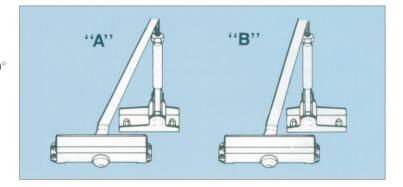
# **Adjusting Closing Force**

The position indicated by figure "A" is the standard position of the eccentric shoe. By turning the shoe  $180^{\circ}$  to the position shown in figure "B", the door closing force increases about 25% just before the door closes (during the last  $10^{\circ}$ ).



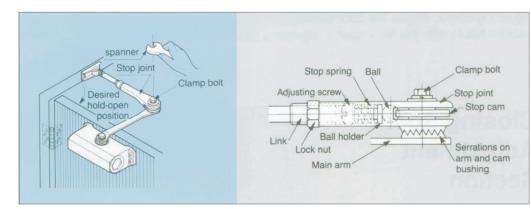
# **Easy Adjustment of Hold-Open Angle**

The 510-Series door closer is equipped with the serration-type hold-open device which allows the door to be kept open at any desired angle between 80° and

 $135^{\circ}$  with the regular closer, and between  $80^{\circ}$  and  $170^{\circ}$  with the parallel closer. The hold-open angle can be adjusted in steps of  $6^{\circ}$  to  $12^{\circ}$ .

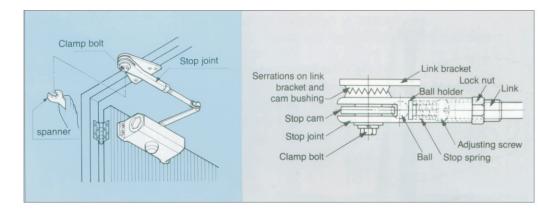
## Regular type

Open the door to the angle you want it to stay at. Tighten the clamp bolt (M8 hex.) on top of the stop joint with the spanner. Make sure that the serrations on the arm and on the bushing engage snugly.



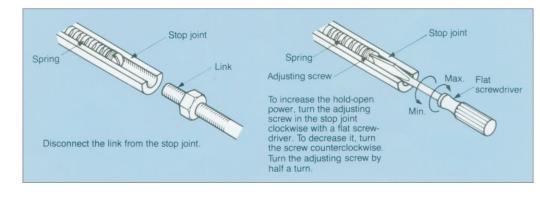
## Parallel type

Open the door to the angle you want it to stay open at. Tighten the clamp bolt(M8 hex.) on top of the stop joint with the spanner. Make sure that the serrations on the link bracket and on the bushing engage snugly.



## **Adjusting hold-open power**

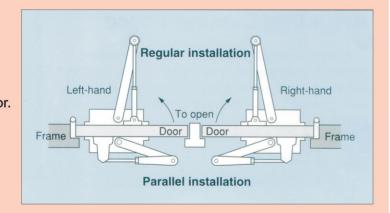
The door hold-open power is factoryadjusted to the optimum level. To readjust it, take the following steps:



## **Checking Door Handing**

If the door poens clockwise it is a right-hand door.
If the door opens counterclockwise, it is a left-hand door.

Use this chart to determine the handing of your door.

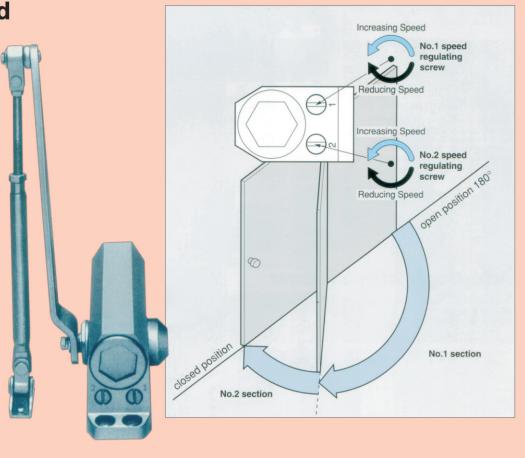


## **Adjusting Speed**

There are two speeds;door closing speed and controlled speed. Each is controlled by its own speed regulating screw. Adjust the door closing speed (section No.1) with the No.1 speed regulating screw,

and the controlled speed (section No.2)with the No.2 speed regulating screw. Turn clockwise to reduce speed; counterclockwise to increase speed.

Closing Speed Adjustment Section



YOUR CONTACT ADDRESS:



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DOOR CLOSER 510

# Wider application range Pioneer in Rack and Pinion Closer.

A new door closer from NHN, the pioneers in rack and pinion closer development since 1939. After over 20 years of success throughout the world with conventional door closers, NHN are proud to introduce their new 510 series, a slimline closer incorporating the latest production technology.

Available in a range of 3 sizes covering door weights up to

65kg,1 body sizes simplify template fixing, while the slim design is eminently suitable for use on metal frame doors where fixing space is restricted.

A full selection of functions is available in each size and the slim aluminium body incorporates the well proven NHN dual speed control system.



#### **Features**

- New peripheral-cam hold-open mechanism.
- Twin door speed controls with separate regulating screws.
- Constant closing speed assured by automatic temperature compensator.
- Adjust the hold-open angle with a single bolt.
- Ideal for doors with narrow top rails.

- For use with wooden or metal doors.
- Easy to install, with card template and installation instructions.
- Reversible for left and right hand.
- Specify finish:Silver(005),Brown(030),Black(014), White(009),Gold(013). A range of colours is also available

## **Selection Chart**

Appro	oximate Width a	nd Weight of De	For Regu Top Jamb Ir		For Parallel Arm Installation			
Width		Weight		Regular	Hold open	Parallel	Parallel Hold Open	
mm	inch	kg	lbs		орон		opon	
800×1,800	31×71	40	88	511	511S	511P	511PS	
900×2,100	35×83	50	110	512	512S	512P	512PS	
950×2,100	37×83	65	143	513	513S	513P	513PS	

\*These products are being constantly improved, and specifications are subject to change without notice.

These products are designed for use on doors in ordinary building construction. If they are to be used for special applications, consult the manufacturer. Further, if the door closer is to be installed on doors which are exposed to strong winds, or on doors which are extremely tall or heavy, use the next larger closer size than the one shown above.

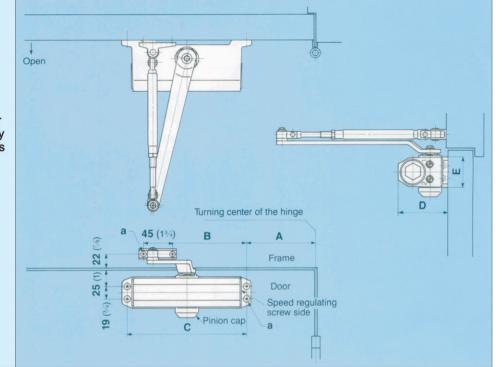
A door stop should be fitted to prevent the door from opening back too far and damaging the wall.





# Non Hold-Open Regular Arm Application

This is the standard application where the closer is fitted to the door on the opening face and is generally used on internal doors. The closer is fully reversible.



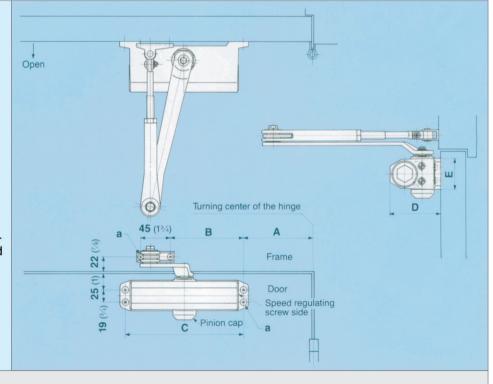
#### **Dimension Chart**

TYPE	Unit	Δ	R	С	D	E	Diameter of hole
ITPE	Oiiit	_ ^	Ь	C			а
No. 511	mm	76	107	178	75	46	5.5
No. 512 No. 513	inch	3	47/32	7	215/16	1 13/16	7/32

# Hold-Open Regular Arm Application

For use in similar locations to the regular arm, the hold-open arm is fitted with a unique cam hold-open device which is easily adjustable to allow the door to be held open in any position up to 135°. It can be engaged or disengaged with little effort.

When needed, the fusible link can be used in conjunction with the hold-open device. It is easily installed and is used on fire doors to retard the spread of fire and smoke.



#### **Dimension Chart**

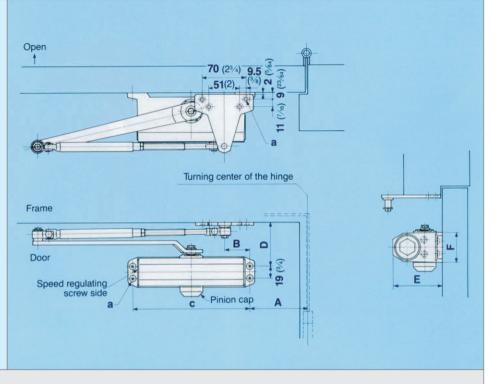
rt	TYPE	Unit	A	В	С	D	E	Diameter of hole a
	No. 511S	mm	76	107	178	75	46	5.5
	No. 512S No. 513S	inch	3	47/32	7	215/16	1 13/16	7/32

## Non Hold-Open Regular Arm Application

The parallel arm application is fitted to the closing face of the door and can be used where top jamb application is impractical or a drop plate is not suitable.

Parallel arm application should also

Parallel arm application should also be used when the reveal is deeper than 70mm (2 3/4") or where the closer arm is required not to project into the room.



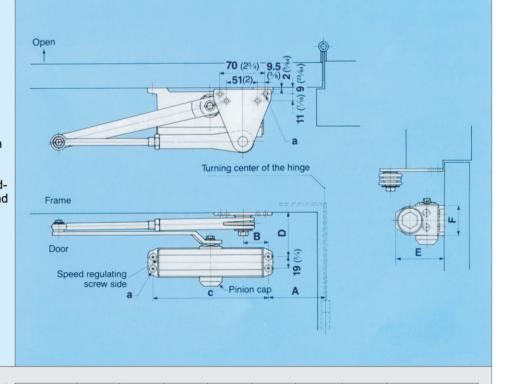
#### Dimension Chart

	TYPE	Unit	Α	В	С	D	E	F	Diameter of hole a
Г	No. 511P	mm	76	36	178	66	75	46	5.5
	No. 512P No. 513P	inch	3	113/32	7	219/32	215/16	1 13/16	7/32

# Hold-Open Regular Arm Application

For use as above, the parallel holdopen arm is also availble with a cam hold-open device allowing the door to be held open in any position up to 170°.

When needed, the fusible link can be used in conjunction with the holdopen device. It is easily installed and is used on fire doors to retard the spread of fire and smoke.



#### **Dimension Chart**

TYPE	Unit	Δ	Δ Β	B C D E E	D	D	n	D.	E .	D E	E	Diameter of hole
1112	Oilit	^	В	·	, D	-		a				
No. 511PS	mm	76	36	178	66	75	46	5.5				
No. 512PS No. 513PS	inch	3	113/32	7	219/32	215/16	113/16	7/32				