WN 055815
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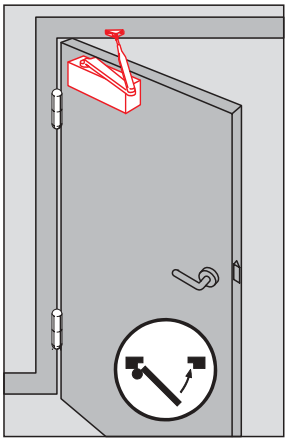

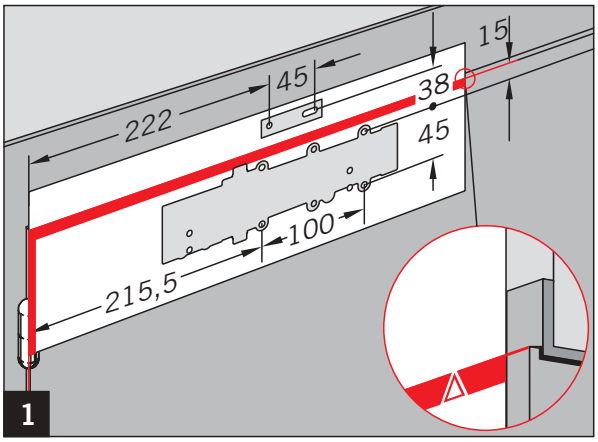

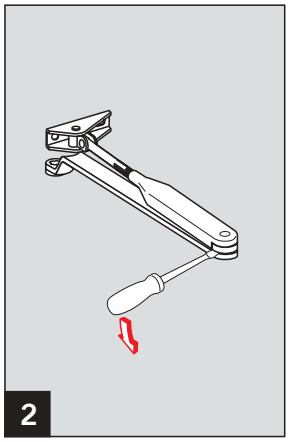

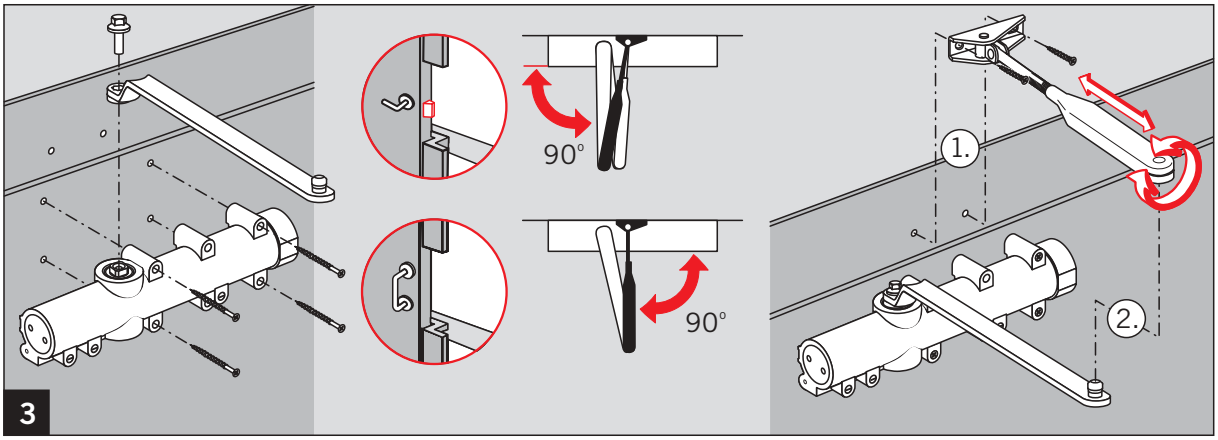

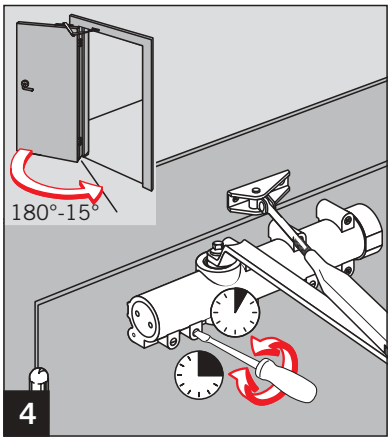

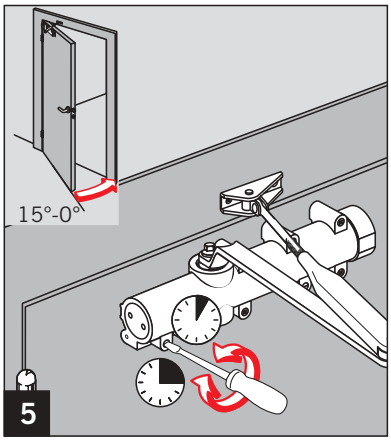

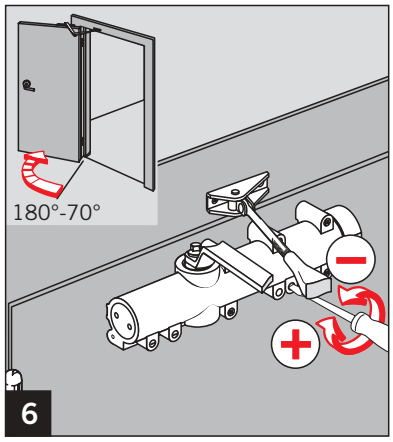

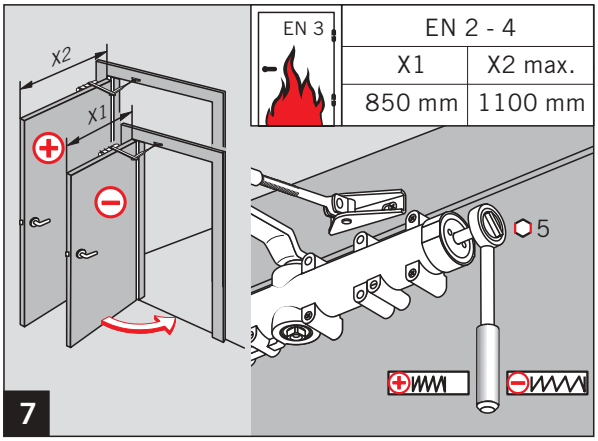

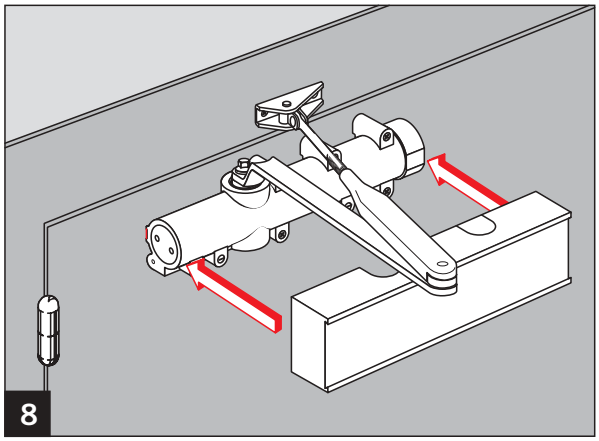

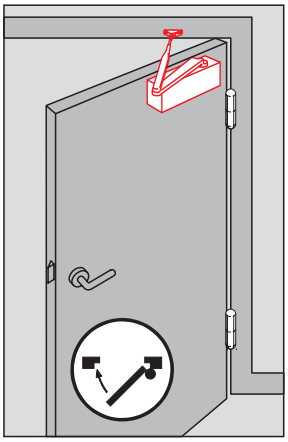

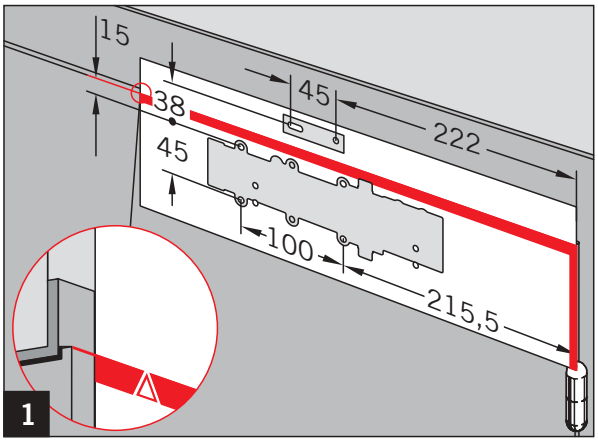
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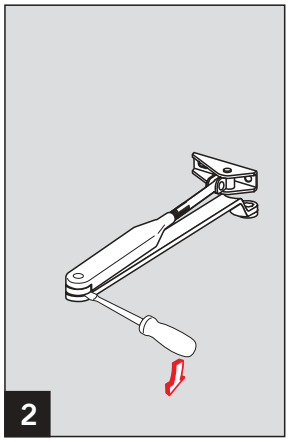
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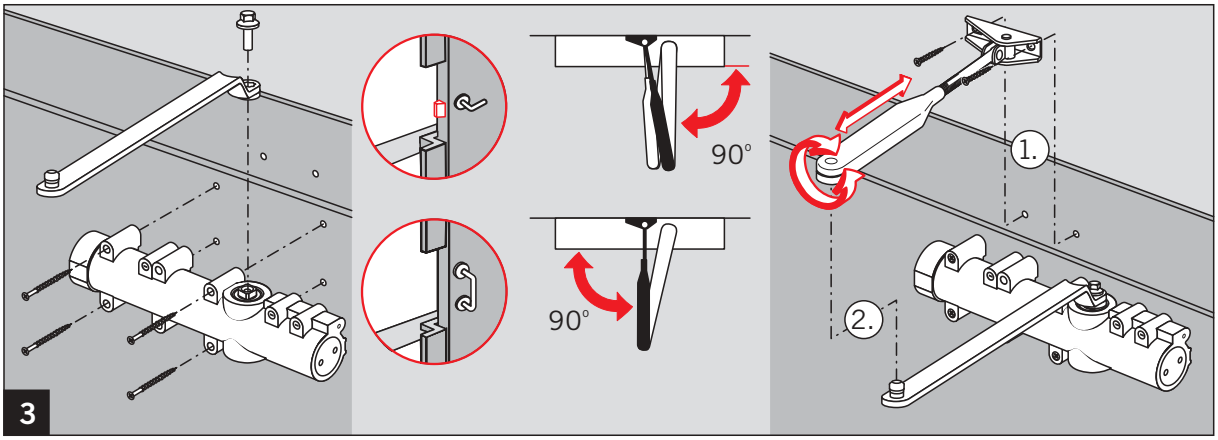
90°
90°
1.
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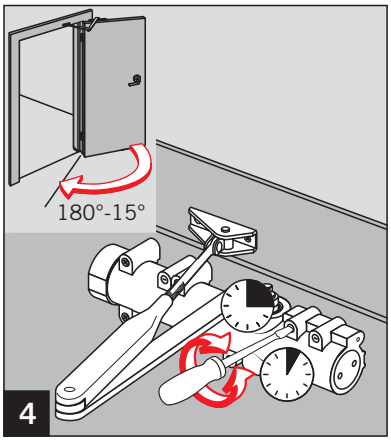
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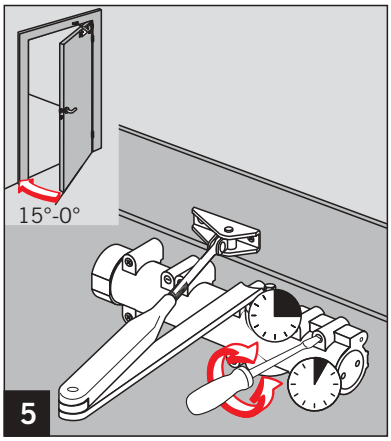
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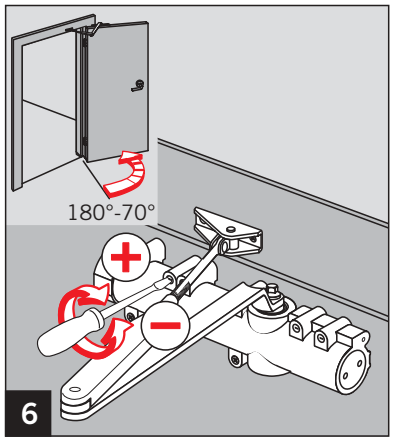
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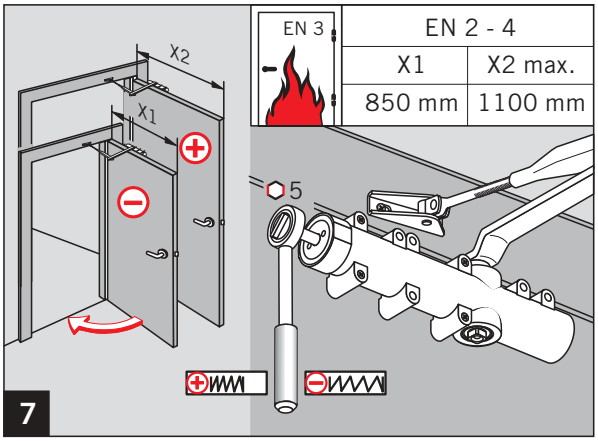
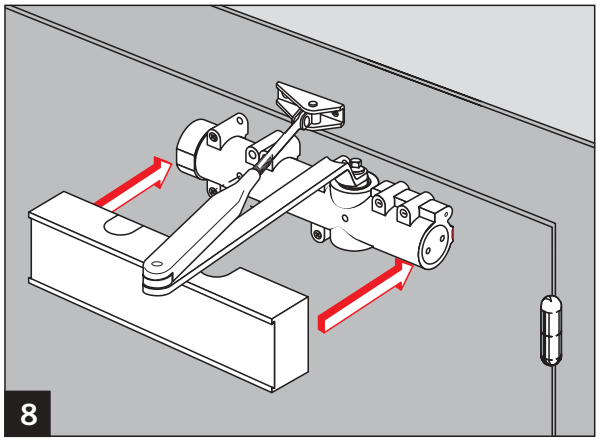

X2
X1
EN 3
EN 2 - 4
X1
X2 max.
850 mm
1100 mm
5
7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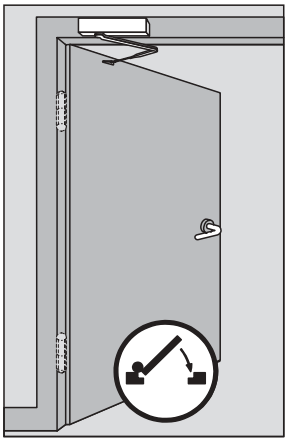
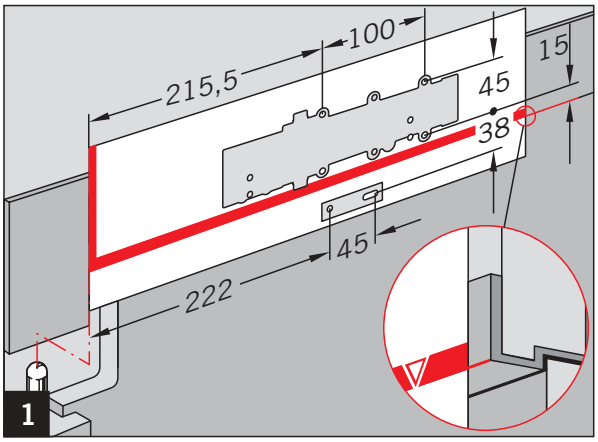
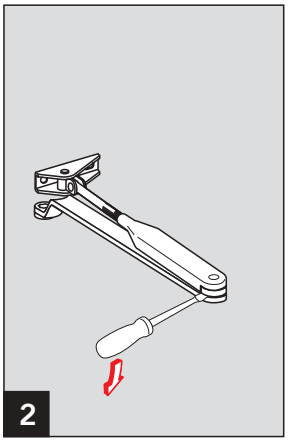
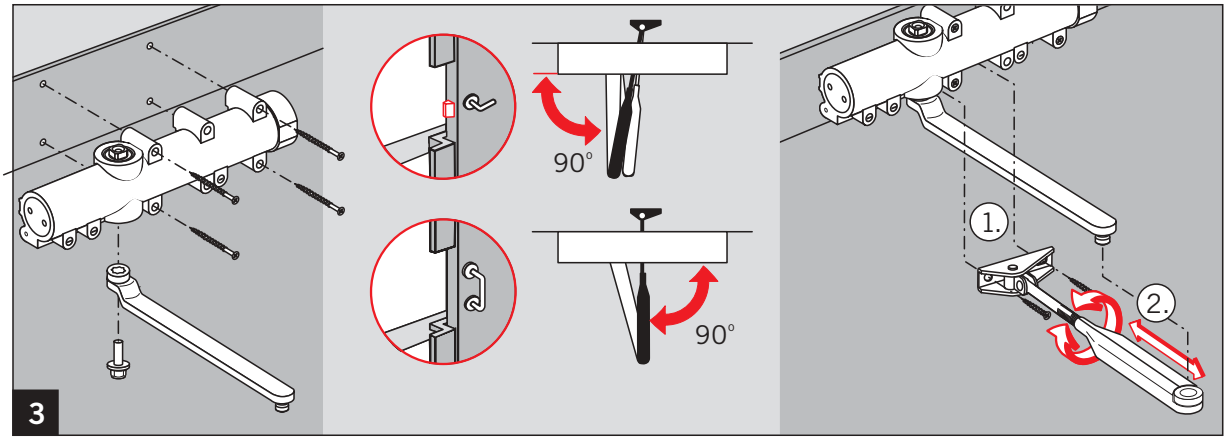
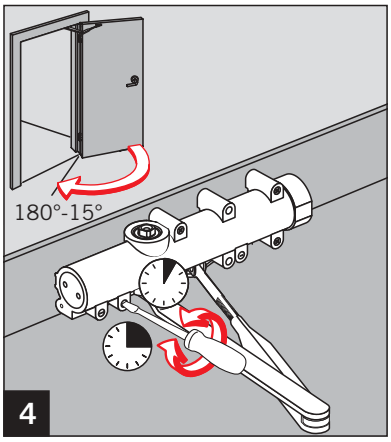
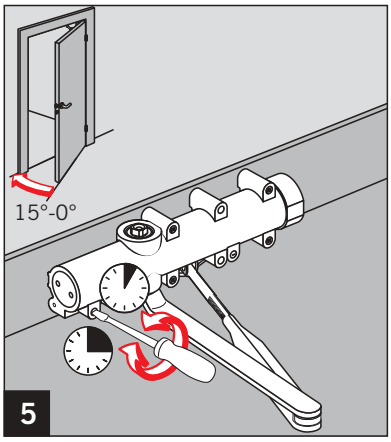


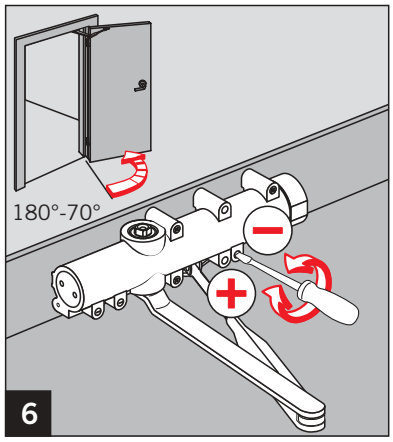


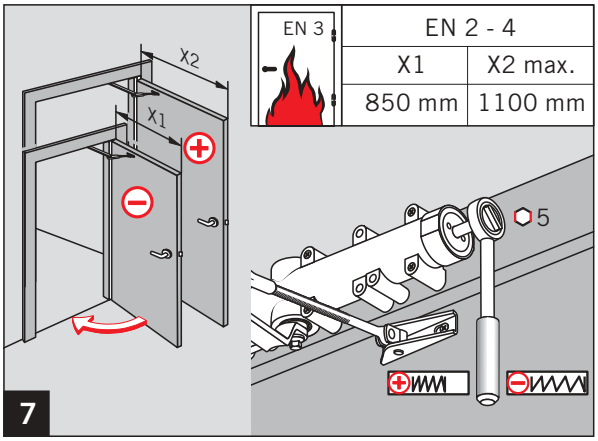




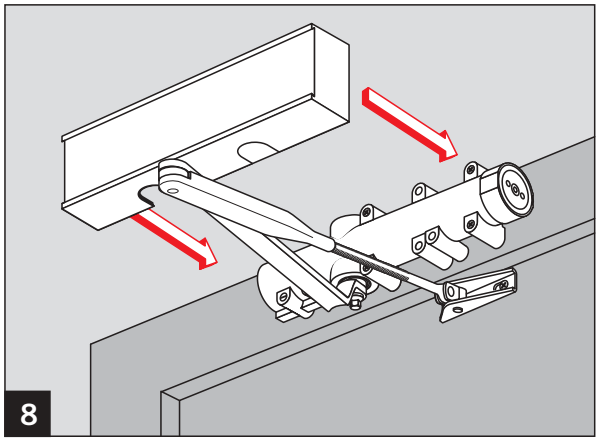


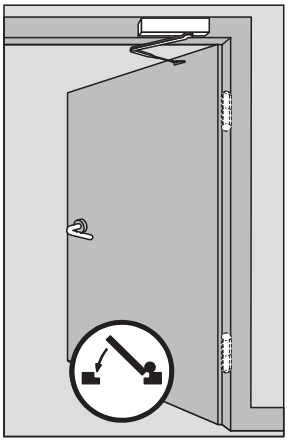


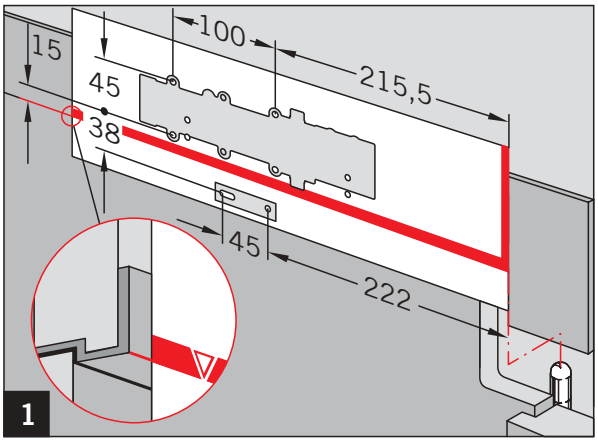


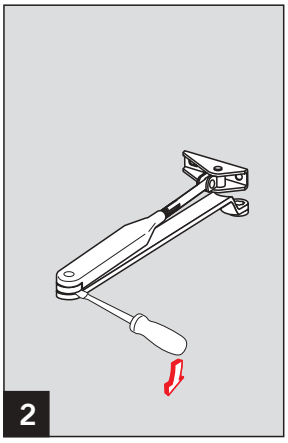


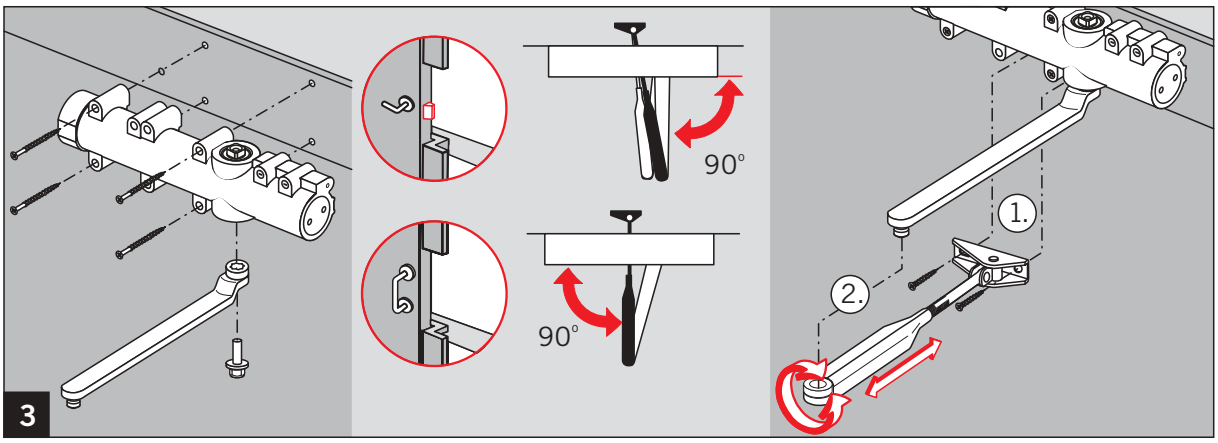
EN 3	EN 2 - 4	
	X1	X2 max.
	850 mm	1100 mm

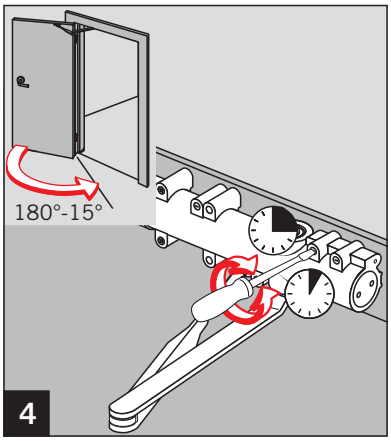


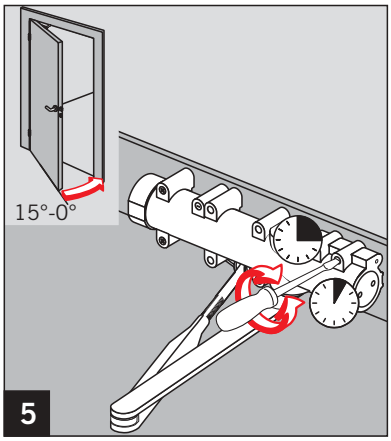


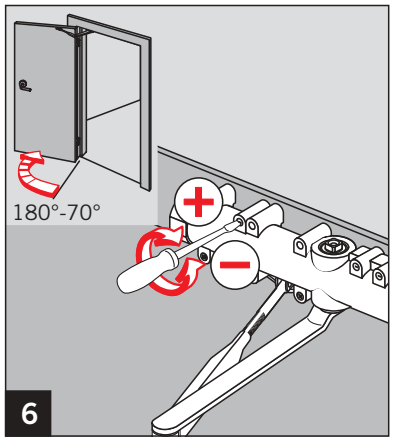


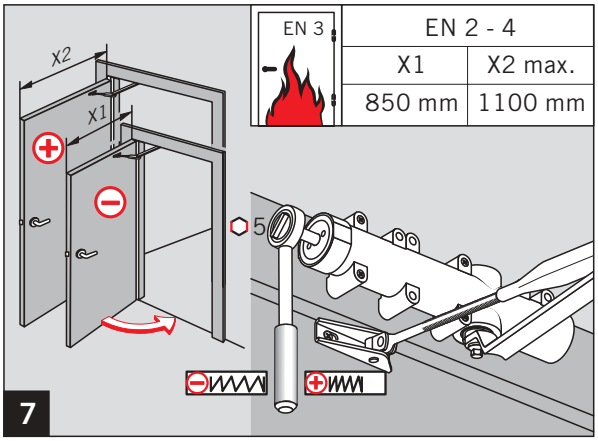


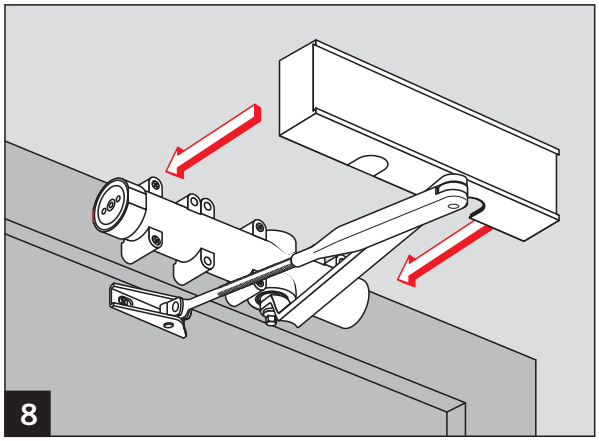












Änderungen vorbehalten

DORMA GmbH + Co.KG Postfach 40 09 D-58247 Ennepetal • Breckerfelder Straße 42-48 D-58256 Ennepetal
Tel. +49 (0) 23 33 / 793-0 • Fax +49 (0) 23 33 / 79 34 95 • www.dorma.de

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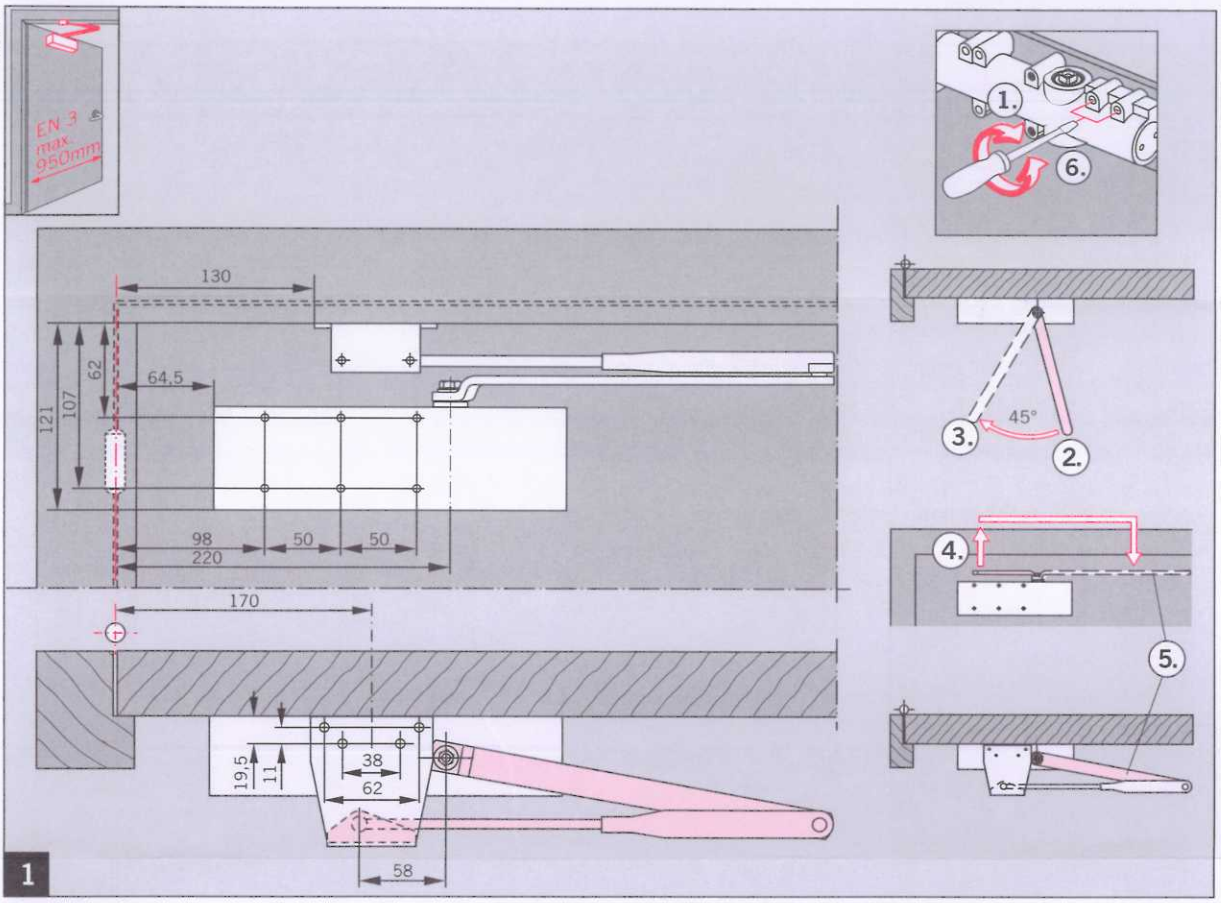
06/09



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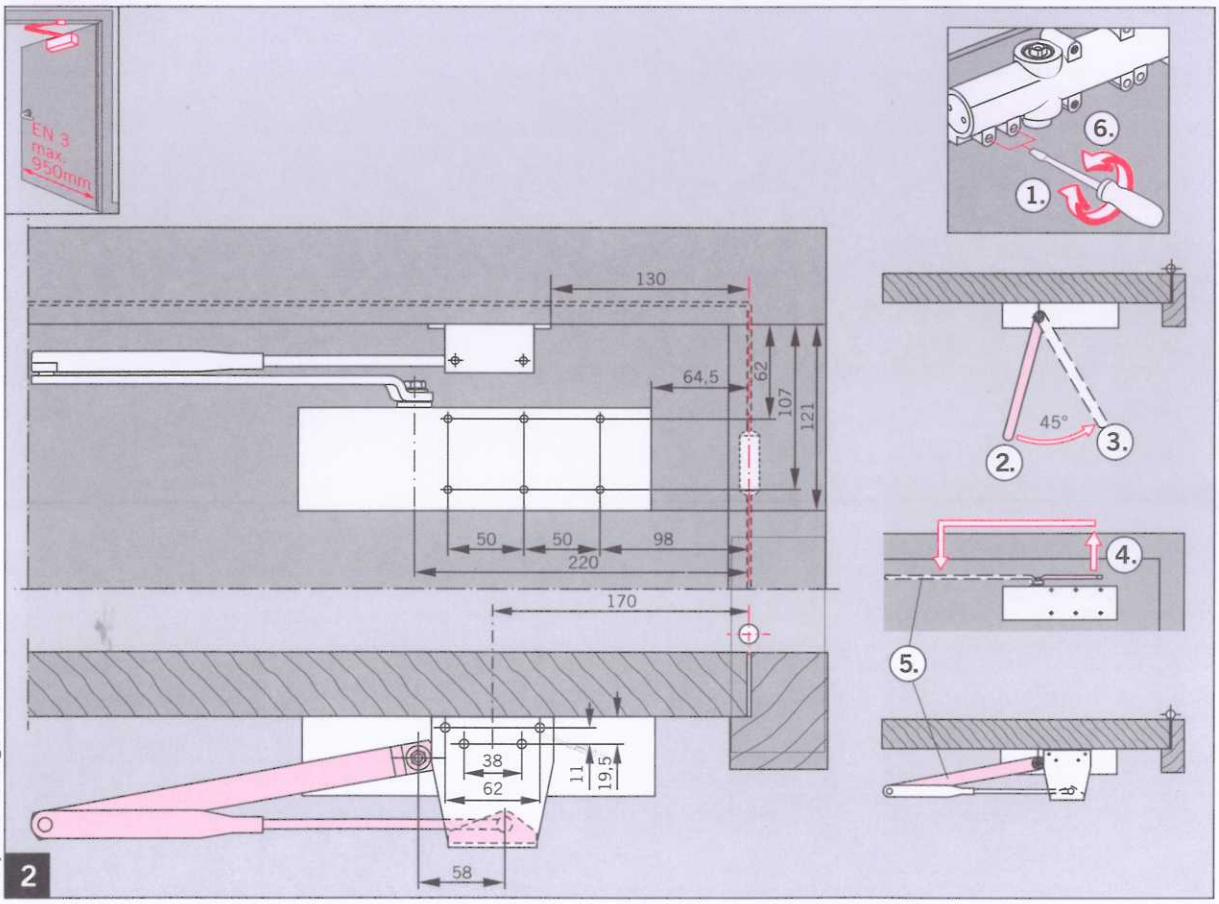

2

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Door Control Division
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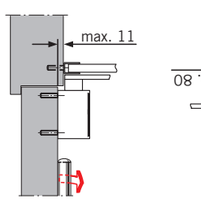
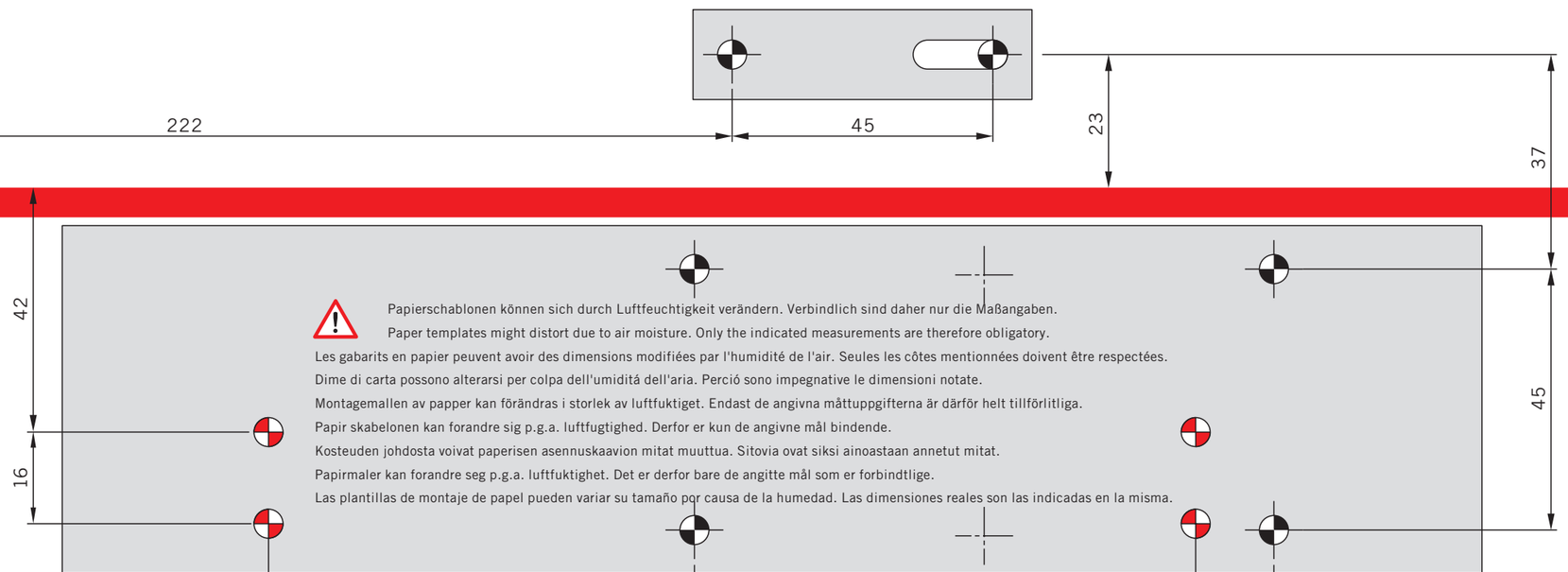
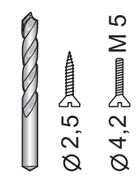
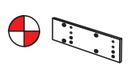




Papierschablonen können sich durch Luftfeuchtigkeit verändern. Verbindlich sind daher nur die Maßangaben.
Paper templates might distort due to air moisture. Only the indicated measurements are therefore obligatory.
Les gabarits en papier peuvent avoir des dimensions modifiées par l'humidité de l'air. Seules les côtes mentionnées doivent être respectées.
Dime di carta possono alterarsi per colpa dell'umiditá dell'aria. Perció sono impegnative le dimensioni notate.
Montagemallen av papper kan förändras i storlek av luftfuktiget. Endast de angivna måttuppgifterna är därför helt tillförlitliga.
Papir skabelonen kan forandre sig p.g.a. luftfugtighed. Derfor er kun de angivne mål bindende.
Kosteuden johdosta voivat paperisen asennuskaavion mitat muuttua. Sitovia ovat siksi ainoastaan annetut mitat.
Papirmaler kan forandre seg p.g.a. luftfuktighet. Det er derfor bare de angitte mål som er forbindtlige.
Las plantillas de montaje de papel pueden variar su tamaño por causa de la humedad. Las dimensiones reales son las indicadas en la misma.





Lochgruppe gemäß Beiblatt 1
zur EN 1154

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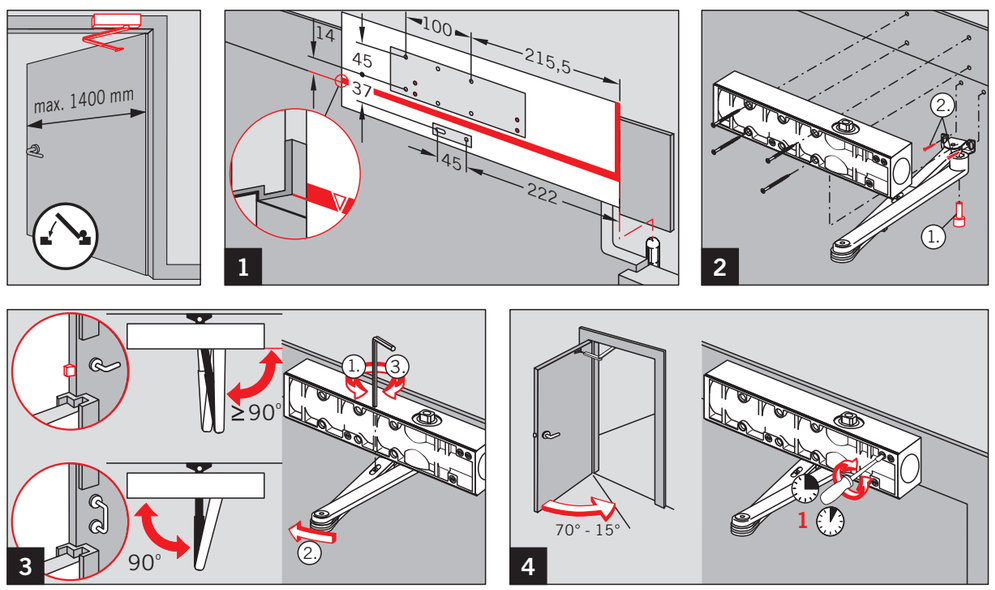

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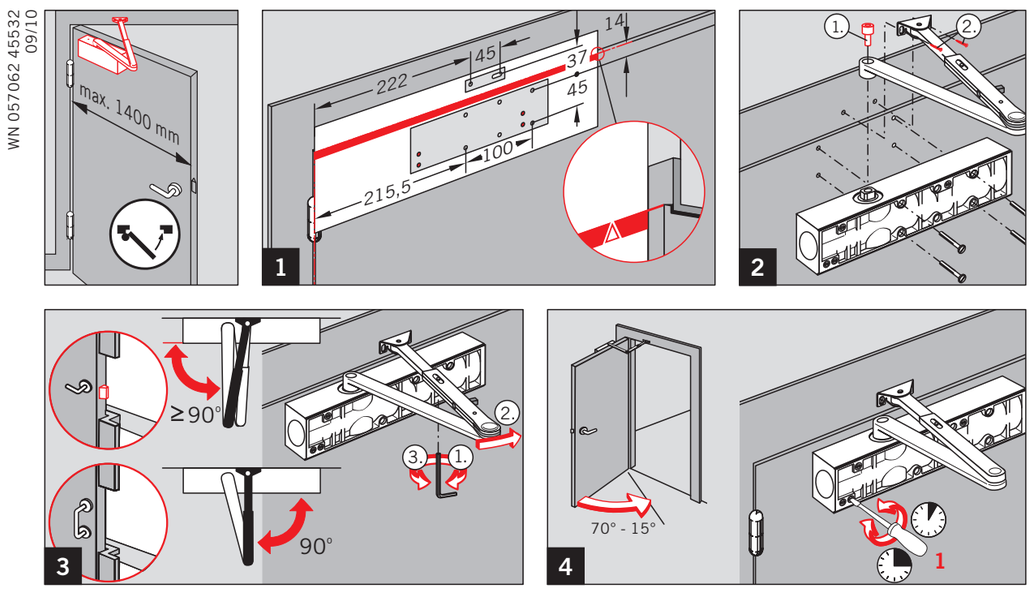

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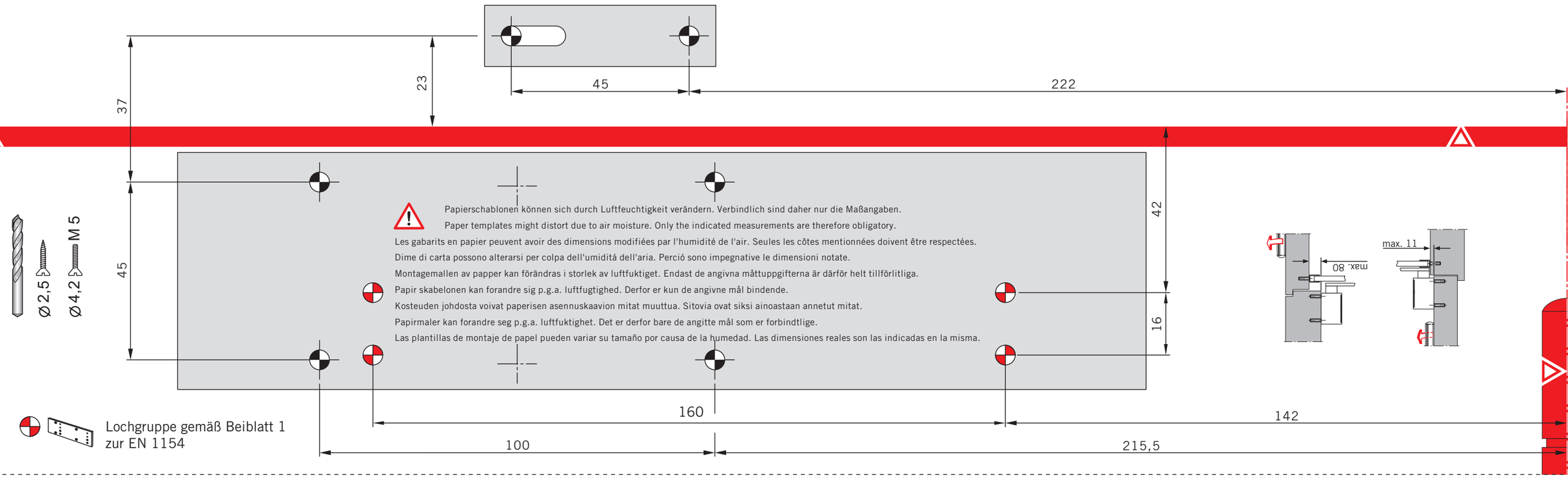

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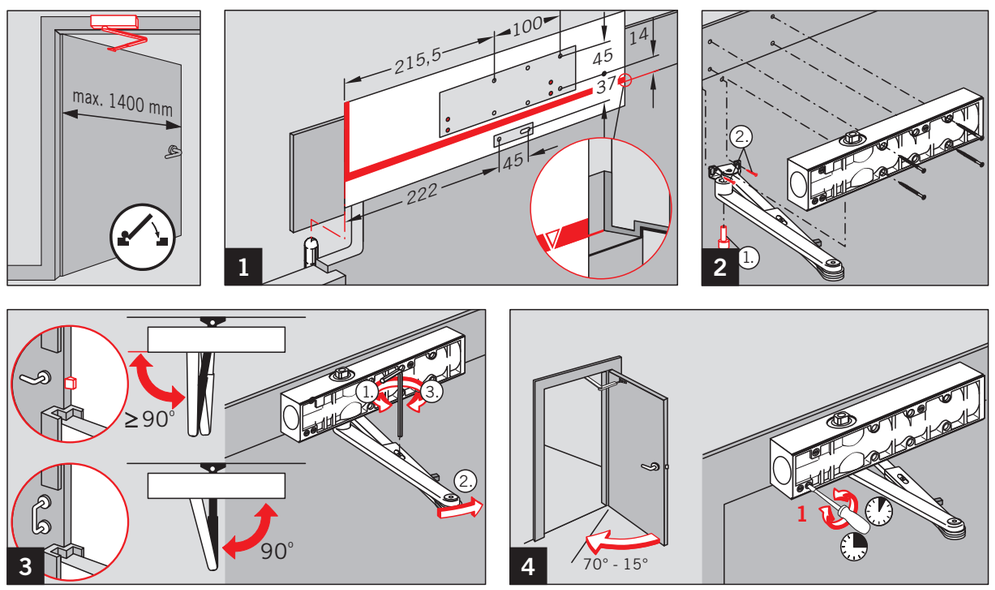

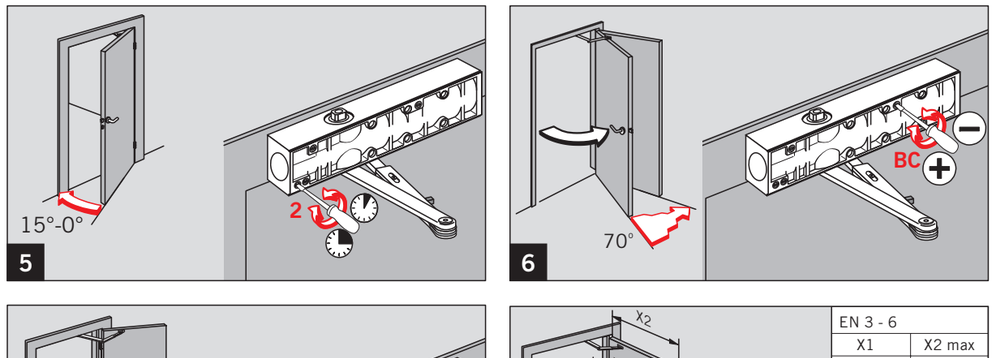

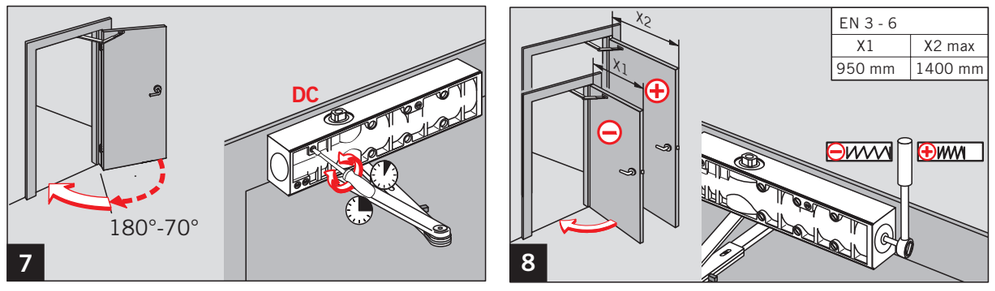

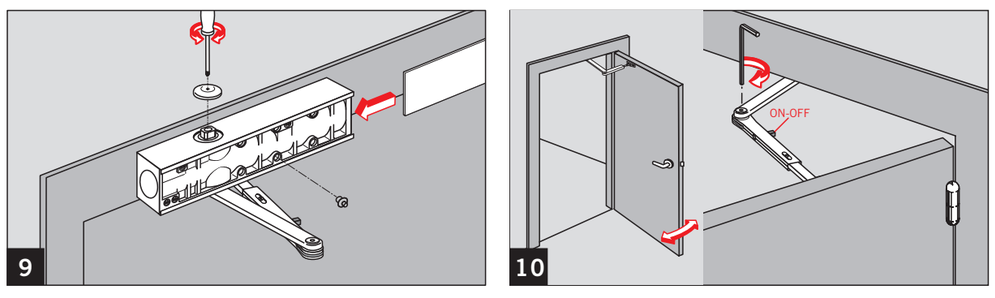

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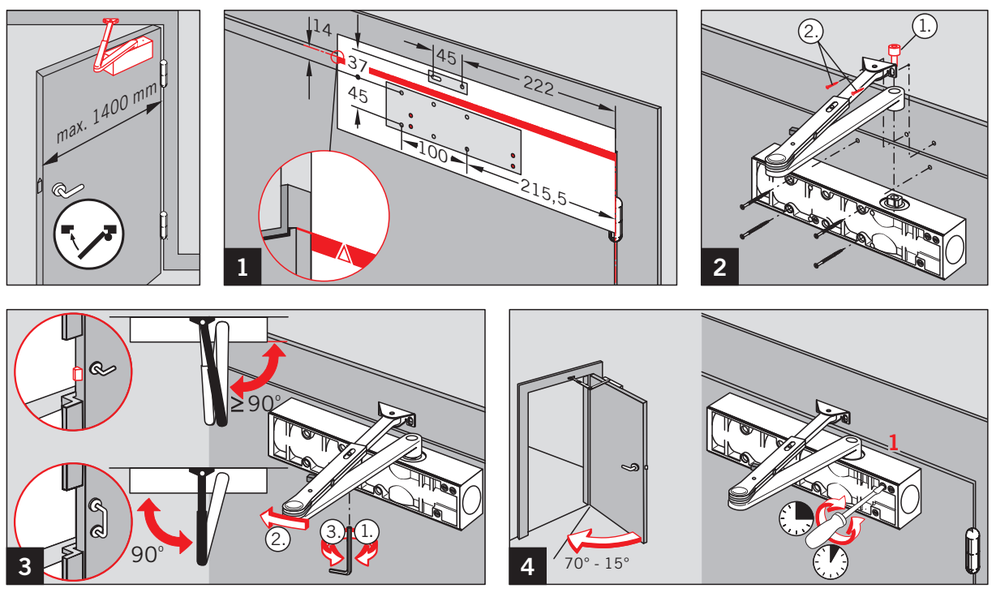
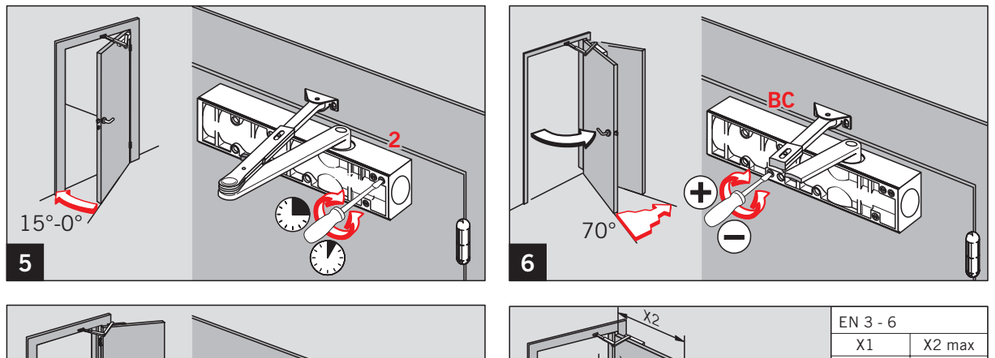
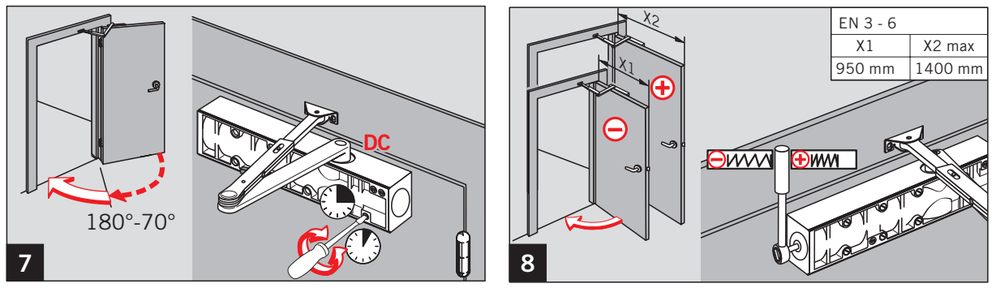
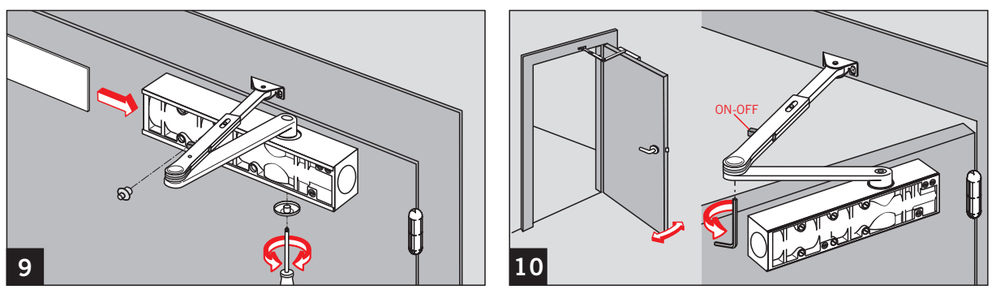








GEZE TS4000 / S
Overhead Door Closer

CE

Installation Instructions

WARNING: DOOR CLOSERS WITH A POWER RATING LOWER THAN 3 OR WITH MECHANICAL HOLD OPEN DEVICES ARE NOT SUITABLE FOR USE WITH FIRE DOORS.

Components Checklist:

1x Closer body & cover
1x Guide Rail Assembly

2x M6 Allen Bolts
2x Plastic end caps
1x Plastic spindle cover

4x 5x55mm Self-tapping countersunk screws
2x M5x40mm Countersunk screws
4x M5x55mm Countersunk screws
2x 5x50 Self-tapping countersunk screws

Tools Required For Installation:

Flat head screwdriver
Posidrive screwdriver
Power drill
4.2mm drill bit
Template (supplied)
Pencil

10mm Spanner
5mm Allen key (supplied)
M5 Tap and Tap wrench (steel door mounting)

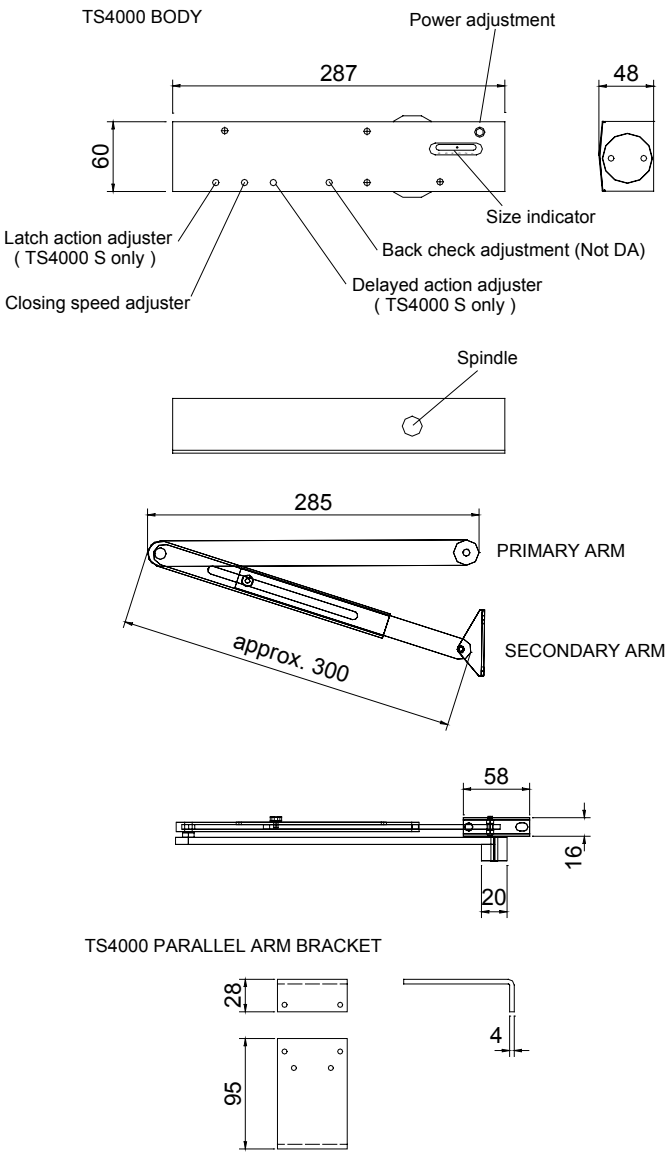
User Information for Door Closers
This information must be observed. Non compliance will absolve the manufacture from any liability. The door closer must only be used in accordance with its intended use; i.e. closing of side hung doors following manual opening.

Incorrect use may cause injury
- Obstruction of closing process (e.g. dragging doors, sticking weather strips/sealing rubbers, rough-running locks)
- Incorrect installation and adjustment (e.g. slamming doors)
- Danger of finger trap between frame and door leaf.
- Wrong size door closer.
- Closer used for other purpose than to close side hung doors.

Maintenance:
NOTE:
- Maintenance to be carried out by a specialist only.
- Check assembly for tolerance and undue wear.
- Tighten any screws that may have become loose.

At least once a year:
- Grease moveable parts.
- Check operation of doors and adjust if necessary.
- For door closers subject to release by Electro Mechanical and Electro Hydraulic means ensure that local regulation are adhered to.

Installation and adjustment by specialist only
Where necessary, an additional doorstop or buffer must be fitted to limit the maximum opening of the door. This is of particular relevance for slide rail closers where the opening angle may be limited by frame. For further explanations see catalogue preface and product information.



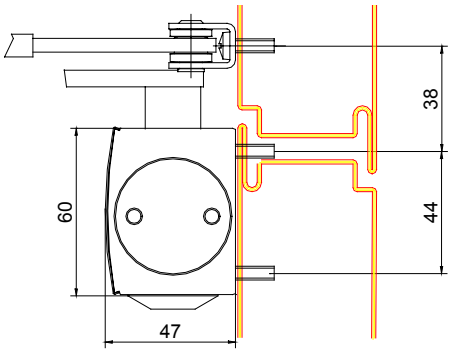
Door handing - DIN left / right

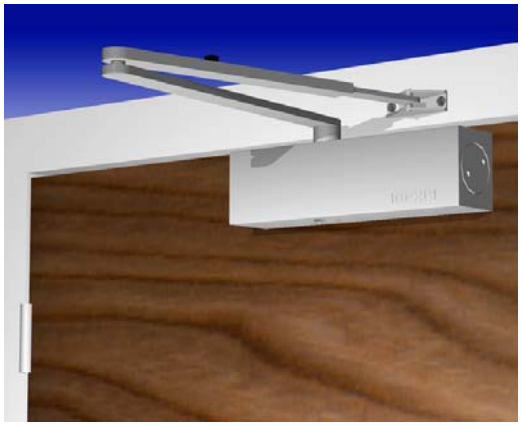
Stand facing the door on the hinge side / pull side. If the hinge or pivot is to your right hand side the door is considered to be DIN right. If the hinge or pivot is to your left hand side the door is considered to be DIN left.

IMPORTANT WARNING:

HIGH INTERNAL PRESSURES, UNDER NO CIRCUMSTANCES ATTEMPT TO DISMANTLE THE CLOSER.

Fixing in figure 1





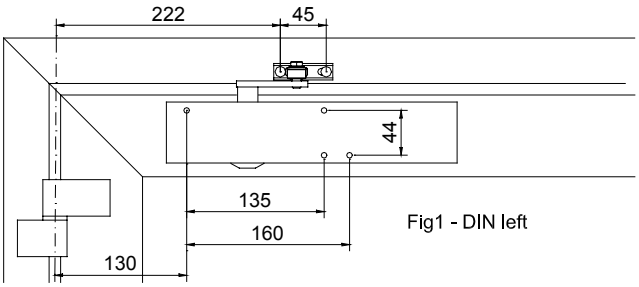


Fig1 - DIN left

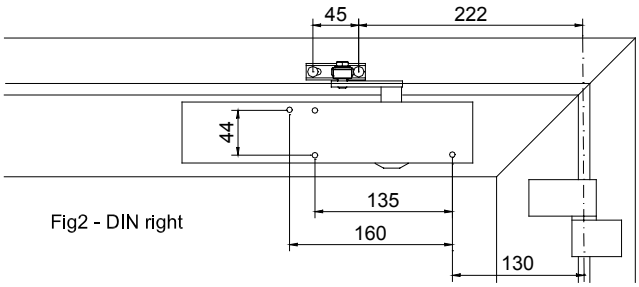


Fig2 - DIN right

➢With the aid of the template mark out the fixing positions. Align the hinge point of the template with the centre line of the hinge on the door. (This applies to both left and right-hand doors.) There are two holes to be drilled/tapped on the transom for the arm shoe and four holes to be drilled/tapped on the door leaf for the closer body. If the template is not used refer to fixing dimensions (see figure 1 and 2 above.)

➢Secure closer body with screws provided, making sure that the spindle is positioned towards the hinge side. (See figure 1 and 2 above.) The power size (closing force) of the TS4000 is adjusted by turning the Allen key screw situated above and to the right of the clear glass indicator tube containing a small ball bearing. As the screw is turned the ball bearing will gradually move to show its power size. If it doesn't appear to be moving give the indicator a gentle tap with your finger which will release it. (Please be aware that the power sizes indicated on the closer are EN ratings 1 – 6.)

➢**TS4000 and TS4000S** If latch action is required (to overcome a latch or seals.) Separate the primary and secondary arms. This can be done using a screwdriver as a lever between the knuckle. The arm sections will snap together and apart. Secure the primary arm to the spindle using M6 allen bolt supplied. Ensure splines are interlocked. Locate arm at approx. 80° with respect to the door leaf, towards the hinge point. (See figure 3.) Fix the secondary arm to the transom using the screws provided and loosen 10mm locking bolt on arm. Secure primary and secondary arms together (simply click in place.) Prime the closer slightly by rotating the **primary** arm to approx. 90° with respect to the door leaf and tighten the locking bolt. (See figure 4.)

➢The latch action of the **TS4000S** can now be adjusted using the adjustment valve located on the front in the centre of the body. Clockwise will decrease the latch action and anticlockwise will increase the latch action. **Do not overtighten**.

➢**TS4000 and TS4000S.** If no latch action is required. As above however when priming the closer rotate the **secondary** arm to approx. 90° with respect to the door leaf and tighten the locking bolt. (See figure 5.)

➢**TS4000 and TS4000S**. The back check is a segment of the closers opening cycle with increased resistance. It is factory set to come in when the door is at approx. 80°. To bring the back check in later turn the valve anticlockwise.

➢The closing speed can now be adjusted using the adjustment valve located on the front of the body of the closer. Clockwise will decrease the closing speed and anticlockwise will increase the closing speed. **Do not overtighten**.

➢Test installation by simulating persons using the entrance. The door should close smoothly without slamming and present no potential hazard to traffic.

Fig3

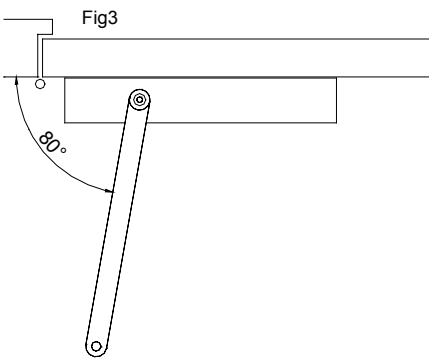


Fig4

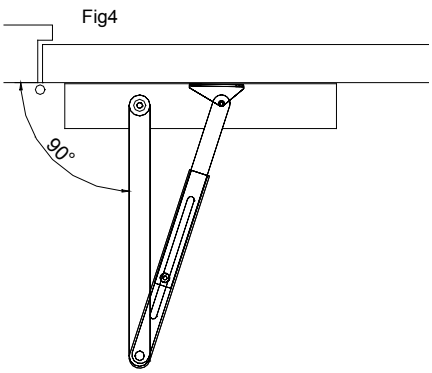
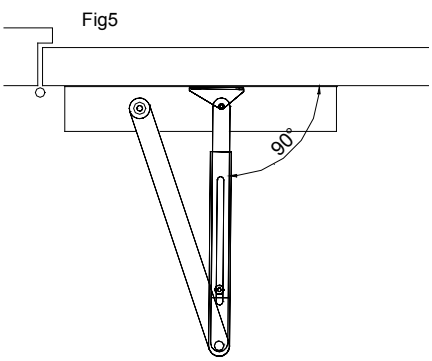
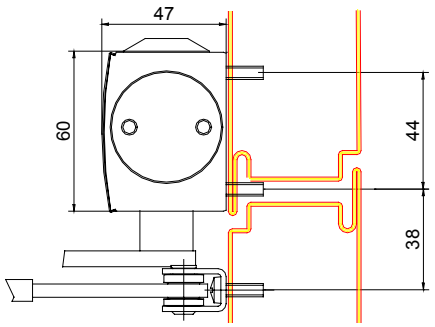
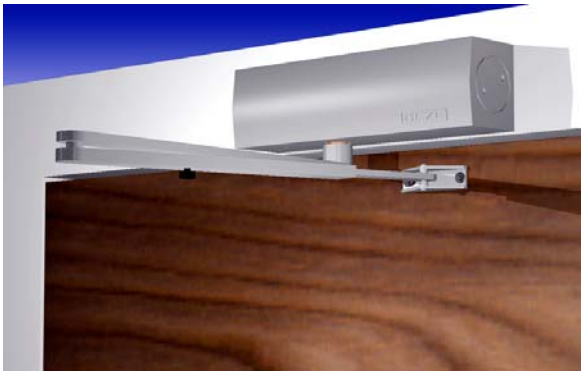


Fig5



Fixing in figure 61





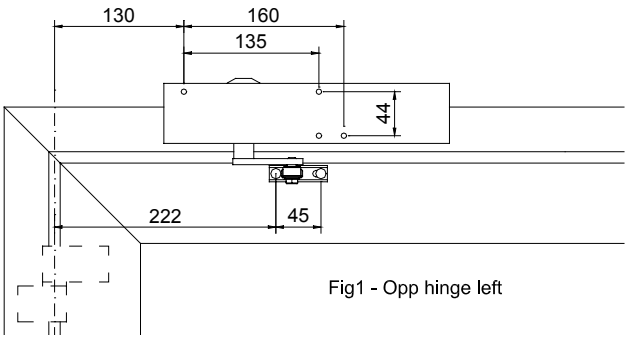


Fig1 - Opp hinge left

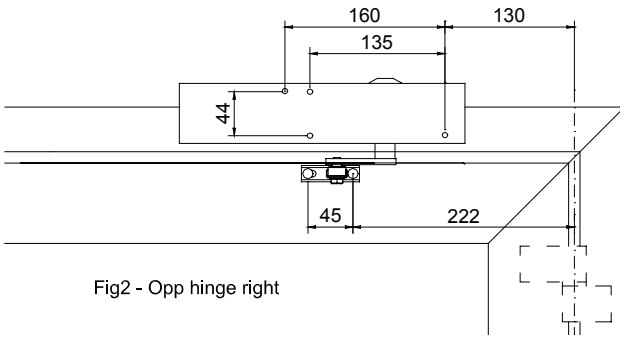


Fig2 - Opp hinge right

➢With the aid of the template mark out the fixing positions. Align the hinge point of the template with the centre line of the hinge on the door. (This applies to both left and right-hand doors.) There are two holes to be drilled/tapped on the door leaf for the arm shoe and three holes to be drilled/tapped on the transom for the closer body. If the template is not used refer to fixing dimensions (see figure 1 and 2 above.)

➢Secure closer body with screws provided, making sure that the spindle is positioned towards the hinge side. (See figure 1 and 2 above.) The power size (closing force) of the TS4000 is adjusted by turning the Allen key screw situated above and to the right of the clear glass indicator tube containing a small ball bearing. As the screw is turned the ball bearing will gradually move to show the power size. If it doesn't appear to be moving give the indicator tube a gentle tap with your finger which will then release it. (Please be aware that the power sizes indicated on the closer are EN ratings 1 – 6.)

➢**TS4000 for TS4000S see below.** If latch action is required (to overcome a latch or seals.) Separate the primary and secondary arms. This can be done using a screwdriver as a lever between the knuckle. The arm sections will snap together and apart. Secure the primary arm to the spindle using M6 Allen bolt supplied. Ensure splines are interlocked. Locate arm at approx. 80° with respect to the transom, towards the hinge point. (See figure 3.) Fix the secondary arm to the door leaf using the screws provided and loosen 10mm locking bolt on arm. Secure primary and secondary arms together (simply click in place.) Prime the closer slightly by rotating the **primary** arm to approx. 90° with respect to the door leaf and tighten the locking bolt. (See figure 4.)

➢**TS4000 for TS4000S see below.** If no latch action is required. As above however when priming the closer rotate the **secondary** arm to approx. 90° with respect to the door leaf and tighten the locking bolt. (See figure 5.)

➢The latch action of the **TS4000S** can now be adjusted using the adjustment valve located on the front in the centre of the body. Clockwise will decrease the latch action and anticlockwise will increase the latch action. **Do not overtighten.**

➢**TS4000** - The back check is a segment of the closes opening cycle with increased resistance. It is factory set to come in when the door is approx.80°. To bring the back check in later turn the valve anticlockwise.

➢**TS4000S**. A valve on the front of the closer varies delayed action. It can delay the closing of the door from 0 – 30 seconds. Clockwise gives a shorter delayed action, anticlockwise gives a longer delayed action. **Do not overtighten.**

➢The closing speed can now be adjusted using the adjustment valve located on the front of the body of the closer. Clockwise will decrease the closing speed and anticlockwise will increase the closing speed. **Do not overtighten**.

➢Test installation by simulating persons using the entrance. The door should close smoothly without slamming and present no potential hazard to traffic.

Fig3

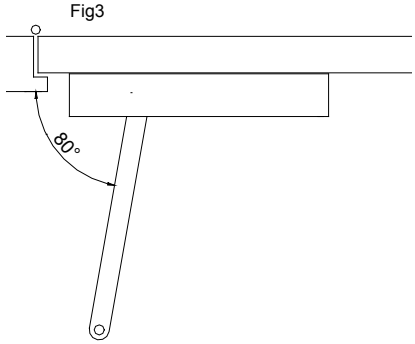


Fig4

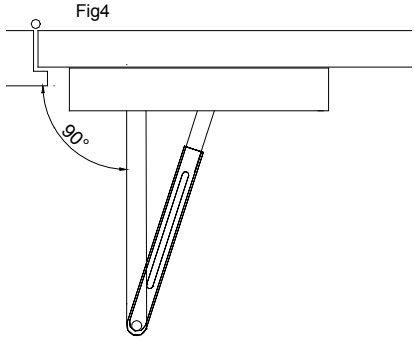
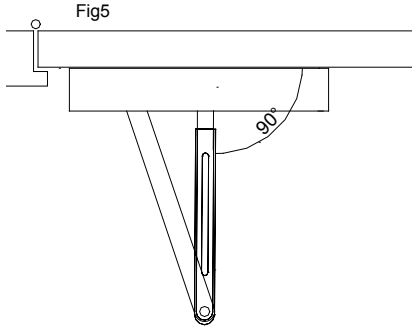
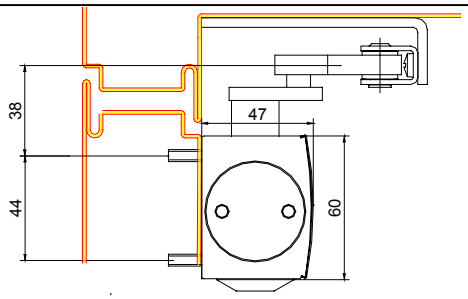
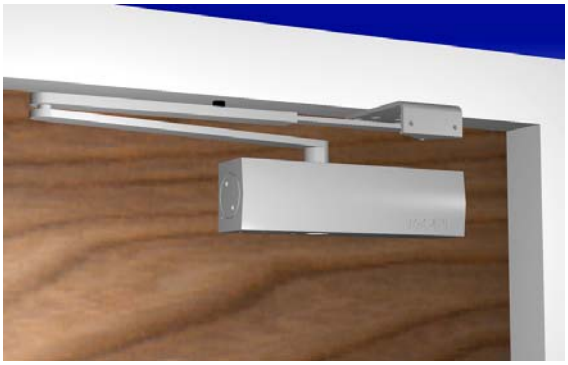


Fig5



Fixing in figure 66





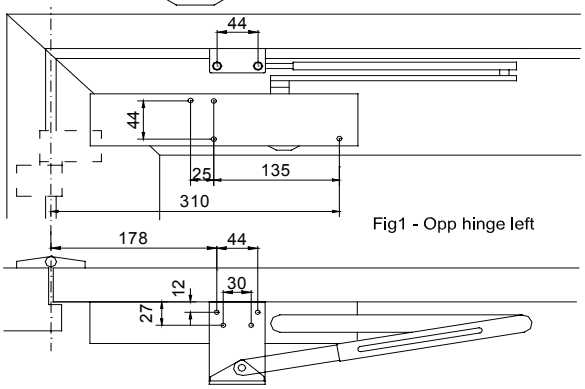


Fig1 - Opp hinge left

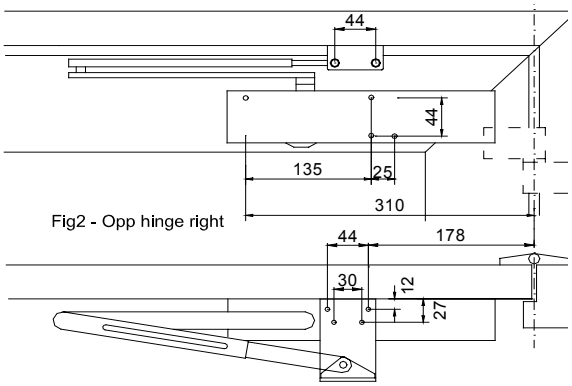


Fig2 - Opp hinge right

➢Mark the fixing positions in accordance with fixing dimensions (see figure 1 and 2 above.) There are three holes to be drilled/tapped on the door leaf for the closer body and four holes to be drilled/tapped on the underside of the transom for the parallel arm bracket.

➢Separate the primary and secondary arms. This can be done using a screwdriver as a lever. The arm sections will snap together and apart. Secure the primary arm to the spindle using M6 allen bolt supplied. Ensure splines are interlocked. Locate arm at approx. 10° towards the rear of the closer. (See figure 3 and 4.) Turn closing speed valve, located on the front of the body of the closer fully clockwise. This will decrease the closing speed to almost zero. Do not overtighten. Rotate primary arm to approximately 90°. (See figure 5 and 6.) Secure closer body to door leaf with fixings provided, making sure that the spindle is positioned away from the hinge side. (See figure 1 and 2 above.) The power size (closing force) of the TS2000 is not adjustable in this configuration and the unit must be mounted using the centre fixing holes. Secure primary and secondary arms together (simply click in place.)

➢Rotate primary arm in direction of travel (away from door leaf) until an angle of approx. 2° is reached in relation to the door leaf. (See figure 7 and 8.) Tighten 10mm locking bolt.

➢**TS4000 only**. If no latch action is required. Fit closer as described above. Separate the primary and secondary arms. Turn closing speed valve, located on the front of the body of the closer fully clockwise. This will decrease the closing speed to almost zero. Do not overtighten. Rotate the primary arm approx. 90° in the direction of travel (roughly perpendicular to the door leaf.) Loosen the M6 allen bolt securing the primary arm to the closer body enough to enable adjustment. Rotate the primary arm 1 notch of the splined spindle in the opposite direction of travel. Re-tighten M6 allen bolt securing the primary arm to the closer body. Loosen 10mm locking bolt on secondary arm and re-connect primary and secondary arms. Re-adjust the closing speed. Rotate primary arm in direction of travel (away from door leaf) until an angle of approx. 2° is reached in relation to the door leaf. (See figure 7 and 8.) Tighten the 10mm locking bolt. If on testing the latch action has not been removed repeat above until adjusted satisfactorily.

➢The latch action of the **TS4000S** can now be adjusted using the adjustment valve located on the front in the centre of the body. Clockwise will decrease the latch action and anticlockwise will increase the latch action. **Do not overtighten**.

➢**TS4000S**. A valve on the front of the closer varies delayed action. It can delay the closing of the door from 0 – 30 seconds. Clockwise gives a shorter delayed action, anticlockwise gives a longer delayed action. **Do not overtighten**.

➢The closing speed can now be adjusted using the adjustment valve located on the front of the body of the closer. Clockwise will decrease the closing speed and anticlockwise will increase the closing speed. **Do not overtighten.**

➢Test installation by simulating persons using the entrance. The door should close smoothly without slamming and present no potential hazard to traffic.

Fig 3

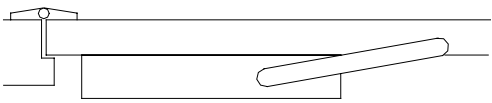


Fig 4

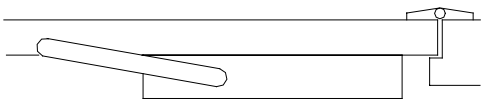


Fig 5

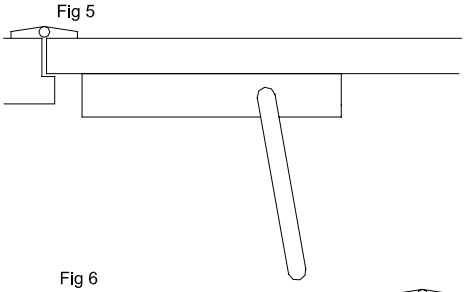


Fig 6

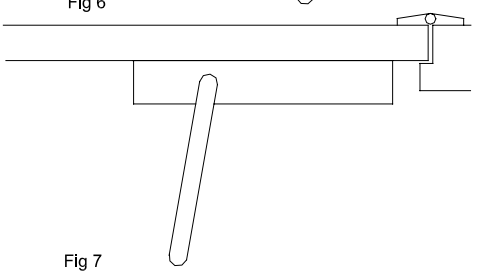


Fig 7

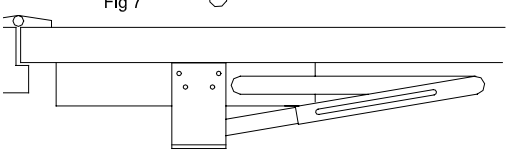
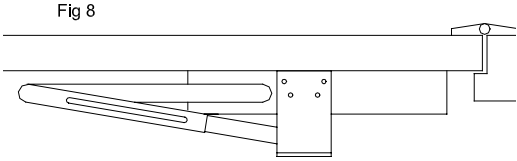


Fig 8



DORMA

TS83

Easy action
door closer

THE MULTI-FUNCTION, MULTI-PURPOSE DOOR CLOSER

Outstanding versatility.
Quality assured.
Tested to EN 1154.
Decades of experience have gone into the development of the DORMA TS 83.
The result is user comfort coupled with outstanding versatility. It can be adjusted to suit almost all types of door. Additional anti-corrosion protection for exposed or aggressive conditions is available to special order.
Fixing couldn't be easier and last but not least – it's engineered for excellence.

Certified to ISO 9001.

PLUS POINTS ...

... for the trade
- Streamlined product range means low inventory costs and reduced stocking requirement.
- Comprehensive choice of accessories provides practical and effective solutions to meet special applications.

... for the specifier/architect
- Compact closer design and sturdy flat-form arm assembly.
- Wide range of standard functions supplemented by optional extras.
- Suitable for fire doors. (CERTIFIRE approved Ref. CF 118)

... for the installer
- Easy to fix.
- Can be "tailored" to the requirements of the door by simple adjustment.
- Just one model for RH (ISO 5) and LH (ISO 6) doors and for standard and frame/lintel fixing and parallel arm.
- Spring strength range EN 2–5/EN 3-6 to suit virtually every application.

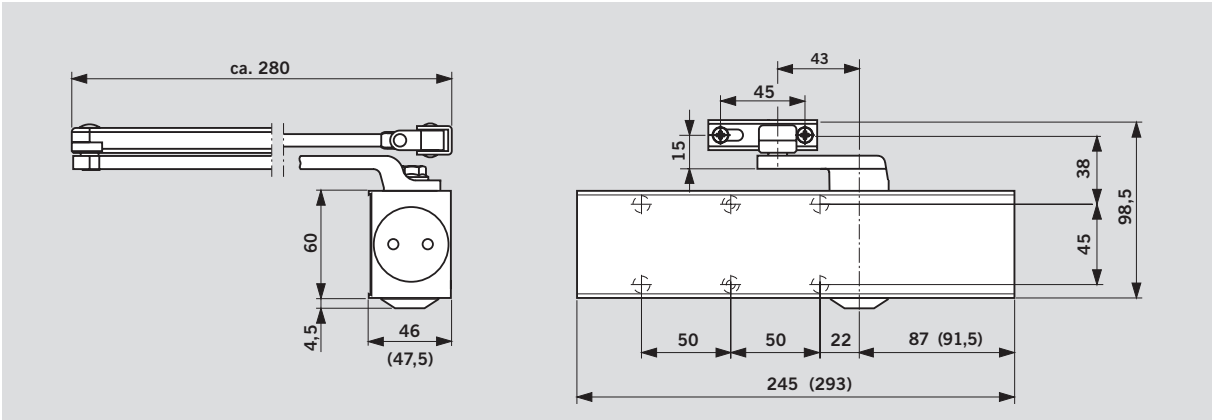
... for the user
- Optimum wall and door protection thanks to "thinking" backcheck.
- Closing speed virtually unaffected by temperature fluctuations.
- High mechanical efficiency gives easy-action opening.

Data and features		**TS 83**		
Variable closing force	Spring strength	EN 2 – 5	EN 3 – 6	EN 7
Standard doors[1)]	≤ 1250 mm	●	–	–
	≤ 1400 mm	–	●	–
	≤ 1600 mm	–	–	●
External doors, outward opening[1)]	≤ 1250 mm	●	–	–
	≤ 1400 mm	–	●	–
	≤ 1600 mm	–	–	●
Fire and smoke check doors[1)]	≤ 1250 mm	●	–	–
	≤ 1400 mm	–	●	–
	≤ 1600 mm	–	–	●
Non-handed		●	●	●
Arm assembly type	Standard	●	●	●
Closing force variable by means of adjustment screw		●	●	–
Closing speed adjustable at 2 separate valves	180° - 15°	●	●	–
	15° - 0°	●	●	–
Closing speed variable by means of valve adjustment		–	–	●
Adjustable latching action	by arm	●	●	●
Backcheck	self-regulating	●	●	●
	adjustable at valve	●	●	●
Delayed action variable at valve		○	○	–
Anti-corrosive model		–	○	–
Hold-open		○	○	○
Weight in kg		1.7	1.7	3.3
Dimensions in mm	Length	245	245	293
	Overall depth	46	46	47.5
	Height	60	60	60
Door closer tested to EN 1154		●	●	●
CE mark for construction products		●	●	●

● yes – no ○ option

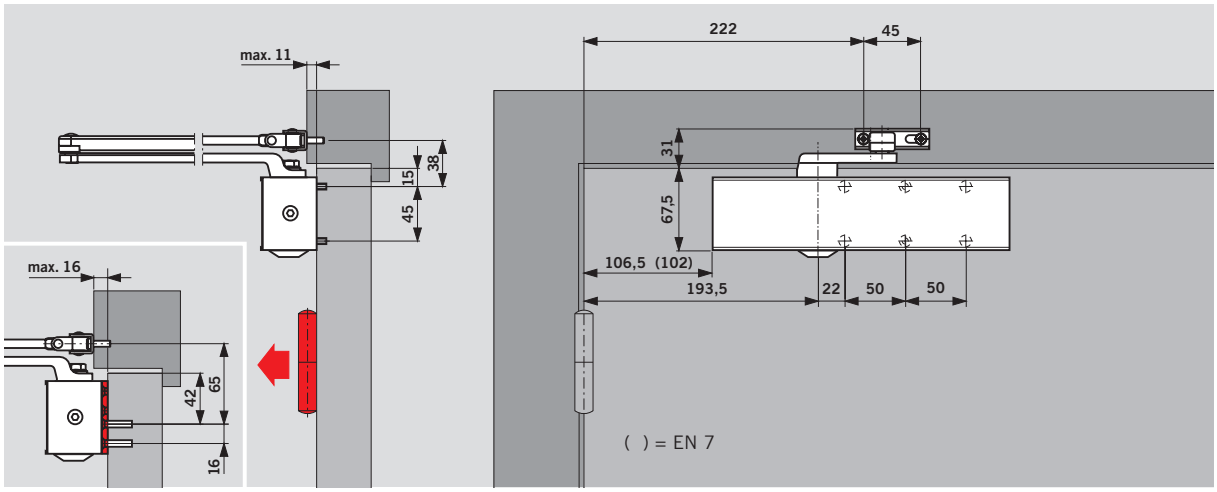
[1)] For applications involving particularly heavy or wide doors, and doors which have to close against wind resistance, the next highest closer size or a higher spring strength should be applied.

The TS 83 complies with the requirements and/or recommendations of the following: CERTIFIRE approved for fire doors ITT 120; MM/IMM 240; Ref. CF 118

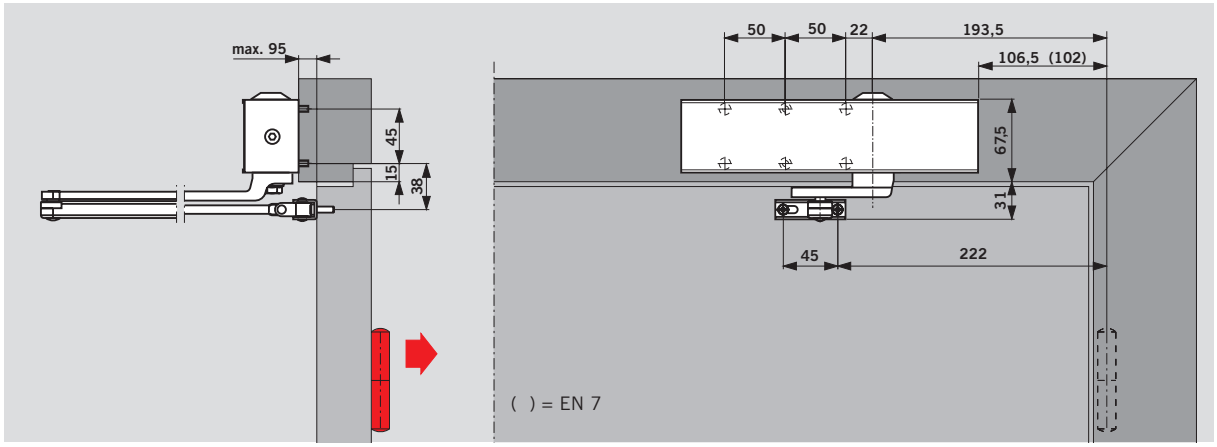


( ) = EN 7

DOOR LEAF FIXING, PULL SIDE (example shows LH (ISO 6) door; RH (ISO 5) doors mirrored arrangement)



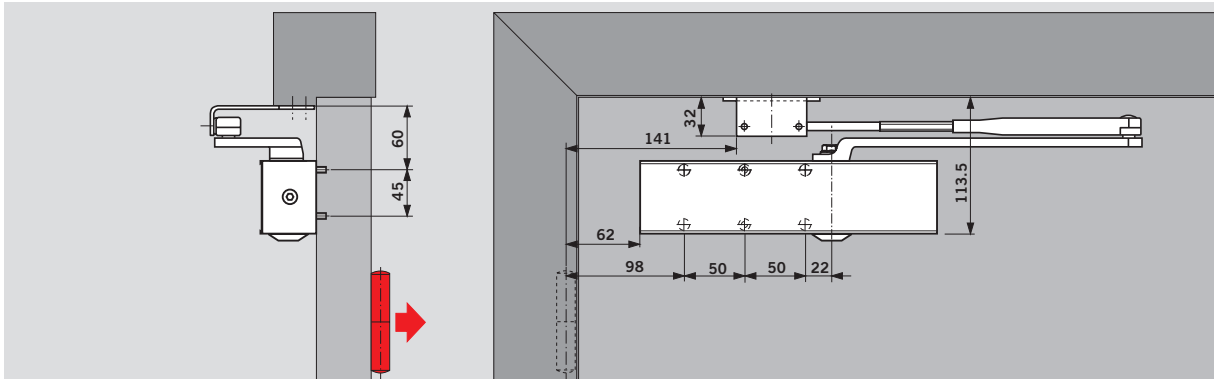
TRANSOM FIXING, PUSH SIDE (example shows LH (ISO 6) door; RH (ISO 5) doors mirrored arrangement)



With transom-fixed closers, the backcheck comes in later at between 85° and 90°, depending on the door thickness and projection of the hinge used; the delayed action, on the other hand, releases the door at an earlier point in its closing sweep.

DOOR LEAF FIXING, PUSH SIDE (parallel arm installation)

(example shows LH (ISO 6) door; RH (ISO 5) doors mirrored arrangement)

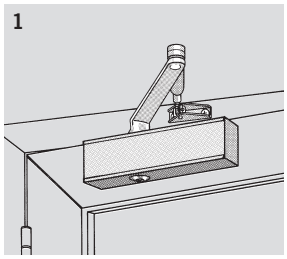


With parallel arm application, the backcheck comes in later at between 85° and 90°, depending on the door thickness and projection of the hinge used; the delayed action, on the other hand, releases the door at an earlier point in its closing sweep.

Technical details

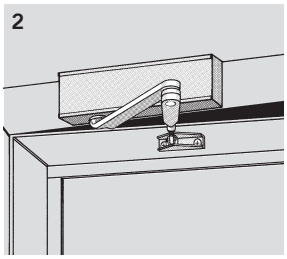
installation	interior door widths up to	closer size	interior door widths up to	closer size
standard/frame	1250 mm	2 – 5	1400 mm	3 – 6
parallel arm	1100 mm	2 – 4	1250 mm	2 – 5

1



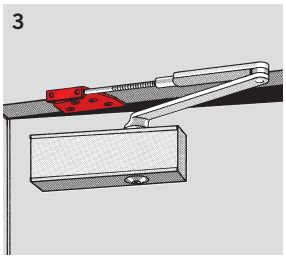
Standard installation

2



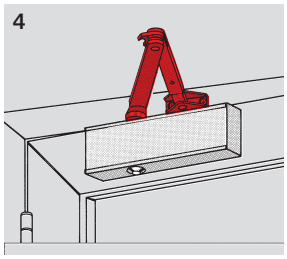
Frame installation

3



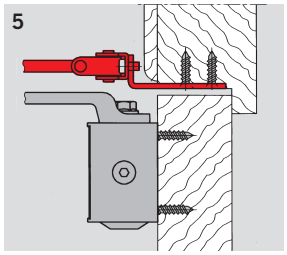
Parallel arm installation
(The above bracket is supplied with every TS 83 standard door closer.)

4



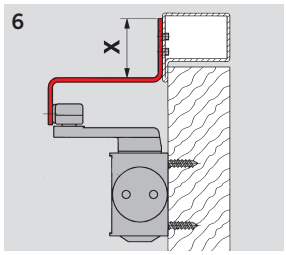
Hold-open arm installation
Adjustable for hold-open up to 150°. Can be switched off to act as a standard arm.

5



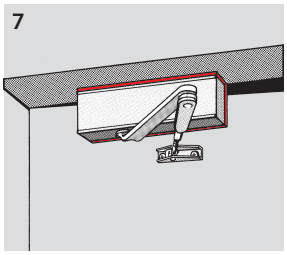
Soffit bracket and arm for standard installation with shaped architrave

6



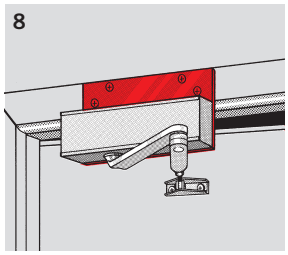
Parallel arm bracket with upstand
(*upstand 35 or 60 mm)

7



Angle bracket installation
Frame installation for outward opening doors with extra deep reveals.

8



Drop plate installation
For installation on frame (or door) when direct fixing of closer is not possible.

Specification text TS 83 EN 2-5

DORMA TS 83 rack and pinion door closer; with adjustable power size EN 2 - 5, according to EN 1154, carries the CE mark, integral self-regulating backcheck; closing speed adjustable in two independent ranges and adjustable latch action. Non-handed.

Model
☐ with additional, adjustable delayed action
☐ with standard arm
☐ with hold-open arm with switch

Accessories
_____

Colour
☐ silver
☐ white (sim. RAL 9016)
☐ other
☐ (sim. RAL _____)

Make: DORMA TS 83
💻 TS83

Specification text TS 83 EN 3-6

DORMA TS 83 rack and pinion door closer; with adjustable power size EN 3 - 6, according to EN 1154, carries the CE mark, integral self-regulating backcheck; closing speed adjustable in two independent ranges and adjustable latch action. Non-handed.

Model
☐ with additional, adjustable delayed action
☐ with standard arm
☐ with hold-open arm with switch

Accessories
_____

Colour
☐ silver
☐ white (sim. RAL 9016)
☐ other
☐ (sim. RAL _____)

Make: DORMA TS 83
💻 TS83

Specification text TS 83 EN 7

DORMA TS 83 rack and pinion door closer; with power size EN 7, according to EN 1154, carries the CE mark, integral self-regulating backcheck; adjustable closing speed and adjustable latch range. Non-handed.

Model
☐ with standard arm
☐ with hold-open arm with switch

Accessories Colour
☐ silver
☐ white (sim. RAL 9016)
☐ other
(sim. RAL _____)

Model make DORMA TS 83
💻 TS83

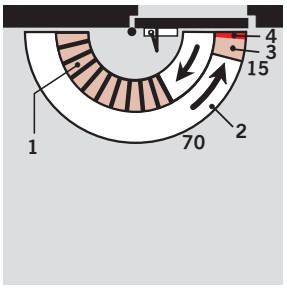
STANDARD FUNCTIONS

WITH "THINKING" BACKCHECK – MODEL BC/ÖD

Thanks to an innovative design concept, the resistance developed by this backcheck system is directly proportional to door acceleration as the door is opened beyond approx. 70°. It is almost imperceptible when the door is opened slowly. However, if the door is opened roughly, the backcheck responds in equal measure.

And if the door should be flung open at speed – whether deliberately, thoughtlessly, accidentally or as a result of a gust of wind – the backcheck reacts at full strength, protecting the wall and door from damage.

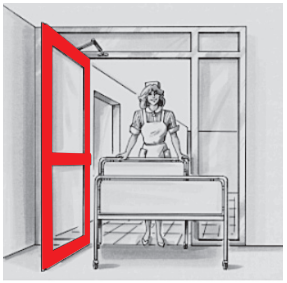
If no backcheck function is required, the system can simply be switched off.

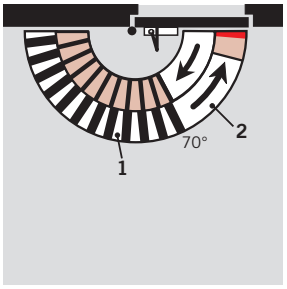


1 Self-regulating backcheck
2 Infinitely variable closing speed in the range 180° – 15°
3 Infinitely variable closing speed in the range 15° – 0°
4 Adjustable latch range (by arm)

WITH ADDITIONAL DELAYED ACTION – MODEL BC/ÖD + DC/SV

This model with its additional, integrated delayed action enables the closing cycle to be retarded within an adjustable range from 180° – 70° so that disabled persons, mothers with prams and people carrying bulky items are able to pass through the door without difficulty.



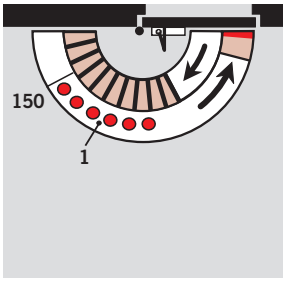


1 Adjustable delayed action
2 Fully controlled closing with adjustable speed

WITH OPTIONAL HOLD-OPEN ARM

Combining the TS 83 with a hold-open arm enables the door to be held open at an appropriate angle (up to approx. 150°).

The hold-open function of the standard hold-open arm can be switched on and off by the user by simply pressing a switch.



1 Hold-open range

Hold-open arms are not permitted on fire doors

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DORMA Ireland Limited
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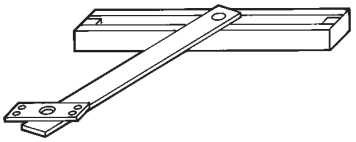
E-mail: dormadublin@dorma.ie
www.dorma.ie

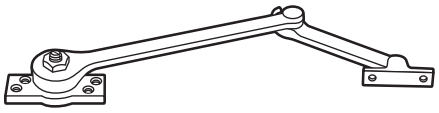
DOOR LIMITING & FRICTION STAYS

- limit door opening to a pre set degree
- prevent external outward opening doors from being ripped off their hinges
- heavy duty patterns for problem areas and heavy doors

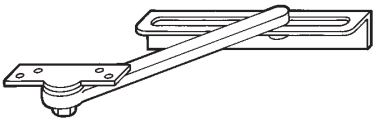
Z102 Door limiting stay, 90° pattern, electro zinc plated steel finish



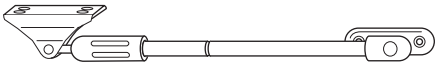
Z103 Door friction stay, 90° pattern, silver finish, 203mm centre to centre of long arm, 95mm centre to centre of short arm



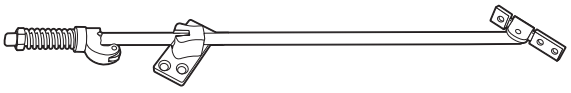
Z105Q Door friction stay, heavy pattern, silver finish, 229mm centre to centre of arm (to adjust friction, unscrew locknut, turn metal thread screw to required adjustment and screw up locknut)



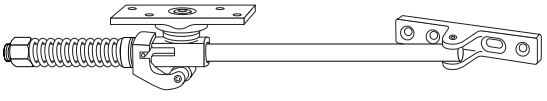
Z107 Friction door holder, telescopic pattern, silver grey finish
Z107.1 To suit outward opening door 500-700mm wide
Z107.2 To suit outward opening door 700-910mm wide



Z108 Door limiting stay, hold open pattern, heavy duty, silver grey finish, complete with bolt through fixings.
Z108.0 To suit door widths 583-735mm
Z108.1 To suit door widths 736-887mm
Z108.2 To suit door widths 888-1040mm
Z108.3 To suit door widths 1041-1192mm
Z108.4 To suit door widths above 1193mm



Z108HD Door limiting stay, hold open pattern, extra heavy duty, silver grey finish.
Z108HD.1 To suit door widths 762-913mm
Z108HD.2 To suit door widths 914-1014mm
Z108HD.3 To suit door widths 1015-1218mm



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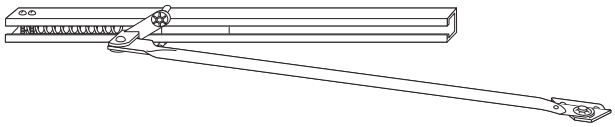
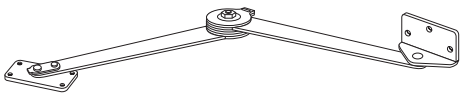
DOOR LIMITING & FRICTION STAYS

Z109 Heavy duty door holder, spring recoil in channel, steel galvanised finish,
Z109.1 To suit door widths 800-1100mm (non-handed)
Z109.2 To suit door widths 1100-1300mm (advise LH or RH)

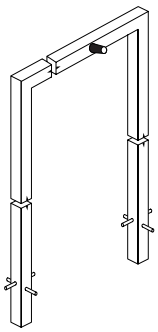
Extra fixing pack only to suit **Z109**



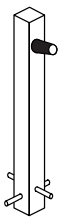
Z110 Friction door holder (90°), steel galvanised finish.
Z110.1 To suit inward opening doors
Z110.2 To suit outward opening doors



Z111 Goal post door holder, galvanised mild steel, coated black.
40mm square section, overall width 600mm, overall height 850mm plus 300mm for letting in to concrete (1150mm overall).
Z111.1 With Z440 door buffer
Z111.2 With Z1402 birds beak holder

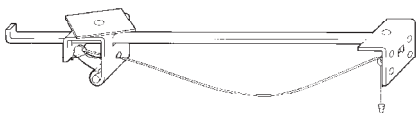


Z112 Single post door holder, galvanised mild steel, coated black.
40mm square section, height 450mm plus 150mm for letting into concrete (600mm overall).
Z112.1 With Z440 door buffer
Z112.2 With Z1402 birds beak holder

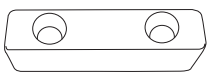


Z113 Garage door holder, 380mm wide lintel fix, epoxy black finish

Z114 Garage door holder, 610mm wide lintel fix, epoxy black finish



Z115 Heavy duty door buffer
Black rubber
150x50x50mm
With two holes for fixing



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Z102-Z MORTICE DOOR LIMITING STAY

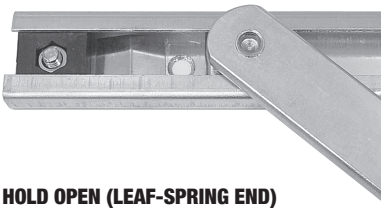
The Z102-Z is a mortice overhead limiting stay which limits the opening angle of a door to 90 degrees. Since it is a morticed product, it is primarily for use on timber doors. It is reversible so is suitable for either left hand or right hand doors. It can also be used on double action doors.

The channel is morticed into the top of the door, and the head plate fits under the soffit. It is manufactured from mild steel with electro zinc-plated finish. There is a leaf spring at one end of the channel, and by reversing the channel it can be fitted to either hold the door open (leaf spring fitted nearest the door jamb) or function as a non-hold open stay (blank end fitted nearest the door jamb).

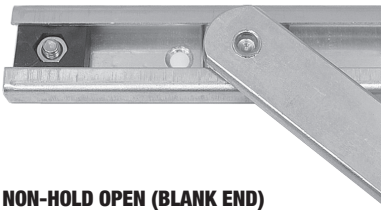
This product is supplied complete with seven No.6 x 19mm BZP countersunk wood screws.

Since this limit stay is often used on outward opening external doors, all parts are electro zinc plated to extend life. The channel is 357mm long x 30mm wide x 12mm deep. The minimum door leaf width for doors fitted with butt hinges is 610mm.

Z102-Z electro zinc plated steel (Box Qty 5, outer 40)



HOLD OPEN (LEAF-SPRING END)



NON-HOLD OPEN (BLANK END)

Z105-Z SURFACE FIXING FRICTION DOOR STAY

The Z105-Z is a heavy pattern surface fixing friction door stay manufactured in both mild steel and stainless steel. Mild steel units are zinc plated before being silver sprayed, which makes them suitable for external use. However this door stay is also available in stainless steel for use in aggressive conditions, or to match stainless steel door hardware. Although stainless steel stays are not the cheapest on the market they will not succumb to corrosion and will continue to operate effectively for years to come.

Mild steel and stainless steel patterns have the same dimensions. The Z105-Z measures 229mm from centre to centre of arm. To adjust the friction, unscrew the locknut on the friction box, use a spanner to turn the metal thread screw to the required adjustment and screw up the locknut.

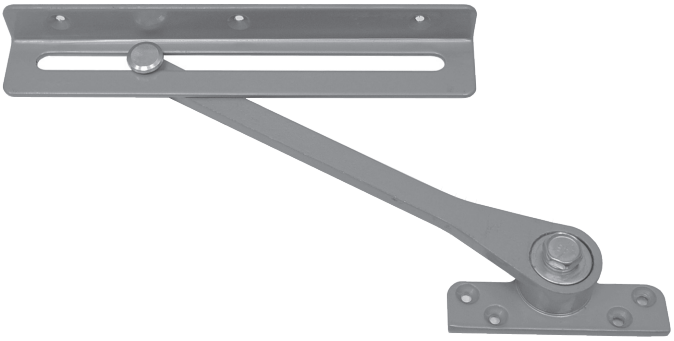
65mm spacing from the hinge axis will give an opening angle of approximately 90°. Decrease this dimension for greater angles (e.g. 95° - 100°) or increase the dimension for restricting the door to approximately 80° - 85°.

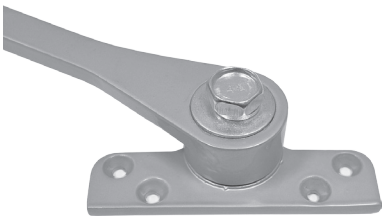
If more or less friction is required, adjust the hexagonal bolt accordingly. It is important that the friction is checked and adjusted regularly. This device is designed to control the speed of opening and closing: it is not a door stop or holder. To prevent damage to the door or adjacent cladding, a supplementary door stop should be fitted, particularly if the building is in an exposed position.

Since it is a surface fixing product, this door stay is suitable for use on both timber and steel doors.

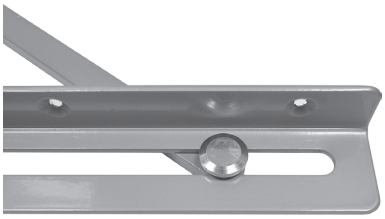
Z105-Z electro zinc plated steel (Box Qty 5, outer 40)

Z105ST stainless steel barrelled finish (Box Qty 5, outer 40)





FRICTION BOX (ADJUST WITH SPANNER)



SLIDE ARM