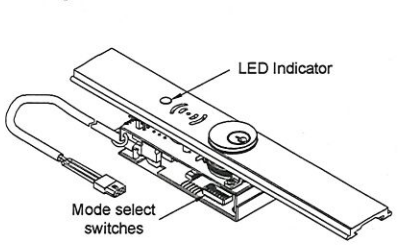
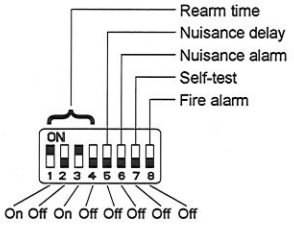
OPTIONS

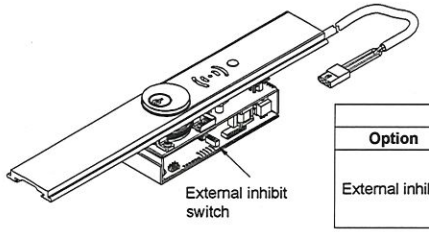
Rearming time settings can be made through switches within the Delayed Egress module. Before setting, turn off the DE device. Changes will take effect once the DE device is turned on.





Factory settings shown

MODE SELECT SWITCHES	
Option	**Function**
Rearm time	Switches No.1 through 4 determine the amount of time able to pass through after using key or external inhibit device (for details see table below)
Nuisance delay	If switch No. 5 is on, it is required to push and hold the pushbar for at least 2 seconds to activate alarm.
Nuisance alarm	If switch No.6 is on, during nuisance delay the pushbar will set off the DE device horn; usage must be in accordance to local code.
Self-test	If switch No.7 is on, a self-test is performed when the device is turned on; for normal operation, set this switch in off position.
Local fire alarm	If switch No. 8 is on, the internal horn will go off during a fire alarm.



Factory settings shown

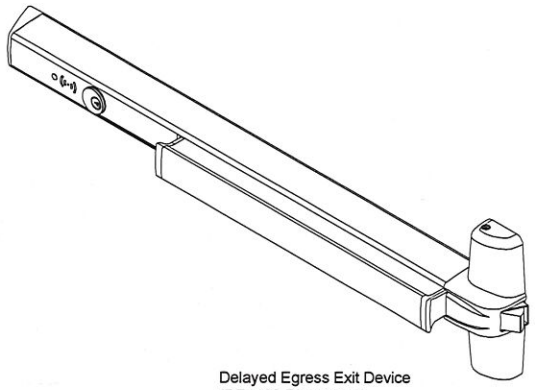
EXTERNAL INHIBIT SWITCH	
Option	**Function**
External inhibit	If switch is on, the external inhibit must be set with normally open contacts.
	If switch is off, the external inhibit must be set with normally closed contacts.

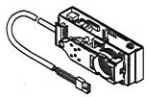
REARM TIME SWITCH SETTINGS																
Seconds	0	2	4	6	8	10	12	14	16	18	20	22	24	26	28	infinite
Switch No. 1	off	on	off	on	off	on	off	on	off	on	off	on	off	on	off	on
Switch No. 2	off	off	on	on	off	off	on	on	off	off	on	on	off	off	on	on
Switch No. 3	off	off	off	off	on	on	on	on	off	off	off	off	on	on	on	on
Switch No. 4	off	off	off	off	off	off	off	off	on	on	on	on	on	on	on	on

NOTE: 1. Set the rearming time a few seconds longer than the time needed to open and close the door to make sure the DE device will always arm after the door closes.
2. When the rearming time is infinite, the device must be applied along with door position switch for rearming to occur.
3. When the rearming time is infinite, the door must be open and closed once after the device is turned on, otherwise it won't activate.
4. If a door position switch is used, the DE device initial rearming time setting will be switched to an 2.5 second interval.
5. For proper operation, the rearming time between the DE devices must differ by at least 2 seconds.

DELAYED EGRESS EXIT DEVICE - ELECTRICAL

INSTALLATION INSTRUCTIONS


Delayed Egress Exit Device
(DE1100 Rim shown)


Delayed Egress Module


Cable

PUSH UNTIL ALARM SOUNDS DOOR CAN BE OPENED IN 15 SECONDS

Door Sign
(Door sign is in cardboard tube)

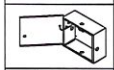
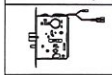
The Delayed egress exit device sounds an alarm and keeps an exit door secured for 15 seconds following an attempt to exit. The device releases immediately upon a fire alarm condition.

SPECIFICATIONS:

Voltage 24VDC
Current (Delayed Egress Device) 0.37A
Current (Electric Mortise) 0.25A
Current (Electric Trim) 0.25A
Current on arming ..... 300ms 16A in-rush
External alarm dry contacts (NO and C) ..... 23.76~24VDC, 1A
Normally closed inputs ..... Fire alarm (FA; required)
Door position switch (DPS)
Normally closed inputs ..... External inhibit (EI)
Optional (Normally open inputs)

NOTE: 1. Do not exceed rated specifications.
2. The DE device must be installed in accordance with these instructions by a qualified electrician.
3. Wiring must be in accordance with all local codes and regulations.
4. Install within a well-protected premise that is supervised/attended at all times.

INSTALLATION COMPONENTS

Illustration	Component	Function	Remark
	24VDC Power supply *	Supplis power to delayed egress exit device	PS101/PS102 Clasee 2 power supply
	Electric mortise lock *	Serves as locking device on electric mortise applications	If used trim (Electric Mortise Lock)
	Electric trim *	Serves as locking device on electric trim applications	If used trim (Electric trim)
	Building fire alarm * (normally closed contacts)	Unlocks DE device in case of fire alarm	
	Power transfer (EPT-1 shown)	Transfers electrical power through frame to door (wires concealed)	Highly recommended or used, the door loop or electric hinge
	External inhibit device (card reader, key switch, etc.) Rim and vertical (normally closed contacts) Electric Mortise & Electric Trim Fail safe (normally closed contacts) Electric Mortise & Electric Trim Fail secure (normally open contacts)	Allows authorized egress or ingress without alarm	Wire multiple external inhibit devices in series See "External inhibit Switch"
	Door position switch (normally closed contacts)	Arms device 2.5 seconds after door closes; sounds alarm if door forced open	If not used, Connect red wire to green wire
	External horn	Provides louder alarm than device internal horn	If not used, Insulate blue and black wires separately

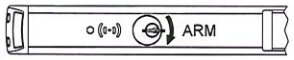
NOTE: 1. Always disconnect power prior to making any connections or service.
2. Components marked with (*) are required for product.

WIRE FUNCTIONS		
Terminal	**Description**	**Function**
Red	+24	Power supply +24VDC
Blue	NO	Common for 24 output; 24VDC, 1A maximum Normally open output; closes during alarm
Gray	CM-	Communication line; connect device
Yellow	CM+	Communication line; connect device
Orange	FA	Fire alarm input; 0 VDC = fire ; 24 VDC = no fire
Green	DPS	Door position switch input; 0 VDC = door open ; 24 VDC = door closed
White	EI	External inhibit off input; 0 VDC = device inhibited ; 24 VDC = device active External inhibit on input; 0 VDC = device active ; 24 VDC = device inhibited
Black	GND	Power supply ground

Maximum Wire Length From Power Supply To Device & Back To Supply In Feet x Wire Gage		
Wire	12 AWG	14 AWG
Feet	200	100

OPERATION

The DE device is designed to sound an alarm when activated and keep the door locked for 15 seconds before allowing passing. In order to make sure the DE device functions properly, perform actions No.1 through No.7 described in the following table and check if your product functions matches with the descriptions shown. If it does not, see "Troubleshooting".



RHR shown
(LHR opposite)

ARMING THE DE DEVICE:
With power applied, turn the key clockwise. The LED indicator will illuminate for 10 seconds and after it starts flashing quickly, the pushbar will lock. (default operation)

SUMMARY OF DELAYED EGRESS EXIT DEVICE MODES					
Action	**Mode**	**Pushbar**	**Red LED**	**Alarm**	**Duration**
1. Turn on device with key switch (turn key clockwise)	Rearm	Unlocked	On solid	Off	Rearm time (0~28 seconds)
2. Rearm time expires	Armed	Locked	Slow flash	Off	Continuous
3. Press pushpad	Release delay	Locked	Fast flash	On	15 seconds
4. 15 seconds release delay expires	Armed	Unlocked	Fast flash	On	Continuous
5. Turn off key switch or activate EI (external inhibit)	Inhibit	Unlocked	Off	Off	Returns to rearm mode when key switch turned on or EI reset
6. Fire alarm contacts open	Alarm	Unlocked	Fast flash	On (if option switch No. 8 is off)	Continuous (turn off key switch to clear)
7. Door position switch contacts open	Alarm	Unlocked	On solid	On	Continuous (turn off key switch to clear)

NOTE: 1. When door position switch is used, the DE device will arm 2.5 seconds after door closes.
2. The DE device default rearming time is 10 seconds.

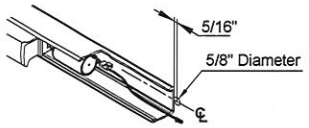
TROUBLESHOOTING

Turn the DE device off and on using key switch. Identify the problem encountered in the following table and apply the corresponding solution. After troubleshooting, check device function as instructed in "Operation" section.

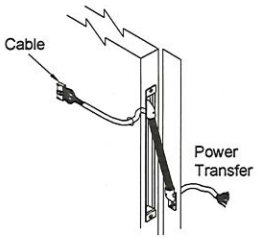
MODE SELECT SWITCHES		
Symptom	**Problem**	**Solution**
Red LED does not light	Power not reaching DE device	Replace/reset AC fuse/circuit breaker; check power supply input/output voltages; check input voltage at DE device cable connector
Red LED flashes fast and horn sounds	Fire alarm contacts open	Connect normally closed fire alarm contacts between red and orange wires
Red LED flashes once	External inhibit switch setting error	Check external inhibit switch and contacts between red and white wires
Red LED on solid then flashes fast and horn sounds	1. Push bar pressed 2. Push bar switch disconnected	1. Release the push bar 2. Connect pushbar switch connectors (see step No. 6 of "Installation")
Red LED on solid, horn sounds, and solenoid pulls in for one second (two sharp sounds)	1. Door open 2. Door position switch contacts open 3. Door position function not used and wires not terminated properly	1. Close door 2. Connect normally closed door position switch contacts between red and green wires 3. If door position switch not used, connect red and white green together

INSTALLATION

1 COMPLETE WIRING.

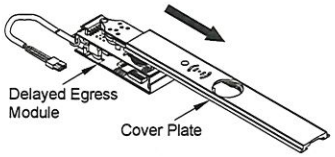


Drill 5/8"dia. wire access hole thru device side of door.

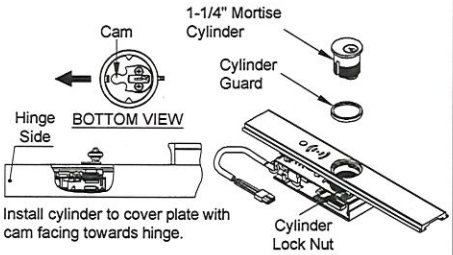


Route cable through hole and connect wires to power transfer (see "POWER TRANSFER" instructions as needed).

2 INSTALLATION DELAYED EGRESS MODULE AND CYLINDER.



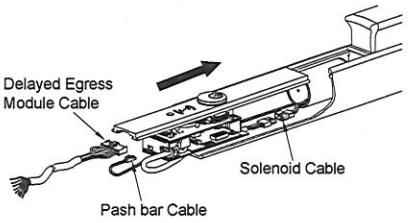
Slide delayed egress module into cover plate.



Install cylinder to cover plate with cam facing towards hinge.

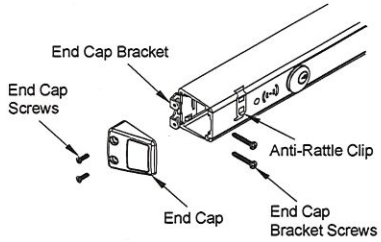
1. Insert 1-1/4" Mortise Cylinder with cylinder guard into the cover plate.
2. Thread cylinder lock nut onto mortise cylinder.
3. Make sure to fasten down tight.

3 WIRE CONNECTION.



Slide cover plate half way into place while routing and connecting three cables.
Route three cables while slowly sliding cover plate into place.

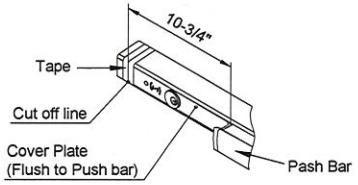
4 INSTALL MOUNTING BRACKET AND END CAP.



After all wire connections are made and device checked for operation, install the end cap bracket, end cap and label .
NOTE: Door sign is in cardboard tube

Go to "Operation" for testing and troubleshooting.

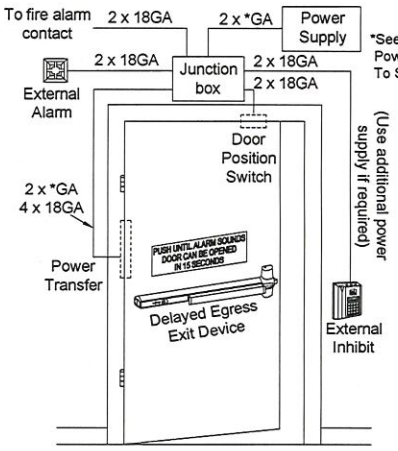
5 CUT DEVICE (IF REQUIRED).



NOTE: Length measured from push bar to cutoff line must not be less than 10-3/4".

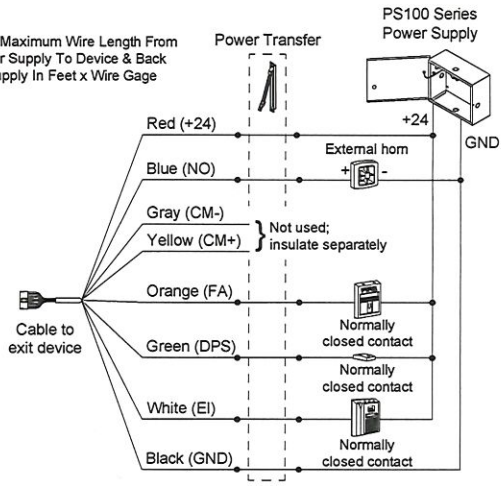
TYPICAL WIRING

RIM/VERTICAL - SINGLE DOOR APPLICATION



Component Placement and Wiring Requirements, Single Door

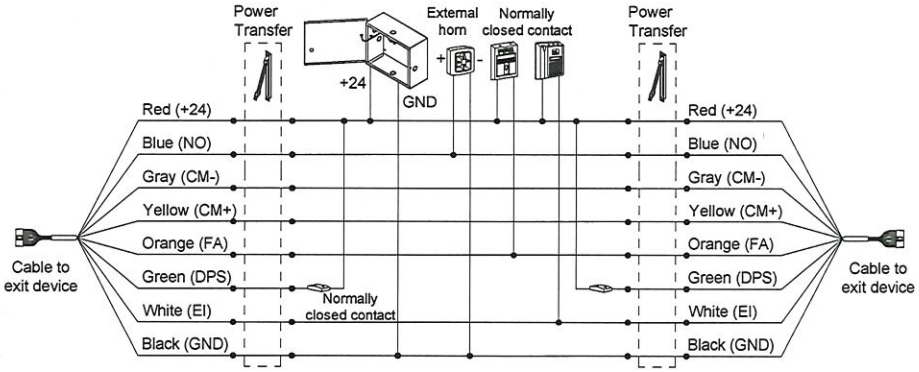
*See Maximum Wire Length From Power Supply To Device & Back To Supply In Feet x Wire Gage



Wiring Connections, Single Door

RIM/VERTICAL - DOUBLE DOOR APPLICATION

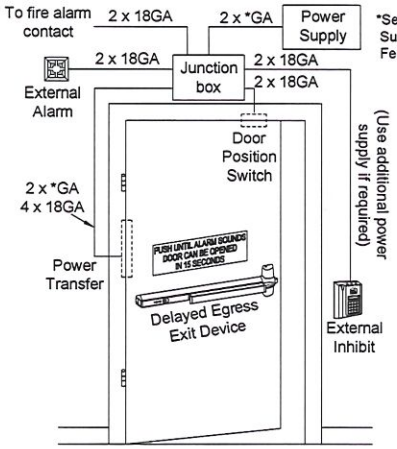
For double door application, both doors are installed with DE devices which are interconnected by yellow (CM+) and gray (CM-) wires (if not used, insulate wires separately). When one of the DE devices' alarm goes off, the other one does as well, and both devices will unlock after a 15 seconds interval. Both door locks can also be deactivated by a fire alarm or an external inhibit. If door position switch is used, after the external inhibit disarms the alarm of the device, the door opened will rearm 2.5 seconds after it closes, while the unused door will rearm depending on the full rearming time setting. For proper operation, the rearming time between the DE devices must differ by at least 2 seconds.



Wiring Connections, Double Door

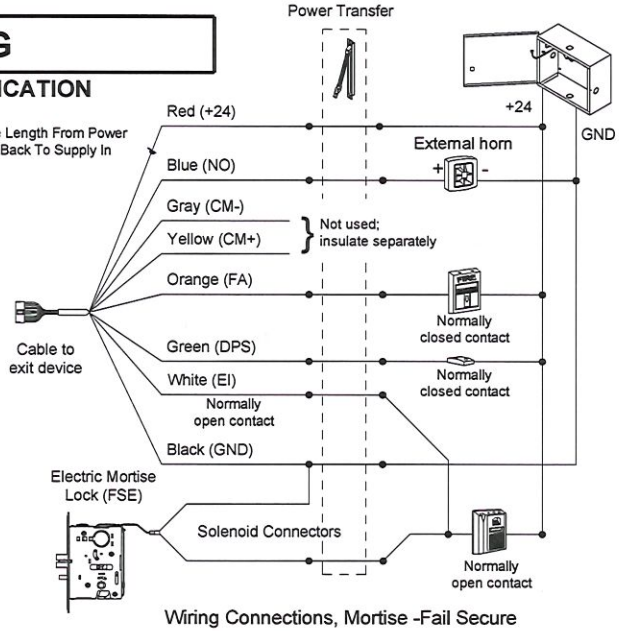
TYPICAL WIRING

ELECTRIC MORTISE LOCK APPLICATION

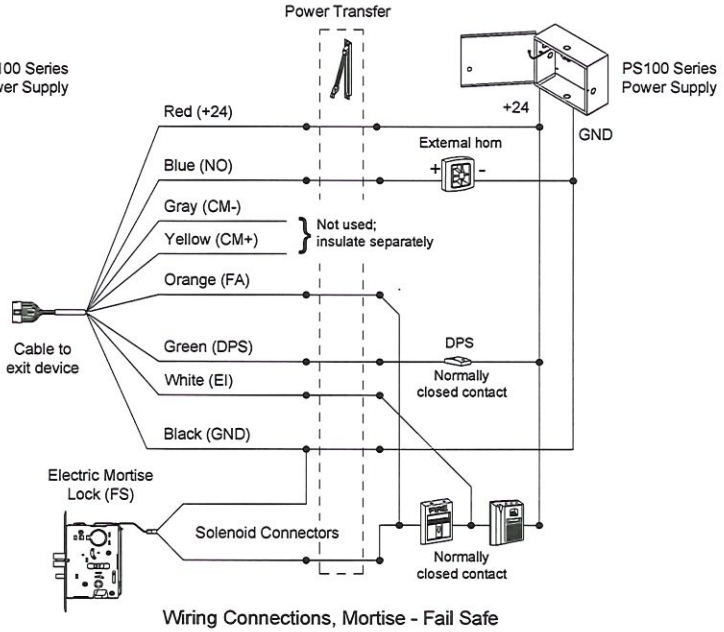


*See Maximum Wire Length From Power Supply To Device & Back To Supply In Feet x Wire Gage

Component Placement and Wiring Requirements for Mortise Applications

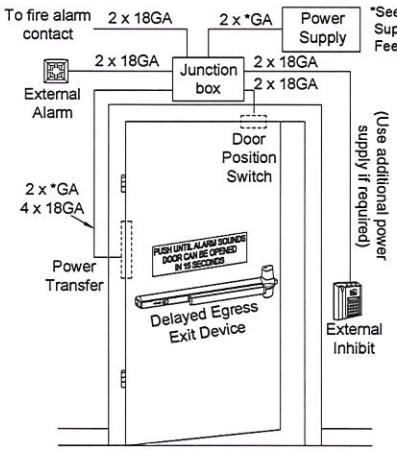


Wiring Connections, Mortise -Fail Secure



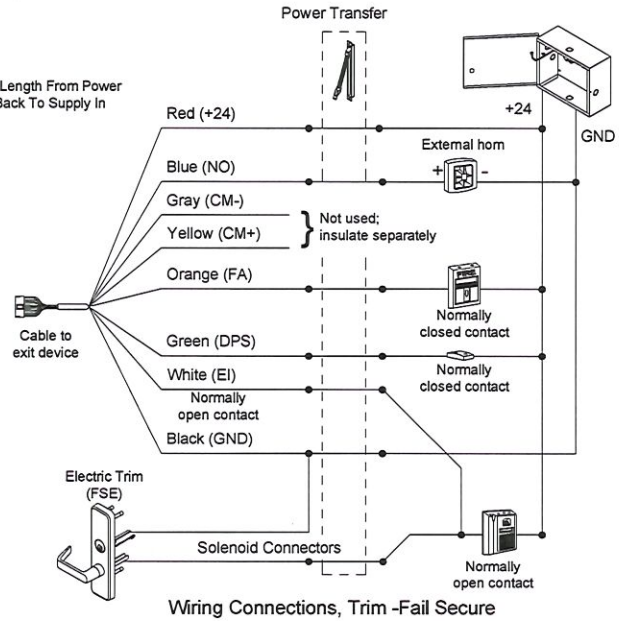
Wiring Connections, Mortise - Fail Safe

ELECTRIC TRIM APPLICATION

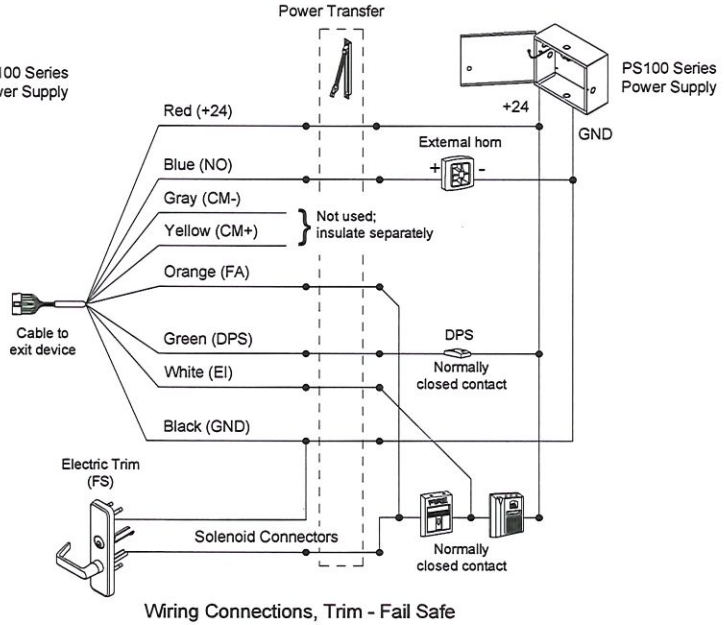


*See Maximum Wire Length From Power Supply To Device & Back To Supply In Feet x Wire Gage

Component Placement and Wiring Requirements for Trim Applications



Wiring Connections, Trim -Fail Secure



Wiring Connections, Trim - Fail Safe