Devices covered by these Instructions:
33/3527A Surface Vertical Rod Exit Device
33/3527A-F (Fire) Surface Vertical Rod Exit Device

Special tools needed:
- #10-24 tap
- Drill bits: #25 (approx 4mm)
  - 3mm, 6mm, 8mm, 10mm, 13mm

Index:
- Screw chart ......................... 2
- General Information ............ 3
- Device installation .......... 4-7
- Cut top rod ......................... 8
- Install rod extension .......... 8
- Optional equipment (CD) ...... 9
- Templates ......................... 11-16

Please give these instructions to building owner after device is installed

This product is covered by the following patent numbers:
- 3,767,238
- 3,854,763
- 4,167,280
- 4,427,223
- 4,466,643
- 4,741,563
<table>
<thead>
<tr>
<th>SCREW CHART</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A</strong></td>
</tr>
<tr>
<td><img src="image1.png" alt="Diagram" /></td>
</tr>
<tr>
<td>1/4-20 x 25mm</td>
</tr>
<tr>
<td>1/4-20 x 38mm</td>
</tr>
<tr>
<td>Trim mount or sex bolts: (44mm door)</td>
</tr>
<tr>
<td>(57mm door)</td>
</tr>
<tr>
<td><strong>B</strong></td>
</tr>
<tr>
<td><img src="image2.png" alt="Diagram" /></td>
</tr>
<tr>
<td>#10-24 x 19mm</td>
</tr>
<tr>
<td>#10-24 x 29mm</td>
</tr>
<tr>
<td>Surface mount or Sex bolts (44mm door)</td>
</tr>
<tr>
<td>Sex bolts 57mm door</td>
</tr>
<tr>
<td><strong>C</strong></td>
</tr>
<tr>
<td><img src="image3.png" alt="Diagram" /></td>
</tr>
<tr>
<td>#10-16 x 10mm Thread cutting</td>
</tr>
<tr>
<td>End cap</td>
</tr>
<tr>
<td><strong>D</strong></td>
</tr>
<tr>
<td><img src="image4.png" alt="Diagram" /></td>
</tr>
<tr>
<td>1/4-20 x 19mm</td>
</tr>
<tr>
<td>1/4-20 x 29mm</td>
</tr>
<tr>
<td>44mm door</td>
</tr>
<tr>
<td>57mm door</td>
</tr>
<tr>
<td><strong>E</strong></td>
</tr>
<tr>
<td><img src="image5.png" alt="Diagram" /></td>
</tr>
<tr>
<td>#10-12 x 10-24 x 32mm combination</td>
</tr>
<tr>
<td>Metal or wood frame</td>
</tr>
<tr>
<td><strong>F</strong></td>
</tr>
<tr>
<td><img src="image6.png" alt="Diagram" /></td>
</tr>
<tr>
<td>#10-24 x 19mm</td>
</tr>
<tr>
<td>#10-24 x 38mm wood screw</td>
</tr>
<tr>
<td>Metal frame</td>
</tr>
<tr>
<td>Wood frame</td>
</tr>
<tr>
<td><strong>G</strong></td>
</tr>
<tr>
<td><img src="image7.png" alt="Diagram" /></td>
</tr>
<tr>
<td>#10-12 x 10-24 x 32mm combination</td>
</tr>
<tr>
<td>Metal or wood frame</td>
</tr>
<tr>
<td><strong>H</strong></td>
</tr>
<tr>
<td><img src="image8.png" alt="Diagram" /></td>
</tr>
<tr>
<td>#8-16 x 8-32 x 25mm combination</td>
</tr>
<tr>
<td>Metal or wood door</td>
</tr>
<tr>
<td><strong>I</strong></td>
</tr>
<tr>
<td><img src="image9.png" alt="Diagram" /></td>
</tr>
<tr>
<td>#8-32 x 6mm</td>
</tr>
<tr>
<td>Latch covers</td>
</tr>
<tr>
<td><strong>J</strong></td>
</tr>
<tr>
<td><img src="image10.png" alt="Diagram" /></td>
</tr>
<tr>
<td>#8-18 x 10mm thread cutting</td>
</tr>
<tr>
<td>Center case cover</td>
</tr>
</tbody>
</table>
These exit devices can be installed on the door widths listed below:

<table>
<thead>
<tr>
<th>Device &amp; Strike</th>
<th>Device Size</th>
<th>Code/Standard Requirement</th>
<th>Effective Door Width</th>
</tr>
</thead>
<tbody>
<tr>
<td>3327A/3527A Rim</td>
<td>813 mm</td>
<td>BS EN 1125 : 2008</td>
<td>641 mm - 762 mm</td>
</tr>
<tr>
<td>3327A/3527A Rim</td>
<td>1118 mm</td>
<td>BS EN 1125 : 2008</td>
<td>794 mm - 1016 mm</td>
</tr>
</tbody>
</table>

**WARNING**
The safety features of this product are essential to its compliance with BS EN 1125 : 2008. No modifications of any kind, other than those described in these instructions, are permitted.

**NOTE**
Dogging panic device during high traffic periods will increase life of device. To dog, depress pushbar and turn hex key or cylinder key one-quarter turn clockwise.
1. Figure backset and draw device center lines (C) on door as shown.

Backset is measured from outer edge of door as shown. Minimum stile is less glass stop (rectangular glass stop is recommended for stiles less than 54mm)

<table>
<thead>
<tr>
<th>Backset</th>
<th>Min. stile</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>30mm</td>
<td>51 - 70mm</td>
<td>Two vertical rod devices</td>
</tr>
<tr>
<td>38mm</td>
<td>70 - 95mm</td>
<td>Single door</td>
</tr>
<tr>
<td>48mm</td>
<td>95 - 127mm</td>
<td>Vertical rod and rim device</td>
</tr>
<tr>
<td>64mm</td>
<td>127mm to flush</td>
<td></td>
</tr>
<tr>
<td>34mm</td>
<td>51 - 70mm</td>
<td></td>
</tr>
<tr>
<td>38mm</td>
<td>70 - 95mm</td>
<td></td>
</tr>
<tr>
<td>48mm</td>
<td>95 - 127mm</td>
<td></td>
</tr>
<tr>
<td>64mm</td>
<td>127mm to flush</td>
<td></td>
</tr>
<tr>
<td>56mm</td>
<td>76mm</td>
<td></td>
</tr>
</tbody>
</table>

Note: For 299/299F top strike use minimum backsets shown below.

Double doors: 35mm min. backset, 56mm min. stile
Single door: 48mm min. backset, 68mm min. stile

2. Tape templates to door and prepare door and frame per templates.

See trim instructions for pull side door preparation.
3. Measure to determine length to cut device.

4. Cut device to length.

- Prepare device for cutting
- Anti-rattle clip (remove while cutting)
- Cover plate (flush to pushbar)
- Pushbar

5. Install tailpiece guide and trim (or sex bolts) and secure device center case to door.

- 30mm minimum clearance (with end cap removed)
- Device aligned with mounting holes
- 8mm
- Note: If 16mm diameter wire access hole has been predrilled in door, cut device 8mm from center of hole.

- Tailpiece guide
- *Tailpiece
- Cut tailpiece if needed
- Door surface
- 3mm
- Rotate tailpiece guide to match tailpiece
- *Tailpiece is attached to trim or cylinder depending on application

- Trim or #325 sex bolts (required)

6. Install hinge stile mounting bracket.

- Mark and prepare 2 mounting holes
- 8mm drill inside
- 10mm drill outside
- 10mm drill thru
- 30mm minimum clearance (with end cap removed)

- Level device
- Mounting bracket flush
- Wood Metal
- Metal Wood

- Secure mounting bracket
- #425 Sex bolts (optional)

See page 2 for Screw Chart A
7 Install top latch and rod.

- Top latch
- Top rod (longer of the two)

#325 sex bolts (required)

If top rod is too long, see “Cut top rod” on page 8

If top rod is too short, see “Install rod extension” on page 8

8 Install top strike.

- 265 strike For panic device application only
- 260U strike For panic device application only

- 299/299F strike

Shim to 5mm as shown

Strike plate (299 only)

9 Adjust top rod until latch bolt acts as shown.

Adjust rod by threading rod into latch clockwise to shorten, and counterclockwise to lengthen.

With door closed:

Latch bolt deadlocked (will not push in)

With door open:

Latch bolt stays retracted

Release trigger extended

10 Install bottom strike.

- 304L strike

Grout strike into floor
11 Install bottom latch and rod.

Bottom rod

#325 sex bolts (required)

Bottom latch

Door open (top latch retracted)

12 Adjust bottom rod with door open (top latch retracted).

With door open:

Latch bolt should clear floor and not bind on strike

With door closed:

Latch bolt should be deadlocked (will not push in)

Open and close door a few times and check for deadlocking when door is closed

Readjust rods if needed

13 Install rod guides.

Rod guide

Install at midpoint of each rod

Inside surface preparation

Metal: 3mm drill 8-32 tap

Wood: 2mm pilot drill

14 Install covers and end cap.

C

Remove blue film

I

J
**CUT TOP ROD**

1. Measure amount to cut off rod as shown below.
   - Note: Rod cutting is required for doors shorter than 2134mm.

   ![Diagram of rod cutting](image)
   - *Rods are factory sized for 2134mm door. Measure actual door height and subtract that number from 2134mm to get amount to cut off top rod.*

2. Cut rod.
   - ![Drive out roll pin](image)
   - ![Drill thru](image)

3. Drill new hole.
   - ![Use cut off piece as a template](image)
   - ![3mm dia. drill thru](image)

4. Reinstall rod end and roll pin.
   - ![Reinstall rod end and roll pin](image)

**INSTALL ROD EXTENSION**

1. Measure door opening to determine amount to cut off rod extension.

   ![Diagram of rod extension cutting](image)
   - *Standard door heights:*
     - With no extension 2134mm
     - With 305mm extension 2438mm
     - With 914mm extension 3048mm
   - ![Amount to cut off](image)
   - ![Actual door opening height](image)
   - *2438mm OR 3048mm*

2. Cut rod extension.
   - ![Cut rod extension](image)
   - ![Drive out roll pin](image)

3. Drill new hole.
   - ![Use metal template](image)
   - ![3mm dia. drill thru](image)

4. Reinstall rod end and roll pin.
   - ![Reinstall rod end and roll pin](image)

5. Connect top rod and rod extension.
   - ![Rod extension](image)
   - ![Top rod](image)
1. Remove mortise cylinder cam and reinstall in reverse (Figure 1).

2. Insert key and rotate cam to install the cylinder to the cover plate (Figure 2).

3. Remove key to slide cover plate in position in the mechanism case.

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**CD function conversion**

**Figure 1**

**Dogging procedure**

Turn cylinder key clockwise approx. 1/8 turn for standard dogging

Depress pushbar

**Figure 2**
Note: For 299/299F top strike use minimum backsets shown below.
Double doors: 35mm min. backset, 56mm min. stile
Single door: 48mm min. backset, 68mm min. stile
**BOTTOM LATCH AND LATCH TRACK**

2 Latch Holes

- 8mm Drill (device side)
- 10mm Drill (trim side)

**Wood**

**Metal**

67mm

40mm to top of latch track

Align with top of latch track as shown below

**Threshold**

**BOTTOM LATCH AND 304L STRIKE**

2 Latch Holes

- 8mm Drill (device side)
- 10mm Drill (trim side)

**Wood**

**Metal**

8mm Drill (device side)

10mm Drill (trim side)

10mm Drill thru Metal Wood

67mm

43mm to finished floor

Fold here

Cutout in floor for 304L strike

41mm square x 22mm deep

(start with four 6mm holes in corners)
This page is intentionally left blank
Line X-X is a reference line for trim and exit device alignment. Line X-X shown here should correspond to line X-X in the trim installation instructions.

Cut-out device side only 16mm deep for wood door.

<table>
<thead>
<tr>
<th>Holes - 2 places</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Metal</strong></td>
</tr>
<tr>
<td>8mm Drill inside</td>
</tr>
<tr>
<td>10mm drill outside (sex bolts)</td>
</tr>
<tr>
<td>13mm drill outside (trim)</td>
</tr>
<tr>
<td><strong>Wood</strong></td>
</tr>
<tr>
<td>10mm Drill thru (sex bolts)</td>
</tr>
<tr>
<td>13mm drill thru (trim)</td>
</tr>
</tbody>
</table>
Line X-X is a reference line for trim and exit device alignment. Line X-X shown here should correspond to line X-X in the trim installation instructions.

Cut-out device side only 16mm deep for wood door

6mm Radius

22mm

15mm

6mm

Holes - 2 places

<table>
<thead>
<tr>
<th>Metal</th>
<th>8mm Drill inside</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10mm drill outside (sex bolts)</td>
</tr>
<tr>
<td></td>
<td>13mm drill outside (trim)</td>
</tr>
</tbody>
</table>

| Wood    | 10mm Drill thru (sex bolts) |
|---------| 13mm drill thru (trim) |
ADDITIONAL INSTALLATION REQUIREMENTS

- Before installation ensure door and frame are in good condition, correctly hung and not distorted.
  Note - Maximum door distortion of 5mm to ensure safe exit.

- It is not recommended that exit devices be fitted to hollow core doors unless specially designed for this type of door.

- It is recommended to verify that the door construction allows the use of the device, i.e. to verify that offset hinges and engaging leaves allow both leaves to be opened simultaneously, or to verify that the gap between door leaves does not differ from that defined by the exit device producer, or to verify that the opening elements do not interfere, etc.

- Before fitting an emergency exit device to a fire/smoke resisting door, the fire certification of the fire door assembly on which the exit device has been tested to prove suitability for use on a fire door should be examined. It is of utmost importance that an exit device is not used on a fire door assembly of a greater fire resistance time than approved for.

- Care should be taken to ensure that any seals or weather-stripping fitted to the complete door assembly does not inhibit the correct operation of the emergency exit device.

- On double door sets with rebated meeting stiles and where both leaves are fitted with emergency exit devices, it is essential to check that either leaf will open when its emergency exit device is activated and also that both leaves will open freely when both emergency exit devices are operated simultaneously.

- Category 2 (Standard projection) emergency exit devices should be used in situations where there is restricted width for escape, or where the doors to be fitted with the emergency exit devices are not able to open beyond 90°.

- Different fixing can be necessary for fitting emergency exit devices to wood, metal or frameless glass doors. For more secure fixing, male and female through-door bolts, reinforcement and rivets can be used.

- These exit devices are not intended for use on double action (double swing) doors.

- These fixing instructions should be carefully followed during installation. These instructions and any maintenance instructions should be passed on by the installer to the user.

- When installing lever operating emergency exit devices, particularly on doors with raised or recessed surfaces, consideration should be given to minimizing any potential safety risks, such as the trapping of fingers or clothing.

- The bolt heads and keepers should be fitted to provide secure engagement. Care should be taken to ensure that no projection of the bolt heads, when in the withdrawn position, can prevent the door swinging freely.

- Where emergency exit devices are to be fitted to double doorsets with rebated meeting stiles and self closing devices, a door coordinator device in accordance with EN 1158 should be fitted to ensure the correct closing sequence of the doors. This recommendation is particularly important with regard to smoke/fire-resisting door assemblies.

- No devices for securing the door in the closed position should be fitted other than specified in EN 1125 / EN 179. This does not preclude the installation of self-closing devices.

- If a door closing device is to be used to return the door to the closed position, care should be taken not to impair the use of the doorway by the young, elderly and infirm.

- Where applicable, the “Push to open” sign should be applied on the inside face of the door immediately above the operating element.
MAINTENANCE INSTRUCTIONS

To ensure performance in accordance with the relevant standard, the following routine maintenance checks should be undertaken at intervals of not more than one month.

a) Inspect and operate the emergency exit device to ensure that all components are in a satisfactory working condition.

   Using a force gauge, measure and record the operating forces to release the exit device.

b) Ensure that the keepers are clean and free from obstruction

c) Check that the emergency exit device is lubricated if required.

d) Check that no additional locking devices have been added to the door since its original installation.

e) Check periodically that all components of the system are still correct in accordance with the list of approved components originally supplied with the system.

f) Check periodically that the operating element is correctly tightened and, using a force gauge, measure the operating forces to release the exit device.

   Check that the operating forces have not changed significantly from the operating forces recorded when originally installed.

g) Check that all fixing screws are tight.

These instructions should be passed on by the installer to the user on completion of installation.

PRODUCT INFORMATION

- To comply with EN1125 : 2008 door leaf must not exceed 2500mm high x 1300mm wide x 200Kg maximum weight.

- This product is intended for use on single and / or double leaf outward opening fire escape route doors.

- Category of projection : Category 2

- Field of door application : Category A

- Resistance of door leaf against pulling force of the recommended fixing screws: 1000N maximum achieved.
CERTIFICATION DETAILS

FIRE / SMOKE DOOR SUITABILITY

120 minutes except when fitted with approved trim devices shown in the table below

**Door type:** Insulated timber or mineral composite tested in accordance with BS EN1634-1 : 2000 (single or double leaf configuration)

**Note:** when fitted with the following accessories, fire door suitability is reduced to 60 minutes

<table>
<thead>
<tr>
<th>22 Series</th>
<th>210DT#</th>
<th>210NL*</th>
<th>230L#</th>
<th>230DT#</th>
<th>230NL*</th>
</tr>
</thead>
<tbody>
<tr>
<td>33A Series</td>
<td>OL*</td>
<td>360T*</td>
<td>386NL#</td>
<td>386DT#</td>
<td>388*</td>
</tr>
<tr>
<td>35A Series</td>
<td>OL*</td>
<td>360T*</td>
<td>386NL#</td>
<td>386DT#</td>
<td>388*</td>
</tr>
<tr>
<td>98 Series</td>
<td>990DT#</td>
<td>990NL*</td>
<td>990TP*</td>
<td>991K*</td>
<td>992L*</td>
</tr>
<tr>
<td>99 Series</td>
<td>990DT#</td>
<td>990NL*</td>
<td>990TP*</td>
<td>991K*</td>
<td>992L*</td>
</tr>
</tbody>
</table>

All items marked ‘#’ may be fitted to timber or mineral composite based doorsets for up to 60 minutes integrity.

All items marked ‘*’ may be fitted to timber or mineral composite based doorsets for up to 60 minutes integrity, having a minimum thickness of 52mm and including sub facings comprising a minimum of 3mm thick non-combustible board, with their lock cylinders wrapped with a 1mm thick Interdens intumescent.

For additional information and full details of certification and fire door suitability:

Telephone : 01922 707400

www.allegion.com