Pivot and Pivot Sets

Architectural Solutions for Durable and Efficient Hanging of Doors
# Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Information</td>
<td>4</td>
</tr>
<tr>
<td>How to Select Product</td>
<td>5</td>
</tr>
<tr>
<td>Options</td>
<td>6</td>
</tr>
<tr>
<td>Certifications</td>
<td>6</td>
</tr>
<tr>
<td>Limited Warranty</td>
<td>6</td>
</tr>
<tr>
<td>Specifications</td>
<td>6</td>
</tr>
<tr>
<td>Product Descriptions</td>
<td></td>
</tr>
<tr>
<td>Offset Pivot Sets</td>
<td></td>
</tr>
<tr>
<td>117-1/4 Light Duty/Light Weight Jamb Attached Pivot Set</td>
<td>7</td>
</tr>
<tr>
<td>117 Light Duty/Light Weight Pivot Set</td>
<td>7</td>
</tr>
<tr>
<td>173 Very Light Duty/Weight Pivot Set</td>
<td>8</td>
</tr>
<tr>
<td>147 Standard Duty Pivot Set</td>
<td>8</td>
</tr>
<tr>
<td>L147 Heavy Weight Pivot Set</td>
<td>9</td>
</tr>
<tr>
<td>547 Pivot Set for Arch Top or Overhead Concealed Closers</td>
<td>10</td>
</tr>
<tr>
<td>165 Pivot Set Without Bottom Pivot</td>
<td>10</td>
</tr>
<tr>
<td>195 Jamb Attached Pivot Set</td>
<td>11</td>
</tr>
<tr>
<td>117-1/2 Heavy Weight Pivot Set</td>
<td>12</td>
</tr>
<tr>
<td>L117 Heavy Weight/High Traffic/Lead Lined Door Pivot Set</td>
<td>13</td>
</tr>
<tr>
<td>Offset Top Pivots</td>
<td></td>
</tr>
<tr>
<td>180 Standard Top Pivot</td>
<td>14</td>
</tr>
<tr>
<td>180 x 102 Top Pivot for Deep Reveal</td>
<td>14</td>
</tr>
<tr>
<td>H180 Heavy Duty Top Pivot</td>
<td>14</td>
</tr>
<tr>
<td>L180 Heavy Weight/High Traffic/Lead Lined Door Top Pivot</td>
<td>15</td>
</tr>
<tr>
<td>FA180 Asylum Top Pivot</td>
<td>15</td>
</tr>
<tr>
<td>280 Half Surface Top Pivot</td>
<td>16</td>
</tr>
<tr>
<td>380 Half Mortise Top Pivot</td>
<td>16</td>
</tr>
<tr>
<td>L380 Heavy Weight/High Traffic/Lead Lined Door Pivot</td>
<td>16</td>
</tr>
<tr>
<td>480 Full Surface Top Pivot</td>
<td>17</td>
</tr>
<tr>
<td>680 Side Jamb Attached Top Pivot</td>
<td>17</td>
</tr>
<tr>
<td>Intermediate Pivots</td>
<td></td>
</tr>
<tr>
<td>119 Light Duty Pivot</td>
<td>18</td>
</tr>
<tr>
<td>M19 Standard Duty Pivot</td>
<td>18</td>
</tr>
<tr>
<td>M190 Load Bearing Pivot</td>
<td>18</td>
</tr>
<tr>
<td>ML19 Heavy Weight/High Traffic Pivot</td>
<td>19</td>
</tr>
<tr>
<td>FA19 Asylum Intermediate Pivot</td>
<td>19</td>
</tr>
<tr>
<td>219 Half Surface Pivot</td>
<td>20</td>
</tr>
<tr>
<td>319 Half Mortise Pivot</td>
<td>20</td>
</tr>
<tr>
<td>L319 Heavy Weight/High Traffic Pivot</td>
<td>20</td>
</tr>
<tr>
<td>419 Full Surface Pivot</td>
<td>20</td>
</tr>
<tr>
<td>Electrified Intermediate Pivots</td>
<td></td>
</tr>
<tr>
<td>EM19 Power Transfer Pivot</td>
<td>21</td>
</tr>
</tbody>
</table>
# PIVOTS AND PIVOT SETS

## TABLE OF CONTENTS CONTINUED

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrified Intermediate Pivots</td>
<td></td>
</tr>
<tr>
<td>EM19U</td>
<td></td>
</tr>
<tr>
<td>EML19</td>
<td>21</td>
</tr>
<tr>
<td><strong>Electrified Intermediate Pivots (Cont’d)</strong></td>
<td></td>
</tr>
<tr>
<td>CS-M19</td>
<td>22</td>
</tr>
<tr>
<td>CSEM19</td>
<td>23</td>
</tr>
<tr>
<td>CS-M19</td>
<td>23</td>
</tr>
<tr>
<td><strong>Electrified Intermediate Pivots - 1-1/2” Offset</strong></td>
<td></td>
</tr>
<tr>
<td>EM19</td>
<td>21</td>
</tr>
<tr>
<td>CS-M19</td>
<td>22</td>
</tr>
<tr>
<td>CSEM19</td>
<td>23</td>
</tr>
<tr>
<td><strong>Pocket Pivots</strong></td>
<td></td>
</tr>
<tr>
<td>F519</td>
<td>24</td>
</tr>
<tr>
<td><strong>Electrified Pocket Pivot</strong></td>
<td></td>
</tr>
<tr>
<td>EF519</td>
<td>24</td>
</tr>
<tr>
<td><strong>Center Hung Pivot Sets</strong></td>
<td></td>
</tr>
<tr>
<td>127-3/4</td>
<td>25</td>
</tr>
<tr>
<td>128-3/4</td>
<td>25</td>
</tr>
<tr>
<td>370</td>
<td>26</td>
</tr>
<tr>
<td>117-3/4</td>
<td>26</td>
</tr>
<tr>
<td>H117-3/4</td>
<td>27</td>
</tr>
<tr>
<td>H117-3/4 x 587</td>
<td>27</td>
</tr>
<tr>
<td>176</td>
<td>28</td>
</tr>
<tr>
<td>178</td>
<td>28</td>
</tr>
<tr>
<td><strong>Center Hung Top Pivots</strong></td>
<td></td>
</tr>
<tr>
<td>320</td>
<td>29</td>
</tr>
<tr>
<td>340</td>
<td>29</td>
</tr>
<tr>
<td>H340</td>
<td>29</td>
</tr>
<tr>
<td>345</td>
<td>30</td>
</tr>
<tr>
<td>H345</td>
<td>30</td>
</tr>
<tr>
<td>340 x 102</td>
<td>31</td>
</tr>
<tr>
<td>340 x AP3</td>
<td>31</td>
</tr>
<tr>
<td>320 x 102</td>
<td>31</td>
</tr>
<tr>
<td><strong>Electrified Center Hung Top Pivots</strong></td>
<td></td>
</tr>
<tr>
<td>E-H340</td>
<td>32</td>
</tr>
<tr>
<td>E-H345</td>
<td>32</td>
</tr>
<tr>
<td>CS-340</td>
<td>33</td>
</tr>
<tr>
<td>CS-345</td>
<td>33</td>
</tr>
<tr>
<td><strong>Quick Reference of Options</strong></td>
<td>34</td>
</tr>
<tr>
<td><strong>How to Order</strong></td>
<td>34</td>
</tr>
<tr>
<td><strong>Parts Drawings</strong></td>
<td>35-45</td>
</tr>
</tbody>
</table>
Pivot sets provide the best possible means of hanging a door. They are designed to work with the laws of physics to provide long-lasting performance and reliability.

- The weight of the door is supported at the bottom by the floor
  - Uses principles of gravity to its advantage
  - Door swings with less resistance
  - Heavier doors can be accommodated
- Reduced stress on frame
  - Fasteners are in shear, not tension
  - Eliminates door sag
  - Vertically adjustable
- Heavy-duty hardened steel spindles
  - Thrust bearing supports vertical load
  - Needle bearings and bushings for lateral force
  - Extra heavy-duty models also have an additional surface applied thrust bearing to handle heavier or high-traffic doors
- Offset pivots provide better weight distribution and can accommodate taller doors
- Intermediate pivots are used for alignment and to ensure proper installation of bottom pivot or floor closer
- Center hung pivots are used for aesthetics or if the pivot point is going to be moved nearer the lock edge of the door
- PIVOTS DO NOT RETURN DOORS TO CENTER. Pivots in this section are for door hanging means only. For door control see door closer catalog sections.
1. OFFSET VS. CENTER HUNG APPLICATION

3/4" Offset
Pivot point located 3/4" from the heel edge of the door and 3/4" from face of door.

1-1/2" Offset
Pivot point located 3/4" from the heel edge of the door and 1-1/2" from face of door. Extended offsets should be used when there is cladding on the face of door or trim on the frame.

Center Hung
Pivot point centered in thickness of door.

2. SIZE OF DOOR (WIDTH, HEIGHT, THICKNESS)

### Estimated door weights pounds per square foot (PSF)

<table>
<thead>
<tr>
<th>DOOR MATERIAL</th>
<th>DOOR THICKNESS</th>
</tr>
</thead>
</table>
| Hollow Metal  | 1-3/4" 7 2-1/4" | 3"
| Solid Core Wood | 7 9 11.5 |
| Aluminum/Glass Storefront | 3.5 4 — |
| Bullet Resistant | 20 21 — |
| MDF | 7 9 11.5 |

<table>
<thead>
<tr>
<th>TEMPERED GLASS</th>
<th>GLASS THICKNESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/8&quot;</td>
<td>1/2&quot;</td>
</tr>
<tr>
<td>5</td>
<td>7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LEAD LINING (add to door weight)</th>
<th>LEAD THICKNESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/16&quot;</td>
<td>1/8&quot;</td>
</tr>
<tr>
<td>5</td>
<td>8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3/4&quot; CLADDING (add to door weight)</th>
<th>CLADDING MATERIAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wood</td>
<td>Stone</td>
</tr>
<tr>
<td>3</td>
<td>10.5</td>
</tr>
</tbody>
</table>

Example: 3/6 X 8/0 X 1/2" Tempered Glass Door
Door: 28sq ft x 7lb/sq ft = 196lbs
For doors of other sizes, consult factory

### Application Daily Cycles Yearly Cycles

<table>
<thead>
<tr>
<th>Application</th>
<th>Daily Cycles</th>
<th>Yearly Cycles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large department store entrance</td>
<td>5,000</td>
<td>1,500,000</td>
</tr>
<tr>
<td>Large office building entrance</td>
<td>4,000</td>
<td>1,200,000</td>
</tr>
<tr>
<td>Theater entrance</td>
<td>1,000</td>
<td>365,000</td>
</tr>
<tr>
<td>School entrance</td>
<td>1,250</td>
<td>225,000</td>
</tr>
<tr>
<td>School restroom door</td>
<td>1,250</td>
<td>225,000</td>
</tr>
<tr>
<td>Store or bank entrance</td>
<td>500</td>
<td>150,000</td>
</tr>
<tr>
<td>Office building restroom door</td>
<td>400</td>
<td>118,000</td>
</tr>
<tr>
<td>School corridor door</td>
<td>80</td>
<td>15,000</td>
</tr>
<tr>
<td>Office building corridor door</td>
<td>75</td>
<td>22,000</td>
</tr>
<tr>
<td>Store restroom door</td>
<td>60</td>
<td>18,000</td>
</tr>
<tr>
<td>Residential entrance door</td>
<td>40</td>
<td>15,000</td>
</tr>
<tr>
<td>School corridor door</td>
<td>80</td>
<td>15,000</td>
</tr>
<tr>
<td>Office building corridor door</td>
<td>75</td>
<td>22,000</td>
</tr>
<tr>
<td>Store restroom door</td>
<td>60</td>
<td>18,000</td>
</tr>
<tr>
<td>Residential entrance door</td>
<td>40</td>
<td>15,000</td>
</tr>
<tr>
<td>Residential restroom door</td>
<td>25</td>
<td>9,000</td>
</tr>
<tr>
<td>Residential hallway door</td>
<td>10</td>
<td>3,600</td>
</tr>
<tr>
<td>Residential closet door</td>
<td>6</td>
<td>2,200</td>
</tr>
</tbody>
</table>

Example: 3/0 X 7/0 X 1-3/4" WD X 1/4" Lead lining
Door: 21sq ft x 7lb/sq ft = 147lbs
Lead Lining: 9.75 = 204.75lbs
Total Door weight: 351.75lbs
Fire Rated – Prefix F
Pivots for fire rated doors (up to 3 hours) include a steel top pivot and must have additional steel intermediate pivots. For F519 pocket pivot, door assemblies must have been tested with pocket pivots.

Twenty-minute label – Suffix - 20
This UL rating is for 20-minute assemblies. Product with this rating has an authorized label.

Handling
All offset pivots and pivot sets are handed. Suffix RH or LH.

Extended Spindle – Suffix extra length needed
Any special coverings or severe door undercuts will affect the spindle height. In these applications, an extended spindle may be required. Most standard spindle heights accommodate door undercuts up to 1/2”. Extended spindles available in 1/2” increments up to 2” longer than standard. See template.

1-1/2” Offset – Suffix 1-1/2
Offset is the distance from the face of the door to the pivot point. Extended offsets should not be used unless there is cladding on the face of the door or there is trim to clear on the frame. 1-1/2” offset arms and pivots are for doors with cladding or trim that project 3/4” from the face of the door. The greater the offset the less weight can be carried by the pivot.

Less Top Pivot – Suffix LTP
For conditions requiring special top pivots or for arch top doors, the pivot set should be ordered less top pivot – LTP. For offset installations, an additional load bearing intermediate (side jamb) M190 pivot is required. All intermediate pivots for that opening should be M190’s, not M19’s.

Special Layouts – Suffix SPLO#
Unique installations or specially engineered products are called special layouts. These numbers must be assigned by the technical support department and they must be called out specifically by their number when ordering.

Door Thickness – Suffix 1-3/4”, 2”, 2-1/4”, 2-1/2” or 3”
When ordering L series pivot for lead-lined doors, the thickness of the door must be given. The purpose of the L product is to have screws spaced so they straddle the lead in the center of the door. Also used when lead lining is under the skins of the door. Recommended for use on extra heavy or high traffic doors.

ElectroLynx® Connectors – Suffix QC – Number of Wires
The plug-in connectors, with easy color coded wire system, eliminate matching wires. Must be used with ASSA ABLOY doors, frames and hardware. Available 4, 6, 8 or 12 wires for most products.

CERTIFICATIONS

All Rixson® pivots and pivot sets are in compliance with ANSI/BHMA A156.4 Standards. See individual products for sub sections.

LIMITED WARRANTY

Rixson pivot sets are warranted for 2 years for defect. See Rixson Price Book for specific details of the limited warranty.

SPECIFICATIONS

All pivots and pivot sets shall be of one manufacturer. All heavy-duty pivots shall have a minimum of 2 bearings internal to the bottom pivot. One shall be a thrust bearing and the other a needle bearing. Separate bearing surfaces shall be in the top pivot. Lead-lined door units and high traffic pivots shall have additional thrust bearing. Fire rated pivot sets shall have steel top pivots. Fire rated doors require steel intermediate pivots.
PIVOTS AND PIVOT SETS
OFFSET HUNG

MODEL 117-1/4

Application
- Interior Doors
- Weight to 250 lbs.*
- Door Width up to 3’6” (1067mm)
- Handed

Product Description & Features
- Standard top pivot 180 included
- 119 intermediate pivot recommended (order separately); see page 18
- Bottom pivot mortised into side jamb
- Not available for fire-rated doors
- Non-ferrous base material
- Doors 60” (1524mm) to 90” (2286mm) in height should use one intermediate pivot. Each additional 30” (762mm) of door height warrants another intermediate pivot
- 3/4” (19mm) offset (measured from centerline of pivot to face of door)
- Door edges must be beveled 1/8” in 2”
- Weight of door borne by floor
- Furnished with wood and machine screws
- Extended spindles available in 1/2” (13mm) increments up to 2” (51mm) longer than standard

ANSI /C07172

* Door size & weight guidelines are determined using the appropriate number of intermediate pivots

MODEL 117

Application
- Interior Doors
- Weight to 300 lbs.*
- Door Width up to 3’6” (1067mm)
- Handed

Product Description & Features
- Standard top pivot 180 included
- 119 intermediate pivot recommended (order separately); see page 18
- Bottom pivot mortised into floor
- Available for fire door assemblies up to three hours – specify F117. Intermediate pivot required by UL. Specify FM19, (order separately), see page 18
- For 20-minute label suffix “–20” to the part number
- Non-ferrous base material
- Doors up to 90” (2286mm) in height should use one intermediate pivot. Each additional 30” (762mm) of door height warrants another intermediate pivot
- 3/4” (19mm) offset (measured from centerline of pivot to face of door)
- Available for 1-1/2” (38mm) offset (door weight 150 lbs) for doors with cladding or frame molding.
- Door edges must be beveled 1/8” in 2”
- Furnished with wood and machine screws
- Extended spindles available in 1/2” (13mm) increments up to 2” (51mm) longer than standard
- Doors will swing 180°, trim permitting

ANSI/C07162/C07202

* Door size & weight guidelines are determined using the appropriate number of intermediate pivots

Technical Information

Frame stop required
### MODEL 173

**Application**
- Interior Doors
- Weight 150 lbs
- Door Sizes up to 3’0” x 8’0” x 1-3/4”
- Handed

**Product Description & Features**
- Standard top pivot 180 included
- 119 intermediate pivot recommended for all doors over 6’8” (order separately) see page 18
- Bottom pivot mounts directly to concrete floor
- Uses same arm and cap as 117 pivot set
- Non-ferrous base metal
- 3/4” offset only (measured from centerline of pivot to face of door)
- Available for 1-1/2” (38mm) offset (door weight 100 lbs) for doors with cladding or frame molding
- Door edges must be beveled 1/8” in 2”
- Furnished with wood and metal screws
- 3/8” vertical adjustment
- No spindle extensions available
- Door will swing 180°, trim permitting

**Technical Information**
Frame stop required

### MODEL 147

**Application**
- Exterior or Interior Doors
- Weight to 600 lbs.*
- Door Width up to 4’0” (1219mm)
- Handed

**Product Description & Features**
- Standard top pivot 180 included
- M19 intermediate pivot required (order separately); see page 18
- Bottom pivot mounts directly to floor
- Uses same arm and cap as 27 floor closer
- Available for fire door assemblies up to three hours (ferrous material) – specify F147. Intermediate pivot required by UL. Specify FM19 (order separately), see page 18
- For 20-minute label suffix “–20” to the part number
- Non-ferrous base material
- Doors 60” (1524mm) to 90” (2286mm) in height should use one intermediate pivot. Each additional 30” (762mm) of door height warrants another intermediate pivot
- 3/4” (19mm) offset (measured from centerline of pivot to face of door)
- Available for 1-1/2” (38mm) offset (door weight 350 lbs.) for doors with cladding or frame molding
- Door edges must be beveled 1/8” in 2”
- Furnished with wood and machine screws
- Extended spindles available in 1/2” (13mm) increments up to 2” (51mm) longer than standard
- Doors will swing 180°, trim permitting

**Technical Information**
Frame stop required

---

* Door size & weight guidelines are determined using the appropriate number of intermediate pivots
PIVOTS AND PIVOT SETS
OFFSET HUNG

MODEL L147

Application
• Exterior or Interior Doors
• Lead-Lined/Heavy/High Traffic Doors
• Weight to 800 lbs.
• Door Width up to 4’0” (1219mm)

Handed

Product Description & Features
• Standard top pivot L180 included
• ML19 intermediate pivot required (order separately), see page 19
• Bottom pivot mounts directly to floor
• Doors with lead lining under the skin should also use this product.
• Screw holes in top pivot and bottom arm spaced to straddle lead lining in the middle of the door
• Available for fire door assemblies up to three hours for 1-3/4” (44mm) doors only (ferrous material) – specify FL147. Intermediate pivot required by UL. Specify FML19 (order separately), see page 19
• For 20-minute label suffix “–20” to the part number
• Non-ferrous base material
• Doors 60” (1524mm) to 90” (2286mm) in height should use one intermediate pivot. Each additional 30” (762mm) of door height warrants another intermediate pivot
• Available to accommodate lead in door thicknesses 1-3/4” (44mm), 2” (51mm), 2-1/4” (57mm), 2-1/2” (64mm), or 3” (76mm) – specify when ordering
• 3/4” (19mm) offset (measured from centerline of pivot to face of door)
• Door edges must be beveled 1/8” in 2”
• Furnished with wood and machine screws
• Extended spindles available in 1/2” (13mm) increments up to 2” (51mm) longer than standard
• Doors will swing 180°, trim permitting

ANSI/C07162/C07202

Technical Information
Frame stop required

1-3/4” door shown
**PIVOTS AND PIVOT SETS**

**OFFSET HUNG**

**MODEL 547**

**Application**
- Exterior or Interior Doors
- For Arch Top Doors or Overhead
- Concealed Closers
- Weight to 500 lbs.
- Door Width up to 3'6" (1067mm)
- Handed

**Product Description & Features**
- Set consists of two each M190 intermediate pivots and bottom pivot
- Bottom pivot mounts directly to floor
- Available for fire door assemblies up to three hours. Specify F547. Intermediate pivots FM190 included
- For 20-minute label suffix “–20” to the part number
- Non-ferrous base material
- Doors 60" (1524) to 90" (2286mm) in height have two intermediate pivots. Each additional 30" (762mm) of door height warrants another intermediate pivot
- 3/4" (19mm) offset (measured from centerline of pivot to face of door)
- Door edges must be beveled 1/8" in 2'
- Furnished with wood and machine screws
- Extended spindles available in 1/2" (13mm) increments up to 2" (51mm) longer than standard
- Doors will swing 180°, trim permitting

**MODEL 165**

**Application**
- Exterior or Interior Doors
- For Doors Without Bottom Pivots
- Weight to 300 lbs.
- Door Width up to 3'6" (1067mm)
- Handed

**Product Description & Features**
- Set consists of one H180 top pivot and two each M190 intermediate pivots
- Not available for fire door assemblies
- Non-ferrous base material
- Doors 60" (1524mm) to 90" (2286mm) in height have two intermediate pivots. Each additional 30" (762mm) of door height warrants another intermediate pivot
- 3/4" (19mm) offset (measured from centerline of pivot to face of door)
- Door edges must be beveled 1/8" in 2'
- Furnished with wood and machine screws
- Doors will swing 180°, trim permitting

**Technical Information**

**Frame stop required**
PIVOTS AND PIVOT SETS
OFFSET HUNG

MODEL 195

Application
• Exterior or Interior Doors
• Weight to 450 lbs.*
• Door Width up to 4’0” (1219mm)
Handed

Product Description & Features
• Standard top pivot 180 included
• M19 or M19M intermediate pivots are recommended (order separately), see page 18
• Bottom pivot mortised into side jamb
• Pivot set can be vertically adjusted up to 3/16” (5mm) after installation without the use of shims
• Doors 60” (1524mm) to 90” (2286mm) in height should use one intermediate pivot. Each additional 30” (762mm) of door height warrants another intermediate pivot
• Non-ferrous base material
• Available for fire door assemblies up to three hours. Specify F195. Intermediate pivot required by UL. Specify FM19 (order separately), see page 18
• 3/4” (19mm) offset (measured from centerline of pivot to face of door)
• Door edges must be beveled 1/8” in 2”
• Weight of door is borne by floor portion
• Furnished with wood and machine screws
• Extended spindles available in 1/2” (13mm) increments up to 2” (51mm) longer than standard
• Doors will swing 180°, trim permitting

Technical Information
Frame stop required

ANSI/C07172

* Door size & weight guidelines are determined using the appropriate number of intermediate pivots
**PIVOTS AND PIVOT SETS**

**OFFSET HUNG**

**MODEL 117-1/2**

**Application**
- Exterior or Interior Doors
- Weight to 650 lbs.*
- Door Width up to 4'0" (1219mm)
- Handed

**Product Description & Features**
- Standard top pivot 180 included
- M19 intermediate pivot required (order separately), see page 18
- Bottom pivot mortised into floor
- Available for fire door assemblies up to three hours (ferrous material) - specify F117-1/2. Intermediate pivot required by UL. Specify FM19 (order separately), see page 18
- For 20-minute label suffix “–20” to the part number
- Non-ferrous base material
- Doors 60" (1524mm) to 90" (2286mm) in height should use one intermediate pivot. Each additional 30" (762mm) of door height warrants another intermediate pivot
- 3/4" (19mm) offset (measured from centerline of pivot to face of door)
- Available for 1-1/2" (38mm) offset (door weight 350 lbs.) for doors with cladding or frame molding
- Door edges must be beveled 1/8" in 2"
- Furnished with wood and machine screws
- Extended spindles available in 1/2" (13mm) increments up to 2" (51mm) longer than standard
- Doors will swing 180°, trim permitting

**Technical Information**

Frame stop required

---

ANSI/C07121/C07202

* Door size & weight guidelines are determined using the appropriate number of intermediate pivots
PIVOTS AND PIVOT SETS
OFFSET HUNG

MODEL L117

Application
• Exterior or Interior Doors
• Lead-Lined/Heavy/High Traffic Doors
• Weight to 1,750 lbs.*
• Door Width up to 4’0” (1219mm)
• Handed

Product Description & Features
• Standard top pivot L180 included
• ML19 intermediate pivot required (order separately), see page 19
• Bottom pivot mortised into floor
• Available for fire door assemblies up to three hours (ferrous material). Specify FL117. Intermediate pivot required by UL. Specify FML19 (order separately), see page 19. Note: UL listing for 1-3/4” thick doors only
• Available to accommodate lead in door thicknesses 1-3/4” (44mm), 2” (51mm), 2-1/4” (57mm), 2-1/2” (64mm), or 3” (76mm) – specify when ordering
• Additional thrust bearing for greater load capacity
• Doors 60” (1524mm) to 90” (2286mm) in height should use one intermediate pivot. Each additional 30” (762mm) of door height warrants another intermediate pivot
• For 20-minute label suffix “–20” to the part number
• Non-ferrous base material for top pivot
• 3/4” (19mm) offset (measured from centerline of pivot to face of door)
• Door edges must be beveled in 1/8” in 2”
• Furnished with wood and machine screws
• Extended spindles available in 1/2” (13mm) increments up to 2” (51mm) longer than standard
• Doors will swing 180°, trim permitting

Technical Information

* Door size & weight guidelines are determined using the appropriate number of intermediate pivots

ANSI/C07111

Copyright © 2001-2015, Yale Security Inc., an ASSA ABLOY Group company. All rights reserved. Reproduction in whole or in part without the express written permission of Yale Security Inc. is prohibited.
**Model 180**

**Application**
- Full Mortise
- Non-handed

**Product Description & Features**
- Standard top pivot for most offset pivot sets and floor closers
- Oil-impregnated sintered bronze bushing
- Non-ferrous base material
- Available for fire door assemblies (ferrous material) – specify F180 or FH180
- For 20-minute label suffix “-20” to the part number
- 3/4” (19mm) offset (measured from centerline of pivot to face of door)
- Available for 1-1/2” (38mm) offset
- Furnished with wood and machine screws
- Available with longer than standard pivot pins. Increments are 1/4” (6mm), 1/2” (13mm), 3/4” (19mm) only
- For extra wide or high traffic prefix “H” – H pivots have heavy-duty needle bearings; available in 1-1/2” (38mm) offset

**Technical Information**

**Model 180 x 102**

**Application**
- Full Mortise
- Handed

**Product Description & Features**
- Special top pivot for doors in deep reveals or unusual door details where one leaf is too long for the normal door or frame portion
- Oil-impregnated sintered bronze bushings
- Non-ferrous base metal
- Available for 1-1/2” (38mm) offset
- May be inverted
- Furnished with wood and machine screws
- Available with longer than standard pivot pins. Increments are 1/4” (6mm), 1/2” (13mm), 3/4” (19mm) only

**Technical Information**

Frame stop required
PIVOTS AND PIVOT SETS
OFFSET HUNG TOP PIVOTS

MODEL L180

Application
• Lead-Lined/Heavy/High
• Traffic Doors
• Full Mortise
• Non-handed

Product Description & Features
• Standard top pivot for L147, L117 pivots and L27 floor closers
• Doors with lead lining under the skin should also use this product
• Screw holes spaced to straddle lead in the middle of the door
• Available to accommodate lead lined door thicknesses: 1-3/4" (44mm), 2" (51mm), 2-1/4" (57mm), 2-1/2" (64mm), or 3" (76mm) – specify when ordering
• Available for fire door assemblies for 1-3/4" (19mm) doors only (ferrous material). Specify FL180
• For 20-minute label suffix “–20” to the part number
• Non-ferrous base material
• 3/4" (19mm) offset (measured from centerline of pivot to face of door)
• Furnished with wood and machine screws
• Available with longer than standard pivot pins. Increments are 1/4" (6mm), 1/2" (13mm), 3/4" (19mm) only

Technical Information
Frame stop required

MODEL FA180

Application
• Asylum Design
• Full Mortise
• Handed

Product Description & Features
• Standard top pivot for SEC27-180 floor closer packages
• Optional top pivot for institutional use or installations where flat surfaces are objectionable
• For fire door assemblies
• Ferrous base material
• 3/4" (19mm) offset (measured from centerline of pivot to face of door)
• Furnished with wood and machine Torx® screws
• Available with longer than standard pivot pins. Increments are 1/4" (6mm), 1/2" (13mm), 3/4" (19mm) only

Technical Information
Frame stop required
MODEL 280

Application
- Half Surface
- Handed

Product Description & Features
- Flush door and frame application only
- Optional top pivot where door portion cannot be mortised
- Available for fire door assemblies (ferrous material) – specify F280
- Non-ferrous base material
- 3/4” (19mm) offset (measured from centerline of pivot to face of door)
- 1-3/4” door only
- Contact factory if door is not flush
- Furnished with wood and machine screws
- Available with longer than standard pivot pins. Increments are 1/4” (6mm), 1/2” (13mm), 3/4” (19mm) only

Technical Information

MODEL 380

Application
- Half Mortise
- Handed

Product Description & Features
- Flush door and frame application only
- Optional top pivot where jamb portion cannot be mortised
- Designed for channel iron door frames with aluminum, hollow metal or wood doors
- Available for fire door assemblies (ferrous material) – specify F380
- Door portion from L180 pivot is available if lead-lined doors are used – specify L380 and door thickness
- Non-ferrous base material
- 3/4” (19mm) offset (measured from centerline of pivot to face of door)
- Furnished with wood and machine screws
- Available with longer than standard pivot pins. Increments are 1/4” (6mm), 1/2” (13mm), 3/4” (19mm) only

Technical Information
PIVOTS AND PIVOT SETS
OFFSET HUNG TOP PIVOTS

MODEL 480

Application
- Full Surface
- Handed

Product Description & Features
- Flush door and frame application only
- Optional top pivot where door and jamb portion cannot be mortised
- Designed for channel iron door frames and any door where thru-bolting is advantageous
- Available for fire door assemblies (ferrous material) – specify F480
- Non-ferrous base material
- 3/4" (19mm) offset (measured from centerline of pivot to face of door)
- 1-3/4" door only
- Furnished with wood and machine screws
- Available with longer than standard pivot pins. Increments are 1/4" (6mm), 1/2" (13mm), 3/4" (19mm) only

ANSI/C07521

MODEL 680

Application
- Side Jamb Mounted
- Frame Portion
- Handed

Product Description & Features
- Used where no frame exists above door, or where it is not possible to anchor pivot into header of frame
- Side jamb portion can be surface mounted or mortised
- Non-ferrous base material
- 3/4" (19mm) offset (measured from centerline of pivot to face of door)
- Door edges must be beveled in 1/8" in 2"
- Furnished with wood and machine screws

Technical Information
- Frame stop required

Surface Mount Jamb Double Mortise Door

Mortise Jamb, Header and Door

Mortise Jamb and Door
MODEL 119

Application
• Full Mortise
• Handed

Product Description & Features
• Not load-bearing
• Maintains door alignment
• Available 3/4" (19mm) offset only
• Non-ferrous base material
• Doors 60" (1524mm) to 90" (2286mm) in height should use one intermediate pivot. Each additional 30" (762mm) of door height warrants another intermediate pivot
• Door edges must be beveled in 1/8" in 2"
• Used with 117, 117-1/4, 195 pivot sets and 127 and 427 floor closers
• Furnished with wood and machine screws

Technical Information
ANSI/C07382

MODEL M19

Application
• Full Mortise
• Handed

Product Description & Features
• Not load-bearing
• Maintains door alignment
• Aids in installing floor closers and bottom pivots
• For 20 minute label suffix “–20” to the part number
• Non-ferrous base metal
• 3/4" (19mm) offset
• Available for 1-1/2" (38mm) offset
• Available for fire door assemblies (ferrous material) – specify FM19
• Doors 60" (1524mm) to 90" (2286mm) in height should use one intermediate pivot. Each additional 30" (762mm) warrants another intermediate pivot
• Door edges must be beveled in 1/8" in 2"
• Furnished with wood and machine screws

Technical Information
ANSI/C07321/C07371

MODEL M190

Application
• Heavy-Duty Full Mortise
• Handed

Product Description & Features
Used when frame condition does not allow standard top pivot
• Lateral load-bearing
• Maintains door alignment
• Aids in installing floor closers and bottom pivots
• Heavy-duty needle bearing
• Non-ferrous base metal
• 3/4" (19mm) offset standard
• Available for 1-1/2" (38mm) offset
• Available for fire door assemblies (ferrous material) – specify FM190
• For 20-minute label suffix “–20” to part number
• Doors 60" (1524mm) to 90" (2286mm) in height should use one intermediate pivot. Each additional 30" (762mm) warrants another intermediate pivot
• Door edges must be beveled in 1/8" in 2"
• Furnished with wood and machine screws

Technical Information
ANSI/C07321/C07371

Copyright © 2001-2015, Yale Security Inc., an ASSA ABLOY Group company. All rights reserved. Reproduction in whole or in part without the express written permission of Yale Security Inc. is prohibited.

ASSA ABLOY, the global leader in door opening solutions
PIVOTS AND PIVOT SETS
INTERMEDIATE OR SIDE JAMB PIVOTS

MODEL ML19

Application
- Full Mortise
- Lead-Lined, Heavy or High Traffic Doors
- Handed

Product Description & Features
Screw holes spaced to straddle lead lining in center of door. Also use on extra heavy or high traffic door.
- Load-bearing
- Maintains door alignment
- Aids in installing closers and pivots
- For 20-minute label suffix “–20” to the part number
- Available to accommodate door thicknesses 1-3/4" (44mm), 2" (51mm), 2-1/4" (57mm), 2-1/2" (64mm), or 3" (76mm) – specify thickness when ordering
- Non-ferrous base material
- Available for fire door assemblies – 1-3/4" (44mm) door only – specify FML19
- Doors 60" (1524mm) to 90" (2286mm) in height should use one intermediate pivot. Each additional 30" (762mm) warrants another intermediate pivot
- Door edges must be beveled in 1/8" in 2"
- Furnished with wood and machine screws

Technical Information

ANSI/C07311

MODEL FA19

Application
- Full Mortise
- Asylum or High Security Applications
- Handed

Product Description & Features
Optional intermediate pivot for institutional use or installations where flat surfaces are objectionable.
- Maintains door alignment
- Aids in installing bottom pivots
- 3/4" (19mm) offset
- May be used with fire door assemblies
- Ferrous base material
- Doors 60" (1524mm) to 90" (2286mm) in height should use one intermediate pivot. Each additional 30" (762mm) warrants another intermediate pivot
- Door edges must be beveled in 1/8" in 2"
- Furnished with wood and machine Torx® screws

Technical Information

ANSI/C07361
PIVOTS AND PIVOT SETS
INTERMEDIATE OR SIDE JAMB PIVOTS

MODEL 219

Application
- Half Surface
- Handed

Product Description & Features
- Flush door and frame applications only
- Optional intermediate pivot where door portion cannot be mortised
- Maintains door alignment
- Non-ferrous base material
- 3/4" (19mm) offset only
- 1-3/4" door only
- Doors up to 90" (2286mm) in height should use one intermediate pivot. Each additional 30" (762mm) warrants another intermediate pivot
- Door edges must be beveled in 1/8" in 2"
- Furnished with wood and machine screws

Technical Information

ANSI/C07331

MODEL 319

Application
- Half Mortise
- Handed

Product Description & Features
- Flush door and frame applications only
- Optional intermediate pivot where jamb portion cannot be mortised
- Door portion from ML19 pivot is available if lead-lined door is used – specify L319 and door thickness
- Maintains door alignment
- Non-ferrous base material
- 3/4" (19mm) offset only
- Doors up to 90" (2286mm) in height should use one intermediate pivot. Each additional 30" (762mm) warrants another intermediate pivot
- Door edges must be beveled in 1/8" in 2"
- Furnished with wood and machine screws

Technical Information

ANSI/C07341

MODEL 419

Application
- Full Surface
- Handed

Product Description & Features
- Flush door and frame applications only
- Optional intermediate pivot where door and jamb portion cannot be mortised
- Maintains door alignment
- Non-ferrous base material
- 3/4" (19mm) offset only
- 1-3/4" door only
- Doors up to 90" (2286mm) in height should use one intermediate pivot. Each additional 30" (762mm) warrants another intermediate pivot
- Furnished with wood and machine screws

Technical Information

ANSI/C07351
PIVOTS AND PIVOT SETS
ELECTRIFIED INTERMEDIATE OR SIDE JAMB PIVOTS

MODEL E-M19

Application
• Offset Hung
• Electric Pivot for Power Transfer
• Handed

Whenever power transfer pivots are used, the leaves must not be separated

Product Description & Features
• Not load-bearing
• Door and jamb portion are factory assembled and cannot be separated
• Always use M19 intermediate pivot to install door
• Specify four, six, eight or twelve wires
• ElectroLynx® option available, suffix “QC#” (number of wires)
• 24-gauge wire is rated at 2 amps for low voltage, class II wiring applications
• Available for fire door assemblies (ferrous material) – specify EF-M19
• For 20-minute label, suffix “–20” to the part number
• 3/4” (19mm) offset
• Available 1-1/2” offset
• Door edges must be beveled in 1/8” in 2”
• Furnished with wood and machine screws

MODEL E-M19U

Application
• Offset Hung
• Electric Pivot for Power Transfer
• Handed
• For Electrified Panic Devices with Large Inrush Current

Whenever power transfer pivots are used, the leaves must not be separated

Product Description & Features
• Not load-bearing
• Always use M19 intermediate pivot to install door
• Door and jamb portion are factory assembled and cannot be separated
• Junction boxes are supplied with pivots
• Two each 18 gauge wires. Each wire is rated at 2 amps continuously. UL listed for 24-volt, Class I wiring
• ElectroLynx® option not available
• Not available in ferrous material
• 3/4” (19mm) offset
• Door edges must be beveled in 1/8” in 2”
• Furnished with wood and machine screws
MODEL E-ML19

Application
- Offset Hung
- Lead Lined or Extra Heavy Doors
- Electric Pivot for Power Transfer
- Handed

Product Description & Features
- Not load-bearing
- Always use ML19 intermediate pivot to install door
- Door and jamb portion are factory assembled and cannot be separated
- Specify four, six, eight or twelve wires
- Electrolynx® option available, suffix “QC#” (number of wires)
- 24-gauge wire is rated at 2 amps for low voltage, class II wiring applications
- Available for fire door assemblies (ferrous base material) specify E-FML19
- For 20-minute label, suffix “-20” to the part number
- 3/4” (19mm) offset
- Available 1-3/4” doors only
- Door edges must be beveled in 1/8” in 2’
- Furnished with wood and machine screws

 Whenever power transfer pivots are used, the leaves must not be separated

MODEL CS-M19

Application
- Offset Hung
- Electric Pivot for Door Position Monitoring
- Handed

Product Description & Features
- Magnetically activated reed switch in frame leaf of pivot monitors door position
- Always use M19 intermediate pivot to install door
- Not load-bearing
- Adjusting screw is easy to set on-site after installation. Screw is disguised as an installation screw
- Switch rated at 0.3 amps and 28 volts maximum, three each 22-gauge wires
- Electrolynx® option not available
- 3/4” (19mm) offset
- Available 1-1/2” offset
- Door edges must be beveled in 1/8” in 2’
- Furnished with wood and machine screws
PIVOTS AND PIVOT SETS
ELECTRIFIED INTERMEDIATE OR SIDE JAMB PIVOTS

CS-E-M19

Application
• Offset Hung
• Electric Pivot for Door Position Monitoring + Power Transfer
• Handed

Whenever power transfer pivots are used, the leaves must not be separated.

Product Description & Features
• Always use M19 intermediate pivot to install door
• Not load-bearing
• Magnetically activated reed switch in frame leaf of pivot monitors door position
• Adjusting screw is easy to set on-site after installation. Screw is disguised as an installation screw
• Door and jamb portion are factory assembled and cannot be separated
• For power transfer specify four, six, eight or twelve wires. 24-gauge wire is rated @ 2 amps for low voltage, class II wiring application
• Switch rated at 0.3 amps and 28 volts maximum. Three each 22 gauge wires only
• ElectroLynx® option available for power transfer only, suffix “QC#” [number of wires] – Specify four, six, eight or twelve wires
• Not available in ferrous material
• 3/4” (19mm) offset
• For 20-minute label, suffix –20
• Available 1-1/2” offset
• Door edges must be beveled in 1/8” in 2”
• Furnished with wood and machine screws

Technical Information

CS-ML19

Application
• Offset Hung
• Lead Lined or Extra Heavy Doors
• Electric Pivot For Door Position Monitoring
• Handed

Product Description & Features
• Always use ML19 intermediate pivot to install door
• Not load-bearing
• Door and jamb portion are factory assembled and cannot be separated
• Magnetically activated reed switch in frame leaf of pivot monitors door position
• Adjusting screw is easy to set on-site after installation. Screw is disguised as an installation screw
• Switch rated at 0.3 amps and 28 volts maximum, three each 22 gauge wires
• ElectroLynx® option not available
• 3/4” (19mm) offset
• 1-3/4” door only
• Door edges must be beveled in 1/8” in 2”
• Furnished with wood and machine screws

Technical Information
MODEL F519

Application
- Pocket Door Pivot
- Non-handed

Product Description & Features
- Full mortise, non-handed pivot for pocket door applications
- Heavy-duty steel pivot with ball bearings
- Allows doors to swing 90°
- Minimum three pocket pivots per door
- Doors 60” (1524mm) to 90” (2286mm) in height require four pocket pivots. Every additional 30” (762mm) of door height warrants another pocket pivot
- UL listed for all labeled pocket fire-door assemblies up to and including 3 hours
- Fire-rated door assemblies must have been tested with pocket pivots
- Furnished with wood and machine screws

Technical Information

MODEL EF519

Application
- Pocket Door Pivot
- Electric Pivot for Power Transfer
- Non-handed

Product Description & Features
- Full mortise, non-handed pivot for pocket door applications
- Always use as middle pivot
- Available with four wires only
- Electrolynx® option available, suffix “QC4”
- 24-gauge wire is rated at 2 amps for low voltage, class II wiring applications
- Heavy-duty steel pivot with ball bearings
- Allows doors to swing 90°
- Door and jamb portions are factory assembled and cannot be separated
- Minimum three pocket pivots per door
- Doors over 90” (2286mm) in height require four pocket pivots. Every additional 30” (762mm) of door height warrants another pocket pivot
- Fire-rated door assemblies must have been tested with pocket pivots
- Furnished with wood and machine screws

Technical Information
PIVOTS AND PIVOT SETS
CENTER HUNG

MODEL 127-3/4

Application
• Interior Doors
• Weight to 200 lbs.
• Door Sizes up to 3’6” x 8’6” (1067 x 2591 mm)
• Non-Handed

Product Description & Features
• Standard top pivot 320 included
• Bottom pivot mortised into side jamb
• Weight of door borne by floor
• Pivot point centered in thickness of door
• Door must have radius on pivot edge
• Not allowed for use on labeled doors and frames
• Pivot point remains constant at 1-1/4 from the edge of the door
• Furnished with wood and machine screws
• Available with extended spindles in 1/2” (13 mm) increments up to 2” (51 mm) longer than standard

Technical Information

ANSI/C07042

Center hung pivots are door hanging means only. To close doors, see floor closer sections of the catalogs.

MODEL 128-3/4

Application
• Interior Doors
• Weight to 250 lbs.
• Door Sizes up to 3’6” x 8’6” (1067 x 2591 mm)
• Non-Handed

Product Description & Features
Identical to the 127-3/4 except:
• Bottom pivot mounts directly to floor

Technical Information

ANSI/C07032

Center hung pivots are door hanging means only. To close doors, see floor closer sections of the catalogs.
PIVOTS AND PIVOT SETS
CENTER HUNG

MODEL 370

Application
• Exterior or Interior Doors
• Weight to 500 lbs.
• Door Sizes up to 3’8” x 8’6”*
  (1118 x 2591 mm)
• Non-handed

Product Description & Features
• Standard top pivot 340 included
• Bottom pivot mortises into floor
• Pivot point centered in thickness of door
• Door must have radius on pivot edge
• Pivot set features sealed bearings for protection against weather and debris
• Not allowed for use on labeled doors and frames
• Furnished with wood and machine screws
• Available with extended spindles in 1/2” (13 mm) increments up to 2” (51 mm) longer than standard

Center hung pivots are door hanging means only. To close doors, see floor closer sections of the catalogs.

* For doors taller than 8’6” use top pivot 345 in lieu of 340

ANSI NO/C07032

MODEL 173/4

Application
• Exterior or Interior Doors
• Weight to 600 lbs.
• Door Sizes up to 4’0” x 8’6”*
  (1219 x 2591 mm)
• Non-handed

Product Description & Features
• Standard top pivot 340 included
• Bottom pivot mounts directly to floor
• Pivot point centered in thickness of door
• Door must have radius on pivot edge
• Heavy-duty bearings
• Pivot set features sealed bearings for protection against weather and debris
• Not allowed for use on labeled doors and frames
• Furnished with wood and machine screws
• Available with extended spindles in 1/2” (13 mm) increments up to 2” (51 mm) longer than standard

Center hung pivots are door hanging means only. To close doors, see floor closer sections of the catalogs.

* For doors taller than 8’6” use top pivot 345 in lieu of 340

ASSA ABLOY, the global leader in door opening solutions
PIVOTS AND PIVOT SETS
CENTER HUNG

MODEL H1173/4

Application
• Exterior or Interior Doors
• Weight to 1,000 lbs.
• Door Sizes up to 4'0" x 8'6"*
  (1219 x 2591mm)
• Non-handed

Product Description & Features
• Standard top pivot H340 included
• Bottom pivot is mortised into floor
• Special side load arm for 1-3/4" thick doors
  or for moving pivot point toward lock edge of
door
• Pivot point centered in thickness of door
• Additional surface applied thrust bearing
• Door must have radius on pivot edge
• Pivot set features sealed bearings for
  protection against weather and debris
• Not allowed for use on labeled doors
  and frames
• Furnished with wood and machine screws
• Available with extended spindles in 1/2"
  (13mm) increments up to 2" (51mm) longer
  than standard

Center hung pivots are door hanging means only. To close doors, see floor closer sections
of the catalogs.

* For doors taller than 8'6" use top pivot H345
  in lieu of H340

MODEL H1173/4 X 587 ARM

Product Description & Features
• Standard top pivot H340 included
• Bottom pivot is mortised into floor
• Special side load arm for 1-3/4" thick doors
  or for moving pivot point toward lock edge of
door
• Pivot point centered in thickness of door
• Additional surface applied thrust bearing
• Door must have radius on pivot edge
• Pivot set features sealed bearings for
  protection against weather and debris
• Not allowed for use on labeled doors
  and frames
• Furnished with wood and machine screws
• Available with extended spindles in 1/2"
  (13mm) increments up to 2" (51mm) longer
  than standard

Center hung pivots are door hanging means only. To close doors, see floor closer sections
of the catalogs.

* For doors taller than 8'6" use top pivot H345
  in lieu of H340
MODEL 176

**Application**
- Interior Doors
- Weight up to 150 lbs.
- Door Sizes up to 3’0” x 8’0”
- Door Thickness 1-3/8 to 1-3/4
- Non Handed

**Product Description & Features**
- Standard top pivot 320 included
- Bottom pivot mounts directly into concrete floor
- Pivot point centered in thickness of the door
- Door must have radius on pivot edge
- Not allowed for use on labeled doors and frames
- Furnished with wood and machine screws
- 3/8” vertical adjustment
- No spindle extensions available

**Technical Information**

/model176.png

MODEL 178

**Application**
- Interior Doors
- Weight up to 175 lbs.
- Door Sizes up to 3’0” x 8’0” [914 x 2591mm]
- Non Handed

**Product Description & Features**
- Used on full glass doors
- Doors do not return to center
- Accommodates glass thicknesses 3/8”-1/2”
- Includes special floor portion, top and bottom patch fittings and walking beam top pivot

**Technical Information**

/model178.png

Center hung pivots are door hanging means only. To close doors see closer sections of the catalogs.*
PIVOTS AND PIVOT SETS
CENTER HUNG TOP PIVOTS

MODEL 320

Application
- Fully Concealed
- Non-handed

Product Description & Features
- Standard top pivot for Models 127-3/4, 128-3/4, and 176 pivot sets
- Walking beam-type pivot – 1/2" (13mm) diameter pivot pin with 3/4" (19mm) engagement
- Oil-impregnated sintered bronze bushing
- Completely concealed when door is closed
- Furnished with wood and machine screws
- Available with longer than standard pivot pins. Increments are 1/4" (6mm), 1/2" (13mm), 3/4" (19mm) only

MODEL 340

Application
- Fully Concealed
- Non-handed

Product Description & Features
- Standard top pivot for Models 370 and 117-3/4 pivot sets. Also used for H28, 30, 40 and 50 Series floor closers
- Walking beam-type pivot – 1/2" (13mm) diameter pivot pin with 3/4" (19mm) engagement
- Oil-impregnated sintered bronze bushing
- Completely concealed when door is closed
- Furnished with wood and machine screws
- Available with longer than standard pivot pins. Increments are 1/4" (6mm), 1/2" (13mm), 3/4" (19mm) only

MODEL H340

Application
- Fully Concealed
- Heavy-Duty
- Non-handed

Product Description & Features
- Standard top pivot for Model H117-3/4 pivot set. Also used for H28 and H40 Series floor closers
- Can be used with any floor closer or pivot set with pivot point 2-3/4, or greater, from edge of the door
- Walking beamtype pivot – 11/16" (17mm) diameter pivot pin with 3/4" (19mm) engagement
- Heavy-duty needle bearing
- Completely concealed when door is closed
- Furnished with wood and machine screws
- Available with longer than standard pivot pins. Increments are 1/4" (6mm), 1/2" (13mm), 3/4" (19mm) only
MODEL 345

Application
- Fully Concealed
- Center Hung
- Non-handed
- Earthquake Tolerant
- Taller Doors

Product Description & Features
- Optional top pivot
- Ideal for locations where there is a fear of dramatic building settling or for doors over 8’6” in height
- Long pivot pin engages in top of door 1-3/4” [44mm]
- Can be used with any center hung bottom pivot or floor closer. Order pivot set or floor closer LTP (less top pivot) with 345 on separate line item
- Walking beam-type pivot – 1/2” [13mm] diameter pivot pin
- Oil-impregnated sintered bronze bushing
- Completely concealed when door is closed
- Furnished with wood and machine screws

MODEL H345

Application
- Fully Concealed
- Center Hung
- Non-handed
- Earthquake Tolerant
- Taller Doors

Product Description & Features
- Ideal for locations where there is a fear of dramatic building settling or for doors over 8’6” in height
- Long pivot pin engages in top of door 1-3/4” [44mm]
- Can be used with any center hung bottom pivot or floor closer whose pivot point is 2-3/4”, or greater, from the edge of the door. Order pivot set or floor closer LTP (less top pivot) with H345 on separate line item
- Walking beam-type pivot – 11/16” [17mm] diameter pivot pin
- Heavy-duty needle bearing
- Completely concealed when door is closed
- Furnished with wood and machine screws
PIVOTS AND PIVOT SETS
CENTER HUNG TOP PIVOTS

MODEL 340 X 102

Application
- Fully Concealed
- Non-handed

Product Description & Features
- Optional top pivot for doors or frames that have conflicts with other hardware
- Can be inverted. The walking beam portion would be installed the header of the frame
- No finish plate supplied
- If inverted, finish plate should be ordered and priced separately (see page 43 for 340 or 320 plate part numbers)
- Oil-impregnated sintered bronze bushing
- Completely concealed when door is closed
- Available with longer than standard pivot pins. Increments are 1/4” (6mm) up to 3/4” (19mm)
- Furnished with wood and machine screws
- For lighter weight doors use 320 x 102

MODEL 340 X AP3

Application
- Surface mounted
- Handed doors up to 3’6” wide

Product Description & Features
- Used where no frame exists above door, or where it is not possible to anchor pivot into header of frame
- Center hung applications only
- Furnished with 340 door portion
- Part is handed to keep installation plate to inside of room or building
- Furnished with wood and machine screws

Technical Information
PIVOTS AND PIVOT SETS
ELECTRIFIED CENTER HUNG TOP PIVOTS

MODEL E-H340

Application
• Center Hung
• Top Pivot for Power Transfer
• Non-handed

Product Description & Features
• Walking beam type pivot – 11/16” (17mm) diameter pivot pin with 3/4” (19mm) engagement
• Can be used with any center hung bottom pivot or floor closer. Order the pivot set LTP (less top pivot) with E-H340 as a separate line
• Heavy-duty needle bearing
• Specify two, four, six, eight or twelve wires
• Two-wire is available in 18 gauge and is not available ElectroLynx®
• Four, six, eight and twelve wires are 24 gauge and available in ElectroLynx®. Suffix QC# (number of wires)
• Completely concealed when door is closed
• Available with longer pivot pins. Increments are 1/4” (6mm), 1/2” (13mm), 3/4” (19mm) only
• Furnished with wood and machine screws

MODEL E-H345

Application
• Fully Concealed
• Center Hung
• Top Pivot for Power Transfer
• Non-handed
• Earthquake Tolerant
• Taller Doors

Product Description & Features
• Walking beam-type pivot – 11/16” (17mm) diameter pivot pin
• Longer pivot pin throw engages in top of door 1-3/4” (44mm). Ideal for locations where there is a fear of dramatic building settling
• Can be used with any center hung bottom pivot or floor closer whose pivot point is 2-3/4”, or greater, from the edge of the door. Order the pivot set LTP (less top pivot) with E-H345 as a separate line
• Used with heavy-duty pivots & floor closers
• Heavy-duty needle bearing
• For doors over 8’6” in height
• Specify two, four, six, eight or twelve wires
• Two-wire is available in 18 gauge and is not available with ElectroLynx®
• Four, six, eight and twelve wires are 24 gauge and available in ElectroLynx®. Suffix QC# (number of wires)
• Furnished with wood and machine screws
PIVOTS AND PIVOT SETS
ELECTRIFIED CENTER HUNG TOP PIVOTS

MODEL CS-340

Application
- Center Hung
- Door Position Monitoring
- Non-handed

Product Description & Features
- Walking beam type pivot
- Magnetically activated reed switch in frame of pivot monitors door position
- Adjusting screw is easy to set on-site after installation screw is concealed by cover plate
- Oil-impregnated sintered bronze bearing
- Completely concealed when door is closed
- Available with longer pivot pins. Increments are 1/4" (6mm), 1/2" (13mm), 3/4" (19mm) only
- Switch rated at 0.3 amps and 28 volts maximum, three wires, 22 gauge
- ElectroLynx® option not available
- Furnished with wood and machine screws

Technical Information

MODEL CS-345

Application
- Fully Concealed
- Center Hung
- Door Position Monitoring
- Non-handed
- Taller Doors

Product Description & Features
- Longer pivot throw pin engages in top of door 1-3/4" (44mm). Ideal for locations where there is a fear of dramatic building settling or taller doors
- Can be used with any center hung bottom pivot or floor closer
- Magnetically activated reed switch monitors door position
- Adjusting screw is easy to set on-site after installation screw is concealed by cover plate
- Switch rated at 0.3 amps and 28 volts maximum, three wires, 22 gauge
- ElectroLynx® option not available
- Heavy-duty needle bearing
- Completely concealed when door is closed
- Furnished with wood and machine screws

Technical Information
# PIVOTS AND PIVOT SETS

## QUICK REFERENCE/HOW TO ORDER

## Prefix Model Offset Center Hung Standard Top Pivot Available 3-Hour Fire Rated Doors Handed Maximum Door Weight**

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Model</th>
<th>Offset</th>
<th>Center Hung</th>
<th>Standard Top Pivot</th>
<th>Available 3-Hour Fire Rated Doors</th>
<th>Handed</th>
<th>Maximum Door Weight**</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td>117</td>
<td>Yes</td>
<td>No</td>
<td>180</td>
<td>No</td>
<td>Yes</td>
<td>250</td>
</tr>
<tr>
<td>F</td>
<td>173</td>
<td>Yes</td>
<td>No</td>
<td>180</td>
<td>No</td>
<td>Yes</td>
<td>150</td>
</tr>
<tr>
<td>F</td>
<td>117 x 1-1/2</td>
<td>Yes</td>
<td>No</td>
<td>180</td>
<td>Yes</td>
<td>Yes</td>
<td>150</td>
</tr>
<tr>
<td>F</td>
<td>147</td>
<td>Yes</td>
<td>No</td>
<td>180</td>
<td>Yes</td>
<td>Yes</td>
<td>600</td>
</tr>
<tr>
<td>F</td>
<td>147 x 1-1/2</td>
<td>Yes</td>
<td>No</td>
<td>180</td>
<td>Yes</td>
<td>Yes</td>
<td>350</td>
</tr>
<tr>
<td>F</td>
<td>L147</td>
<td>Yes</td>
<td>No</td>
<td>L180</td>
<td>Yes*</td>
<td>Yes</td>
<td>800</td>
</tr>
<tr>
<td>F</td>
<td>547</td>
<td>Yes</td>
<td>No</td>
<td>NA</td>
<td>Yes</td>
<td>Yes</td>
<td>500</td>
</tr>
<tr>
<td>F</td>
<td>165</td>
<td>Yes</td>
<td>No</td>
<td>H180</td>
<td>No</td>
<td>Yes</td>
<td>300</td>
</tr>
<tr>
<td>F</td>
<td>195</td>
<td>Yes</td>
<td>No</td>
<td>180</td>
<td>No</td>
<td>Yes</td>
<td>450</td>
</tr>
<tr>
<td>F</td>
<td>117-1/2</td>
<td>Yes</td>
<td>No</td>
<td>180</td>
<td>Yes</td>
<td>Yes</td>
<td>650</td>
</tr>
<tr>
<td>F</td>
<td>117-1/2 x 1-1/2</td>
<td>Yes</td>
<td>No</td>
<td>180</td>
<td>Yes</td>
<td>Yes</td>
<td>450</td>
</tr>
<tr>
<td>F</td>
<td>L117</td>
<td>Yes</td>
<td>No</td>
<td>L180</td>
<td>Yes*</td>
<td>Yes</td>
<td>1750</td>
</tr>
<tr>
<td>F</td>
<td>127-3/4</td>
<td>No</td>
<td>Yes</td>
<td>320</td>
<td>No</td>
<td>No</td>
<td>200</td>
</tr>
<tr>
<td>F</td>
<td>128-3/4</td>
<td>No</td>
<td>Yes</td>
<td>320</td>
<td>No</td>
<td>No</td>
<td>250</td>
</tr>
<tr>
<td>F</td>
<td>370</td>
<td>No</td>
<td>Yes</td>
<td>340</td>
<td>No</td>
<td>No</td>
<td>500</td>
</tr>
<tr>
<td>F</td>
<td>117-3/4</td>
<td>No</td>
<td>Yes</td>
<td>340</td>
<td>No</td>
<td>No</td>
<td>600</td>
</tr>
<tr>
<td>F</td>
<td>H117-3/4</td>
<td>No</td>
<td>Yes</td>
<td>H340</td>
<td>No</td>
<td>No</td>
<td>1000</td>
</tr>
<tr>
<td>F</td>
<td>H117-3/4 x 587</td>
<td>No</td>
<td>Yes</td>
<td>H340</td>
<td>No</td>
<td>No</td>
<td>1000</td>
</tr>
<tr>
<td>F</td>
<td>176</td>
<td>No</td>
<td>Yes</td>
<td>320</td>
<td>No</td>
<td>No</td>
<td>150</td>
</tr>
<tr>
<td>F</td>
<td>178</td>
<td>No</td>
<td>Yes</td>
<td>Special</td>
<td>No</td>
<td>No</td>
<td>175</td>
</tr>
</tbody>
</table>

*For 1-3/4" doors only

**Weight for offset product is based on 3/4" offset and the use of an intermediate pivot.

## HOW TO ORDER

<table>
<thead>
<tr>
<th>Prefix</th>
<th>L147 Model</th>
<th>3/4&quot; Offset</th>
<th>x LTP x 2-1/4 dr Suffix</th>
<th>x RH Hand</th>
<th>x 626 Finish</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td>117</td>
<td>3/4&quot;</td>
<td>1-1/2&quot;</td>
<td>RH</td>
<td>L</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Blank</td>
<td>Center Hung</td>
<td>Right</td>
<td>Left</td>
</tr>
</tbody>
</table>

587 CH Arm for 1-3/4" Dr - Extended Spindles - Longer Top Pivot Pins - LTP Less Top Pivot - 20-20-Minute Label - Cover Pan (xDepth) - SPLO Special Layout # - Door Thickness - L Product

| Finish | 605 Bright Brass | 606 Satin Brass | 611 Bright Bronze | 612 Satin Bronze | 613 Dark Bronze | 613E Dark Oxidized | 618 Bright Nickel | 619 Satin Nickel | 622 Flat Black | 625 Bright Chrome | 626 Satin Chrome |
|--------|----------------|----------------|------------------|----------------|----------------|-------------------|----------------|----------------|--------------|*****************|*******************|

*specify finish

ASSA ABLOY, the global leader in door opening solutions
PIVOTS AND PIVOT SETS
INTERMEDIATE PIVOTS PARTS DRAWINGS

M19, M190, ML19, FA19, 219, 319, FM19, FM190, ALL ELECTRIFIED M19 INTERMEDIATE PIVOTS

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>107015-*</td>
<td>Metal Screws for One Leaf</td>
</tr>
<tr>
<td>107115-*</td>
<td>Wood Screws for One Leaf</td>
</tr>
<tr>
<td>181778-*</td>
<td>Hex Cap</td>
</tr>
</tbody>
</table>

219, 319 and 419 Also Use:

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>107059-*</td>
<td>Includes Screws and Backplate</td>
</tr>
</tbody>
</table>

Torx® Available - Suffix "T"

1 19 INTERMEDIATE PIVOT

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>107014-*</td>
<td>Metal Screws for One Leaf</td>
</tr>
<tr>
<td>107114-*</td>
<td>Wood Screws for One Leaf</td>
</tr>
</tbody>
</table>

Torx® Available - Suffix "T"

*specify finish
## ANGLE PIVOT-3

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>107047*</td>
<td>Includes Screws and Stud</td>
</tr>
<tr>
<td>30243</td>
<td>Door Portion</td>
</tr>
<tr>
<td>30814**</td>
<td>Frame Portion (handed)</td>
</tr>
</tbody>
</table>

Torx® not available.

## TOP PIVOT 340 x 102 OR 320 x 102

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>10210 AS</td>
<td>Jamb Portion</td>
</tr>
<tr>
<td>3065</td>
<td>Door Portion</td>
</tr>
<tr>
<td>640ASY</td>
<td>Door Portion (320 x 102)</td>
</tr>
<tr>
<td>107012*</td>
<td>Jamb Portion Screw Kit</td>
</tr>
<tr>
<td>107329</td>
<td>Door Portion Screw Kit</td>
</tr>
</tbody>
</table>

Torx® not available.

## F519 POCKET PIVOT

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>619005*</td>
<td>Screw Kit</td>
</tr>
<tr>
<td></td>
<td>Torx® Available</td>
</tr>
</tbody>
</table>

*specify finish
PIVOTS AND PIVOT SETS
PARTS DRAWINGS

117-1/4 PIVOT SET

Right Hand Shown
3/4" Offset Only

<table>
<thead>
<tr>
<th>Part Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pivot Stud</td>
<td>181770-ASY</td>
</tr>
<tr>
<td>Hex Cap</td>
<td>181778-*</td>
</tr>
<tr>
<td>Arm Cap and Screw</td>
<td>12029-*AS</td>
</tr>
<tr>
<td>Arm LH</td>
<td>117066ASY</td>
</tr>
<tr>
<td>Arm RH</td>
<td>11705RASY</td>
</tr>
<tr>
<td>Floor Portion Assy LH</td>
<td>174066*AS</td>
</tr>
<tr>
<td>Floor Portion Assy RH</td>
<td>174066*AS</td>
</tr>
</tbody>
</table>

117, F117 PIVOT SET

Right Hand Shown
3/4" and 1-1/2" Offset

<table>
<thead>
<tr>
<th>Part Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pivot Stud</td>
<td>181770-ASY</td>
</tr>
<tr>
<td>Hex Cap</td>
<td>181778-*</td>
</tr>
<tr>
<td>Arm Cap and Screw</td>
<td>12029-*AS</td>
</tr>
<tr>
<td>3/4&quot; Offset Arm LH</td>
<td>117066ASY</td>
</tr>
<tr>
<td>3/4&quot; Offset Arm RH</td>
<td>11705RASY</td>
</tr>
<tr>
<td>117 Floor Portion Assy LH</td>
<td>17526*AS</td>
</tr>
<tr>
<td>117 Floor Portion Assy RH</td>
<td>17559*AS</td>
</tr>
</tbody>
</table>

Screw Kits

- 180 Screw Kit
  - 107014 - * Machine (2 req.)
  - 107114 - * Wood (2 req.)

117-1/4 Screw Kit
- 117127 - *

117 x 1-1/2 OS

<table>
<thead>
<tr>
<th>Part Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/4&quot; Offset Top Pivot Assembly</td>
<td>180 (standard)</td>
</tr>
<tr>
<td>180 Std 150 (Fire Rated)</td>
<td>180-20 (20 minutes)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Part Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-1/2&quot; Offset Arm LH</td>
<td>117066L15*</td>
</tr>
<tr>
<td>1-1/2&quot; Offset Arm RH</td>
<td>11705R15*</td>
</tr>
</tbody>
</table>

Screw Kits

- 180 Screw Kit
  - 107014 - * Machine (2 req.)
  - 107114 - * Wood (2 req.)

Bottom Pivot Screw Kit
- 117127 - *
147, F147 PIVOT SET

Right Hand Shown
3/4" and 1-1/2" Offset

| (A) Pivot Stud | 181770-ASY |
| (B) Hex Cap | 181778-* |
| (D) Arm Cap & Screw | 012142R*AS (RH, BRS) |
| | 012142L*AS (LH, BRS) |
| | 012144R*AS (RH, SS) |
| | 012144L*AS (LH, SS) |
| (E) Arm x Locking Screw | 3/4" Offset 275177 RH |
| | 3/4" Offset 275176 LH |
| (F) Arm Lock Screw Pkg (5 per) | 88905-PKG |
| (G) Arm Shims (2 per) | 107071 |
| (H) Spindle Stud 14714 |
| (I) 147/F147 Floor Portion x Bearing 14721-*AS |

(C) 3/4" Offset Top Pivot Assembly
180 (standard) F180 (Fire Rated) 180-20 (20 minutes)

147 & F147 1-1/2 OS

(E) Arm x Locking Screw
1-1/2" Offset 275167-*

Screw Kits
180/F180 Screw Kit
107014 - * Machine [2 req.]
107114 - * Wood [2 req.]

Arm Screw Kit
107044 Machine
107144 Wood

147/F147 Bottom Pivot Screw Kit (includes "E" ring shims)
107062-*

*specify finish
L147, FL147 PIVOT SET

Right Hand Shown
3/4" Offset Only

| (A) Pivot Stud          | 181770-ASY |
| (B) Hex Cap            | 18177B-*  |
| (D) Arm Cap & Screw    | 012142*AS (RH, BRS) | 0121421*AS (LH, BRS) | 012144*AS (RH, SS) | 0121441*AS (LH, SS) |
| (E) Arm x Locking Screw| 1-3/4" Door 18550-Asy RH | 18650-Asy LH |
| (F) Arm x Locking Screw| 2" Door 18551-Asy RH | 18651-Asy LH |
| (G) Arm x Locking Screw| 2-1/4" Door 18552-Asy RH | 18652-Asy LH |
| (H) Arm x Locking Screw| 2-1/2" Door 18553-Asy RH | 18653-Asy LH |
| (I) Arm x Locking Screw| 3" Door 18554-Asy RH | 18654-Asy LH |
| (J) Arm Lock Screw Pkg | 88905-PKG |

Special Note: FL147 is available for 1-3/4" doors only

547/F547 PIVOT SET

Right Hand Shown
3/4" Offset Only

| (B) Arm Cap & Screw    | 012142*AS (RH, BRS) | 0121421*AS (LH, BRS) | 012144*AS (RH, SS) | 0121441*AS (LH, SS) |
| (C) Arm x Locking Screw| 275177RH | 275176RH |
| (D) Arm x Locking Screw| Pkg [5 per] 88905Pkg |
| (E) Arm Shim Kit [2 per] | 107071 |
| (F) Spindle Stud 14714 |
| (G) 147 Floor Portion x Bearing 14721-*AS |
195 PIVOT SET

Right Hand Shown
3/4" Offset Only

<table>
<thead>
<tr>
<th>Item</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) Pivot Stud</td>
<td>181770-ASY</td>
</tr>
<tr>
<td>(B) Hex Cap</td>
<td>181778-*</td>
</tr>
<tr>
<td>(D) Door Portion Asy RH</td>
<td>19503-*AS</td>
</tr>
<tr>
<td>(D) Door Portion Asy LH</td>
<td>19504-*AS</td>
</tr>
<tr>
<td>(E) Cap</td>
<td>19511-*</td>
</tr>
<tr>
<td>(F) Jamb Portion Asy RH (Includes Stud)</td>
<td>19501-*AS</td>
</tr>
<tr>
<td>(F) Jamb Portion Asy LH (Includes Stud)</td>
<td>19502-*AS</td>
</tr>
</tbody>
</table>

Screw Kits

180 Screw Kit
- 107014 - * Machine (2 req.)
- 107114 - * Wood (2 req.)

195 Screw Kit
- 107014 - * Machine (2 req.)
- 107114 - * Wood (2 req.)

173 PIVOT SET

<table>
<thead>
<tr>
<th>Item</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) Pivot Stud</td>
<td>181770-ASY</td>
</tr>
<tr>
<td>(B) Hex Cap</td>
<td>181778-*</td>
</tr>
<tr>
<td>(D) Arm Cap and Screw</td>
<td>12029-*AS</td>
</tr>
<tr>
<td>(E) Arm LH</td>
<td>11706L*AS</td>
</tr>
<tr>
<td>(E) Arm RH</td>
<td>11705R*AS</td>
</tr>
<tr>
<td>(F) Spindle Stud</td>
<td>173003</td>
</tr>
<tr>
<td>(G) Spindle Collar</td>
<td>173001</td>
</tr>
<tr>
<td>(H) Mounting Bolt</td>
<td>173002</td>
</tr>
<tr>
<td>(I) Floor Anchor</td>
<td>173010</td>
</tr>
</tbody>
</table>

Screw Kits

180 Screw Kit
- 107014 - * Machine (2 req.)
- 107114 - * Wood (2 req.)

Bottom Arm Screw Kit
- 173176 Wood and Machine

173 x 1-1/2OS

<table>
<thead>
<tr>
<th>Item</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>(E) 1-1/2&quot; offset arm LH</td>
<td>11706L15*</td>
</tr>
<tr>
<td>(E) 1-1/2&quot; offset arm RH</td>
<td>11705R15*</td>
</tr>
</tbody>
</table>

*specify finish
PIVOTS AND PIVOT SETS
PARTS DRAWINGS

117-1/2, F117-1/2 PIVOT SET

Right Hand Shown
3/4” and 1-1/2” Offset

[A] Pivot Stud
181770-ASY

[B] Hex Cap
181778-*

[D] Arm Cap & Screw
012142R*AS (RH, BRS)
012142I*AS (LH, BRS)
012144R*AS (RH, SS)
012144I*AS (LH, SS)

[E] Arm x Locking Screw
3/4” Offset 275177 RH
3/4” Offset 275176 LH

[F] Arm Lock Screw Pkg (5 per)
88905-PKG

[G] Arm Shim Kit (5 per)
275065-PKG

[H] Spindle Shoulder Collar
16301*

[I] Floor Plate x Screws
1174050-*

[J] 117-1/2 & F117-1/2 Floor Portion Assembly
X01176350

[C] 3/4” Offset Top Pivot Assembly
180 (standard)
F180 (Fire Rated)
180-20 (20 minutes)

Screw Kits
180/F180 Screw Kit
107014 - * Machine (2 req.)
107114 - * Wood (2 req.)

Floor Plate Screw Kit
107004-*

Arm Screw Kit
107044 - * Machine
107144 - * Wood

*specify finish
**L117, FL117 PIVOT SET**

Right Hand Shown  
3/4" Offset Only

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) Pivot Stud</td>
<td>181770-ASY</td>
</tr>
<tr>
<td>(B) Hex Cap</td>
<td>181778-*</td>
</tr>
</tbody>
</table>
| (D) Arm Cap & Screw | 012142*AS (RH, BRS)  
012142L*AS (LH, BRS)  
012144*AS (RH, SS)  
012144L*AS (LH, SS) |
| (E) Arm x Locking Screw | 1-3/4" Door 18550-ASY RH  
18650-ASY LH |
| (E) Arm x Locking Screw | 2" Door 18551-ASY RH  
18651-ASY LH |
| (E) Arm x Locking Screw | 2-1/4" Door 18552-ASY RH  
18652-ASY LH |
| (E) Arm x Locking Screw | 2-1/2" Door 18553-ASY RH  
18653-ASY LH |
| (E) Arm x Locking Screw | 3" Door 18554-ASY RH  
18654-ASY LH |
| (F) Arm Lock Screw Pkg (5 per) | 88905-PKG |
| (G) Arm Shim Kit (5 per) | 275065-PKG |
| (H) Spindle Shoulder Collar | 259500-* |
| (I) Heavy-Duty Thrust Bearing | 41204-PKG |
| (J) Floor Plate x Screws | 1174050-* |
| (K) Floor Portion Assembly | X01176351  
Includes 41204-PKG |

**Note:** FL is available for 1-3/4" doors only

---

**Screw Kits**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
</table>
| L180/FL180 Screw Kit | 107016-* Machine  (2 req.)  
107116-* Wood (2 req.) |
| Arm Screw Kit | 107048-* Machine (2 req.)  
107114-* Wood (2 req.) |
| Floor Plate Screw Kit | 107004-* Machine (2 req.) |

Special Note: FL117 is available for 1-3/4" doors only

---

*specify finish
PIVOTS AND PIVOT SETS
PARTS DRAWINGS

127-3/4 & 128-3/4 PIVOT SETS

[A] Top Pivot Jamb Portion
640-ASY

[B] Top Pivot Plate x Screws
12724-*PK (SS)
12720-*PK (BRS)

[C] Top Pivot Door Portion
12716

[D] 320 Top Pivot

12711-*

[F] Arm & Bearing Assembly
12714 Door Portion

[G] Floor Pivot & Stud Assembly 128-3/4 Only
71521-*AS

370 PIVOT SET

[A] Top Pivot Jamb Portion
3065

[B] Finish Plate x Screws
012202-*PK (BRS)
012204-*PK (SS)

[C] Top Pivot Door Portion
30243

[E] Arm
22131

[G] Floor Portion and Stud Assembly
22121-*

[D] 340 Top Pivot

Screw Kits

320 Screw Kit
107340 Machine & Wood

127-3/4 & 128-3/4 Screw Kit
117127.*

340 Top Pivot Screw Kit
107329 Machine & Wood

370 Floor Portion
107370.*

*specify finish
### 117-3/4 PIVOT SET

<table>
<thead>
<tr>
<th>A</th>
<th>Top Pivot Jamb Portion</th>
<th>3065</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>Top Pivot Finish Plate</td>
<td>012202-**PK(BRS) 012204-**PK(SS)</td>
</tr>
<tr>
<td>C</td>
<td>Top Pivot Door Portion</td>
<td>30243</td>
</tr>
<tr>
<td>D</td>
<td>Arm</td>
<td>185.75</td>
</tr>
<tr>
<td>E</td>
<td>Spindle Shoulder Collar</td>
<td>16301*</td>
</tr>
<tr>
<td>F</td>
<td>Floor Plate x Screws</td>
<td>1174020-**</td>
</tr>
<tr>
<td>G</td>
<td>Floor Portion Assembly</td>
<td>X01176320</td>
</tr>
</tbody>
</table>

### H117-3/4 PIVOT SET

<table>
<thead>
<tr>
<th>A</th>
<th>Top Pivot Jamb Portion</th>
<th>308548</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>Top Pivot Finish Plate</td>
<td>012202-**PK(BRS) 012204-**PK(SS)</td>
</tr>
<tr>
<td>C</td>
<td>Top Pivot Door Portion</td>
<td>30141</td>
</tr>
<tr>
<td>D</td>
<td>Standard End Load Arm Package</td>
<td>262022</td>
</tr>
<tr>
<td>E</td>
<td>Arm</td>
<td>185.75</td>
</tr>
<tr>
<td>F</td>
<td>Spindle Shoulder Collar</td>
<td>259500-**</td>
</tr>
<tr>
<td>G</td>
<td>Heavy-Duty Thrust Bearing</td>
<td>41204-PKG</td>
</tr>
<tr>
<td>H</td>
<td>Floor Plate x Screws</td>
<td>1174020-**</td>
</tr>
<tr>
<td>I</td>
<td>Floor Portion Assembly</td>
<td>X011176322 Includes 41204-PKG</td>
</tr>
</tbody>
</table>

*specify finish

---

**Screw Kits**

<table>
<thead>
<tr>
<th>340 Top Pivot Screw Kit</th>
</tr>
</thead>
<tbody>
<tr>
<td>107329 Machine &amp; Wood</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Floor Plate Screws</th>
</tr>
</thead>
<tbody>
<tr>
<td>107004-** Machine and wood</td>
</tr>
<tr>
<td>Arm Screw Kit</td>
</tr>
<tr>
<td>107064</td>
</tr>
</tbody>
</table>

**H340 Screw Kit**

<table>
<thead>
<tr>
<th>H340 Machine &amp; Wood</th>
</tr>
</thead>
<tbody>
<tr>
<td>107329</td>
</tr>
<tr>
<td>Arm Screw Kit</td>
</tr>
<tr>
<td>107045 - Machine</td>
</tr>
<tr>
<td>107145 - Wood</td>
</tr>
<tr>
<td>587 Arm Screw Kit</td>
</tr>
<tr>
<td>107077 Machine</td>
</tr>
<tr>
<td>107177 Wood</td>
</tr>
<tr>
<td>Arm Shim Screw Kit</td>
</tr>
<tr>
<td>107069</td>
</tr>
<tr>
<td>Floor Plate Screw Kit</td>
</tr>
<tr>
<td>107004-**</td>
</tr>
</tbody>
</table>

---

*specify finish
PIVOTS AND PIVOT SETS
PARTS DRAWINGS

178 PIVOT SETS

(A) Top Jamb Portion
   42801

(B) Finish Plate
   012202-*Pk (BRS)
   012204-*Pk (SS)

(C) Patch Fitting
   7495-*

(D) Top Patch
   7494-* Pk

(E) Bottom Pivot
   Floor Portion
   74104

*specify finish

Top Pivot Screw Kit
107329

176 PIVOT SETS

(A) Top Pivot Jamb Portion
   640-ASY

(B) Top Pivot Plate x Screws
   12724-*P(SS)
   12720-*P (BRG)

(C) Top Pivot Door Portion
   12716

(E) Bottom Arm
   12704

(F) Sleeve
   176001

(G) Mounting Bolt
   176002

(H) Floor Anchor
   173010

Screw Kits

320 Screw Kit
107340 Machine and Wood

Bottom Arm Screw Kit
173176 Machine and Wood

*specify finish
As part of their promise to provide innovative, fast and effective high security solutions to their customers, certain ASSA ABLOY Group brands offer ElectroLynx®, a universal quick-connect system that simplifies the electrification of the door opening.

ElectroLynx® is a registered trademark of ASSA ABLOY Inc.