



# LID SUPPORTS

SOFT-DOWN STAYS  
VERTICAL SWING LIFT-UP MECHANISM  
HORIZONTAL BI-FOLD DOOR MECHANISM  
SOFT CLOSING SYSTEM  
LID STAYS  
SPRING LOADED LID STAYS  
MULTI ANGLE LID STAYS  
DOOR HOLDERS

## LAPCON/SOFT CLOSING STAYS

| Picture | Item No.         |  | Torque (in-lbs) or Door weight (lbs) | Page    |
|---------|------------------|--|--------------------------------------|---------|
|         | SDS-C100         |  | 30~43 (in-lbs) / pc                  | 319     |
|         | SDS-C301N        |  | 35~60 (in-lbs) / pc                  | 320~321 |
|         | SDS-50G          |  | -                                    | 321     |
|         | SDS-100-TV/TVZ   |  | 4.3~32.6 (in-lbs) / pc               | 322     |
|         | UDD              |  | 4.4~26.6 (in-lbs) / pair             | 323     |
|         | UDD-BKT          |  | -                                    | 323     |
|         | CSD-10-TV        |  | 8.8~35.4 (in-lbs) / pc               | 324     |
|         | NSDX-10          |  | 19~60 (in-lbs) / pc                  | 327     |
|         | NSDX-20          |  | 19~60 (in-lbs) / pc                  | 328     |
|         | NSDX-35          |  | 19~60 (in-lbs) / pc                  | 329     |
|         | NSDX-10(R/L)K/TV |  | 8.7~17.4 (in-lbs) / pc               | 330     |
|         | HDS-10           |  | 121~260 (in-lbs) / pair              | 332     |
|         | HDS-10S          |  | 52~156 (in-lbs) / pair               | 333     |
|         | HDS-20           |  | 121~260 (in-lbs) / pair              | 334     |
|         | HDS-20S          |  | 61~130 (in-lbs) / pair               | 335     |
|         | HDS-30           |  | 121~260 (in-lbs) / pair              | 336     |
|         | HDSN-30          |  | 122~260 (in-lbs) / pair              | 337     |

| Picture | Item No.  |  | Torque (in-lbs) or Door weight (lbs) | Page    |
|---------|-----------|--|--------------------------------------|---------|
|         | SLS-ELAN  |  | 48~87 (in-lbs) / pc                  | 339     |
|         | EZS-ELAN  |  | Door Weight 11~27.5 lbs              | 340~341 |
|         | SLU-ELAN  |  | Door Weight 11~24.2 lbs              | 342~343 |
|         | FFCB-HG-1 |  | -                                    | 344     |
|         | FFCB-SLS  |  | -                                    | 344     |
|         | FFCB-SLU  |  | -                                    | 345     |
|         | FFCB-SD-1 |  | -                                    | 345     |
|         | SLUN      |  | Door Weight 6.2~12.8 lbs             | 346~347 |
|         | SLD       |  | Door Weight 6.6~13.2 lbs             | 348~349 |
|         | HBFN-SZ   |  | -                                    | 350     |
|         | HBFN      |  | Door Weight 5.5~12.1 lbs             | 351     |
|         | OV-EZ     |  | Door Weight 5.5~25.2 lbs             | 352~353 |
|         | OVN       |  | Door Weight 6.6~15.4 lbs             | 354~355 |
|         | OV        |  | Door Weight 6.6~11 lbs               | 356~357 |
|         | IF        |  | Door Weight 3.3~14.3 lbs             | 358~359 |



## LID STAYS

| Picture | Item No.             | Torque (in-lbs) or Door weight (lbs) | Page |
|---------|----------------------|--------------------------------------|------|
|         | F-100, 150, 200, 250 |                                      | 360  |
|         | F-300                |                                      | 360  |
|         | S-6, S-16            |                                      | 361  |
|         | S-20                 |                                      | 361  |
|         | S-21                 |                                      | 362  |
|         | S-23                 |                                      | 362  |
|         | S-24, S-25, S-27     |                                      | 362  |
|         | S-100T30             | 26.5 (in-lbs) / pc                   | 363  |
|         | S-52T15              | 13.3 (in-lbs) / pc                   | 363  |
|         | S-91, 92, 93         | 66~88 lbs                            | 364  |
|         | HS                   | 22~28.5 lbs                          | 364  |
|         | L-100S               | 13.2 lbs                             | 365  |
|         | L-140S               | 13.2 lbs                             | 365  |
|         | L-S-BT               | 365                                  | 365  |
|         | L-SL140              | 33 lbs                               | 366  |
|         | L-SL140-BT           | 366                                  | 366  |
|         | L-FS140              | 13.2 lbs                             | 367  |
|         | L-FS140-BT           | 367                                  | 367  |
|         | L-200P               | 33 lbs                               | 368  |
|         | L-200P-BT            | 368                                  | 368  |
|         | LK                   | 5.5~9.4 lbs                          | 369  |
|         | LB-215, 290          | 33 lbs / pc                          | 369  |

| Picture | Item No.  | Torque (in-lbs) or Door weight (lbs) | Page |
|---------|-----------|--------------------------------------|------|
|         | L         | 33 lbs / pc                          | 370  |
|         | LB        | 44~66 lbs / pc                       | 370  |
|         | LB-CV215A | 33 lbs / pc                          | 371  |
|         | LB-S      | 214~293 lbs / pc                     | 372  |
|         | LBTS      | 154 lbs / pc                         | 372  |
|         | L-FS350A  | 55 lbs / pc                          | 373  |
|         | U-3005    | 44 lbs / pc                          | 373  |
|         | U-3031    | 15 lbs / pc                          | 374  |
|         | LSP       | 66 lbs / pc                          | 374  |

## SPRING LOADED LID STAYS

| Picture | Item No.         | Torque (in-lbs)      | Page |
|---------|------------------|----------------------|------|
|         | S-YT             | 26~34 (in-lbs) / pc  | 375  |
|         | S-AT01, S-AT02   | 78~104 (in-lbs) / pc | 376  |
|         | S-AT01S, S-AT02S | 78~104 (in-lbs) / pc | 376  |

## DOOR CLOSERS / DOOR HOLDERS

| Picture | Item No.       | Torque (in-lbs), Load (lbs), or Door Weight (lbs)         | Page |
|---------|----------------|-----------------------------------------------------------|------|
|         | YMC            | 0.66~1.54 lbs                                             | 377  |
|         | LAD-ST         | 70.1~141.9 (in-lbs) / pc                                  | 378  |
|         | LAD-DP         | -                                                         | 379  |
|         | LAD-BKT        | -                                                         | 379  |
|         | YFN            | Tensile: Max. 198~330 lbs<br>Compression: Max 110~132 lbs | 380  |
|         | YA-0812, 1216  | -                                                         | 381  |
|         | YA-2020, 2020W | Tensile: Max. 330 lbs<br>Compression: Max 132 lbs         | 382  |



## = Soft & Smooth Movement

Lapcon series products provide the smoothest opening and closing system imaginable, equipped with Sugatsune's built-in patented dampening device. As a Lapcon opens and closes, it moves with quiet assurance. Lapcon products also provide safety to your application with its revolutionary damper. Doors and lids will come down slowly and softly which eliminates slamming doors or smashed fingers.



### Downward-Opening Lids

Secretary Desks \* Keyboard Trays \* Media Cabinets

With catch in closed position:

- SDS-C100, SDS-C100TV
- NSDX-10, NSDX-10TV
- HDS-10

Without catch in closed position:

- SDS-100, SDS-100TV

Use with:

- SDH Drop Hinges (P.238, sold separately)
- ML Touch Latches (P.118~119, sold separately)



### Upward-Opening Lids

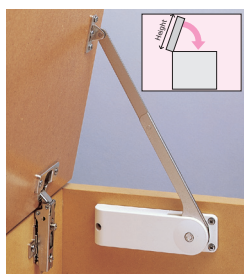
Upper Kitchen & Bath Cabinets \* Display Boxes

With catch in open position:

- SDS-C301
- NSDX-35
- HDS-30
- HDSN-30
- SLS-ELAN

Use with:

- 230 Concealed Hinges (P.298~303, sold separately)



### Top-Opening Lids

Toy Boxes & Chests \* Display Cases \* Access Panels

With catch in open position:

- SDS-210, SDS-C301
- NSDX-20
- HDS-20

Use with:

- 230 Concealed Hinges (P.298~303, sold separately)
- LSD Piano Hinges (P.224, sold separately)

| Material, 3/4" (19 mm) thick                    | Density (lbs./sq.ft) |
|-------------------------------------------------|----------------------|
| Particle board                                  | 3.0                  |
| MDF (Medium Density Fiberboard)                 | 3.5                  |
| Plywood (Lumbercore)                            | 2.5                  |
| Solid Wood (Oak, Beech, Ash, Birch, Elm, Maple) | 2.7                  |
| Solid Wood (Red Pine, Red Cedar)                | 1.9                  |

Above values are approximate. Please weigh lid for exact weight.

## Torque Rating

$$\text{Door Weight} \times \text{Door Height} \div 2 = \text{Applied Torque}$$

### Approximate lid weight can be calculated as follows

1. Calculate area of lid:  
e.g)  $28" \times 12" = 336 \text{ sq. in.}$
2. Convert to square ft. if needed:  
e.g)  $336 \text{ sq. in.} \div 144 = 2.33 \text{ sq. ft.}$
3. Select density factor from table on the left:  
e.g)  $3.5 \text{ lbs./sq. ft.}$  for 3/4" thick door (MDF)
4. Determine door weight:  
e.g)  $2.33 \text{ sq. ft.} \times 3.5 \text{ lbs./sq. ft.} = \underline{8.16 \text{ lbs.}}$

## Door Weight Range Table (Per pair, in lbs.)

| Door Height (inches) | SDS-C100TV |     | SDS-C100TVZ |      | SDS-C100 |      | SDS-C301N |      | NSDX-TV |      | NSDX |      |
|----------------------|------------|-----|-------------|------|----------|------|-----------|------|---------|------|------|------|
|                      | Min        | Max | Min         | Max  | Min      | Max  | Min       | Max  | Min     | Max  | Min  | Max  |
| 6                    | 2.9        | 6.9 | 9.5         | 21.7 | -        | -    | -         | -    | 5.8     | 11.6 | -    | -    |
| 7                    | 2.5        | 5.9 | 8.2         | 18.6 | -        | -    | -         | -    | 5.0     | 9.9  | -    | -    |
| 8                    | 2.2        | 5.2 | 7.2         | 16.3 | 15.0     | 21.5 | 17.5      | 30.0 | 4.4     | 8.7  | 9.5  | 30.0 |
| 9                    | 1.9        | 4.6 | 6.4         | 14.5 | 13.3     | 19.1 | 15.6      | 26.7 | 3.9     | 7.7  | 8.4  | 26.7 |
| 10                   | 1.7        | 4.2 | 5.7         | 13.0 | 12.0     | 17.2 | 14.0      | 24.0 | 3.5     | 6.9  | 7.6  | 24.0 |
| 11                   | 1.6        | 3.8 | 5.2         | 11.9 | 10.9     | 15.6 | 12.7      | 21.8 | 3.2     | 6.3  | 6.9  | 21.8 |
| 12                   | 1.5        | 3.5 | 4.8         | 10.9 | 10.0     | 14.3 | 11.7      | 20.0 | 2.9     | 5.8  | 6.3  | 20.0 |
| 13                   | -          | -   | -           | -    | 9.2      | 13.2 | 10.8      | 18.5 | -       | -    | 5.8  | 18.5 |
| 14                   | -          | -   | -           | -    | 8.6      | 12.3 | 10.0      | 17.1 | -       | -    | 5.4  | 17.1 |
| 15                   | -          | -   | -           | -    | 8.0      | 11.5 | 9.3       | 16.0 | -       | -    | 5.1  | 16.0 |
| 16                   | -          | -   | -           | -    | 7.5      | 10.8 | 8.8       | 15.0 | -       | -    | 4.8  | 15.0 |
| 17                   | -          | -   | -           | -    | 7.1      | 10.1 | 8.2       | 14.1 | -       | -    | 4.5  | 14.1 |
| 18                   | -          | -   | -           | -    | 6.7      | 9.6  | 7.8       | 13.3 | -       | -    | 4.2  | 13.3 |
| 19                   | -          | -   | -           | -    | 6.3      | 9.1  | 7.4       | 12.6 | -       | -    | 4.0  | 12.6 |
| 20                   | -          | -   | -           | -    | 6.0      | 8.6  | 7.0       | 12.0 | -       | -    | 3.8  | 12.0 |
| 21                   | -          | -   | -           | -    | 5.7      | 8.2  | 6.7       | 11.4 | -       | -    | 3.6  | 11.4 |
| 22                   | -          | -   | -           | -    | 5.5      | 7.8  | 6.4       | 10.9 | -       | -    | 3.5  | 10.9 |
| 23                   | -          | -   | -           | -    | 5.2      | 7.5  | 6.1       | 10.4 | -       | -    | 3.3  | 10.4 |
| 24                   | -          | -   | -           | -    | 5.0      | 7.2  | 5.8       | 10.0 | -       | -    | 3.2  | 10.0 |
| 25                   | -          | -   | -           | -    | 4.8      | 6.9  | 5.6       | 9.6  | -       | -    | 3.0  | 9.6  |
| 26                   | -          | -   | -           | -    | 4.6      | 6.6  | 5.4       | 9.2  | -       | -    | 2.9  | 9.2  |

## Door Weight Range Table (Per pair, in lbs.)

| Door Height (inches) | HDS-K |      | HDS-M |      | HDS-H |      | HDSN-K |      | HDSN-M |      | HDSN-H |      | HDSN-S |      |
|----------------------|-------|------|-------|------|-------|------|--------|------|--------|------|--------|------|--------|------|
|                      | Min   | Max  | Min   | Max  | Min   | Max  | Min    | Max  | Min    | Max  | Min    | Max  | Min    | Max  |
| 8                    | 30.3  | 43.3 | 43.3  | 54.0 | 54.0  | 65.0 | 30.5   | 38.8 | 39.0   | 47.5 | 47.8   | 56.3 | 56.5   | 65.0 |
| 9                    | 26.9  | 38.4 | 38.4  | 48.0 | 48.0  | 57.8 | 27.1   | 34.4 | 34.7   | 42.2 | 42.4   | 50.0 | 50.2   | 57.8 |
| 10                   | 24.2  | 34.6 | 34.6  | 43.2 | 43.2  | 52.0 | 24.4   | 31.0 | 31.2   | 38.0 | 38.2   | 45.0 | 45.2   | 52.0 |
| 11                   | 22.0  | 31.5 | 31.5  | 39.3 | 39.3  | 47.3 | 22.2   | 28.2 | 28.4   | 34.5 | 34.7   | 40.9 | 41.1   | 47.3 |
| 12                   | 20.2  | 28.8 | 28.8  | 36.0 | 36.0  | 43.3 | 20.3   | 25.8 | 26.0   | 31.7 | 31.8   | 37.5 | 37.7   | 43.3 |
| 13                   | 18.6  | 26.6 | 26.6  | 33.2 | 33.2  | 40.0 | 18.8   | 23.8 | 24.0   | 29.2 | 29.4   | 34.6 | 34.8   | 40.0 |
| 14                   | 17.3  | 24.7 | 24.7  | 30.9 | 30.9  | 37.1 | 17.4   | 22.1 | 22.3   | 27.1 | 27.3   | 32.1 | 32.3   | 37.1 |
| 15                   | 16.1  | 23.1 | 23.1  | 28.8 | 28.8  | 34.7 | 16.3   | 20.7 | 20.8   | 25.3 | 25.5   | 30.0 | 30.1   | 34.7 |
| 16                   | 15.1  | 21.6 | 21.6  | 27.0 | 27.0  | 32.5 | 15.3   | 19.4 | 19.5   | 23.8 | 23.9   | 28.1 | 28.3   | 32.5 |
| 17                   | 14.2  | 20.4 | 20.4  | 25.4 | 25.4  | 30.6 | 14.4   | 18.2 | 18.4   | 22.4 | 22.5   | 26.5 | 26.6   | 30.6 |
| 18                   | 13.4  | 19.2 | 19.2  | 24.0 | 24.0  | 28.9 | 13.6   | 17.2 | 17.3   | 21.1 | 21.2   | 25.0 | 25.1   | 28.9 |
| 19                   | 12.7  | 18.2 | 18.2  | 22.7 | 22.7  | 27.4 | 12.8   | 16.3 | 16.4   | 20.0 | 20.1   | 23.7 | 23.8   | 27.4 |
| 20                   | 12.1  | 17.3 | 17.3  | 21.6 | 21.6  | 26.0 | 12.2   | 15.5 | 15.6   | 19.0 | 19.1   | 22.5 | 22.6   | 26.0 |
| 21                   | 11.5  | 16.5 | 16.5  | 20.6 | 20.6  | 24.8 | 11.6   | 14.8 | 14.9   | 18.1 | 18.2   | 21.4 | 21.5   | 24.8 |
| 22                   | 11.0  | 15.7 | 15.7  | 19.6 | 19.6  | 23.6 | 11.1   | 14.1 | 14.2   | 17.3 | 17.4   | 20.5 | 20.5   | 23.6 |
| 23                   | 10.5  | 15.0 | 15.0  | 18.8 | 18.8  | 22.6 | 10.6   | 13.5 | 13.6   | 16.5 | 16.6   | 19.6 | 19.7   | 22.6 |
| 24                   | 10.1  | 14.4 | 14.4  | 18.0 | 18.0  | 21.7 | 10.2   | 12.9 | 13.0   | 15.8 | 15.9   | 18.8 | 18.8   | 21.7 |
| 25                   | 9.7   | 13.8 | 13.8  | 17.3 | 17.3  | 20.8 | 9.8    | 12.4 | 12.5   | 15.2 | 15.3   | 18.0 | 18.1   | 20.8 |
| 26                   | 9.3   | 13.3 | 13.3  | 16.6 | 16.6  | 20.0 | 9.4    | 11.9 | 12.0   | 14.6 | 14.7   | 17.3 | 17.4   | 20.0 |
| 27                   | 9.0   | 12.8 | 12.8  | 16.0 | 16.0  | 19.3 | 9.0    | 11.5 | 11.6   | 14.1 | 14.1   | 16.7 | 16.7   | 19.3 |
| 28                   | 8.6   | 12.4 | 12.4  | 15.4 | 15.4  | 18.6 | 8.7    | 11.1 | 11.1   | 13.6 | 13.6   | 16.1 | 16.1   | 18.6 |

| Door Height (inches) | SLS-ELAN M |      | SLS-ELAN H |      | EVS-ELAN LL |      | EVS-ELAN LM |      | EVS-ELAN MM |      | EVS-ELAN MH |      | EVS-ELAN HH |      |
|----------------------|------------|------|------------|------|-------------|------|-------------|------|-------------|------|-------------|------|-------------|------|
|                      | Min        | Max  | Min        | Max  | Min         | Max  | Min         | Max  | Min         | Max  | Min         | Max  | Min         | Max  |
| 12                   | 16.0       | 21.7 | 21.7       | 29.0 | -           | -    | -           | -    | -           | -    | -           | -    | -           | -    |
| 13                   | 14.8       | 20.0 | 20.0       | 26.8 | -           | -    | -           | -    | -           | -    | -           | -    | -           | -    |
| 14                   | 13.7       | 18.6 | 18.6       | 24.9 | -           | -    | -           | -    | -           | -    | -           | -    | -           | -    |
| 15                   | 12.8       | 17.3 | 17.3       | 23.2 | -           | -    | -           | -    | -           | -    | -           | -    | -           | -    |
| 16                   | 12.0       | 16.3 | 16.3       | 21.8 | -           | -    | -           | -    | -           | -    | -           | -    | -           | -    |
| 17                   | 11.3       | 15.3 | 15.3       | 20.5 | -           | -    | -           | -    | -           | -    | -           | -    | -           | -    |
| 18                   | 10.7       | 14.4 | 14.4       | 19.3 | -           | -    | -           | -    | -           | -    | -           | -    | -           | -    |
| 19                   | 10.1       | 13.7 | 13.7       | 18.3 | -           | -    | -           | -    | -           | -    | -           | -    | -           | -    |
| 20                   | 9.6        | 13.0 | 13.0       | 17.4 | -           | -    | -           | -    | -           | -    | -           | -    | -           | -    |
| 21                   | 9.1        | 12.4 | 12.4       | 16.6 | 10.0        | 14.0 | 13.8        | 18.3 | 18.1        | 22.6 | 21.6        | 25.3 | 25.1        | 30.8 |
| 22                   | 8.7        | 11.8 | 11.8       | 15.8 | 9.7         | 13.5 | 13.3        | 17.6 | 17.4        | 21.7 | 20.7        | 24.2 | 24.1        | 29.5 |
| 23                   | 8.3        | 11.3 | 11.3       | 15.1 | 9.4         | 13.0 | 12.8        | 16.9 | 16.7        | 20.8 | 19.9        | 23.3 | 23.1        | 28.3 |
| 24                   | 8.0        | 10.8 | 10.8       | 14.5 | 9.1         | 12.5 | 12.4        | 16.3 | 16.1        | 20.1 | 19.2        | 22.4 | 22.2        | 27.2 |
| 25                   | 7.7        | 10.4 | 10.4       | 13.9 | 8.8         | 12.1 | 12.0        | 15.7 | 15.5        | 19.3 | 18.5        | 21.6 | 21.4        | 26.2 |
| 26                   | 7.4        | 10.0 | 10.0       | 13.4 | 8.5         | 11.7 | 11.6        | 15.2 | 15.0        | 18.7 | 17.9        | 20.9 | 20.7        | 25.3 |
| 27                   | 7.1        | 9.6  | 9.6        | 12.9 | 8.3         | 11.4 | 11.2        | 14.7 | 14.6        | 18.1 | 17.3        | 20.2 | 20.0        | 24.4 |
| 28                   | 6.9        | 9.3  | 9.3        | 12.4 | 8.1         | 11.0 | 10.9        | 14.3 | 14.1        | 17.5 | 16.7        | 19.5 | 19.4        | 23.6 |
| 29                   | 6.6        | 9.0  | 9.0        | 12.0 | 7.9         | 10.7 | 10.6        | 13.8 | 13.7        | 17.0 | 16.2        | 18.9 | 18.8        | 22.9 |
| 30                   | 6.4        | 8.7  | 8.7        | 11.6 | 7.7         | 10.5 | 10.3        | 13.5 | 13.3        | 16.5 | 15.8        | 18.4 | 18.2        | 22.2 |
| 31                   | 6.2        | 8.4  | 8.4        | 11.2 | -           | -    | -           | -    | -           | -    | -           | -    | -           | -    |
| 32                   | 6.0        | 8.1  | 8.1        | 10.9 | -           | -    | -           | -    | -           | -    | -           | -    | -           | -    |

\*Note: -Door weight range is calculated based on center of gravity point at the middle of door.  
-Door weight range for HDSN is for opening angle 90°.



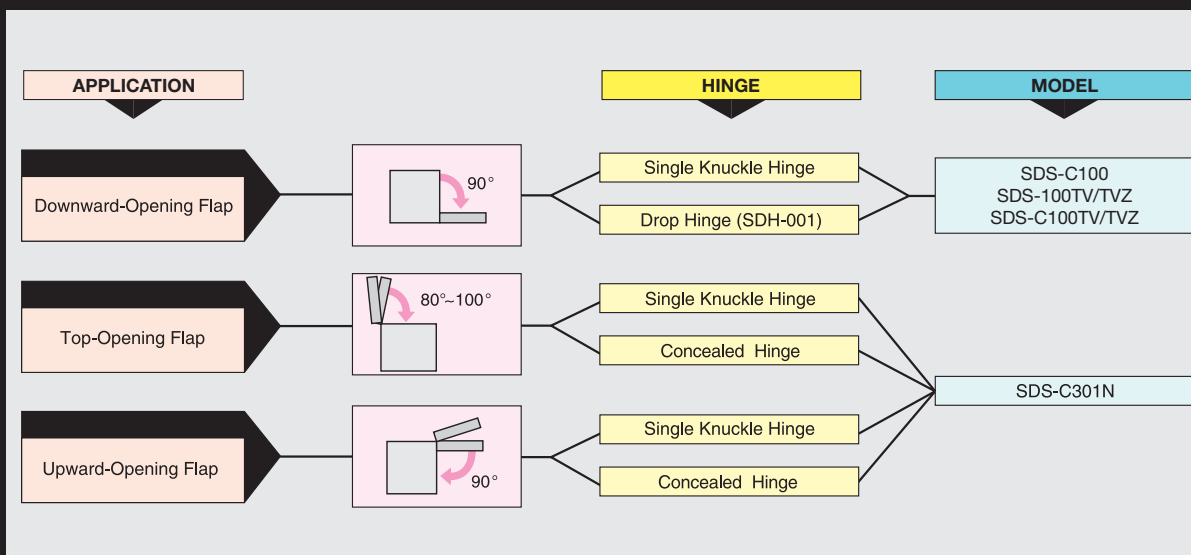
# SDS

## SOFT-DOWN STAY



- One-way rotary damper offers smooth and soft downward movement.
- Installation is quick and easy.
- Recognized by LGA for 30,000 cycles.
- Compact design.
- Non-handed.

Designed to operate at room temperature  
0°~40°C (32°~104°F).



## SOFT-DOWN STAY



# SDS-C100



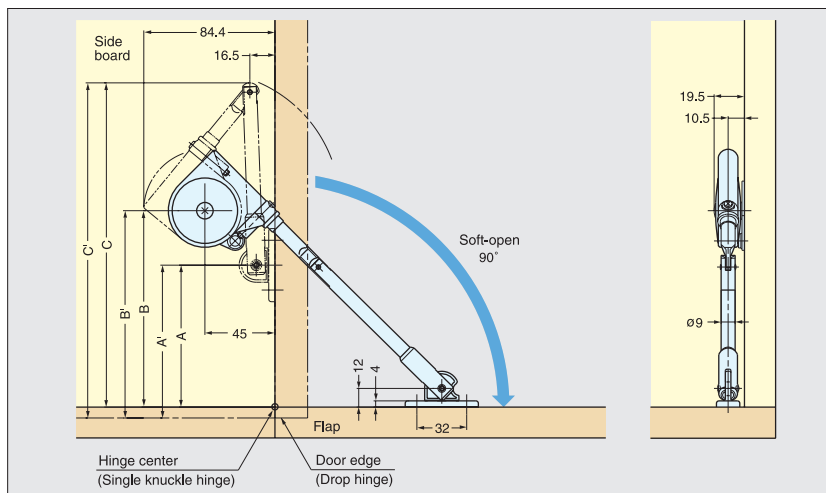
- For DOWNWARD-OPENING FLAP DOOR used with piano, butt or drop hinges (SDH-001, SDH-P, P.238).
- SDS-C100 (with catch) is designed to hold door in closed position.
- SDS-100 does not have a catch feature. Designed to be used with a magnetic catch or touch latch.
- Non-handed.
- Torque Calculation:  
 $\text{Torque} = \text{Door Height} \times 1/2 \times \text{Door Weight}$   
 Per Piece: 35–50 kg·cm (30–43 lbs·inch)  
 Per Pair: 70–100 kg·cm (60–86 lbs·inch)
- Recommended Door Thickness: 20 mm (25/32")
- Short-arm version SDS-100TV (or C100TV) for smaller door height available.



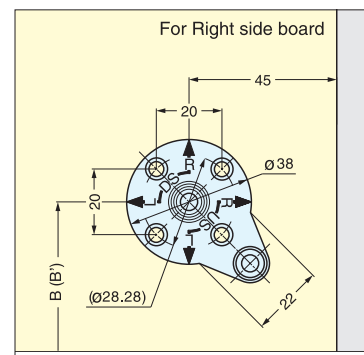
White



Black



Mounting Plate SDS-A  
(Included)



| Hinge Type           | A              | A'            | B             | B'             | C              | C'             |
|----------------------|----------------|---------------|---------------|----------------|----------------|----------------|
| Single Knuckle Hinge | 100 (3-15/16") | -             | 135 (5-5/16") | -              | 218 (8-37/64") | -              |
| Drop Hinge*          | -              | 107 (4-7/32") | -             | 142 (5-19/32") | -              | 225 (8-55/64") |

\*Overlay: 16 mm (5/8")

| Item No.     | Color | Weight (g) | Box (pcs) | Carton (pcs) | Material          | Finish/Color |
|--------------|-------|------------|-----------|--------------|-------------------|--------------|
| SDS-C100/WHT | White | 167        | 20        | 100          | Steel, Zinc Alloy | Nickel       |
| SDS-C100/BLK | Black |            |           |              | Plastic           | Black, White |

## SOFT-DOWN STAY



## SDS-C301N



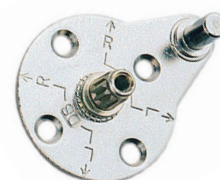
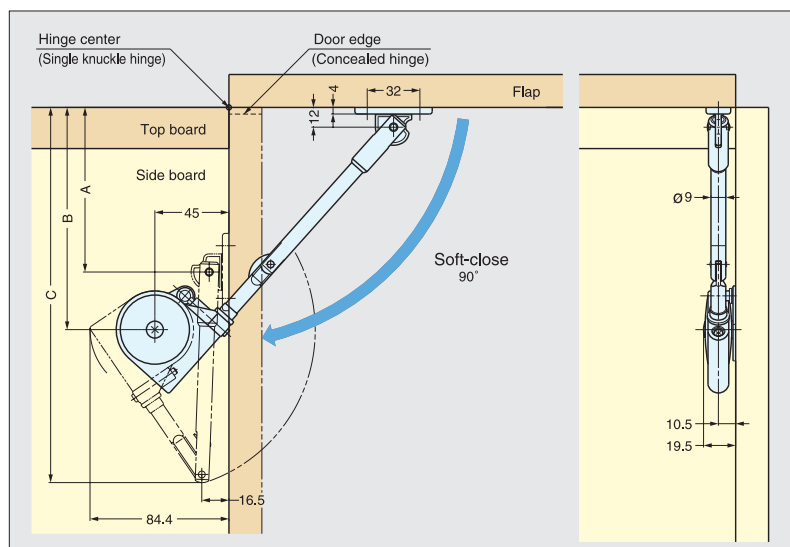
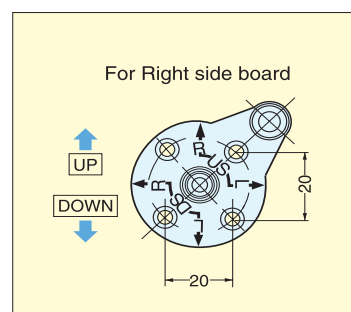
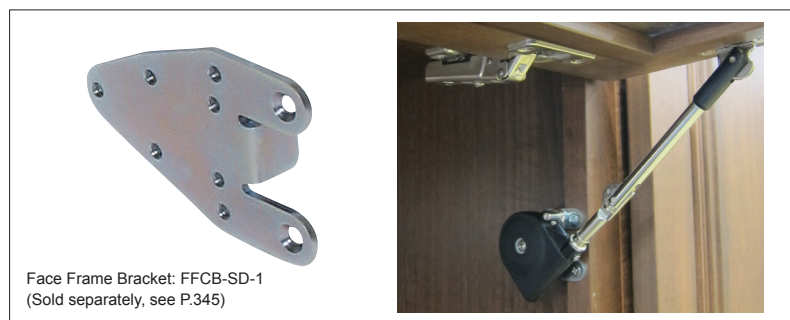
- For UPWARD-OPENING FLAP DOOR used with concealed, piano or butt hinges.
- SDS-C301N is designed to hold door in closed and opened position.
- Non-handed.
- Torque Calculation:  
Torque = Door Height × 1/2 × Door Weight  
Per Piece: 40~70 kg·cm (35~60 lbs·inch)  
Per Pair: 80~140 kg·cm (70~120 lbs·inch)
- Recommended Door Thickness : 20 mm (25/32")



White



Black

Mounting Plate SDS-A  
(Included)

| Hinge Type           | Coverage            | A                | B                | C                |
|----------------------|---------------------|------------------|------------------|------------------|
| Concealed Hinge      | Full overlay (3/4") | 108 ( 4-1/4" )   | 143 ( 5-5/8" )   | 232 ( 9-9/64" )  |
| Single Knuckle Hinge | Overlay             | 100 ( 3-15/16" ) | 135 ( 5-5/16" )  | 223 ( 8-25/32" ) |
|                      | Inset               | 97 ( 3-13/16" )  | 132 ( 5-13/64" ) | 220 ( 8-21/32" ) |

| Item No.      | Color | Weight (g) | Box (pcs) | Carton (pcs) |
|---------------|-------|------------|-----------|--------------|
| SDS-C301N/WHT | White | 165        | 20        | 100          |
| SDS-C301N/BLK | Black |            |           |              |

| Material          | Finish/Color |
|-------------------|--------------|
| Steel, Zinc Alloy | Nickel       |
| Plastic           | Black, White |



## SOFT-DOWN STAY

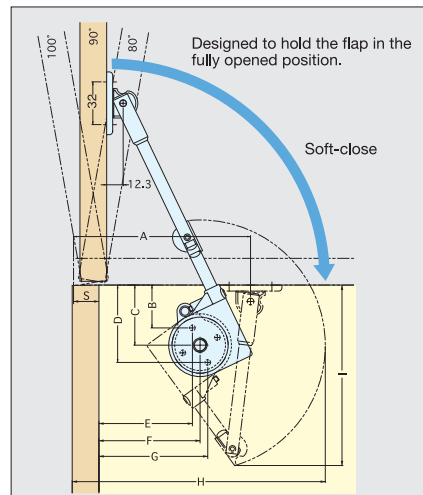


## SDS-C301N

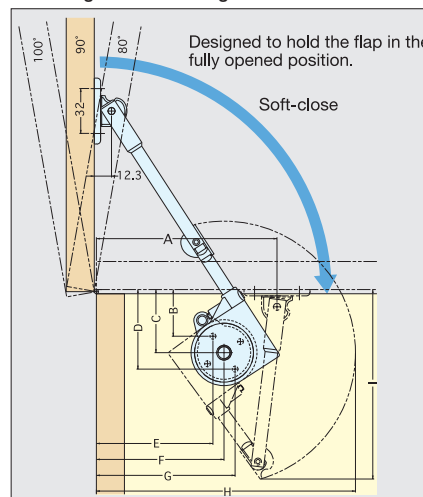


- For TOP-OPENING FLAP DOOR used with concealed, piano or butt hinges.
- Designed to hold door in fully opened position.
- Non-handed.
- Available in black or white.

### With Concealed Hinge



### With Single Knuckle Hinge



### Concealed Hinge

| Opening angle | A     | B    | C  | D    | E      | F       | G       | H     | I     |
|---------------|-------|------|----|------|--------|---------|---------|-------|-------|
| 80°           | 141.0 | 31.9 | 45 | 58.1 | 98.2-S | 103.5-S | 108.8-S | 197.5 | 134.8 |
| 90°           | 132.5 | 32.3 |    | 57.7 | 88.7-S | 95.0-S  | 101.3-S | 189.0 |       |
| 100°          | 126.5 | 32.9 |    | 57.1 | 81.2-S | 88.5-S  | 95.8-S  | 182.5 |       |

S=Overlay Coverage

### Single Knuckle Hinge/Overlay Type

| Opening angle | A     | B    | C  | D    | E    | F   | G     | H   | I     |
|---------------|-------|------|----|------|------|-----|-------|-----|-------|
| 80°           | 138.5 | 32.6 | 45 | 57.4 | 94.1 | 101 | 107.9 | 195 | 134.8 |
| 90°           | 128.5 | 33.2 |    | 56.8 | 83.1 | 91  | 98.9  | 185 |       |
| 100°          | 121.5 | 33.9 |    | 56.1 | 75.2 | 84  | 92.8  | 178 |       |

### Single Knuckle Hinge/Inset Type

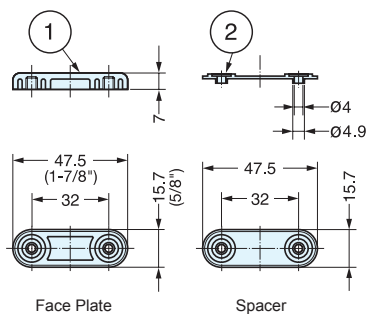
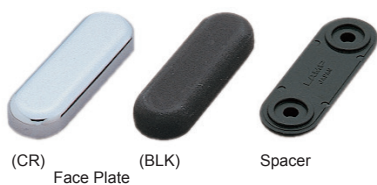
| Opening angle | A     | B    | C  | D    | E    | F    | G    | H     | I     |
|---------------|-------|------|----|------|------|------|------|-------|-------|
| 80°           | 129.0 | 31.7 | 45 | 58.3 | 86.7 | 91.5 | 96.3 | 185.5 | 134.8 |
| 90°           | 118.5 | 32.0 |    | 58.0 | 75.3 | 81.0 | 86.7 | 175.0 |       |
| 100°          | 111.0 | 32.5 |    | 57.5 | 67.0 | 73.5 | 80.0 | 167.5 |       |

| Material          | Finish/Color |
|-------------------|--------------|
| Steel, Zinc Alloy | Nickel       |
| Plastic           | Black, White |

## SDS FACE PLATE



## SDS-50G



- Cover plate for glass door applications.
- To be used with SDS HDS, or NSDX soft-down stays.
- Screws and spacer included.

| No. | Part Name  | Material   | Finish/Color               |
|-----|------------|------------|----------------------------|
| ①   | Face Plate | Zinc Alloy | Chrome (CR)<br>Black (BLK) |
| ②   | Spacer     | ABS        | Black                      |

| Item No.    | Weight (g) | Box | Carton |
|-------------|------------|-----|--------|
| SDS-50G/BLK | 25         | 100 | 400    |
| SDS-50G/CR  |            |     |        |



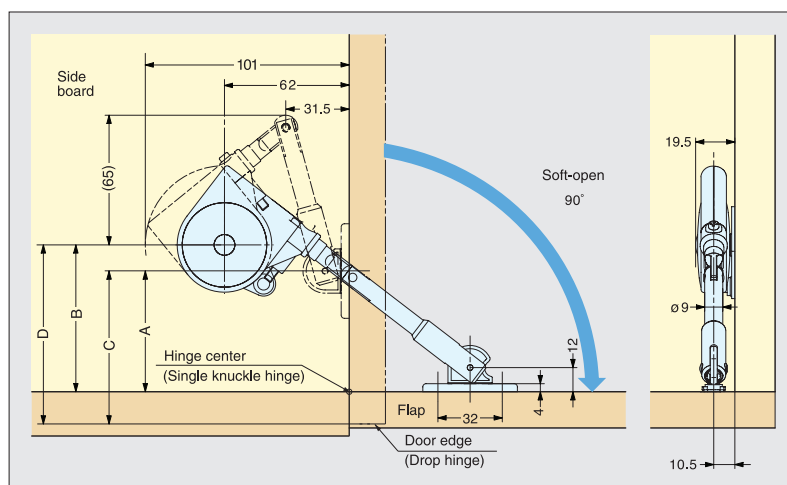
## SOFT-DOWN STAY (SHORT-ARM)



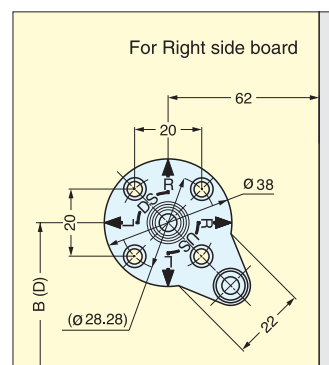
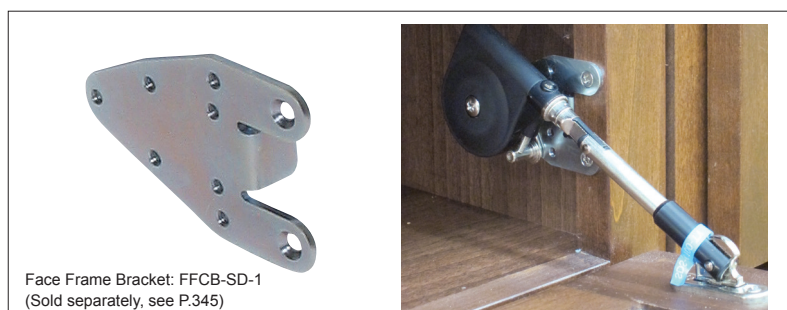
## SDS-100-TV/TVZ



- For DOWNWARD-OPENING FLAP DOOR used with piano, butt or drop hinges (SDH-001, SDH-P, P.238).
- Short arm type designed for short door applications.
- SDS-C100TV has a catch to hold the lid in closed position.
- SDS-100TV does not have catch feature. Designed to be used with magnetic catch or touch latch.
- Non-handed.
- Torque Calculation :  
Torque = Door Height × 1/2 × Door Weight



Mounting Plate SDS-A  
(Included)



| Hinge Type           | A  | B  | C    | D    |
|----------------------|----|----|------|------|
| Single Knuckle Hinge | 60 | 73 | -    | -    |
| Drop Hinge           | -  | -  | 49+S | 62+S |

| Material          | Finish/Color |
|-------------------|--------------|
| Steel, Zinc Alloy | Nickel       |
| Plastic           | Black, White |

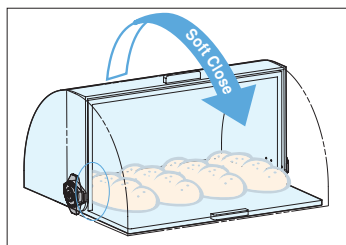
S=Overlap Coverage in case of drop hinge

| Item No.      | Type       | Color | Torque per piece                      | Torque per pair                     | Box (pcs) | Carton (pcs) |
|---------------|------------|-------|---------------------------------------|-------------------------------------|-----------|--------------|
| SDS-100W-TV   | W/O Catch  | White | 5 ~12 kgf·cm ( 4.3~10.4 lbs·in )      | 10~24 kgf·cm ( 8.6~20.8 lbs·in )    | 20        | 100          |
| SDS-100B-TV   |            | Black |                                       |                                     |           |              |
| SDS-C100W-TV  | With Catch | White |                                       |                                     |           |              |
| SDS-C100B-TV  |            | Black |                                       |                                     |           |              |
| SDS-100W-TVZ  | W/O Catch  | White | 16.5~37.6 kgf·cm ( 14.3~32.6 lbs·in ) | 33~75.2 kgf·cm ( 28.6~65.2 lbs·in ) |           |              |
| SDS-100B-TVZ  |            | Black |                                       |                                     |           |              |
| SDS-C100W-TVZ | With Catch | White |                                       |                                     |           |              |
| SDS-C100B-TVZ |            | Black |                                       |                                     |           |              |

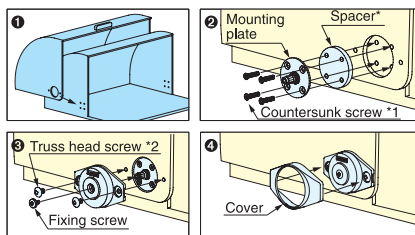
# DISK DAMPER



UDD

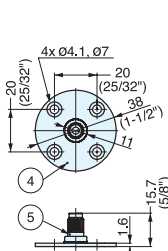


How to Install

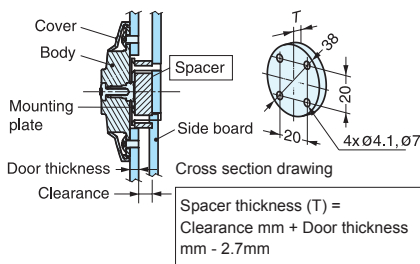


\*1, \*2 screws and Spacer are not included.

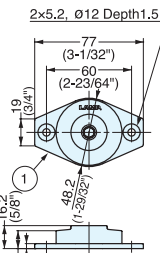
MOUNTING PLATE



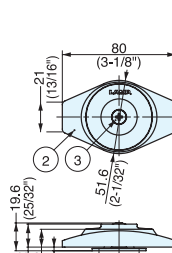
Spacer



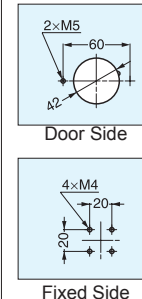
DAMPER



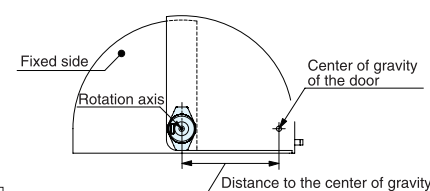
ASSEMBLY



Cut-Out Dimension



Damper Selection



\*Torque = Distance to the center of gravity x 1/2 x Door weight

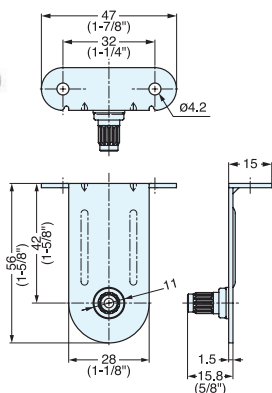
| Item No. | Handing | Torque (kgf-cm)      | Weight (g) | Box Qty (pcs) |
|----------|---------|----------------------|------------|---------------|
| UDD-S-L  | Left    | 5.1~10.2             | 90         | 20            |
| UDD-S-R  | Right   | ( 4.4~8.9 lbs-in )   |            |               |
| UDD-M-L  | Left    | 10.2~20.4            |            |               |
| UDD-M-R  | Right   | ( 8.9~17.7 lbs-in )  |            |               |
| UDD-H-L  | Left    | 20.4~30.6            |            |               |
| UDD-H-R  | Right   | ( 17.7~26.6 lbs-in ) |            |               |

| No. | Part Name      | Material    | Finish     |
|-----|----------------|-------------|------------|
| ①   | Main Body      | ABS Plastic | Light Grey |
| ②   | Cover          |             |            |
| ③   | Screws         | Steel       | Nickel     |
| ④   | Mounting Plate |             | Zinc       |
| ⑤   | Axis           |             |            |

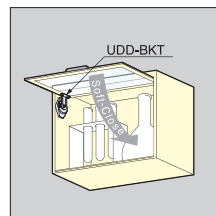
# UDD DISK DAMPER BRACKET



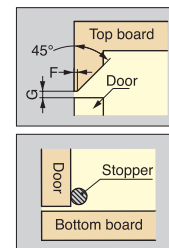
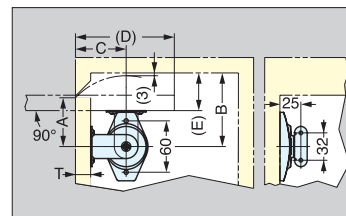
UDD-BKT



Application Example



Cut-Out Dimension



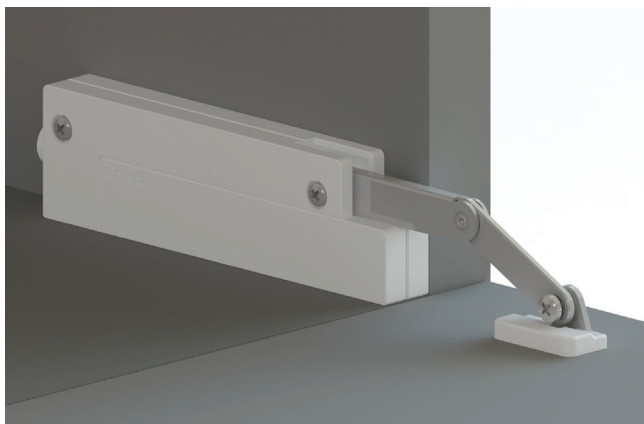
| Item No. | Material            | Finish |
|----------|---------------------|--------|
| UDD-BKT  | 304 Stainless Steel | Plain  |

| T: Door Thickness | A  | B  | C  | D   | E  | F | G |
|-------------------|----|----|----|-----|----|---|---|
| 5                 | 46 | 70 | 49 | 95  | 26 | 1 | 3 |
| 15                | 54 | 82 | 57 | 111 | 40 | 2 | 4 |
| 18                | 57 | 86 | 60 | 117 | 44 | 3 | 5 |

## COMPACT SOFT-DOWN STAY



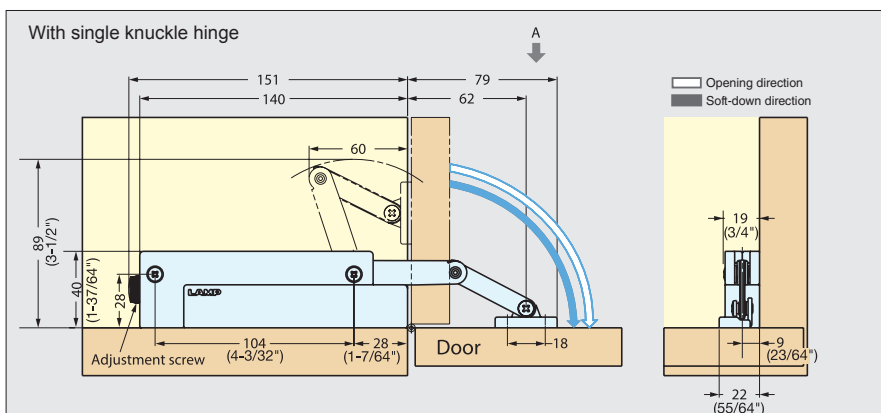
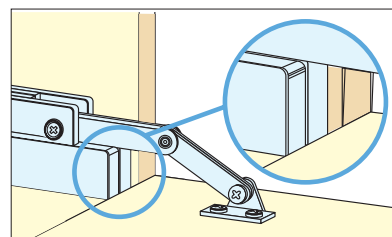
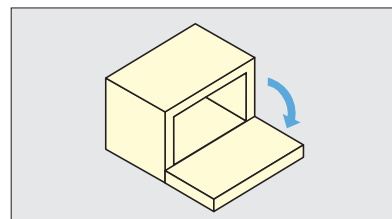
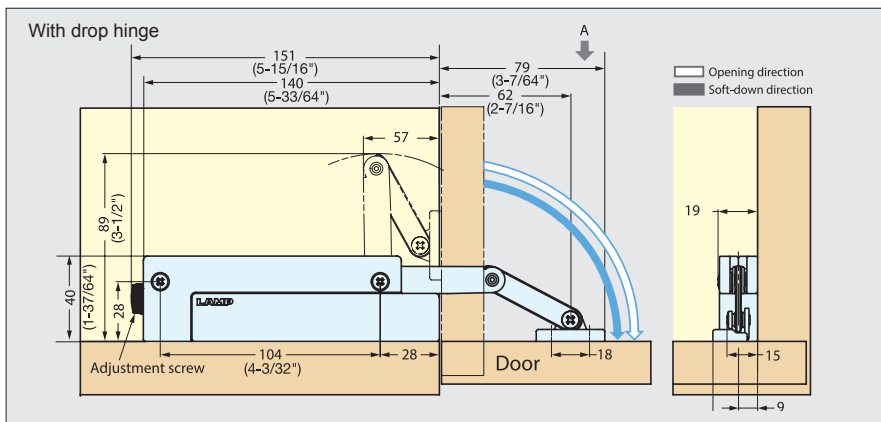
CSD-10-TV



- Soft-down stay for (DOWNWARD-OPENING FLAP DOORS) used with piano, butt, or drop hinge (SDH-001, SDH-P, P.238).
- Easy to install by aligning the body to the edge of a cabinet.
- Designed for smaller cabinet doors in media centers or TV consoles.
- Opening speed adjustable. The adjustment screw located on back for clean appearance.
- Easy to close.
- Holds lid in closed position.
- Torque Calculation:  
 $\text{Torque} = \text{Door Height} \times 1/2 \times \text{Door Weight}$   
 L-Type (Light Duty): 10.2~20.4 kg·cm (8.8~17.7 lbs·in)  
 M-Type (Medium Duty): 20.4~30.6 kg·cm (17.7~26.6 lbs·in)  
 H-Type (Heavy Duty): 30.6~40.8 kg·cm (26.6~35.4 lbs·in)

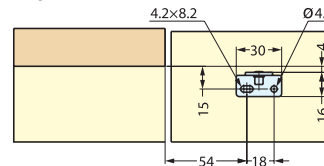


## ■ Installation

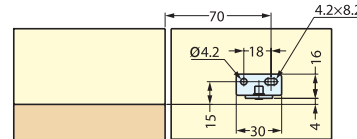


## ■ Installation of Mounting Plate

A-view (Right hand)



A-view (Left hand)



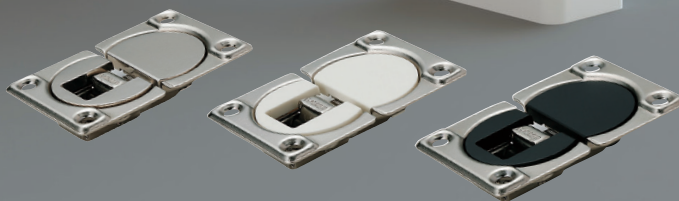
| Item No.       | Type        | Torque (kg·cm)                  | Weight (g) | Box (pcs) | Carton (pcs) |
|----------------|-------------|---------------------------------|------------|-----------|--------------|
| CSD-10-TV-L-WT | Light Duty  | 10.2~20.4<br>(8.8~17.7 lbs·in)  | 125        | 10        | 100          |
| CSD-10-TV-L-BL |             |                                 |            |           |              |
| CSD-10-TV-M-WT | Medium Duty | 20.4~30.6<br>(17.7~26.6 lbs·in) | 130        |           |              |
| CSD-10-TV-M-BL |             |                                 |            |           |              |
| CSD-10-TV-H-WT | Heavy Duty  | 30.6~40.8<br>(26.6~35.4 lbs·in) |            |           |              |
| CSD-10-TV-H-BL |             |                                 |            |           |              |

| Material | Finish/Color |
|----------|--------------|
| Steel    | Nickel       |
| Plastic  | White/Black  |

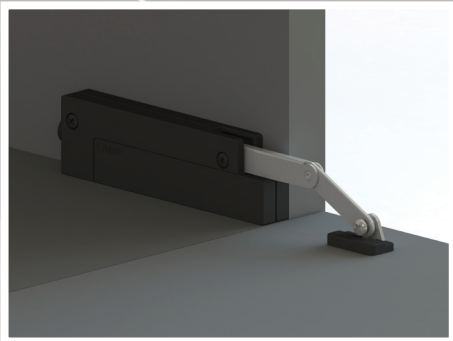
# Soft-Down Lid Stay

CSD-10TV

Smooth, soft-closing movement for downward opening flap doors. Available for light, medium or heavyweight cabinet doors.

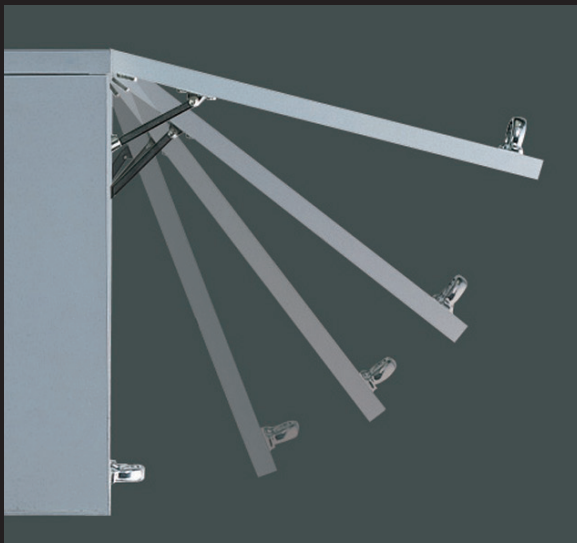


\*Used with piano, butt, or drop hinge (P.238).





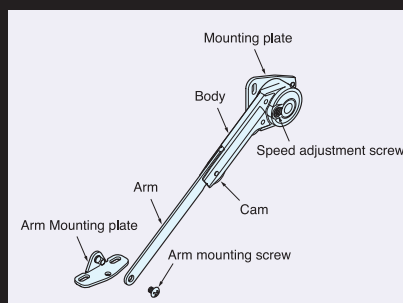
# NSDX



## ADJUSTABLE SOFT-DOWN STAY

- Keeps flap/lid from slamming down.
- Recognized by LGA for 30,000 cycles.
- Soft-down speed is adjustable.
- Opening angle is adjustable by changing mounting position.
- Handed

Designed to operate at room temperature  
0°~40°C (32°~104°F).



| APPLICATION           |            | MOUNTING SIDE | MODEL                     |
|-----------------------|------------|---------------|---------------------------|
| Downward-Opening Flap | 90°        | Right         | NSDX-10RK<br>NSDX-10RK/TV |
|                       |            | Left          | NSDX-10LK<br>NSDX-10LK/TV |
| Top-Opening Flap      | 70° ~ 105° | Right         | NSDX-20RK                 |
|                       |            | Left          | NSDX-20LK                 |
| Upward-Opening Flap   | 80° ~ 100° | Right         | NSDX-35RK                 |
|                       |            | Left          | NSDX-35LK                 |

### Arm Mounting Plates

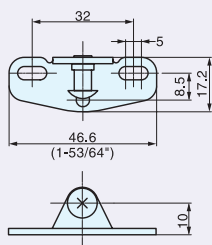
All NSDX series lid stays include the standard model for wooden doors (NSDX-SZ).

Optional models available for aluminum frame doors (NSDX-AZ) and glass doors (NSDX-GZ).

#### NSDX-SZ

(Included)

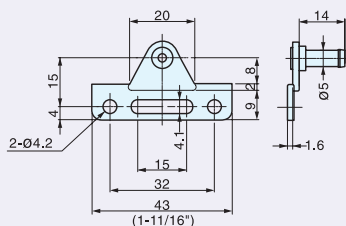
Mounting Plate for wooden door, screw-on type.



#### NSDX-AZ

(Sold separately)

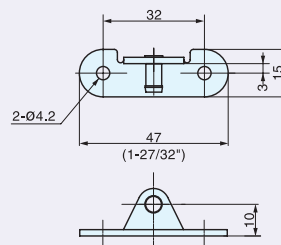
Mounting Plate for aluminum frame door, clip-on type.



#### NSDX-GZ

(Sold separately)

Mounting Plate for glass door, clip-on type. Face Plate SDS-50G available as option.



\*Clip-on type does not screw on, simply insert the pin on mounting plate to the Arm when installing.

# ADJUSTABLE SOFT-DOWN STAY



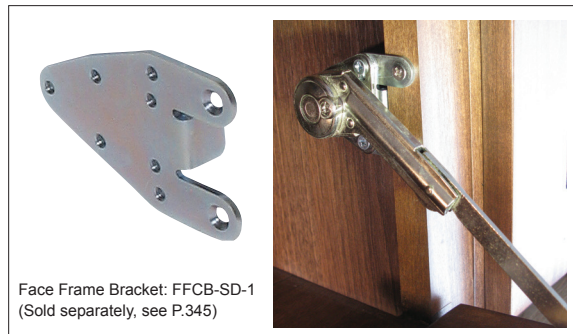
**NSDX-10**

LID SUPPORTS

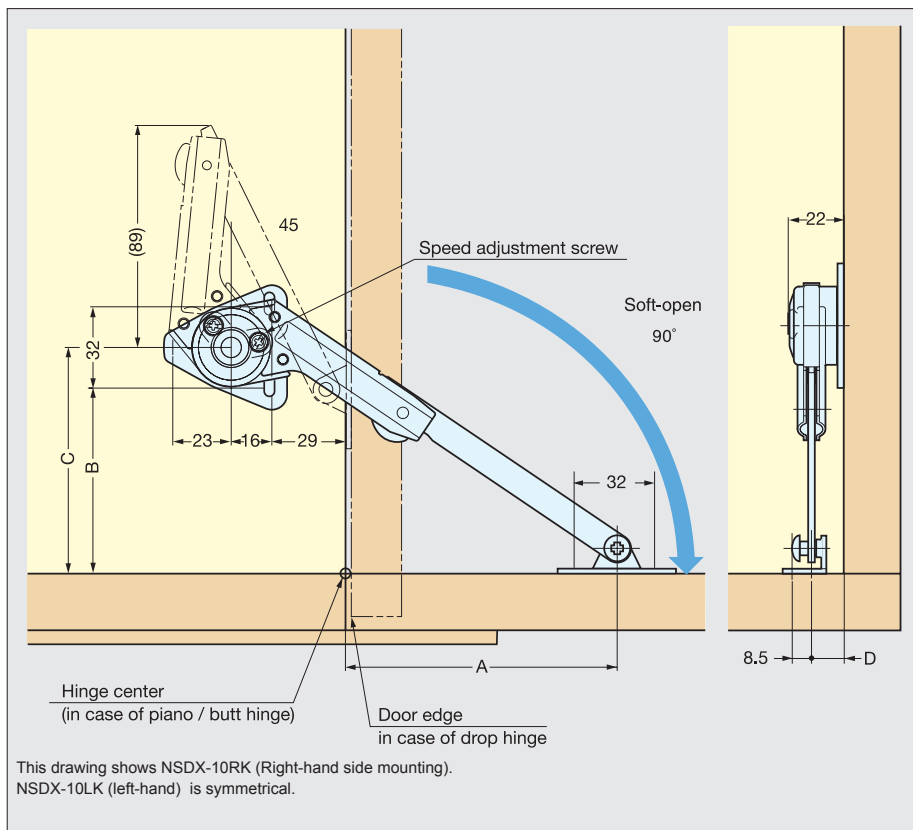
ADJUSTABLE SOFT-DOWN STAYS



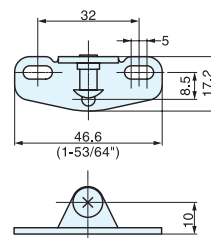
- For DOWNWARD-OPENING FLAP DOOR used with piano, butt or drop Hinges (SDH-001, SDH-P, P.238).
- NSDX-10 is designed to hold door in closed position.
- Speed adjustment screw located on front for easy adjustment.
- Torque Calculation:  
Torque = Door Height × 1/2 × Door Weight  
Per Piece: 20~70 kg·cm (19~60 lbs·inch)  
Per Pair: 40~140 kg·cm (38~120 lbs·inch)



Face Frame Bracket: FFCB-SD-1  
(Sold separately, see P.345)

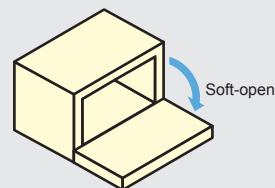


**NSDX-SZ**  
(Included)  
Mounting Plate for wooden door, screw-on type.



Arm Mounting Plate

**90° Opening**



| Hinge Type             | A  | B  | C   | D  |
|------------------------|----|----|-----|----|
| ☆ Drop Hinge (SDH-001) | 97 | 91 | 107 | 11 |
| Piano/Butt Hinge       | 90 | 99 | 115 |    |

☆ In case overlay 16 mm

| Item No.        | Weight (g) | Box (pcs) | Carton (pcs) |
|-----------------|------------|-----------|--------------|
| NSDX-10RK Right | 181        | 20        | 80           |
| NSDX-10LK Left  |            |           |              |

| Material   | Finish |
|------------|--------|
| Zinc Alloy | Nickel |
| Steel      |        |

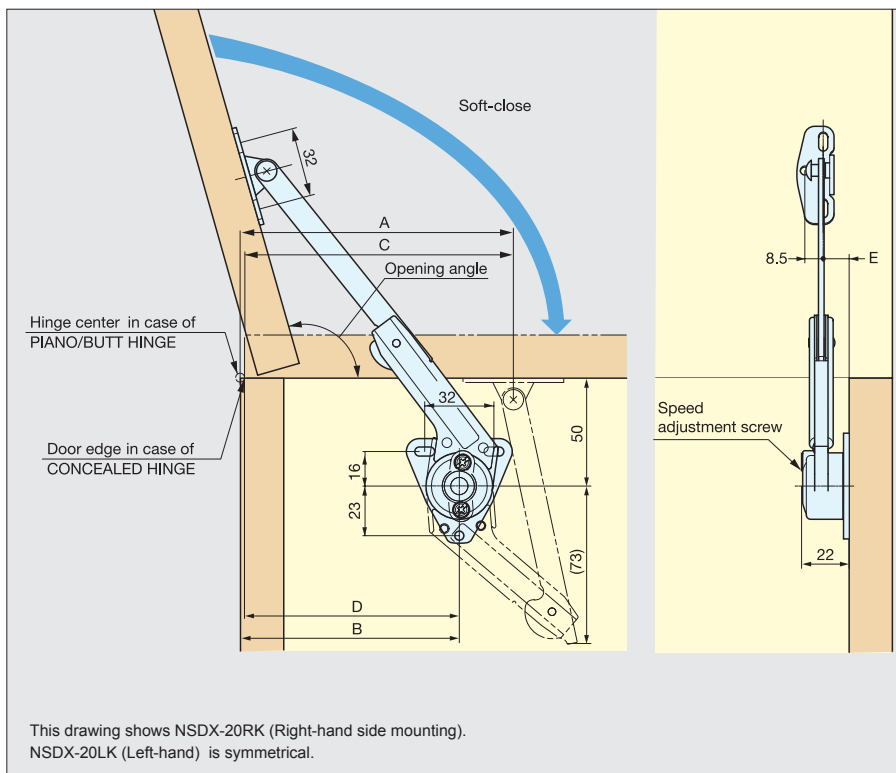
## ADJUSTABLE SOFT-DOWN STAY



NSDX-20



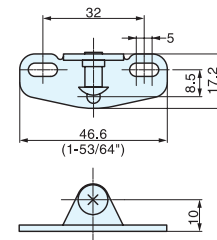
- For TOP-OPENING FLAP DOOR used with piano, butt or concealed hinges.
- Opening angle 70° or 105°.
- NSDX-20 is designed to hold door in fully opened position.
- Speed adjustment screw located on front for easy adjustment.
- Torque Calculation :  
Torque = Door Height × 1/2 × Door Weight  
Per Piece : 20~70 kg·cm (19~60 lbs·inch)  
Per Pair : 40~140 kg·cm (38~120 lbs·inch)



## NSDX-SZ

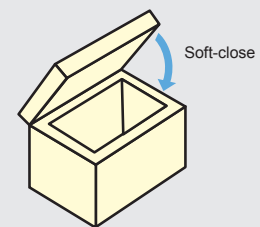
(Included)

Mounting Plate for wooden door, screw-on type.



Arm Mounting Plate

## 70° or 105° Opening



| Material   |       | Finish     |           |              |
|------------|-------|------------|-----------|--------------|
| Zinc Alloy |       | Nickel     |           |              |
| Steel      |       |            |           |              |
| Item No.   |       | Weight (g) | Box (pcs) | Carton (pcs) |
| NSDX-20RK  | Right | 181        | 20        | 80           |
| NSDX-20LK  | Left  |            |           |              |

| Opening Angle | Hinge Type       | A   | B   | C   | D   | E  |
|---------------|------------------|-----|-----|-----|-----|----|
| 70°           | Concealed Hinge  | -   | -   | 126 | 101 | 11 |
|               | Piano/Butt Hinge | 125 | 100 | -   | -   |    |
| 105°          | Concealed Hinge  | -   | -   | 103 | 78  |    |
|               | Piano/Butt Hinge | 97  | 72  | -   | -   |    |



# ADJUSTABLE SOFT-DOWN STAY



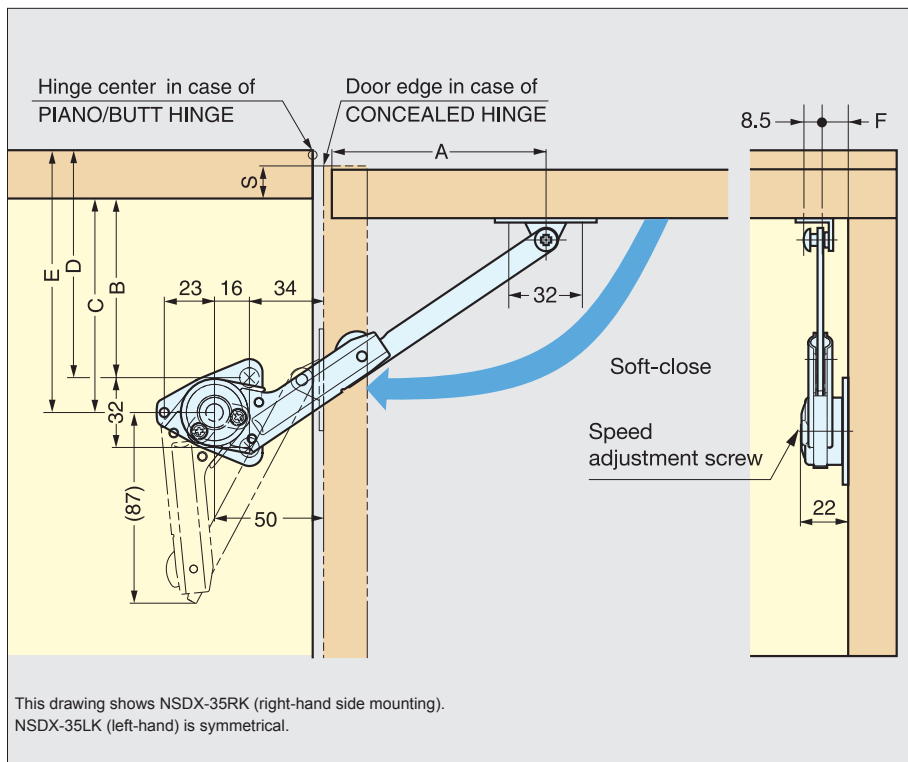
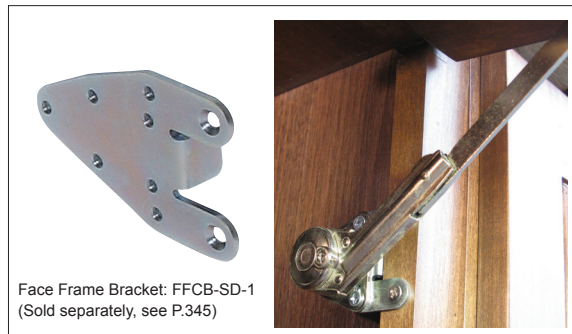
**NSDX-35**

LID SUPPORTS

ADJUSTABLE SOFT-DOWN STAYS



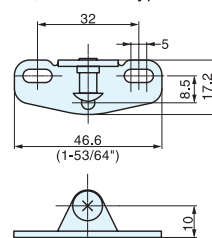
- For UPWARD-OPENING FLAP DOOR used with piano, butt or concealed hinges.
- Opening angle 80°, 90° or 100°.
- NSDX-35 is designed to hold door in fully opened position.
- Speed adjustment screw located on front for easy adjustment.
- Two stop version (holds door at 65° and 90°) is also available.
- Torque Calculation :  
Torque = Door Height × 1/2 × Door Weight  
Per Piece: 20~70 kg·cm (19~60 lbs·inch)  
Per Pair: 40~140 kg·cm (38~120 lbs·inch)



**NSDX-SZ**

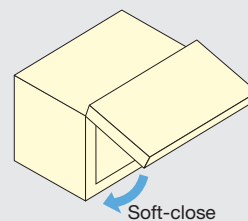
(Included)

Mounting Plate for wooden door, screw-on type.



Arm Mounting Plate

**80°~100° Opening**



| Material   |       | Finish     |           |              |
|------------|-------|------------|-----------|--------------|
| Zinc Alloy |       | Nickel     |           |              |
| Steel      |       |            |           |              |
| Item No.   |       | Weight (g) | Box (pcs) | Carton (pcs) |
| NSDX-35RK  | Right | 181        | 20        | 80           |
| NSDX-35LK  | Left  |            |           |              |

Note: "S" dimension is the overlay coverage for concealed hinge(s).

| Opening Angle | Hinge Type       | A     | B       | C       | D    | E     | F  |
|---------------|------------------|-------|---------|---------|------|-------|----|
| 80°           | Concealed Hinge  | 106.0 | 105.0-S | 121.0-S | -    | -     | 11 |
|               | Piano/Butt Hinge | 100.0 | -       | -       | 99.0 | 115.0 |    |
| 90°           | Concealed Hinge  | 98.0  | 97.0-S  | 113.0-S | -    | -     |    |
|               | Piano/Butt Hinge | 91.5  | -       | -       | 90.5 | 106.5 |    |
| 100°          | Concealed Hinge  | 92.5  | 91.5-S  | 107.5-S | -    | -     |    |
|               | Piano/Butt Hinge | 85.0  | -       | -       | 84.0 | 100.0 |    |



## ADJUSTABLE SOFT-DOWN STAY (SHORT-ARM)

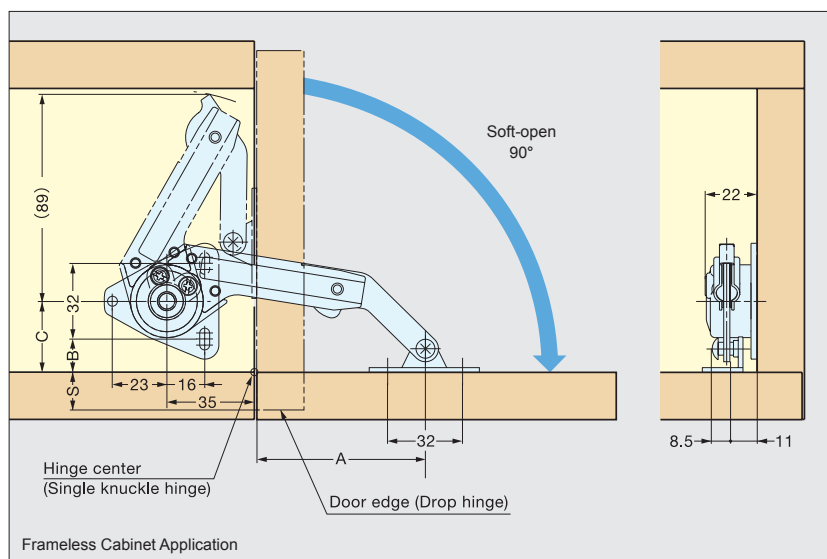
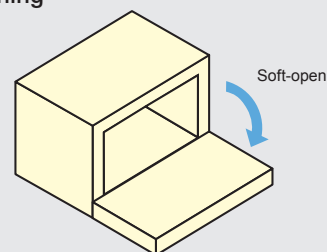


## NSDX-10(R/L)K/TV



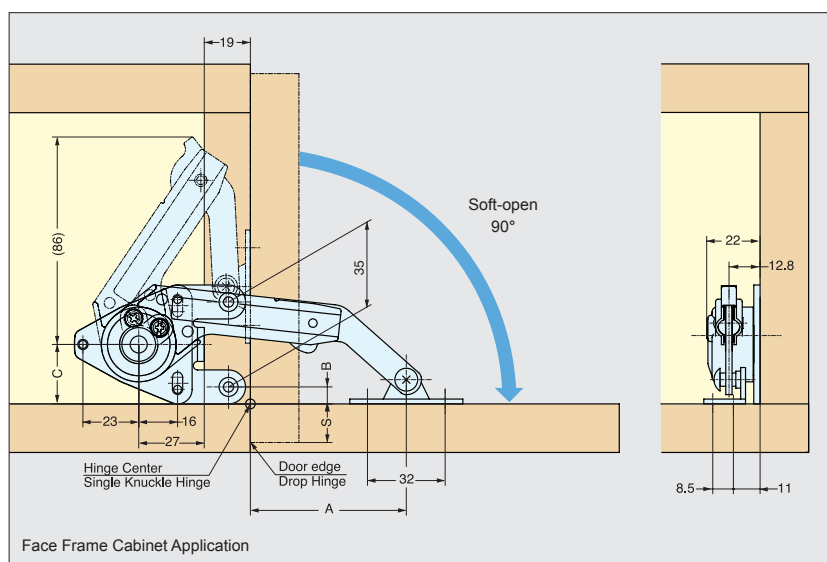
- For DOWNWARD-OPENING FLAP DOOR used with piano, butt or drop hinges (SDH-001, SDH-P, P.238).
- Short arm type designed for small door application.
- Torque Calculation :  
 $\text{Torque} = \text{Door Height} \times 1/2 \times \text{Door Weight}$   
 Per Piece : 10~20 kgf·cm (8.7~17.4 lbs·in)  
 Per Pair : 20~40 kgf·cm (17.4~34.7 lbs·in)

## 90° Opening



| Hinge Type           | A                   | B               | C                |
|----------------------|---------------------|-----------------|------------------|
| Drop Hinge           | 58+S<br>(2-9/32"+S) | 14<br>(9/16")   | 30<br>(1-3/16")  |
| Single Knuckle Hinge | 71<br>(2-13/16")    | 27<br>(1-1/16") | 43<br>(1-11/16") |

"S" dimension is the overlay coverage for drop hinge(s).



Face Frame Bracket: FFCB-SD-1  
(Sold separately, see P.345)



| Hinge Type           | A                  | B                | C                |
|----------------------|--------------------|------------------|------------------|
| Drop Hinge (SDH-001) | 48+S<br>(1-7/8"+S) | 74<br>(9/32")    | 24.5<br>(31/32") |
| Single Knuckle Hinge | 32<br>(2-7/16")    | 20.5<br>(13/16") | 38<br>(1-1/2")   |

"S" dimension is the overlay coverage for drop hinge(s).

| Item No.     | Material         | Finish | Weight (g) | Box (pcs) | Carton (pcs) |
|--------------|------------------|--------|------------|-----------|--------------|
| NSDX-10RK/TV | Zinc Alloy/Steel | Nickel | 143        | 20        | 80           |
| NSDX-10LK/TV |                  |        |            |           |              |

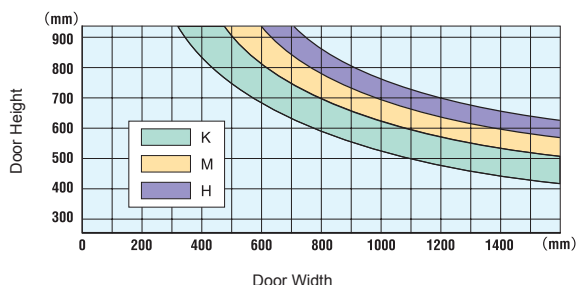
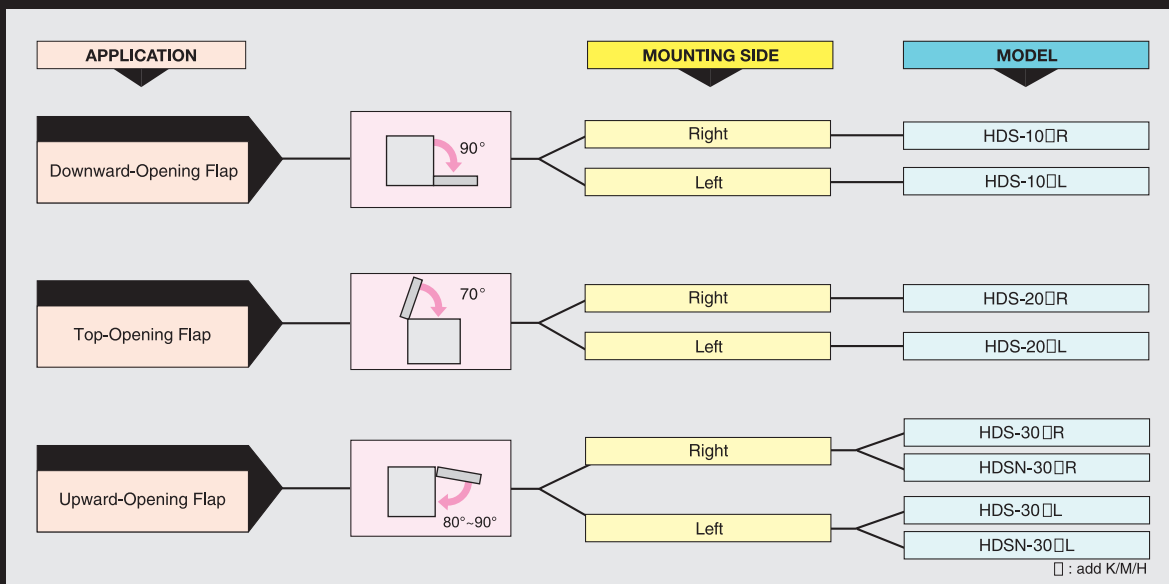
# HDS/HDSN



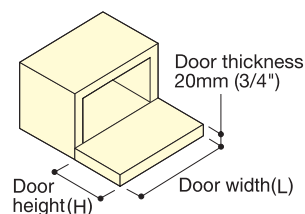
## HEAVY DUTY SOFT-DOWN STAY

- Keeps flap/lid from slamming down.
- Recognized by LGA for 90,000 cycles.
- Used in pairs.

Designed to operate at room temperature  
5°~35°C (41°~95°F).



For the right type selection, refer to the graph and the illustration.



## HEAVY DUTY SOFT-DOWN STAY

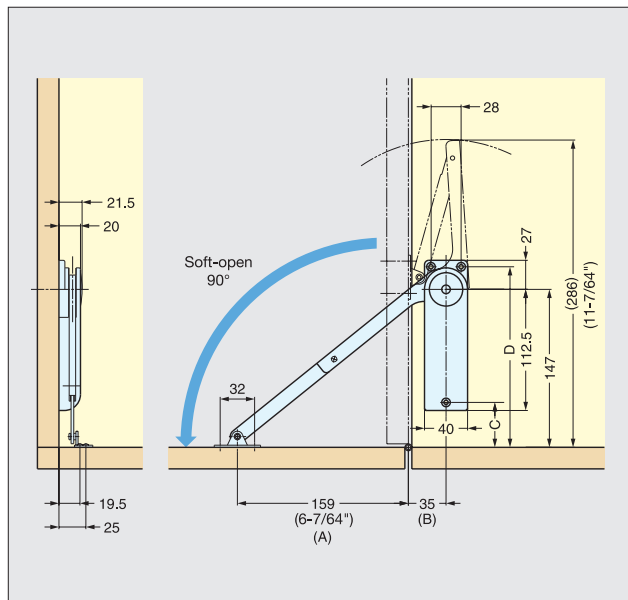


HDS-10

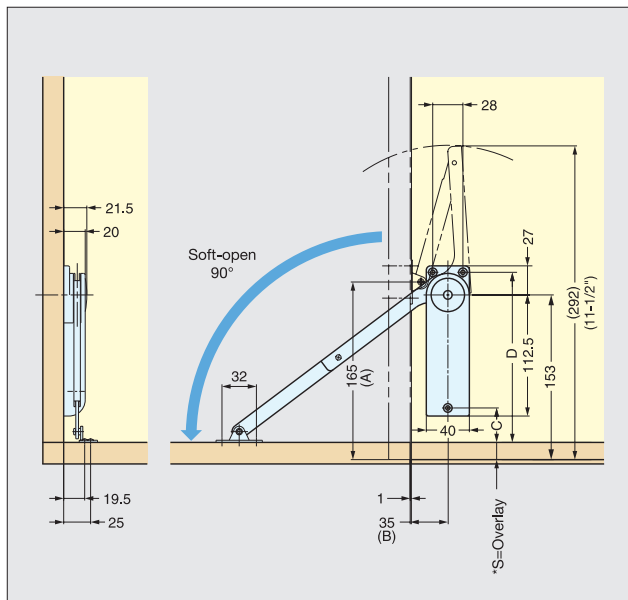


- For DOWNWARD-OPENING FLAP DOOR used with piano, butt or drop hinges (SDH-001, SDH-P, P.238).
- HDS-10 is designed to hold door in closed and opened position.
- Used in pairs
- Torque Calculation:  
Torque = Door Height × 1/2 × Door Weight
- K-Type (Light Duty):  
140~200 kg·cm (121~173 lbs·inch)/pair
- M-Type (Medium Duty):  
200~250 kg·cm (173~216 lbs·inch)/pair
- H-Type (Heavy Duty):  
250~300 kg·cm (216~260 lbs·inch)/pair

With Piano/Butt Hinge



With Drop Hinge (SDH-001)



| Item No. |          | Type        | Torque<br>(kg·cm/pair) | Weight (g) | Box (pcs) | Carton (pcs) |
|----------|----------|-------------|------------------------|------------|-----------|--------------|
| Left     | Right    |             |                        |            |           |              |
| HDS-10KL | HDS-10KR | Light Duty  | 140~200                | 290        | 40        | 200          |
| HDS-10ML | HDS-10MR | Medium Duty | 200~250                |            |           |              |
| HDS-10HL | HDS-10HR | Heavy Duty  | 250~300                | 310        |           |              |

\*S=Overlay coverage in case of drop hinge

| Hinge Type       | A   | B  | C    | D     |
|------------------|-----|----|------|-------|
| Drop Hinge       | 165 | 35 | 48-S | 174-S |
| Piano/Butt Hinge | 159 |    | 42   | 168   |

| Material | Finish/Color |
|----------|--------------|
| Steel    | Nickel       |
| Plastic  | Black, White |



# SELF CLOSE STAY

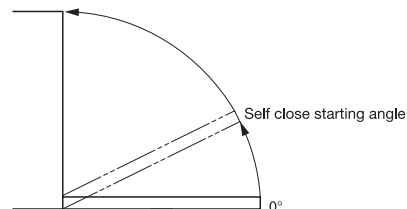


## HDS-10S



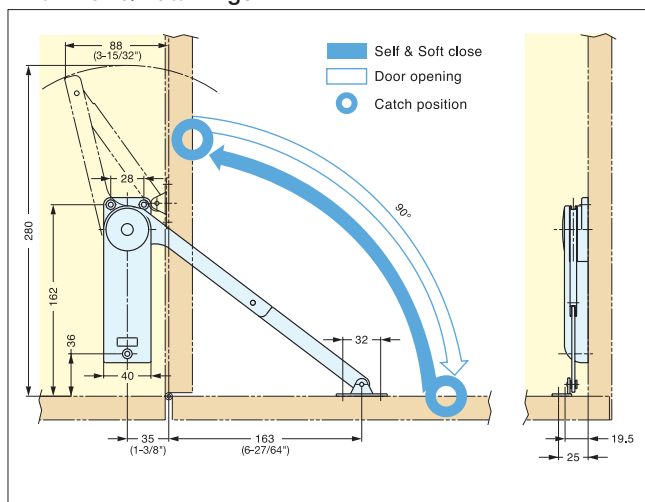
- For DOWNWARD-OPENING FLAP DOOR used with piano, butt or drop hinges (SDH-001, SDH-P, P.238).
- When pushed to close, HDS-10S is designed to self close and soft close
- Used in pairs
- Torque Calculation:  
Torque = Door Height × 1/2 × Door Weight  
K-Type: 60~95 kgf.cm (52~82 lbs. Inch)/ pair  
M-Type: 95~130 kgf.cm (82~112 lbs. Inch)/ pair  
H-Type: 110~160 kgf.cm (95~138 lbs. Inch)/ pair  
S-Type: 140~180 kgf.cm (121~ 156 lbs. Inch)/ pair

### Self close starting angle

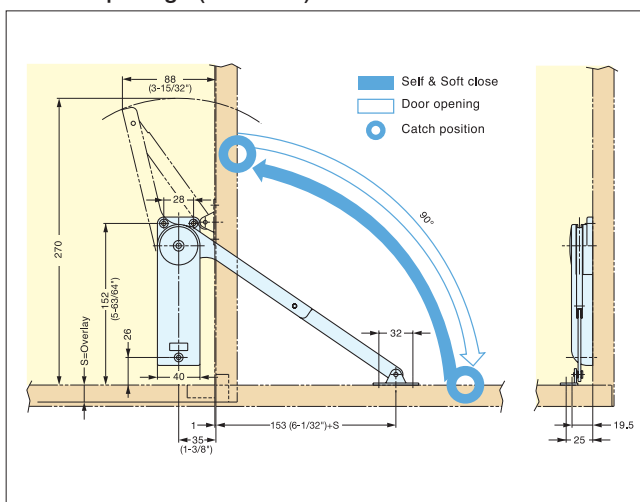


| Type | Self close starting angle |
|------|---------------------------|
| K    | 5°~35°                    |
| M    | 5°~20°                    |
| H    |                           |
| S    | 5°~15°                    |

### With Piano/Butt Hinge



### With Drop Hinge (SDH-001)



| Item No.   |            | Type             | Torque per 2 pieces (kgf.cm ) |
|------------|------------|------------------|-------------------------------|
| Left       | Right      |                  |                               |
| HDS-10S-KL | HDS-10S-KR | Light Duty       | 60~95 ( 52.2~82.6 lbs-in)     |
| HDS-10S-ML | HDS-10S-MR | Medium Duty      | 95~130 ( 82.6~113.0 lbs-in)   |
| HDS-10S-HL | HDS-10S-HR | Heavy Duty       | 110~160 ( 95.7~139.0 lbs-in)  |
| HDS-10S-SL | HDS-10S-SR | Super Heavy Duty | 140~180 (121.7~156.5 lbs-in)  |

| No. | Part Name      | Material    | Finish      |
|-----|----------------|-------------|-------------|
| ①   | Body           | ABS plastic | Black/White |
| ②   | Arm            | Steel       | Nickel      |
| ③   | Mounting Plate |             |             |

# HEAVY DUTY SOFT-DOWN STAY

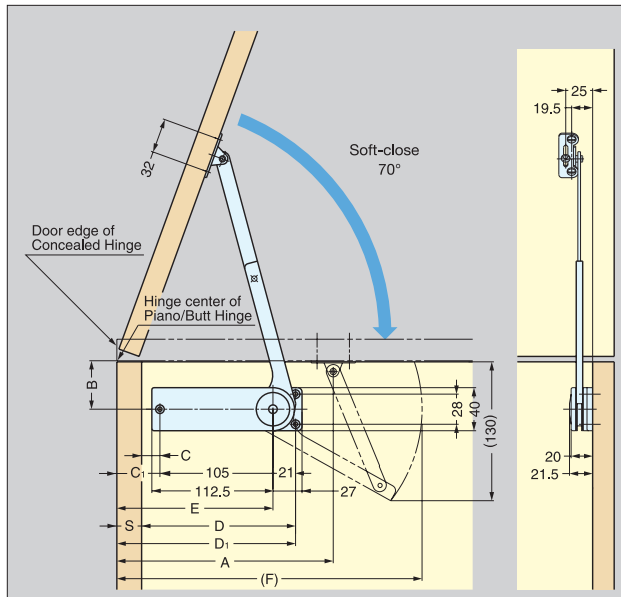


## HDS-20



- For TOP-OPENING FLAP DOOR used with piano, butt or concealed hinges.
- Used in pairs.
- HDS-20 is designed to hold door in fully opened position.
- Torque Calculation:  
Torque = Door Height × 1/2 × Door Weight
- K-Type (Light Duty):  
140~200 kg·cm (121~173 lbs·inch)/pair
- M-Type (Medium Duty):  
200~250 kg·cm (173~216 lbs·inch)/pair
- H-Type (Heavy Duty):  
250~300 kg·cm (216~260 lbs·inch)/pair

### Overlay Use

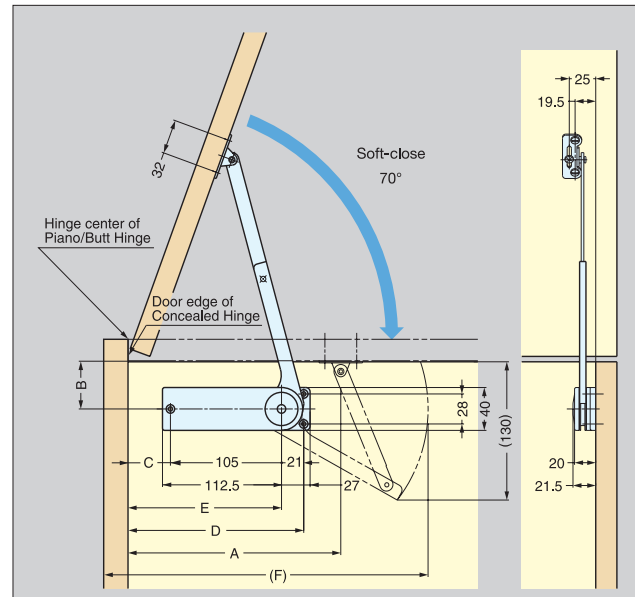


### Overlay Use

| Hinge Type       | A     | B  | C    | D     | C <sub>1</sub> | D <sub>1</sub> | E     | F     |
|------------------|-------|----|------|-------|----------------|----------------|-------|-------|
| Concealed Hinge  | 198.5 | 45 | 42-S | 168-S | -              | -              | 145.0 | 283.5 |
| Piano/Butt Hinge |       |    | -    | -     | 41             | 167            | 142.5 | 281.0 |

S=Overlay coverage in case of concealed hinge (mm)

### Inset Use



### Inset Use

| Hinge Type       | A   | B  | C  | D   | E   | F   |
|------------------|-----|----|----|-----|-----|-----|
| Concealed Hinge  | 203 | 45 | 46 | 172 | 151 | 286 |
| Piano/Butt Hinge | 190 |    | 33 | 159 | 138 | 273 |

| Item No. |          | Type        | Torque (kg·cm/pair) | Weight (g) | Box (pcs) | Carton (pcs) |
|----------|----------|-------------|---------------------|------------|-----------|--------------|
| Left     | Right    |             |                     |            |           |              |
| HDS-20KL | HDS-20KR | Light Duty  | 140~200             | 280        | 40        | 200          |
| HDS-20ML | HDS-20MR | Medium Duty | 200~250             | 290        |           |              |
| HDS-20HL | HDS-20HR | Heavy Duty  | 250~300             | 300        |           |              |

| Material | Finish/Color |
|----------|--------------|
| Steel    | Nickel       |
| Plastic  | Black, White |

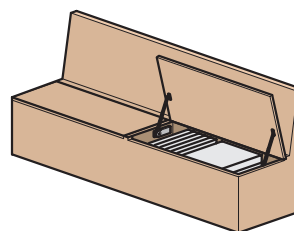
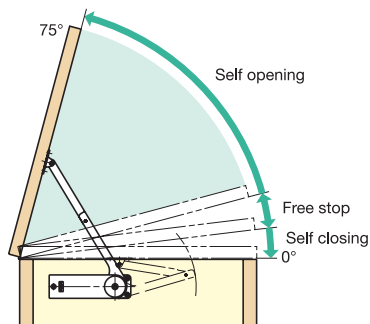
## SELF OPENING STAY



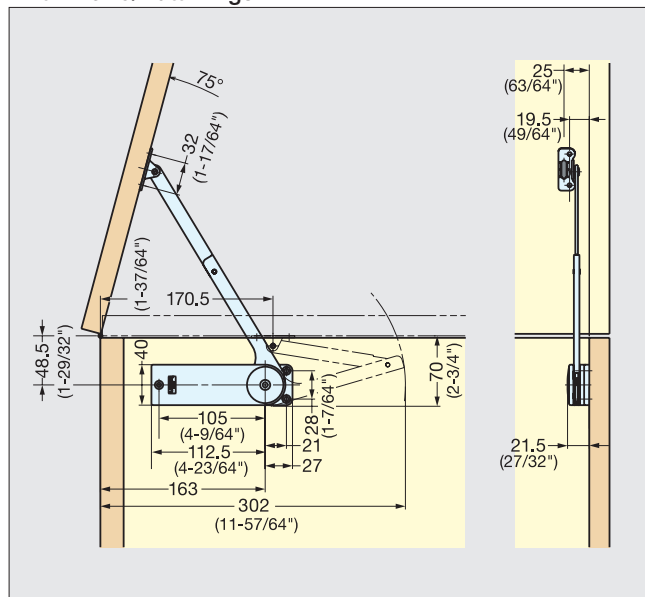
# HDS-20S



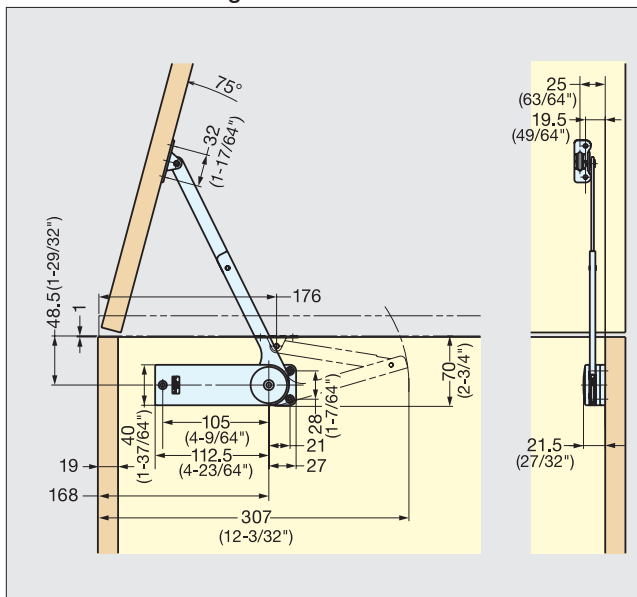
- Lid will self open past the free stop angle.
- For TOP-OPENING FLAP DOOR used with piano, butt or concealed hinges.
- HDS-20S is designed to hold door in fully opened position.
- Used in pairs.
- Torque Calculation:  
 Torque = Door Height  $\times$  1/2  $\times$  Door Weight  
 H-Type : 70~110 kg·cm (61~95 lbs-in)/pair  
 S-Type : 111~150 kg·cm (96~130 lbs-in)/pair



### With Piano/Butt Hinge



### With Concealed Hinge



| Item No.      |               | Type | Torque<br>(kg·cm/pair)          | Weight (g) | Box (pcs) | Carton (pcs) |
|---------------|---------------|------|---------------------------------|------------|-----------|--------------|
| Left          | Right         |      |                                 |            |           |              |
| HDS-20S-HL-BL | HDS-20S-HR-BL | H    | 70~110 kg·cm ( 61~87 lbs·in )   | 300        | 40        | 200          |
| HDS-20S-HL-WT | HDS-20S-HR-WT |      |                                 |            |           |              |
| HDS-20S-SL-BL | HDS-20S-SR-BL | S    | 111~150 kg·cm ( 96~130 lbs·in ) |            |           |              |
| HDS-20S-SL-WT | HDS-20S-SR-WT |      |                                 |            |           |              |

| Material | Finish/Color |
|----------|--------------|
| Steel    | Nickel       |
| Plastic  | Black/White  |



## HEAVY DUTY SOFT-DOWN STAY

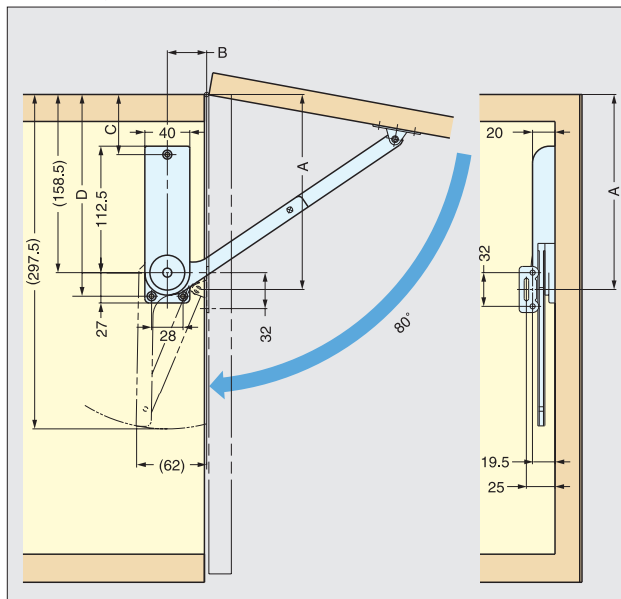


HDS-30

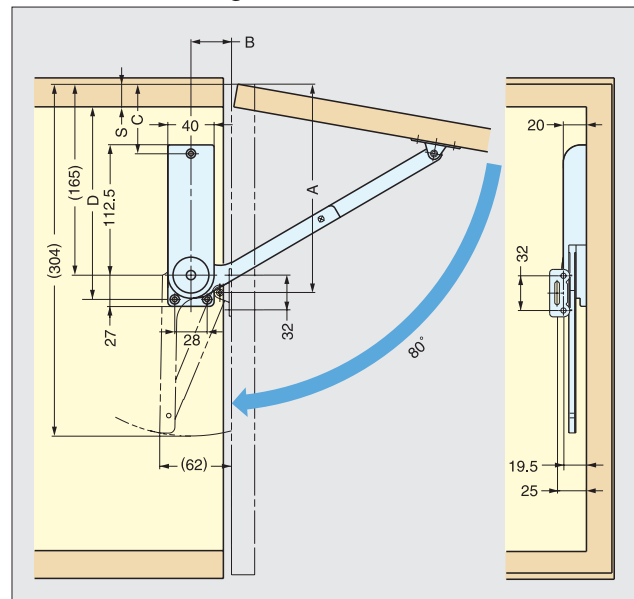


- For UPWARD-OPENING FLAP DOOR used with piano, butt or concealed Hinges.
- Used in pairs.
- HDS-30 is designed to securely latch a flap closed and hold it in the fully opened position.
- Torque Calculation:  
Torque = Door Height  $\times$  1/2  $\times$  Door Weight
- K-Type (Light Duty):  
140~200 kg·cm (121~173 lbs·inch)/pair
- M-Type (Medium Duty):  
200~250 kg·cm (173~216 lbs·inch)/pair
- H-Type (Heavy Duty):  
250~300 kg·cm (216~260 lbs·inch)/pair

With Single Knuckle Hinge



With Concealed Hinge



Overlay Use

| Hinge Type       | A     | B  | C      | D       |
|------------------|-------|----|--------|---------|
| Concealed Hinge  | 180   | 35 | 60.0-S | 186.0-S |
| Piano/Butt Hinge | 173.5 | 35 | 53.5   | 179.5   |

S=Overlay coverage by concealed hinge

| Item No. |          | Type        | Torque<br>(kg·cm/pair) | Weight (g) | Box (pcs) | Carton (pcs) |
|----------|----------|-------------|------------------------|------------|-----------|--------------|
| Left     | Right    |             |                        |            |           |              |
| HDS-30KL | HDS-30KR | Light Duty  | 140~200                | 270        | 40        | 200          |
| HDS-30ML | HDS-30MR | Medium Duty | 200~250                | 290        |           |              |
| HDS-30HL | HDS-30HR | Heavy Duty  | 250~300                | 300        |           |              |

| Material | Finish/Color |
|----------|--------------|
| Steel    | Nickel       |
| Plastic  | Black, White |



# HEAVY DUTY SOFT-DOWN STAY



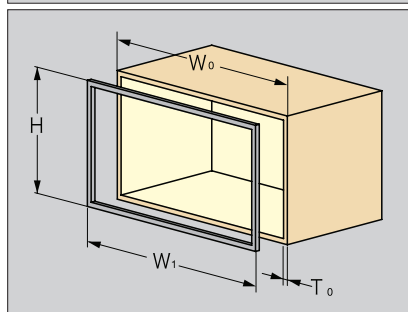
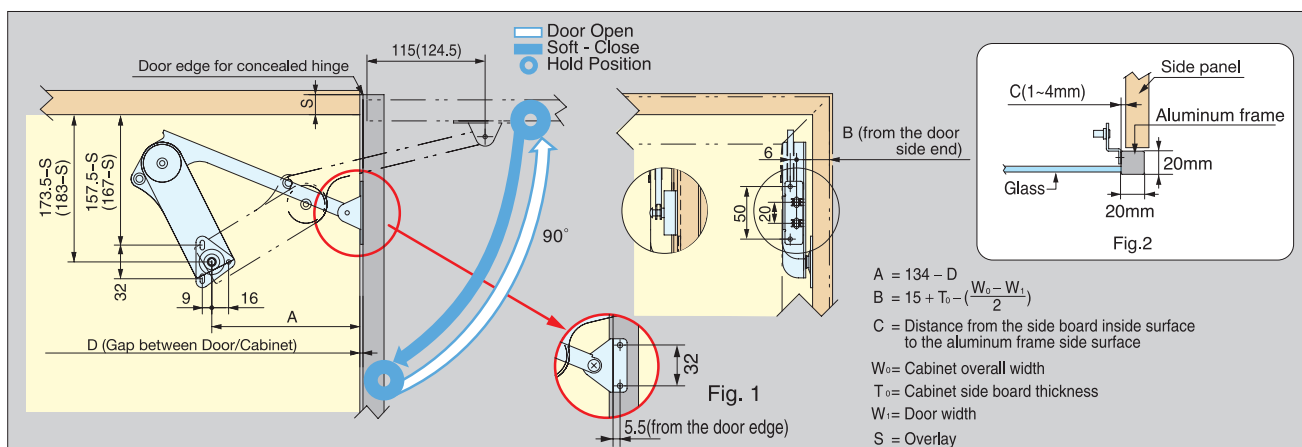
## HDSN-30



- For UPWARD-OPENING FLAP DOOR used with concealed hinges.
- Used in pairs.
- HDSN-30 is designed to hold door in closed and opened position.
- Arm bracket for wood and aluminum frame available. Specify when ordering.
- Torque Calculation:  
Torque = Door Height × 1/2 × Door Weight  
In case of opening angle 90°  
K-Type (Light Duty):  
140~179 kg·cm (122~155 lbs·inch)/pair  
M-Type (Medium Duty):  
180~219 kg·cm (156~190 lbs·inch)/pair  
H-Type (Heavy Duty):  
220~259 kg·cm (191~225 lbs·inch)/pair  
S-Type (Super Heavy Duty):  
260~300 kg·cm (226~260 lbs·inch)/pair

| Material | Finish/Color |
|----------|--------------|
| Steel    | Nickel       |
| Plastic  | Light Grey   |

Dimensions are for 90° opening, solid wood or 45 mm width aluminum frame door.  
For 80° opening, please use the figures in ( ).  
Fig.1 and Fig. 2 show the dimensions for 20 mm width aluminum frame door using mounting plate HDSN-AZ.  
Recommended concealed hinge is overlay/105° opening/free swing type.

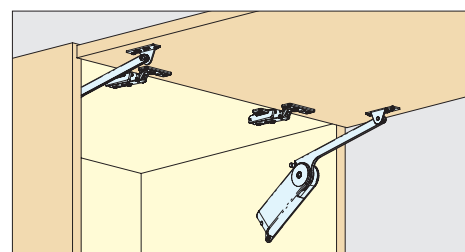


Calculate the door torque according to the following formula considering the weight and the height of the applicable door.

$$\text{Door height (cm)} \times 1/2 \times \text{Door weight (kg)} = \text{Door torque (kg·cm)}$$

Arm Mounting Plate (Sold separately, please specify when ordering.)

| Item No. | Applicable Door                             |
|----------|---------------------------------------------|
| HDSN-SZ  | 45mm width aluminum frame door or wood door |
| HDSN-AZ  | 20mm width aluminum frame door              |

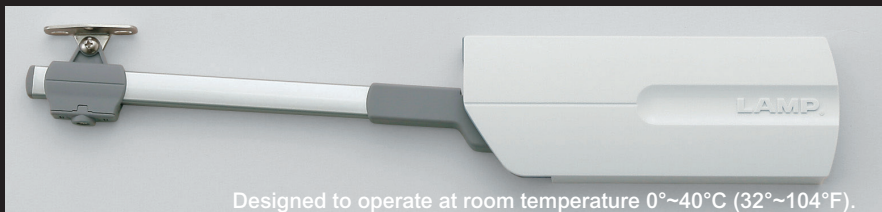


| Item No.  |           | Type | Door torque                      |                                  | Box (pcs) | Carton (pcs) |
|-----------|-----------|------|----------------------------------|----------------------------------|-----------|--------------|
| Left      | Right     |      | Opening angle 90°                | Opening angle 80°                |           |              |
| HDSN-30KL | HDSN-30KR | K    | 140~179 kg·cm ( 122~155 lbs·in ) | 140~199 kg·cm ( 122~173 lbs·in ) | 40        | 200          |
| HDSN-30ML | HDSN-30MR | M    | 180~219 kg·cm ( 156~190 lbs·in ) | 200~249 kg·cm ( 174~216 lbs·in ) |           |              |
| HDSN-30HL | HDSN-30HR | H    | 220~259 kg·cm ( 191~225 lbs·in ) | 250~299 kg·cm ( 217~260 lbs·in ) |           |              |
| HDSN-30SL | HDSN-30SR | S    | 260~300 kg·cm ( 226~260 lbs·in ) | 300~350 kg·cm ( 261~303 lbs·in ) |           |              |

# SLS-ELAN

## EASY LIFT-UP STAY

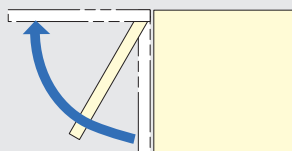
- Lift-assist mechanism for extra light-opening with free stop feature.
- Offers smooth and soft downward movement preventing lids or doors from slamming shut.
- Easy to install by aligning the body to the edge of cabinet.
- Recognized by LGA for 40,000 cycles.



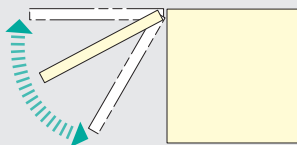
Designed to operate at room temperature 0°~40°C (32°~104°F).

### ■ 3 functions on 1 stay

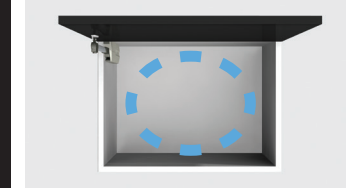
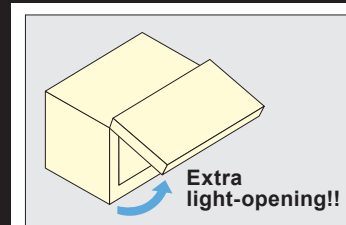
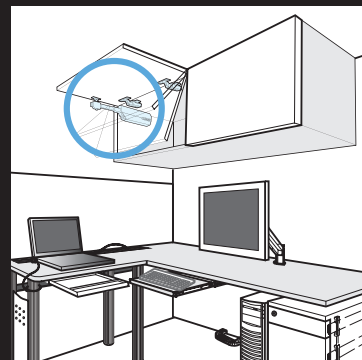
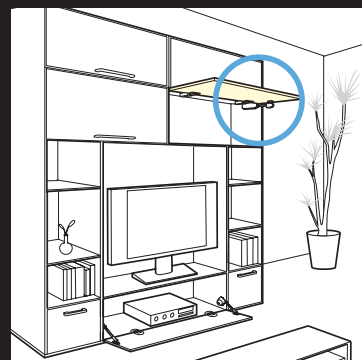
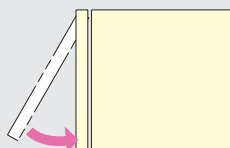
#### 1. Lift-assist



#### 2. Free stop



#### 3. Soft-close



Slim design & installed location maximizes space inside of cabinet

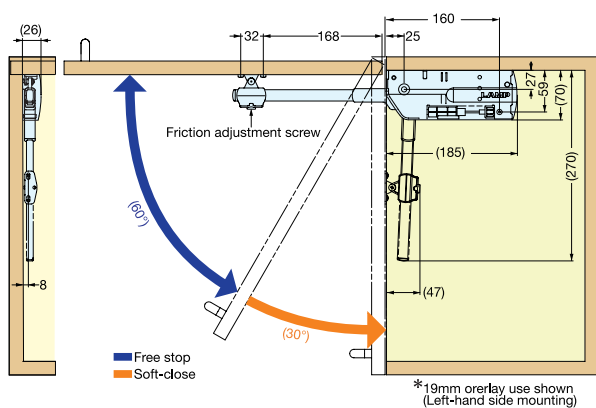
# EASY LIFT-UP STAY



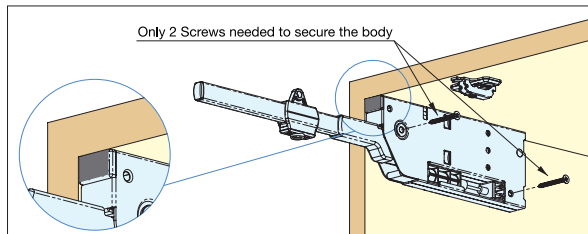
SLS-ELAN



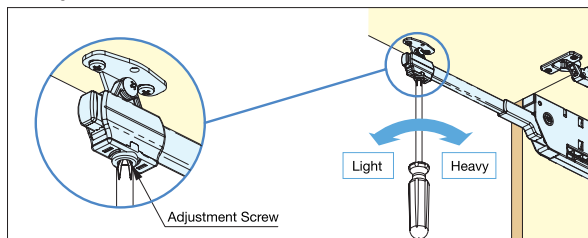
- For UPWARD-OPENING FLAP DOOR used with concealed, piano, butt, or drop hinges.
- Designed to provide effortless opening and hold door in closed and opened position.
- Damper equipped for soft & silent closing.
- Optional bracket for aluminum frame door available.
- Single or pair use allows wide range of door sizes/weights.
- Handed left or right.



## Easy Installation



## Adjustment



Door Weight Range Table (lbs.)

| Door Height (inch) | Single use |      |        |      | Pair use |      |        |      |
|--------------------|------------|------|--------|------|----------|------|--------|------|
|                    | M-type     |      | H-type |      | M-type   |      | H-type |      |
|                    | Min        | Max  | Min    | Max  | Min      | Max  | Min    | Max  |
| 12"                | 8.0        | 10.8 | 10.8   | 14.5 | 16.0     | 21.7 | 21.7   | 29.0 |
| 13"                | 7.4        | 10.0 | 10.0   | 13.4 | 14.8     | 20.0 | 20.0   | 26.8 |
| 14"                | 6.9        | 9.3  | 9.3    | 12.4 | 13.7     | 18.6 | 18.6   | 24.9 |
| 15"                | 6.4        | 8.7  | 8.7    | 11.6 | 12.8     | 17.3 | 17.3   | 23.2 |
| 16"                | 6.0        | 8.1  | 8.1    | 10.9 | 12.0     | 16.3 | 16.3   | 21.8 |
| 17"                | 5.6        | 7.6  | 7.6    | 10.2 | 11.3     | 15.3 | 15.3   | 20.5 |
| 18"                | 5.3        | 7.2  | 7.2    | 9.7  | 10.7     | 14.4 | 14.4   | 19.3 |
| 19"                | 5.1        | 6.8  | 6.8    | 9.2  | 10.1     | 13.7 | 13.7   | 18.3 |
| 20"                | 4.8        | 6.5  | 6.5    | 8.7  | 9.6      | 13.0 | 13.0   | 17.4 |
| 21"                | 4.6        | 6.2  | 6.2    | 8.3  | 9.1      | 12.4 | 12.4   | 16.6 |
| 22"                | 4.4        | 5.9  | 5.9    | 7.9  | 8.7      | 11.8 | 11.8   | 15.8 |
| 23"                | 4.2        | 5.7  | 5.7    | 7.6  | 8.3      | 11.3 | 11.3   | 15.1 |
| 24"                | 4.0        | 5.4  | 5.4    | 7.3  | 8.0      | 10.8 | 10.8   | 14.5 |
| 25"                | 3.8        | 5.2  | 5.2    | 7.0  | 7.7      | 10.4 | 10.4   | 13.9 |
| 26"                | 3.7        | 5.0  | 5.0    | 6.7  | 7.4      | 10.0 | 10.0   | 13.4 |
| 27"                | 3.6        | 4.8  | 4.8    | 6.4  | 7.1      | 9.6  | 9.6    | 12.9 |
| 28"                | 3.4        | 4.6  | 4.6    | 6.2  | 6.9      | 9.3  | 9.3    | 12.4 |

\*Single or pair use depending on door size and weight.



Face Frame Bracket: FFCB-SLS  
(Sold separately, see P.344)

| Item No.    |       | Type                    | Torque per piece               | Material                       | Finish/Color                               | Weight (g) | Box (pcs) | Carton (pcs) |
|-------------|-------|-------------------------|--------------------------------|--------------------------------|--------------------------------------------|------------|-----------|--------------|
| SLS-ELAN-MR | Right | M-type<br>(Medium Duty) | 55~75 kg·cm<br>(48~65 lbs·in)  | • Aluminum<br>• Steel<br>• ABS | • Anodized<br>• Galvanized<br>• Light Grey | 600        | 20        | 100          |
| SLS-ELAN-ML | Left  |                         |                                |                                |                                            |            |           |              |
| SLS-ELAN-HR | Right | H-type<br>(Heavy Duty)  | 75~100 kg·cm<br>(65~87 lbs·in) |                                |                                            |            |           |              |
| SLS-ELAN-HL | Left  |                         |                                |                                |                                            |            |           |              |



## LIFT ASSIST MECHANISM



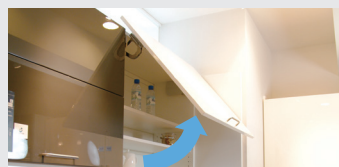
EZS-ELAN



- Lapcon stay for UPWARD-OPENING FLAP DOORS.
- Door opens over the cabinet.  
(Space of 4-5/16" is required over cabinet)
- Lift-assist mechanism for extra light-opening.
- Door stays in any desired position.
- Damper equipped for soft & silent closing at the end.
- Slim design and installed location maximizes space inside of cabinet.
- Simple installation by aligning body to edge of cabinet.
- No hinges/connecting bar needed.
- Door height adjustable. (Horizontal  $\pm 1/16"$ , Vertical  $\pm 1/16"$ )
- Successfully passed 30,000 open/close private cycle tests.
- Recommended Door Size and Weight:
  - Width, Max. 1200 mm (47-1/4")
  - Height, 500~750 mm (19-11/16"~29-1/2")/Door
  - Weight, 5~12.5 kg (11~27.5 lbs)/Door
- Sold per pair.

## ■ 3 functions on 1 stay

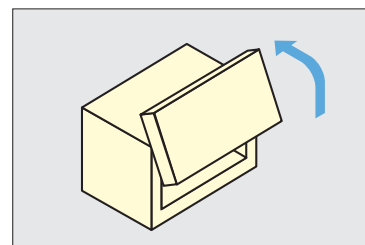
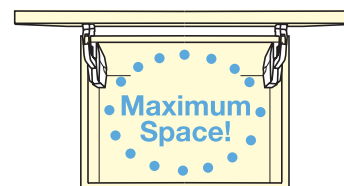
## 1. Lift-assist



## 2. Free stop

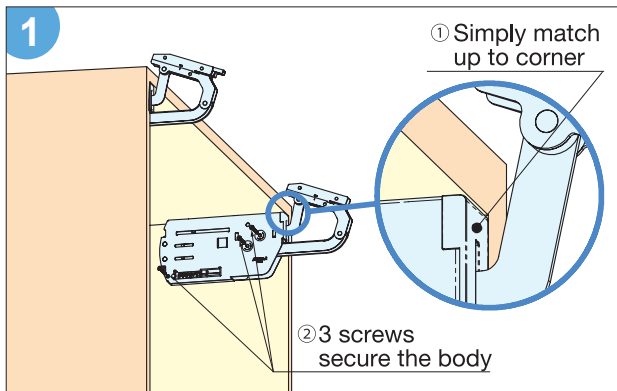


## 3. Soft-close

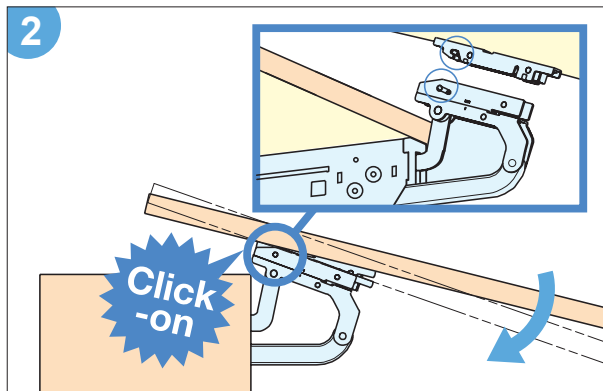


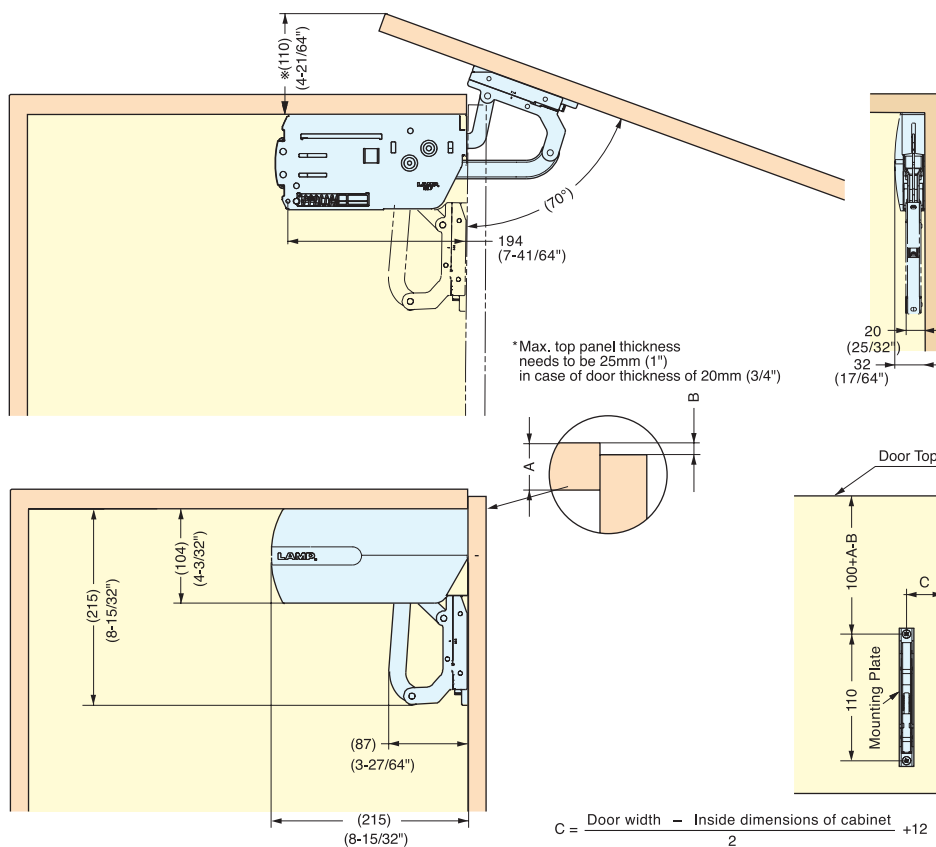
## ■ Easy Installation

1



2





### ■ Door Weight Range Table (lbs.) Per Pair

| Door Height<br>(Inches) | EZS-ELAN-LL |      | EZS-ELAN-ML |      | EZS-ELAN-MM |      | EZS-ELAN-HM |      | EZS-ELAN-HH |      |
|-------------------------|-------------|------|-------------|------|-------------|------|-------------|------|-------------|------|
|                         | Min         | Max  | Min         | Max  | Min         | Max  | Min         | Max  | Min         | Max  |
| 19                      | 10.7        | 15.7 | 15.7        | 21.0 | 21.0        | 26.5 | 26.5        | 29.9 | 29.9        | 36.8 |
| 20                      | 10.3        | 15.0 | 15.0        | 20.0 | 20.0        | 25.3 | 25.3        | 28.5 | 28.5        | 35.0 |
| 21                      | 9.8         | 14.3 | 14.3        | 19.1 | 19.1        | 24.1 | 24.1        | 27.2 | 27.2        | 33.4 |
| 22                      | 9.4         | 13.7 | 13.7        | 18.3 | 18.3        | 23.0 | 23.0        | 26.0 | 26.0        | 31.9 |
| 23                      | 9.0         | 13.2 | 13.2        | 17.5 | 17.5        | 22.1 | 22.1        | 24.9 | 24.9        | 30.6 |
| 24                      | 8.7         | 12.7 | 12.7        | 16.8 | 16.8        | 21.2 | 21.2        | 23.9 | 23.9        | 29.3 |
| 25                      | 8.4         | 12.2 | 12.2        | 16.2 | 16.2        | 20.4 | 20.4        | 23.0 | 23.0        | 28.2 |
| 26                      | 8.1         | 11.8 | 11.8        | 15.6 | 15.6        | 19.7 | 19.7        | 22.2 | 22.2        | 27.2 |
| 27                      | 7.9         | 11.4 | 11.4        | 15.1 | 15.1        | 19.0 | 19.0        | 21.4 | 21.4        | 26.2 |
| 28                      | 7.6         | 11.0 | 11.0        | 14.6 | 14.6        | 18.3 | 18.3        | 20.6 | 20.6        | 25.3 |
| 29                      | 7.4         | 10.7 | 10.7        | 14.1 | 14.1        | 17.7 | 17.7        | 20.0 | 20.0        | 24.4 |
| 30                      | 7.2         | 10.3 | 10.3        | 13.7 | 13.7        | 17.2 | 17.2        | 19.3 | 19.3        | 23.7 |
| 31                      | 7.0         | 10.0 | 10.0        | 13.3 | 13.3        | 16.6 | 16.6        | 18.7 | 18.7        | 22.9 |
| 32                      | 6.8         | 9.8  | 9.8         | 12.9 | 12.9        | 16.2 | 19.2        | 18.2 | 18.2        | 22.3 |

### ■ Lifting power

Door height (inch) x (Door weight (lbs) -1)

| Item No.    | Lifting Power (lbs-in) |
|-------------|------------------------|
| EZS-ELAN-LL | 185~280                |
| EZS-ELAN-ML | 280~380                |
| EZS-ELAN-MM | 380~485                |
| EZS-ELAN-HM | 485~550                |
| EZS-ELAN-HH | 550~680                |

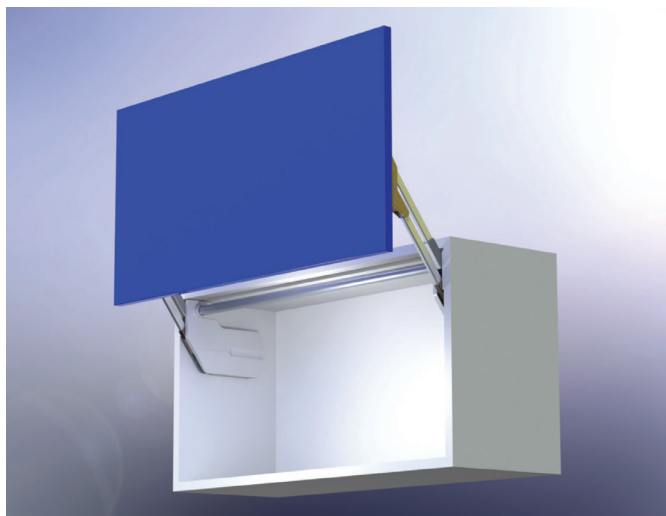
| Item No.    | Weight (g)      | Box (pcs) |
|-------------|-----------------|-----------|
| EZS-ELAN-LL | 2245 (4.9 lbs)  | 5         |
| EZS-ELAN-ML | 2316 (5.0 lbs)  |           |
| EZS-ELAN-MM | 2387 (5.25 lbs) |           |
| EZS-ELAN-HM | 2431 (5.35 lbs) |           |
| EZS-ELAN-HH | 2475 (5.45 lbs) |           |

| Material   | Finish/Color       |
|------------|--------------------|
| Steel, ABS | Light Grey, Nickel |

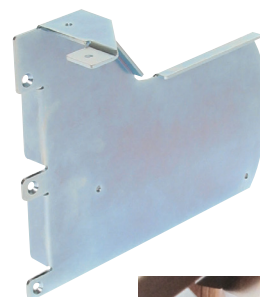
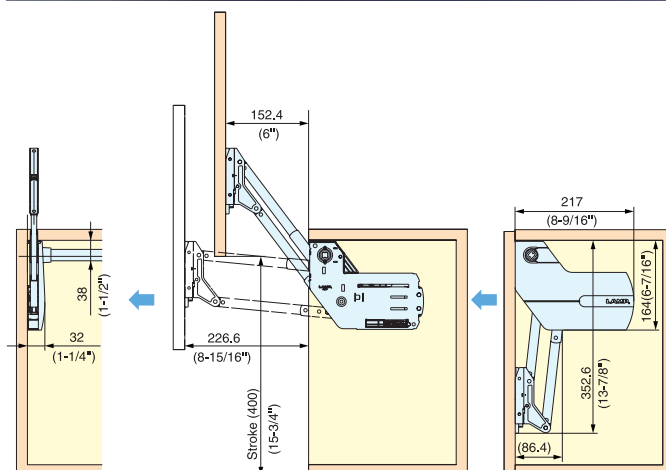
# SWING LIFT-UP STAY



# SLU-ELAN



- Lapcon stay for SWING LIFT-UP DOORS.
- Lift-assist mechanism for extra light-opening.
- Door stays in any desired position.
- Damper equipped for soft & silent closing at the end.
- Simple installation by mounting guide plate and slide in main body.
- No hinges are required.
- Connecting bar stays on top for maximum access inside the cabinet.
- Recommended Door Size and Weight :
  - Width, Max. 1800mm (70-7/8")
  - Height, 390~500 mm (15-3/8"~19-11/16")/Door
  - Weight, 5~11 kg (11~24.2 lbs)/Door



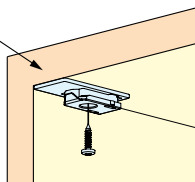
Face Frame Bracket: FFCB-SLU  
(Sold separately, see P.344)



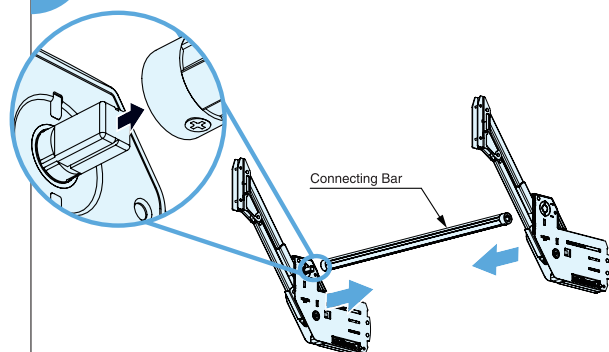
## Simple Installation

### 1 Guide plate installation

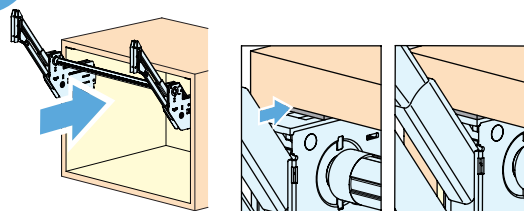
Simply match up to corner



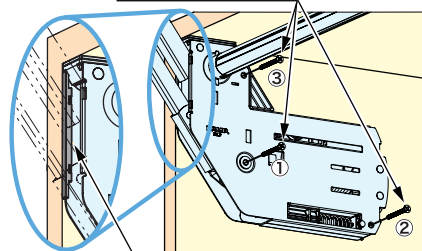
### 2 Connection bar installation



### 3 Body installation



3 screws secure the body



Simply match up to corner.

## SWING LIFT-UP STAY



## SLU-ELAN

| Item No.    | Door Weight (kg)         | Door Height (mm)                | Door Width (mm)       | Box   | Carton |
|-------------|--------------------------|---------------------------------|-----------------------|-------|--------|
| SLU-ELAN-S4 | 5.0~6.5 (11.0~14.3 lbs)  | 390~500*<br>(15-3/8"~19-11/16") | Max. 1800<br>(70-7/8) | 1 set | 5 set  |
| SLU-ELAN-L4 | 6.5~8.0 (14.3~17.6 lbs)  |                                 |                       |       |        |
| SLU-ELAN-M4 | 8.0~9.5 (17.6~20.9 lbs)  |                                 |                       |       |        |
| SLU-ELAN-H4 | 9.5~11.0 (20.9~24.2 lbs) |                                 |                       |       |        |

\*Min. inside cabinet height is 360 mm (14-3/16")

\*Door weight includes handle.

### ■ Connecting Bar (Sold separately)

| Item No. | Max. Cabinet Width (mm) | Max. Interior Cabinet Width (mm) |
|----------|-------------------------|----------------------------------|
| ELB-480  | 600 (23-5/8")           | 566 (22-1/4")                    |
| ELB-780  | 900 (35-1/2")           | 866 (34-1/8")                    |
| ELB-1080 | 1200 (47-1/4")          | 1166 (45-7/8")                   |
| ELB-1380 | 1500 (59")              | 1466 (57-3/4")                   |
| ELB-1680 | 1800 (70 7/8")          | 1766 (69-1/2")                   |

\*Please specify the cabinet width when ordering. Connecting bar can be trimmed as necessary by customer.

## FACE FRAME BRACKETS

- Bracket(s) are available to be used with below items on face frame cabinet.
- Screw set included in each set.
- \*Detailed information is shown on the following two pages.

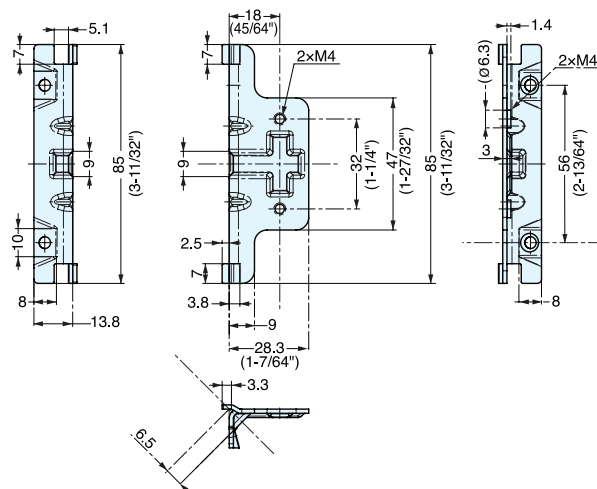
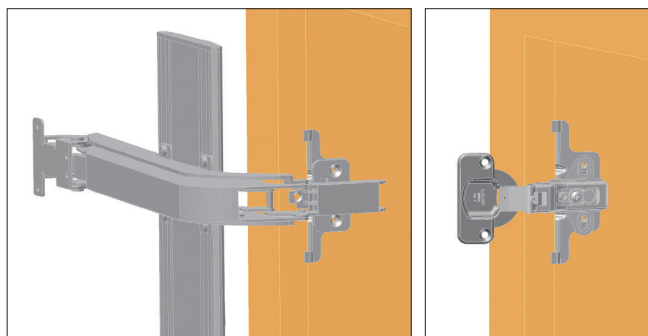




## FFCB-HG-1



- Works with items below on face frame cabinets:
  - LIN-X
  - 304B Hinges (with 304B-P4A-32)
  - 230 Hinges (with 230-P4W-32T)
- Sold per piece.
- Please specify the quantity of brackets necessary when ordering:  
1 bracket is needed for each arm (LIN-X) or hinge (304B, 230).



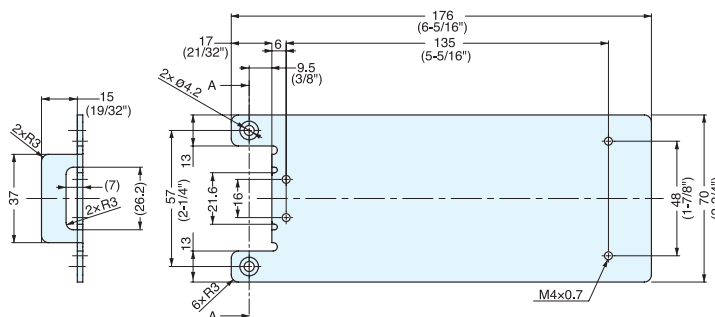
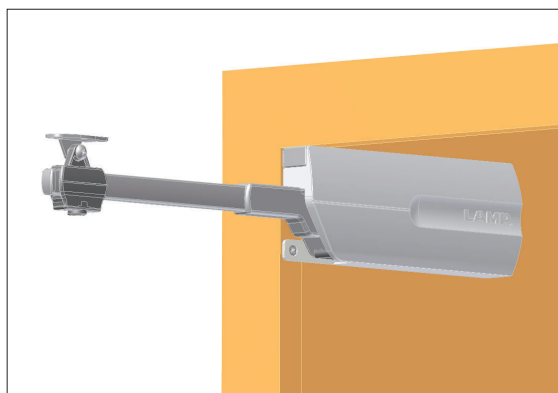
| Material            | Finish   |
|---------------------|----------|
| 304 Stainless Steel | Polished |

## FACE FRAME BRACKET



## FFCB-SLS

- Works with SLS-ELAN Series on face frame cabinets.
- Sold per piece.
- Please specify the quantity of brackets necessary when ordering:  
1 bracket is needed for each stay.

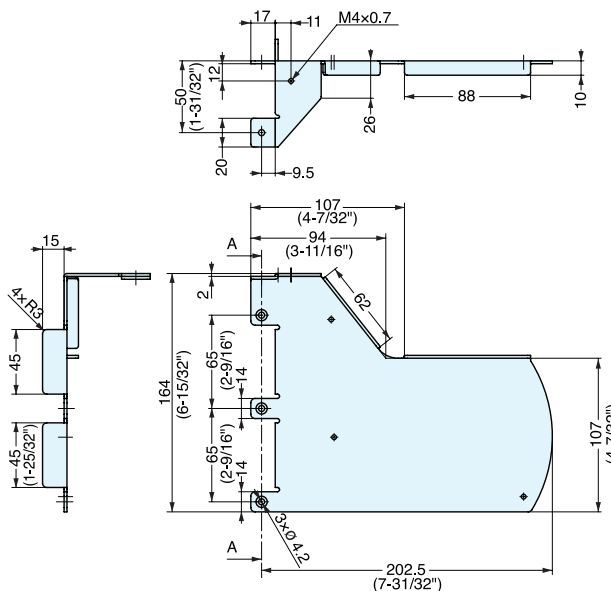
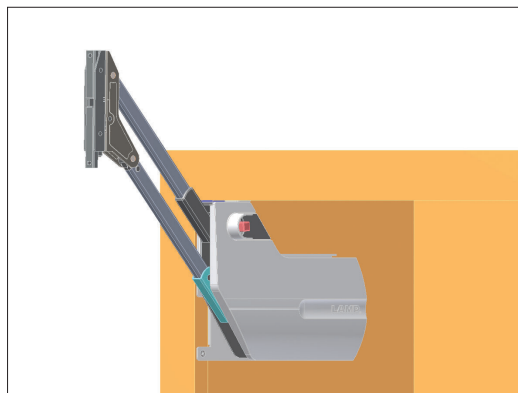
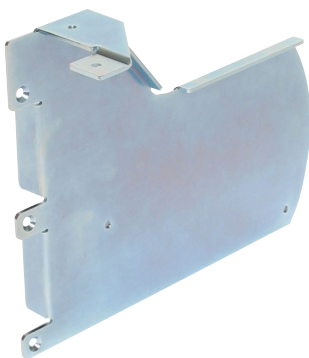


|          |          |
|----------|----------|
| Material | Finish   |
| Steel    | Chromate |

## FACE FRAME BRACKET



FFCB-SLU



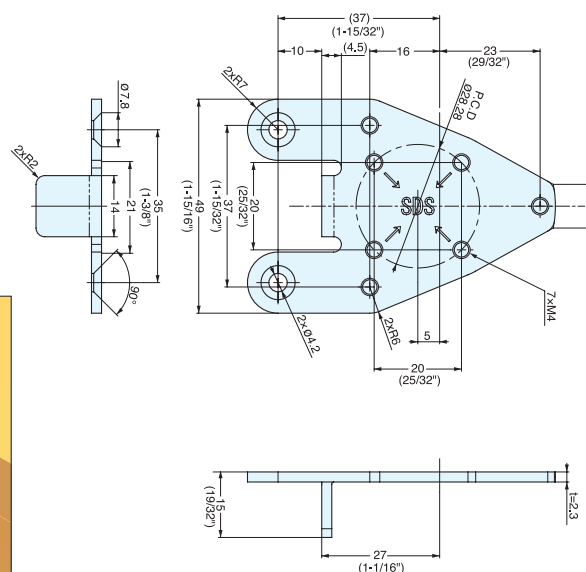
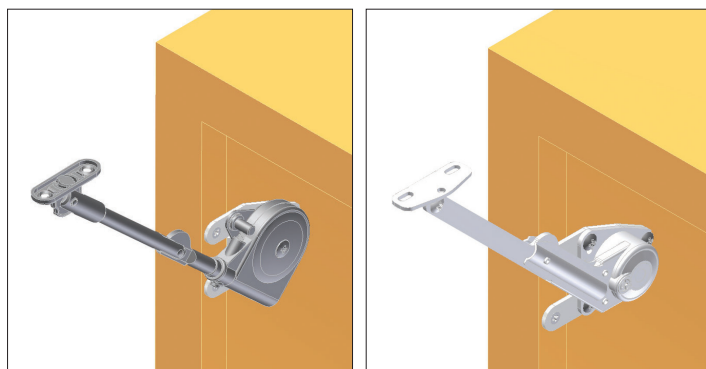
|          |          |
|----------|----------|
| Material | Finish   |
| Steel    | Chromate |

## FACE FRAME BRACKET



**FFCB-SD-1**

- Works with NSDX/SDS Series on face frame cabinets.
- Sold per piece.
- Please specify the quantity of brackets necessary when ordering: 1 bracket is needed for each stay.

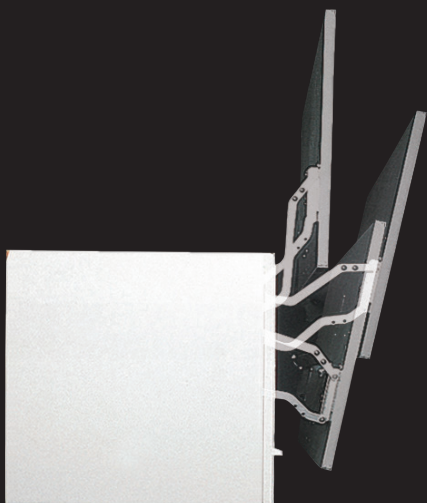


|          |          |
|----------|----------|
| Material | Finish   |
| Steel    | Chromate |

# SLUN

## VERTICAL SWING LIFT-UP MECHANISM

- Unique swing mechanism provides a lift-assist feature to help lift doors and hold at the open position.
- Sleek, compact design provides maximum access.
- Easy installation.
- Adjustable arm mounting plate.
- Successfully passed for 30,000 open/close private cycle tests.



Designed to operate at room temperature  
0°~40°C (32°~104°F).



# VERTICAL SWING LIFT-UP MECHANISM



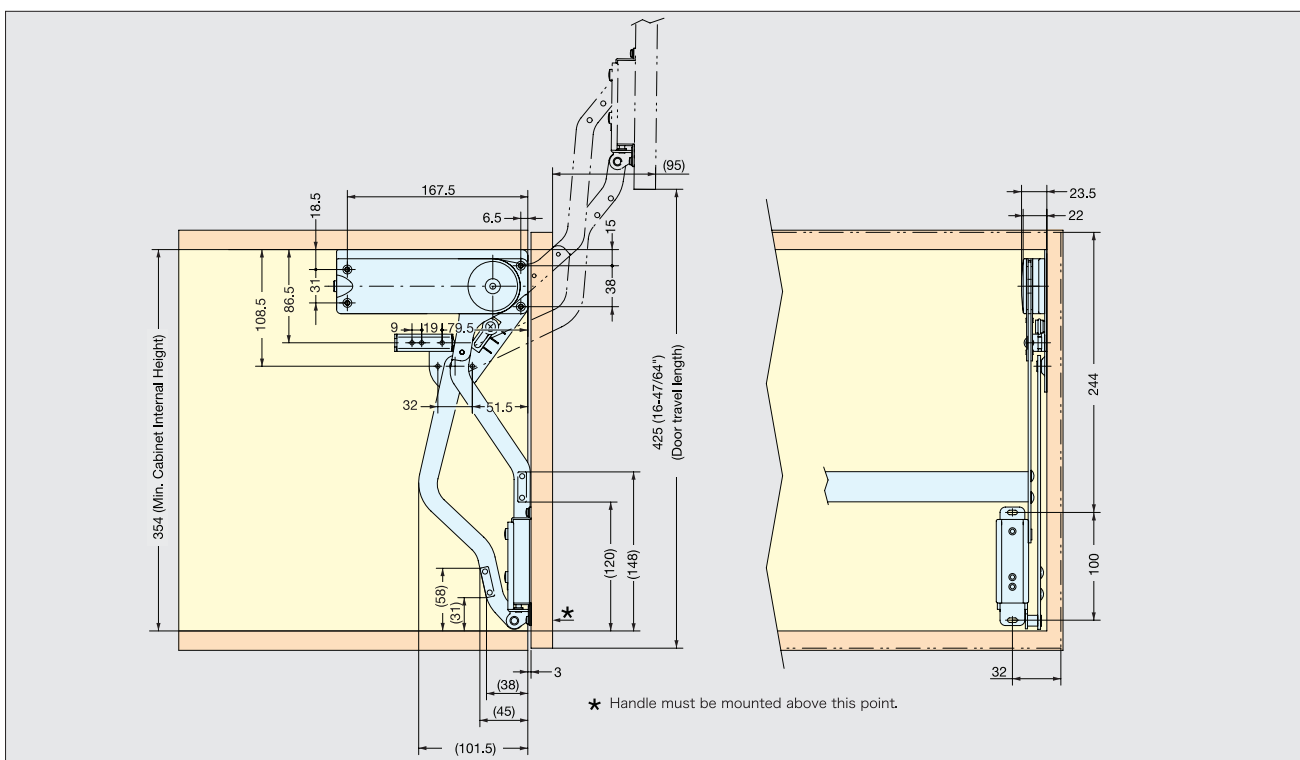
SLUN

LID SUPPORTS

VERTICAL SWING LIFT-UP MECHANISM



- Unique mechanism will help lift doors and hold at the open position.
- Sleek & compact design.
- Easy installation.
- Adjustable arm mounting plate.
- Patented LAPCON technology provides a smooth and quiet motion.
- Successfully passed 30,000 open/close private cycle tests.
- Recommended Door Size and Weight:
  - Width, 600~900 mm (23-5/8"~35-7/16")
  - Height, 390~450 mm (15-23/64"~17-23/32")
  - Weight, 2.8~5.8 kg (6.2~12.8 lbs)



| Material | Finish/Color |
|----------|--------------|
| Steel    | Nickel       |
| Plastic  | Grey         |

| Item No | Door Weight (kg)          | Box (set) | Carton (set) |
|---------|---------------------------|-----------|--------------|
| SLUN-3N | 2.8~3.8 ( 6.2~8.4 lbs )   | 5         | 50           |
| SLUN-4N | 3.8~4.8 ( 8.4~10.6 lbs )  |           |              |
| SLUN-5N | 4.8~5.8 ( 10.6~12.8 lbs ) |           |              |

Guide Bar Length

| Door Type       | Cabinet Width (mm) |                  |
|-----------------|--------------------|------------------|
|                 | 600 ( 23-5/8" )    | 900 ( 35-7/16" ) |
| Solid Wood Door | 535 ( 21-1/16" )   | 835 ( 32-7/8" )  |
| Frame Door      | 551 ( 21-3/4" )    | 851 ( 33-1/2" )  |

\*SLUB-835 (835 mm (32-7/8")) included unless specified.



# SLD

## VERTICAL SWING DOWN MECHANISM



- Unique swing down mechanism provides a lift-assist feature to help open/close the doors easily & softly.
- Holds the door at the open position.
- Sleek, compact design provides maximum access.
- Easy installation.
- Adjustable arm mounting plate.
- Successfully passed for 30,000 open/close private cycle tests.

Designed to operate at room temperature  
0°~40°C (32°~104°F).



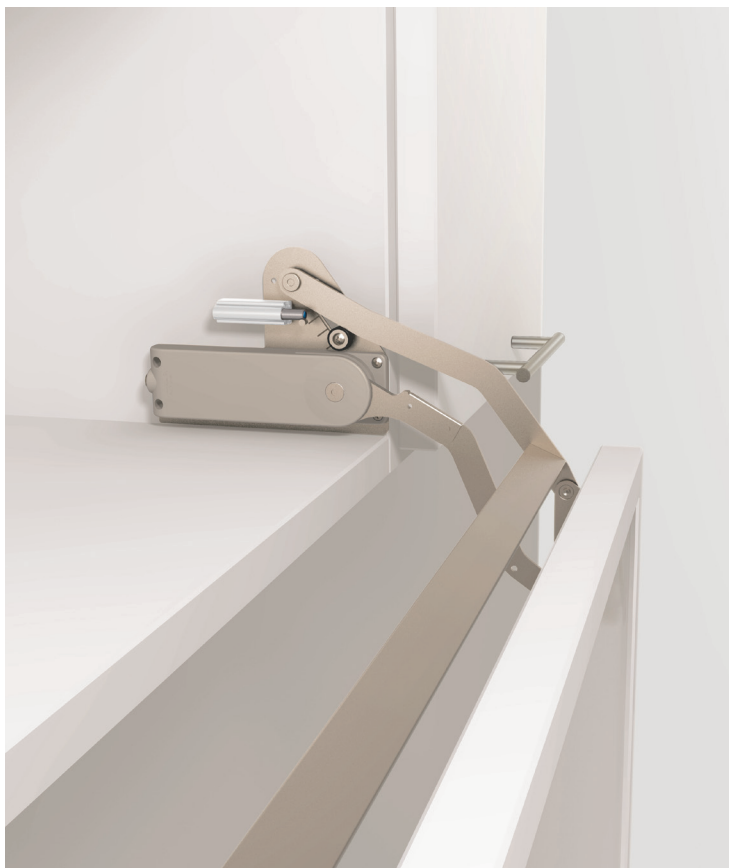
# VERTICAL SWING DOWN MECHANISM



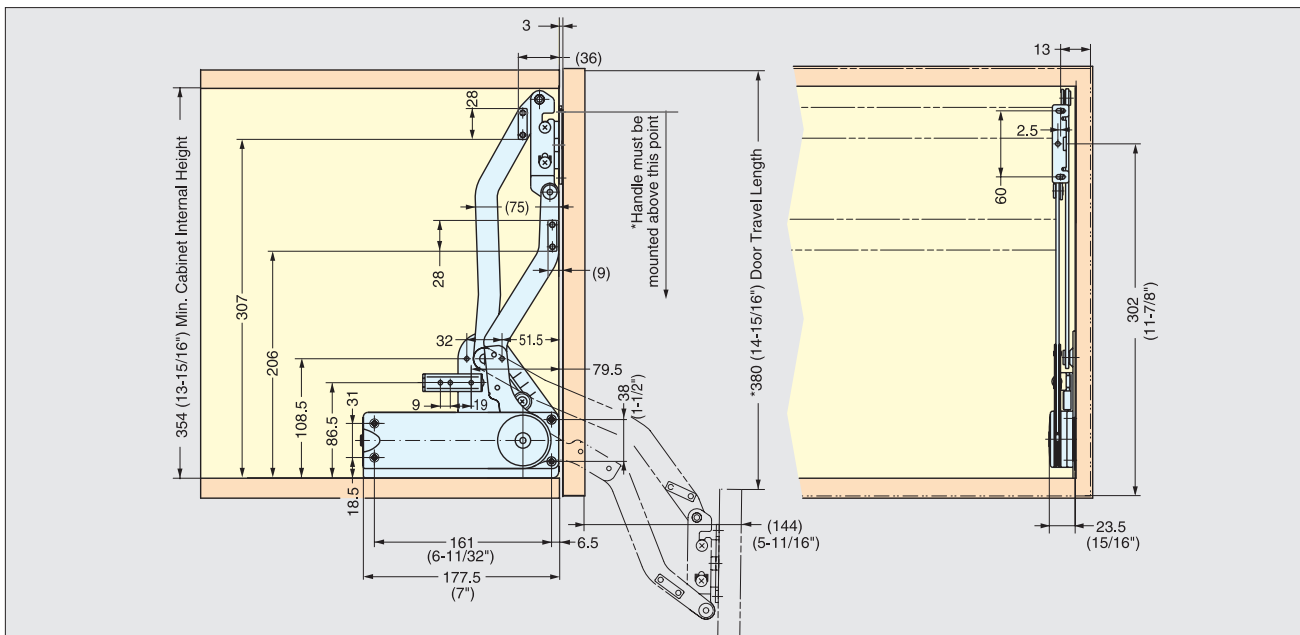
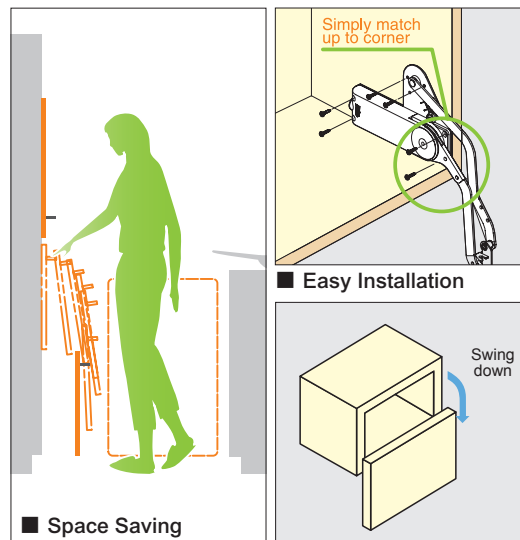
SLD

LID SUPPORTS

VERTICAL SWING DOWN MECHANISM



- Unique swing down mechanism will hold doors at the open position.
- Sleek & compact design.
- Easy installation.
- Adjustable arm mounting plate.
- Patented LAPCON technology provides a smooth and quiet motion.
- Successfully passed 30,000 open/close private cycle tests.
- Recommended Door Size and Weight:
  - Width, 600~900 mm (23-5/8"~35-7/16")
  - Height, 360~400 mm (14-1/8"~15-3/4")
  - Weight, 3~6 kg (6.6~13.2 lbs)



| Material | Finish/Color |
|----------|--------------|
| Steel    | Nickel       |
| Plastic  | Grey         |

| Item No | Door Weight (kg)      | Box (set) | Carton (set) |
|---------|-----------------------|-----------|--------------|
| SLD-3   | 3~4 ( 6.6~8.8 lbs )   | 5         | 50           |
| SLD-4   | 4~5 ( 8.8~11.0 lbs )  |           |              |
| SLD-5   | 5~6 ( 11.0~13.2 lbs ) |           |              |

Guide Bar Length

| Door Type       | Cabinet Width (mm) |                  |
|-----------------|--------------------|------------------|
|                 | 600 ( 23-5/8" )    | 900 ( 35-7/16" ) |
| Solid Wood Door | 535 ( 21-1/16" )   | 835 ( 32-7/8" )  |
| Frame Door      | 551 ( 21-3/4" )    | 851 ( 33-1/2" )  |

\*SLUB-835 (835 mm (32-7/8")) included unless specified.

# HBFN

## HORIZONTAL BI-FOLDING DOOR MECHANISM



- HBFN's unique bi-fold door mechanism will assist in opening and closing doors in a smooth motion.
- The mechanism is compact, with no tracks or guides.
- Easy installation.
- Patented Lapcon technology offers smooth and quiet motion.
- Successfully passed 30,000 open/close private cycle tests.

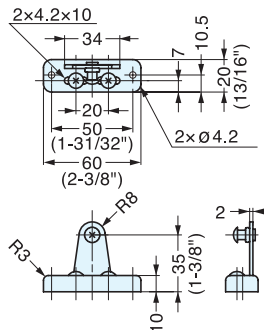
Designed to operate at room temperature  
0°~40°C (32°~104°F).



## MOUNTING PLATES FOR HBFN

## HBFN-SZ

- Included with HBFN Series hardware.



| Item No | Application                                            | Weight (g) | Box (set) |
|---------|--------------------------------------------------------|------------|-----------|
| HBFN-SZ | Wood Doors, Aluminum Frame Doors, Width 45 mm (1-3/4") | 44         | 100       |

| Part Name      | Material | Finish/Color |
|----------------|----------|--------------|
| Plates, Screws | Steel    | Nickel       |
| Bumper         | -        | Grey         |

# HORIZONTAL BI-FOLDING DOOR MECHANISM



HBFN

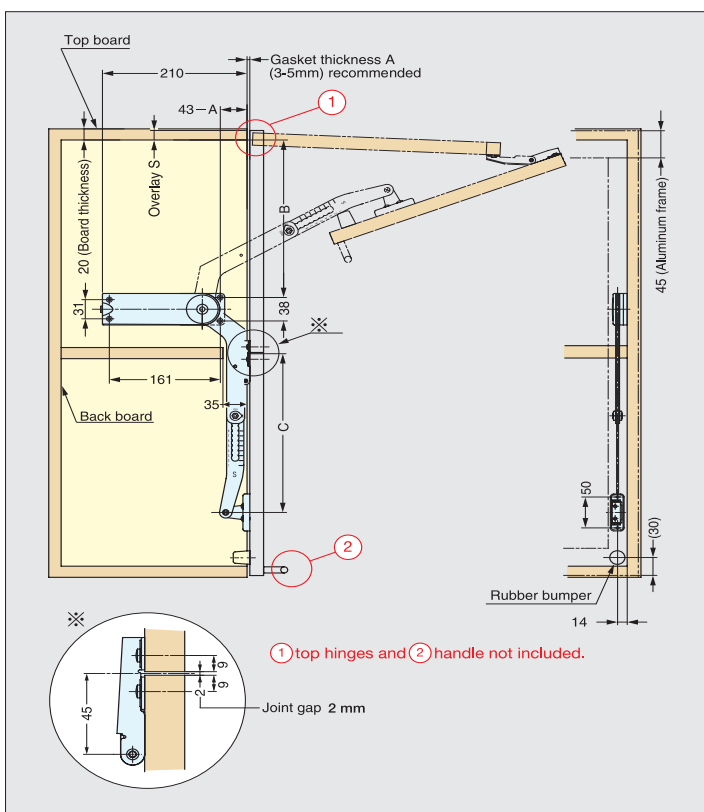
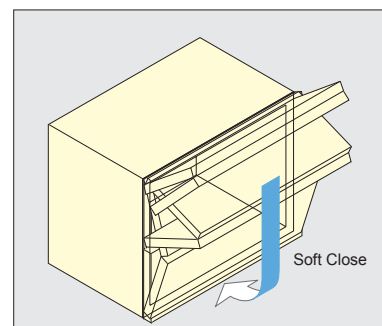
LID SUPPORTS

HORIZONTAL BI-FOLDING DOOR MECHANISM



- Unique new bi-fold door mechanism will assist in opening and closing doors in a smooth motion.
- No tracks or guides required.
- Handle position can be at the bottom of the door.
- Arm length adjustable for various door sizes.
- Patented LAPCON technology provides smooth and quiet motion.
- Recommended Door Size and Weight):  
Width, 450~900 mm (17-23/32"~35-7/16")  
Height, 320~370 mm (12-19/32"~14-9/16")/each door  
Weight, 2.5~5.5 kg (5.5~12.1 lbs)/each door

| Material | Finish     |
|----------|------------|
| Steel    | Nickel     |
| Plastic  | Light Grey |



S = Overlay (Top Board)

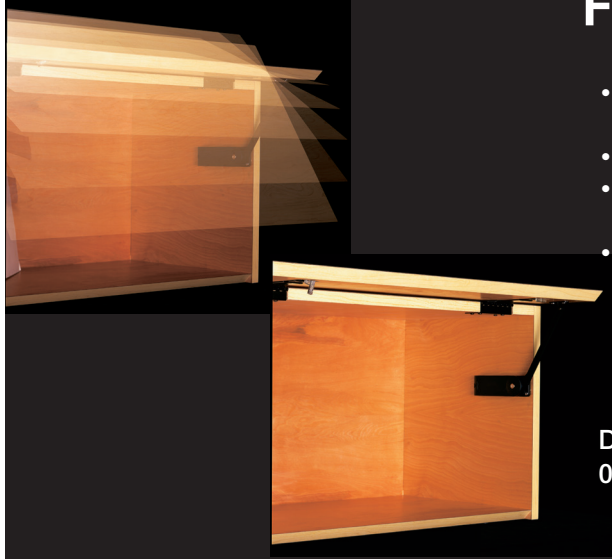
| Type | Door Height (mm) | Opening Angle 90° |       |     | Opening Angle 105° |       |     |
|------|------------------|-------------------|-------|-----|--------------------|-------|-----|
|      |                  | Arm Position      | B     | C   | Arm Position       | B     | C   |
| M    | 320              | 1                 | 247-S | 241 | 4                  | 226-S | 244 |
|      | 330              | 2                 | 252-S | 244 | 5                  | 234-S | 250 |
|      | 340              | 3                 | 258-S | 248 | 6                  | 243-S | 257 |
|      | 350              | 4                 | 263-S | 251 | 7                  | 251-S | 263 |
|      | 360              | 5                 | 269-S | 255 | 8                  | 259-S | 269 |
|      | 370              | 6                 | 274-S | 258 | 9                  | 267-S | 275 |

| Item No | Door Height / door (mm)        | Door Weight (kg/door)    | Box (set) | Carton (set) |          |            |
|---------|--------------------------------|--------------------------|-----------|--------------|----------|------------|
| HBFN-2M | 320~370 ( 12-19/32"~14-9/16" ) | 2.5~3.5 ( 5.5~7.7 lbs )  | 10        | 100          | Material | Finish     |
| HBFN-3M |                                | 3.6~4.5 ( 7.9~9.9 lbs )  |           |              | Steel    | Nickel     |
| HBFN-4M |                                | 4.6~5.5 ( 9.9~12.1 lbs ) |           |              | Plastic  | Light Grey |



# OV-EZ

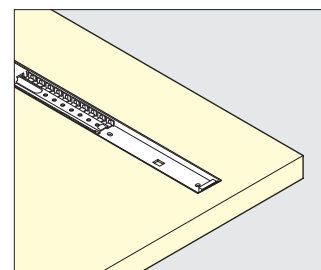
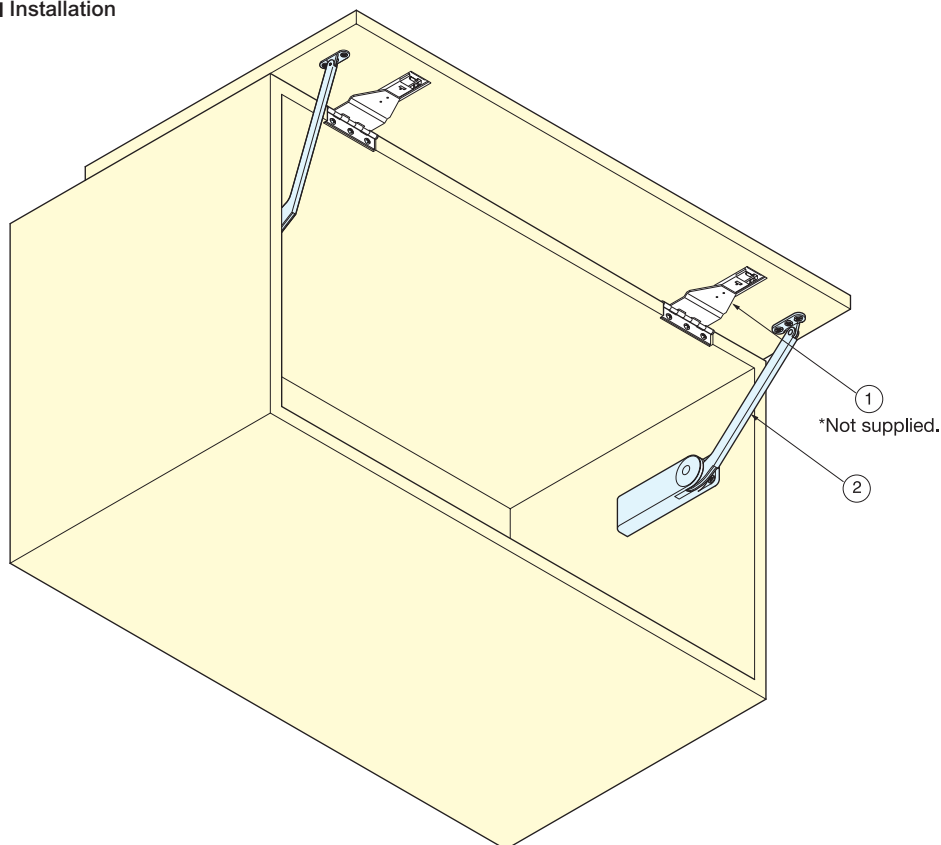
## LIFT-ASSIST MECHANISM FOR OVER-THE-TOP FLIPPER DOORS



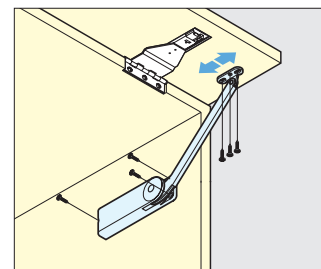
- Assists in opening of flipper doors with minimal resistance.
- Doors will not slam shut.
- Ideal for overhead binder bins, laboratory and kitchen cabinets, etc.
- Successfully passed 30,000 open/close private cycle tests.

Designed to operate at room temperature  
0°~40°C (32°~104°F).

### ■ Installation



① Install ball bearing flipper slide rails.  
(Not supplied.)



② Mount the OV-EZ mechanism to the side wall of the cabinet as illustrated in installation instructions provided with the product.

### Recommended Door Size and Weight

| Item No.   | Door Weight For Easy-Up (kg) | Door Weight For Free-Stop (kg) | Door Height (mm)      | Weight (g) | Box (pcs) | Carton (pcs) |
|------------|------------------------------|--------------------------------|-----------------------|------------|-----------|--------------|
| OV-EZ-3/BL | 2.5~4.0 ( 5.5~8.8 lbs )      | 4~6.5 ( 8.8~14.3 lbs )         | Approx. 400 (15-3/4") | 260        | 50        | 500          |
| OV-EZ-5/BL | 3.5~5.5 ( 7.7~11.0 lbs )     | 5~8.0 (11.0~17.5 lbs)          |                       | 270        |           |              |
| OV-EZ-7/BL | 4.5~6.0 ( 9.9~13.2 lbs )     | 6~10.0 (13.2~22.0 lbs)         |                       | 280        |           |              |
| OV-EZ-9/BL | 5.5~7.0 (12.0~15.3 lbs)      | 7~11.5 (15.4~25.2 lbs)         |                       | 290        |           |              |

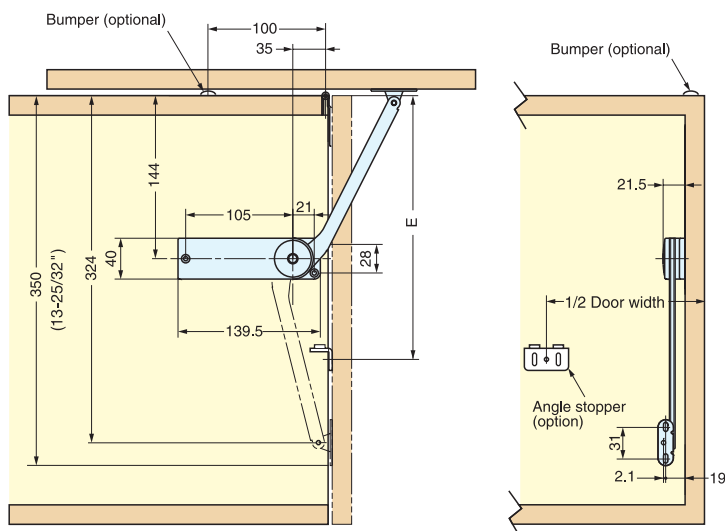
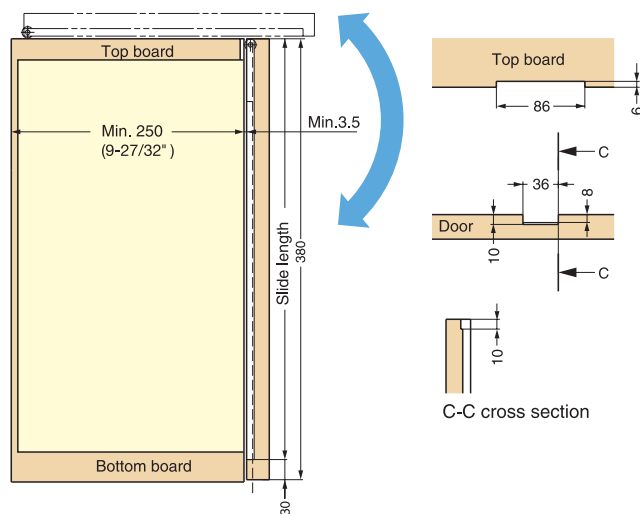
# LIFT-ASSIST MECHANISM



OV-EZ



\* Used in pairs



| Part Name              | Material | Finish/Color |
|------------------------|----------|--------------|
| Housing                | ABS      | Black        |
| Arm and Mounting Plate | Steel    | Nickel       |

OVN

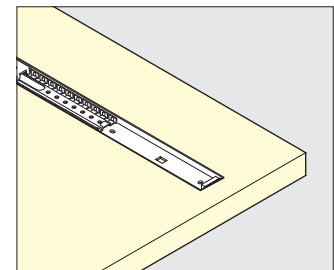
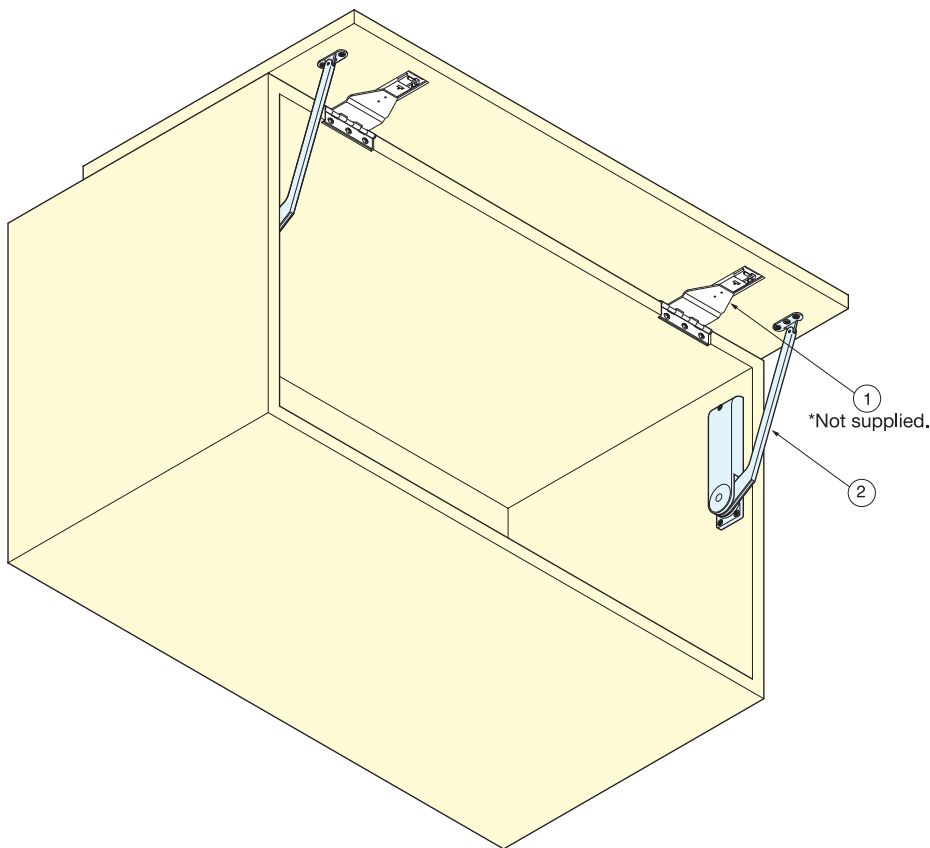
SOFT CLOSING MECHANISM  
FOR OVER-THE-TOP  
FLIPPER DOORS

- Patented Lapcon technology offers smooth and quiet motion.
- Doors will not slam shut.
- Successfully passed 30,000 open/close private cycle tests.

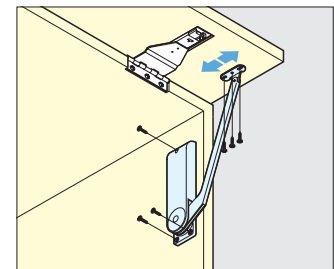
Designed to operate at  
room temperature 0°~40°C  
(32°~104°F).



## ■ Installation



① Install ball bearing flipper slide rails. (Not supplied.)



② Mount the OVN unit to the side wall of the cabinet as illustrated in installation instructions provided with the product.

## Recommended Door Size and Weight

| Item No.  | Body Color  | Door Weight (kg)      | Door Height (mm)     | Depth of Cabinet (mm)       | Weight (g) | Box (pcs) | Carton (pcs) |
|-----------|-------------|-----------------------|----------------------|-----------------------------|------------|-----------|--------------|
| OVN-3/BLK | Black (BLK) | 3~5 ( 6.6~11.0 lbs )  | Approx.400 (15~3/4") | 350~400 (13-25/32"~15-3/4") | 220        | 40        | 400          |
| OVN-5/BLK |             | 5~7 ( 11.0~15.4 lbs ) |                      |                             | 240        |           |              |

# SOFT CLOSING MECHANISM

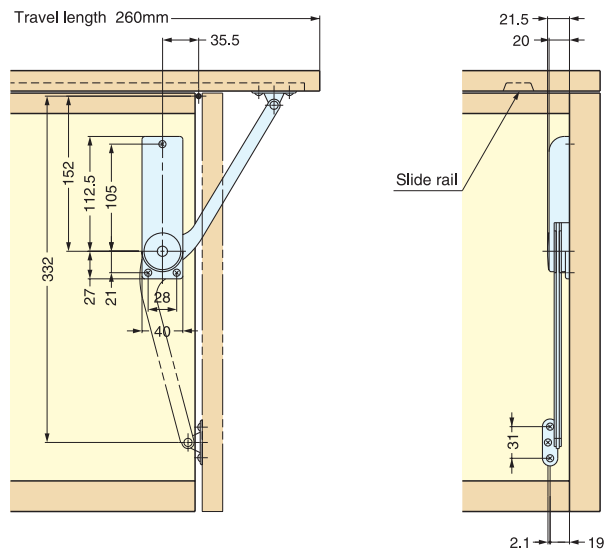
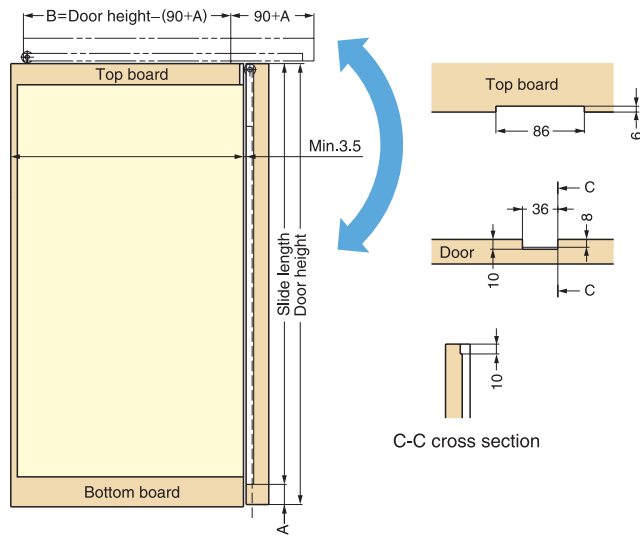


OVN



\* Used in pairs

## ■ Cabinet Preparation



| Part Name              | Material | Finish/Color |
|------------------------|----------|--------------|
| Housing                | ABS      | Black        |
| Arm and Mounting Plate | Steel    | Nickel       |





OV

## SOFT CLOSING MECHANISM FOR OVER-THE-TOP FLIPPER DOORS

- Patented Lapcon technology offers smooth and quiet motions.
  - Doors will not slam shut.
  - Adjustable closing speed.
  - Successfully passed 30,000 open/close private cycle tests.
- Designed to operate at room temperature 0°~40°c (32°~104F°).



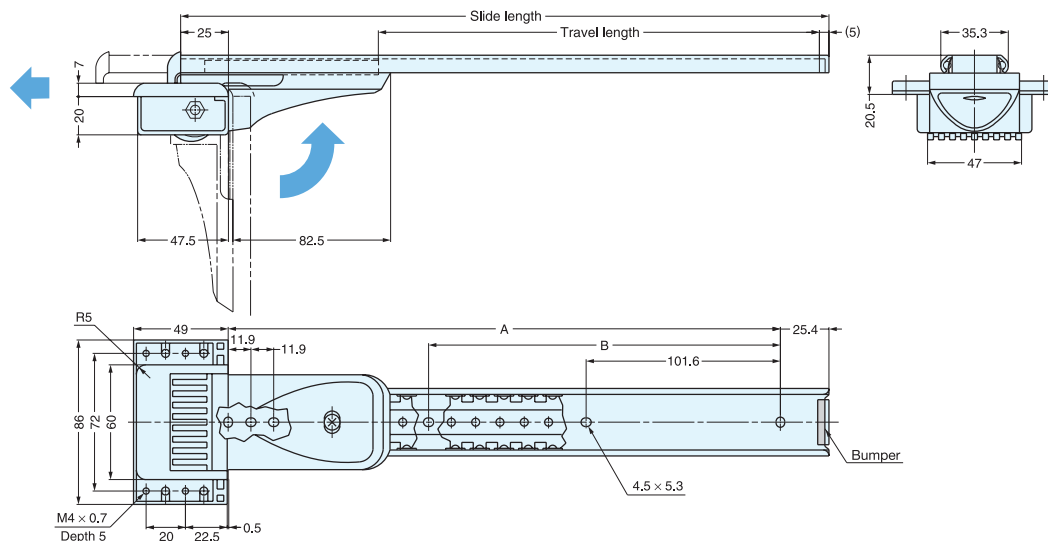
Used in pairs

## Screws :

Flat Head Machine Screw (M4 × 26) \*for wooden top board of 19~20 mm T - 8 pcs.  
Binding Head Machine Screw (M4 × 8) \*for metal top board of 1.2~1.5 mm T - 8 pcs.  
Binding Head Tapping Screws (M4 × 10) for slides.

Note : For sheet metal cabinets, if the top board is thicker than 20 mm (25/32"), longer screws are required (top board thickness plus 6 mm). When the top board is wooden, additional screws are not needed.

\*Bulk pack available.



## Flipper Door Weight and Size

| Item No | Door Weight (kg) | Torque Moment (kg·cm)   | Door Thickness: T (mm)   | Door Width: W (mm)          | Door Height: H (mm)           |
|---------|------------------|-------------------------|--------------------------|-----------------------------|-------------------------------|
| OV-1    | 3~5 (6.6~11 lbs) | 60~100 (55~85 lbs·inch) | 19 (3/4") or 20 (25/32") | 700~1400 (27-9/16"~55-1/8") | 350~450 (13-25/32"~17-23/32") |

| Item No. | Slide Length | Travel Length | A     | B     | Weight (g) |     | Box (pcs) | Carton (pcs) |
|----------|--------------|---------------|-------|-------|------------|-----|-----------|--------------|
| OV-1-13  | 330.2        | 223.8         | 279.4 | 177.8 | 590        | 640 | 10        | 100          |
| OV-1-14  | 355.6        | 249.2         | 304.8 | 203.2 | 610        | 660 |           |              |
| OV-1-15  | 381.0        | 274.6         | 330.2 | 228.6 | 630        | 680 |           |              |
| OV-1-16  | 406.4        | 300.0         | 355.6 | 254.0 | 650        | 700 |           |              |

| Material                   | Finish/Color    |
|----------------------------|-----------------|
| Steel, Zinc Alloy, Plastic | Chromate, Black |

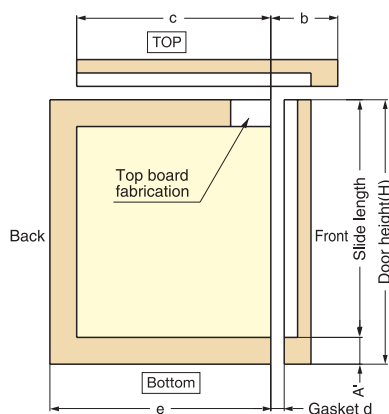
# SOFT CLOSING MECHANISM



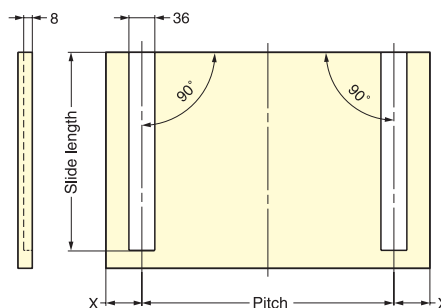
OV

## ■ Cabinet Preparation

### Cabinet Dimensions

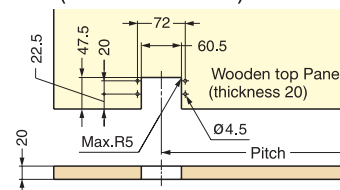


### Door Fabrication

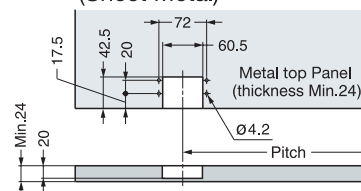


### Top Panel Fabrication

#### (Wooden Panel)

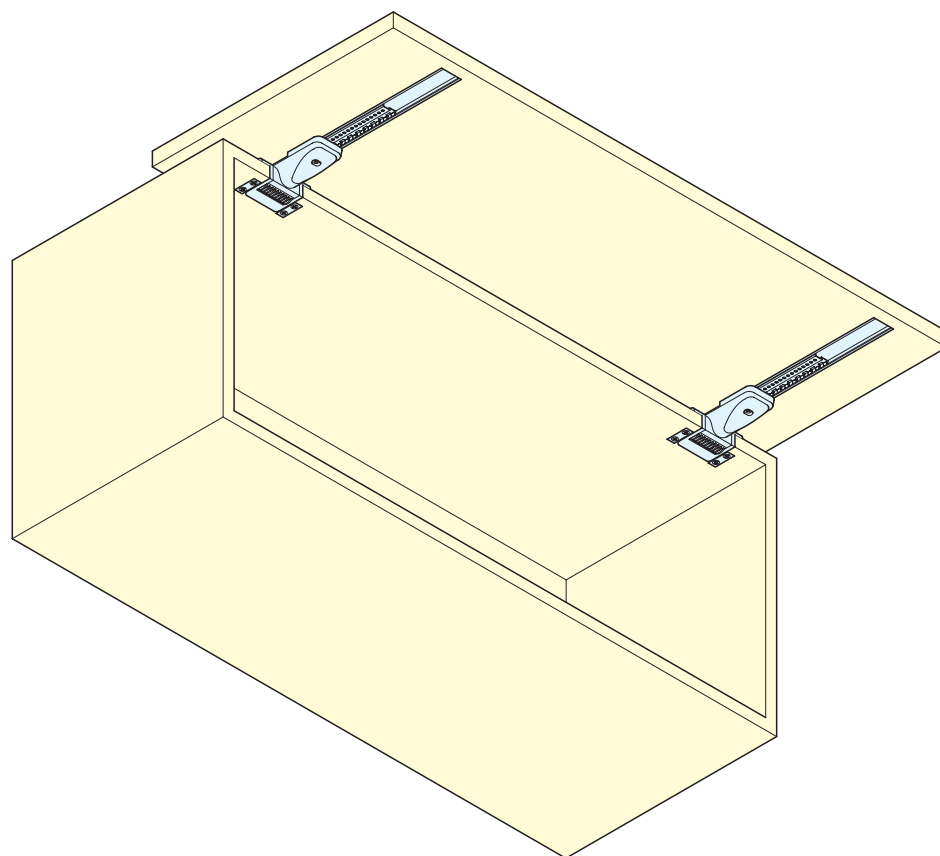
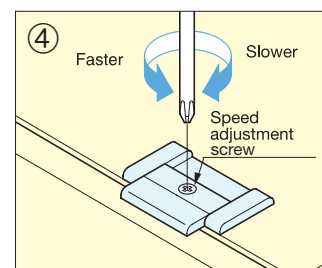
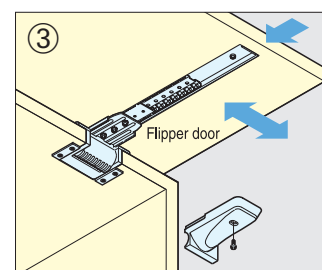
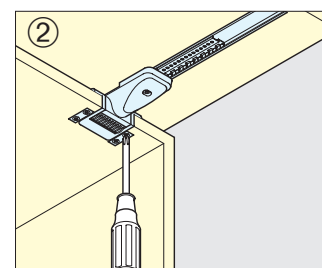
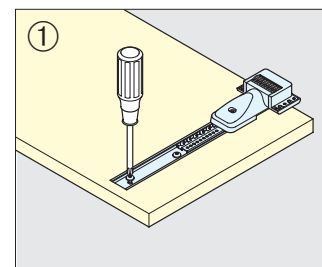


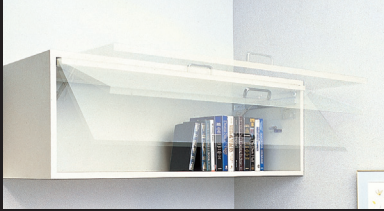
#### (Sheet Metal)



|                  | b       | c   | d   | e        |                     | X                       |
|------------------|---------|-----|-----|----------|---------------------|-------------------------|
| Wooden Top Panel | A'+81.4 | H-b | 2.5 | Min. c+7 | Inset Application   | 80                      |
| Metal Top Panel  | A'+86.4 | H-b | 7.5 | Min. c+7 | Overlay Application | Side Board Thickness+80 |

## ■ Installation





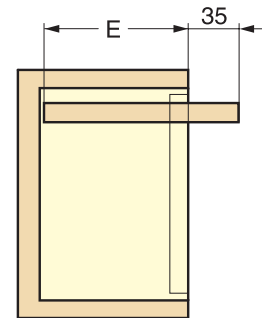
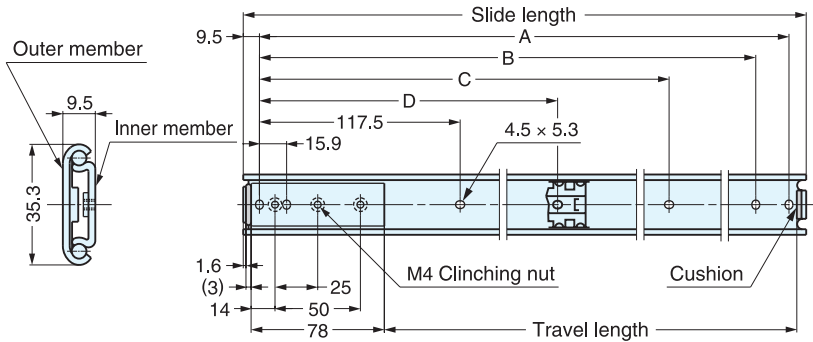
# IF

## IF-102S (SINGLE TYPE) IF-102W (DOUBLE TYPE)

### SOFT CLOSING MECHANISM FOR INSET RECEDING DOORS

- Incorporates patented Lapcon technology for soft, smooth closing.
- For inset doors only.
- Adjustable closing speed.
- Successfully passed 30,000 open/close private cycle tests.

Designed to operate at room temperature 0°~40°C (32°~104°F).



\*Supplied with screws.

|         | Soft-Down Stay  | Slide      | Concealed Hinge | Mounting Plate |
|---------|-----------------|------------|-----------------|----------------|
| Item No | ☆ NSDX-35 (L/R) | AL-78      | 230-C26/19T     | 230-P4W-32T    |
|         |                 |            |                 |                |
| pcs/set | 1 or 2/door     | 2 pcs/door | 2 pcs/door      | 2 pcs/door     |

☆ IF-102S includes NSDX-35LK (Left handed).

| Part Name      | Material   | Finish/Color        |
|----------------|------------|---------------------|
| Slide          | Steel      | Clear Zinc Chromate |
| Hinge          | Steel      | Nickel              |
| Soft-Down Stay | Zinc Alloy | Nickel              |

| Item No    | Torque Moment<br>(kg-cm) | Door Weight<br>(kg)       | Max. Door Width<br>(mm) | Recommended<br>Door Height (mm) | E (mm)               | Door Thickness<br>(mm)   |
|------------|--------------------------|---------------------------|-------------------------|---------------------------------|----------------------|--------------------------|
| IF-102S-14 | 25~ 70 ( 22~60 lbs-in )  | 1.5~4.0<br>(3.3~8.8 lbs)  | 1200 (47-1/4")          | 300+T ( 11-13/16"+T )           | 265+T ( 10-7/16"+T ) | 15~20<br>(19/32"~51/64") |
| IF-102S-16 |                          |                           |                         | 350+T ( 13-3/4"+T )             | 315+T ( 12-3/8"+T )  |                          |
| IF-102S-19 |                          |                           |                         | 427+T ( 16-13/16"+T )           | 392+T ( 15-7/16"+T ) |                          |
| IF-102S-24 |                          |                           |                         | 554+T ( 21-13/16"+T )           | 519+T ( 20-7/16"+T ) |                          |
| IF-102W-14 | 50~140 (45~120 lbs-in)   | 4.5~6.5<br>(9.9~14.3 lbs) |                         | 300+T ( 11-13/16"+T )           | 265+T ( 10-7/16"+T ) |                          |
| IF-102W-16 |                          |                           |                         | 350+T ( 13-3/4"+T )             | 315+T ( 12-3/8"+T )  |                          |
| IF-102W-19 |                          |                           |                         | 427+T ( 16-13/16"+T )           | 392+T ( 15-7/16"+T ) |                          |
| IF-102W-24 |                          |                           |                         | 554+T ( 21-13/16"+T )           | 519+T ( 20-7/16"+T ) |                          |

| Item No    | Slide Length | Travel Length | A     | B     | C     | D     | E       | Weight (kg) | Box (pcs) | Carton (pcs) |
|------------|--------------|---------------|-------|-------|-------|-------|---------|-------------|-----------|--------------|
| IF-102S-14 | 355.6        | 268.4         | 336.6 | 320.7 | 219.1 | -     | 264.5+T | 1.92        | 10        | 100          |
| IF-102S-16 | 406.4        | 319.2         | 387.4 | 371.5 | 269.9 | -     | 315.3+T | 2.00        |           |              |
| IF-102S-19 | 482.6        | 395.4         | 463.6 | 447.7 | 346.1 | 231.8 | 391.5+T | 2.08        |           |              |
| IF-102S-24 | 609.6        | 522.4         | 590.6 | 574.7 | 473.1 | 295.3 | 518.5+T | 2.40        |           |              |
| IF-102W-14 | 355.6        | 268.4         | 336.6 | 320.7 | 219.1 | -     | 264.5+T | 2.14        |           |              |
| IF-102W-16 | 406.4        | 319.2         | 387.4 | 371.5 | 269.9 | -     | 315.3+T | 2.22        |           |              |
| IF-102W-19 | 482.6        | 395.4         | 463.6 | 447.7 | 346.1 | 231.8 | 391.5+T | 2.30        |           |              |
| IF-102W-24 | 609.6        | 522.4         | 590.6 | 574.7 | 473.1 | 295.3 | 518.5+T | 2.62        |           |              |

T = Door Thickness (mm)

# SOFT CLOSING MECHANISM

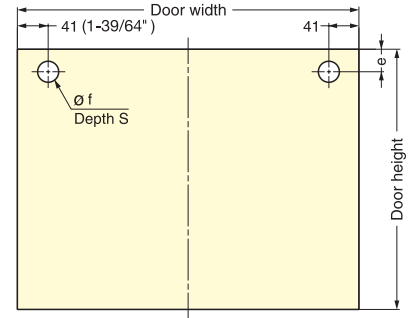
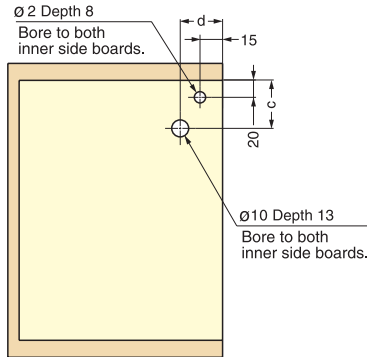
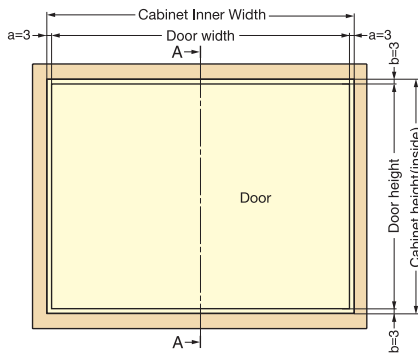


IF

LID SUPPORTS

SOFT CLOSING MECHANISM FOR INSET RECEDING DOORS

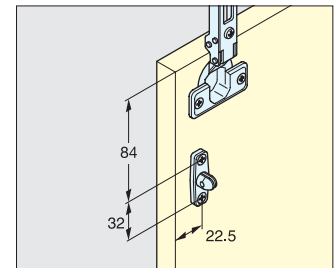
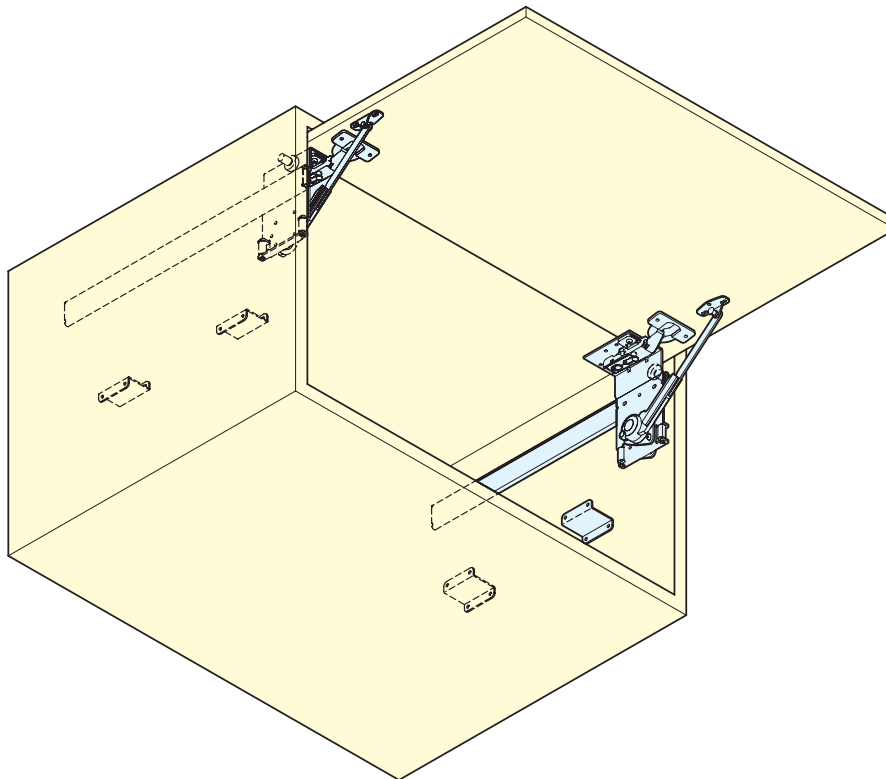
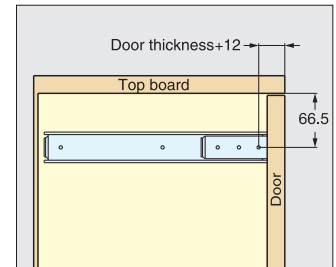
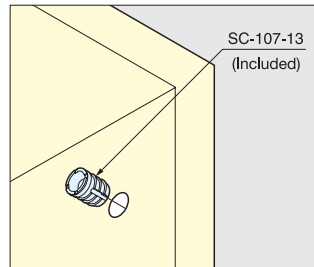
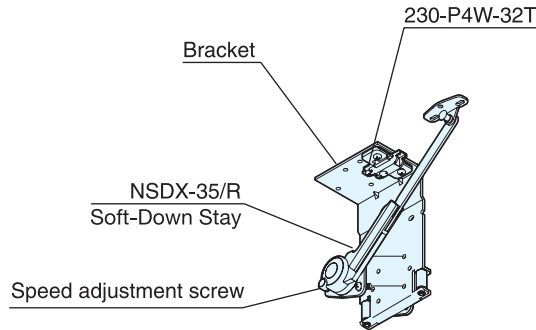
## ■ Cabinet Preparation



| Type   | c    | d     | e    | f  | s  |
|--------|------|-------|------|----|----|
| IF-102 | 37.5 | 9.5+t | 22.5 | 35 | 11 |

\*t = Door Thickness

## ■ Installation





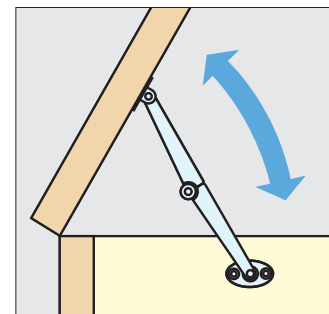
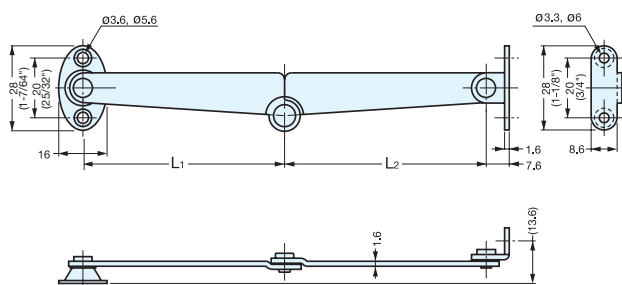
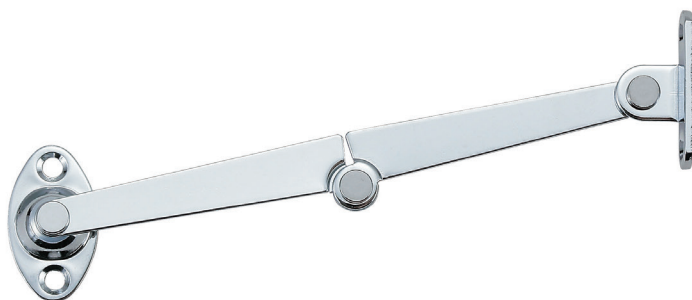


## LID STAY



**S-6, S-16**

- Not load bearing keeps lids from over extending.
- Can be installed individually or in pairs.
- Handed: Specific left and right hand mounting.



| Item No. |       | L <sub>1</sub> | L <sub>2</sub> | Weight (g) | Box (pcs) | Carton (pcs) |
|----------|-------|----------------|----------------|------------|-----------|--------------|
| Left     | Right |                |                |            |           |              |
| S-6L     | S-6R  | 53 (2-3/32")   | 53 (2-3/32")   | 20         | 100       | 1000         |
| S-16R    | S-16L | 67 (2-41/64")  | 67 (2-41/64")  | 31         |           |              |

| Material                   | Finish |
|----------------------------|--------|
| Steel/Brass/Nylon (washer) | Chrome |

## LID STAY (W/CATCH)

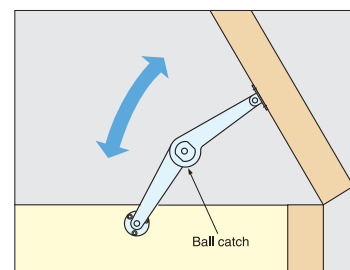
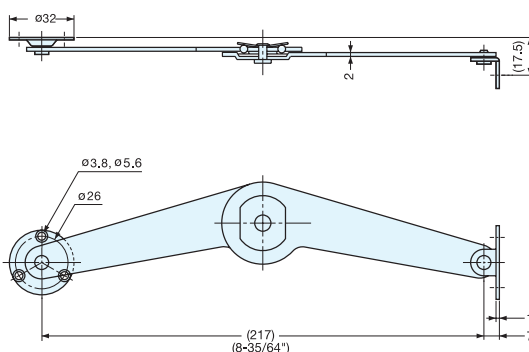


**S-20**

- Lid stay with ball catch for lightweight doors.
- Catch automatically holds lid in opened position.
- Can be installed individually or in pairs.
- Handed: Specific left and right hand mounting.



(Left)



| Item No. |       | Weight (g) | Box (pcs) | Carton (pcs) |
|----------|-------|------------|-----------|--------------|
| Left     | Right |            |           |              |
| S-20L    | S-20R | 125        | 40        | 160          |

| Material                     | Finish |
|------------------------------|--------|
| Steel, Brass, Nylon (washer) | Chrome |

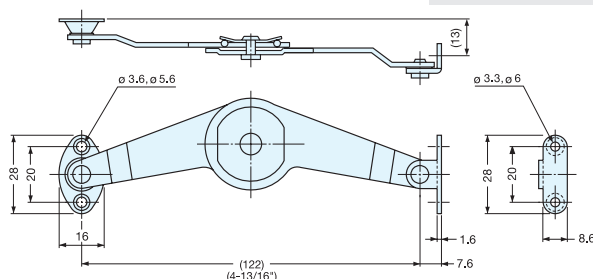
## LID STAY (W/CATCH)



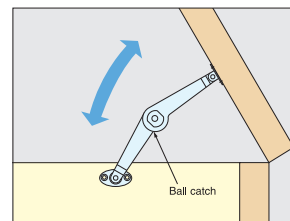
**S-21**



(Left)



- Lid stay with ball catch for lightweight doors.
- Catch automatically holds lid in opened position.
- Can be installed individually or in pairs.
- Handed: Specific left and right hand mounting.



| Item No. |       | Weight (g) | Box (pcs) | Carton (pcs) |
|----------|-------|------------|-----------|--------------|
| Left     | Right |            |           |              |
| S-21L    | S-21R | 49         | 50        | 500          |

| Material                     | Finish |
|------------------------------|--------|
| Steel, Brass, Nylon (washer) | Chrome |

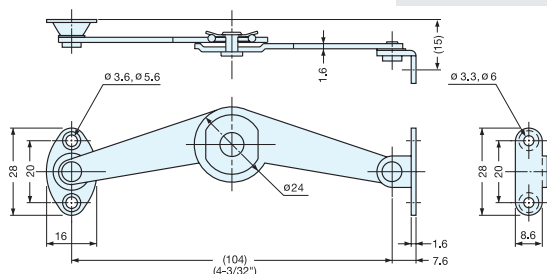
### LID STAY (W/CATCH)



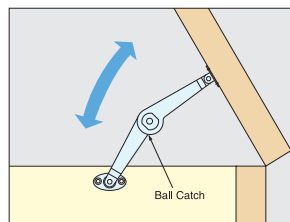
**S-23**



(Left)



- Lid stay with ball catch for lightweight doors.
- Catch automatically holds lid in opened position.
- Can be installed individually or in pairs.
- Handed: Specific left and right hand mounting.



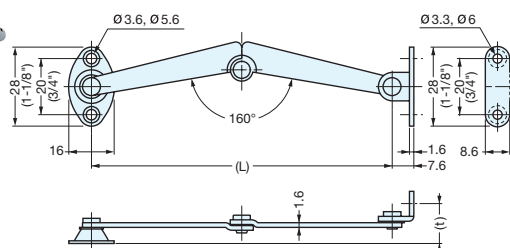
| Item No. |       | Weight (g) | Box (pcs) | Carton (pcs) |
|----------|-------|------------|-----------|--------------|
| Left     | Right |            |           |              |
| S-23L    | S-23R | 33         | 50        | 500          |

| Material                     | Finish |
|------------------------------|--------|
| Steel, Brass, Nylon (washer) | Chrome |

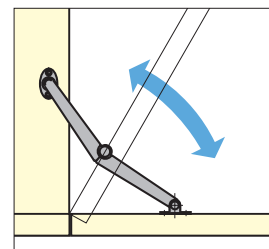
## LID STAY



**S-24, S-25, S-27**



- Keeps lids from over extending.
- Can be installed individually or in pairs.
- Handed: Specific left and right hand mounting.



| Item No. |       | L                 | Weight (g) | Box (pcs) | Carton (pcs) |
|----------|-------|-------------------|------------|-----------|--------------|
| Left     | Right |                   |            |           |              |
| S-24L    | S-24R | 105.5 ( 4-5/32" ) | 21         | 100       | 1000         |
| S-25L    | S-25R | 163.0 (6-27/64")  | 35         | 60        | 600          |
| S-27L    | S-27R | 133.0 (5-15/64")  | 31         | 60        | 600          |

| Material                     | Finish |
|------------------------------|--------|
| Steel, Brass, Nylon (washer) | Chrome |

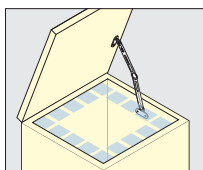
## TORQUE LID STAY (FREE STOP)



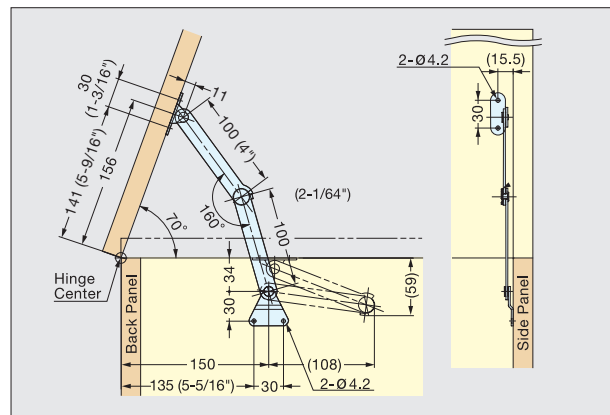
**S-100T30**



S-100T30R



- Friction torque lid stay holds lid open at any position.
  - Narrow profile for unobtrusive installation.
  - Torque Calculation :  
Torque = Door Height × 1/2 × Door Weight
  - Left- and Right-handed models available.
  - Can be used individually or in pairs.
- Note : 1) Not recommended for lids that will be continuously opened and closed.  
2) Do not lubricate.



| Item No.  | Handing | Torque per piece                      | Weight (g) | Box (pcs) | Carton (pcs) |
|-----------|---------|---------------------------------------|------------|-----------|--------------|
| S-100T30R | Right   | 30.6 kg·cm ±20%<br>(26.5 lbs·in ±20%) | 100        | 30        | 120          |
| S-100T30L | Left    |                                       |            |           |              |

| Part                 | Material            | Finish |
|----------------------|---------------------|--------|
| Body, Base & Bracket | 430 Stainless Steel | Plain  |
| Press washer & Pin   | Phosphor Bronze     |        |
| Washer               | Steel               |        |

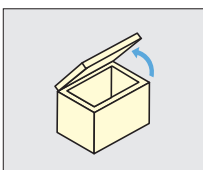
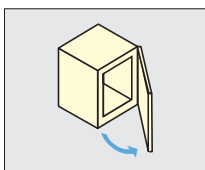
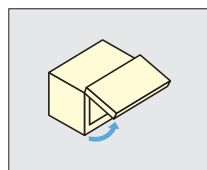
## TORQUE LID STAY (FREE STOP)



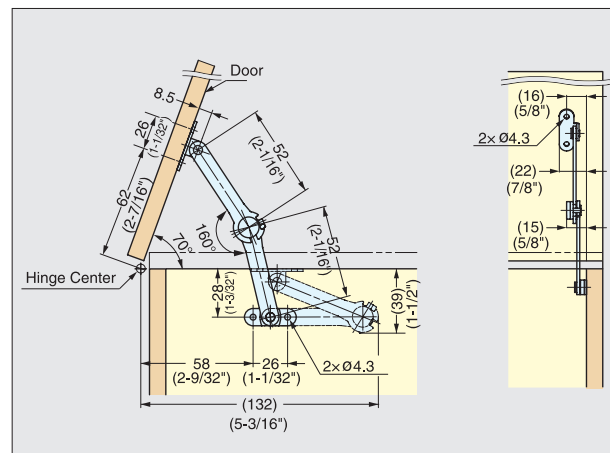
**S-52T15**



S-52T15R



- Friction torque lid stay holds lid open at any position.
  - Narrow profile for unobtrusive installation.
  - Left- and Right-handed models available.
  - Can be used individually or in pairs.
- Note : 1) Not recommended for lids that will be continuously opened and closed.  
2) Do not lubricate.



| Item No. | Handing | Torque per piece                      | Weight (g) | Box (pcs) | Carton (pcs) |
|----------|---------|---------------------------------------|------------|-----------|--------------|
| S-52T15R | Right   | 15.3 kg·cm ±20%<br>(13.3 lbs·in ±20%) | 40         | 25        | 250          |
| S-52T15L | Left    |                                       |            |           |              |

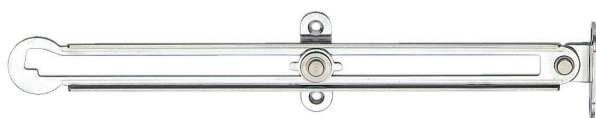
| Part                 | Material            | Finish |
|----------------------|---------------------|--------|
| Body, Base & Bracket | 430 Stainless Steel | Plain  |
| Press washer & Pin   | Phosphor Bronze     |        |
| Washer               | Steel               |        |



## LID STAY

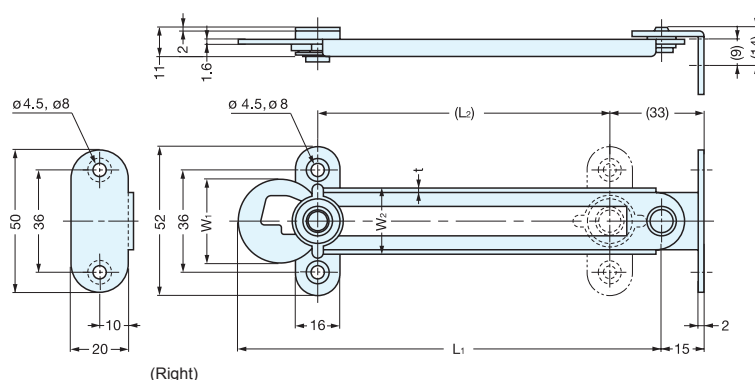
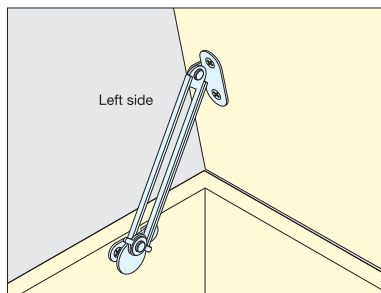


S-91, 92, 93



(Right)

- Automatically holds lid in opened position.
- Lift up lid to release.
- Can be installed individually or in pairs.
- Handed : Specific left and right hand mounting.



| Item No. |       | L <sub>1</sub>    | (L <sub>2</sub> ) | W <sub>1</sub> | W <sub>2</sub> | t   | Load Capacity (kg) | Weight (g) | Box (pcs) | Carton (pcs) |
|----------|-------|-------------------|-------------------|----------------|----------------|-----|--------------------|------------|-----------|--------------|
| Left     | Right |                   |                   |                |                |     |                    |            |           |              |
| S-91L    | S-91R | 277 ( 10-29/32" ) | 230               | 30             | 24             | 2.0 | 40 ( 88 lbs )      | 120        | 100       | 1000         |
| S-92L    | S-92R | 198 ( 7-51/64" )  | 152               | 28             | 23             | 1.5 | 30 ( 66 lbs )      | 85         | 30        | 180          |
| S-93L    | S-93R | 150 ( 5-29/32" )  | 105               |                |                |     |                    | 75         | 60        | 240          |

| Material            | Finish   |
|---------------------|----------|
| 304 Stainless Steel | Polished |

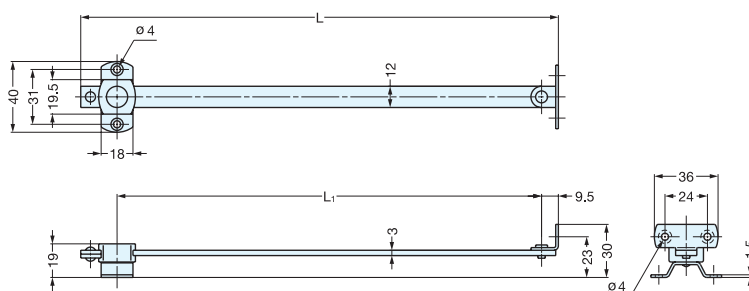
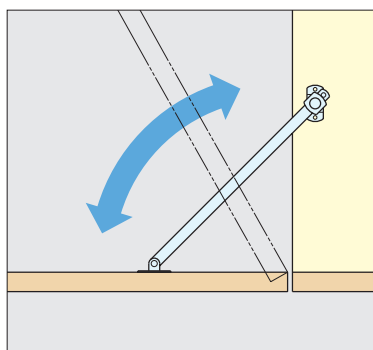
## LID STAY



HS



- For downward-opening flap doors.
- Can be installed individually or in pairs.
- Non-Handed : Can be installed on left or right side.



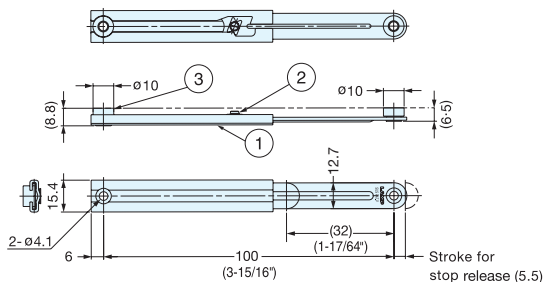
| Material            | Finish/Color |
|---------------------|--------------|
| 304 Stainless Steel | Satin        |
| Polyamide           | White        |

| Item No. | L                | L <sub>1</sub>   | Load Capacity (kg) | Weight (g) | Box (pcs) | Carton (pcs) |
|----------|------------------|------------------|--------------------|------------|-----------|--------------|
| HS-180   | 210 ( 8-17/64" ) | 180 ( 7-3/32" )  | 10 ( 22.0 lbs )    | 80         | 20        | 220          |
| HS-210   | 240 ( 9-29/64" ) | 210 ( 8-17/64" ) | 12 ( 26.5 lbs )    | 90         |           |              |
| HS-240   | 270 ( 10-5/8" )  | 240 ( 9-29/64" ) | 13 ( 28.5 lbs )    | 100        |           |              |

## ULTRA MINI LID STAY

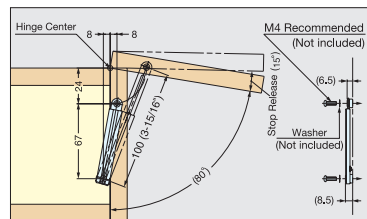


# L-100S



| Item No. | Load Capacity (kg) | Weight (g) | Box (pcs) | Carton (pcs) |
|----------|--------------------|------------|-----------|--------------|
| L-100S   | 6 ( 13.2 lbs )     | 31         | 30        | 300          |

- Holds lid or panel in opened position.
- Lift up lid to release.
- Non-Handed : Can be installed on left or right side.
- Compact design.
- Can be installed individually or in pairs.
- Designed for use with L-S-BT mounting brackets, sold separately.



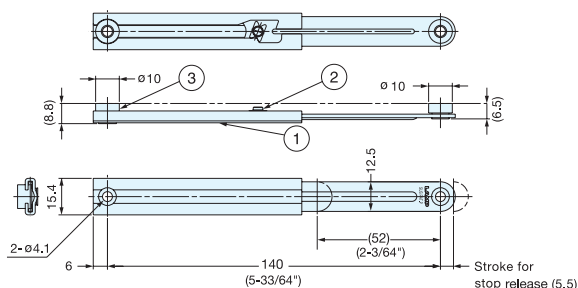
\*Lid stay must be installed parallel to the sidewall.

| No. | Part Name | Material            | Finish   |
|-----|-----------|---------------------|----------|
| ①   | Housing   | 304 Stainless Steel | Polished |
| ②   | Washer    | Polyamide           | -        |
| ③   | Bracket   | 304 Stainless Steel | -        |

## ULTRA MINI LID STAY

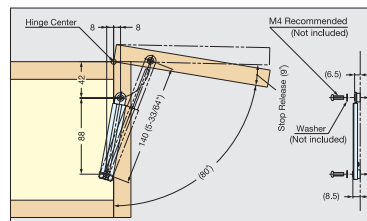


## L-140S



| Item No. | Load Capacity (kg) | Weight (g) | Box (pcs) | Carton (pcs) |
|----------|--------------------|------------|-----------|--------------|
| L-140S   | 6 ( 13.2 lbs )     | 38         | 30        | 300          |

- Holds lid or panel in open position.
- Lift up lid to release.
- Non-Handed : Can be installed on left or right side.
- Compact design.
- Can be installed individually or in pairs.
- Designed for use with L-S-BT mounting brackets, sold separately.



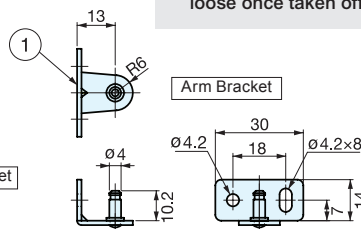
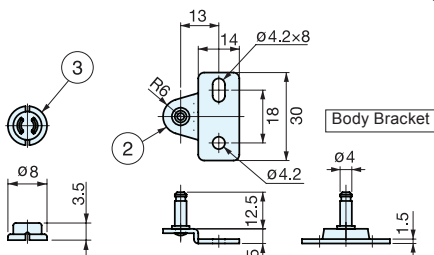
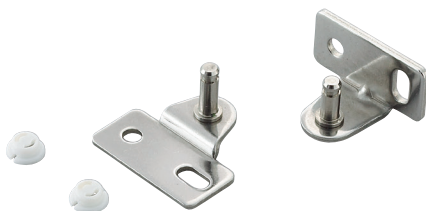
\*Lid stay must be installed parallel to the sidewall.

| No. | Part Name | Material            | Finish   |
|-----|-----------|---------------------|----------|
| ①   | Housing   | 304 Stainless Steel | Polished |
| ②   | Washer    | Polyamide           | -        |
| ③   | Bracket   | 304 Stainless Steel | -        |

## MOUNTING BRACKET



**L-S-BT**



- Optional brackets for L-100S and L-140S stays.
- Brackets for arm and body sold as set.
- Insert the retainer and bracket firmly into the stay.  
\*Do not re-use the bracket. Retainer may become loose once taken off from stay.

| Item No. | Weight (g) | Box (pcs) | Carton (pcs) |
|----------|------------|-----------|--------------|
| L-S-BT   | 20         | 30        | 300          |

| No. | Part Name    | Material            | Finish   |
|-----|--------------|---------------------|----------|
| ①   | Arm Bracket  | 304 Stainless Steel | Polished |
| ②   | Body Bracket |                     |          |
| ③   | Retainer     | Polycetal           | White    |

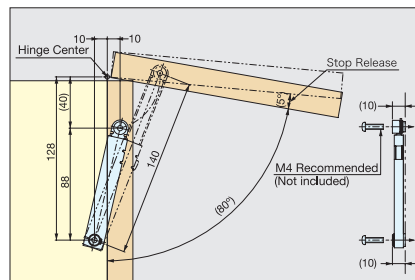
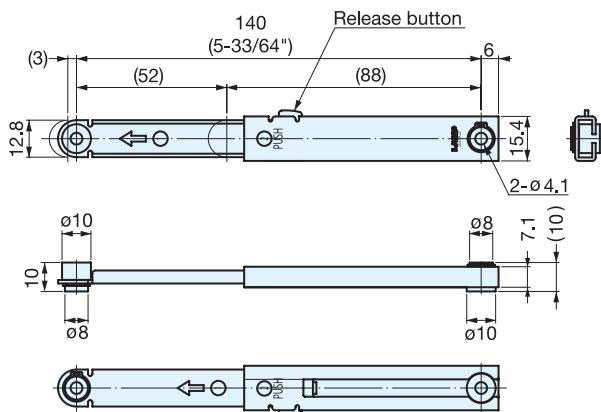
## MINI LID STAY (W/LOCK)



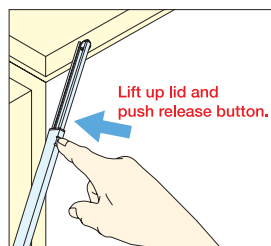
## L-SL140



- Automatically locks lid/panel when fully opened.
- Push button to release.
- Can be installed individually or in pairs.
- Non-Handed : Can be installed on left or right side.
- Mounting brackets (L-SL140-BT) available separately.



\*Lid stay must be installed parallel to the sidewall.



| Item No. | Load Capacity (kg) | Weight (g) | Box (pcs) | Carton (pcs) | Material            | Finish   |
|----------|--------------------|------------|-----------|--------------|---------------------|----------|
| L-SL140  | 15 ( 33 lbs )      | 40         | 30        | 300          | 304 Stainless Steel | Polished |

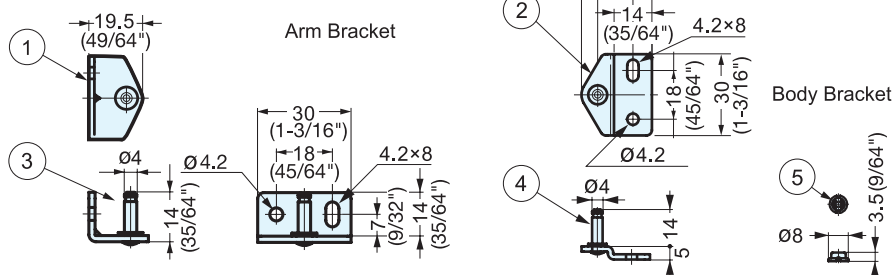
## MOUNTING BRACKET



## L-SL140-BT



- Optional brackets for L-SL140 stay.
- Insert the retainer and bracket firmly into the stay.
- \* Do not re-use the bracket. Retainer may become loose once taken off from stay



| No. | Part Name        | Material            | Finish   |
|-----|------------------|---------------------|----------|
| ①   | Arm Bracket      | 304 Stainless Steel | Polished |
| ②   | Body Bracket     |                     |          |
| ③   | Arm Bracket Pin  | 303 Stainless Steel | Plain    |
| ④   | Body Bracket Pin |                     |          |
| ⑤   | Retainer         | Polyacetal          | Black    |

| Item No.   | Weight (g) | Box (pcs) | Carton (pcs) |
|------------|------------|-----------|--------------|
| L-SL140-BT | 28         | 30        | 300          |

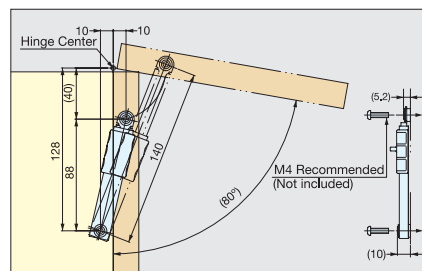
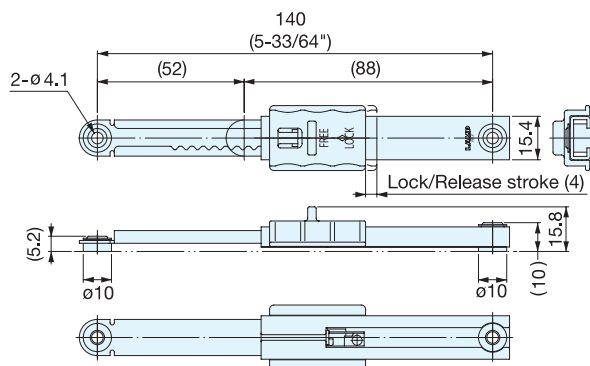
## MINI LID STAY (W/LOCK)



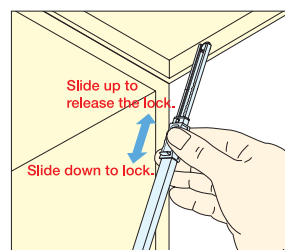
## L-FS140



- Locks lid/panel in multiple positions by manually sliding lock lever.
- Slide lever to lock/unlock.
- Can be installed individually or in pairs.
- Non-Handed : Can be installed on left or right side.
- Mounting brackets (L-FS140-BT) available separately.



\*Lid stay must be installed parallel to the sidewall.



| Item No. | Load Capacity (kg) | Weight (g) | Box (pcs) | Carton (pcs) |
|----------|--------------------|------------|-----------|--------------|
| L-FS140  | 6 ( 13.2 lbs )     | 50         | 20        | 200          |

| Material            | Finish    |
|---------------------|-----------|
| 304 Stainless Steel | Polished  |
| Polyacetal          | Dark Grey |

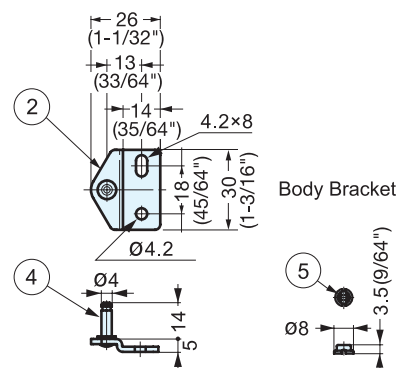
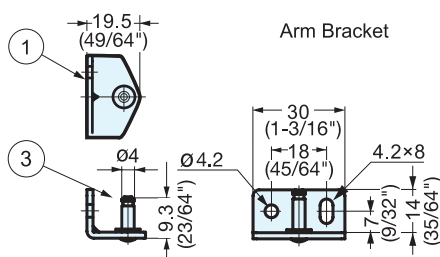
## MOUNTING BRACKET



# L-FS140-BT



- Optional brackets for L-FS140 stay.
- Insert the retainer and bracket firmly into the stay.
  - \* Do not re-use the bracket. Retainer may become loose once taken off from stay



| Item No.   | Weight (g) | Box (pcs) | Carton (pcs) |
|------------|------------|-----------|--------------|
| L-FS140-BT | 27         | 40        | 400          |

| No. | Part Name        | Material            | Finish   |
|-----|------------------|---------------------|----------|
| ①   | Arm Bracket      | 304 Stainless Steel | Polished |
| ②   | Body Bracket     |                     |          |
| ③   | Arm Bracket Pin  | 303 Stainless Steel | Plain    |
| ④   | Body Bracket Pin |                     |          |
| ⑤   | Retainer         | Polyacetal          | Black    |



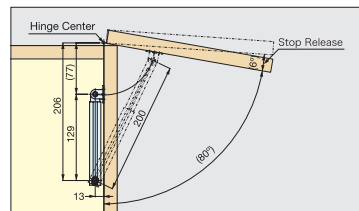
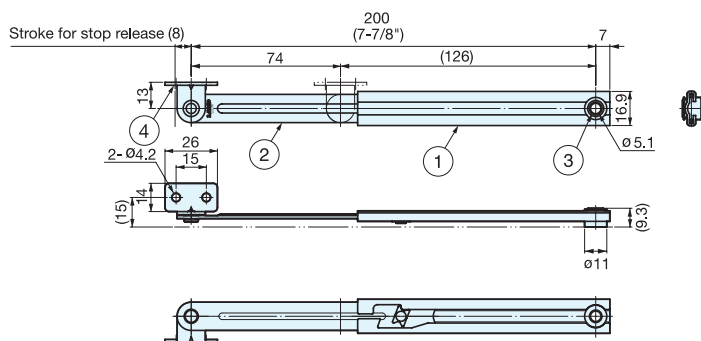
# LOW PROFILE LID STAY



# L-200P



- Can be installed individually or in pairs.
- Non-Handed : Can be installed on left or right side.
- Mounting brackets (L-200-BT) available separately.



\*Lid stay must be installed parallel to the sidewall.

| Item No. | Load Capacity (kg) | Weight (g) | Box (pcs) | Carton (pcs) |
|----------|--------------------|------------|-----------|--------------|
| L-200P   | 15 ( 33 lbs )      | 65         | 30        | 300          |

| No. | Part Name      | Material            | Finish   |
|-----|----------------|---------------------|----------|
| ①   | Housing        | 304 Stainless Steel | Plain    |
| ②   | Arm            |                     |          |
| ③   | Hosing Bracket | 303 Stainless Steel | Plain    |
| ④   | Arm Bracket    | 304 Stainless Steel | Polished |

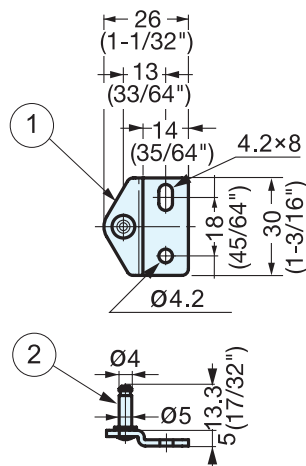
# MOUNTING BRACKET



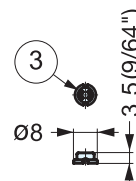
# L-200P-BT



- Optional brackets for L-200P stay.
- Insert the retainer and bracket firmly into the stay.
- \* Do not re-use the bracket. Retainer may become loose once taken off from stay



Body Bracket



| Item No.  | Weight (g) | Box (pcs) | Carton (pcs) |
|-----------|------------|-----------|--------------|
| L-200P-BT | 14         | 30        | 300          |

| No. | Part Name        | Material            | Finish   |
|-----|------------------|---------------------|----------|
| ①   | Arm Bracket      | 304 Stainless Steel | Polished |
| ②   | Body Bracket Pin |                     |          |
| ③   | Arm Bracket Pin  | 303 Stainless Steel | Plain    |

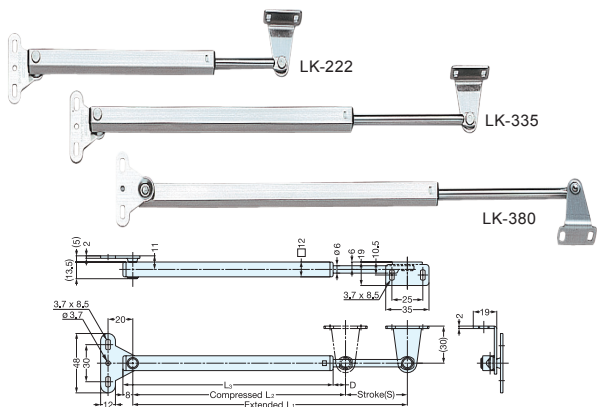
# LID STAY



LK

LID SUPPORTS

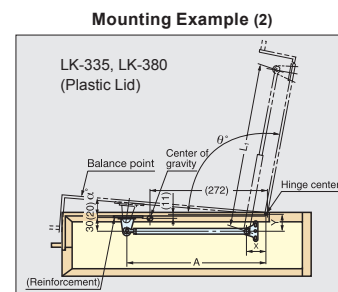
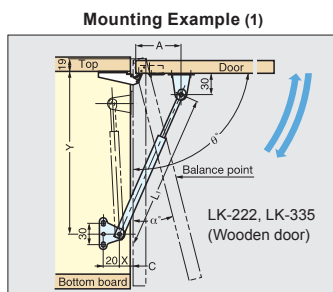
LID STAYS



| Material                 | Finish |
|--------------------------|--------|
| 303, 304 Stainless Steel | Satin  |

Door weight is based on door height : LK-222 = 350 mm, LK-335 = 500 mm

| Item No.       | Max. Door Weight (kg) | Door Opening (°) | $\alpha$ (°) | L <sub>1</sub> | A              | X           | Y               |
|----------------|-----------------------|------------------|--------------|----------------|----------------|-------------|-----------------|
| LK-222 (2 pcs) | 2.5 (5.5 lbs)         | 90               | 17           | 222 (8-47/64") | 70 (2-3/4")    | 20 (25/32") | 235 (9-1/4")    |
|                | 2.7 (5.9 lbs)         | 85               | 15           | 222 (8-47/64") | 75 (2-61/64")  | 20 (25/32") | 240 (9-29/64")  |
|                | 3.0 (6.6 lbs)         | 75               | 14           | 222 (8-47/64") | 85 (3-11/32")  | 20 (25/32") | 251 (9-7/8")    |
|                | 3.1 (6.8 lbs)         | 90               | 14           | 335 (13-3/16") | 104 (4-3/32")  | 20 (25/32") | 344 (13-35/64") |
| LK-335 (2 pcs) | 3.3 (7.2 lbs)         | 85               | 12           | 335 (13-3/16") | 112 (4-13/32") | 20 (25/32") | 351 (13-13/16") |
|                | 3.8 (8.3 lbs)         | 75               | 11           | 335 (13-3/16") | 127 (5-1/8")   | 20 (25/32") | 368 (14-31/64") |



Drawing shown is based on C = 4 mm. If C = 0, please deduct 4 mm from "X" in the table below.

| Item No.       | Max. Door Weight (kg) | Door Opening (°) | $\alpha$ (°) | L <sub>1</sub>  | A               | X             | Y             |
|----------------|-----------------------|------------------|--------------|-----------------|-----------------|---------------|---------------|
| LK-335 (2 pcs) | 2.5 (5.5 lbs)         | 90               | 0.5          | 335 (13-3/16")  | 295 (11-39/64") | 45 (1-25/32") | 38 (1-1/2")   |
|                | 3.0 (6.6 lbs)         | 90               | 14.0         | 335 (13-3/16")  | 295 (11-39/64") | 45 (1-25/32") | 38 (1-1/2")   |
|                | 3.3 (7.2 lbs)         | 85               | 12.0         | 335 (13-3/16")  | 295 (11-39/64") | 45 (1-25/32") | 44 (1-47/64") |
|                | 2.5 (5.5 lbs)         | 110              | 8.0          | 380 (14-31/32") | 330 (13")       | 40 (1-37/64") | 36 (1-27/64") |
| LK-380 (2 pcs) | 3.0 (6.6 lbs)         | 90               | 3.5          | 380 (14-31/32") | 335 (13-3/16")  | 55 (2-5/32")  | 44 (1-47/64") |
|                | 4.0 (8.8 lbs)         | 90               | 4.0          | 380 (14-31/32") | 320 (12-19/32") | 41 (1-39/64") | 59 (2-21/64") |
|                | 4.3 (9.4 lbs)         | 80               | 7.5          | 380 (14-31/32") | 335 (13-3/16")  | 56 (2-13/64") | 60 (2-23/64") |

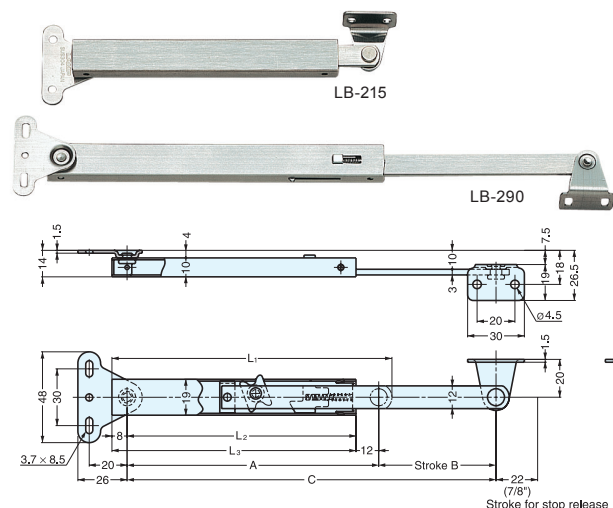
| Item No. | L <sub>1</sub>   | L <sub>2</sub>  | L <sub>3</sub>   | S               | D            | Extended Force (kg) | Compressed Force (kg) | Weight (g) | Box (pcs) | Carton (pcs) |
|----------|------------------|-----------------|------------------|-----------------|--------------|---------------------|-----------------------|------------|-----------|--------------|
| LK-222   | 222 ( 8-47/64")  | 172 ( 6-25/32") | 170 ( 6-11/16")  | 50 ( 1-11/32")  | 10 ( 25/64") | 3.2                 | 7.0                   | 145        | 25        | 150          |
| LK-335   | 335 ( 13-3/16")  | 250 ( 9-27/32") | 238 ( 9-3/8")    | 85 ( 3-11/32")  | 20 ( 25/32") | 3.8                 | 8.5                   | 185        |           |              |
| LK-380   | 380 ( 14-31/32") | 280 ( 11-1/32") | 269 ( 10-19/32") | 100 ( 3-15/16") | 19 ( 3/4")   | 3.6                 | 8.5                   | 205        |           |              |

# LID STAY

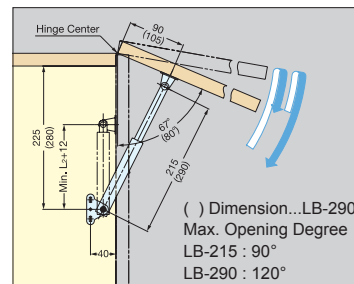
LOAD CAPACITY  
15 kg  
33 lbs

TEST 15  
P.698

# LB-215, 290



- Holds lid or panel in fully opened position.
- Can be installed individually or in pairs.
- Non-Handed : Can be installed on left or right side.
- Load Capacity : 15 kg (33 lbs)/each.



\*Lid stay must be installed parallel to the sidewall.

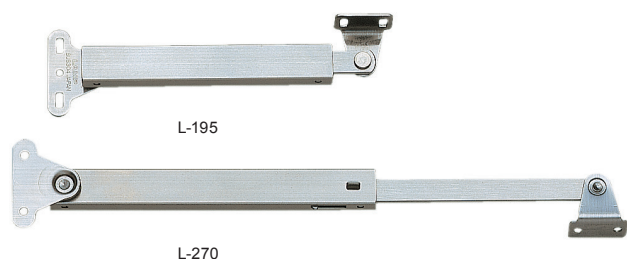
| Material                       | Finish       |
|--------------------------------|--------------|
| Zinc Alloy/304 Stainless Steel | Chrome/Satin |

| Item No. | L <sub>1</sub>  | L <sub>2</sub> | L <sub>3</sub> | A               | B   | C                | Door Height (mm)              | Weight (g) | Box (pcs) | Carton (pcs) |
|----------|-----------------|----------------|----------------|-----------------|-----|------------------|-------------------------------|------------|-----------|--------------|
| LB-215   | 168 ( 6-39/64") | 141            | 149            | 153 ( 6-1/32")  | 62  | 215 ( 8-15/32")  | 260~350 (10-15/64"~13-25/32") | 140        | 10        | 100          |
| LB-290   | 205 ( 8-1/16")  | 178            | 186            | 190 ( 7-31/64") | 100 | 290 ( 11-27/64") | 340~500 (13-25/64"~19-11/16") | 160        |           |              |

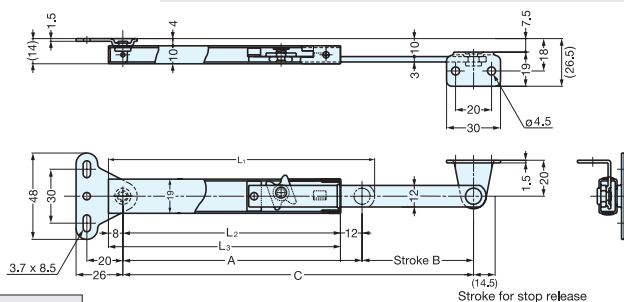
## LID STAY



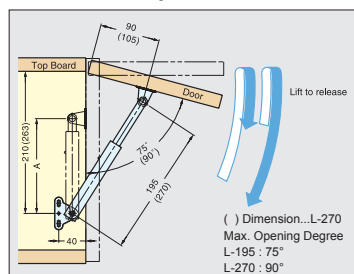
L



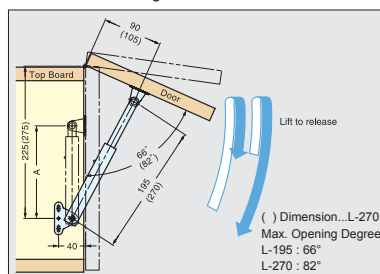
- Holds lid or panel in fully opened position.
- Lift up lid to release.
- Can be installed individually or in pairs.
- Non-Handed : Can be installed on left or right side.
- Load Capacity : 15 kg (33 lbs)/each.



With Concealed Hinge



With Piano/Butt Hinge



\*Lid stay must be installed parallel to the sidewall.

| Material            | Finish |
|---------------------|--------|
| 304 Stainless Steel | Satin  |

| Item No. | L <sub>1</sub>  | L <sub>2</sub> | L <sub>3</sub> | (A)            | (B) | C               | Door Height (mm)                | Weight (g) | Box (pcs) | Carton (pcs) |
|----------|-----------------|----------------|----------------|----------------|-----|-----------------|---------------------------------|------------|-----------|--------------|
| L-195    | 148 (5-53/64")  | 121            | 129            | 133 (5-15/64") | 62  | 195 (7-43/64")  | 250~350 ( 9-27/32"~13-25/32" )  | 125        | 10        | 100          |
| L-270    | 185 ( 7-9/32" ) | 158            | 166            | 170 (6-11/16") | 100 | 270 ( 10-5/8" ) | 320~500 ( 12-19/32"~19-11/16" ) | 150        |           |              |

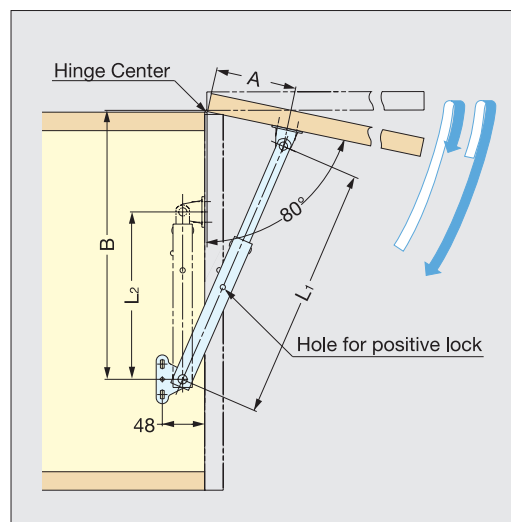
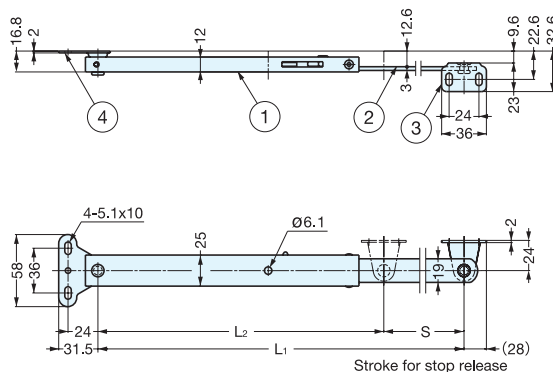
## LID STAY



LB



- Holds lid or panel in fully opened position.
- Lift up lid to release.
- Can be installed individually or in pairs.
- Non-Handed : Can be installed on left or right side.



| No | Part Name       | Material            | Finish |
|----|-----------------|---------------------|--------|
| ①  | Housing         | 304 Stainless Steel | Satin  |
| ②  | Arm             |                     |        |
| ③  | Housing Bracket |                     |        |
| ④  | Arm Bracket     |                     |        |

| Item No. | L <sub>1</sub>  | L <sub>2</sub>    | S   | A   | B   | Load Capacity (kg) | Box (pcs) | Carton (pcs) |
|----------|-----------------|-------------------|-----|-----|-----|--------------------|-----------|--------------|
| LB-200   | 200 ( 7- 7/8" ) | (155) ( 6-3/32" ) | 45  | 56  | 219 | 30 (66 lbs)        | 10        | 40           |
| LB-350   | 350 (13-25/32") | (230) ( 9-3/64" ) | 120 | 128 | 364 | 25 (55 lbs)        |           |              |
| LB-500   | 500 (19-11/16") | (305) (12-1/64")  | 195 | 195 | 510 | 20 (44 lbs)        |           | 20           |

# LID STAY (CLEAN ROOM)

STAINLESS  
304  
STEEL

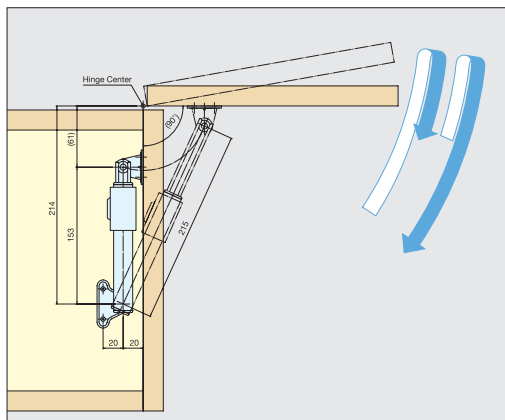
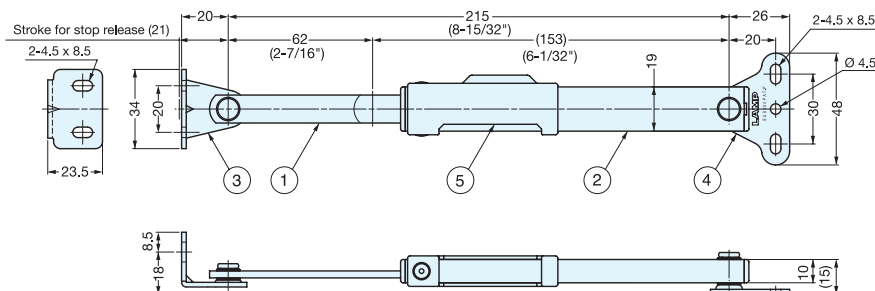
LOAD CAPACITY  
15 kg  
33 lbs

NO SCREW

LB-CV215A



- Holds lid or panel in fully opened position.
- Plastic bushing and end cap minimizes particles.
- No metal-to-metal contact.
- Ideal for clean room, semiconductor and food industry applications.
- Can be installed individually or in pairs.
- Non-Handed : Can be installed on left or right side.



\*Lid stay must be installed parallel to the sidewall.

| Item No.  | Load Capacity (kg) | Weight (g) | Box (pcs) | Carton (pcs) |
|-----------|--------------------|------------|-----------|--------------|
| LB-CV215A | 15 (33 lbs)        | 150        | 10        | 100          |

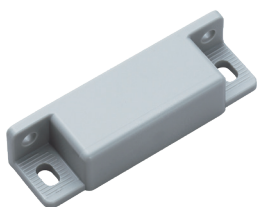
| Material            | Finish/Color |
|---------------------|--------------|
| 304 Stainless Steel | Plain        |
| ABS                 | White        |

## CLEAN ROOM HARDWARE



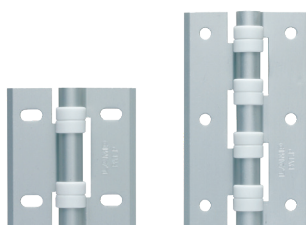
MC-JM45

Please see page 104 for details



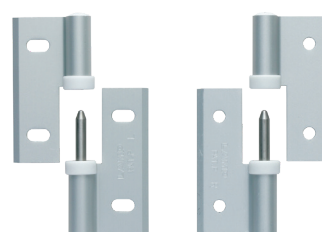
MC-JM63G

Please see page 104 for details



HG-CV

Please see page 228 for details



HG-CV-65N

Please see page 228 for details



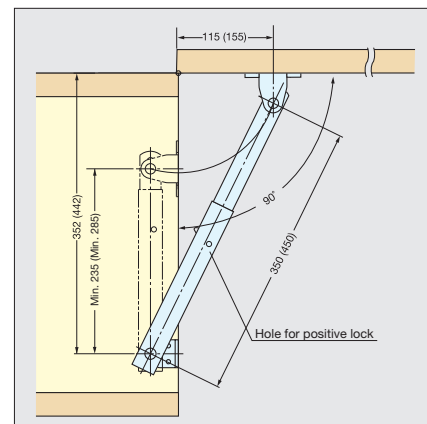
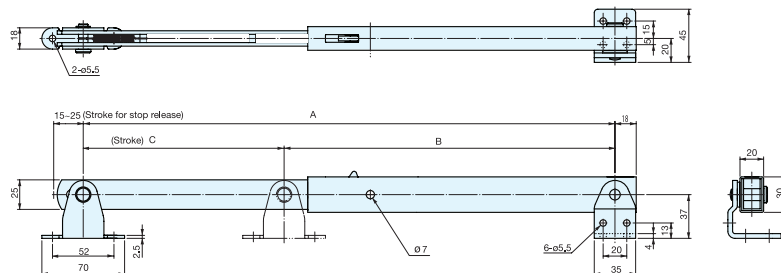
## HEAVY DUTY LID STAY


**LB-S**


LB-S350



LB-S450



Measurements above in ( ) are for LB-S450.  
\*Lid stay must be installed parallel to the sidewall.

| Item No. | (A)             | B               | C              | Load Capacity (kg) | Weight (g) | Box (pcs) | Carton (pcs) |
|----------|-----------------|-----------------|----------------|--------------------|------------|-----------|--------------|
| LB-S350  | 350 (13-25/32") | 230 ( 9-1/16" ) | 120 (4-23/32") | 133 (293 lbs)      | 745        | 5         | 20           |
| LB-S450  | 450 (17-25/32") | 280 (11-1/32")  | 170 (6-11/16") | 97 (214 lbs)       | 865        |           |              |

| Material            | Finish |
|---------------------|--------|
| 304 Stainless Steel | Satin  |

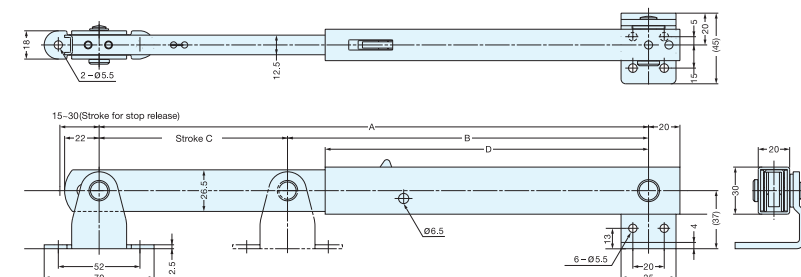
## HEAVY DUTY MULTI-ANGLE LID STAY


**LBTS**

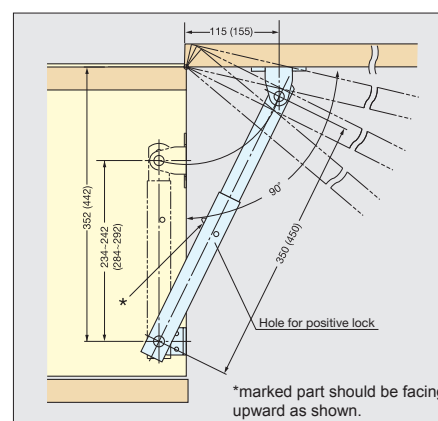

LBTS-350



LBTS-450



Above drawing shows LBTS left-hand mounting.



Measurements above in ( ) are for LBTS-450R.  
\*Lid stay must be installed parallel to the sidewall.

| Item No.  |           | (A)             | B               | C              | D                | Stop Positions | Load Capacity (kg) | Weight (g) | Box (pcs) | Carton (pcs) |
|-----------|-----------|-----------------|-----------------|----------------|------------------|----------------|--------------------|------------|-----------|--------------|
| Left      | Right     |                 |                 |                |                  |                |                    |            |           |              |
| LBTS-350L | LBTS-350R | 350 (13-25/32") | 230 ( 9-1/16" ) | 120 (4-23/32") | 206 ( 8-7/64" )  | 4              | 70 (154 lbs)       | 715        | 5         | 20           |
| LBTS-450L | LBTS-450R | 450 (17-25/32") | 280 (11-1/32")  | 170 (6-11/16") | 256 ( 10-5/64" ) | 6              |                    | 820        |           |              |

| Material            | Finish |
|---------------------|--------|
| 304 Stainless Steel | Satin  |

# MULTI-ANGLE LID STAY (W/LOCK)

STAINLESS  
304  
STEEL

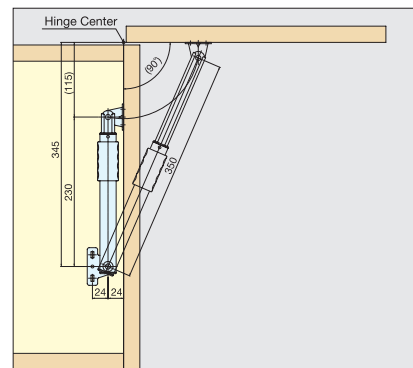
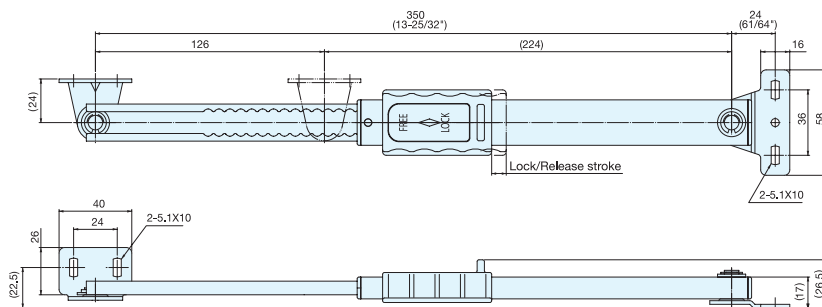
LOAD CAPACITY  
25 kg  
55 lbs

NO SCREW

# L-FS350A



- Locks lid in multiple positions by manually sliding lock lever.
- Slide back lever to lock/unlock.
- Ideal for vibration or shock applications.
- Can be installed individually or in pairs.
- Non-Handed: Can be installed on left or right side.



\*Lid stay must be installed parallel to the sidewall.

| Item No. | Load Capacity (kg) | Weight (g) | Box (pcs) | Carton (pcs) |
|----------|--------------------|------------|-----------|--------------|
| L-FS350A | 25 (55 lbs)        | 325        | 5         | 50           |

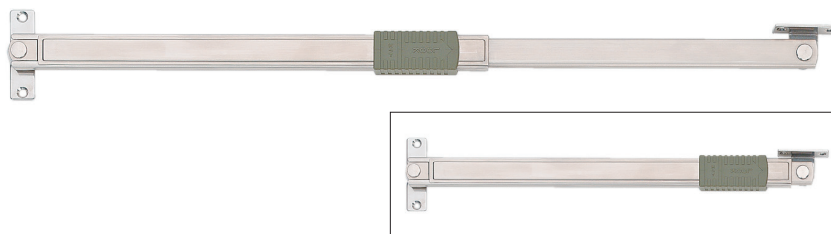
| Material            | Finish/Color |
|---------------------|--------------|
| 304 Stainless Steel | Satin        |
| Polycetal           | Dark Grey    |

# MULTI-ANGLE LID STAY

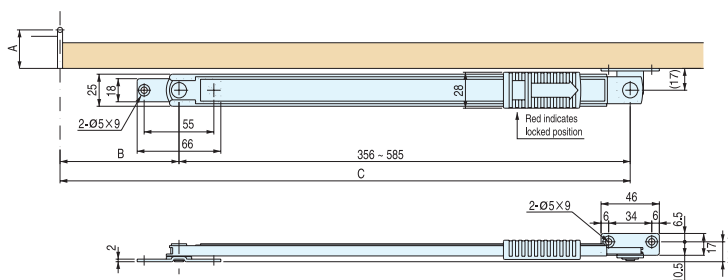
STAINLESS  
304  
STEEL

NO SCREW

# U-3005



- Locks lid in multiple positions by manually sliding lock lever.
- Slide back lever to lock/unlock.
- Ideal for vibration or shock applications.
- Can be installed individually or in pairs.
- Non-Handed : Can be installed on left or right side.
- Door opening angle: 100° maximum
- Recommended door size  
Height - Max. 2,000 mm (78-3/4")  
Width - 600~910 mm (23-5/8"~35-53/64") Thick-  
ness - 25~45 mm (1"~1-3/4")
- Weight - Max. 20 kg (44 lbs)



A, B and C dimensions are for 90° door opening angle.

|  | A                 | B                 | C                | D                | E               |
|--|-------------------|-------------------|------------------|------------------|-----------------|
|  | 30 ( 1-11/64" )   | 35 ( 1-3/8" )     | 40 ( 1-37/64" )  | 45 ( 1-49/64" )  | 50 ( 1-31/32" ) |
|  | 160 ( 6-19/64" )  | 160 ( 6-19/64" )  | 160 ( 6-19/64" ) | 160 ( 6-19/64" ) | 155 ( 6-3/32" ) |
|  | 525 ( 20-49/64" ) | 520 ( 20-15/32" ) | 515 ( 20-9/32" ) | 510 ( 20-5/64" ) | 505 ( 19-7/8" ) |

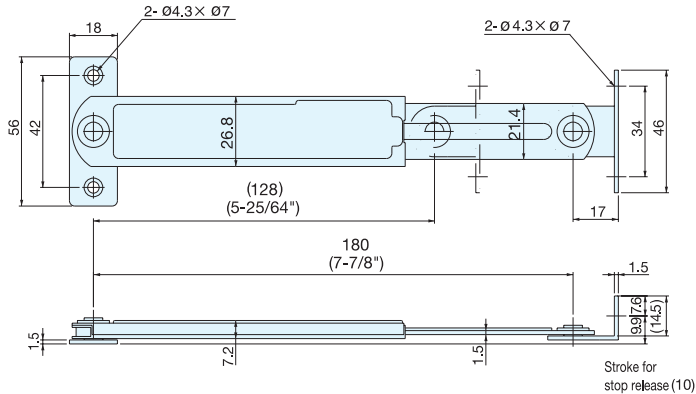
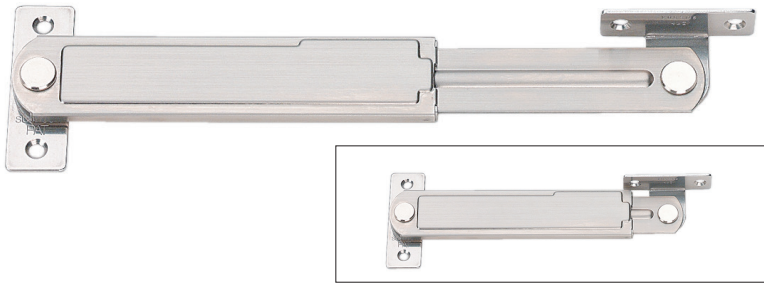
| Item No. | Weight (g) | Box (pcs) | Carton (pcs) |
|----------|------------|-----------|--------------|
| U-3005   | 338        | 6         | 60           |

| Material            | Finish/Color |
|---------------------|--------------|
| 304 Stainless Steel | Satin        |
| Polycetal           | -            |

## MULTI-ANGLE LID STAY



# U-3031



- Ratcheting stay holds flap lid at multiple angles.
- Non-handed.
- Thin and compact design.
- Completely open the door to release lock.
- Completely close the door to re-engage the lock.

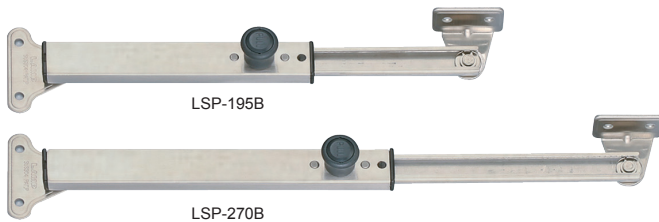
| Item No. | Stop Positions | Load Capacity (kg) | Weight (g) | Box (pcs) | Carton (pcs) |
|----------|----------------|--------------------|------------|-----------|--------------|
| U-3031   | 15             | 7 (15 lbs)         | 127        | 10        | 100          |

| Material            | Finish |
|---------------------|--------|
| 304 Stainless Steel | Satin  |

## LID STAY (W/LOCK)



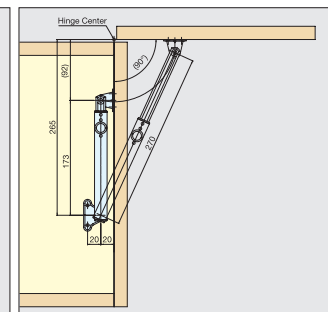
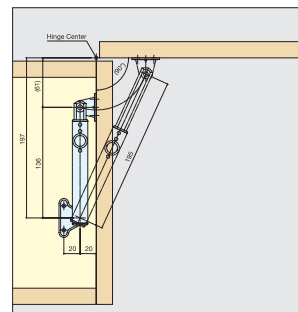
# LSP



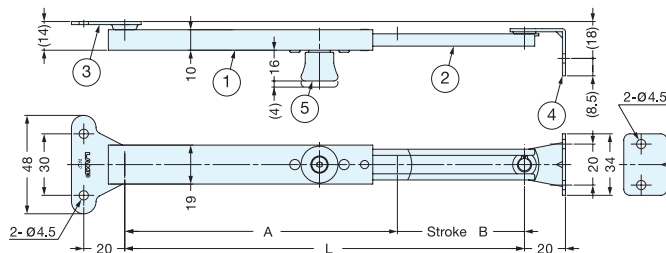
- Automatically locks lid when fully opened.
- Pull the locking knob to release lock.
- Ideal for vibration or shock applications.
- Can be installed individually or in pairs.
- Non-Handed : Can be installed on left or right side.

LSP-195B

LSP-270B



\*Lid stay must be installed parallel to the sidewall.



| No. | Part Name    | Material            | Finish/Color |
|-----|--------------|---------------------|--------------|
| ①   | Case         | 304 Stainless Steel | Satin        |
| ②   | Arm          |                     |              |
| ③   | Case Bracket |                     |              |
| ④   | Arm Bracket  | ABS                 | Dark Grey    |
| ⑤   | Locking knob |                     |              |

| Item No. | L              | A              | B              | Load Capacity (kg) | Weight (g) | Box (pcs) | Carton (pcs) |
|----------|----------------|----------------|----------------|--------------------|------------|-----------|--------------|
| LSP-195B | 195 (7-43/64") | 133 (5-15/64") | 62 (2-7/16")   | 30 (66 lbs)        | 126        | 6         | 60           |
| LSP-270B | 270 (10-5/8")  | 170 (6-11/16") | 100 (3-15/16") |                    | 147        |           |              |

# SPRING LOADED LID STAY



S-YT

LID SUPPORTS

SPRING LOADED LID STAYS

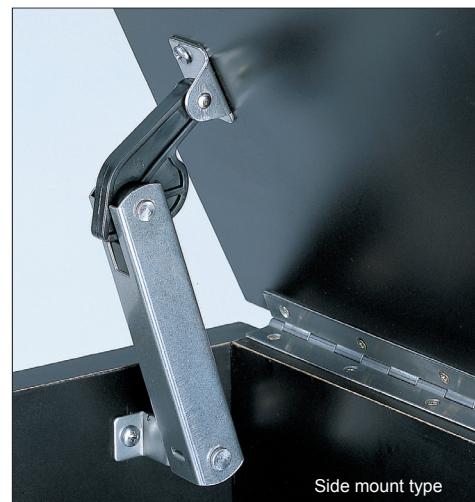


Back panel mount type

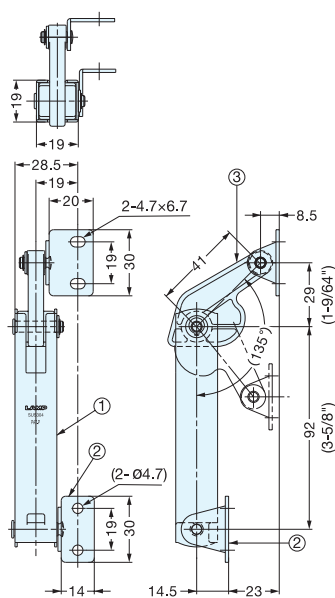


Side mount type  
(Left handed shown)

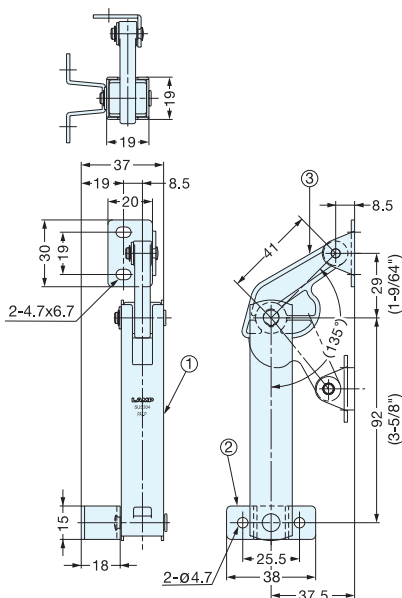
- Spring mechanism assists in lifting door and holds in open position.
- Handed: Specific left and right hand mounting.



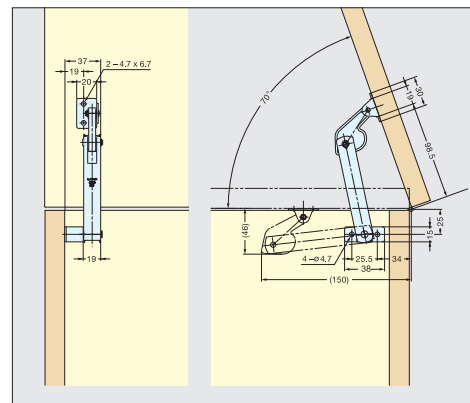
Side mount type



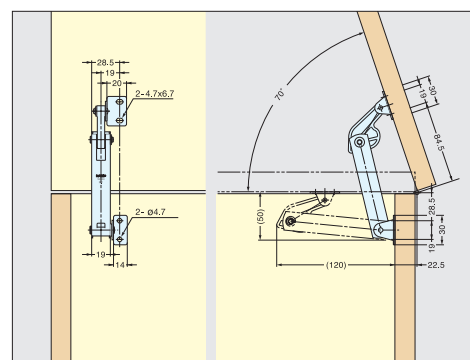
Back panel mount type



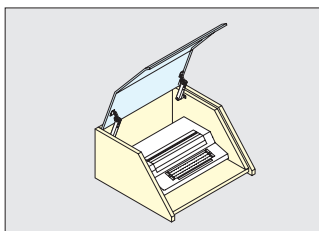
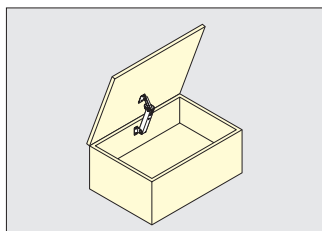
Side mount type



For side mount type



For back panel mount type



| No. | Part Name | Material            | Finish |
|-----|-----------|---------------------|--------|
| ①   | Body      | 304 Stainless Steel | Plain  |
| ②   | Bracket   |                     |        |
| ③   | Arm       | Polyacetal          | -      |

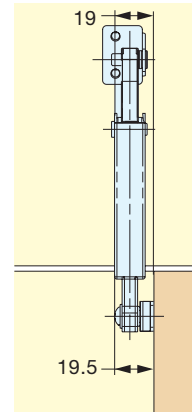
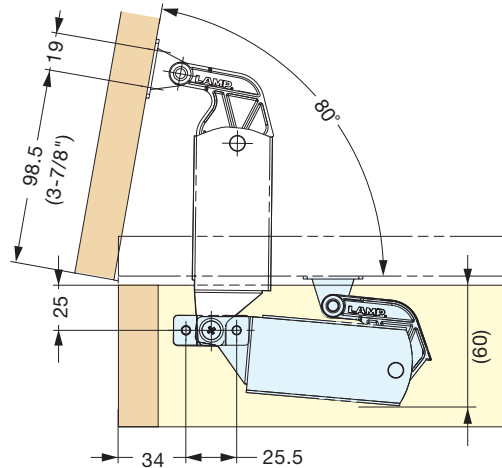
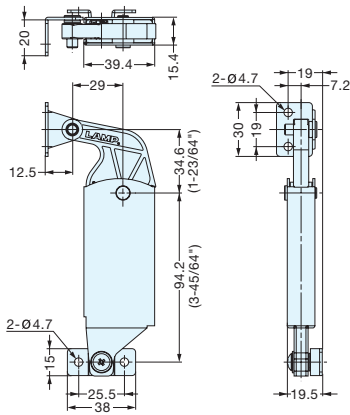
| Item No. |         | Spring Tension | Mounting Type | Max. Torque (kgf·cm) | Weight (g) | Box (pcs) | Carton (pcs) |
|----------|---------|----------------|---------------|----------------------|------------|-----------|--------------|
| Left     | Right   |                |               |                      |            |           |              |
| S-YT01L  | S-YT01R | Soft           | Side          | 30 ( 26 lbs-in )     | 118        | 10        | 100          |
| S-YT02L  | S-YT02R | Hard           |               | 40 ( 34 lbs-in )     |            |           |              |
| S-YT01S  |         | Soft           | Back Panel    | 30 ( 26 lbs-in )     |            |           |              |
| S-YT02S  |         | Hard           |               | 40 ( 34 lbs-in )     |            |           |              |



## SPRING LOADED LID STAY


**S-AT01, S-AT02**


- Side wall mounted.
- Spring mechanism assists in lifting door and holds in open position (10°~80°).
- Can be installed individually or in pairs.
- Non-Handed: Can be installed on left or right side.
- Does not work with concealed hinges.



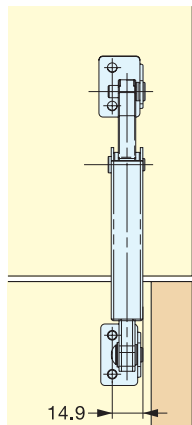
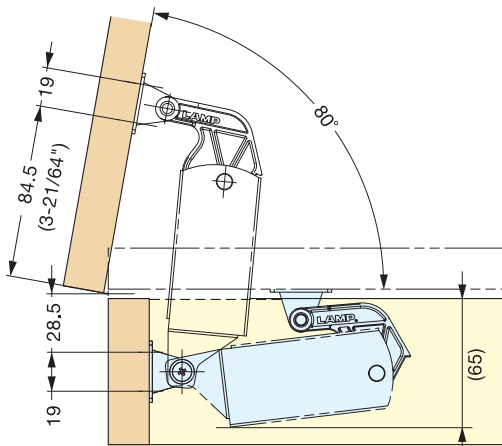
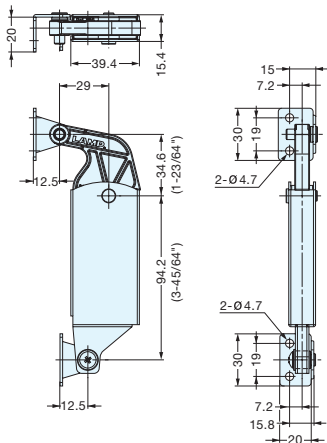
| Item No. | Max. Torque per piece (kgf·cm) | Box (pcs) | Carton (pcs) |
|----------|--------------------------------|-----------|--------------|
| S-AT01   | 90 (78 lbs·in)                 | 10        | 50           |
| S-AT02   | 120 (104 lbs·in)               |           |              |

| Material                                 | Finish |
|------------------------------------------|--------|
| 430 Stainless Steel/<br>Steel/Polyacetal | Plain  |

## SPRING LOADED LID STAY


**S-AT01S, S-AT02S**


- Back panel mounted.
- Spring mechanism assists in lifting door and holds in open position (10°~80°).
- Can be used individually or in multiples.
- Does not work with concealed hinges.



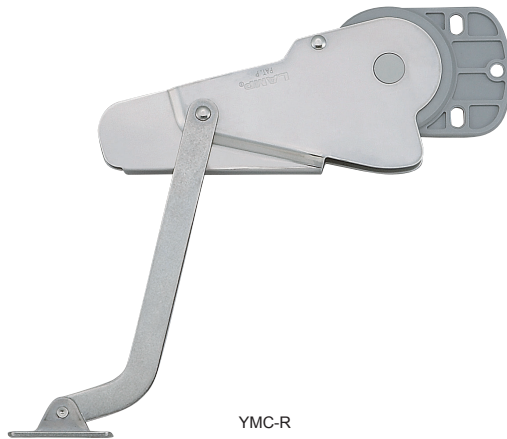
| Item No. | Max. Torque per piece (kgf·cm) | Box (pcs) | Carton (pcs) |
|----------|--------------------------------|-----------|--------------|
| S-AT01S  | 90 ( 78 lbs·in)                | 10        | 50           |
| S-AT02S  | 120 (104 lbs·in)               |           |              |

| Material                                 | Finish |
|------------------------------------------|--------|
| 430 Stainless Steel/<br>Steel/Polyacetal | Plain  |

# MINI-DOOR CLOSER (W/DAMPER)



YMC

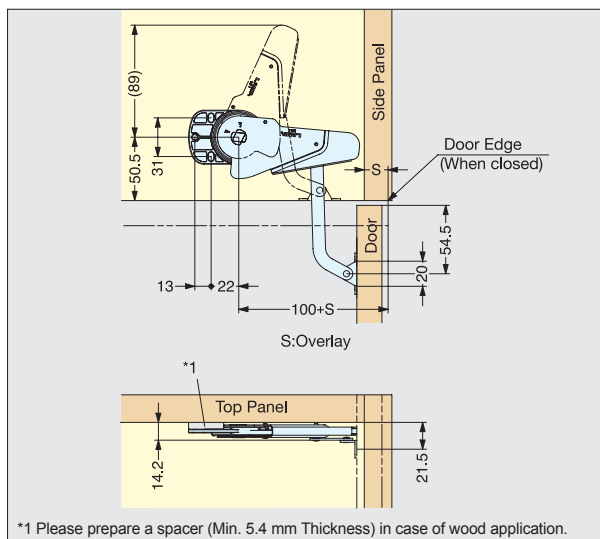
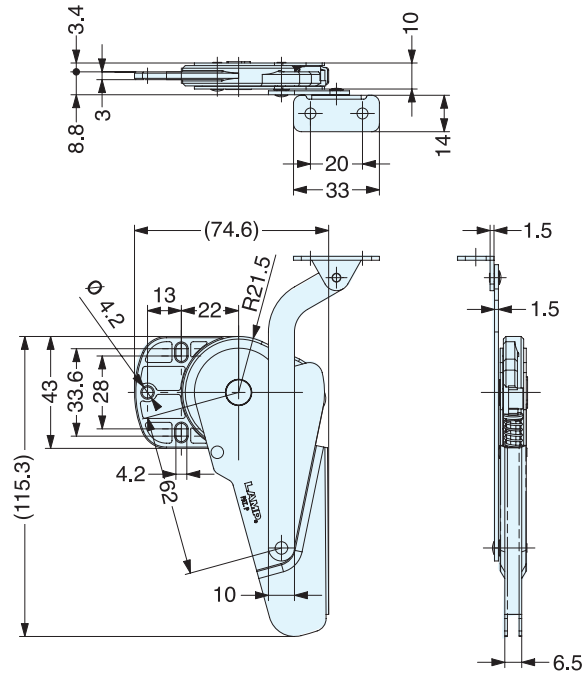


YMC-R

- Low profile door closer for small, horizontally swinging doors.
- Equipped with dampening mechanism for soft close.
- Stay will hold the door in 90° open position.
- Push the door to close. Once pushed, stay will gently pull the door and close.
- Thin body designed to be installed on top panel.
- Durable stainless steel construction.
- Handed: Specific left and right hand mounting.
- \*Recommended screws : M4

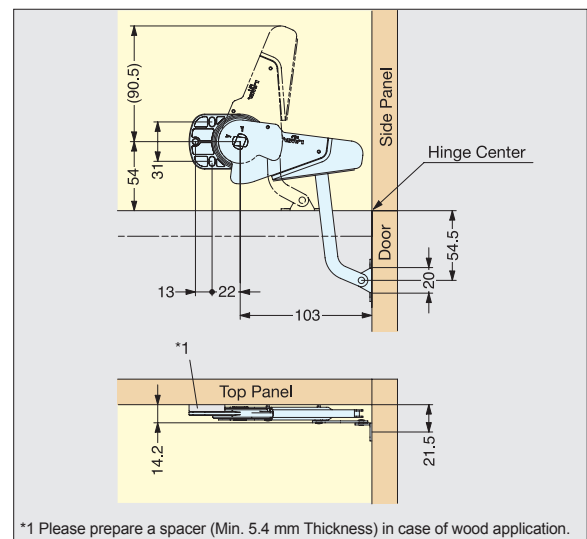


YMC-R model



\*1 Please prepare a spacer (Min. 5.4 mm Thickness) in case of wood application.

Installation (With Concealed Hinge)



\*1 Please prepare a spacer (Min. 5.4 mm Thickness) in case of wood application.

Installation (With Piano/Butt Hinge)

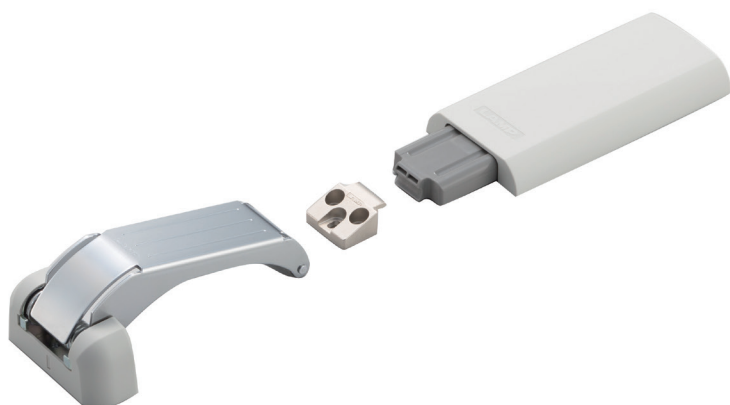
| Item No. |       | Opening Angle | Door Weight (kg)           | Door Width (mm)         | Weight (g) | Box (pcs) | Carton (pcs) |
|----------|-------|---------------|----------------------------|-------------------------|------------|-----------|--------------|
| Left     | Right |               |                            |                         |            |           |              |
| YMC-L    | YMC-R | 0°~90°        | 0.3~0.7<br>(0.66~1.54 lbs) | Max. 300<br>(11-13/16") | 103        | 50        | 500          |

| Material                 | Finish/Color |
|--------------------------|--------------|
| PBT, 304 Stainless Steel | Grey, Plain  |

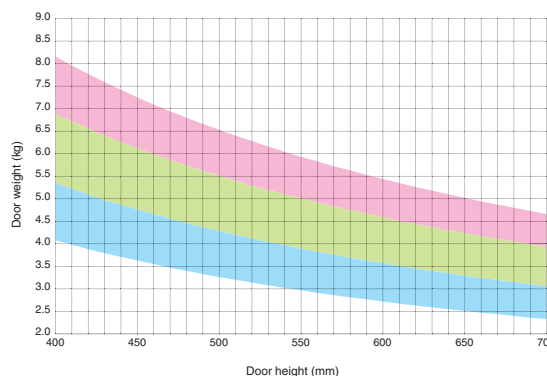
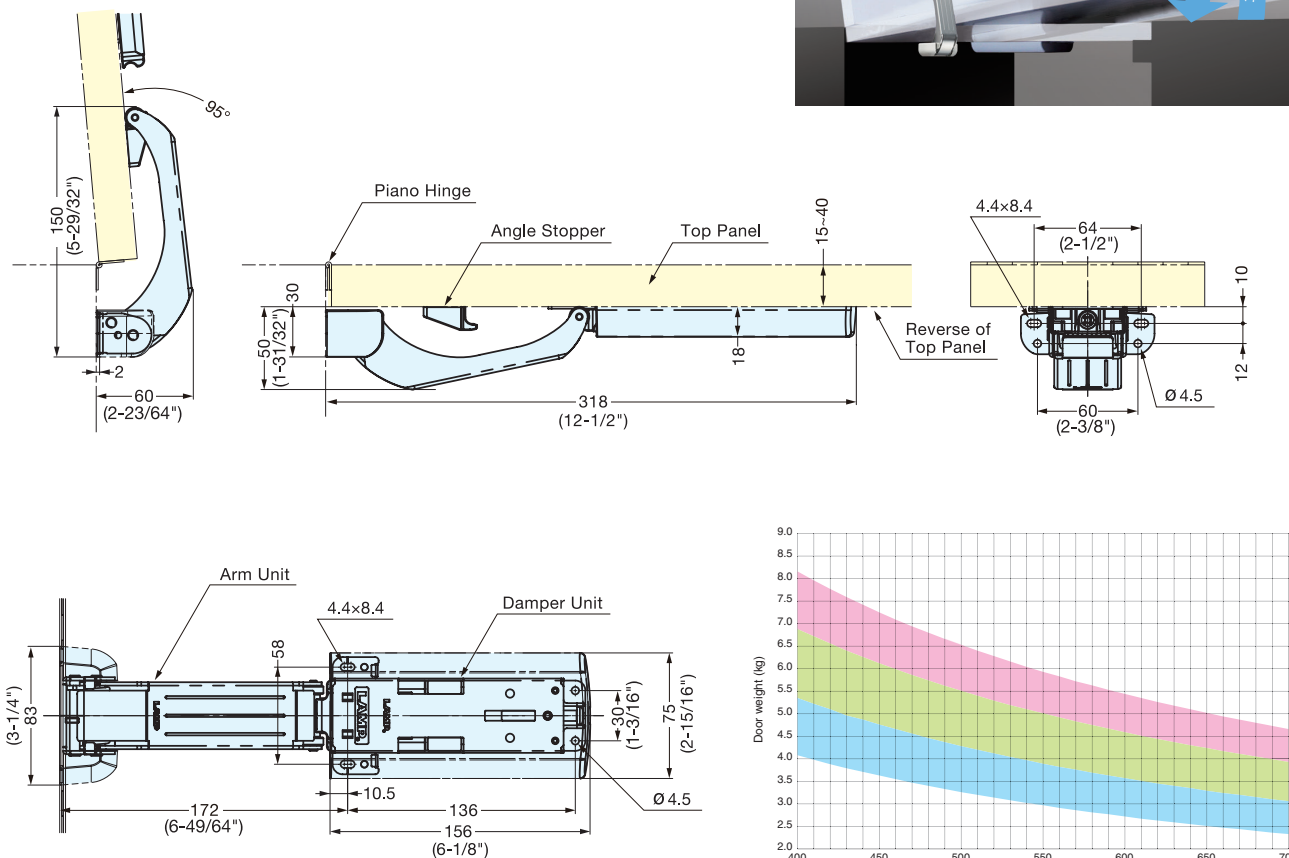
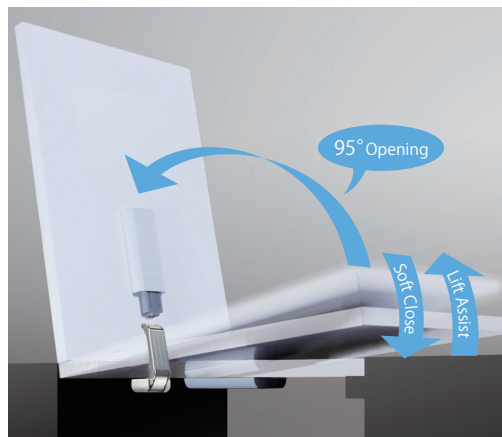
## LIFT ASSIST DAMPER (W/ANGLE STOPPER)



LAD-ST



- Ideal for bar and countertop applications.
- Angle stopper designed to hold open at 95°.
- Damper equipped for soft closing.
- Simple surface mount installation.
- Brackets, spacers and mounting plate accessories available (sold separately)

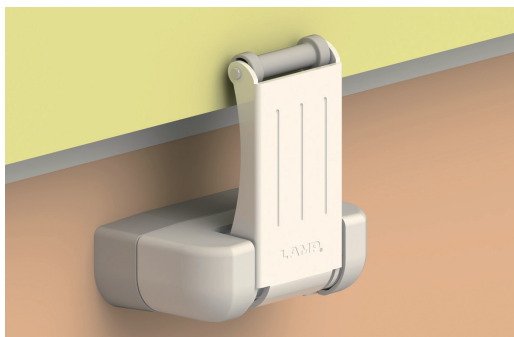


| Item No. | Max. Torque per piece (kgf·cm)   | Panel Thickness             | Weight (g) | Carton (pcs) | Material                           | Finish                          |
|----------|----------------------------------|-----------------------------|------------|--------------|------------------------------------|---------------------------------|
| LAD-ST-L | 81.6~107.1 ( 70.1 ~ 93.1 lbs·in) | 15~40 mm<br>(9/16"~1-9/16") | 750        | 1            | ABS/Polycetal/<br>Steel/Zinc Alloy | Off White/<br>Chrome/<br>Nickel |
| LAD-ST-M | 107.1~137.7 ( 93.1~119.7 lbs·in) |                             |            |              |                                    |                                 |
| LAD-ST-H | 137.7~163.2 (119.7~141.9 lbs·in) |                             |            |              |                                    |                                 |

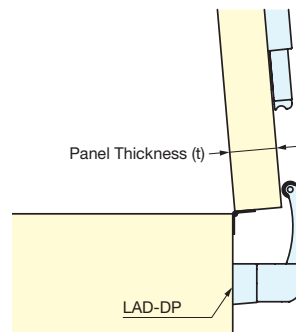
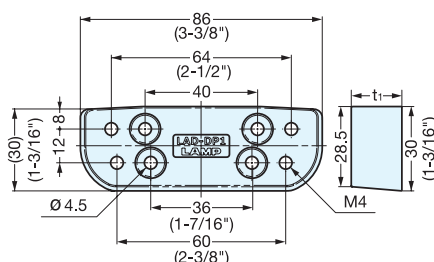
## SPACER FOR THICKER PANEL



## LAD-DP



- Optional spacer for LAD-ST.



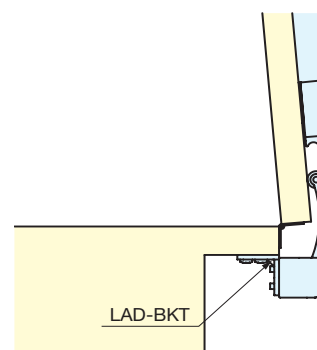
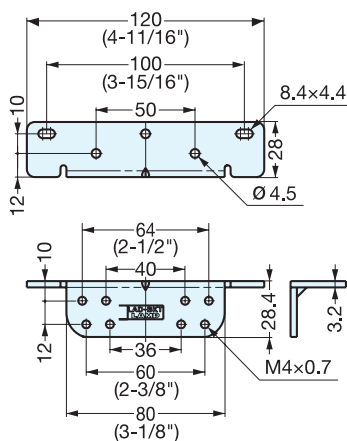
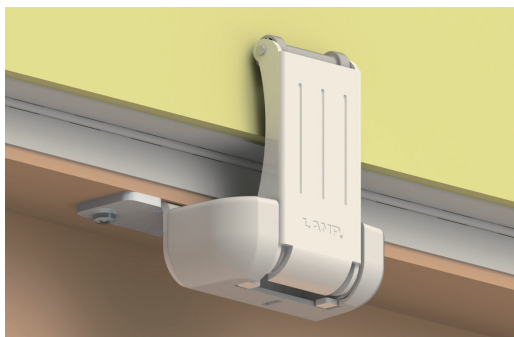
| Item No. | $t_1$     | Panel Thickness (t) | Box | Carton (pcs) | Material   | Color |
|----------|-----------|---------------------|-----|--------------|------------|-------|
| LAD-DP1  | 18 (3/4") | 25~35 mm            | 50  | 200          | Polyacetal | Grey  |
| LAD-DP2  | 25 ( 1" ) | 30~40 mm            |     |              |            |       |

## UNDER MOUNTING BRACKET



## LAD-BKT

- Optional under mounting bracket for LAD-ST.



| Item No. | Material | Box | Carton (pcs) | Color  |
|----------|----------|-----|--------------|--------|
| LAD-BKT  | Steel    | 20  | 100          | Nickel |



## ENCLOSURE DOOR STOPS



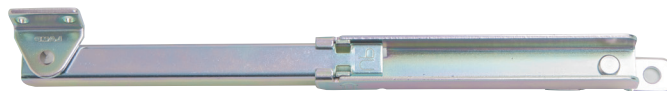
YFN



YFN-200



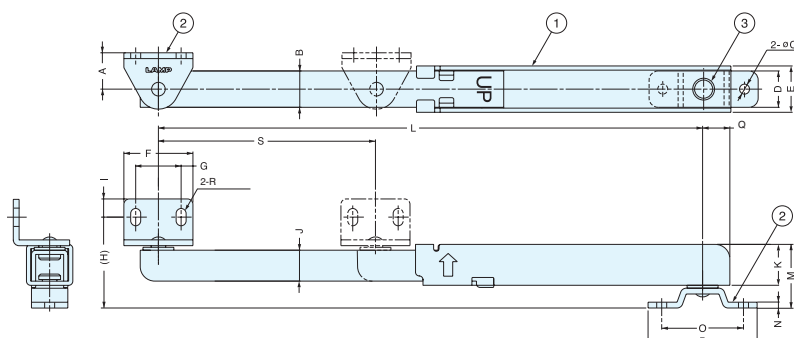
YFN-300



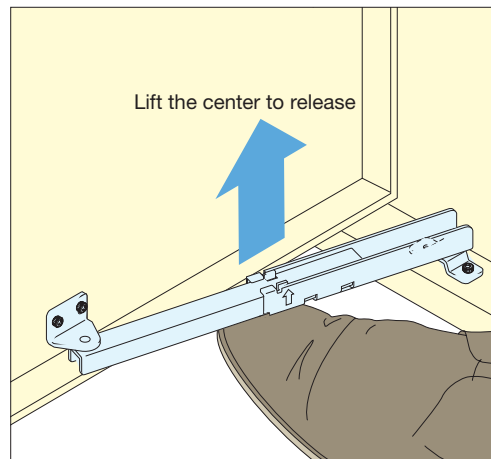
YFN-300-T50



YFN-300W

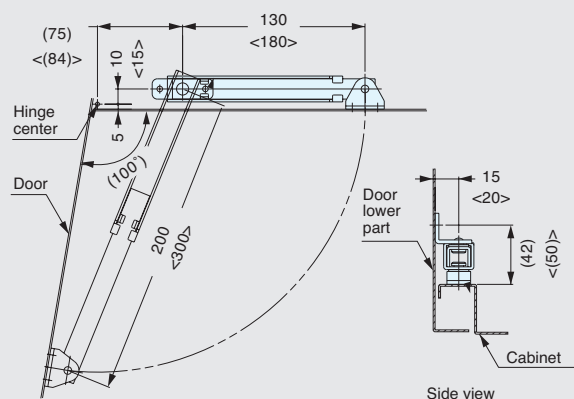


- Door stops for enclosures that mechanically lock doors open.
- Release the stay by lifting with foot.
- For horizontally swinging doors only.
- Non-Handed: Install on left or right side.
- Designed for installation at the base of the enclosure.
- **YFN-300W only:** Mechanically locks door at 85° and 110° (fully opened).



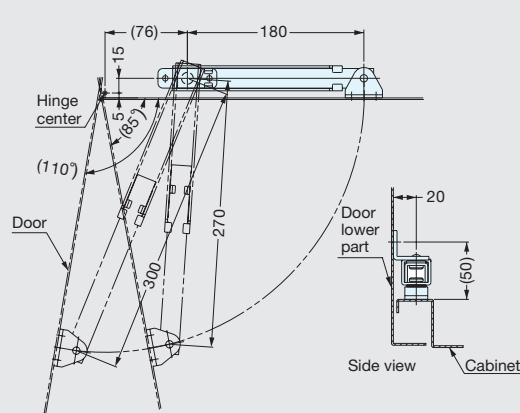
| No. | Part Name | Material            | Finish                |
|-----|-----------|---------------------|-----------------------|
| ①   | Body      | Steel               | Colored Zinc Chromate |
| ②   | Bracket   |                     |                       |
| ③   | Pin       | 304 Stainless Steel | Plain                 |

YFN-200, &lt;YFN-300, YFN-300-T50&gt;



\* Measurements in parentheses are for reference only.

YFN-300W (Dual Stop)



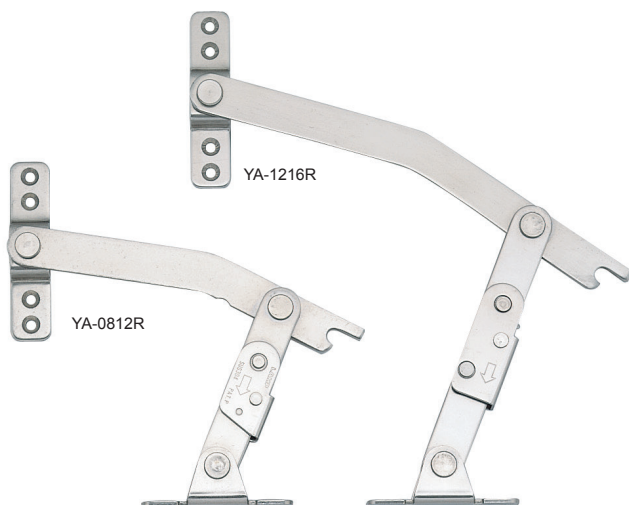
| Item No.    | L                 | S                | A  | B    | C   | D  | E    | F  | G  | (H) | I  | J    | K    | M  | N   | O  | P  | Q  | R       |
|-------------|-------------------|------------------|----|------|-----|----|------|----|----|-----|----|------|------|----|-----|----|----|----|---------|
| YFN-200     | 200 ( 7-7/8" )    | 70 ( 2-3/4" )    | 15 | 15.9 | 5.5 | 17 | 20.0 | 33 | 20 | 42  | 8  | 15.7 | 20.0 | 30 | 2.3 | 35 | 50 | 10 | 5.5×8.0 |
| YFN-300     | 300 ( 11-13/16" ) | 120 ( 4-23/32" ) | 20 | 20.0 | 5.5 | 20 | 25.5 | 38 | 25 | 50  | 10 | 17.0 | 22.5 | 35 | 3.2 | 45 | 60 | 15 | 5.5×9.5 |
| YFN-300-T50 |                   |                  |    |      | 9.0 |    |      |    |    |     |    |      |      |    |     | 50 | 72 |    |         |
| YFN-300W    |                   |                  |    |      | 5.5 |    |      |    |    |     |    |      |      |    |     | 45 | 60 |    |         |

| Item No.    | Old Item No. | Tensile Force (kg) | Compression Load (kg) | Weight (kg) | Box (pcs) | Carton (pcs) |
|-------------|--------------|--------------------|-----------------------|-------------|-----------|--------------|
| YFN-200     | YF-200       | Max. 90 (198 lbs)  | Max. 50 (110 lbs)     | 198         | 10        | 100          |
| YFN-300     | YF-300       | Max. 150 (330 lbs) | Max. 60 (132 lbs)     | 438         | 5         | 30           |
| YFN-300-T50 | YF-300-T50   |                    |                       | 476         |           |              |
| YFN-300W    | YF-300W      |                    |                       | 435         |           |              |

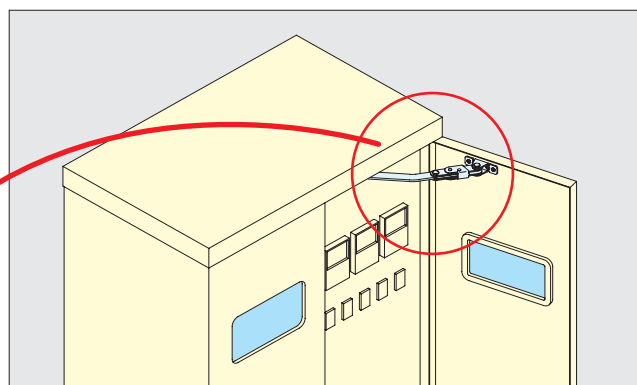
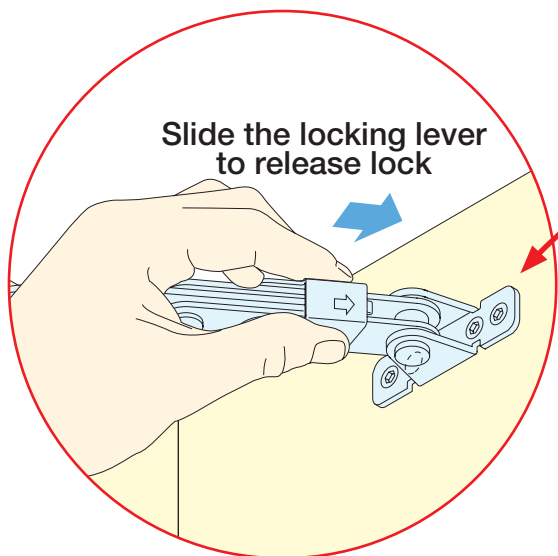
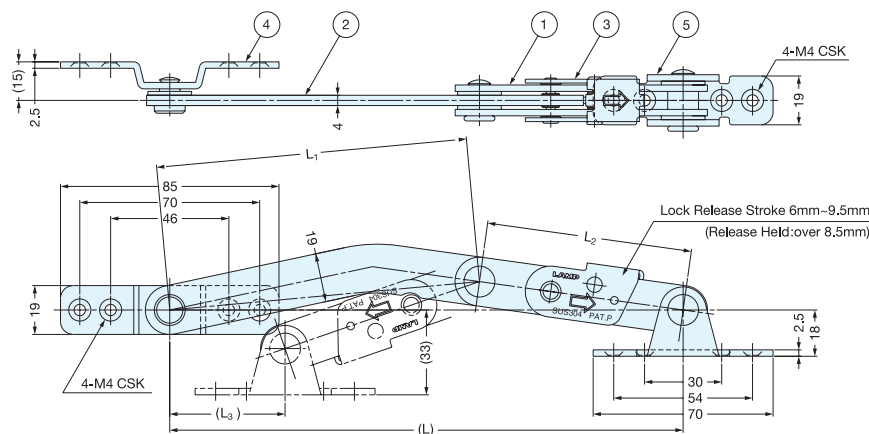
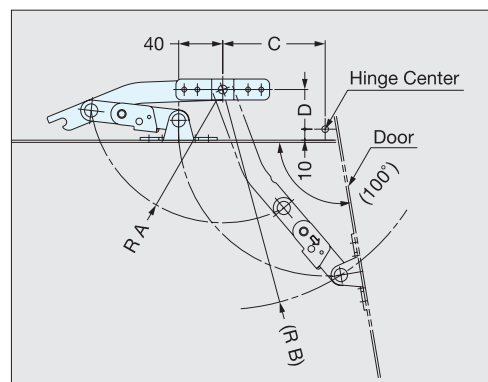
# DOOR HOLDER



YA-0812, 1216



- Automatically locks door when fully opened.
- Slide the locking lever to release lock.  
Lever will keep the unlocked position until the door is moved, for easy handling.
- Left-handed and Right-handed models available.



| No. | Part Name    | Material            | Finish   |
|-----|--------------|---------------------|----------|
| ①   | Outer Plate  | 304 Stainless Steel | Polished |
| ②   | Arm          |                     |          |
| ③   | Slide Grip   |                     |          |
| ④   | Arm Bracket  |                     |          |
| ⑤   | Base Bracket |                     |          |

| Item No. | Type  | L          | L <sub>1</sub> | L <sub>2</sub> | L <sub>3</sub> | A   | B   | C   | D  | Weight (g) | Box (pcs) | Carton (pcs) |
|----------|-------|------------|----------------|----------------|----------------|-----|-----|-----|----|------------|-----------|--------------|
| YA-0812L | Left  | 200        | 121            | 80             | 45             | 121 | 200 | 93  | 36 | 291        | 5         | 30           |
| YA-0812R | Right | (7-7/8")   | (4-49/64")     | (3-5/32")      |                |     |     |     |    |            |           |              |
| YA-1216L | Left  | 280        | 161            | 120            | 44             | 161 | 280 | 145 | 40 | 340        |           |              |
| YA-1216R | Right | (11-1/32") | (6-11/32")     | (4-23/32")     |                |     |     |     |    |            |           |              |

