

# centor ARCHITECTURAL

E4 bifolding door hardware system for panels to 350lb



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# Creating Seamless Transitions

E4 is a heavy-duty bifolding door hardware system for panels to 265lb (120kg) – Centor Architectural’s most generously proportioned solution to the challenge increasingly being put to the window and door industry – how to create truly seamless transitions between indoor and outdoor spaces. E4 is suitable for a range of larger residential and commercial applications which exceed the capacity of the medium E2 and medium-heavy E3 in terms of both panel weight and size.



## E4 Specifications

**max panel weight** 350lbs (160kg) each

**max panel width** 4' 3" (1300mm)

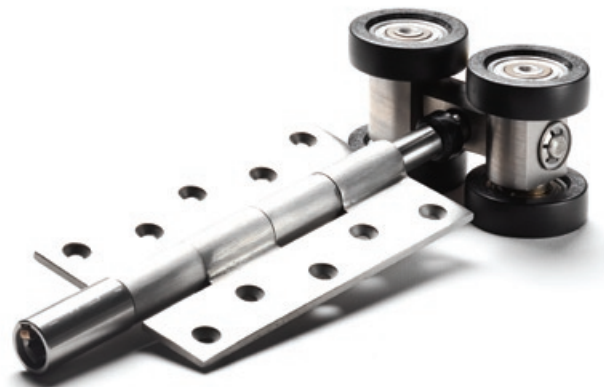
**max panel height** 13'1" (4000mm)

### door thickness

- a) 1 3/4" and 2 1/4" (44.45 or over 57.15mm) when using E4 sill system
- b) 1 3/8" to 3" (34.9 to 76.2mm) when using floor channel

**maximum number of doors** 8 each direction (57ft opening)

Note> When using maximum door width and height 4' 3" x 13'1" (1300mm to 4000mm) door may exceed maximum door weight of 350lbs (160 kg). Calculated weight check should be done.



CENTOR'S E4 INTERMEDIATE CARRIER – STRONG SILENT EFFICIENCY WHERE YOU NEED IT MOST

## Imagine The Possibilities

Business or pleasure, E4 means entertainment without the interruption of conventional sliding or hinged doors, views which become vistas, breezes when you please! Over the past decade Centor Architectural's groundbreaking exterior bifolding window and door technology has caused a worldwide revolution in window and door installation.



CENTOR'S BIFOLD HARDWARE PROVIDES THE FLEXIBILITY DEMANDED BY MODERN DESIGN

E4 sets new standards for functional, stylish ways of bringing the outdoors in. Its massive weight-bearing capacity means the sturdiest frame materials and double glazing can be used and openings of unprecedented width and height are possible. E4 can be relied upon to add flair and flexibility to the widest range of applications, from large private residences to the most ambitious store front, restaurant or commercial project. One moment bifolding doors are acting as an effective, secure barrier from rain, wind and noise. The next they're effortlessly moved aside to reveal wide open space – with no fixed glass panels, mullions or posts and no obtrusive door sill, just a recessed track in the floor. Engineered to withstand the most severe weather E4 can be just as suited to indoor use, or where exterior doors are needed between a sun room and the main structure.

The benefits to the end-user in flexibly managing their space to suit lifestyle or business have created an overwhelming demand for the Centor's bifold systems – literally changing the face of contemporary design. With E4 Centor has widened the scope even further. Applications are surely only limited by the imaginations of the world's most progressive architects and designers.

# CREATING SPACE



## High Performance System

Environment, operational function, durability; painstaking attention to detail and unerring commitment to quality mean the Centor's bifolding systems achieve 'Centor-grade' performance – whatever the category. Notwithstanding the grand scale of doors utilizing E4, the system allows for an unparalleled feeling of control and comfort, matching the easy flexibility demanded by modern design.

### UNCOMPROMISED INTERNAL ENVIRONMENT

E4 is truly a system for all seasons and all locations. E4 hardware, teamed with quality door panels, creates a formidable barrier against the elements when closed. The integrity of the required internal environment is never compromised.

#### Rain and Wind

A door using Centor's bifold system was the first tracked bifolding door system to be successfully certified against Australian Standard AS2047, which specifies the performance required of external windows and sliding doors, in particular for resistance to rain and wind. Many door manufacturing clients in Australia, Canada and the United States have tested doors using Centor's systems to their relevant local standards. Doors utilizing the E4 system have since been certified to stringent **Miami Dade County** hurricane standards, the toughest testing anywhere in the world. Impressive water performance ratings are achievable from both outward and inward opening doors. Driving rain and howling gales can be shut out completely.

#### Air Infiltration

The system achieves its superior rain and wind resistance in part from the way it allows the folding doors to close snugly against weather seals. In the same way doors using the E4 system effectively resist air infiltration to a level up to 50 times better than a sliding door.

#### Noise and Temperature

With double glazing allowed for by E4's impressive panel weight capacity unprecedented insulation against noise and temperature variation is possible.

#### Effortless Operation

While E4's outstanding performance as part of a secure, weatherproof barrier is crucial, it's not until the doors are opened that the space-transforming benefits of the system truly come into play. For maximum enjoyment and use of the system every effort has been made to ensure that doors glide open and slide shut with the minimum of effort – and that they continue to do so.

#### Quality Manufacture, Clever Design

E4 carriers, guides and pivots use the highest grade stainless steel bearings custom machined to extremely fine tolerances on state-of-the-art Swiss and Japanese machinery – a minimum of five bearings to each carrier. Machined wheels are individually precision ground to an ultra-fine hone. Clever carrier design prevents scraping on the inside of the overhead track. Engineered polymer is used on the stylish and anti corrosive floor channel that adding it a smooth, almost silent rolling action which brings a smile to the face of the user!



A WALL OF GLASS THAT FOLDS AWAY IN SECONDS WITH E4

#### Installation and Adjustment

All fittings are surface-mounted with no mortising required. Installation couldn't be easier with comprehensive instructions available.

With architectural grade performance guaranteed for ten years E4 will operate flawlessly for an indefinite period. Even so the built-in Surelock™ mechanism means the system is tolerant of an imperfect world. If, for example, a newly built structure settles over time the end-user can easily make adjustments with one hand, simply using an allen key!

#### Collaborative Process

Centor bifold systems don't achieve the highest performance in all categories all on their own. They're in their element teamed up with the quality products created by Centor's many manufacturing and custom fabricating clients. The Centor technical department can assist in the design process for doors incorporating the E4 system to ensure that the highest criteria for completed and installed doors are met.

## Proven Durability

As much as Centor Architectural enjoys its reputation for innovation, ensuring products meet and exceed the highest standards for durability is just as much of a passion. This means a significant investment in repeatedly testing systems under the toughest of conditions – then testing them again!



ATTENTION TO DETAIL IN DESIGN,  
TESTING AND MANUFACTURE CREATES  
'CENTOR-GRADE' PERFORMANCE



# CREATING LONGEVITY

### LABORATORY TESTING

In addition to the extensive weather testing undergone by doors using Centor's bifold systems, all individual E4 components have undergone extensive laboratory testing, ensuring years of trouble-free enjoyment from hardware which ages with grace.

#### Cyclic Testing

Centor's minimum requirement of cyclic testing for any released product is a grueling 50,000 cycles without a single failure at maximum configuration, meaning years of trouble free operation from the E4 system.

#### Structural Testing

As might be expected from a truly heavy-duty system E4's tested strength is phenomenal. Centor has successfully completed independent testing to Miami Dade County hurricane requirements with panel sizes 120'' high and 42'' wide.

### Finite Element Analysis

Finite Element Analysis (FEA) is a computerized simulation technique where products are exposed to virtual operating environments and accurate predictions made in terms of load and deflection. Centor undertakes FEA in the design process to ensure the best balance of performance, cost and materials in every system.

### HURRICANE TESTING

In the course of obtaining approval under the stringent **Miami Dade County** testing regime, doors based on the E4 system were subjected to hurricane strength wind loads, flexing the doors in and out five thousand times without component failure. Small and large missile impact testing was also performed as part of the single toughest testing process anywhere in the world.

## E4 Up Close

Even a casual glance at the E4 system gives a strong impression of Centor's commitment to quality, but it's only upon closer inspection that the attention to detail really becomes apparent. Behind E4's tough good looks and robust proportions is a system stacked with clever standard features and abundant flexible options to choose from. It's a system that looks even better up close.

### MATERIALS AND FINISHES

E4 carriers, guides, pivots and hinges are available in brushed stainless steel for a modern industrial look, Oil Rubbed Bronze powdercoat or a PVD brass finish over stainless steel should a more traditional finish be required. Head tracks, sills and floor guide channels are produced in extruded aluminum with the option of bronze and satin anodized.

### PANEL SIZE AND MATERIALS

Centor's innovative hinge system enables all door panels to be made the same size regardless of the door configuration (eg 3L2R or 1L4R). The easily installed hardware can be teamed with ordinary 'book end' door panels in wood, aluminum, PVC or fiberglass.

### WALL PIVOT

A floating wall pivot is used to control door stile deflection and bowing on tall doors caused by wind loads or climatic conditions. The type of tall, heavy doors typically used with the E4 system will generally require four hinges at each junction.

### DROPBOLTS

The E4 system is matched with the clean-lined DY and DO ranges of dropbolts to anchor the doors firmly in the closed position. They resist wind and together with the weather seals eliminate rattling in strong winds.



### E4 Specifications

<b>max panel weight</b>	350lbs (160kg) each
<b>max panel width</b>	4'3" (1300mm)
<b>max panel height</b>	13'1" (4000mm)
<b>door thickness</b>	<ul style="list-style-type: none"> <li>a) 1 3/4" and 2 1/4" (44.45 or over 57.15mm) when using E4 sill system</li> <li>b) 1 3/8" to 3" (34.9 to 76.2mm) when using floor channel</li> </ul>
<b>maximum number of doors</b>	8 each direction (57ft opening)

**Note>** When using maximum door width and height 4'3" x 13'1" (1300mm to 4000mm) door may exceed maximum door weight of 350 lbs (160 kg). Calculated weight check should be done.

Aluminum door system specifications may vary from the above. Consult your aluminum door supplier for details. Minimum panel thickness of 1 21/32" (42mm) allows for weather seal seating on panels correctly. Panels which exceed 2 1/4" (57mm) in thickness or which are below 24" (600mm) in width require special consideration in construction.

There are a number of materials such as soft timbers which are not suited to production of large, heavy doors. Panel construction materials should be of sufficient strength that screws cannot pull out. Concerns about material choice should be referred to a joiner experienced with the Centor's bifold range.



## E4 Assurance

Modern design is all about allowing the end-user to feel relaxed and comfortable in their surroundings. E4's superior strength, functioning and performance goes much of the way towards meeting this goal and Centor takes care of the rest with a range of measures to ensure the system can be used with complete confidence.



### Free specification and ordering software

Centor's free specification and ordering software – E4 Doorcalc™ – can be downloaded from [www.centorarchitectural.com](http://www.centorarchitectural.com). E4 Doorcalc™ runs on Microsoft Excel® software and enables the user to specify all of the Centor hardware required for any door opening as well as calculate door panel sizes and number based upon a manufacturer's proprietary manufacturing details. The program features intuitive dropdown menus to assist the inexperienced Excel® user and allows for identification of each job and automatic generation of an accurate, costed hardware list, including barcodes, ready to forward to Centor!

# CREATING CONFIDENCE

### UNPARALLELED SECURITY

In addition to the comfort of its sheer strength the E4 system responds to an increasingly security conscious market place with several measures designed to ensure unwanted visitors are excluded, as well as the elements.

#### Concealed Fittings

When doors utilizing E4 are closed there are no externally accessible parts that can be removed or damaged. Screw fixings are concealed and hinge caps are retained by hidden fasteners.

#### Locking Screw Technology

The E4 system incorporates locking screw technology which ensures the E4 hardware can not be removed from the track when the doors are closed.

### WARRANTY

In line with a commitment to the highest possible quality Centor offers a 10-year warranty on all E4 hardware.

For full details view information on line at [www.centorhardware.com](http://www.centorhardware.com)

### HARDWARE SELECTION

E4 is a fully integrated system suitable for applications up to 90lb per panel in wood, aluminum, PVC or fiberglass. Architects and specifiers can feel confident simply specifying "Centor E4" and leaving detailed component selection to the builder, joiner or fabricator. For more detailed selection refer to Component Selection on page 18.





# 4 CREATING CHOICE

## Centor's Bifold Options

Based on the same functional geometry but with distinctive capacity and features, Centor's external bifold range offers an alternative for every application. From the smallest folding window to thirteen feet high walls of framed glass panels which fold away in seconds, Centor bifold systems create a formidable barrier against the elements, yet glide open with finger-tip ease.



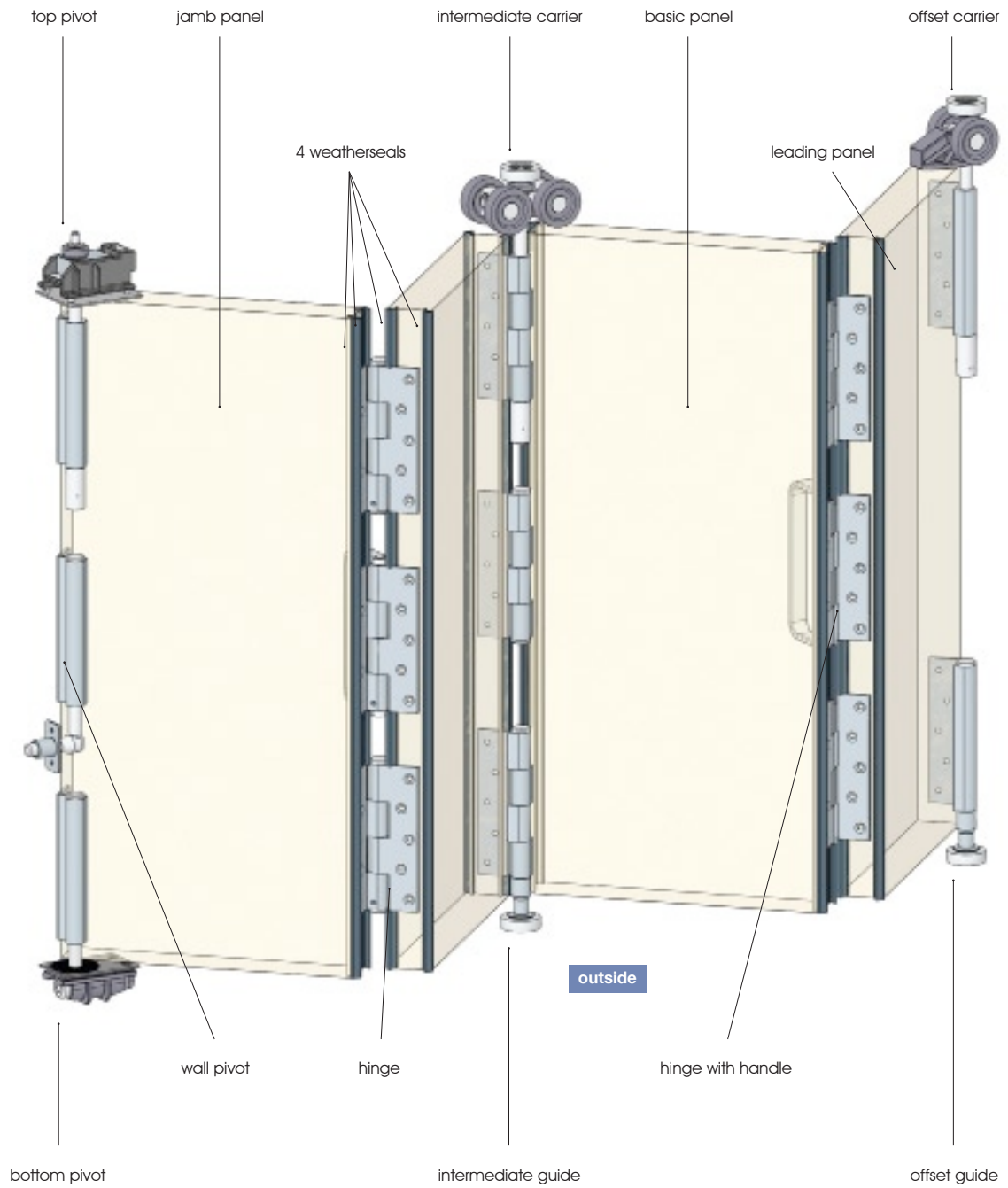
EW and E2 are the mainstays of Centor's flexible range of bifolding window and door hardware systems. Developed first and constantly upgraded since their inception they boast a considerable range of colors and finishes and remain the perfect choice for the private residence or lighter commercial application. EW is also the first folding window system to offer a fully integrated insect screen.

E3 and E4 are Centor's responses to the demands of architects and consumers wishing to extend the potential of Centor bifold innovation into heavier-duty residential and commercial applications. The medium-heavy E3 doubles the panel weight capacity of the medium E2 system, making the use of even sturdier panel materials and double-glazing possible. E4 takes it even further with a massive panel weight capacity and substantially increased height, width and overall measurement specifications. Applications are limited only by the imagination.



WITH FOUR SYSTEMS TO CHOOSE FROM CENTOR BIFOLD DOOR HARDWARE MAKES EVERY IDEA A REALITY

## E4 Product Details



**US Patents Granted**

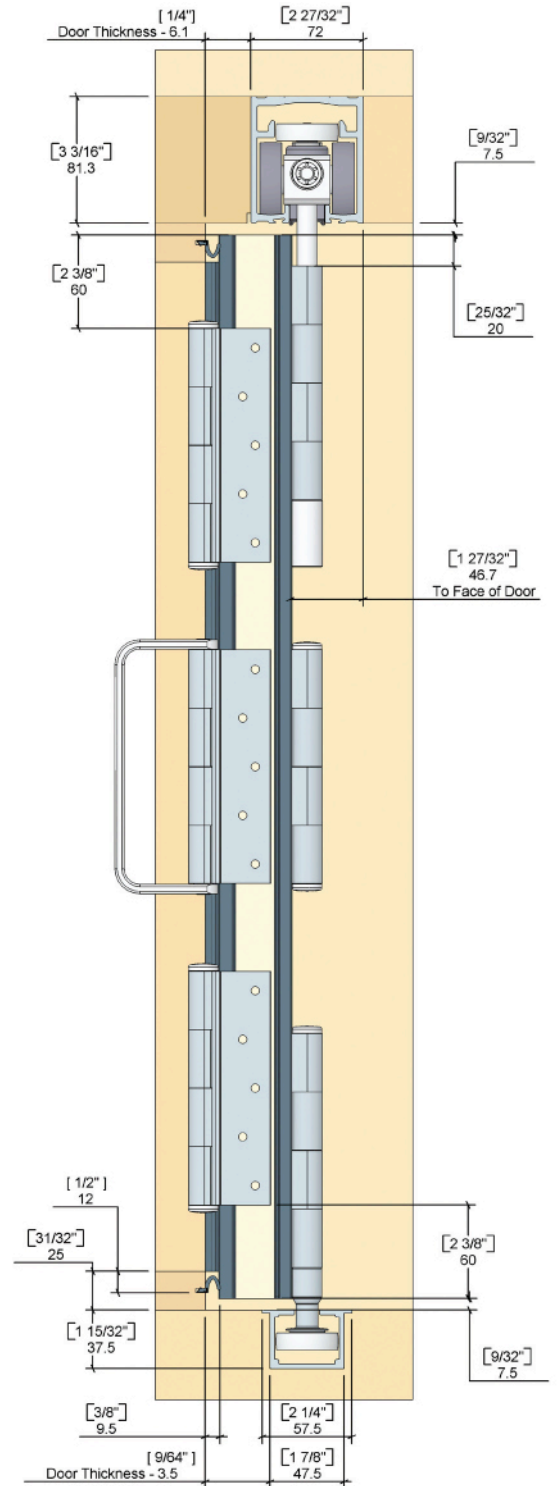
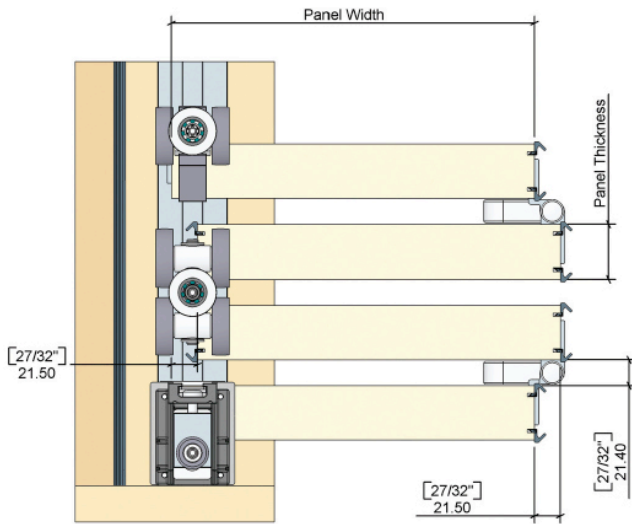
US 6834703 B2

**Other US Patents Pending**

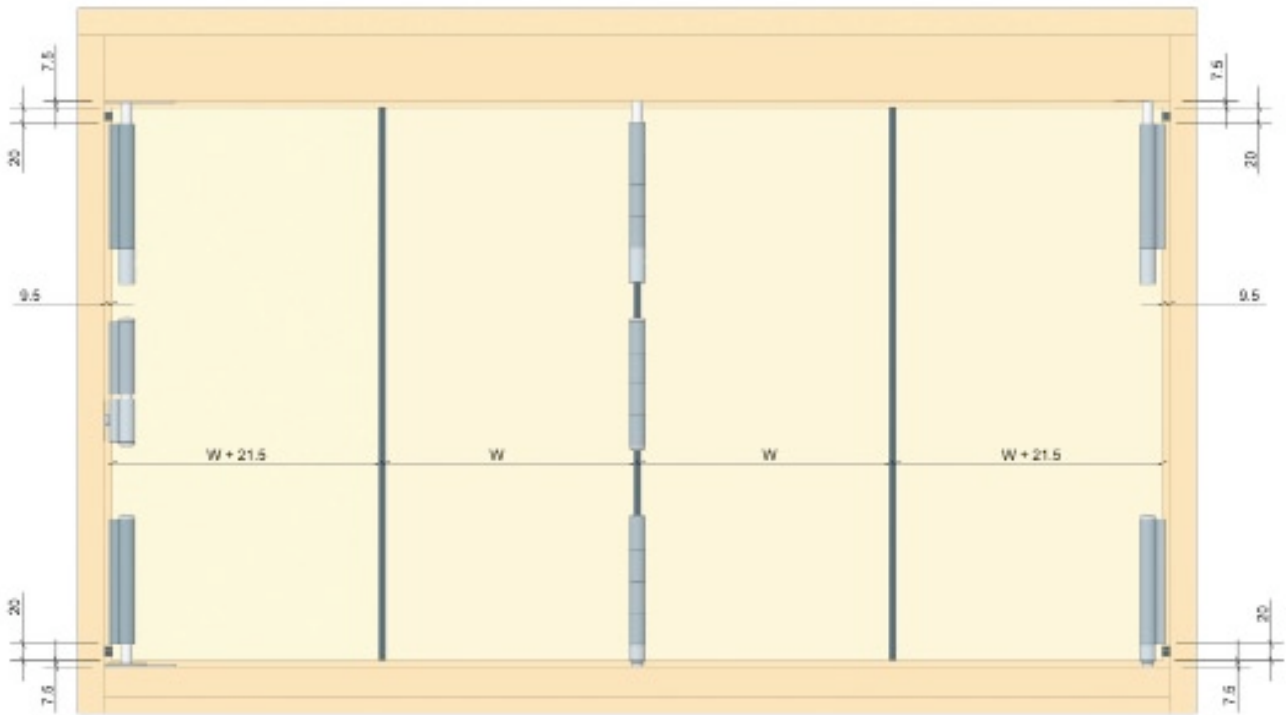
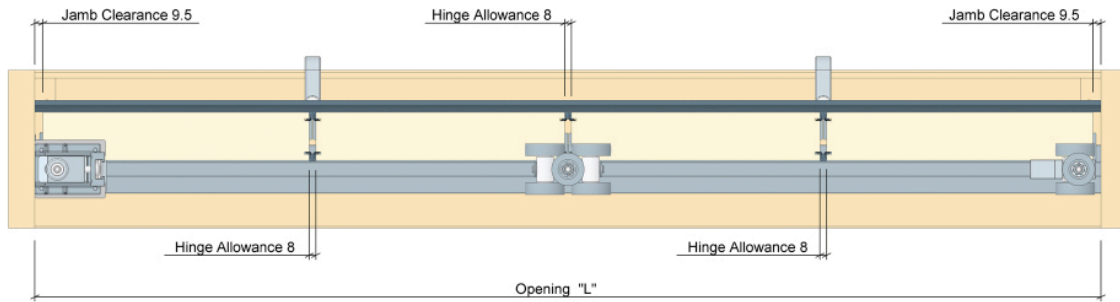
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# Architectural Detail



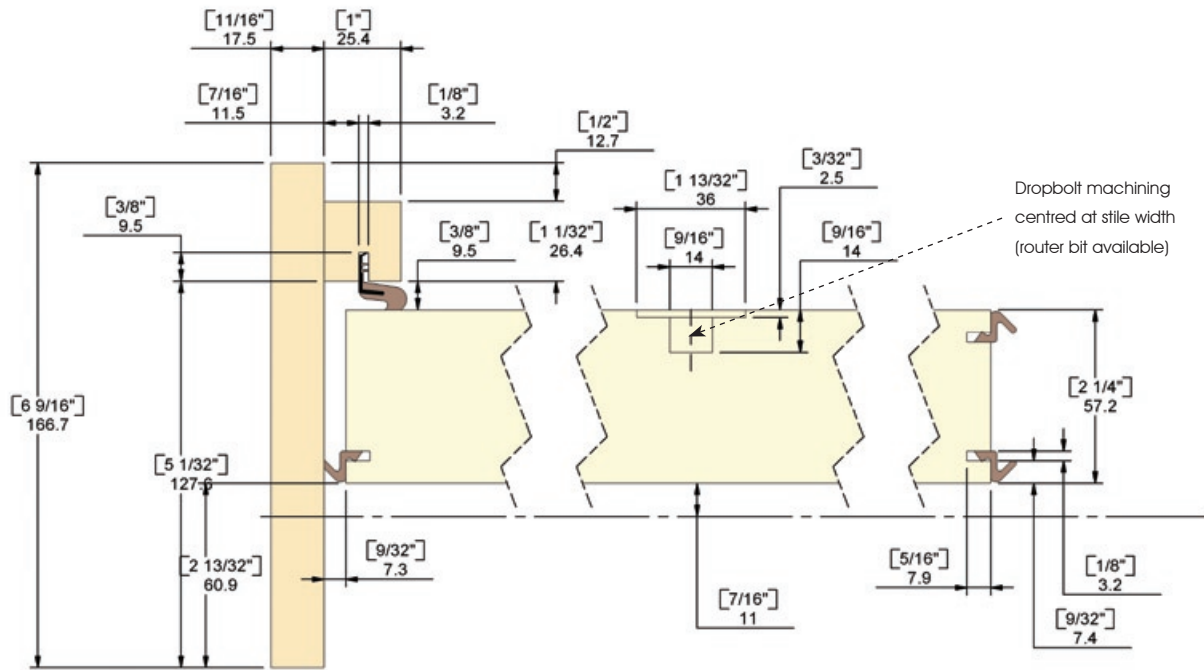
# Architectural Detail



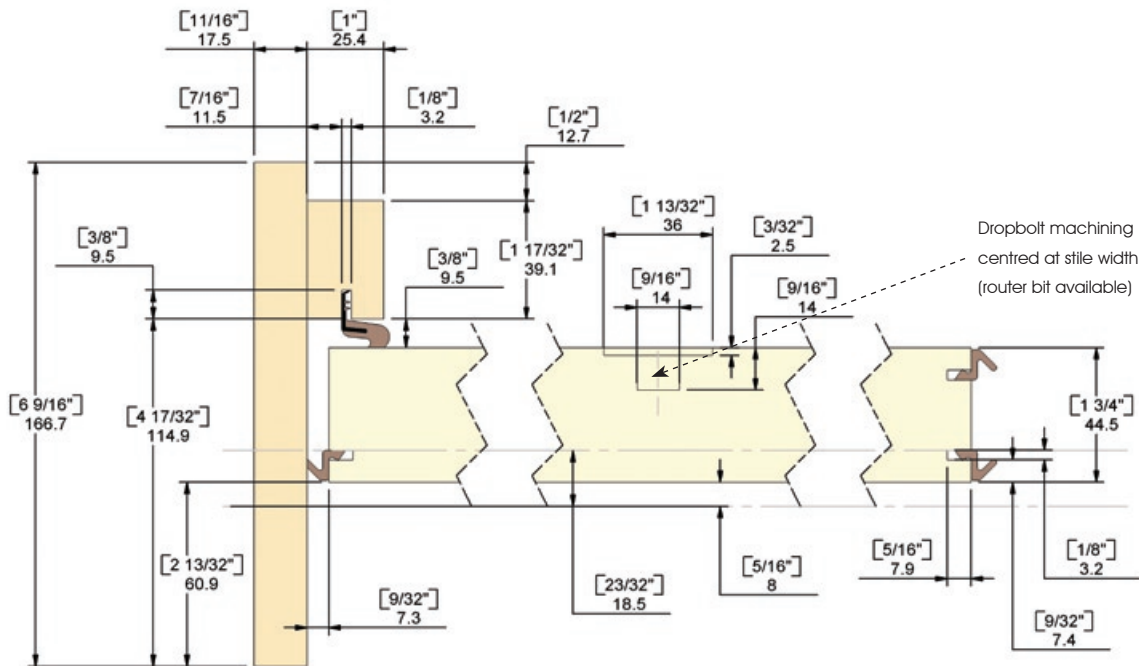




E4 JAMB FOR 2-1/4" (57.2MM) DOOR THICKNESS

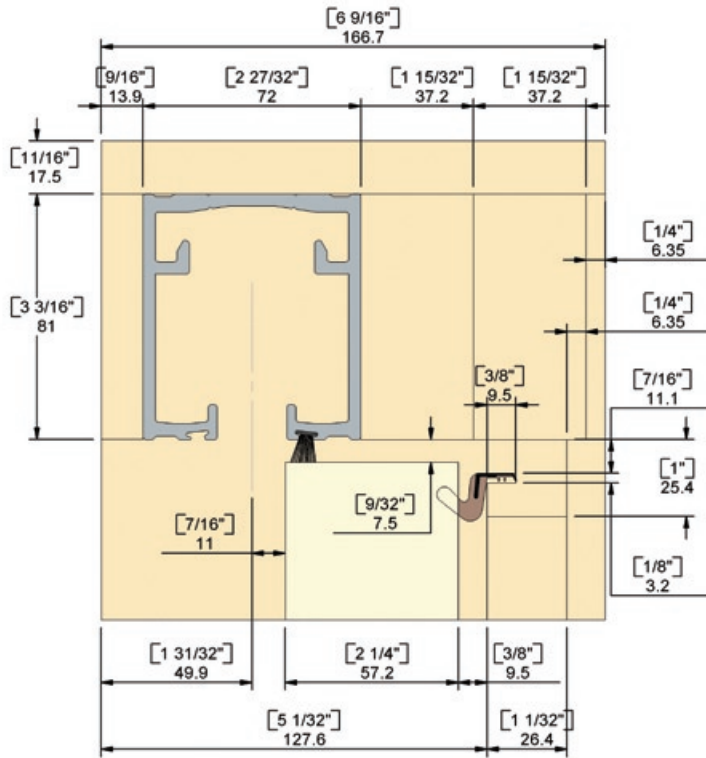


E4 JAMB FOR 1-3/4" (44.5MM) DOOR THICKNESS

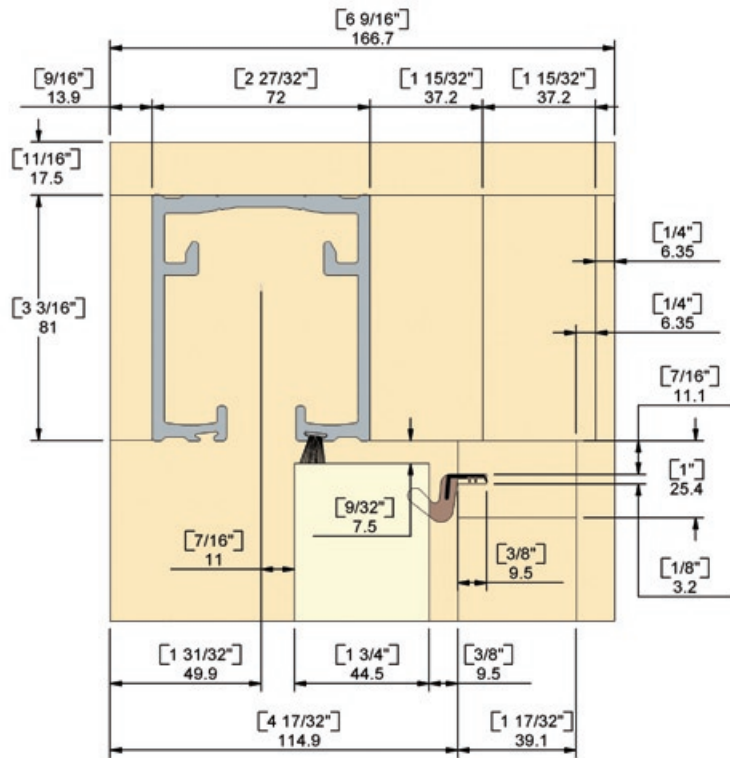




E4 HEADER FOR 2-1/4" (57.2MM) DOOR THICKNESS



E4 HEADER FOR 1-3/4" (44.5MM) DOOR THICKNESS

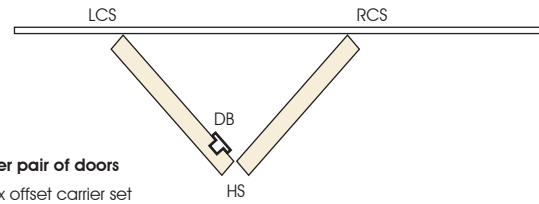


## Common Panel Layouts

### HARDWARE LEGEND

<b>PS</b>	pivot set
<b>WPS</b>	wall pivot set
<b>ICS</b>	intermediate carrier set
<b>OCS</b>	offset carrier set (reversible)
<b>HHS</b>	half offset hinge set
<b>HS</b>	hinge set (flat)
<b>DB</b>	dropbolt

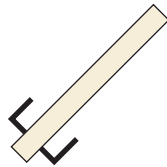
### FLOATING DOOR PAIRS



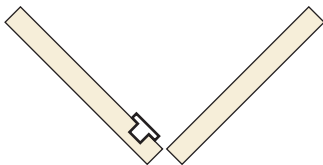
**Per pair of doors**  
 2x offset carrier set  
 1 x hinge set  
 2 x dropbolt

### LEGEND

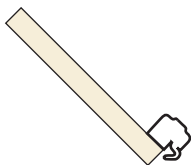
Passage set / lock by other



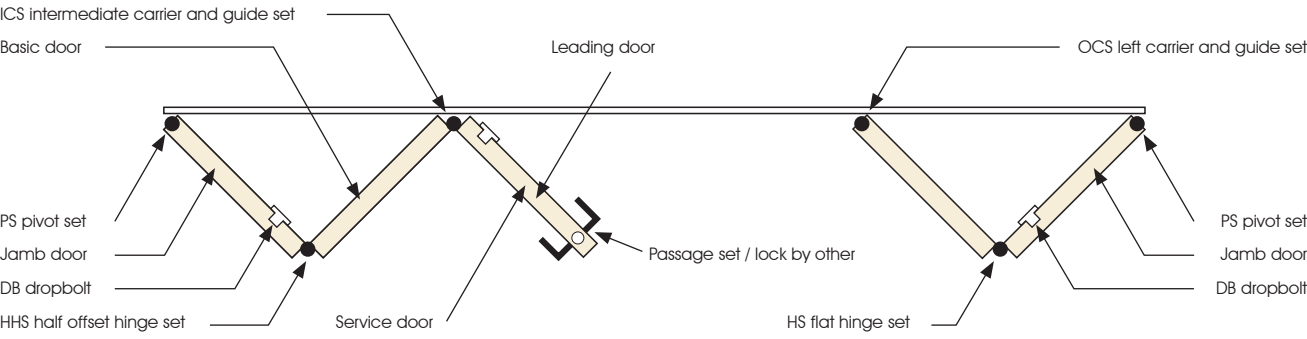
Dropbolts top and bottom



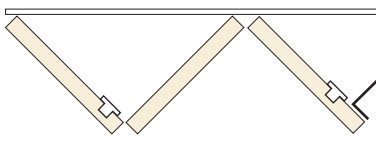
Astragal



**HARDWARE APPLICATION (3L2R)**



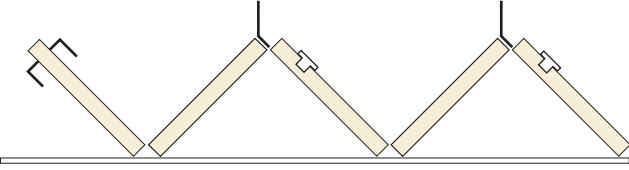
**OUTSWING APPLICATION EXTERIOR HANDLE OPTION**



Use one exterior handle on exit door (outswing 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.

**INSWING APPLICATION EXTERIOR HANDLE OPTION**



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



# Common Panel Layouts (outswing)

CODE	OPENING CONFIGURATION	HARDWARE
2L	inside WPS, PS not accessible from exterior outside	1 x pivot set 1 x offset carrier set 1 x hinge set 2 x dropbolt
2L1R	inside WPS, PS WPS, PS outside	2 x pivot set 1 x offset carrier set 1 x hinge set 2 x dropbolt
3L	inside WPS, PS outside	1 x pivot set 1 x intermediate carrier set 1 x half offset hinge set 2 x dropbolt
3L1R	inside WPS, PS ICS WPS, PS outside	2 x pivot set 1 x intermediate carrier set 1 x half offset hinge set 4 x dropbolt
4L	inside WPS, PS ICS OCS not accessible from exterior outside	1 x pivot set 1 x intermediate carrier set 1 x offset carrier set 2 x half offset hinge set 4 x dropbolt
4L1R	inside WPS, PS ICS WPS, PS outside	2 x pivot set 1 x intermediate carrier set 1 x offset carrier set 2 x half offset hinge set 4 x dropbolt
3L2R	inside WPS, PS ICS WPS, PS outside	2 x pivot set 1 x intermediate carrier set 1 x offset carrier set 1 x hinge set 1 x half offset hinge set 4 x dropbolt
5L	inside WPS, PS ICS ICS outside	1 x pivot set 2 x intermediate carrier set 1 x hinge set 1 x half offset hinge set 4 x dropbolt
3L3R	inside WPS, PS ICS ICS WPS, PS outside	2 x pivot set 2 x intermediate carrier set 2 x half offset hinge set 6 x dropbolt
7L	inside WPS, PS ICS ICS ICS outside	1 x pivot set 3 x intermediate carrier set 2 x hinge set 1 x half offset hinge set 6 x dropbolt
4L3R	inside WPS, PS ICS OCS ICS WPS, PS outside	2 x pivot set 2 x intermediate carrier set 1 x offset carrier set 3 x half offset hinge set 6 x dropbolt
5L2R	inside WPS, PS ICS ICS OCS WPS, PS outside	2 x pivot set 2 x intermediate carrier set 1 x offset carrier set 2 x hinge set 1 x half offset hinge set 6 x dropbolt
5L3R	inside WPS, PS ICS ICS ICS WPS, PS outside	2 x pivot set 3 x intermediate carrier set 1 x hinge set 2 x half offset hinge set 8 x dropbolt

CODE	OPENING CONFIGURATION	HARDWARE
2R	<p>inside PS, WPS not accessible from exterior</p> <p>outside OCS HS</p>	<ul style="list-style-type: none"> <li>1 x pivot set</li> <li>1 x offset carrier set</li> <li>1 x hinge set</li> <li>2 x dropbolt</li> </ul>
1L2R	<p>inside WPS, PS</p> <p>outside OCS HS</p>	<ul style="list-style-type: none"> <li>2 x pivot set</li> <li>1 x offset carrier set</li> <li>1 x hinge set</li> <li>2 x dropbolt</li> </ul>
3R	<p>inside ICS WPS, PS</p> <p>outside HHS</p>	<ul style="list-style-type: none"> <li>1 x pivot set</li> <li>1 x intermediate carrier set</li> <li>1 x half offset hinge set</li> <li>2 x dropbolt</li> </ul>
1L3R	<p>inside WPS, PS ICS WPS, PS</p> <p>outside HHS</p>	<ul style="list-style-type: none"> <li>2 x pivot set</li> <li>1 x intermediate carrier set</li> <li>1 x half offset hinge set</li> <li>4 x dropbolt</li> </ul>
2L2R	<p>inside WPS, PS OCS OCS WPS, PS not accessible from exterior</p> <p>outside HS HS</p>	<ul style="list-style-type: none"> <li>2 x pivot set</li> <li>2 x offset carrier set</li> <li>2 x hinge set</li> <li>4 x dropbolt</li> </ul>
1L4R	<p>inside WPS, PS OCS ICS WPS, PS</p> <p>outside HHS HHS</p>	<ul style="list-style-type: none"> <li>2 x pivot set</li> <li>1 x intermediate carrier set</li> <li>1 x offset carrier set</li> <li>2 x half offset hinge set</li> <li>4 x dropbolt</li> </ul>
4R	<p>inside OCS ICS WPS, PS</p> <p>outside HHS HHS</p>	<ul style="list-style-type: none"> <li>1 x pivot set</li> <li>1 x intermediate carrier set</li> <li>1 x offset carrier set</li> <li>2 x half offset hinge set</li> <li>4 x dropbolt</li> </ul>
2L3R	<p>inside WPS, PS ECS ICS WPS, PS</p> <p>outside HS HHS</p>	<ul style="list-style-type: none"> <li>1 x pivot set</li> <li>2 x intermediate carrier set</li> <li>1 x offset carrier set</li> <li>1 x hinge set</li> <li>1 x half offset hinge set</li> <li>4 x dropbolt</li> </ul>
5R	<p>inside ICS ICS WPS, PS</p> <p>outside HS HHS</p>	<ul style="list-style-type: none"> <li>1 x pivot set</li> <li>2 x intermediate carrier set</li> <li>1 x hinge set</li> <li>1 x half offset hinge set</li> <li>4 x dropbolt</li> </ul>
3L4R	<p>inside WPS, PS ICS OCS ICS WPS, PS</p> <p>outside HHS HHS HHS</p>	<ul style="list-style-type: none"> <li>2 x pivot set</li> <li>2 x intermediate carrier set</li> <li>1 x offset carrier set</li> <li>3 x half offset hinge set</li> <li>6 x dropbolt</li> </ul>
7R	<p>inside ICS ICS ICS WPS, PS</p> <p>outside HS HS HHS</p>	<ul style="list-style-type: none"> <li>2 x pivot set</li> <li>3 x intermediate carrier set</li> <li>2 x hinge set</li> <li>1 x half offset hinge set</li> <li>6 x dropbolt</li> </ul>
2L5R	<p>inside WPS, PS OCS ICS ICS WPS, PS</p> <p>outside HS HS HHS</p>	<ul style="list-style-type: none"> <li>2 x pivot set</li> <li>2 x intermediate carrier set</li> <li>1 x offset carrier set</li> <li>2 x hinge set</li> <li>1 x half offset hinge set</li> <li>6 x dropbolt</li> </ul>
8R	<p>inside OCS ICS ICS ICS WPS, PS not accessible from exterior</p> <p>outside HHS HS HS HHS</p>	<ul style="list-style-type: none"> <li>1 x pivot set</li> <li>3 x intermediate carrier set</li> <li>1 x offset carrier set</li> <li>2 x hinge set</li> <li>8 x dropbolt</li> </ul>

## Component Selection

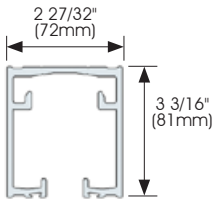
E4 is specified with 5 separate groups:

- 1 track
- 2 sill with channel
- 3 hardware
- 4 weathersealing
- 5 dropbolts

Components are required from all 5 groups to build an E4 bifolding door system.

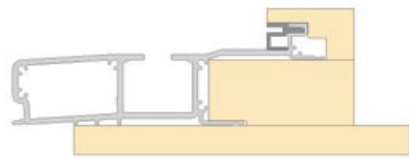
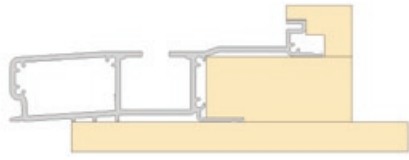
### TRACK SELECTION

Track lengths up to 27ft (8.22m). Cut to length on application.

PART	TRACK	PRODUCT CODE	DESCRIPTION
	Aluminium track, machined	E4TM4N	13' 1" (4000mm) machined track, natural anodized
		E4TM4R	13' 1" (4000mm) machined track, bronze anodized
		E4TM6N	19' 8" (6000mm) machined track, natural anodized
		E4TM6R	19' 8" (6000mm) machined track, bronze anodized
		E4TM75N	24' 6" (7500mm) machined track, natural anodized
		E4TM75R	24' 6" (7500mm) machined track, bronze anodized

### SILL SYSTEM


Complete sill lengths up to 27ft (8.22m). Cut to length on application.

PART	PRODUCT CODE	DESCRIPTION
	781 1 3/4" door thickness	Fir top water return sill. Extruded aluminum, natural anodized or bronze anodized. Lengths up to 27ft (8.22m).
	791 2 1/4" door thickness	




## CHANNEL SELECTION



Channel Lengths up to 27ft (8.22m). Cut to length on application.

PART	CHANNEL	PRODUCT CODE	DESCRIPTION
	Aluminium E4 floor channel pre-machined	E4FCM4N	13' 1" (4000mm) machined channel, natural anodized
		E4FCM4R	13' 1" (4000mm) machined channel, bronze anodized
		E4FCM6N	19' 7" (6000mm) machined channel, natural anodized
		E4FCM6R	19' 7" (6000mm) machined channel, bronze anodized
		E4FCM75N	24' 6" (7500mm) machined channel, natural anodized
		E4FCM75R	24' 6" (7500mm) machined channel, bronze anodized



## INTERMEDIATE CARRIER SET

PARTS	PARTS ON PANELS	PRODUCT CODE	DESCRIPTION
		E4ICSS	intermediate carrier set, stainless steel
		E4ICSQ	intermediate carrier set, oil rubbed bronze powdercoat
		E4ICSB	intermediate carrier set, PVD brass

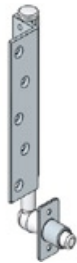

## OFFSET CARRIER SET

PARTS	PARTS ON PANELS	PRODUCT CODE	DESCRIPTION
		E4OCSS	offset carrier set, stainless steel
		E4OCSQ	offset carrier set, oil rubbed bronze powdercoat
		E4OCSE	offset carrier set, PVD brass

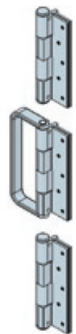

## PIVOT SET

PARTS	PARTS ON PANELS	PRODUCT CODE	DESCRIPTION
		E4PSS E4PSQ E4PSB	pivot set, stainless steel pivot set, oil rubbed bronze powdercoat pivot set, PVD brass



## WALL PIVOT SET (recommended for doors over 7'4" (2250mm) to central deflection and bowing)

PARTS	PARTS ON PANELS	PRODUCT CODE	DESCRIPTION
		E4WPS E4WPQ E4WPB	wall pivot set, stainless steel wall pivot set, oil rubbed bronze powdercoat wall pivot set, PVD brass

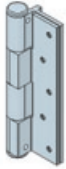

## HALF OFFSET HINGE SET

PARTS	PARTS ON PANELS	PRODUCT CODE	DESCRIPTION
		E4HOHSS E4HOHSQ E4HOHSB	half offset hinge set, stainless steel half offset hinge set, oil rubbed bronze powdercoat half offset hinge set, PVD brass

**HINGE SET**

PARTS	PARTS ON PANELS	PRODUCT CODE	DESCRIPTION
		E4HSS	hinge set, stainless steel
		E4HSQ	hinge set, oil rubbed bronze powdercoat
		E4HSB	hinge set, PVD brass

**SINGLE HALF OFFSET HINGE** (recommended for doors over 7'4" (2250mm) to central deflection and bowing)







PARTS	PARTS ON PANELS	PRODUCT CODE	DESCRIPTION
		E4HHNHS	hinge, stainless steel
		E4HHNHQ	hinge, oil rubbed bronze powdercoat
		E4HHNHB	hinge, PVD brass

**SINGLE HINGE** (recommended for doors over 7'4" (2250mm) to central deflection and bowing)

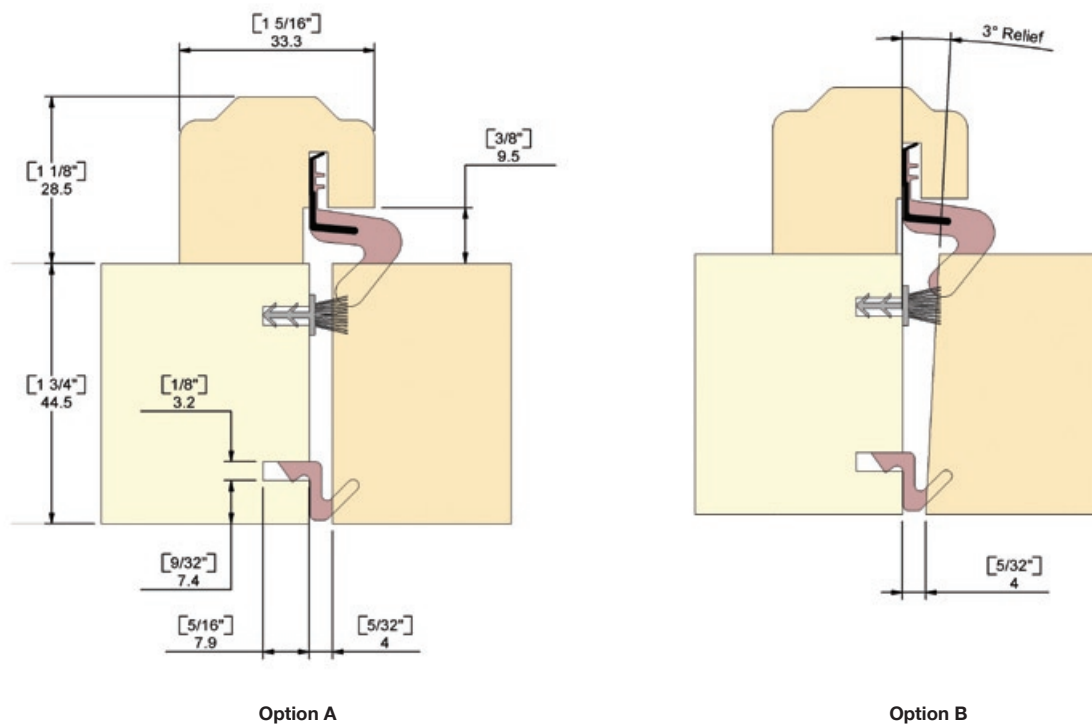
PARTS	PARTS ON PANELS	PRODUCT CODE	DESCRIPTION
		E4HS	hinge, stainless steel
		E4HQ	hinge, oil rubbed bronze powdercoat
		E4HB	hinge, PVD brass





## WEATHERSEALS AND ASTRAGAL SELECTION

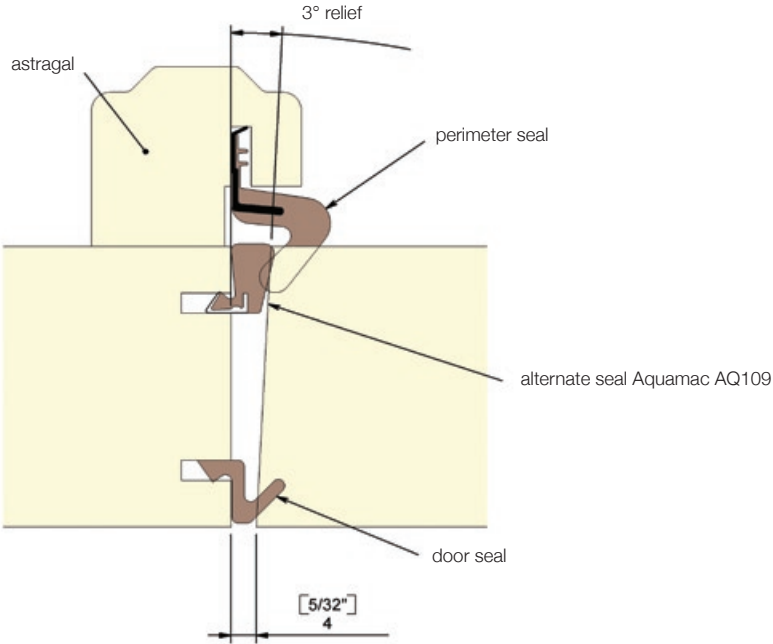
PARTS	PRODUCT CODE	DESCRIPTION
	369	Aluminum t-slot extrusion with grey pile insert for bottom of doors.
	426	White or brown weatherseal for between doors.
	427	White or brown weatherseal for sill, jamb and header (perimeter).
	428	White or brown adhesive backed weatherseal for between doors. Use on clad doors instead of kerf.
	190	Astragal (FIR). May be stained or painted.
	P108-35	For door with astragal.

### ASTRAGAL DETAIL - TRIPLE SEAL FOR SUPERIOR SEALING PERFORMANCE FOR 'MEETING' DOOR PANELS



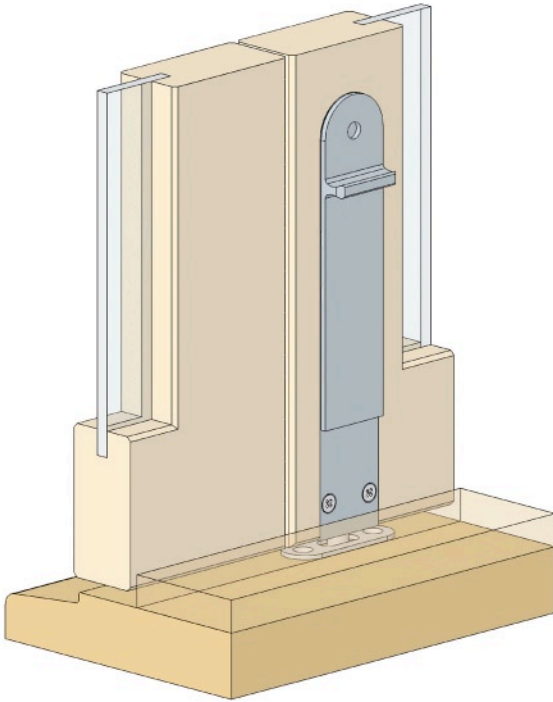
**WEATHERSEAL ALTERNATE SELECTION**

PART	PRODUCT CODE	PART DESCRIPTION
	AQ63B AQ63L AQ63W	Aquamac 63 Schlegel Kerf seal, brown for between doors Aquamac 63 Schlegel Kerf seal, black for between doors Aquamac 63 Schlegel Kerf seal, white for between doors
	AQ109B AQ109L AQ109W	Aquamac 109 Schlegel Kerf seal, brown for access panel and astragal Aquamac 109 Schlegel Kerf seal, black for access panel and astragal Aquamac 109 Schlegel Kerf seal, white for access panel and astragal



## DROPBOLTS / DY

This flush-mounted dropbolt with 1" (25mm) throw is designed for use with sliding and folding doors. Centor's DY will resist high winds and is rated to resist a 550lb (250kg) load in Western Red Cedar and 990lb (450kg) in Amora. We can test your actual door section and provide a test certificate stating the rating achieved. The bolts are easily installed with a dedicated router bit and are available in three finishes.



Patent granted

### DY Specifications

**maximum wind load** 990lb (450kg) force

**minimum door thickness** 1 3/4" (44.45mm)

**bolt lengths** 8" (200mm), 16" (400mm), 24" (600mm), 39" (1000mm)

**throw length** 1" (25mm)

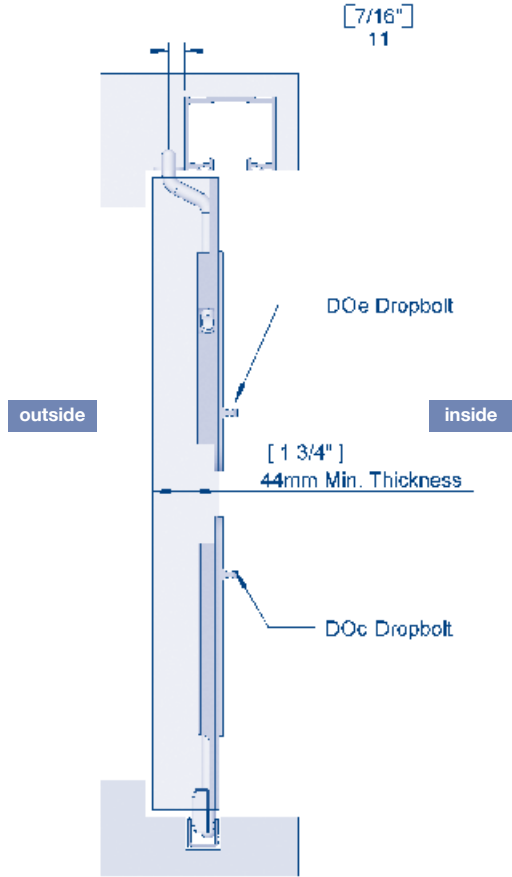
**finishes** Brushed metallic to match stainless steel hardware,  
Oil rubbed bronze powdercoat to match same finish hardware,  
Gold anodized to match PVD brass hardware.



PART	PRODUCT CODE	DESCRIPTION
	KTDBSY200NRG	8" (200mm), gold anodized
	KTDBSY400NRG	16" (400mm), gold anodized
	KTDBSY600NRG	24" (600mm), gold anodized
	KTDBSY200NRQ	8" (200mm), powdercoat
	KTDBSY400NRQ	16" (400mm), powdercoat
	KTDBSY600NRQ	24" (600mm), powdercoat
	KTDBSY1000NRQ	39" (1000mm), powdercoat
	KTDBSY200NRX	8" (200mm), brushed metallic
	KTDBSY400NRX	16" (400mm), brushed metallic
	KTDBSY600NRX	24" (600mm), brushed metallic
	KTDBSY1000NRX	39" (1000mm), brushed metallic
	KTDBSY1000NRY	39" (1000mm), brushed metallic

## DROPBOLTS / DO (FOR INSWING DOORS)

Centor's latest dropbolt, Overture Eclipse is specifically designed to complement Centor's E2 Plus, E3 and E4 bifolding hardware for inswing opening doors.



### DO Specifications

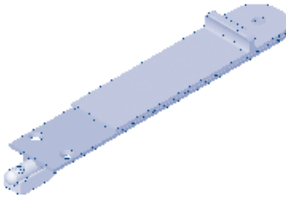
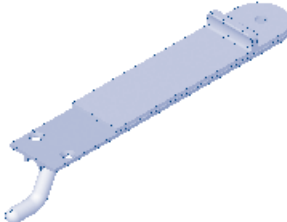
**minimum door thickness** 1 3/4" (44.45mm)

**bolt lengths** 8" (200mm), 16" (400mm), 24" (600mm), 39" (1000mm)

**throw length** 3/4" (20mm)

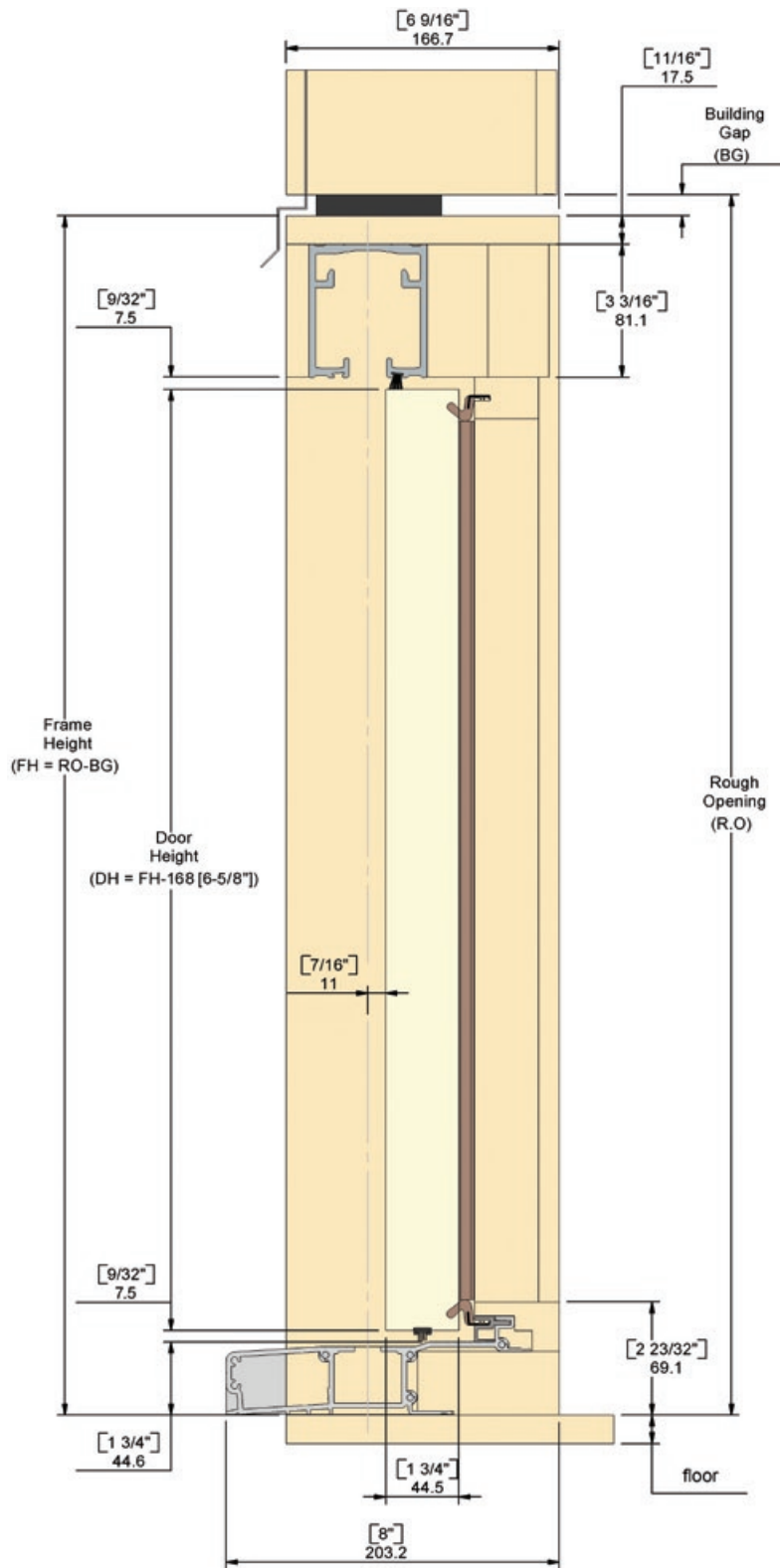
**finishes** Brushed metallic to match stainless steel hardware,  
Oil rubbed bronze powdercoat to match same finish hardware,  
Gold anodized to match PVD brass hardware.



PART	PRODUCT CODE	DESCRIPTION
	DBOC200NRG	8" (200mm) concealed dropbolt, gold anodized
	DBOC200NRX	8" (200mm) concealed dropbolt, brushed metallic
	DBOC200NRQ	8" (200mm) concealed dropbolt, powdercoat
	DBOE200NRG	8" (200mm) dropbolt, gold anodized
	DBOE200NRX	8" (200mm) dropbolt, brushed metallic
	DBOE200NRQ	8" (200mm) dropbolt, powdercoat
	DBOE400NRG	16" (400mm) dropbolt, gold anodized
	DBOE400NRX	16" (400mm) dropbolt, brushed metallic
	DBOE400NRQ	16" (400mm) dropbolt, powdercoat
	DBOE600NRG	24" (600mm) dropbolt, gold anodized
	DBOE600NRX	24" (600mm) dropbolt, brushed metallic
	DBOE600NRQ	24" (600mm) dropbolt, powdercoat
	DBOE1000NRG	39" (1000mm) dropbolt, gold anodized
	DBOE1000NRX	39" (1000mm) dropbolt, brushed metallic
	DBOE1000NRQ	39" (1000mm) dropbolt, powdercoat

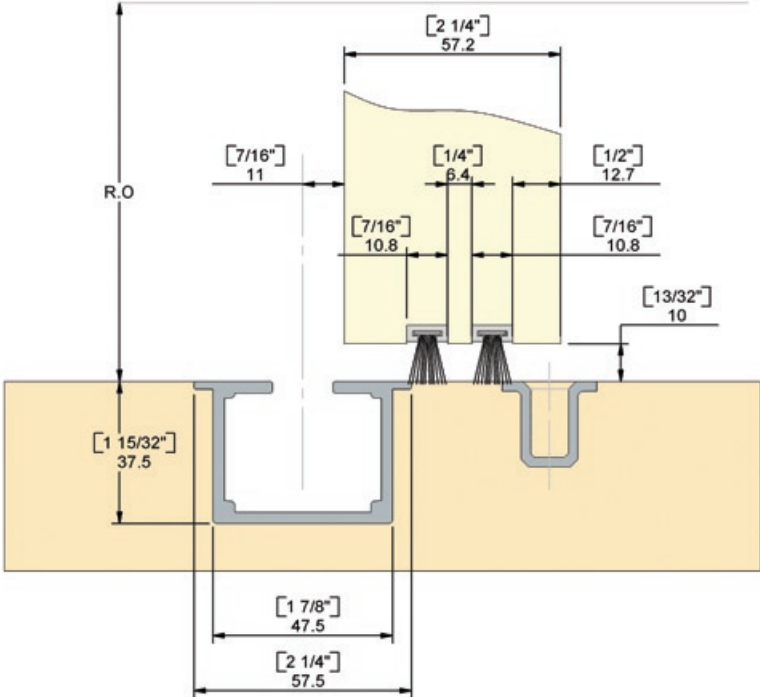
# Installation Details

FULL OPENING WITH SELF DRAIN SILL OPTION



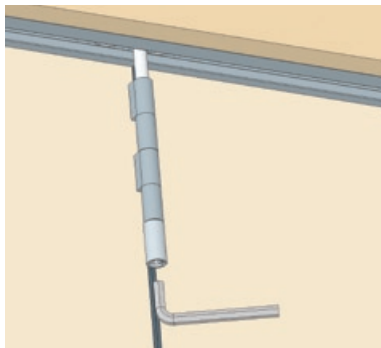


FLUSH WITH FLOOR CHANNEL SILL OPTION

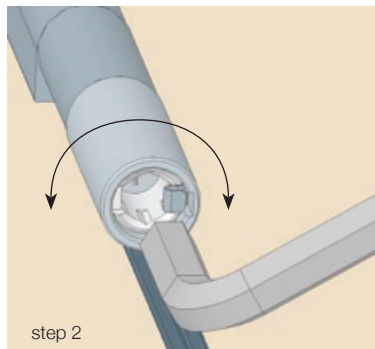
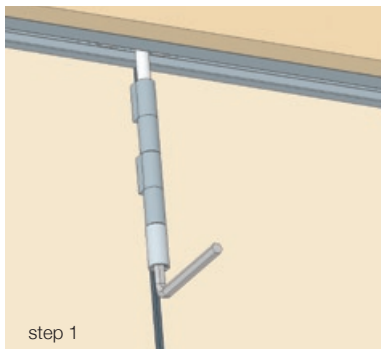


## Surelock™ Adjustment

E4 hardware has been designed for large, heavy doors which inevitably will also be tall. The ability to conveniently adjust and set the heights of such door panels has been given careful consideration. The Sure-Lock II™ allows easy adjustment with the Allen Key provided.



## CREATING FLEXIBILITY



This stainless steel Surelock II™ mechanism has three significant features:

- Adjusting the height setting requires only a single tool, a 9.5mm / (3/8") Hexagon Allen Key, in a single-handed operation. There is no need to hold or steady the Surelock II™ while the adjustment is being made. An Allen Key is provided with E4 pivot sets.
- Insertion of the key disengages the self-locking spring latch. Once adjusted, the new setting is locked against into place simply by allowing the latch to fall back into the locating slot as the key is removed.
- A retaining screw fitted to the bottom of the carrier pin limits the travel of the "Sure-Lock II™" so that it cannot be adjusted to a structurally unsafe position.

# CREATING

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**centor ARCHITECTURAL**  
creating systems for windows & doors

