Note: One set of instructions should be left with building owner after device has been installed.
## SCREW CHART

### Chassis Mounting
- (4) 12-24 x 1" R.H.P.M.S. (Metal or Thru Bolts)
- (4) #12 x 1 1/4" R.H.P.T.S. (Wood Door)

### End Cap Bracket
- (2) 12-24 x 1" R.H.P.M.S. (Metal or Thru Bolts)
- (2) #12 x 1 1/4" R.H.P.T.S. (Wood Door)

### Standard Mounting Brackets (4)
(Wood or Steel)
- (12) 8-32 x 1/4" F.H.P.M.S.

### Mounting Bracket (2)
(Medium Stile Aluminum Doors)
- (8) 8-32 x 1/4" F.H.P.M.S.

### Bracket To Latch
- (4) 10-32 x 1/4" F.H.P.M.S. (Aluminum)
- (12) #10 x 1" F.H.P.T.S. (Wood Door)
- (12) 10-32 x 3/8" F.H.P.M.S. (Metal Door)

### Bracket To Door
- (2) 8-32 x 1/4" P.H.P.M.S.
- (2) 8-32 x 5/8" R.H.P.M.S.
- (2) #10 x 1" F.H.P.T.S. End Cover Mounting

### Connecting Link Screw
- (2) 8-32 x 1/4" F.H.P.M.S.

### #418 Strike Pack
- (2) 10-32 x 3/8" F.H.P.M.S.

### #439 Bottom Strike
(Cement or Grout In Place)
- (6) 8-32 x 1/4" F.H.P.M.S.

### "FL" Full length touch bar & rail series.
- (2) 8-32 x 1/4" F.H.P.M.S.
- (2) #10 x 1" F.H.P.T.S.

### Chassis Cover & End Cap
- (2) 8-32 x 1/4" F.H.P.M.S.
HAN DING OF DOOR

Read the entire instruction sheet prior to installation.

Before installing hardware:

1. Verify door width, handing and product with carton label for correct exit device and length.

2. Device should be installed and preliminary adjustments made prior to hanging door(s) in frame. (Door typically lying on saw horses at this time).

3. For hand reversal of chassis assembly see Step 3.

4. For hand reversal of trim assembly see Step 4.

Note: If device is to be installed over glass lite panels, shim kit may be required, order DORMA No. GK9000.

Note: Device shipped standard for 7’ (2134 mm) high door opening. For doors up to but not over 10’ (3048 mm) order "ETR" (Extended to rod) device.

TYPICAL APPLICATIONS

SPECIAL TOOLS FOR INSTALLATION

12-24 Tap, 10-32 Tap
Drill bits: 1/8", #25, #16, #21 & 3/8"  
Hole saws: 1", 1 1/4", & 2 1/8" diameter for trim (if required).  
Jig saw or router may be required for thumbpiece trims.  
Set of saw horses.
1 Installation

Open box, layout and verify all parts prior to starting installation. If not done, lay door on saw horses.

Chassis template located at rear of booklet. Cut and tape in place. Lay out horizontal and vertical reference lines.

2 Door preparation

Chassis

Vertical

Ref. Line

Chassis Horizontal Ref. Line

40 5/16" Finished floor or top of threshold

7/16" 1 7/16" 1 1/8" 1 1/2" 3/4"

3/4" 7/8"

Door prep

Of latch not door

10-32 Tap (6) places

Center line of chassis and latch

2 7/8" 7/8"

4 3/16" Min. stile

2 3/4" From edge of door

Ref. dim. 2 3/4" From outside edge

Ref. dim. 2 3/4" From outside edge
If hand reversal of chassis is required follow steps below in alphabetical sequence.

**RHR** (Right hand reverse)

1. Rotate chassis 180 Degrees
d

**LHR** (Left hand reverse)

1. Install pin as shown retaining clip should be on back side.

**NOTE:**

- Longer leg down.

---

### Handing of trim, and cylinder specifications and installation.

**Note:** For specific trim functions, cylinder type, and handing information; see additional instructions packed with trim.

- Standard "V" Trim
- Standard "T" Trim
- Standard "R" Trim
- Standard "C" Trim
- Standard "K" Trim

1. **11/16" min**
2. **1 1/8" min**
3. **5/16"**

**Note:** Spindle must be installed with pin in the vertical position as shown on 08 & 09 functions. Install trim in active (un-locked) position. (Spindle rigid)

**IMPORTANT**

- **Note:** All lever handles except for "clutch" are shipped unattached. To install; **Place handle in desired position and attach with allen screw located in back of trim plate. 5/32" Allen wrench required.**
- **To change hand on "clutch" trim rotate and "break" lever around to desired hand.**

All trims are free wheeling.

(Handle will rotate when locked.)
If not done layout device on door using drilling template T9100 located at rear of booklet. For additional templates contact DORMA at 1-800-523-8483 or www.dorma-usa.com

Refer to carton label for model and trim number prior to drilling. Prepare mounting holes and cut-outs per template.

**VERTICAL REF. LINE**

**HORIZONTAL REF. LINE**

40 5/16” from top of finished floor or top of threshold.

Verify all holes prior to drilling.

7 1/2”

**Top latch mounting bracket and drawbar assembly**

Mounting angles (2)

(6) 8-32 x 1/4” F.H.P.M.S.

Thread on 1/2” - 5/8”

Adjusting bolt

Outer rod

2nd hole for top rod on 7’ door opening.

Inner rod assembly

3rd hole for top rod on 7’ door opening.

Top latch & rod assembly.

Optional: "ALD" bracket

(4) 8-32 x 1/4” F.H.P.M.S.

Top and bottom rods and latches are shipped unassembled and are adjustable for door opening heights ranging from 6’ 8” to 8’ 0” and will fit up to a 10’ 0” door opening with the addition of a 2 foot top rod extension (ETR). See next page. Follow instructions on page to assemble the latch and rod assemblies. "Standard" angle brackets are shipped with device.

Optional: "U" shaped brackets are available for use on medium stile aluminum doors install as shown with proper fasteners.

Holes in outer rod are at 1/2” intervals and holes in inner rod are at 2” intervals for door openings under or over 7’ (instructions are for 7’ door opening and standard mounting height). For additional information see rod chart on page 20.

Slide inner rod assemblies into outer rods, locate proper holes and insert rod retainer clip by; inserting through both rods, rotating it and locking it in place as shown.

For "LBR" less bottom rod device skip bottom rod and latch assembly instructions.

Additional "Popper" required for "LBR" fire rated openings. See details on next page.
Bottom slide bolt or latch mounting bracket and drawbar assembly

Top and bottom rods and latches are shipped unassembled and are adjustable for door opening heights ranging from 6' 8" to 8' 0" and will fit up to a 10' 0" door opening with the addition of a 2 foot top rod extension (ETR). Follow instructions on page to assemble the latch and rod assemblies. "Standard" angle brackets are shipped with device.

Optional: "U" shaped brackets are available for use on medium stile aluminum doors install as shown with proper fasteners.

Holes in outer rod are at 1/2" intervals and holes in inner rod are at 2" intervals for door openings under or over 7' (instructions are for 7' door opening and standard mounting height). For additional information see rod chart on page 20.

Slide inner rod assemblies into outer rods, locate proper holes and insert rod retainer clip by; inserting through both rods, rotating it and locking it in place as shown.

For "LBR" less bottom rod device skip bottom rod and latch assembly instructions.

Additional "Popper" required for "LBR" fire rated openings. See details below.

1/2" - 5/8" Thread on
Optional: Pullman latch.
Mounting angles (2)
(6) 8-32 x 1/4" F.H.P.M.S.

Optional: "ALD" bracket
(4) 8-32 x 1/4" F.H.P.M.S.

INSTALLING ROD EXTENSION

For "ETR" (Extended Top Rod) devices.
*Do not cut extension piece!

Connecting link
Existing top rod
Thread rods together securely. "Loc-tite may be used for added security".

"LBR" Less bottom rod "Popper" installation.

Required for; "LBR" (less bottom rod) fire rated exit devices.
See additional instructions packaged with "Popper" for details.

"POPPER"
Installation of top latch and drawbar assembly

Loosen locking screw in upper drawbar assembly as shown. Connecting link arm should move up and down freely.

With connecting link arm in down position, guide upper drawbar assembly down through opening in top of door.

As connecting link arm nears cutout in face of door, insert finger through cutout and guide connecting link through.

Holding connecting link in full up position, tighten locking screw as shown.

Attach mounting bracket with (6) 10-32 x 3/8" F.H.P.M.S. Or (6) #10 x 1" F.H.P.T.S. for wood doors.

(Optional: Aluminum door bracket) Attach mounting bracket with (2) 10-32 x 1/4" F.H.P.M.S.

Push up on bottom of drawbar assembly, top latch should retract and remain retracted - captured by the tripping lever.

Proceed to next page and install bottom drawbar and bolt assembly.
a Loosen locking screw in lower drawbar assembly as shown, connecting link arm should move up and down freely.

b With connecting link arm in down position, guide lower drawbar assembly up through opening in bottom of door.

Vertical ref. line

Connecting link arm

Attach mounting bracket
With (6) 10-32 x 3/8" F.H.P.M.S. Or (6) #10 x 1" F.H.P.T.S. for wood doors.

(Optional: Aluminum door bracket)
Attach mounting bracket with (2) 10-32 x 1/4" F.H.P.M.S.

As connecting link arm nears cutout in face of door, insert finger through cutout and guide connecting link through.

Holding connecting link in full up position, tighten locking screw as shown. Both connecting links should be in the up right position at this time, secured by locking screws.

Finished floor height to bottom of door must be known for bottom slide bolt installation. Slide bolt should protrude approximately 1/2" into strike. These are preliminary adjustments, additional will be required after door is hung.

FINISHED FLOOR OR TOP OF THRESHOLD

1/4" Recommended
**Chassis installation.** (If using GK9000 install shims under chassis at this time.)

Guide top connecting link through cut out in top of chassis assembly, slide bell crank up if necessary and guide bottom connecting link through cut out in bottom of chassis, attach connecting links to bell crank with (2) 8-32 x 5/8" P. H. P. M. S. Tighten securely.

Proceed to mount chassis to door using one of the proper methods shown below.
Preliminary rod adjustment. (Door still on saw horses)

Depress tripping lever allowing latch bolt to extend.

Bell crank should be all of the way down in slot as shown.

Push down on top latch bolt, bolt should not retract or be able to be pushed in. Bolt should be dead-locked. If latch bolt can be pushed in; additional adjustment will be required.

a. Loosen locking screw in top connecting link. #2 phillips head screwdriver required.

b. Rotate adjusting screw clockwise (right) to shorten the rod assembly. Medium flat blade screwdriver required.

c. Re-check adjustment "after each half turn" of adjusting screw. Do this by attempting to push in on top latch as before then push in on tripping lever to ensure latch bolt is fully out; adjust until dead latch is achieved.

d. Once dead latch is achieved secure in place by tightening the locking screw in top of connecting link securely.

e. Retract latch bolts, tripping lever in top latch should hold latch bolts in fully retracted position. Ensure bottom bolt is protruding no more then 1/8" to 1/4" below door edge. Adjust it in same manner as with top latch.

Note:
If resistance is met when making adjustment to rods ensure they are not to long or are in a bind inside of the door, or the connecting spring can be broken.
Prepare to install touch and rail on door.

**NOTE:** All dimensions are based on 5/8" stop height; Verify strikes, stile width, any trim and stop height prior to making any cuts. If cutting is required follow instructions below.

**Size A:**
Fits 48" door opening without cutting.
Can be cut to fit a 34" minimum door opening.

**Size B:**
Fits 36" door opening without cutting.
Can be cut to fit a 28" minimum door opening.

**Size C:**
Fits 36" door opening with out cutting.
Using a shorter touch pad then the standard "B" size allows it to be cut to 25" door opening.

Verify device length with box label; "A", "B" or "C", ie. 9100B

**Note:** Models with prefix options such as "ES", "DE" etc. may not be cut down to minimums shown to left. Consult factory or catalog for details.

**Example:**

![Diagram of standard "B" touch bar and rail assembly]

**Note:** If door opening width is less then standard touch bar will have to be cut down. ie: door opening width 34" subtract 2" from rear of touch bar and rail, tape and cut to length as shown.

**IMPORTANT**
Use caution when cutting touchbar and rail to size on models with "ES", "MS", "LM" or "DWA" prefix options. These units contain internal wiring.
For models with prefix options "BPA", BPAR" or "DE" remove filler containing electronics before cutting.

Cutting of "FL" type touch bar and rail assembly.

**Note:** If door opening width is less or stops are different, then standard touch bar will have to be cut down, ie: door opening width 34" subtract 2" from rear of rail, depress touch bar as shown, tape and cut to length as shown. Touch bar should be approximately 3/16" longer then rail once it is released to upward position.

Hang door in opening, ensure door is square, plumb and swings freely.

Make any adjustments required to door, frame and opening prior to proceeding with installation.
14 Install touch bar and rail assembly and end cap bracket to door.

Remove two 8-32 screws from chassis, slide touch bar and rail assembly under rear of chassis. **Note: If device has prefix "ES" ensure that pins in lever bolt align with slots in actuator located inside nose of touch bar.** See instruction sheet IES-7 packed with device. Install (2) two 8-32 x 3/8" P.H.P.M.S. to secure touchbar to chassis.

Hold rear mounting bracket tightly against door and rear of rail. Mark (2) two holes and drill per chart. Secure with proper fasteners.

(2) 8-32 x 3/8" P.H.P.M.S. "Remove protective covering from the touchbar and rail assembly prior to installing on door."

**Bracket should be flush against door and tight against rear of rail.**

### NOTE:
If carton label list prefix: "ES", "MS", "LM", "BPA", "BPAR", "DWA", "LM/MS/BP" or "CD" prefix see Options pages at rear.

15 Install top strike in frame.

![#418 Strike](image)

(2) 10-32 x 3/8" F.H.P.M.S.

Optional:

#419 Strike (wood jamb)

See "Frame Preparation" on page 14 for cut out and holes.

16 Install bottom strike in floor or threshold.

See page 15 for additional mounting and optional strikes.

![#439 Strike](image)

3/16" Ref. 1 of strike 1" from inside face of door.

Drill 13/16" dia. hole x 1" in depth.

Finished floor or top of threshold
Optional prep for No. 419 top strike in wood frame

1/2" Wood jamb

13/16" Edge of stop

Note: 1/2" x 2" x 1/16"

Cut out in stop.

Note: Metal edge may be required on fire door applications.
For surface strike drill (2) 5/16" dia. holes, x 1" in depth for lead anchors. Secure with (2) #12 x 1" F.H.P.T.S.

Note: Drill 5/8" dia. hole 1/2" deep min.
**Adjustment of rods.**

A. Block open door and release top latch bolt as shown.
Top latch should be fully extend and dead latched as shown.

Note: "Cutouts" shown for clarity, not required.

B. Check for dead lock by attempting to push downward on top latch bolt (it should not push in). If dead locked, secure by tightening locking screw on top of connecting link. If not follow steps below.

C. Locking Screw Top

Adjusting Screw Top

Rotate counter clockwise to lengthen, continue to check for dead lock as screw is rotated.

Secure by tightening top locking screw once dead lock is achieved.

D. Depress and hold touch bar. Push in on tripping lever and check position of top latch bolt. It should be flush to slightly depressed in top latch bracket.

E. Release tripping lever and touch bar, top latch should remain in retracted position.

F. With top latch held retracted, adjust bottom rod so slide bolt is flush across bottom of latch bracket and clears threshold, floor and strike. If adjustment is required use bottom adjusting screw: follow same steps as above for adjusting top latch bolt. Secure with bottom locking screw once adjustment is complete.

G. Standing on inside, close door and check that top and bottom latch bolts align and engage in top and bottom strikes.

H. After rods are fully adjusted ensure that top and bottom locking screws are tight.

I. Check device operation by opening and closing door several times from inside. Check and operate outside trim if installed.

Repeat adjustment procedure if:

- Top latch is not held retracted
- Bottom slide bolt does not clear strike or floor.
- Latches do not work properly with outside trim

J. Install end cap and center case covers.

K. Standard hex key dogging, depress touch bar insert supplied hex key and rotate clock wise to dog and counter clock wise to undog.

"FL" Full length touch bar & rail series.

- (2) 8-32 x 1/4" P.H.F.H.U.C.M.S.
- (2) #10 x 1" F.H.P.T.S.

- (6) 8-32 x 3/8" P.H.F.H.U.C.M.S.

Note: Periodic cleaning and lubrication of latches on 6 month intervals will ensure proper operation of device.
OPTIONS: Cylinder dogging

Cylinder specifications and cams;

![Diagram of cylinder specifications]

Useable Cams
|
---
| Arrow  | 001 |
| Assa   | Std. (Yale) |
| Best   | C136 |
| Corbin | A02 |
| Falcon | 12667-3 |
| Ilco/Unican | SC1 |
| Lori   | 13-0664 or 13-0660 |
| Sargent| 001 |
| Schlage| 2160 |

Note: When using IC core cylinders, ensure that cam is in proper position prior to installing the new core.

![Diagram of cam positioning]

Cylinder dogging option on standard touch bar and rail;

To change cylinder:
1. Dog down touch bar.
2. Remove end cap and end cap mounting bracket.
3. Slide out filler from rear of rail.
4. Remove cylinder nut on underside of filler.
5. Remove cylinder and mounting plate.

6. Insert new cylinder facing as shown in detail.
7. Install mounting bracket and cylinder nut.
8. Slide filler back into rear of rail.
9. Install end cap mounting bracket and end cap.
10. Undog touch bar.

Cylinder dogging option on full length touch bar and rail; (See cam specifications above.)

To change cylinder:
1. Remove end cap, end cover & end cap mounting bracket.
2. Remove cover from chassis and two chassis to touch bar mounting screws.
3. Remove (6) touch bar to rail mounting screw from underside of rail.
4. Flip rear arm assembly outward from underside of touch bar.
5. Remove cylinder nut on underside of touch bar.
6. Remove cylinder and mounting plate.
7. Insert new cylinder facing as shown in detail.
8. Install mounting bracket and cylinder nut.
9. Flip rear arm assembly back under touch bar.
10. Re-install touch bar to rail with (6) screws.
11. Re-install end cap mounting bracket.
12. Re-install end cap, end cover & chassis cover.

![Diagram of cylinder dogging on full length touch bar]

Note: DORMA mortise cylinder supplied. To use other manufacture cylinders, "L" less cylinder is available.
OPTIONS

"CD" (CYLINDER DOGGING) OPTION:
Cylinder dogging installation instructions & cylinder specifications.

**NOTE:** Touch bar must be in dogged down position, to remove the rear filler panel.

Note: DORMA mortise cylinder supplied. To use other manufacture cylinders, "L" less cylinder is available.

Useable Cams
- Arrow 001
- Assa Std. (Yale)
- Best C136
- Corbin A02
- Falcon 12667-3
- DORMA 10
- Ilco/Unican SC1
- Lori SC1 4200-82-2002 Std.
- Sargent 13-0664 or 13-0660
- Schlage 001
- Yale 2160

Witness Marks
Correct
Incorrect

"BPA" & "BPAR" (ALARM OPTION):
(STANDARD INSTALLATION)
BPA: Battery powered alarm, sounds continuous or until disarmed.

BPAR: Battery powered alarm, sounds for 4 minutes, automatically resets.

*Alarm mode set at factory.*

**NOTE:** Use caution when cutting touch bar and rail to length.

(DORMA mortise cylinder supplied.)
To install customer supplied cylinder, see cylinder dogging option at top of page.

SIZE A:
Will fit 48" (1219 mm) door opening without cutting. Can be cut to fit a 39" (991 mm) minimum door opening.

SIZE B:
Will fit 36" (914 mm) door opening without cutting. Can be cut to fit a 33" (838 mm) minimum door opening.

SIZE C:
Will fit 36" (914 mm) door opening without cutting. Can be cut to fit a 30" (762 mm) minimum door opening.

8-32 x 3/8" F.H.P.U.C.M.S.
12-24 x 3/4" R.H.P.M.S.

To replace battery remove endcap.

Refer to additional alarm instructions packed with device for operation of alarmed exit device.

"LM" (LATCH MONITOR) OPTION:
Latch monitor: Monitors movement of latch bolt, with or without depressing of touch bar. Can be wired normally open or normally closed.

**NOTE:** Touch bar must be in dogged down position, to remove the rear filler panel.

Black
Common
Green
Normally
Open
Red
Normally
Closed

SPDT, .5 amp @ 28VDC max.
Option: "LM" Latch monitor; monitors movement of latch bolt with or without depressing of touch bar. May be wired either normally open or normally closed.

NOTE: Touch bar must be in dogged down position, to remove the rear filler panel.

* NOTE: Use caution when cutting touch bar and rail to length. Additional hole required see step 11.

"BPA", "BPAR" & DWA (ALARM) Options; "BPA" Battery powered alarm, sounds continuous until reset. "BPAR" alarm sounds for 4 minutes then will automatically reset. **Alarm mode set at factory.**

**Note:** On either the standard 9000 alarm or the 9000"FL" versions caution must be used when cutting touch bar and rail to length due to the wires running inside of the assembly. A standard DORMA cylinder is supplied on both units, to change to a customer supplied cylinder follow steps under "cylinder dogging". Refer to additional instruction sheet packed with device for operational instructions etc.

**Standard 9000 series**

To change battery:
1. Prop open door.
2. Remove (2) end cap mounting screws.
3. Remove (2) end cap mounting bracket screws.
4. Remove mounting bracket & replace battery.
5. Re-install in reverse order.

**DWA** OPTION:
Battery Eliminator

<table>
<thead>
<tr>
<th>Green</th>
<th>White</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Non-polarized)</td>
<td></td>
</tr>
</tbody>
</table>

Connected to outside power source; 12-24V AC/DC supply. ie: Dorma ES-100 etc.

Contact Dorma 1-800-523-8483 for other supplies available.

**Size A:**
Fits 48" door opening without cutting.
Can be cut to fit a 37 1/2" minimum door opening.

**Size B:**
Fits 36" door opening without cutting.
Can be cut to fit a 31 1/2" minimum door opening.

**Size C:**
Fits 36" door opening with out cutting.
Using a shorter touch pad then the standard "B" size allows it to be cut to 28 1/2" door opening.

**9000"FL" series**

To change battery:
1. Prop open door.
2. Remove (2) end cover mounting screws.
3. Remove (2) end cap screws.
4. Remove end cap & replace battery.
5. Re-install in reverse order.
**OPTIONS**

**Option: "ES"** Electric latch retraction: Electrically retracts latch bolt(s) when energized by power supply.

Electrically retracts latchbolt(s) when energized by power supply.

**REQUIRES DORMA PS501 POWER SUPPLY AND ES105 POWER TRANSFER.**

PS501 Will operate (2) "ES" 9600 exit devices, but is capable of powering (2) additional devices by installing the optional "ES-2" card.

*NOTE:* Use caution when cutting touch bar and rail to length. Requires additional hole see step 11.

---

**Option: "MS"** Monitor Switch: Monitors movement of touch bar, or can be used to signal an external light, horn etc.

Located on the rear arm assembly as shown;
Comes standard with (2) two micro switches.
Both can be wired normally open or normally closed.

On the standard 9000 series it can be added in the field by removing rear filler. On the "FL" series it can be added, however the touch bar must be removed completely from the rail to install switch assembly.

SPDT, .5 amp @ 28VDC max.

*NOTE:* Use caution when cutting touch bar and rail to length. Requires additional hole see step 11.
OPTIONS

"DE" (DELAYED EGRESS) OPTION:

Note: Refer to DE9000 Series Installation Instructions for additional instructions for installation and operation of the “Delayed Egress” exit device.

Specific project or custom wiring diagrams available on request, consult the DORMA technical service department.

NOTE: Always disconnect power prior to making any connections or service.

It is recommended that the 120VAC power be supplied from an Uninterrupted Power Supply (UPS) to ensure proper operation during a power failure.

Always observe proper static discharge grounding procedure’s when installing or servicing the DE device.

Wires that interconnect the remote authorized egress and remote by-pass/rearm must be located within the same room as the panic hardware (DE), or outside the door at no more than 10’ feet of distance.

For ULC installations: Some “Authorities Having Jurisdiction” also require an illumination level of 100’ feet at the door, to be provided by the emergency power supply system.

DORMA MODEL ES100
24 VOLT DC POWER SUPPLY
(AD100 220V Version Optional)

<table>
<thead>
<tr>
<th>FUSE</th>
<th>PUSH TO RESET</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/4 AMP 120VAC</td>
<td>CIRCUIT BREAKER</td>
</tr>
<tr>
<td>REPLACE WITH 3AG 3/4 AMP SLO-BLOW TYPE FUSE ONLY</td>
<td></td>
</tr>
</tbody>
</table>

ZONE 1
ZONE 2
NO CONNECTION

CAUTION: TURN OFF 120VAC POWER PRIOR TO MAKING ANY CONNECTIONS TO TERMINALS

WHITE (NEUTRAL)
BLACK (HOT)
GREEN (GROUND)

120 VAC POWER LINE
From UPS
Power Source

Greens Ground Screw Located On Chassis

CONTROL SWITCH
CONTROL SWITCH
OUTPUT TERMINALS
OUTPUT TERMINALS

Green Ground Screw Located On Chassis

CONTROL SWITCH
CONTROL SWITCH
OUTPUT TERMINALS
OUTPUT TERMINALS

(12) Wire Primary Connection
Bundle 22" in length.

(6) Wire Secondary Connection
Bundle 22" in length.

DORMA ES100
24 VOLT DC POWER SUPPLY
FUSE PUSH TO RESET
CIRCUIT BREAKER

Minimum 18 AWG wire recommended for 24VDC inputs (red & black) leads.

DORMA ES105
(Power Transfer)
"Recommended"

Black: (-) 24VDC IN
Red: (+) 24VDC IN
White: AUTHORIZED EGRESS/AUTO RESET ORANGE: BYPASS/RE-ARM
Grey: DPS N/C
Violet: ALARM RELAY COMMON
Green: RED OUTPUT EMITTER
Brown: RED OUTPUT COLLECTOR
Blue: GREEN OUTPUT EMITTER
Yellow: GREEN OUTPUT COLLECTOR
Pink: ALARM RELAY N/C
Tan: ALARM RELAY N/O

CAUTION: TURN OFF 120VAC POWER PRIOR TO MAKING ANY CONNECTIONS TO TERMINALS

WHITE (NEUTRAL)
BLACK (HOT)
GREEN (GROUND)

120 VAC POWER LINE
From UPS
Power Source

Grey
Black

DPS

Grey
Black

(See Page 6 for typical wiring of control inputs and monitoring outputs.)

Black: NOT USED
Blue: 24VDC
Green: FIRE ALARM CONTACT
Brown: 24VDC
Violet: CHECK EXIT
Red: TIED TOGETHER WITH OTHER DOOR ON PAIRS

Maximum Wire Length From Power Supply To Device & Back To Supply In Feet x Wire Gage/Size

<table>
<thead>
<tr>
<th>WIRE</th>
<th>18AWG</th>
<th>16AWG</th>
<th>14AWG</th>
<th>12AWG</th>
</tr>
</thead>
<tbody>
<tr>
<td>FEET</td>
<td>25</td>
<td>50</td>
<td>75</td>
<td>100</td>
</tr>
</tbody>
</table>

* For 24VDC inputs only (red & black wires).

Note: Wire run is from supply to device and back to the supply.
9100/F9100 SERIES
CONCEALED VERTICAL ROD EXIT DEVICE

Top Rod Adjustment Chart - for door sizes ranging from 6'4" to 8'4".

Example:
For 7'5" door use 7'4" pre-drilled inner rod with 1" pre-drilled outer rod;
(6th hole on inner rod & 2nd hole on outer rod.)

Thread this end onto top latch adjusting bolt as shown on page 7 in installation instructions.

Pre-drilled adjustment holes.

Rod end is assembled to pivot connecting link.

Outer rod

Pre-drilled adjustment holes.

1/2" 0 1/2" 1" 1 1/2"