

centor®



Centor F2 bottom-rolling system for folding doors

centor®

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open up entire
walls and bring the
outside in



When Centor invented the modern weather-sealed bi-fold, they opened up a world of opportunity in building, door and window design. By opening up entire walls and bringing the outside in, folding doors have helped people expand and improve their living spaces and live more sustainably.

The new F2 folding system now opens up this opportunity to a much wider audience.





| F2 Specifications | |
|---------------------------------|--|
| Maximum opening | 11.4m (Centor tracks) 14.4m (custom tracks) |
| Maximum panel weight | 40kg |
| Maximum panel height | 2400mm |
| Maximum panel width | 900mm |
| Minimum panel thickness | 35mm |
| Maximum number of panels | 8 left + 8 right |

Folding doors for all

Centor's new F2 system means folding doors can generally be installed without structural modifications made to the opening, and are now suitable and cost-effective even for small-scale renovations and do-it-yourself projects. This is because the Centor F2 is a bottom-rolling folding system that transfers the door weight from the top of the opening to the bottom, so there is no need for a strong overhead structural beam. The Centor F2 expands market opportunities for door manufacturers, builders and specifiers.

Offering the fingertip operation synonymous with all Centor products, Centor's F2 bottom-rolling system can be installed in any opening, including retrofitting into openings that formerly held sliding doors, and lower budget renovations. Living spaces can be transformed and the line between inside and outside blurred, with the F2 offering openings up to 11.4m wide using Centor tracks, with wider openings possible using custom systems.

low profile sill,
articulated carriers,
weather tested



The new generation bi-fold

Centor asked the question 'how can we help more people enjoy the benefits of bi-folds?' Centor's latest folding innovation is the answer to this question, addressing all the problems previously associated with bottom-rolling folding doors.

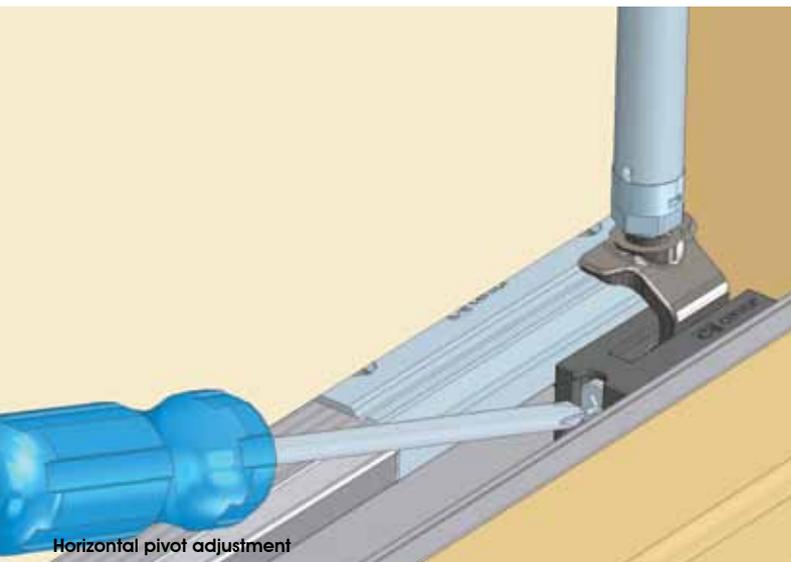
- **Operation** – The Centor F2 glides thanks to sophisticated engineering. Articulated carriers compensate for imperfect doorsills and openings, ensuring smooth operation.
- **Tracks** – Debris getting into tracks is one factor that prevents other bottom-rolling systems from operating smoothly. The F2's bearings and rolling surface are concealed inside the sill away from debris. As well as this, the F2 combats debris with a UV stabilised track seal that can be lifted for cleaning, and sweepers on the carrier that act like a snowplough, keeping grit away from the mechanism. The tapered rollers and angled track are specifically designed to aid grit removal for trouble-free operation.
- **Sills** – Most bottom-rolling systems have intrusive sills, while Centor F2's inline bearings are a unique solution, allowing for a low profile and unobtrusive sill for even smoother outside-inside transitions.

- **Weather sealing** – Doors using Centor technology included in the F2 system have been weather tested to Australian and international standards.
- **Security** – No externally accessible hardware can be compromised, offering a completely secure system.
- **Adjustment** – Like all Centor systems, the F2 can be easily adjusted by the end-user, so doors are always a delight to use.

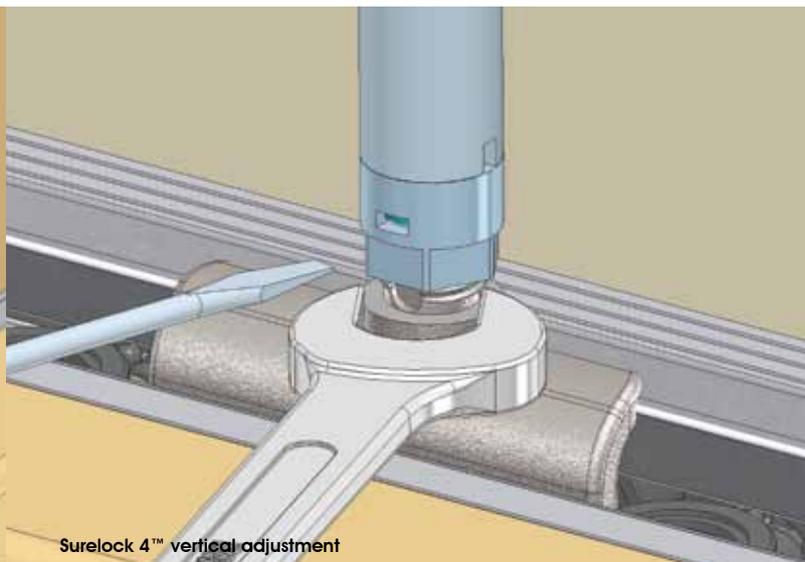
Installation

For door manufacturers, installing Centor F2 components is easy with quick-fix surface mounted fittings. Centor's innovative hinge system allows for equal-sized door panels, regardless of the configuration.

Doors fitted with Centor F2 bottom-rolling folding hardware are easy to install, using simple hand and power tools. Pre-assembled doors can be simply and quickly fitted into a prepared opening even by do-it-yourself renovators, as no overhead structural support is required.



Horizontal pivot adjustment



Surelock 4™ vertical adjustment

Adjustment

To compensate for building movement and to maintain the doors' smooth operation, straightforward adjustments can be made using the Centor Surelock 4™ system. Using just simple hand tools, the components can be adjusted both horizontally and vertically. Once door heights are set and locked, the mechanism will not self adjust or loosen over time, meaning doors will not drop.

Style

The Centor F2 is available in a range of finishes to suit any door or decor: stainless steel, natural anodised and custom powdercoat available to order. Head tracks are produced in clear anodised aluminium with the option of Meranti, New Guinea Rosewood, Surian Red Cedar and Western Red Cedar. Sills are available in clear anodised aluminium with Kwila/Merbau.

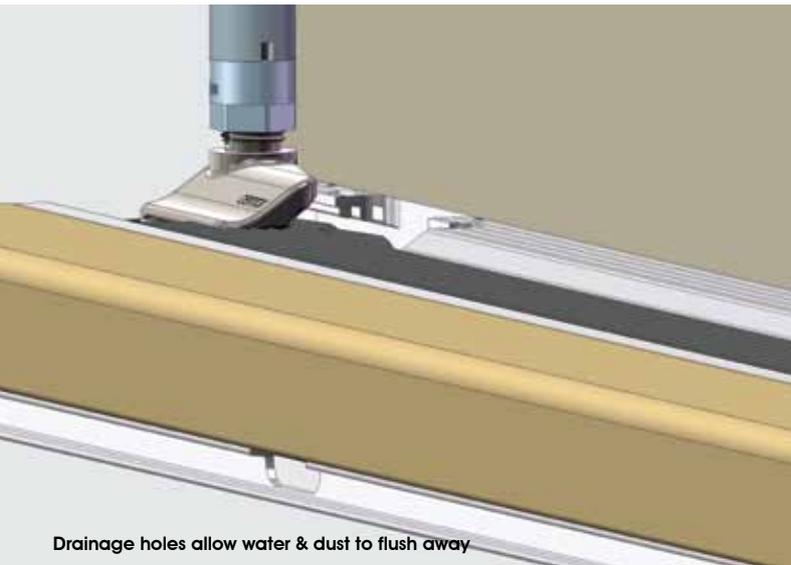
Durability

The aluminium and stainless steel F2 hardware is durable and hard-wearing, and is guaranteed to endure real-life use. Centor has ensured the F2 will work smoothly well beyond its 10-year warranty period by submitting the system to gruelling testing:

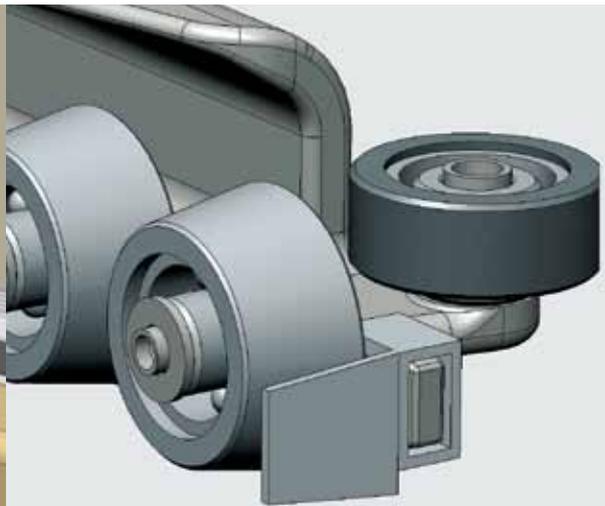
- Cycle testing to over 35,000 cycles at maximum configuration
- Structural testing (including Finite Element Analysis simulation)
- Corrosion testing (including salt spray exposure for 600 hours)

The F2 is engineered to combat debris getting into the bottom track for consistently smooth performance.

easy to install
with simple hand and
power tools



Drainage holes allow water & dust to flush away



Guards work like a snow plough to remove debris

Weather performance

Impressive water performance ratings are achievable thanks to Centor's original patented weather-sealing technology. Centor folding systems push door panels snugly against weather seals, providing air infiltration resistance up to 50 times better than sliding doors. This improves thermal performance as well as helping reduce noise penetration. The sills on Centor's F2 system are designed for outward opening configurations where weather protection is required.

Testing of the F2 system has proven the high performance of Centor's weathersealing technology. Centor's F2 system was tested to and passed Australian Standard AS2047, which specifies the weather performance necessary for external windows and doors. In tests of a timber F2 system with door panels 2100mm high x 800mm wide, the system received a N3 rating for deflection and ultimate strength, while 200Pa of water penetration was achieved; the equivalent of an N4 rating.

| F2 test data | |
|--|-----------------|
| Deflection (Pa) | 1000 |
| Air infiltration | Air conditioned |
| Water penetration (Pa) | 200 |
| Ultimate (Pa) | 1500 |
| Max pressure without hardware failure (Pa) | 1900 |

Warranty

Centor F2 bottom-rolling folding systems are backed by a 10-year limited warranty. Intensive testing and use in the field means Centor guarantees doors moved by Centor F2 components can continue to open and close as new long past their 10-year warranty period.

As the F2 is a bottom-rolling system, during transit, the door panels in pre-assembled door sets must be supported on the sill so carriers and bearings do not carry the door weight. Centor recommends using wood packers between the sill and panel. This is a requirement to maintain the F2 system's warranty.





Screening

Centor's revolutionary retractable insect screens and blinds are the perfect accompaniment to the F2 folding system. The S1E Eco-Screen™ is a two-in-one screen and blind system for architectural openings that unobtrusively screens or shades large spaces.

The Centor Eco-Screen can be operated with the touch of a fingertip and completely retracts out of sight into the frame when not in use. Available with screen, blind or two-in-one options, the S1E offers environment control for every space. The screen provides insect protection, while the blind gives thermal insulation, UV protection and can double as a projection screen.

Locking

F2 folding systems can be complemented with Centor locking systems, including Centor's award winning, stylish and secure Twinpoint lock, and a range of clean-lined dropbolts.

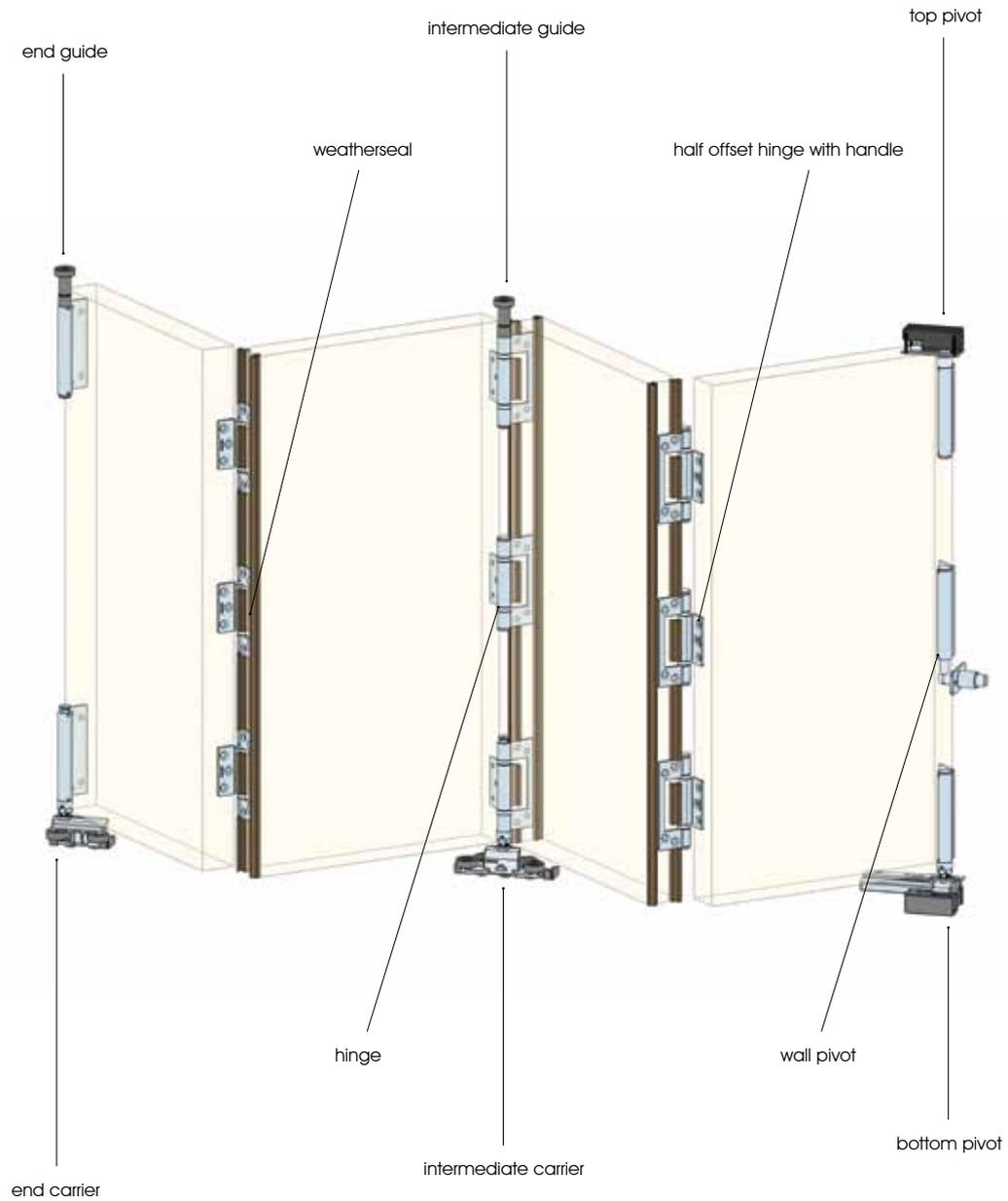


The convenient and stylish Centor Twinpoint lock

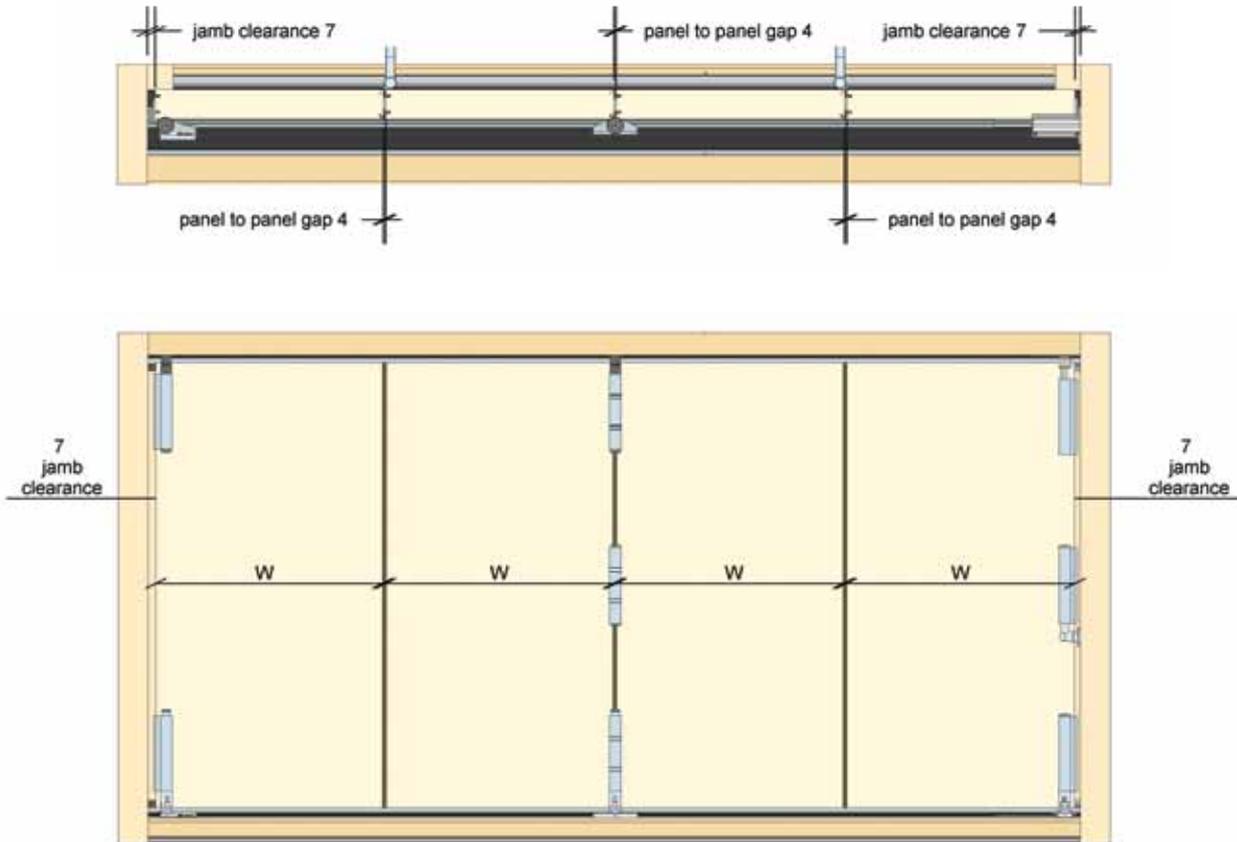
F2 product details

Downloadable DXF, DWG or PDF files ready for use in your own documentation are a convenient resource for architects and specifiers wishing to use Centor systems.

F2 DXF, DWG or PDF files can be downloaded from www.centor.com.au.

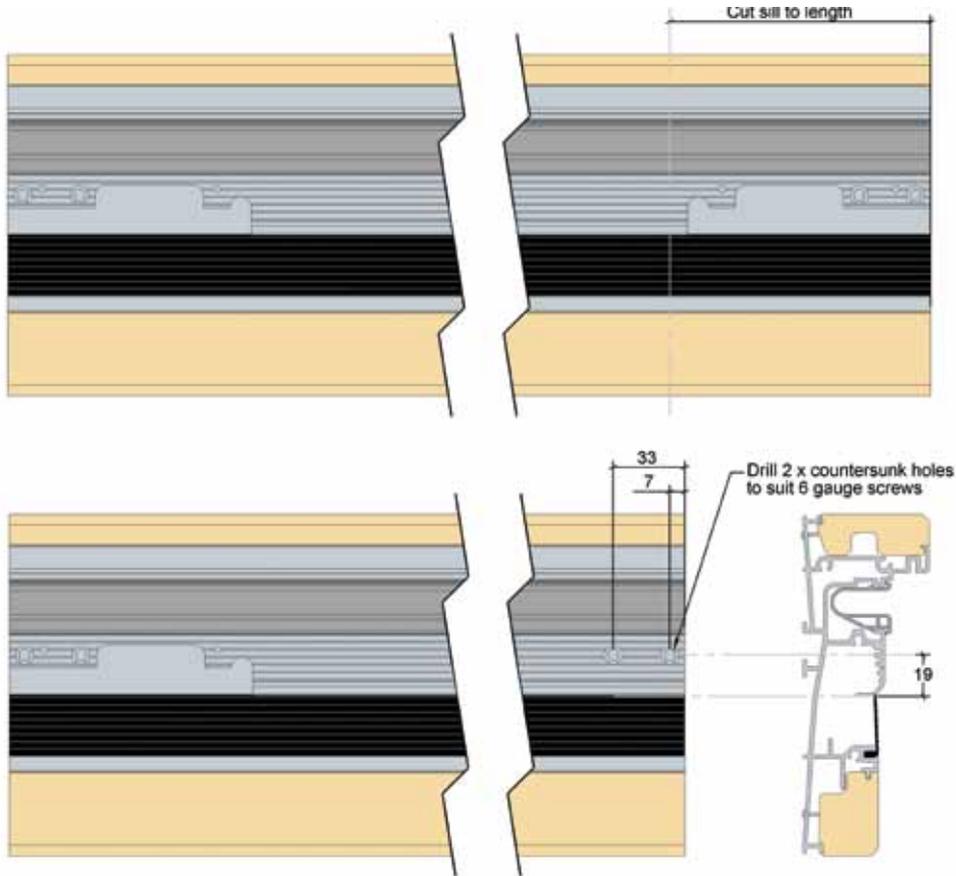


Architectural detail

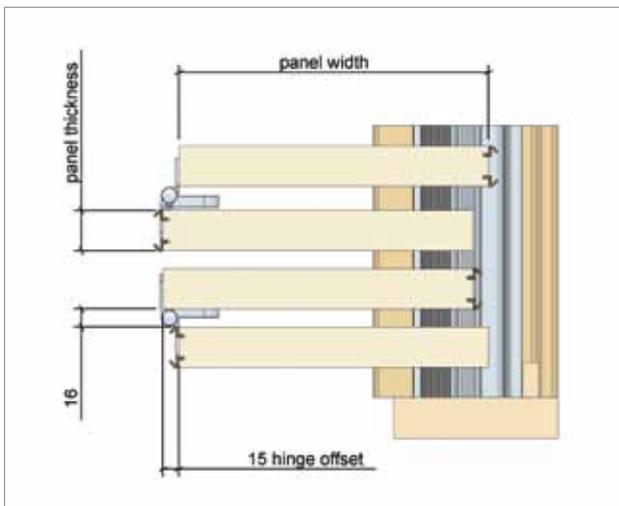


Note: On even panel configurations where a left and right carrier meet (e.g. 2L/2R, 4L/2R) the gap between the panels will be 8mm, and will therefore need weatherseals on both panels.

Architectural detail

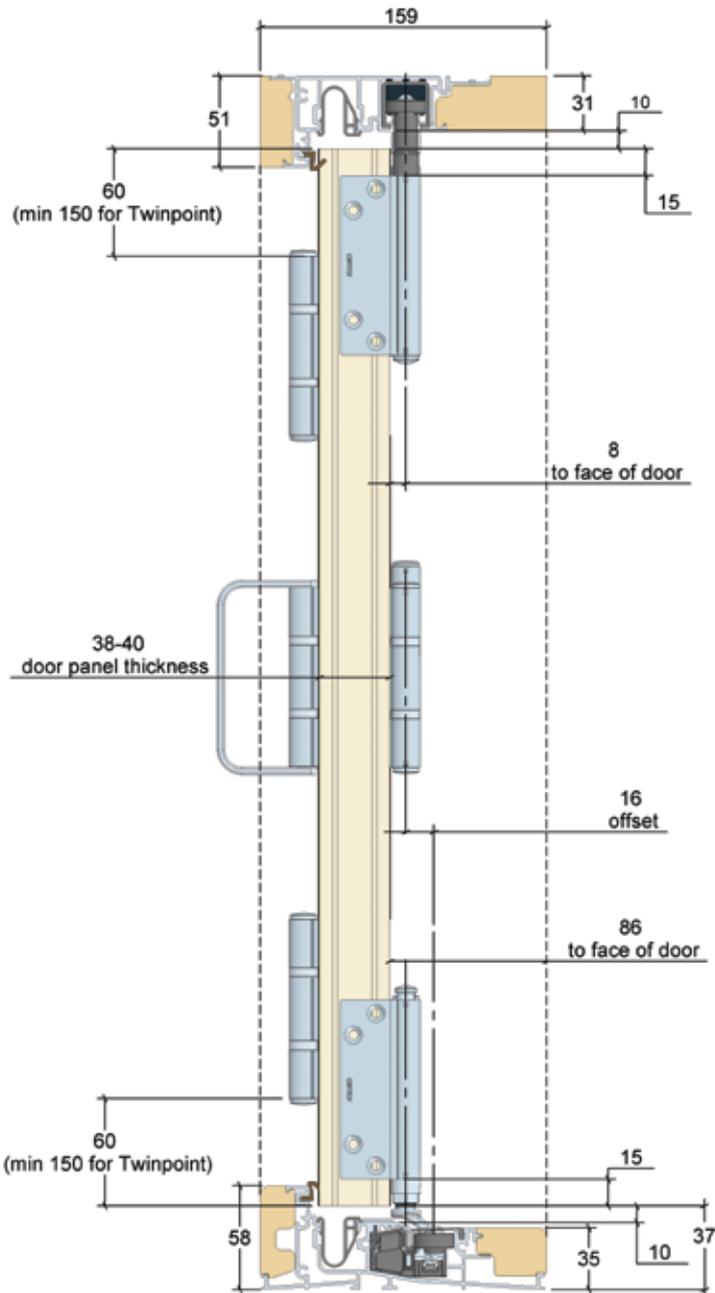


All sills are provided 130mm longer than required, with pivot cutouts at both ends. For single-ended configurations that do not require a second pivot cutout, cut off the non-pivot end to suit the opening size. For double-ended configurations, remove either end when cutting the sill to suit the opening size. To fix off the pivot block, drill two holes as shown. When installing the hardware, feed in the pivot end without the cutout first.



Architectural detail

Composite head and sill

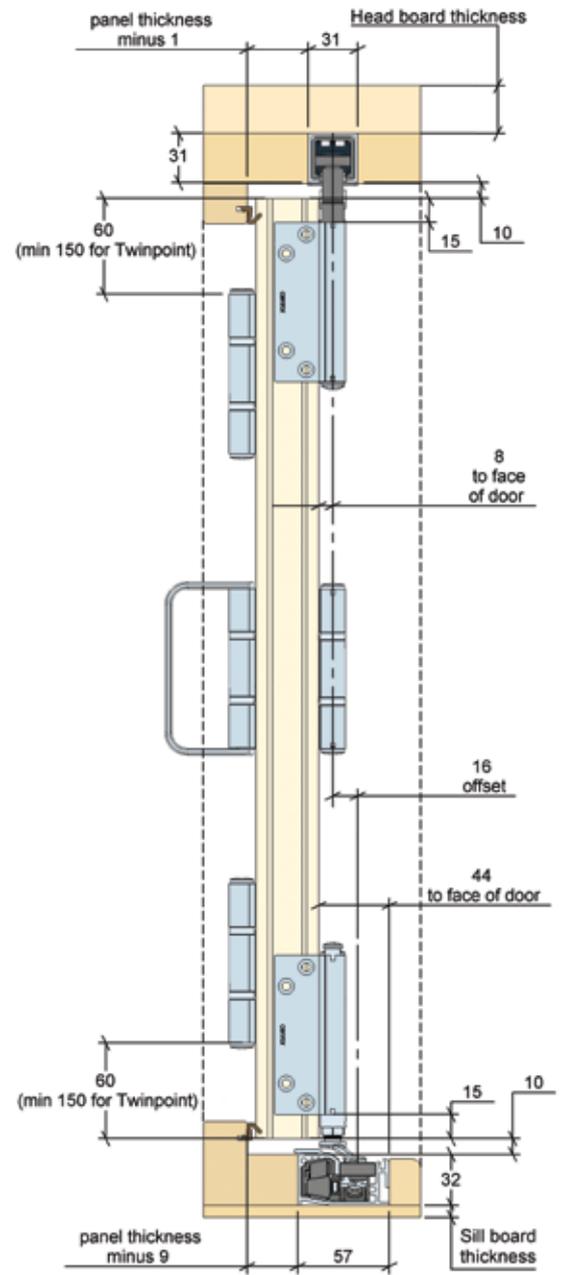


Perimeter seals according to panel thickness

| Panel thickness | Seal gap | Best fit seal |
|-----------------|----------|---------------|
| 38mm | 7 | AQ21 |
| 40mm | 5 | AQ21 |

Note: E4QLS can be used as an alternative to AQ21 on 38mm only.

Basic head and sill



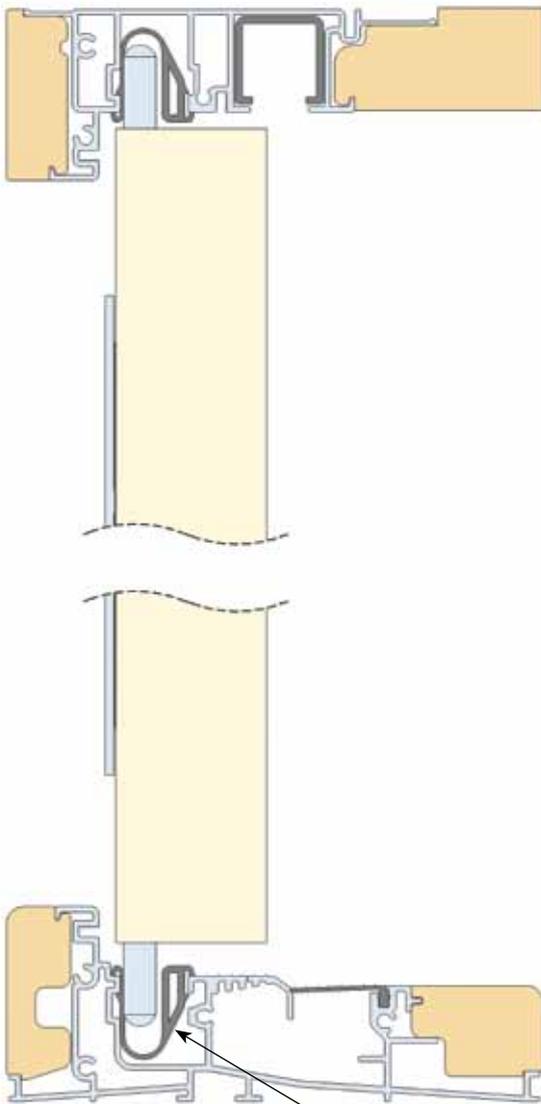
*dimensions are nominal

Note: minimum recommended perimeter seal gap = 5mm and AQ21 seal

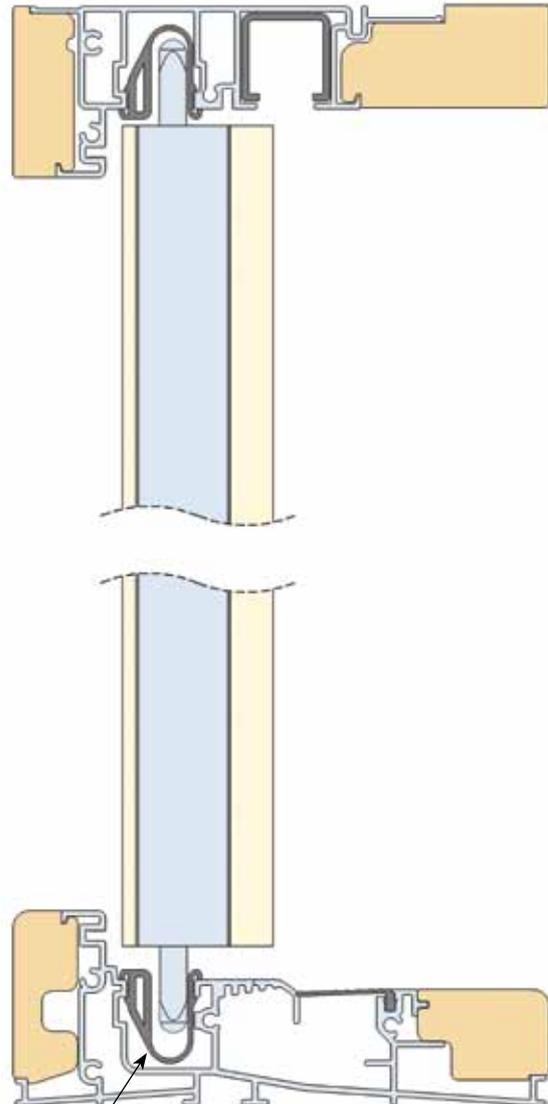
Architectural detail
Orientation of bolt channel

Dropbolts

| | |
|-----|--------------------------|
| DF | suitable for 38mm panels |
| DOt | suitable for 40mm panels |



Twinpoint Lock



Reverse bolt channel orientation

Component selection

F2 is specified with five separate groups:

- 1 **Head**
- 2 **Sill**
- 3 **Hardware**
- 4 **Weathersealing**
- 5 **Locking**

Components are required from all five groups to build an F2 folding door system.

Guide channel

| PART | PRODUCT CODE | DESCRIPTION |
|---|--------------|--|
|  | FRTPCS25P | 2630mm straight top guide channel, punched |
| | FRTPCS36P | 3730mm straight top guide channel, punched |
| | FRTPCS42P | 4330mm straight top guide channel, punched |
| | FRTPCS57P | 5830mm straight top guide channel, punched |

Head with guide channel

| PART | PRODUCT CODE | DESCRIPTION |
|---|--------------|---|
|  | FRAHS25N | 2630mm machined head track with guide channel, natural anodised |
| | FRAHS36N | 3730mm machined head track with guide channel, natural anodised |
| | FRAHS42N | 4330mm machined head track with guide channel, natural anodised |
| | FRAHS57N | 5830mm machined head track with guide channel, natural anodised |

Sill with seal

| PARTS | PRODUCT CODE | DESCRIPTION |
|---|--------------|--|
|  | FRSBMS25N | 2630mm machined sill with seal, natural anodised |
| | FRSBMS36N | 3730mm machined sill with seal, natural anodised |
| | FRSBMS42N | 4330mm machined sill with seal, natural anodised |
| | FRSBMS57N | 5830mm machined sill with seal, natural anodised |

Track seal

| PARTS | PRODUCT CODE | DESCRIPTION |
|---|--------------|-----------------------------|
|  | FRBTSSI20 | 20m roll bottom track seal |
| | FRBTSSI100 | 100m roll bottom track seal |

Bolt channel

| PART | PRODUCT CODE | DESCRIPTION |
|---|--------------|-----------------------------------|
|  | FRABCM25 | 2630mm bolt channel with drainage |
| | FRABCM36 | 3730mm bolt channel with drainage |
| | FRABCM42 | 4330mm bolt channel with drainage |
| | FRABCM57 | 5830mm bolt channel with drainage |

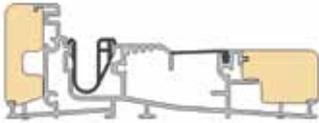
Component selection

Head – timber*

| PARTS | PRODUCT CODE | DESCRIPTION |
|---|--------------|--|
|  | FRAHT25NMER | 2630mm head with timber, natural anodised with meranti |
| | FRAHT25NNGR | 2630mm head with timber, natural anodised with new guinea rosewood |
| | FRAHT25NSRC | 2630mm head with timber, natural anodised with surian cedar |
| | FRAHT25NWRC | 2630mm head with timber, natural anodised with western red cedar |
| | FRAHT36NMER | 3730mm head with timber, natural anodised with meranti |
| | FRAHT36NNGR | 3730mm head with timber, natural anodised with new guinea rosewood |
| | FRAHT36NSRC | 3730mm head with timber, natural anodised with surian cedar |
| | FRAHT36NWRC | 3730mm head with timber, natural anodised with western red cedar |
| | FRAHT42NMER | 4330mm head with timber, natural anodised with meranti |
| | FRAHT42NNGR | 4330mm head with timber, natural anodised with new guinea rosewood |
| | FRAHT42NSRC | 4330mm head with timber, natural anodised with surian cedar |
| | FRAHT42NWRC | 4330mm head with timber, natural anodised with western red cedar |
| | FRAHT57NMER | 5830mm head with timber, natural anodised with meranti |
| | FRAHT57NNGR | 5830mm head with timber, natural anodised with new guinea rosewood |
| | FRAHT57NSRC | 5830mm head with timber, natural anodised with surian cedar |
| | FRAHT57NWRC | 5830mm head with timber, natural anodised with western red cedar |

*Includes bolt channel and guide channel.

Sill – timber*

| PARTS | PRODUCT CODE | DESCRIPTION |
|---|--------------|--|
|  | FRAST25NKWL | 2620mm sill with timber, natural anodised with kwila |
| | FRAST36NKWL | 3720mm sill with timber, natural anodised with kwila |
| | FRAST42NKWL | 4320mm sill with timber, natural anodised with kwila |
| | FRAST57NKWL | 5820mm sill with timber, natural anodised with kwila |
|  | FRATTSG | sill gasket for FRAS sill (pair) |

*Includes bolt channel, guide channel, gaskets and track seal.

Weatherseal

| PART | PRODUCT CODE | PART DESCRIPTION |
|---|--------------|---------------------------------------|
| Perimeter  | AQ21B | Aquamac 21 Schlegel Kerf seal, brown |
| | AQ21L | Aquamac 21 Schlegel Kerf seal, black |
| | AQ21W | Aquamac 21 Schlegel Kerf seal, white |
| Perimeter  | E4QLSB | Schlegel Q-Ion perimeter seal, brown |
| | E4QLSW | Schlegel Q-Ion perimeter seal, white |
| Panel to panel  | AQ63B | Aquamac 63 Schlegel Kerf seal, brown |
| | AQ63L | Aquamac 63 Schlegel Kerf seal, black |
| Access panel  | AQ109B | Aquamac 109 Schlegel Kerf seal, brown |
| | AQ109L | Aquamac 109 Schlegel Kerf seal, black |

Hardware selection

Right carrier set

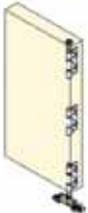
| PARTS | PARTS ON PANELS | PRODUCT CODE | DESCRIPTION |
|---|---|--------------|---|
|  |  | F2RCSS | right hand carrier set, stainless steel |
| | | F2RCSN | right hand carrier set, natural anodised |
| | | F2RCSPC* | right hand carrier set, custom powdercoat |

Left carrier set

| PARTS | PARTS ON PANELS | PRODUCT CODE | DESCRIPTION |
|---|---|--------------|--|
|  |  | F2LCSS | left hand carrier set, stainless steel |
| | | F2LCSN | left hand carrier set, natural anodised |
| | | F2LCSPC* | left hand carrier set, custom powdercoat |

* Longer lead times apply. Please contact Centor for details.

Intermediate carrier set

| PARTS | PARTS ON PANELS | PRODUCT CODE | DESCRIPTION |
|---|---|--------------|---|
|  |  | F2ICSS | intermediate carrier set, stainless steel |
| | | F2ICSN | intermediate carrier set, natural anodised |
| | | F2ICSPC* | intermediate carrier set, custom powdercoat |

Fourth hinge recommended for doors over 2250mm. Use either E22HNH* or E22H*

* Longer lead times apply. Please contact Centor for details.

Hardware selection

Pivot set

| PARTS | PARTS ON PANELS | PRODUCT CODE | DESCRIPTION |
|---|---|--------------|------------------------------|
|  |  | F2PSS | pivot set, stainless steel |
| | | F2PSN | pivot set, natural anodised |
| | | F2PSPC* | pivot set, custom powdercoat |

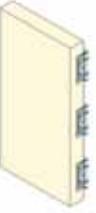
* Longer lead times apply. Please contact Centor for details.

Wall pivot

| PARTS | PARTS ON PANELS | PRODUCT CODE | DESCRIPTION |
|--|--|--------------|--------------------------------|
|  |  | E22WPSS | wall pivot, stainless steel |
| | | E22WPSN | wall pivot, natural anodised |
| | | E22WPSPC* | wall pivot, custom powdercoat* |

* Longer lead times apply. Please contact Centor for details.

Hinge set

| PARTS | PARTS ON PANELS | PRODUCT CODE | DESCRIPTION |
|--|---|--------------|--|
| <p>With handle for outward doors</p>  |  | E22HSS | hinge set with handle, stainless steel |
| | | E22HSNN | hinge set with handle, natural anodised |
| | | E22HSPC* | hinge set with handle, custom powdercoat |
| <p>Without handle for inward doors</p>  |  | E22HNHSS | hinge set no handle, stainless steel |
| | | E22HNHSN | hinge set no handle, natural anodised |
| | | E22HNHSPC* | hinge set no handle, custom powdercoat |

* Longer lead times apply. Please contact Centor for details.

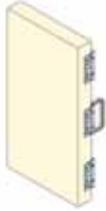
Hardware selection

Single hinge

| PARTS | PRODUCT CODE | DESCRIPTION |
|---|--------------|--|
|  | E22HNHS | single straight hinge, stainless steel |
| | E22HNHN | single straight hinge, natural anodised |
| | E22HNHPC* | single straight hinge, custom powdercoat |
|  | E22HS | single straight hinge with handle, stainless steel |
| | E22HN | single straight hinge with handle, natural anodised |
| | E22HPC* | single straight hinge with handle, custom powdercoat |

* Longer lead times apply. Please contact Centor for details.

Half offset hinge set

| PARTS | PARTS ON PANELS | PRODUCT CODE | DESCRIPTION |
|--|---|--------------|--|
| <p>With handle for outward doors</p>  |  | E22HHSS | half offset hinge set with handle, stainless steel |
| | | E22HHSN | half offset hinge set with handle, natural anodised |
| | | E22HHSPC* | half offset hinge set with handle, custom powdercoat |
| <p>Without handle for inward doors</p>  |  | E22HHNHSS | half offset hinge set no handle, stainless steel |
| | | E22HHNHSN | half offset hinge set no handle, natural anodised |
| | | E22HHNHSPC* | half offset hinge set no handle, custom powdercoat |

* Longer lead times apply. Please contact Centor for details.

Hardware selection

Single half offset hinge

| PARTS | PRODUCT CODE | DESCRIPTION |
|---|--------------|---|
|  | E22HHNHS | single half offset hinge, stainless steel |
| | E22HHNHN | single half offset hinge, natural anodised |
| | E22HHNHPC* | single half offset hinge, custom powdercoat |
|  | E22HHS | single half offset hinge with handle, stainless steel |
| | E22HHN | single half offset hinge with handle, natural anodised |
| | E22HHPC* | single half offset hinge with handle, custom powdercoat |

* Longer lead times apply. Please contact Centor for details.

External handle

| PARTS | PARTS ON PANELS | PRODUCT CODE | DESCRIPTION |
|---|---|--------------|-----------------------------------|
|  |  | E22EHS | external handle, stainless steel |
| | | E22EHN | external handle, natural anodised |
| single hinge with handle for outward and inward application | | | |

Internal handle

| PARTS | PARTS ON PANELS | PRODUCT CODE | DESCRIPTION |
|---|---|--------------|---------------------------------------|
|  |  | DF1PHS | internal pull handle, stainless steel |

Door catch

| PART | PRODUCT CODE | DESCRIPTION |
|---|--------------|-------------------------------------|
|  | DCAS | door catch, brushed stainless steel |
| | DCAIG | door catch, PVD brass |
| | DCAOL | door catch, PVD bronze |

Door size calculator

To calculate the dimensions of the doors or openings we strongly recommend using Centor's "Doorcalc" program, which is a Microsoft Excel spreadsheet. To manually calculate door sizing for an opening, follow these steps:

- 1 Prepare a basic sketch of your door opening (see worked example) to visualise clearances and check sizes.
- 2 The calculation is based on all panels being equal width, using half-offset hinges. Note that the allowance between each panel is 4mm although hinge thickness is less – this allowance has been determined by consultation with fabricators as the best approximation for calculation. Clearance between hinges and hinge pins, coupled with the pressure from compression seals accounts for the allowance being larger than the nominal hinge flap thickness.

3 Recommended clearances are as follows;

- Jamb to panel (door closed) 7mm
- Panel to panel (door closed) 4mm
- Top of panel to head 10mm
- Bottom of panel to sill 10mm

| | |
|------------------------|--|
| 4 Panel width | W |
| Opening width | L |
| Total number of panels | N |
| Panel width is: | $\frac{W = L - 14 - (4 \times (N - 1))^{**}}{N}$ |

Worked Examples

Clear opening size 2425 high x 4200 wide (L), and a 3L x 2R arrangement.

$$\frac{W = 4200 - 14 - (4 \times (5 - 1))}{5}$$

$$W = 834\text{mm}$$

Check against your door layout:

$$L = 2(7.0) + 4(4) + 5(834) = 4200 \text{ (OK)}$$

The panel height is the opening height less the nominal top and bottom clearances:

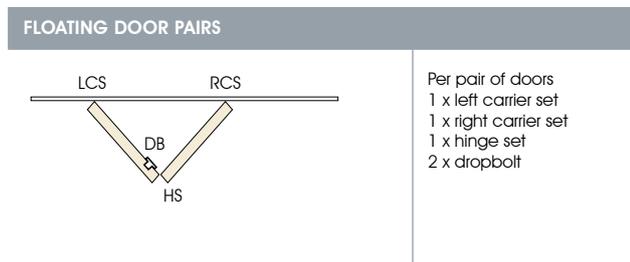
$$\text{Panel Height } H = 2425 - 10 - 10 = 2405\text{mm}$$

**** Note: for even sets, eg 2L2R or 4L2R, the meeting gap would be larger – double seals are used to close the gap.**

$$\frac{W = L - 14 - (4 \times N)}{N}$$

Common panel layouts

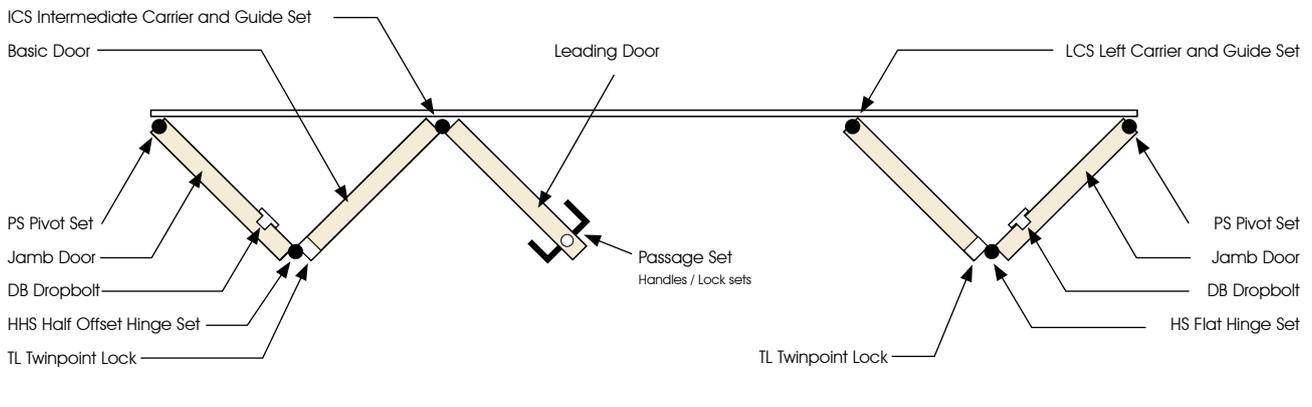
| HARDWARE LEGEND | |
|-------------------------------------|----------------------------------|
| PS pivot set | HHS half offset hinge set |
| WPS wall pivot set | HS hinge set (flat) |
| ICS intermediate carrier set | EH external handle |
| LCS left carrier set | DB dropbolt |
| RCS right carrier set | TL twinpoint lock |



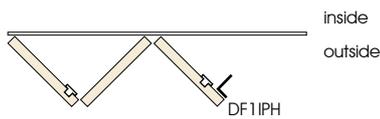
| LEGEND | |
|------------------------------------|--|
| Passage set Handles / lock sets | |
| Dropbolts top and bottom | |
| Twinpoint lock | |

Note> Wall Pivot Set recommended for doors over 2250mm in height.

HARDWARE APPLICATION (3L2R)



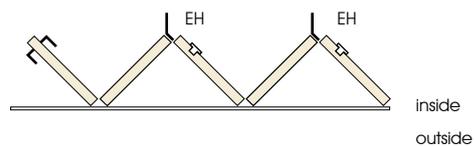
OUTWARD APPLICATION INTERNAL HANDLE OPTION



Use one internal pull handle on exit door (outward system) where passage set / lock not required. Use dropbolts top and bottom to lock door from the inside only.

Note> Exit door not accessible from exterior in this application.

INWARD APPLICATION EXTERIOR HANDLE OPTION



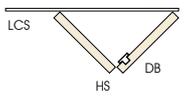
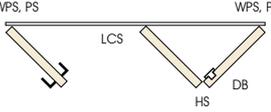
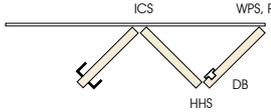
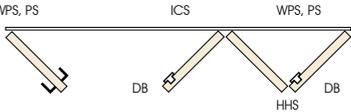
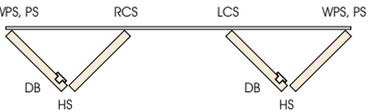
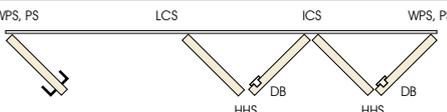
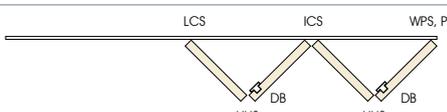
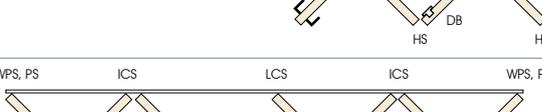
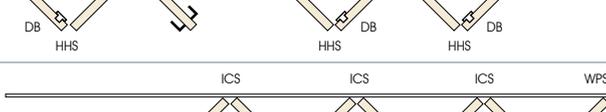
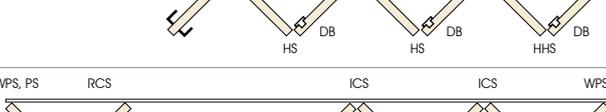
Use one exterior handle on each pair of doors (inward system) to pull open and close doors

Common panel layouts / Dropbolts

| CODE | OPENING CONFIGURATION | HARDWARE |
|------|---|---|
| 2L | <p>inside WPS, PS not accessible from exterior</p> <p>outside</p> | <ul style="list-style-type: none"> 1 x pivot set (PS) 1 x wall pivot set* (WPS) 1 x right carrier set (RCS) 1 x hinge set (HS) 2 x dropbolt (DB) |
| 2L1R | <p>inside WPS, PS WPS, PS</p> <p>outside</p> | <ul style="list-style-type: none"> 2 x pivot set (PS) 2 x wall pivot set* (WPS) 1 x right carrier set (RCS) 1 x hinge set (HS) 2 x dropbolt (DB) |
| 3L | <p>inside WPS, PS ICS</p> <p>outside</p> | <ul style="list-style-type: none"> 1 x pivot set (PS) 1 x wall pivot set* (WPS) 1 x intermediate carrier set (ICS) 1 x half offset hinge set (HHS) 2 x dropbolt (DB) |
| 3L1R | <p>inside WPS, PS ICS WPS, PS</p> <p>outside</p> | <ul style="list-style-type: none"> 2 x pivot set (PS) 2 x wall pivot set* (WPS) 1 x intermediate carrier set (ICS) 1 x half offset hinge set (HHS) 4 x dropbolt (DB) |
| 4L | <p>inside WPS, PS ICS RCS not accessible from exterior</p> <p>outside</p> | <ul style="list-style-type: none"> 1 x pivot set (PS) 1 x wall pivot set* (WPS) 1 x intermediate carrier set (ICS) 1 x right carrier set (RCS) 2 x half offset hinge set (HHS) 4 x dropbolt (DB) |
| 4L1R | <p>inside WPS, PS ICS WPS, PS</p> <p>outside</p> | <ul style="list-style-type: none"> 2 x pivot set (PS) 2 x wall pivot set* (WPS) 1 x intermediate carrier set (ICS) 1 x right carrier set (RCS) 2 x half offset hinge set (HHS) 4 x dropbolt (DB) |
| 3L2R | <p>inside WPS, PS ICS WPS, PS</p> <p>outside</p> | <ul style="list-style-type: none"> 2 x pivot set (PS) 2 x wall pivot set* (WPS) 1 x intermediate carrier set (ICS) 1 x left carrier set (LCS) 1 x hinge set (HS) 1 x half offset hinge set (HHS) 4 x dropbolt (DB) |
| 5L | <p>inside WPS, PS ICS ICS</p> <p>outside</p> | <ul style="list-style-type: none"> 1 x pivot set (PS) 1 x wall pivot set* (WPS) 2 x intermediate carrier set (ICS) 1 x hinge set (HS) 1 x half offset hinge set (HHS) 4 x dropbolt (DB) |
| 3L3R | <p>inside WPS, PS ICS ICS WPS, PS</p> <p>outside</p> | <ul style="list-style-type: none"> 2 x pivot set (PS) 2 x wall pivot set* (WPS) 2 x intermediate carrier set (ICS) 2 x half offset hinge set (HHS) 6 x dropbolt (DB) |
| 7L | <p>inside WPS, PS ICS ICS ICS</p> <p>outside</p> | <ul style="list-style-type: none"> 1 x pivot set (PS) 1 x wall pivot set* (WPS) 3 x intermediate carrier set (ICS) 2 x hinge set (HS) 1 x half offset hinge set (HHS) 6 x dropbolt (DB) |
| 4L3R | <p>inside WPS, PS ICS RCS ICS WPS, PS</p> <p>outside</p> | <ul style="list-style-type: none"> 2 x pivot set (PS) 2 x wall pivot set* (WPS) 2 x intermediate carrier set (ICS) 1 x right carrier set (RCS) 3 x half offset hinge set (HHS) 6 x dropbolt (DB) |
| 5L2R | <p>inside WPS, PS ICS ICS LCS WPS, PS</p> <p>outside</p> | <ul style="list-style-type: none"> 2 x pivot set (PS) 2 x wall pivot set* (WPS) 2 x intermediate carrier set (ICS) 1 x left carrier set (LCS) 2 x hinge set (HS) 1 x half offset hinge set (HHS) 6 x dropbolt (DB) |
| 5L3R | <p>inside WPS, PS ICS ICS ICS WPS, PS</p> <p>outside</p> | <ul style="list-style-type: none"> 2 x pivot set (PS) 2 x wall pivot set* (WPS) 3 x intermediate carrier set (ICS) 1 x hinge set (HS) 2 x half offset hinge set (HHS) 8 x dropbolt (DB) |

* Wall Pivot Set recommended for doors over 2250mm

Common panel layouts / Dropbolts

| CODE | OPENING CONFIGURATION | HARDWARE |
|------|--|--|
| 2R | <p>inside PS, WPS not accessible from exterior</p> <p>outside LCS DB HS</p>  | <ul style="list-style-type: none"> 1 x pivot set (PS) 1 x wall pivot set* (WPS) 1 x left carrier set (LCS) 1 x hinge set (HS) 2 x dropbolt (DB) |
| 1L2R | <p>inside WPS, PS WPS, PS</p> <p>outside LCS DB HS</p>  | <ul style="list-style-type: none"> 2 x pivot set (PS) 2 x wall pivot set* (WPS) 1 x left carrier set (LCS) 1 x hinge set (HS) 2 x dropbolt (DB) |
| 3R | <p>inside ICS WPS, PS</p> <p>outside DB HS</p>  | <ul style="list-style-type: none"> 1 x pivot set (PS) 1 x wall pivot set* (WPS) 1 x intermediate carrier set (ICS) 1 x half offset hinge set (HHS) 2 x dropbolt (DB) |
| 1L3R | <p>inside WPS, PS ICS WPS, PS</p> <p>outside DB HS DB</p>  | <ul style="list-style-type: none"> 2 x pivot set (PS) 2 x wall pivot set* (WPS) 1 x intermediate carrier set (ICS) 1 x half offset hinge set (HHS) 4 x dropbolt (DB) |
| 2L2R | <p>inside WPS, PS RCS LCS WPS, PS not accessible from exterior</p> <p>outside DB HS DB HS Note: On even panel configurations where a left and right carrier meet (e.g. 2L/2R, 4L/2R) the gap between the panels will be 8mm, and will therefore need weather seals on both panels.</p>  | <ul style="list-style-type: none"> 2 x pivot set (PS) 2 x wall pivot set* (WPS) 1 x right carrier set (RCS) 1 x left carrier set (LCS) 2 x hinge set (HS) 4 x dropbolt (DB) |
| 1L4R | <p>inside WPS, PS LCS ICS WPS, PS</p> <p>outside DB HS DB HS</p>  | <ul style="list-style-type: none"> 2 x pivot set (PS) 2 x wall pivot set* (WPS) 1 x intermediate carrier set (ICS) 1 x left carrier set (LCS) 2 x half offset hinge set (HHS) 4 x dropbolt (DB) |
| 4R | <p>inside LCS ICS WPS, PS</p> <p>outside DB HS DB HS</p>  | <ul style="list-style-type: none"> 1 x pivot set (PS) 1 x wall pivot set* (WPS) 1 x intermediate carrier set (ICS) 1 x left carrier set (LCS) 2 x half offset hinge set (HHS) 4 x dropbolt (DB) |
| 2L3R | <p>inside WPS, PS RCS ICS WPS, PS</p> <p>outside DB HS DB HS</p>  | <ul style="list-style-type: none"> 2 x pivot set (PS) 2 x wall pivot set* (WPS) 1 x intermediate carrier set (ICS) 1 x right carrier set (RCS) 1 x hinge set (HS) 1 x half offset hinge set (HHS) 4 x dropbolt (DB) |
| 5R | <p>inside ICS ICS WPS, PS</p> <p>outside DB HS HHS</p>  | <ul style="list-style-type: none"> 1 x pivot set (PS) 1 x wall pivot set* (WPS) 2 x intermediate carrier set (ICS) 1 x hinge set (HS) 1 x half offset hinge set (HHS) 4 x dropbolt (DB) |
| 3L4R | <p>inside WPS, PS ICS LCS ICS WPS, PS</p> <p>outside DB HHS DB HHS DB HHS</p>  | <ul style="list-style-type: none"> 2 x pivot set (PS) 2 x wall pivot set* (WPS) 2 x intermediate carrier set (ICS) 1 x left carrier set (LCS) 3 x half offset hinge set (HHS) 6 x dropbolt (DB) |
| 7R | <p>inside ICS ICS ICS WPS, PS</p> <p>outside DB HS DB HS DB HHS</p>  | <ul style="list-style-type: none"> 1 x pivot set (PS) 1 x wall pivot set* (WPS) 3 x intermediate carrier set (ICS) 2 x hinge set (HS) 1 x half offset hinge set (HHS) 6 x dropbolt (DB) |
| 2L5R | <p>inside WPS, PS RCS ICS ICS WPS, PS</p> <p>outside DB HS DB HS HHS</p>  | <ul style="list-style-type: none"> 2 x pivot set (PS) 2 x wall pivot set* (WPS) 2 x intermediate carrier set (ICS) 1 x right carrier set (RCS) 2 x hinge set (HS) 1 x half offset hinge set (HHS) 6 x dropbolt (DB) |
| 8R | <p>inside LCS ICS ICS ICS WPS, PS not accessible from exterior</p> <p>outside DB HS DB HS DB HHS</p>  | <ul style="list-style-type: none"> 1 x pivot set (PS) 1 x wall pivot set* (WPS) 3 x intermediate carrier set (ICS) 1 x left carrier set (LCS) 2 x hinge set (HS) 2 x half offset hinge set (HHS) 8 x dropbolt (DB) |

* Wall Pivot Set recommended for doors over 2250mm

Common panel layouts / Twinpoint lock

| CODE | OPENING CONFIGURATION | HARDWARE |
|------|-----------------------|---|
| 2L | | <ul style="list-style-type: none"> 1 x pivot set (PS) 1 x wall pivot set* (WPS) 1 x right carrier set (RCS) 1 x hinge set (HS) 1 x twinpoint lock (TL) |
| 2L1R | | <ul style="list-style-type: none"> 2 x pivot set (PS) 2 x wall pivot set* (WPS) 1 x right carrier set (RCS) 1 x hinge set (HS) 1 x twinpoint lock (TL) |
| 3L | | <ul style="list-style-type: none"> 1 x pivot set (PS) 1 x wall pivot set* (WPS) 1 x intermediate carrier set (ICS) 1 x half offset hinge set (HHS) 1 x twinpoint lock (TL) |
| 3L1R | | <ul style="list-style-type: none"> 2 x pivot set (PS) 2 x wall pivot set* (WPS) 1 x intermediate carrier set (ICS) 1 x half offset hinge set (HHS) 1 x twinpoint lock (TL) |
| 4L | | <ul style="list-style-type: none"> 1 x pivot set (PS) 1 x wall pivot set* (WPS) 1 x intermediate carrier set (ICS) 1 x right carrier set (RCS) 2 x half offset hinge set (HHS) 2 x twinpoint lock (TL) |
| 4L1R | | <ul style="list-style-type: none"> 2 x pivot set (PS) 2 x wall pivot set* (WPS) 1 x intermediate carrier set (ICS) 1 x right carrier set (RCS) 2 x half offset hinge set 2 x twinpoint lock (TL) |
| 3L2R | | <ul style="list-style-type: none"> 2 x pivot set (PS) 2 x wall pivot set* (WPS) 1 x intermediate carrier set (ICS) 1 x left carrier set 1 x hinge set (HS) 1 x half offset hinge set (HHS) 2 x twinpoint lock (TL) |
| 5L | | <ul style="list-style-type: none"> 1 x pivot set (PS) 1 x wall pivot set* (WPS) 2 x intermediate carrier set (ICS) 1 x hinge set (HS) 1 x half offset hinge set (HHS) 2 x twinpoint lock (TL) |
| 3L3R | | <ul style="list-style-type: none"> 2 x pivot set (PS) 2 x wall pivot set* (WPS) 2 x intermediate carrier set (ICS) 2 x half offset hinge set (HHS) 2 x twinpoint lock (TL) |
| 7L | | <ul style="list-style-type: none"> 1 x pivot set (PS) 1 x wall pivot set* (WPS) 3 x intermediate carrier set (ICS) 2 x hinge set (HS) 1 x half offset hinge set (HHS) 3 x twinpoint lock (TL) |
| 4L3R | | <ul style="list-style-type: none"> 2 x pivot set (PS) 2 x wall pivot set* (WPS) 2 x intermediate carrier set (ICS) 1 x right carrier set (RCS) 3 x half offset hinge set (HHS) 3 x twinpoint lock (TL) |
| 5L2R | | <ul style="list-style-type: none"> 2 x pivot set (PS) 2 x wall pivot set* (WPS) 2 x intermediate carrier set (ICS) 1 x left carrier set 2 x hinge set (HS) 1 x half offset hinge set (HHS) 3 x twinpoint lock (TL) |
| 5L3R | | <ul style="list-style-type: none"> 2 x pivot set (PS) 2 x wall pivot set* (WPS) 3 x intermediate carrier set (ICS) 1 x hinge set (HS) 2 x half offset hinge set (HHS) 3 x twinpoint lock (TL) |

* Wall Pivot Set recommended for doors over 2250mm high

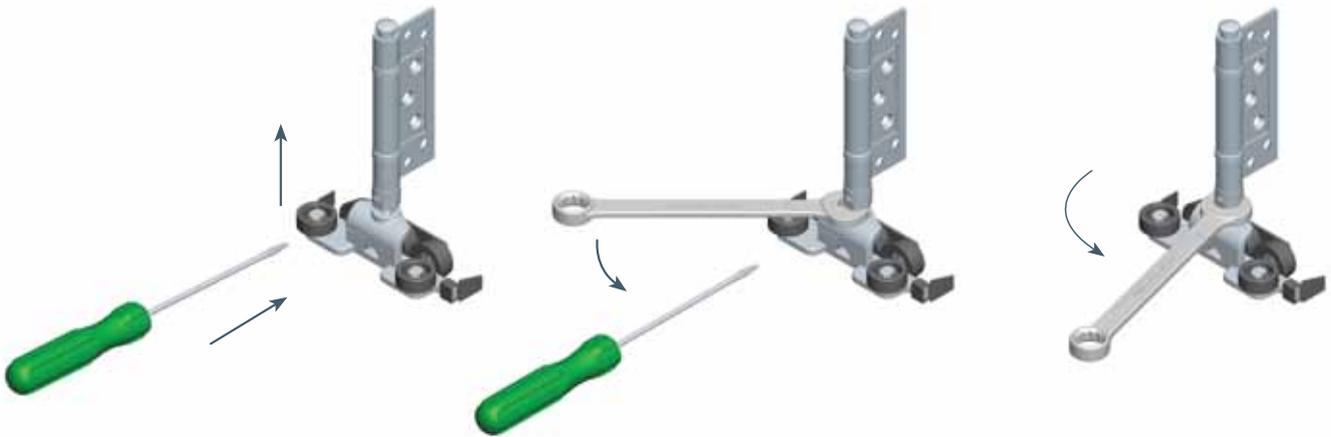
Common panel layouts / Twinpoint lock

| CODE | OPENING CONFIGURATION | HARDWARE |
|------|--|--|
| 2R | <p>inside PS, WPS not accessible from exterior</p> <p>outside LCS</p> | 1 x pivot set (PS) 1 x wall pivot set* (WPS) 1 x left carrier set (LCS) 1 x hinge set (HS) 1 x twinpoint lock (TL) |
| 1L2R | <p>inside WPS, PS</p> <p>outside LCS</p> | 2 x pivot set (PS) 2 x wall pivot set* (WPS) 1 x left carrier set (LCS) 1 x hinge set (HS) 1 x twinpoint lock (TL) |
| 3R | <p>inside ICS WPS, PS</p> <p>outside</p> | 1 x pivot set (PS) 1 x wall pivot set* (WPS) 1 x intermediate carrier set (ICS) 1 x half offset hinge set (HHS) 1 x twinpoint lock (TL) |
| 1L3R | <p>inside WPS, PS ICS WPS, PS</p> <p>outside</p> | 2 x pivot set (PS) 1 x wall pivot set* (WPS) 1 x intermediate carrier set (ICS) 1 x half offset hinge set (HHS) 1 x twinpoint lock (TL) |
| 2L2R | <p>inside WPS, PS RCS LCS WPS, PS not accessible from exterior</p> <p>outside</p> | 2 x pivot set (PS) 2 x wall pivot set* (WPS) 1 x right carrier set (RCS) 1 x left carrier set (LCS) 2 x hinge set (HS) 2 x twinpoint lock (TL) |
| 1L4R | <p>inside WPS, PS LCS ICS WPS, PS</p> <p>outside</p> | 2 x pivot set (PS) 2 x wall pivot set* (WPS) 1 x intermediate carrier set (ICS) 1 x left carrier set (LCS) 2 x half offset hinge set (HHS) 2 x twinpoint lock (TL) |
| 4R | <p>inside LCS ICS WPS, PS</p> <p>outside</p> | 1 x pivot set (PS) 1 x wall pivot set* (WPS) 1 x intermediate carrier set (ICS) 1 x left carrier set (LCS) 2 x half offset hinge set (HHS) 2 x twinpoint lock (TL) |
| 2L3R | <p>inside WPS, PS RCS ICS WPS, PS</p> <p>outside</p> | 2 x pivot set (PS) 2 x wall pivot set* (WPS) 1 x intermediate carrier set (ICS) 1 x right carrier set (RCS) 1 x hinge set (HS) 1 x half offset hinge set (HHS) 2 x twinpoint lock (TL) |
| 5R | <p>inside ICS ICS WPS, PS</p> <p>outside</p> | 1 x pivot set (PS) 1 x wall pivot set* (WPS) 2 x intermediate carrier set (ICS) 1 x hinge set (HS) 1 x half offset hinge set (HHS) 2 x twinpoint lock (TL) |
| 3L4R | <p>inside WPS, PS ICS LCS ICS WPS, PS</p> <p>outside</p> | 2 x pivot set (PS) 2 x wall pivot set* (WPS) 2 x intermediate carrier set (ICS) 1 x left carrier set (LCS) 3 x half offset hinge set (HHS) 3 x twinpoint lock (TL) |
| 7R | <p>inside ICS ICS ICS WPS, PS</p> <p>outside</p> | 1 x pivot set (PS) 1 x wall pivot set* (WPS) 3 x intermediate carrier set (ICS) 2 x hinge set (HS) 1 x half offset hinge set (HHS) 3 x twinpoint lock (TL) |
| 2L5R | <p>inside WPS, PS RCS ICS ICS WPS, PS</p> <p>outside</p> | 2 x pivot set (PS) 2 x wall pivot set* (WPS) 2 x intermediate carrier set (ICS) 1 x right carrier set (RCS) 2 x hinge set (HS) 1 x half offset hinge set (HHS) 3 x twinpoint lock (TL) |
| 8R | <p>inside LCS ICS ICS ICS WPS, PS</p> <p>outside</p> <p>not accessible from exterior</p> | 1 x pivot set (PS) 1 x wall pivot set* (WPS) 3 x intermediate carrier set (ICS) 1 x left carrier set (LCS) 2 x hinge set (HS) 2 x half offset hinge set (HHS) 4 x twinpoint lock (TL) |

* Wall Pivot Set recommended for doors over 2250mm high

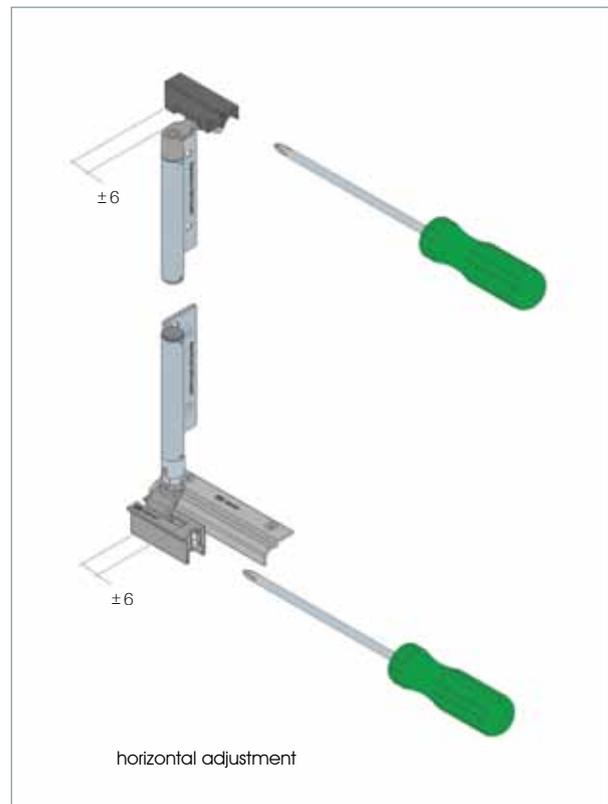
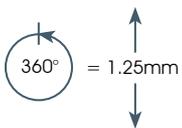
Surelock 4™ adjustment

Surelock 4™ is Centor's patented carrier pin locking system which ensures that once door heights are set at the top pivots, intermediate and end carriers, they stay set!

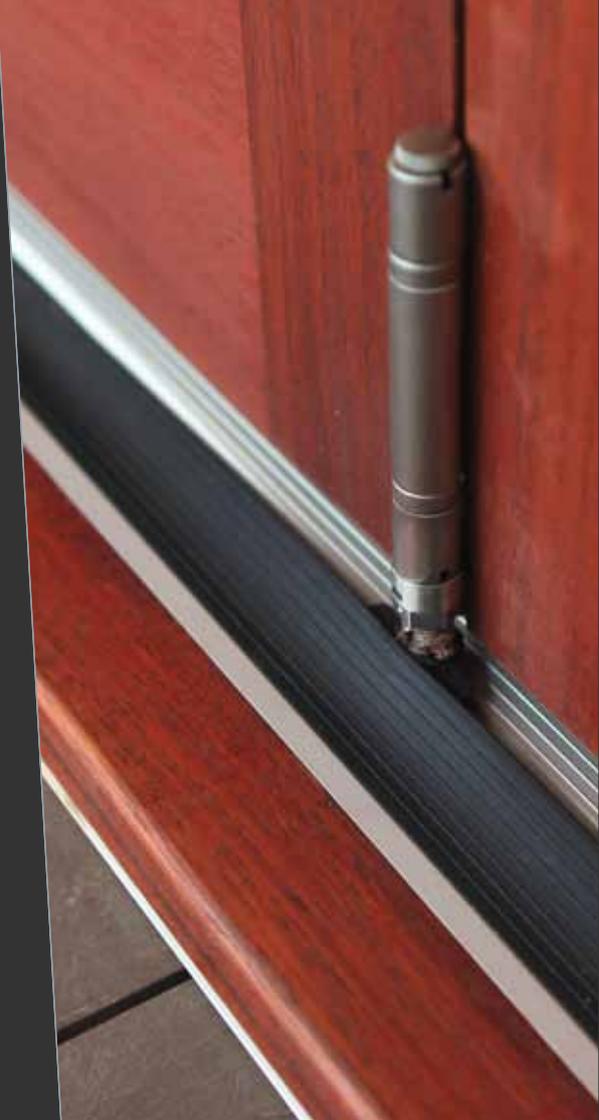


Using Surelock 4™ is simple

- 1 Insert a small flat blade screwdriver into slot and lift the slider.
- 2 With the slider lifted start the adjustment using a 14mm spanner on the adjustment nut.
- 3 Turn the adjustment nut a full revolution until it automatically locks back in place.
- 4 Repeat if necessary (maximum adjustment +/- 5mm).



While every effort has been made to ensure the accuracy of the information in this publication, Centor assumes no responsibility for errors or omissions or any consequences of reliance solely on this publication.



Centor Australia Pty Ltd | ABN 96 009 716 189

telephone 1300 CENTOR (1300 236 867)

facsimile 1300 CENFAX (1300 236 329)

mail@centor.com.au | www.centor.com.au

222-100-030-001

BRISBANE

**Centor Australia Pty Ltd
Head Office & Factory**

997 Kingsford Smith Drive
PO Box 1550
Eagle Farm QLD 4009

SYDNEY

Centor Australia Pty Ltd

Unit 1/5 Merryvale Road
Minto NSW 2566

MELBOURNE

Centor Australia Pty Ltd

Suite G03/12 Corporate Drive
Moorabbin VIC 3189

ADELAIDE

Centor Australia Pty Ltd

34 Fullarton Road
Norwood SA 5067

PERTH

Centor Australia Pty Ltd Unit

5b, 151 Herdsman Parade
Wembley WA 6014

TASMANIA

Launceston

Access Hardware Pty Ltd

12 Goodman Court
Launceston TAS 7248
telephone +61 3 6324 4900
facsimile +61 3 6324 4901

Hobart

Access Hardware Pty Ltd

21 Brisbane Street
Hobart TAS 7000
telephone +61 3 6235 9000
facsimile +61 3 6235 9001

centor®