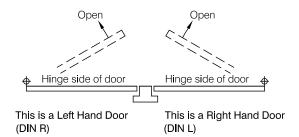
# INSTRUCTIONS FOR PARALLEL ARM APPLICATIONS OF MODEL NO.85V/87V AND ITS EQUIVALENTS FITTED WITH NO.820SPB BRACKET.

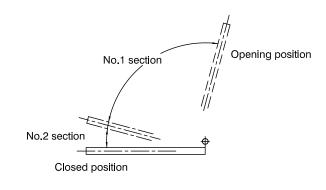


Installation Procedure (This manual shows right-hand (DIN L) doors. Follow the same procedure for left-hand (DIN R) door.)

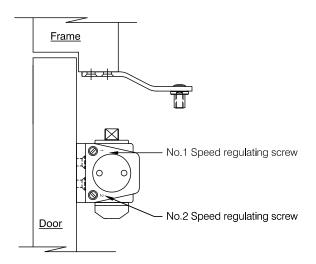
Use this chart to determine hand of door



#### Adjusting Section of Closing Speed



## Adjustment of Closing Speed



**Speed**: The door closing speed and the latching speed are controlled by the speed regulating screws.

No.1 section is to be adjusted with No.1 speed regulating screw .

No.2 section with No.2 speed regulating screw.

Turn clockwise to reduce speed . Turn counterclockwise to increase speed .

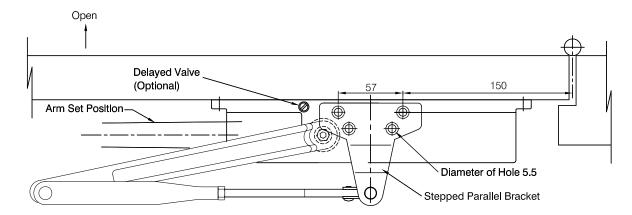
Note: Using a different type of parallel bracket may require different installation positions.

2

## **INSTALLATION**

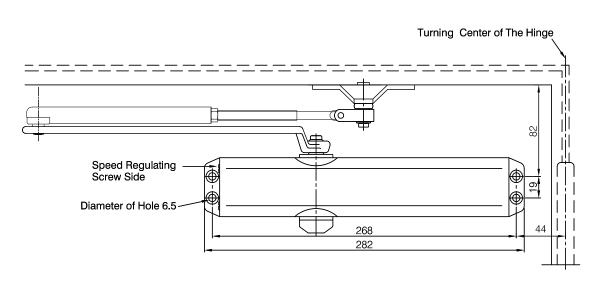
#### Closer mounted on the push side of the door

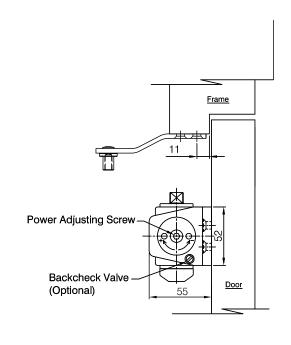
This drawing is Right handing (DIN L).



#### Installation Instructions

- Use the dimensions on the enclosed template to mark the four holes on the door for the closer and the four holes on the lintel of the frame.
- Drill holes in the door and the lintel for wood screws or drill and tap holes for machine screws.
- 3. Mount the closer on the door with the speed regulating screws towards the lock side.
- Disconnect the forearm from the parallel bracket and fit the parallel bracket to the lintel of the frame.
- 5. Fit the main arm on the shaft in the arm set position as illustrated.
- Adjust the length of the forearm so, that it will be parallel to the door, when it is connected to the parallel arm bracket and the door is closed.
- Adjust the spring power, if needed (see step 3) and adjust the closing speed as described in step 1.
- 8. Screw the pinion cap on the shaft or clip on the cover, if purchased (See step 5) .

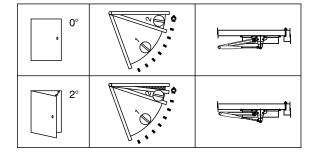




## CAUTION:

The maximum door opening angle (see step 3) is based on a door thickness of max. 50mm and the use of common butt hinges with turning center at 10mm. The use of thicker doors and/or hinges with a larger turning center or offset will limit the maximum door opening angle.

#### Adjust the latching angle



The latching speed can be activated by making the forearm longer so that the main arm returns to its arm set position when the door is closed.

This latching action plays an important role in fire and smoke control in the building. Once set at the time of installation, this latching speed should be readjusted only when absolutely necessary.

# INSTRUCTIONS FOR PARALLEL ARM APPLICATIONS OF MODEL NO.85V/87V AND ITS EQUIVALENTS FITTED WITH NO.820SPB BRACKET.

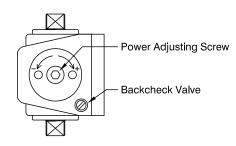


Installation Procedure (This manual shows right-hand (DIN L) doors. Follow the same procedure for left-hand (DIN R) door.)

Adjust Spring Power According to The Chart

#### Adjust Spring Power as Follows

Turn the spring adjusting screw clockwise the required number of turns to match the door width as indicated in the chart . Where strong drafts exist increase the spring power as needed .



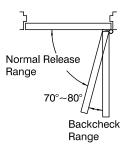
3-5 MODEL	Size	No.of turns	Direction	Opening (Max.)
<u>-</u>	3	0	*	180°
	4	3	+	180°
85V	5	6	+	180°

- \* : Factory pre-set at size 3. (EN1154+A1)
- $\boldsymbol{\Delta}$  Opening angle is based on the use of normal butt hinges with turning center at max. 10mm and door thcikness of max 50mm.

#### Regulating Backcheck (Optional BC-version) Delayed Action (Optional DA-version)

The power of the backcheck action is regulated by the valve shown in the illustration left.

Set the valve for a slight cushioning effect to avoid damage to the door. Backcheck should never be used instead of a door stop.

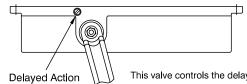


6-7 MODEL	Size	NO.OF TURNS	Direction	Opening (Max.)
$1' \bigcirc 1$	EN6	5	_	180°
87V	EN7	*0	*	180°

- \* : Factory pre-set at size 7. (EN1154+A1)
  - $\boldsymbol{\Delta}$  Opening angle is based on the use of normal butt hinges with turning center at max. 10mm and door thoikness of max 50mm.

Delayed action is obtained by opening the door into the delaying range as shown . Upon release , the door closes slowly through the  $% \left( 1\right) =\left( 1\right) \left( 1\right)$ delaying range and then continues at regular speed in the normal release until fully closed.

The normal release range is approximately at the  $80^{\circ}$  angle .



This valve controls the delayed action. Turn the regulating screw clockwise to slow down or counterclockwise to speed up door movement.

