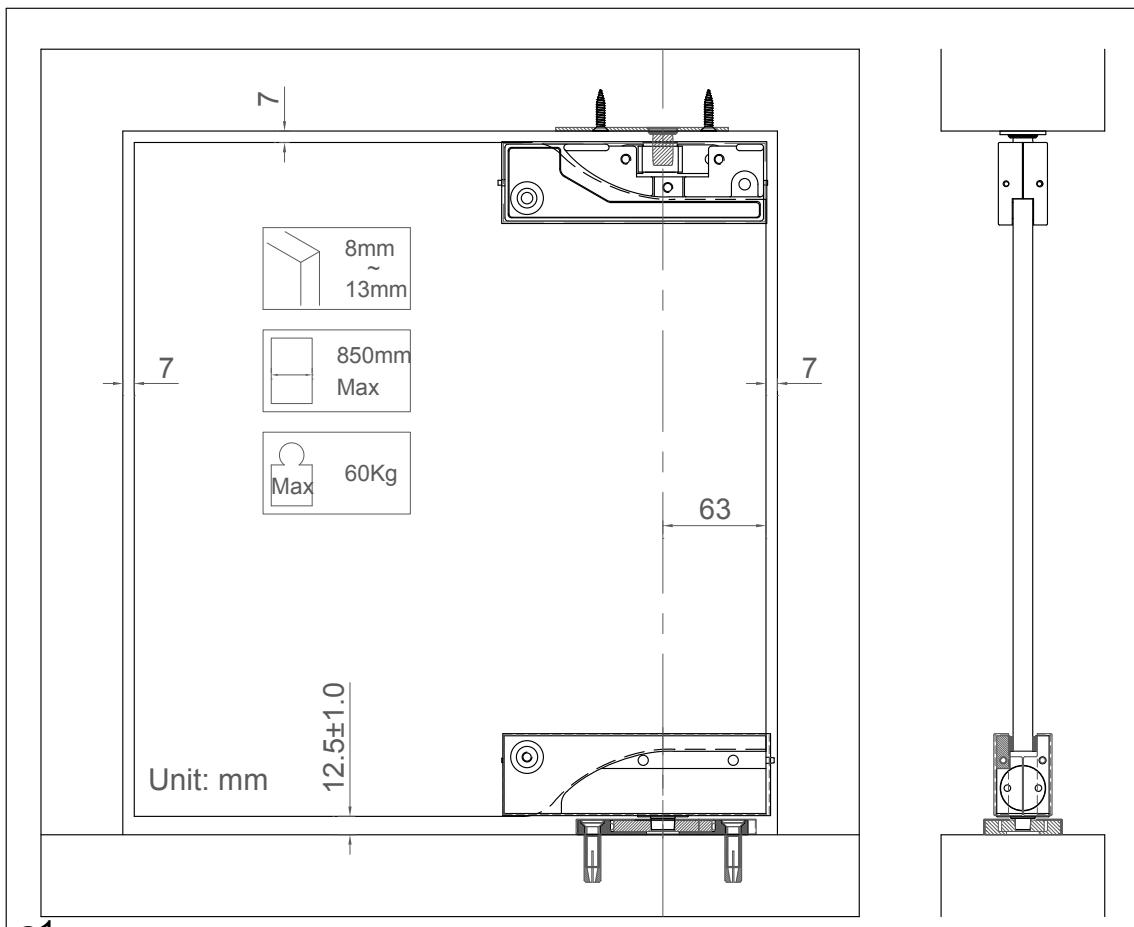
1560 EST Series Standard installation



Fixing Details - Concealed Floor Hinges

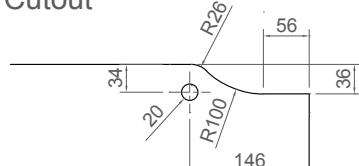
CF540 Series **NEW**

1/2



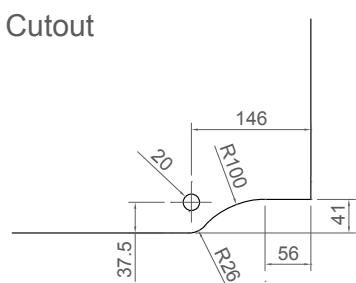
a1

Glass Cutout



a2

Glass Cutout



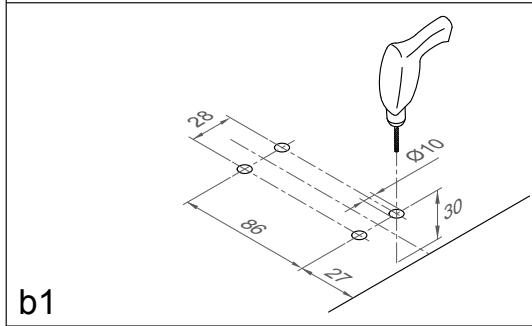
a3

Unit: mm

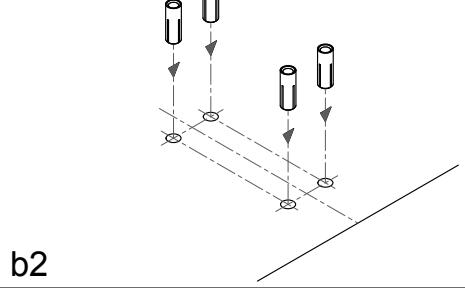
a2

a3

Unit: mm



b1

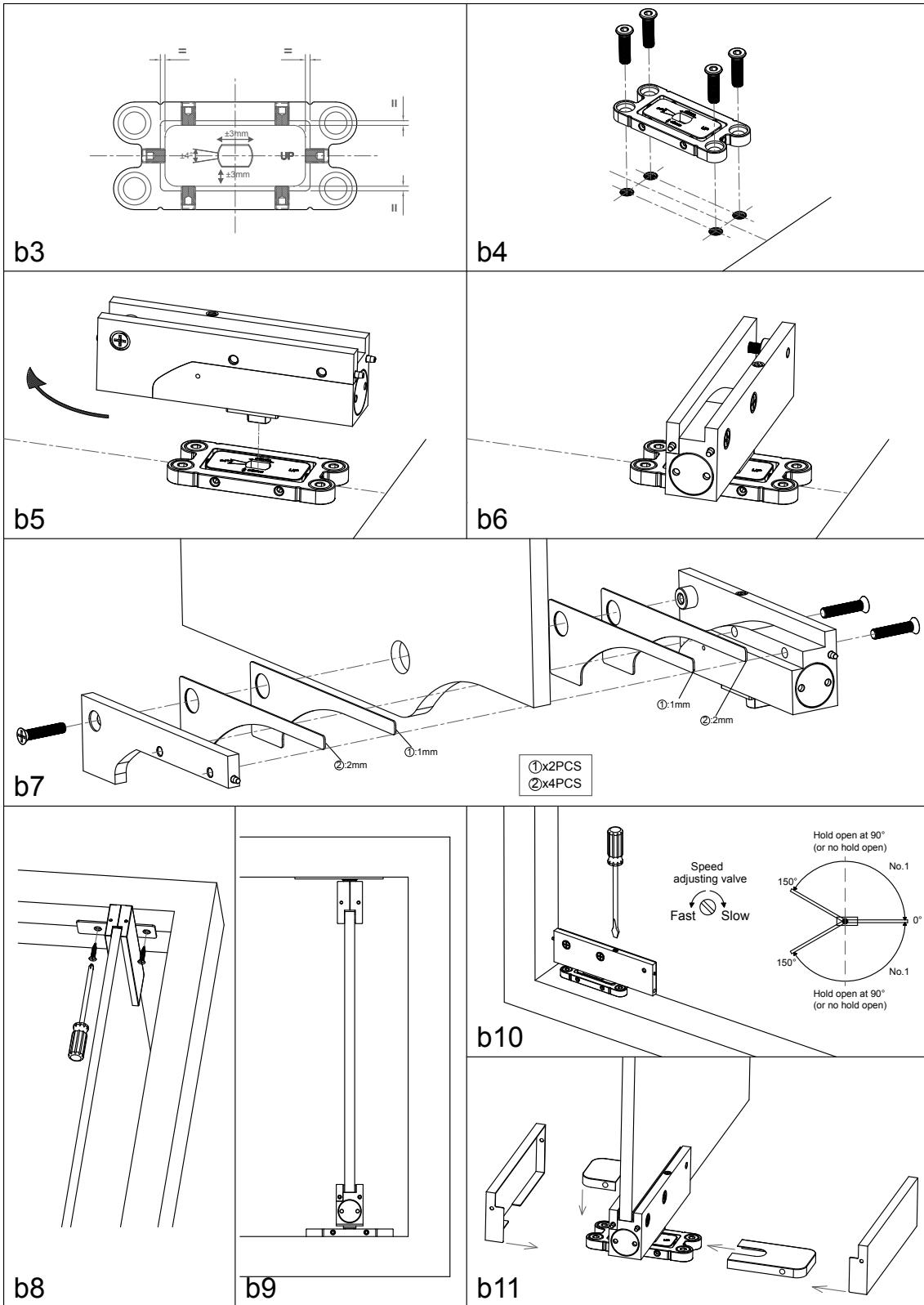


b2

Fixing Details - Concealed Floor Hinges

CF540 Series **NEW**

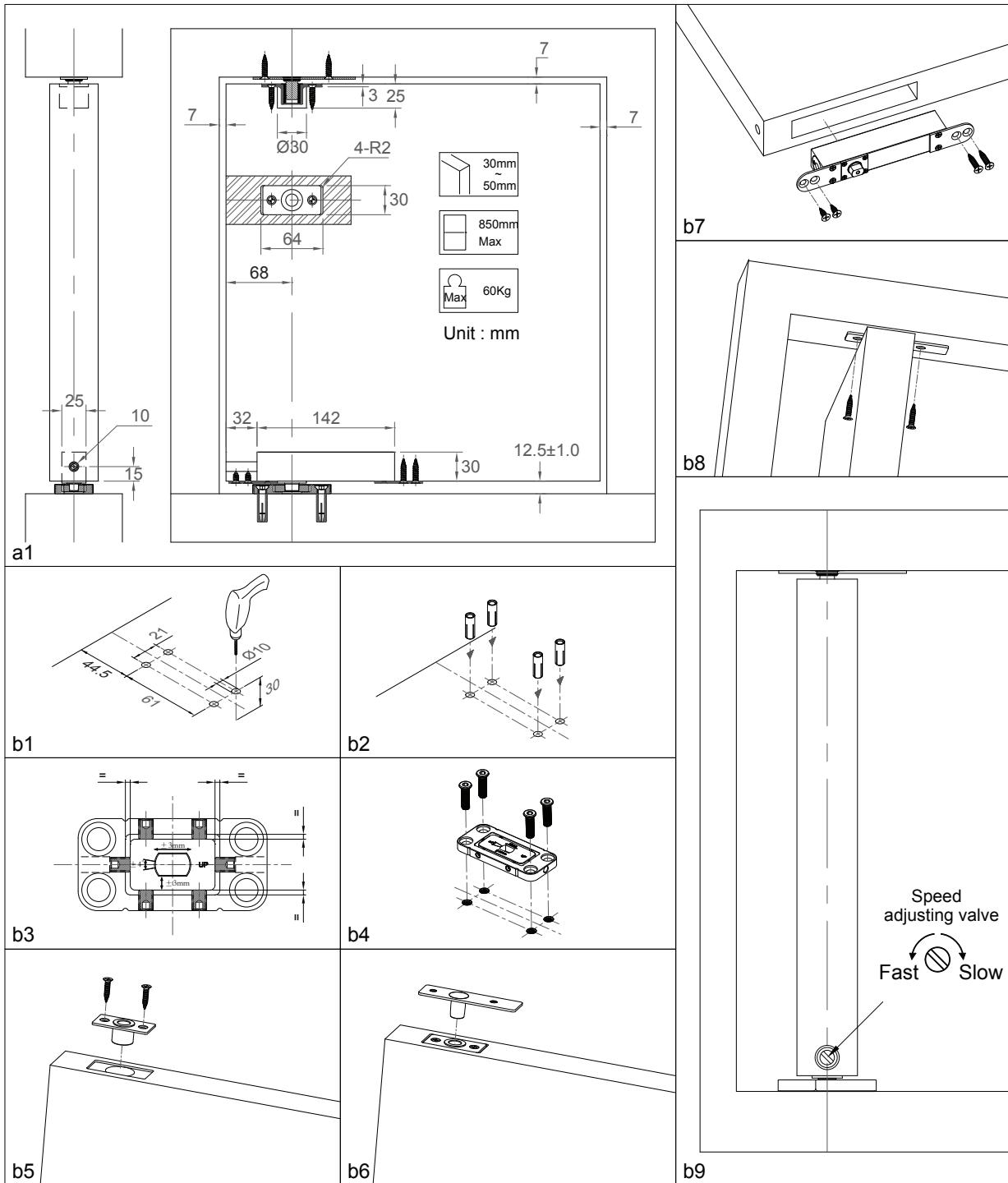
2/2



Fixing Details - Concealed Floor Hinges

CF550 Series 

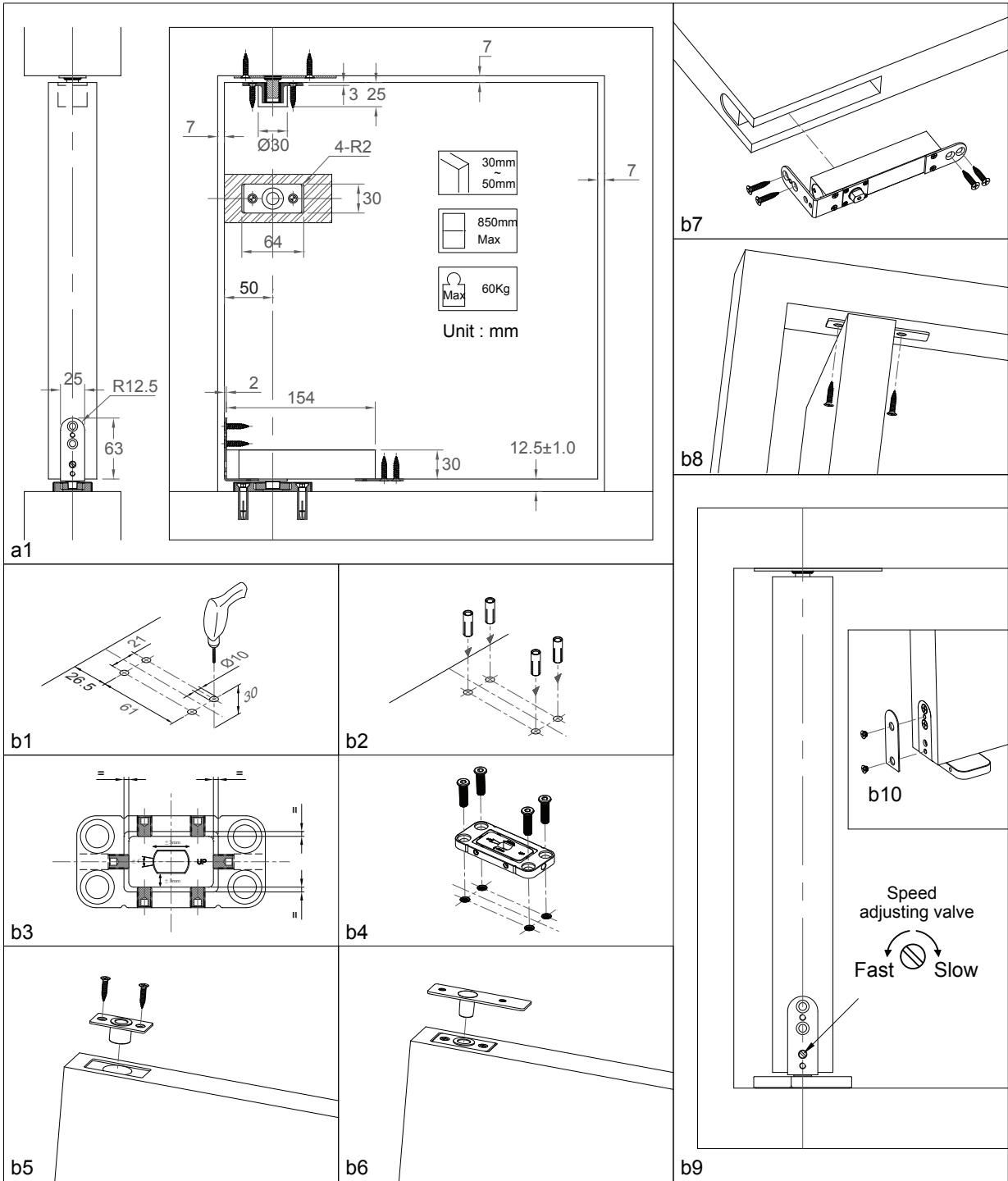
• Bottom Installation



Fixing Details - Concealed Floor Hinges

CF550 Series **NEW**

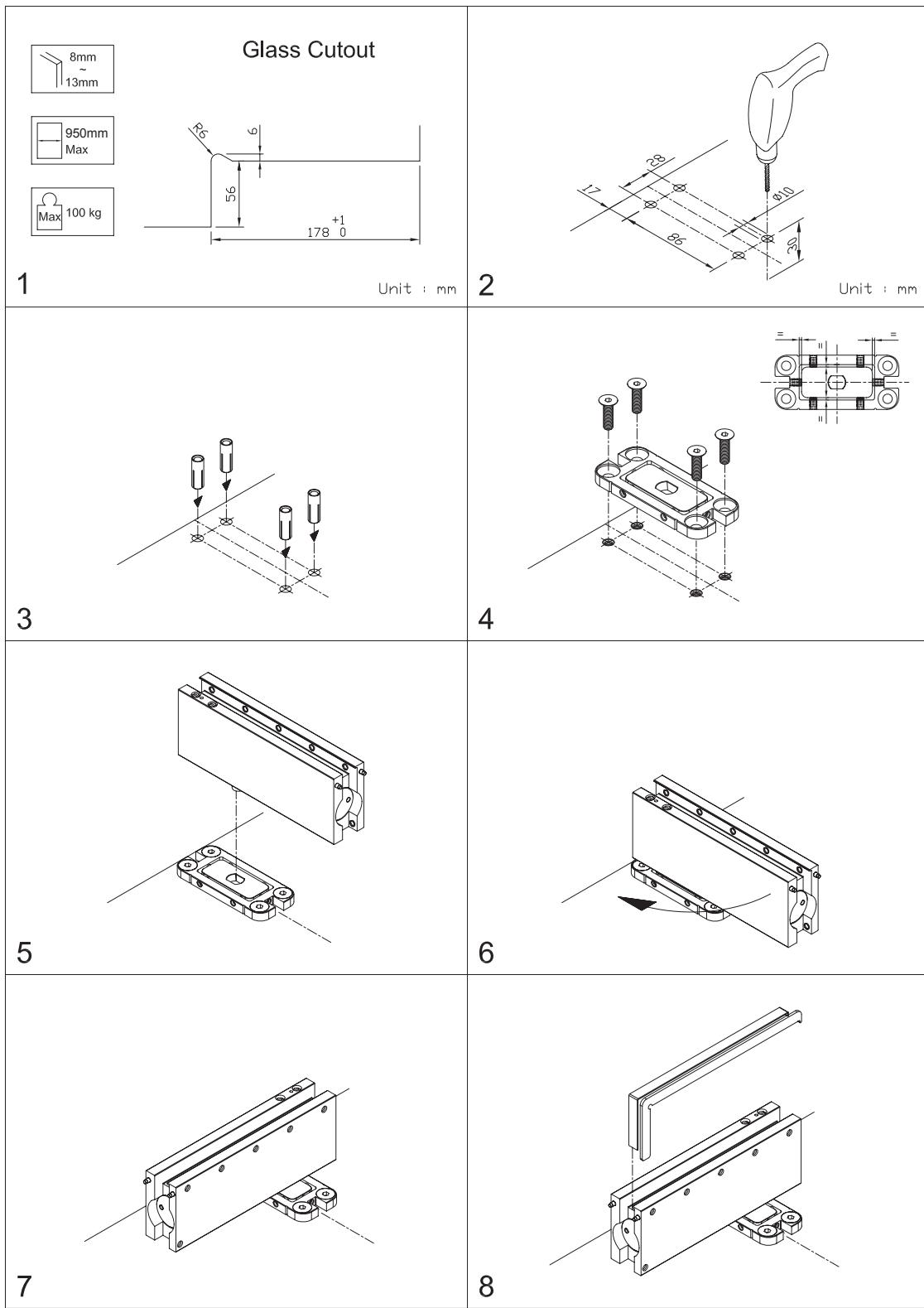
• Side Installation



Fixing Details - Concealed Floor Spring Hinges

CF560 Series Standard Installation

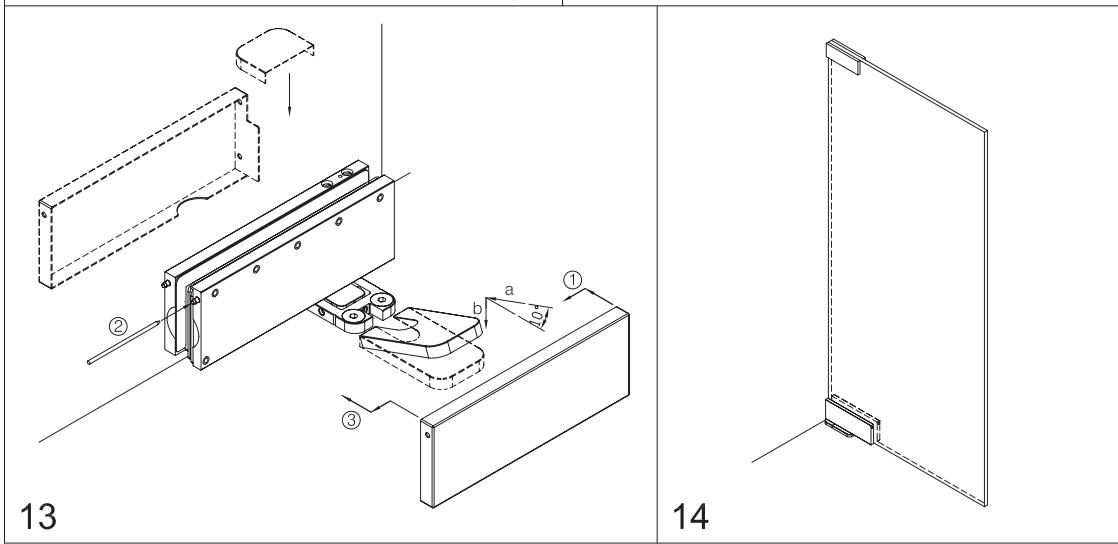
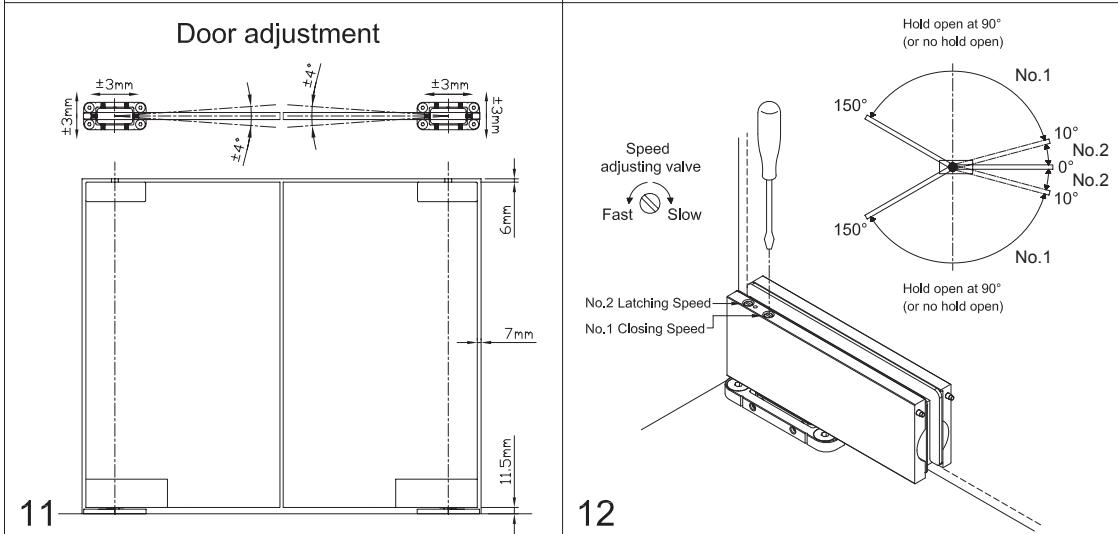
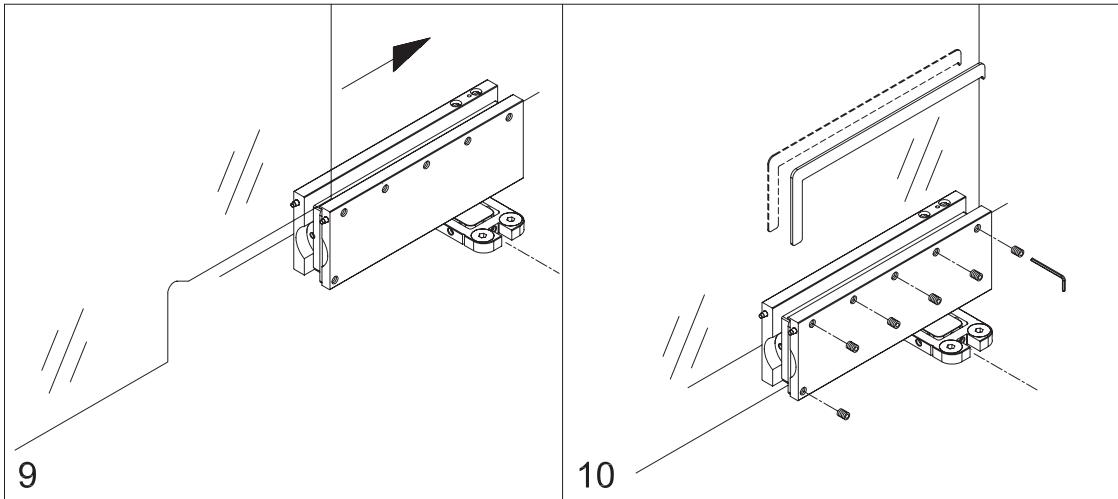
1/2



Fixing Details - Concealed Floor Spring Hinges

CF560 Series Standard Installation

2/2



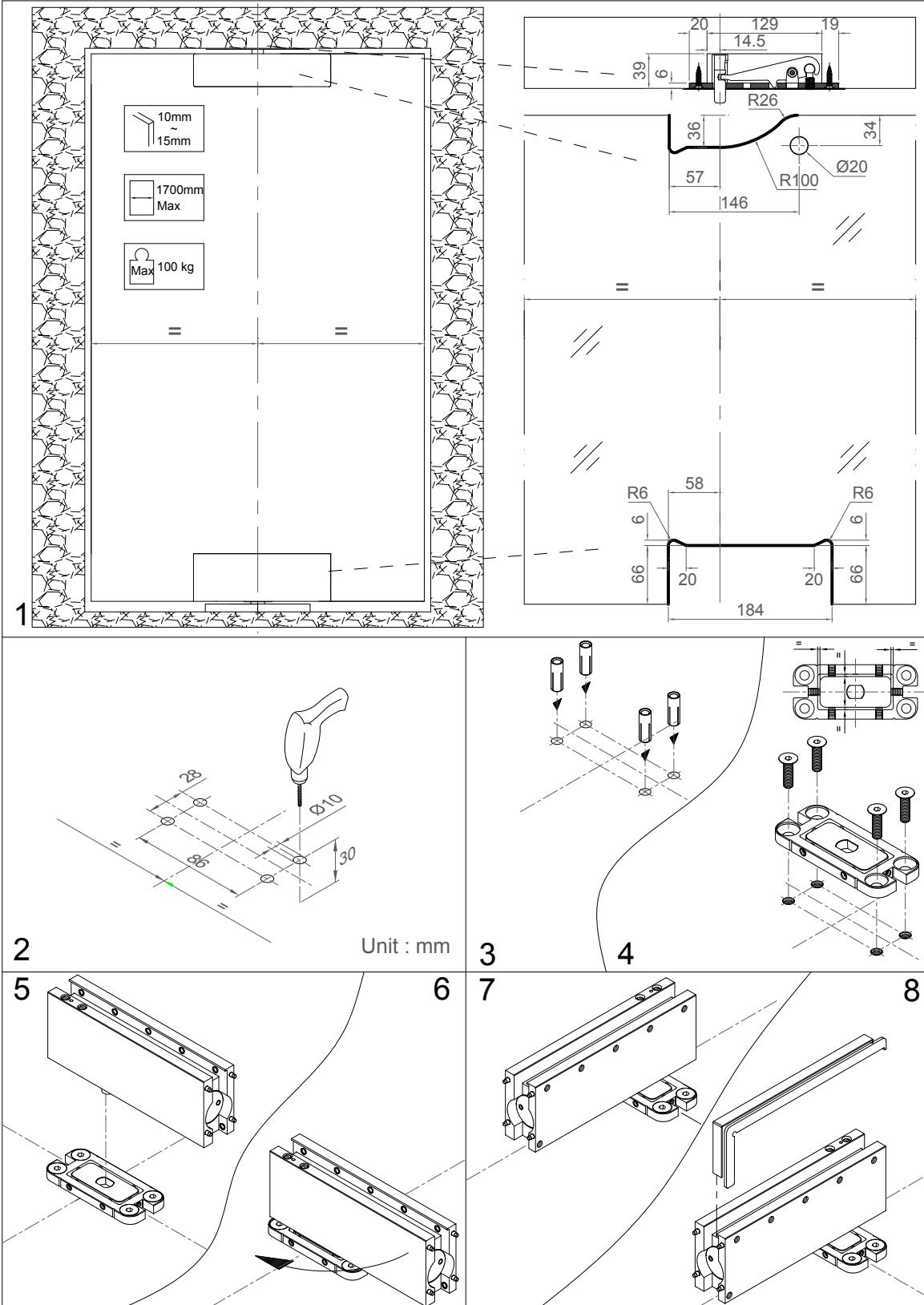
Fixing Details - Concealed Door Hinges

CF570 Series  Installation Instructions

NEW

Installation Instructions

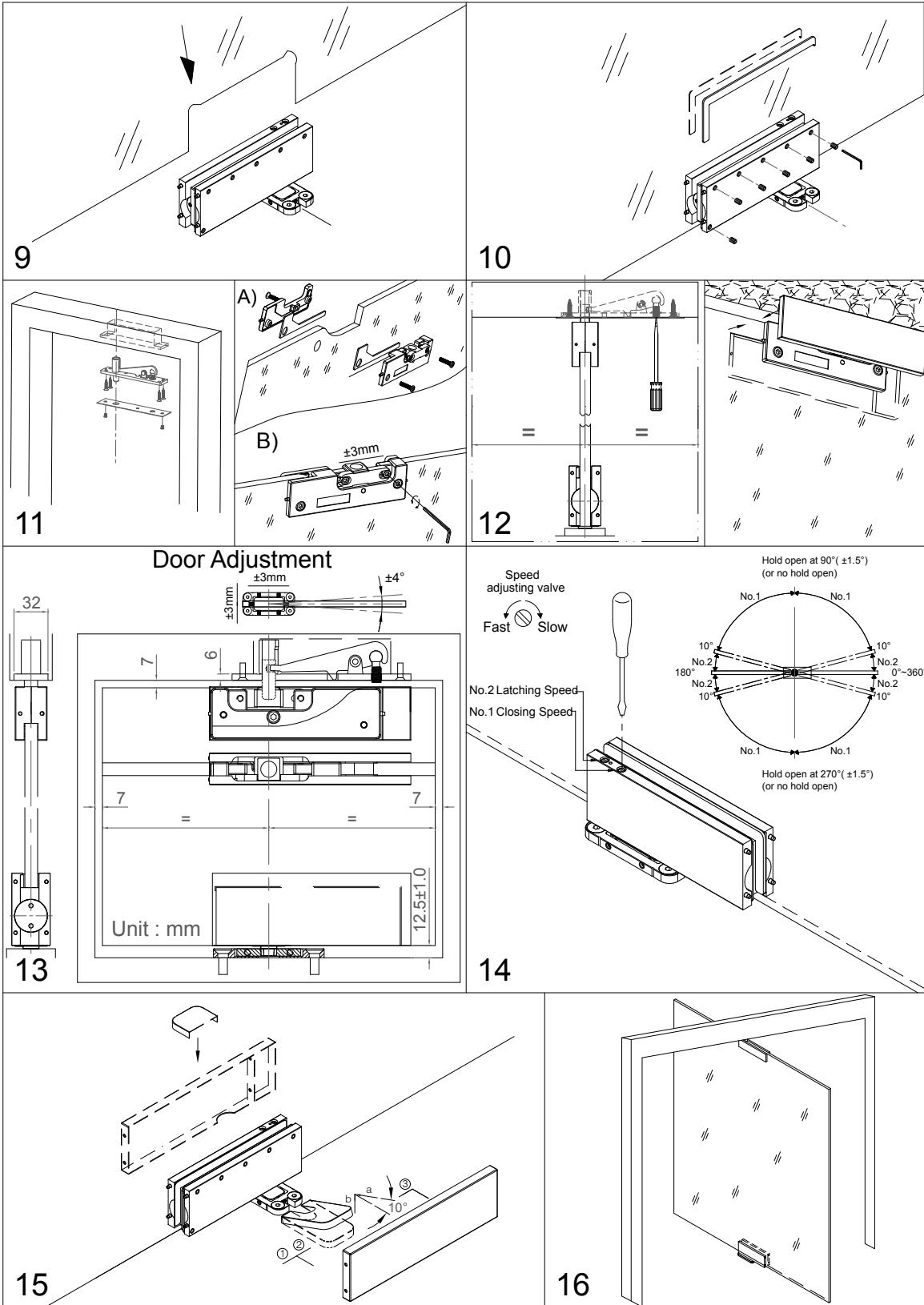
1/2



Fixing Details - Concealed Door Hinges

CF570 Series **NEW** Installation Instructions

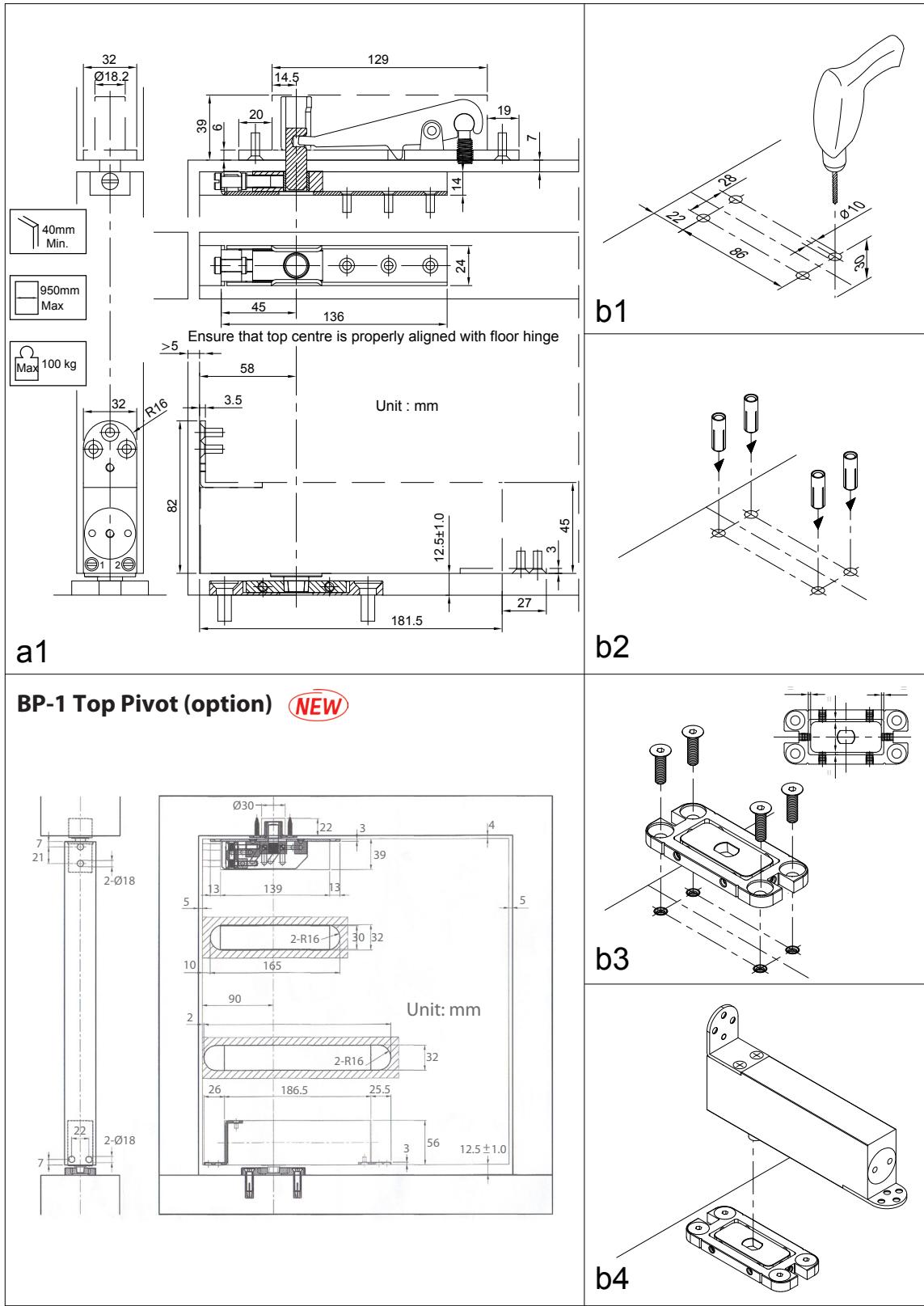
2/2



Fixing Details - Concealed Floor Hinges

CF580 Series NEW Installation Instructions

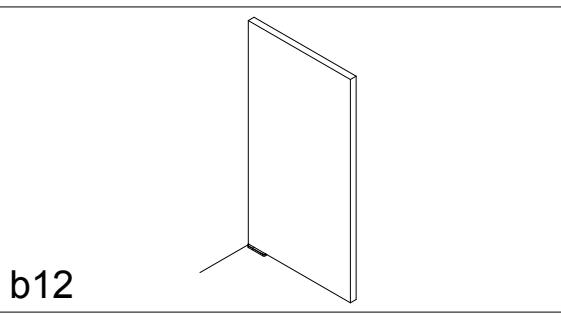
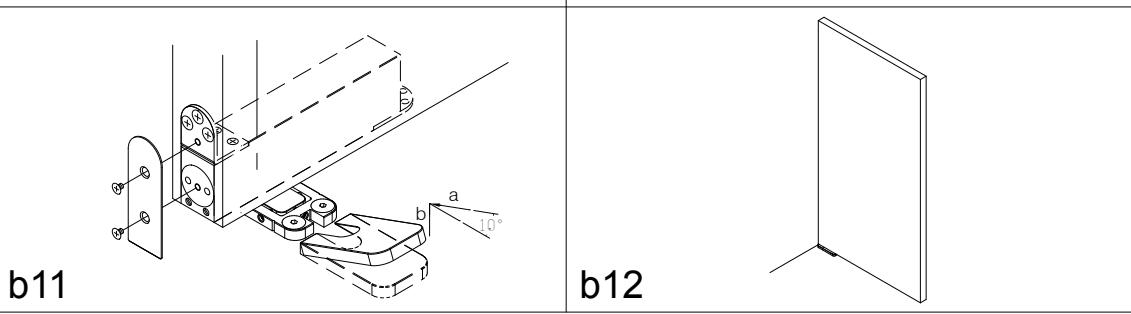
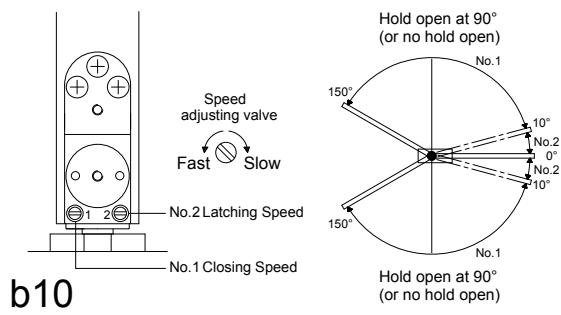
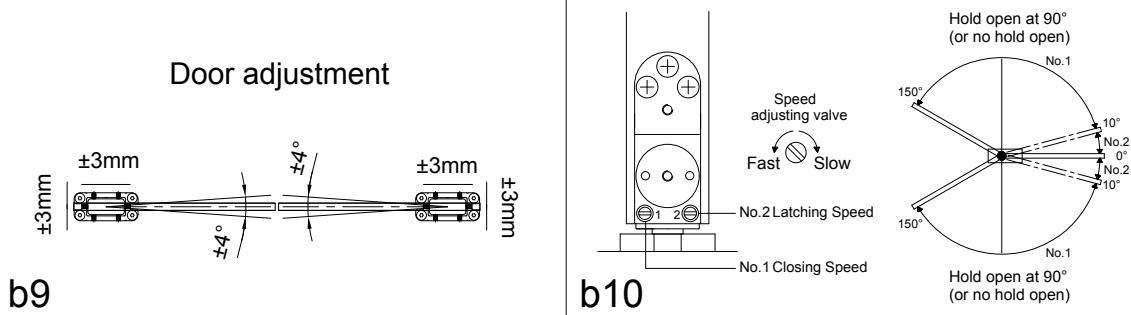
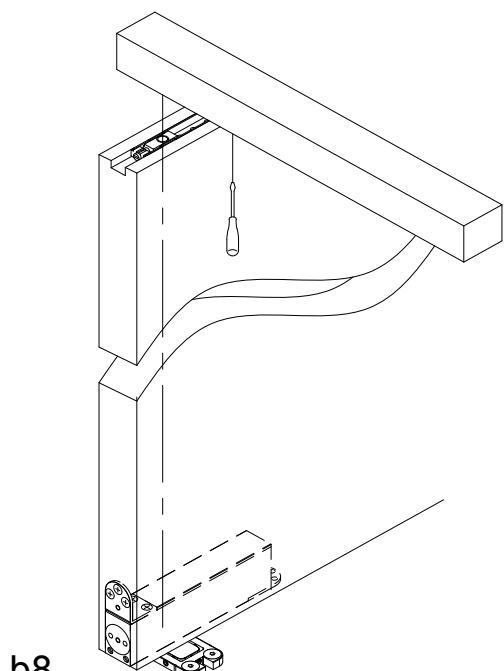
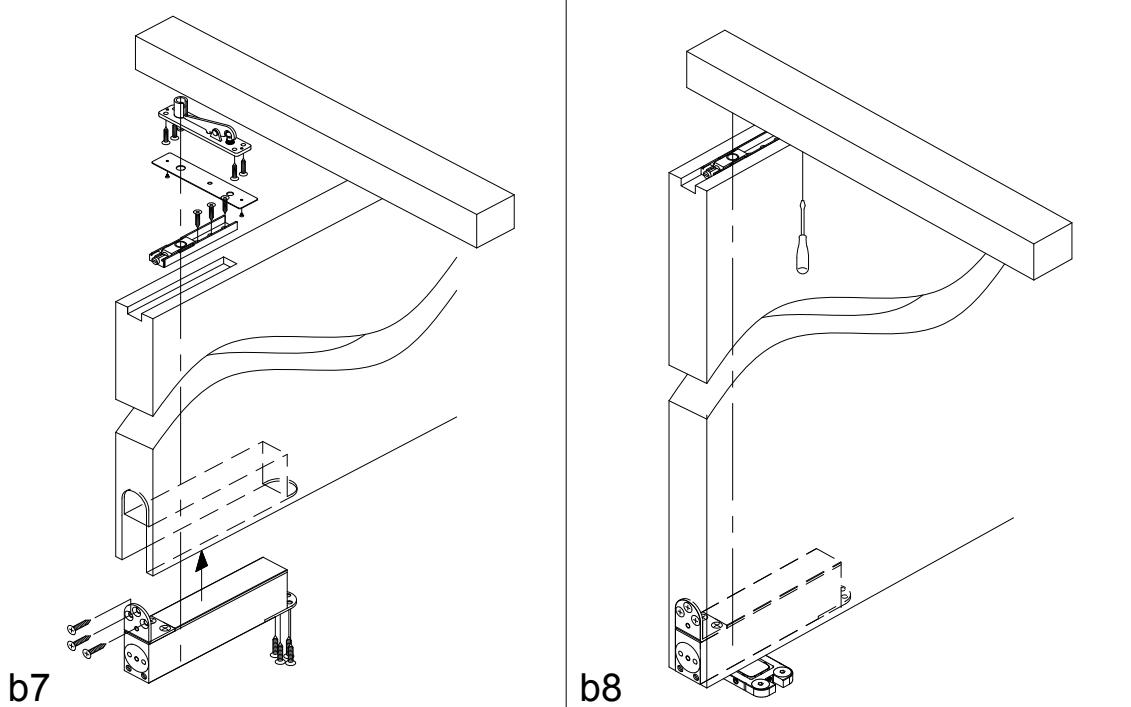
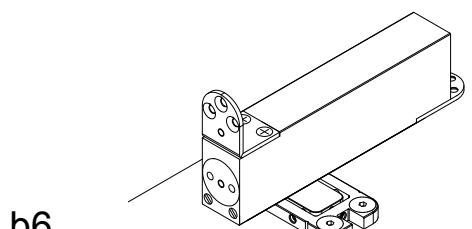
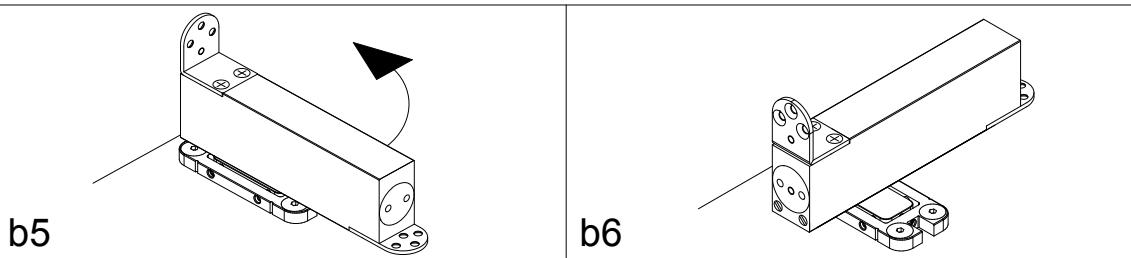
1/2



Fixing Details - Concealed Floor Hinges

CF580 Series **NEW** Installation Instructions

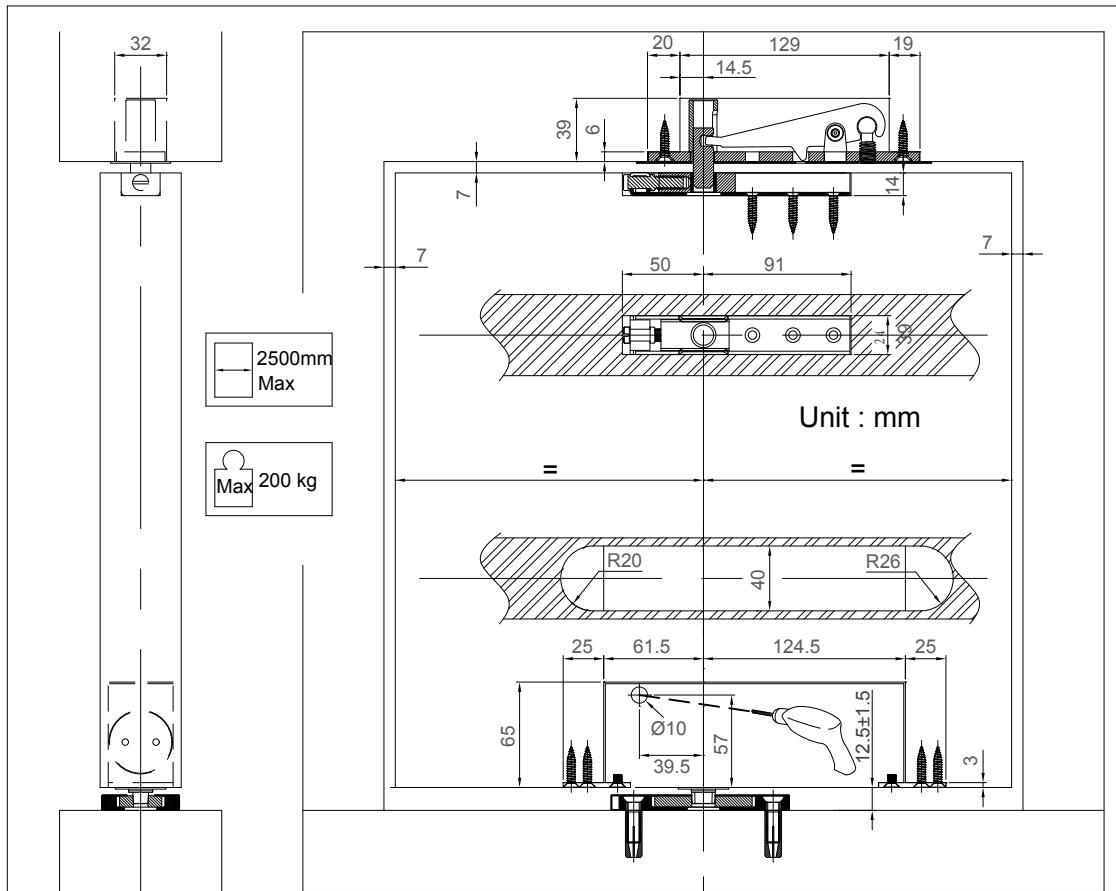
2/2



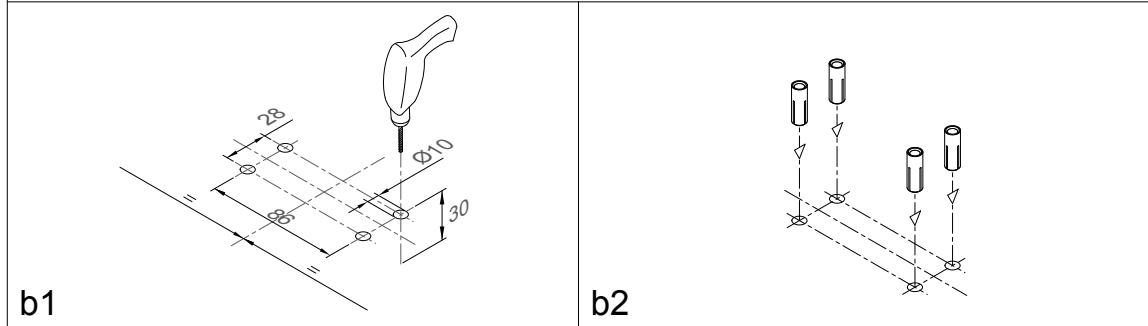
Fixing Details - Concealed Floor Hinges

CF590 Series **NEW** Installation Instructions

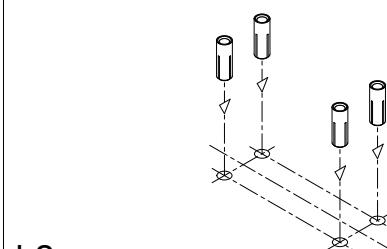
1/2



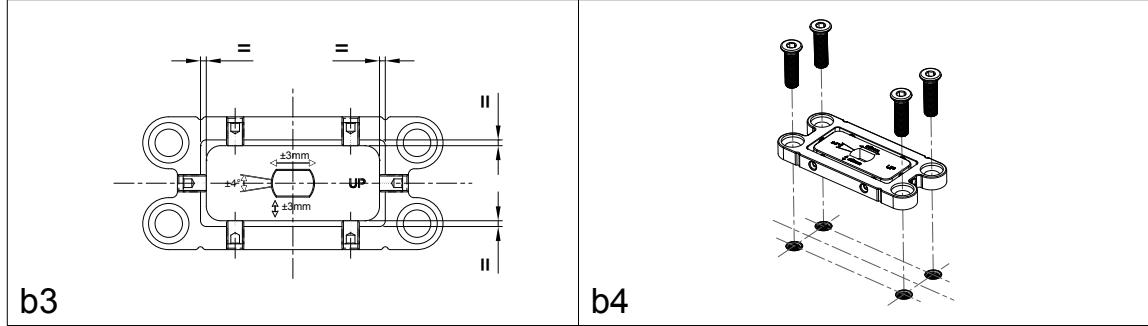
a1



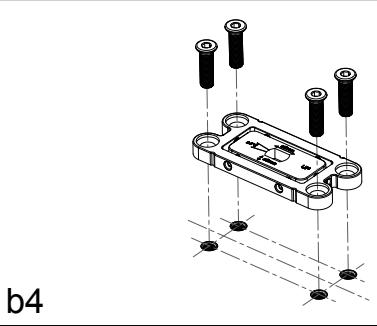
b1



b2



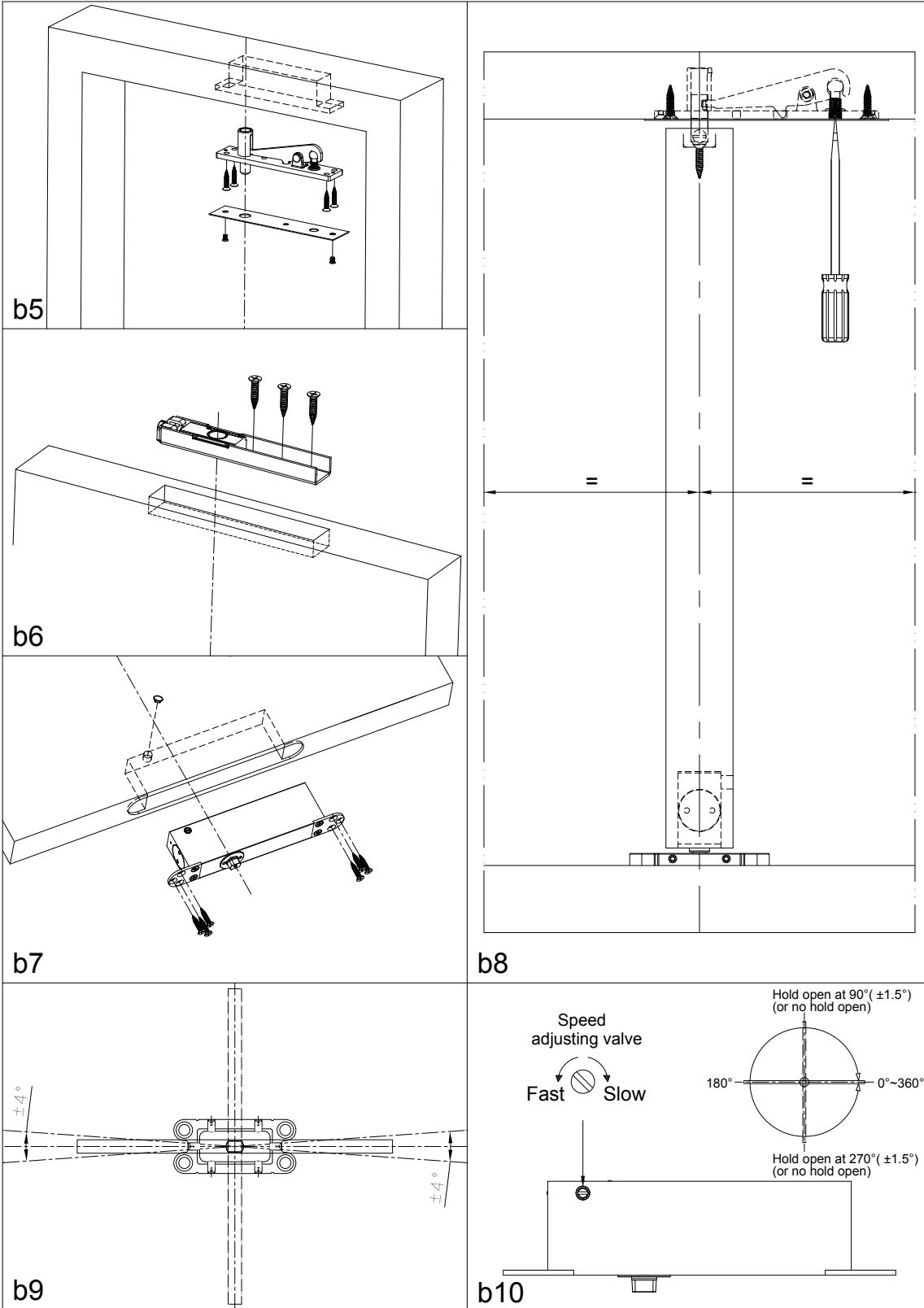
b3



Fixing Details - Concealed Floor Hinges

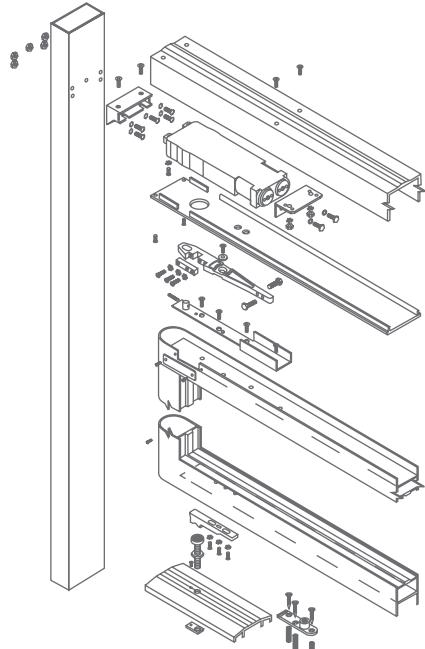
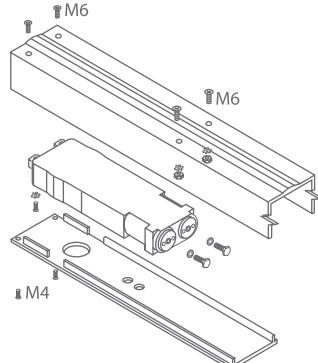
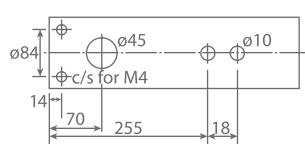
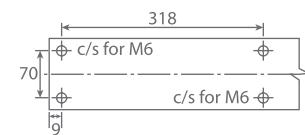
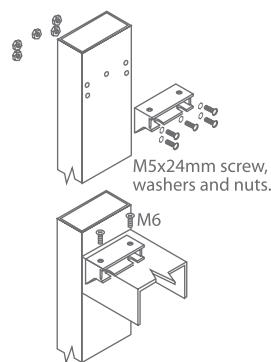
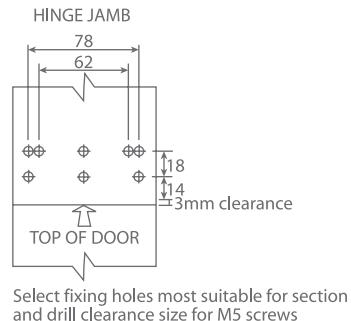
CF590 Series **NEW** Installation Instructions

2/2



Fixing Details - Transom Door Closers

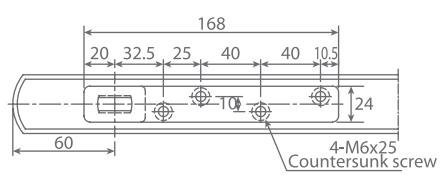
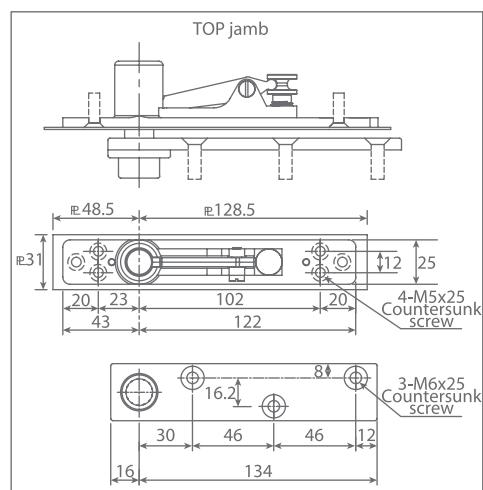
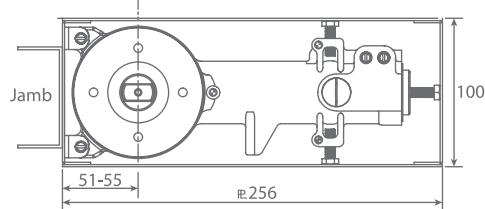
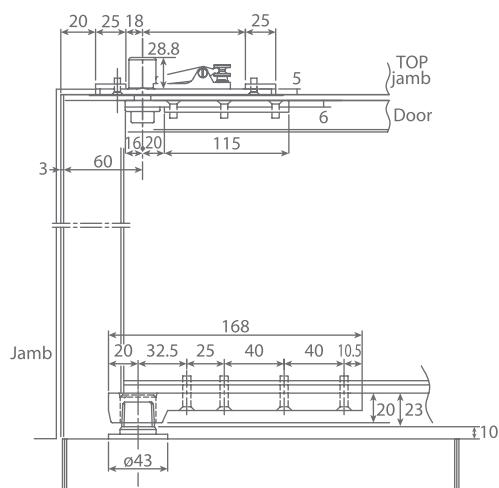
CR-360 Series Transom / Header Bar, 70mm Pivot Point



Concealed overhead door closer
Centre pivoted - double or single acting

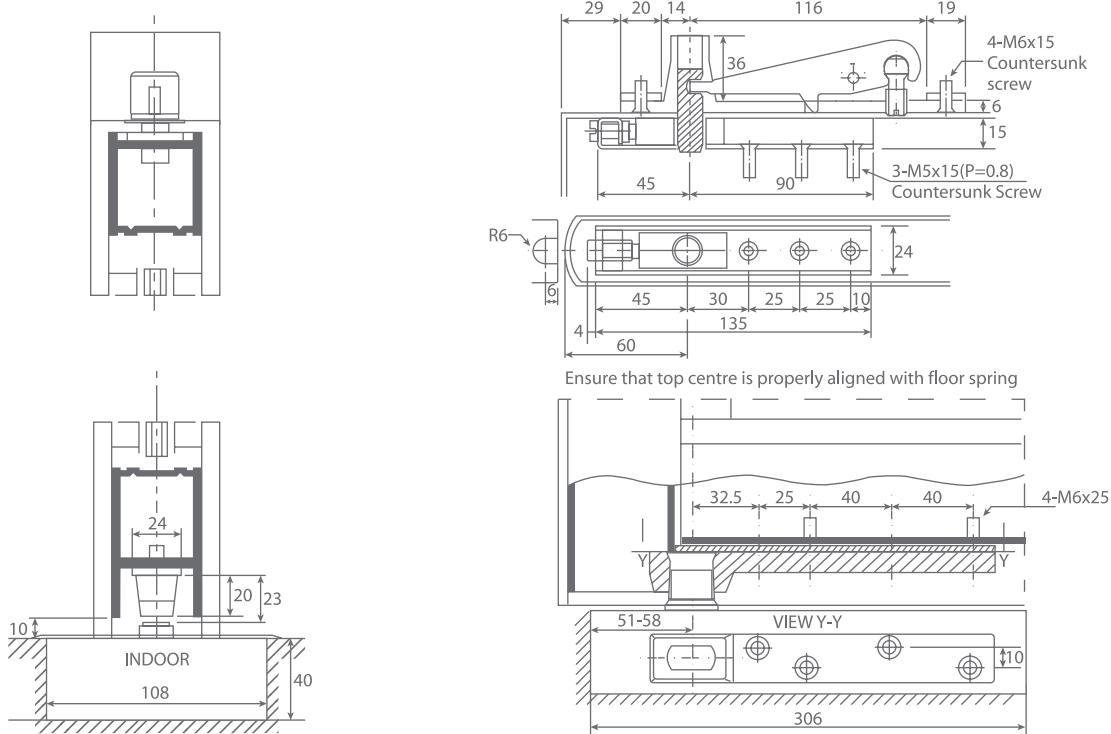
Fixing Details - Floor Spring Hinges

FH-210 Series For Centre - Hung, inward and outward opening doors



Fixing Details - Floor Spring Hinges

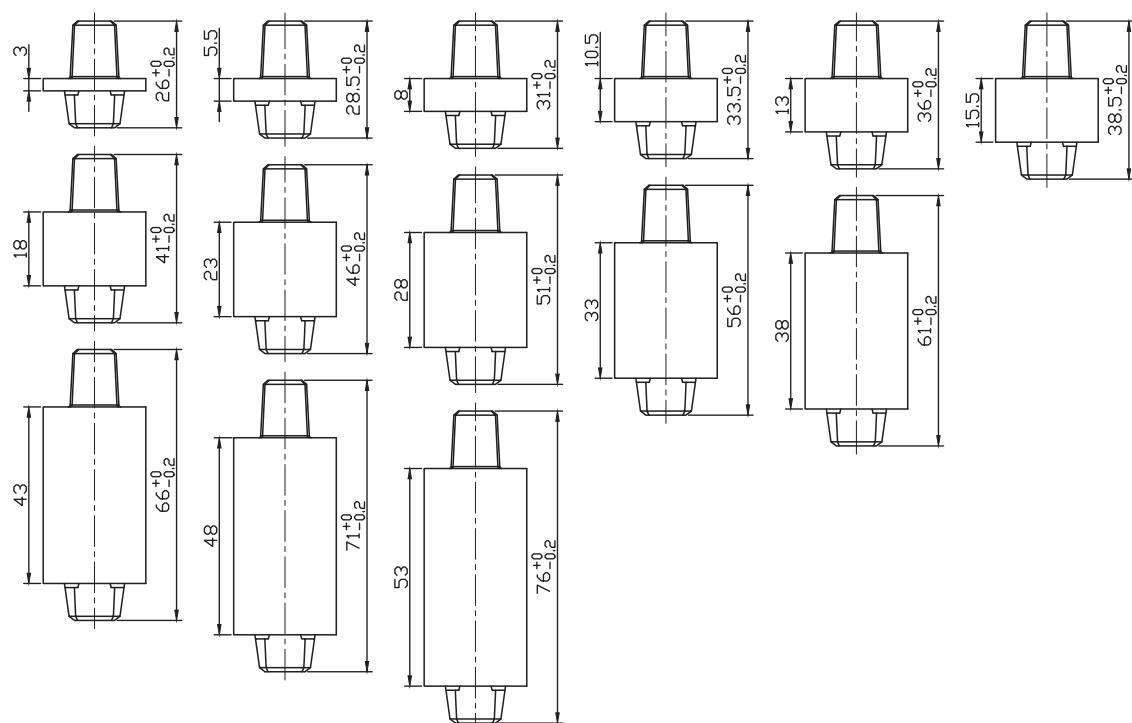
FH-300/300X Series For Centre - Hung, inward and outward opening doors



FH-300/300X Series

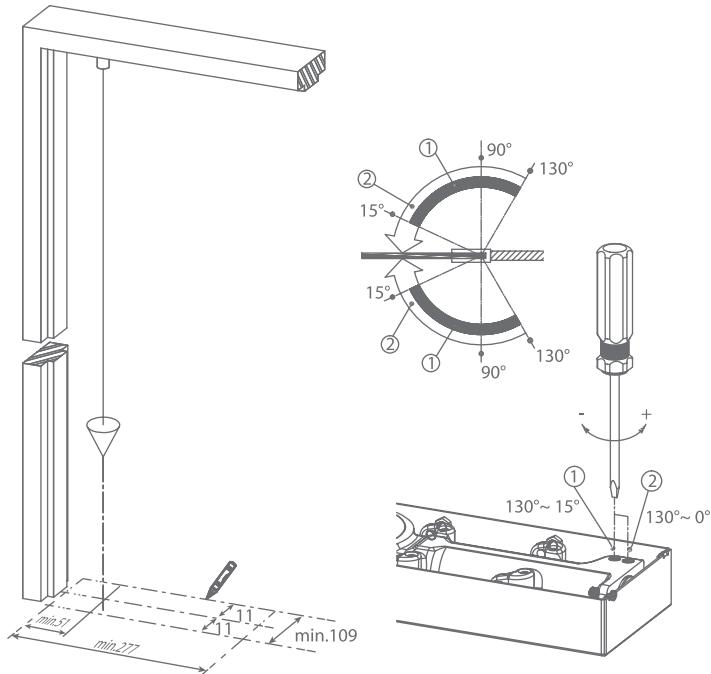
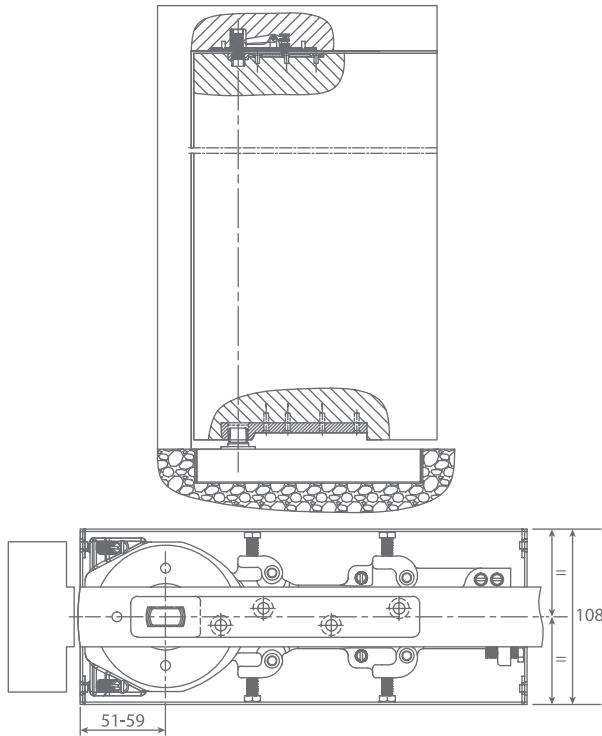
Interchangeable Shaft

Shaft height can be flexibly adjusted to accommodate different floor levels or carpet thicknesses.



Fixing Details - Floor Spring Hinges

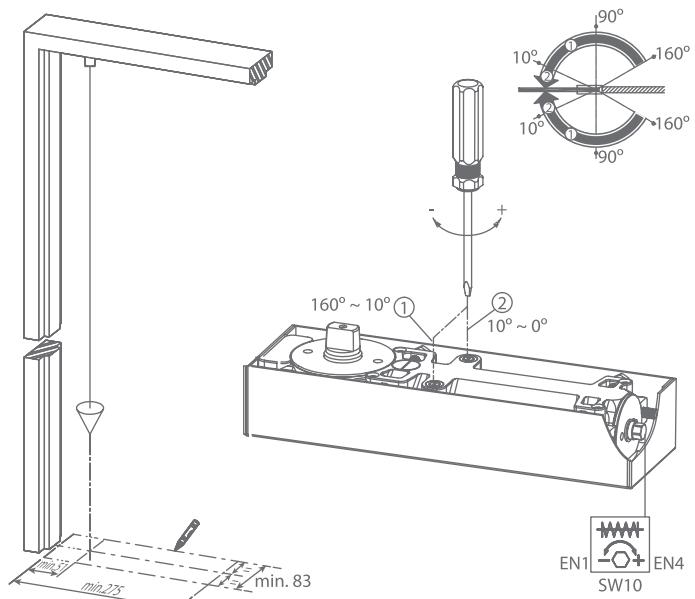
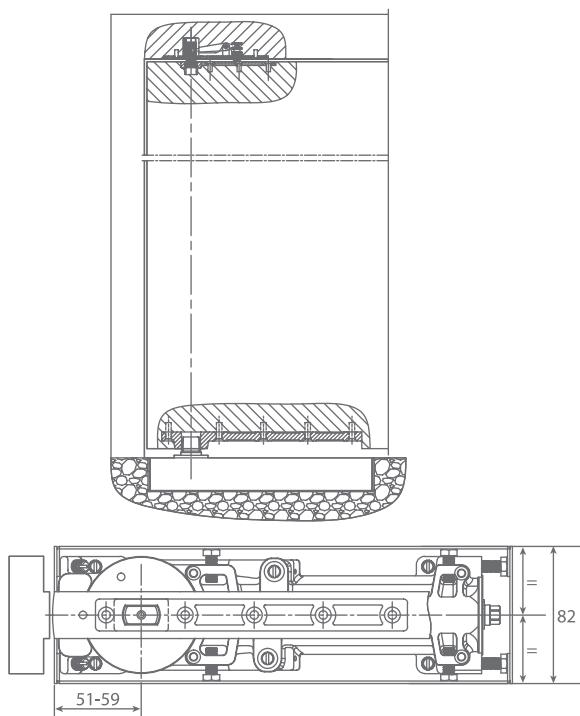
FH-410 Series For Centre - Hung, inward and outward opening doors



Please refer to the drawing for the location and dimension for installation. Measure and adjust the alignment of the top pivot pin and the spindle of the floor spring.

Adjust the closing speed to the required. But do not over turn anticlockwise more than one turn to avoid damage which might cause the leakage.

FH-700 Series For Centre - Hung, inward and outward opening doors

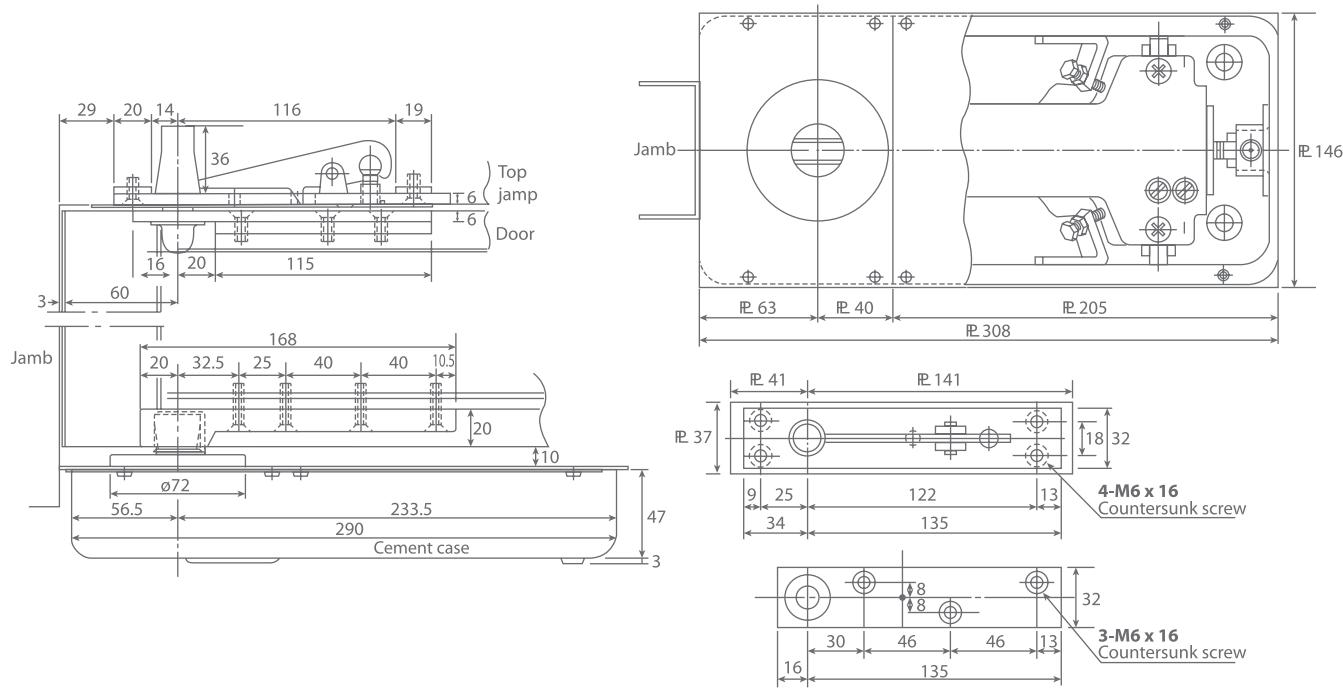


2-4 MODEL	size	no. of turns	direction
	2	4	-
	3	0	*
	4	7	+

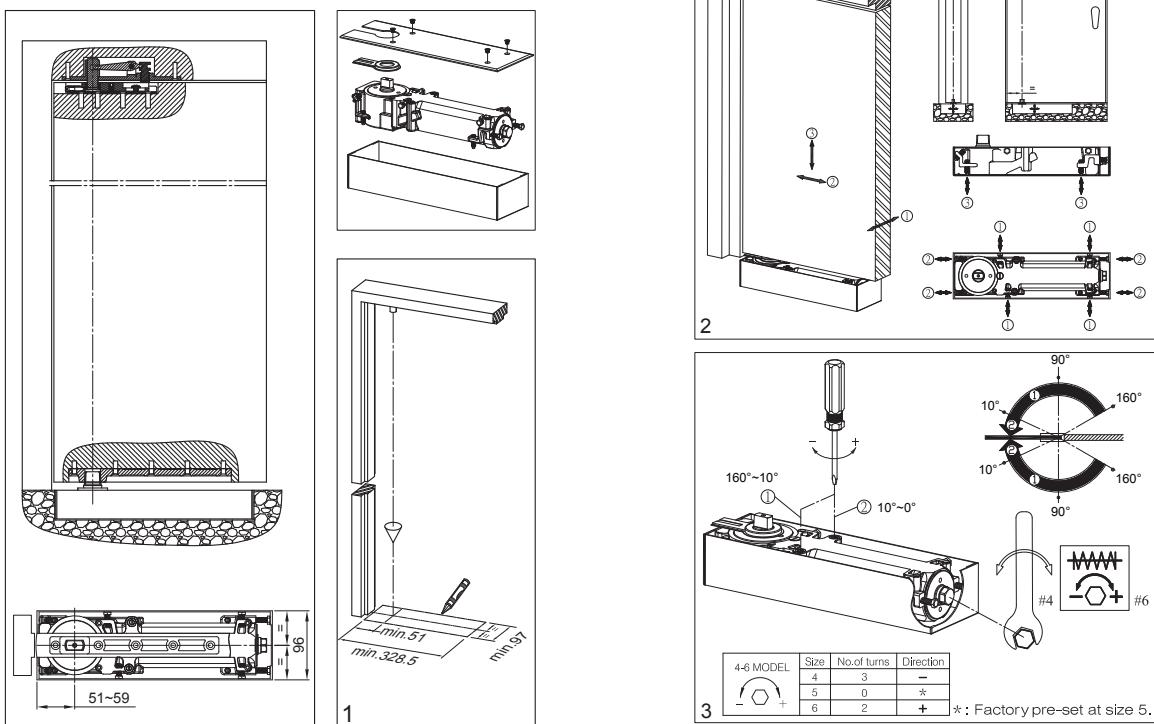
* Factory pre-set at size 3.

Fixing Details - Floor Spring Hinges

FH-800 Series For Centre - Hung, inward and outward opening doors

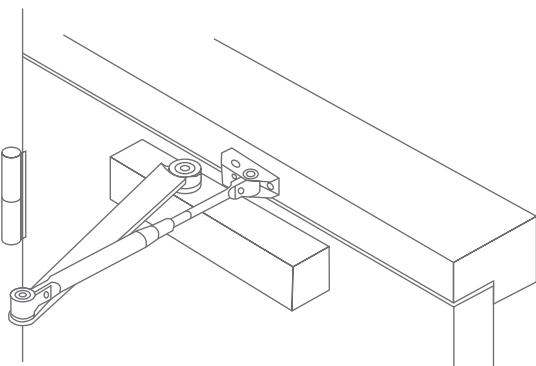


FH-900 Series For Centre - Hung, inward and outward opening doors

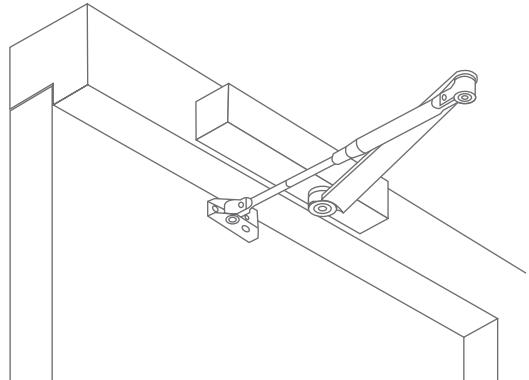


Installation Instructions

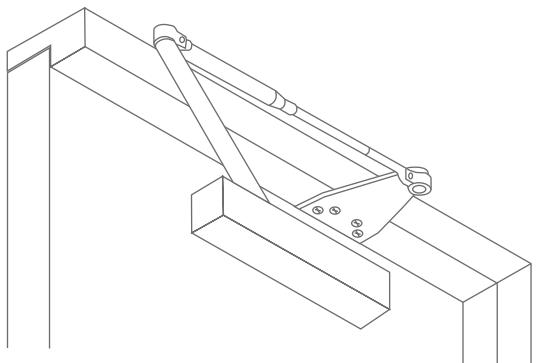
Standard Arm Installation



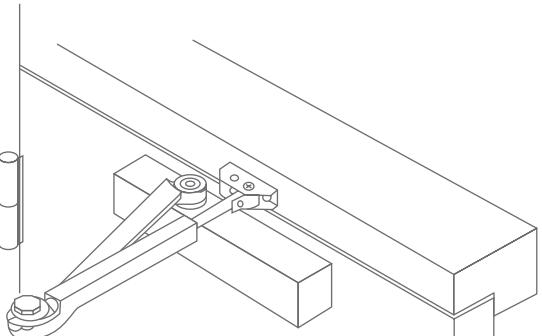
Top Jamb Installation



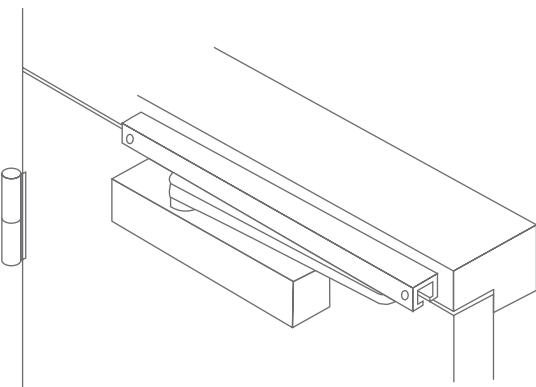
Parallel Arm Installation



Hold-Open Arm Installation



Track Arm Installation,
Jamb Mounted Track (TA)



Track Arm Installation,
Door Mounted Track (TA)

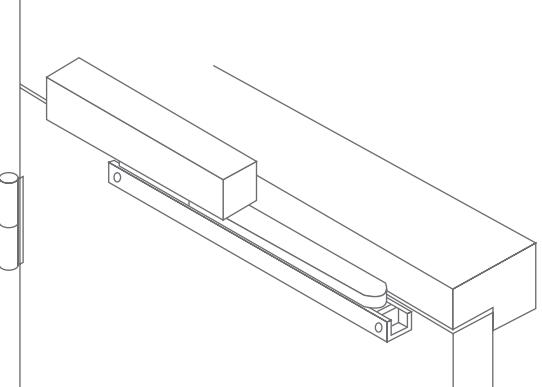


Table of Closing Devices

Series No.	Hold Open		Back Check		Delayed Action	S.S. Cover	Power Adjustable		Available Size
	Build-in	Hold-Open Arm	Adjustable At Valve	Self-Regulating			By Position	By Spring	
DOOR CLOSERS									
1000		●	●				●		#2, #3, #4
1500		●	●		●	●		●	#2, #3, #4, #5
1550		●	●		●	●		●	#2, #3, #4, #5, #6
1600		●	●		●	●		●	#2, #3, #4, #5
1650		●	●		●	●	●		#2, #3, #4
2000	●	●	●			●	●		#2, #3, #4, #5
5000		●	●		●		●		#2, #3, #4, #5, #6
7000	●	●	●				●		#2, #3, #4
8200	●	●	●				●		#2, #3, #4
8300		●				●	●		#1, #2, #3, #4
8325		●	●			●		●	#2, #3, #4, #5
8336		●	●			●		●	#3, #4, #5, #6
TS320		●	●			●		●	#2, #3, #4
TS340		●	●			●		●	#2, #3, #4, #5
CONCEALED DOOR CLOSERS									
CR-280		●							#2, #3
CR-380		●							#2, #3
CR-3835		●	●					●	#3, #4, #5
TC320		●	●					●	#2, #3, #4
TC340		●	●					●	#2, #3, #4, #5
ELECTRO-MAGNETIC DOOR CLOSERS									
1560	●					●		●	#3, #4, #5, #6
CONCEALED FLOOR SPRING HINGES									
CF540	●					●			≤60kg
CF550	●					●			≤60kg
CF560	●					●			≤100kg
CF570	●					●			≤100kg/200kg
CF580	●					●			≤100kg
CF590	●					●			≤100kg/200kg
TRANSOM DOOR CLOSERS									
CR-360	●		●		●				#2, #3, #4
FLOOR SPRING HINGES									
FH-210	●					●			#2, #3, #4
FH-300	●		●		●	●			#2, #3, #4, #5
FH-410	●					●			#2, #3, #4
FH-700	●					●		●	#2, #3, #4
FH-800	●					●			#2, #3, #4
FH-900	●					●		●	#4, #5, #6

Table of Test Reports

Series No.	Warrington FIRE research CONSULTANCY - TESTING WARRS No. 111592	BS EN 1154 1997 / A1:2002	bsi. BS EN1634-1:2014	UL®	GA GA/T93-2004 FIRE PROOF DOOR CLOSER	QB QB/T3884-1999 Floor Hinges QB/T3893-1999 Door Closer
DOOR CLOSERS						
1000	EN Fire		BS EN	UL	GA	
1500	EN Fire	482113	BS EN		GA	
1550	EN Fire	482113	BS EN		GA	
1600	EN Fire	482113	BS EN	UL	GA	
1650	EN Fire	482113	BS EN	UL	GA	
2000	EN Fire	EN1154	BS EN		GA	
5000	EN Fire	483113	BS EN		GA	
7000	EN Fire	EN1154	BS EN	UL	GA	
8200	EN Fire	EN1154	BS EN	UL	GA	
8300	EN Fire	483113 482113	BS EN	UL	GA	QB
8325	EN Fire	483113 482113	BS EN	UL	GA	QB
8336	EN Fire	483113 482113	BS EN	UL	GA	QB
TS320	EN Fire	382113 382113	BS EN	UL		
TS340	EN Fire	382113 382113	BS EN	UL		
CONCEALED DOOR CLOSERS						
CR-280	EN Fire	EN1154	BS EN			
CR-380	EN Fire	EN1154	BS EN	UL	GA	QB
CR-3835	EN Fire	EN1154	BS EN		GA	
TC320	EN Fire	382113 382113	BS EN	UL		
TC340	EN Fire	382113 382113	BS EN	UL		
ELECTRO-MAGNETIC DOOR CLOSERS						
1560		EN1154				
CONCEALED FLOOR SPRING HINGES						
CF540		EN1154				
CF550		EN1154				
CF560		383013		UL		
CF570		EN1154				
CF580		383113		UL		
CF590		EN1154				
TRANSOM DOOR CLOSERS						
CR-360		EN1154				
FLOOR SPRING HINGES						
FH-210	EN Fire	EN1154	BS EN			
FH-300	EN Fire	383113 384113	BS EN	UL		QB
FH-410	EN Fire	EN1154	BS EN			
FH-700	EN Fire	EN1154	BS EN			
FH-800	EN Fire	EN1154	BS EN	UL		QB
FH-900	EN Fire	EN1154	BS EN			
EXIT PANIC DEVICES						
2000/2000V	EN Fire	EN1125	BS EN			

Closing Devices





Name of quality & dependability

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BONCO Ironmongery Ltd.

A Member of E. Bon Holdings (HKEx stock code 599)

16/F, First Commercial Building, 33 Leighton Rd., Causeway Bay, H.K.
Tel : (852) 2891 2188 Fax : (852) 2834 2652