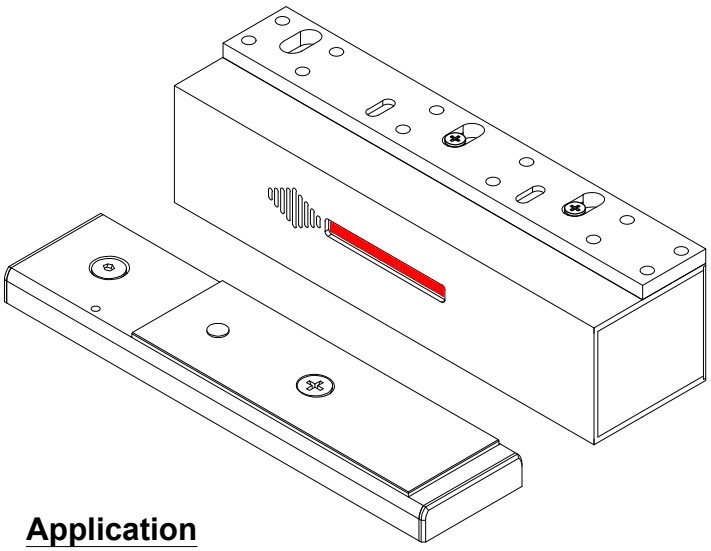
Delayed Egress Electromagnetic Lock Installation Guide
(Intend for use in indoor dry location- Out Swing)



PUSH UNTIL ALARM SOUNDS. DOOR CAN BE OPENED IN 15 SECONDS.	PUSH UNTIL ALARM SOUNDS. DOOR CAN BE OPENED IN 30 SECONDS.
KEEP PUSHING. THIS DOOR WILL OPEN IN 15 SECONDS. ALARM WILL SOUND.	KEEP PUSHING. THIS DOOR WILL OPEN IN 30 SECONDS. ALARM WILL SOUND.

*California Building Code Compliant

Application

When an unauthorized exit is trigger, the delays exit through the door for a period of 15 or 30 seconds. An LED bar segment display countdown by seconds and voice messages to inform the person planning to exit with the remaining times to unlock. In the mean time, the person exiting must wait allowing times for security personnel or staff to respond. The door will eventually unlocks after the 15 or 30 seconds delay time has passed, permitting the exit. On the other hand, a signal from the fire/life safety system can release the lock promptly during an emergency situation.

Standard Features

Holding Force up to 1200lbs
Field selectable exit delay time 15 or 30 Seconds.
Field selectable Nuisance Delay period either 1 or 2 Seconds.
75dB Buzzing Tone with LED segment bar display time seconds & field selectable Voice Guidance.
Choice of sensor to be activated: - Door Motion.
- Door Exit Device with momentary normally open contact.
- Push Bar with momentary normally open contact.

Auto Start Up – Occurs when power supply is restored and/or the fire point is restored. (When allowed by Building & Fire Life Safety Code).
Manual Start Up – This is a California & UBC Building Code Compliant Feature. Only after power supply restoration and fire point reset may the lock be Reset manually at the opening.
This lock can be reset with the built-in reset key switch or an external key switch or a reset switch connected to the door.
Vandal resistant Proximity Trigger Sensor.
Auto Sensing Voltage Power Input 12/24VDC.
Reverse power protection: If someone hooks power up backwards, the board simply does not turn on, protecting it from damage.
Optional Connection for Auxiliary Lock (Double Leaves Door)
Built-in Magnetic Contact for Door Position Status
Hall Effect Sensor Monitoring Output
Anti-Tamper Switch Output
Anti Tailgating - door will relock as soon as it closes.
Anti Pass Back- if door doesn't open after count down the door will automatically re-lock.

Specifications

Spec \ Model	DE1200	DE1201
Holding Force	Upto 1200lbs (Factory Tested) *	Upto 1200lbs (Factory Tested) *
Voltage Input	Auto Sensing Voltage [12V/24V +/- 10%]	Auto Sensing Voltage [12V/24V +/- 10%]
Power Consumption	600 mA / 330 mA	600 mA / 330 mA
Lock Output	12 / 24V , 1A	NA
Lock Status Relay Rating^{Max}	30VDC, 2A , 1pF	NA
Alarm Output Rating^{Max}	30VDC, 2A , 1pF	NA
DPS Rating^{Max}	30VDC, 0.1A , 1pF	30VDC, 0.1A , 1pF
Bond Sensor Rating^{Max}	30VDC, 2A , 1pF	24VDC, 1A , 1pF
ATS Rating^{Max}	30VAC / 42.4 VDC, 5A, 1pF	30VAC / 42.4 VDC, 5A, 1pF
Operating Temperature	0~55°C (32~131°F)	0~55°C (32~131°F)
Operating Humidity	0~95% (non-condensing)	0~95% (non-condensing)
Dimension Lock	(L)280 x (H)76 x (W)74.5 (mm)	(L)280 x (H)76 x (W)74.5 (mm)
Dimension Armature Plate	(L)280 x (H)68 x (W)23.5 (mm)	(L)280 x (H)68 x (W)23.5 (mm)

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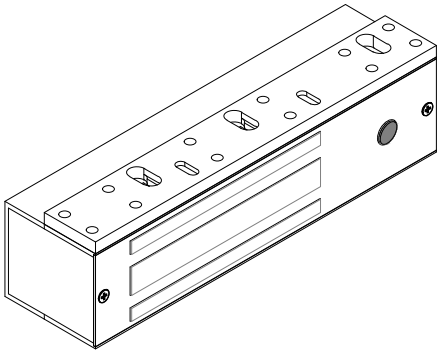
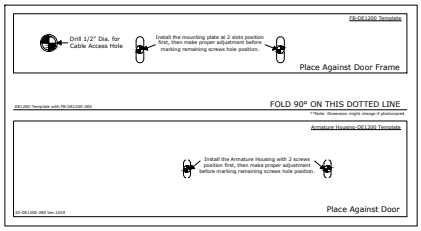
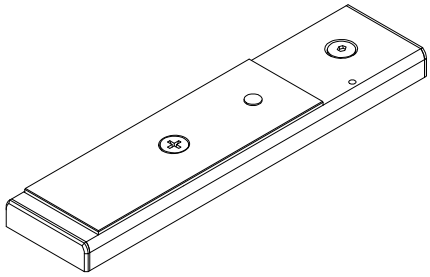
Included in Package



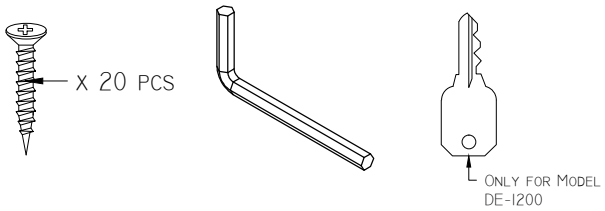
DE-1200 EM Lock Casing
Assembled & Mounting Plate



Mounting Template



Armature Plate Assembled
Housing & Proxy Trigger



EM Lock Screw Packing

7 Versions of Configuration (N1, N2, N3, N4, B1, B2 and B3) complaint to regional jurisdictions.

Firmware Reference	Delay Release Time (Seconds)		Nuisance Delay (Seconds)		Reset After Alarm		Lock Status on Power-Up	
	Fixed	Selectable	Fixed	Selectable	Fixed	Selectable	Fixed	Selectable
N1		15 or 30		1 or 2	Manual			Locked or Unlocked
N2	15			0 or 1	Manual			Locked or Unlocked
N3	30			0 or 1	Manual			Locked or Unlocked
N4	15			0 or 1	Manual		Unlocked	
B1	15			0 or 3		Auto/Manual		Locked or Unlocked
B2	30			0 or 3		Auto/Manual		Locked or Unlocked
B3	15		0			Auto/Manual		Locked or Unlocked

N# = NFPA Compliance
B# = BOCA Compliance

BOCA Compliance;

Manual Reset - Is achieved by authorized personal after an alarm by closing the door and actuating the integral reset key switch or by momentarily closing a contact connected to the remote RESET terminal.

Automatic Reset - Reset will automatically be initiated once the door has been opened, then closed and remains closed for 30 consecutive seconds.

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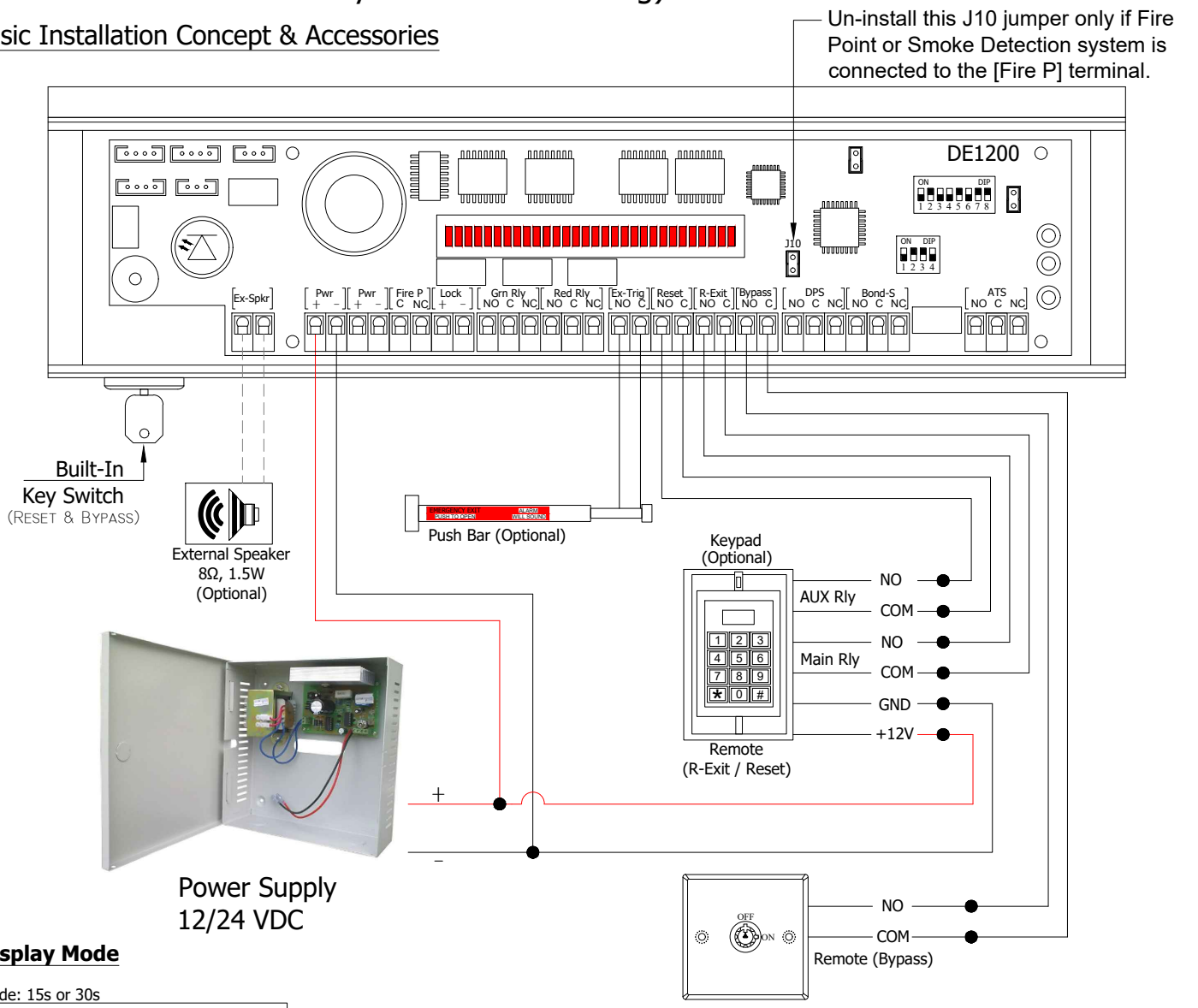
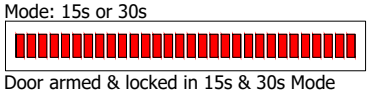
Basic Installation Concept & Accessories



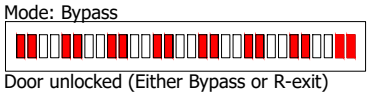
Display Mode

Mode: 15s or 30s



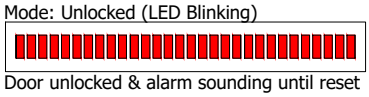
Door armed & locked in 15s & 30s Mode

Mode: Bypass

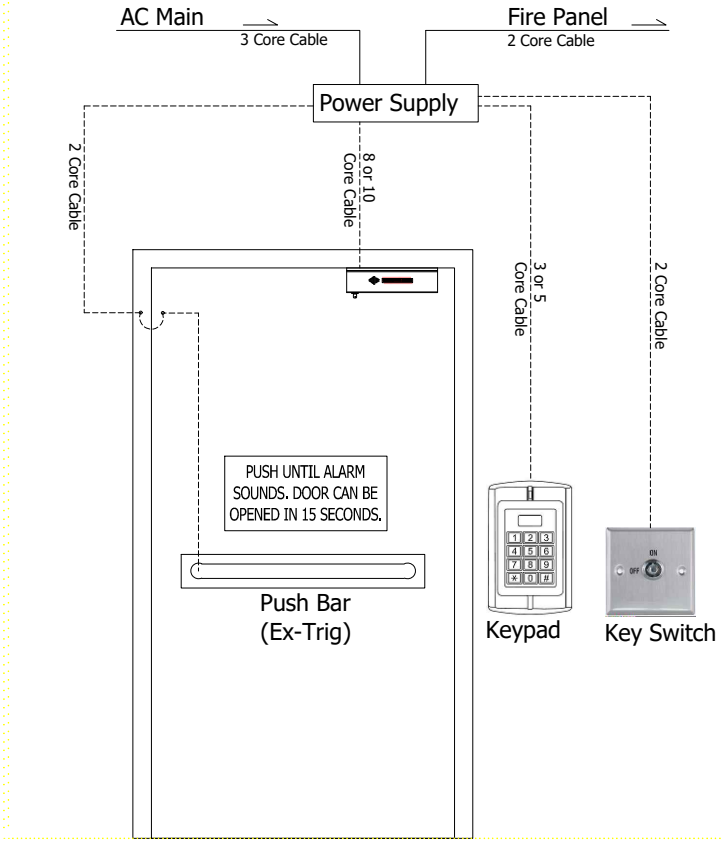


Door unlocked (Either Bypass or R-exit)

Mode: Unlocked (LED Blinking)

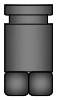


Door unlocked & alarm sounding until reset

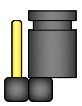


JUMPER SETTINGS

Jumper J10 *(Fire Point Input)*



Installed : Factory default setting.



Uninstalled : Only if a dry contact (NC) from a fire alarm point or smoke detector system is connected to the "Fire P" terminals.

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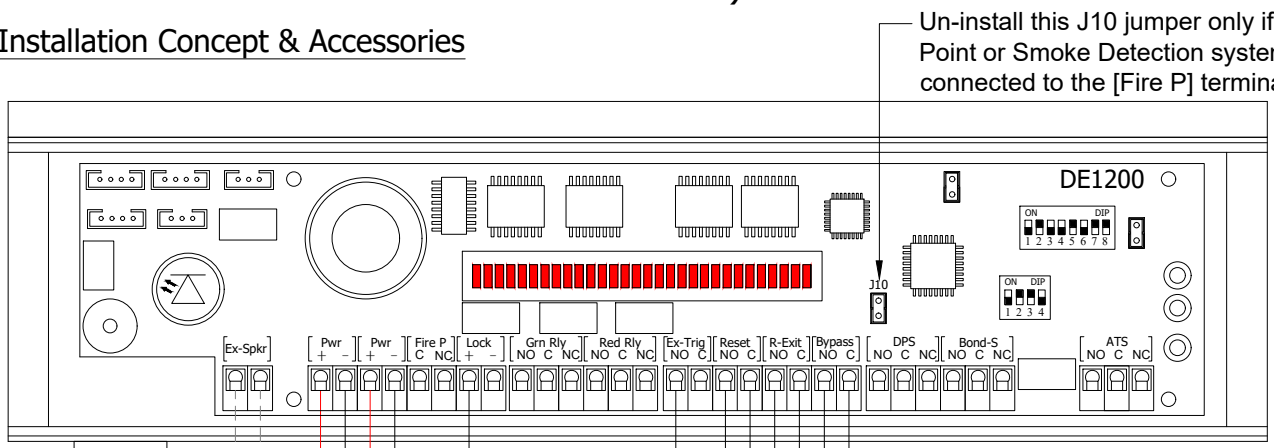
Delayed Egress Electromagnetic Lock Installation Guide
(Intend use on Double Leaf Door : Model DE1201)

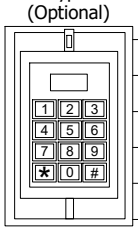
Basic Installation Concept & Accessories

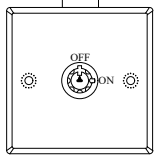


Built-In
Key Switch
(RESET & BYPASS)

External Speaker
8Ω, 1.5W
(Optional)

Power Supply
12/24 VDC





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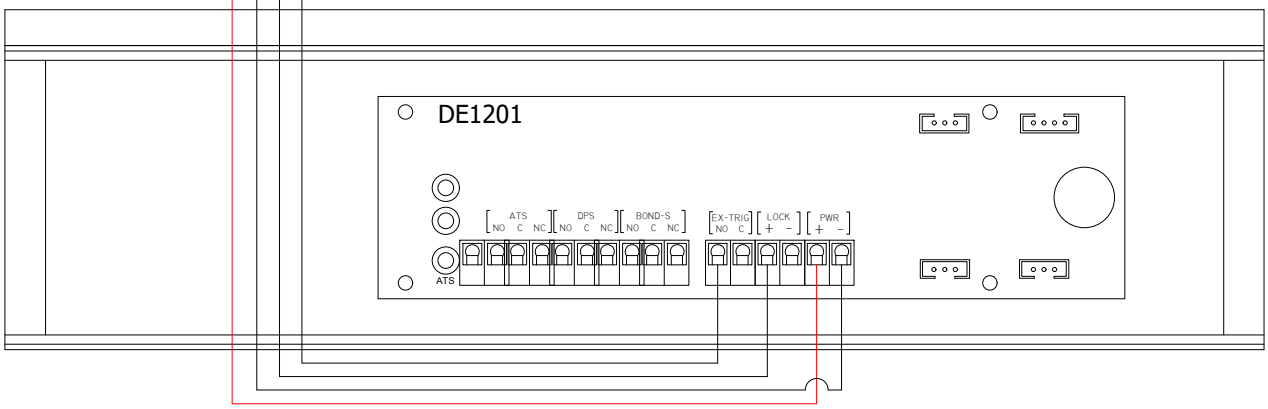

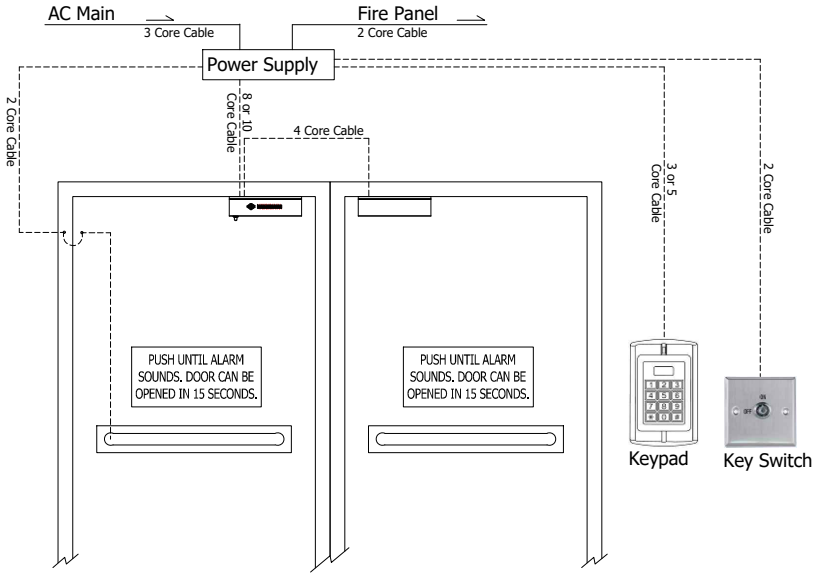

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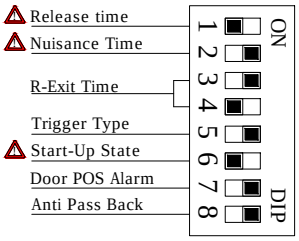
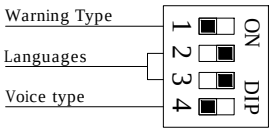
DIP SWITCH SETTINGS





⚠WARNING!
CONTACT AUTHORITY HAVING JURISDICTION FOR APPROVAL PRIOR TO SELECTING RELEASE TIME, NUISANCE TIME & START-UP SETTINGS

RELEASE TIME – The Release time can be selectable either 15 or 30 seconds. The Nuisance time delay is included in the door Release cycle and the total time to unlock the door remain the same as per setting once sensor triggered.

NUISANCE TIME – The Nuisance time feature is a warning time delay that commences when pressure is applied to outward swinging doors. Releasing the door before the end of the nuisance time, will turn off the warning alarm buzzer and reset nuisance time to origin. Nuisance time is field selectable for 1 or 2 seconds. Triggering the proxy sensor beyond the nuisance time will start the irreversible Release cycle time. The Nuisance time is included in the lock Release time cycle.

R-EXIT TIME – The Request Exit (R-Exit) time is field selectable for 1, 15, 20, or 30 seconds. The R-Exit time is the duration for the lock will remain Unlocked (Bypass), after a remote normally open contact switch is momentarily activated. When activated with an access control system, the R-Exit time cycle will start after the access control relay open time expires. The door will automatically relock if the door is opened, and then closed during the R-Exit time cycle.

TRIGGER TYPE – The trigger type is field selectable either "EXTERNAL" or "INTERNAL". Selecting INTERNAL mode uses the built-in proxy sensor and EX-TRIG terminal to trigger the Release Time cycle. Selecting EXTERNAL mode will disable the INTERNAL mode sensor; activation of the Release Time cycle is triggered by an external egress device equipped with a normally open contact switch.

START-UP STATE – The Start-Up selection, imply the state of lock during restoration of power up. It is field selectable either be "LOCKED" or "UNLOCKED". In the LOCKED mode, the lock will be reset to secure mode. In the UNLOCKED mode, the lock will remain unlocked and the LED Bar display will indicate as per By-Pass mode. To reset the lock; a momentarily normally open contact to the RESET signal will relock the door. This feature selection is to comply with building code requirements in jurisdictions that require manual reset or relock upon loss and restoration of system power supply.

WARNING TYPE – The warning type is field selectable either "TONE" or "VOICE". In secure status, the LED Bar display a 15 segment or 30 segment LED light. Each segment indicate time 1 second. Upon activation of the irreversible Release Time cycle, the LED Bar segment display begins to turn off one by one. In VOICE mode, the countdown will be count along with verbal exit guidance. When the LED bar display indicates zero, the lock will releases. The verbal voice guidance changes to a continuous verbal instruction announces "Door Unlocked". In TONE ONLY mode, the countdown will be count along with a buzzing tone only, subsequently continue the buzzing tone once the Release Time cycle ends.

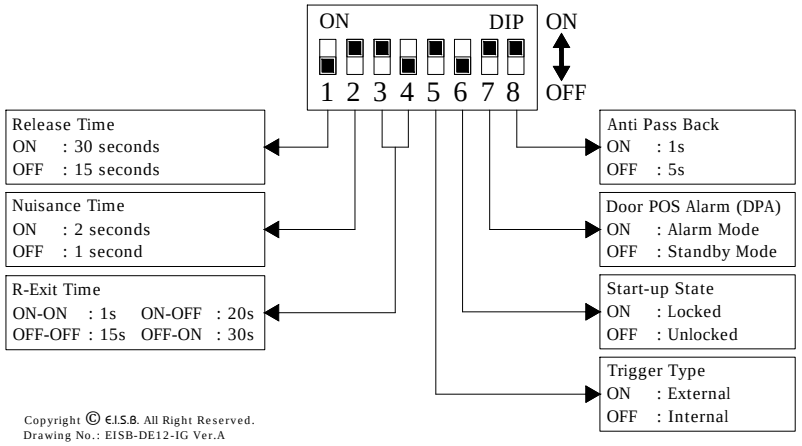
LANGUAGES – The voice message can be in 3 languages which are field selectable. The languages are English (Default), French & Spanish.

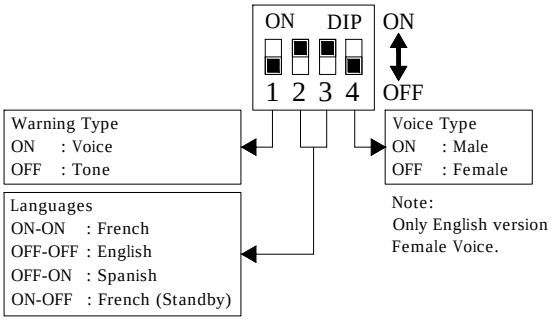
VOICE TYPE – The Voice type is field selectable either "V1" or "V2". (V1=English Male Voice; V2=English Female Voice)
[eg. 15s Mode: "Door will unlock in 15 seconds; Door will unlock in 5 seconds; Door unlocked..." Both messages repeat "Door unlocked" until the lock is reset.]
[eg. 30s Mode: "Door will unlock in 30 seconds; Door will unlock in 20 seconds; Door will unlock in 10 seconds; Door will unlock in 5 seconds; Door unlocked..." Both messages repeat "Door unlocked" until the lock is reset.]

DOOR POS ALARM (DPA)
– DPA Active : The Lock will enter alarm mode if the door held open past the R-Exit time set, buzzing tone or alarm voice will sound and the DPA can be Reset by built-in key switch or remote reset;
– DPA Inactive : The Lock will enter standby mode which will remain unlocked if the door held open past the R-Exit time set. No warning sound. The Lock can re-lock upon closure of the door.

ANTI PASS BACK – If door doesn't open after count down the door will re-lock after a set time frame 1s or 5s.

DIP SWITCH POSITION





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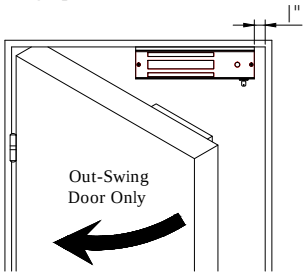
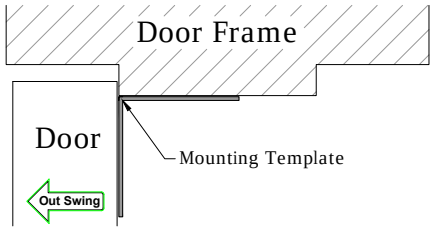
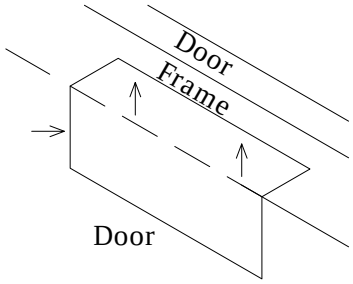
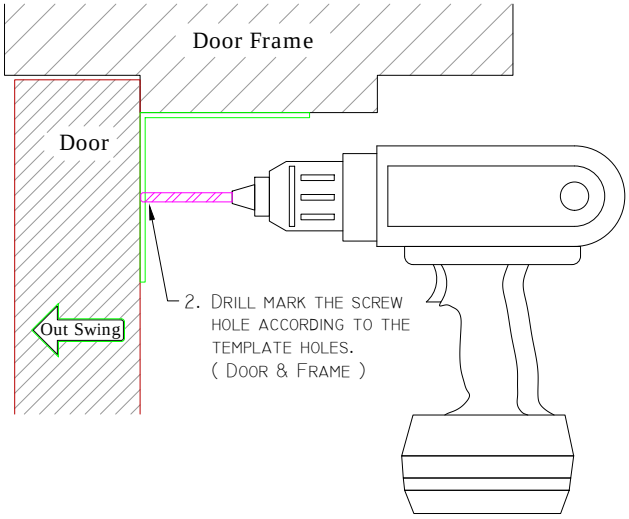
Step 1: Close the door, position the EM lock mounting location as close to the door upper corner with a minimum gap 1".

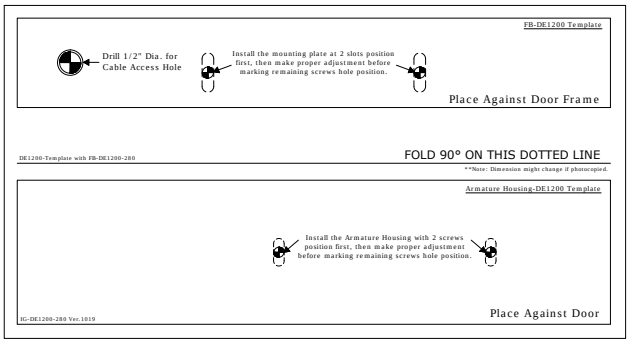




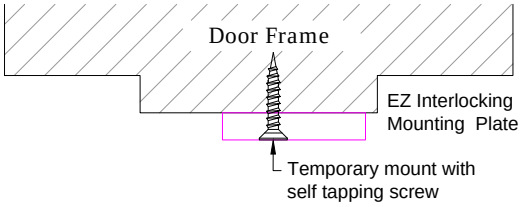


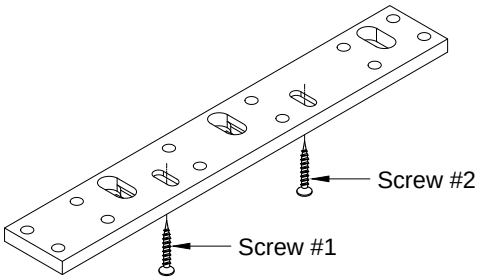
Step 2: Place the template against the door & frame and drill holes according to template indications.



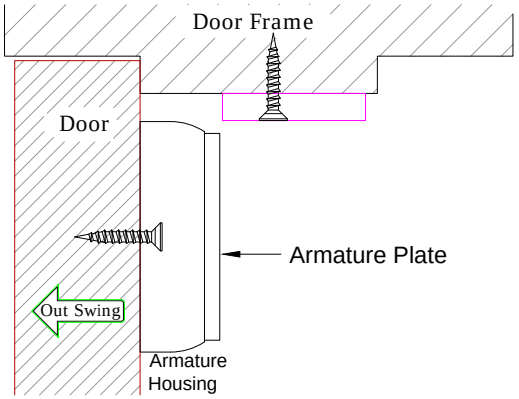


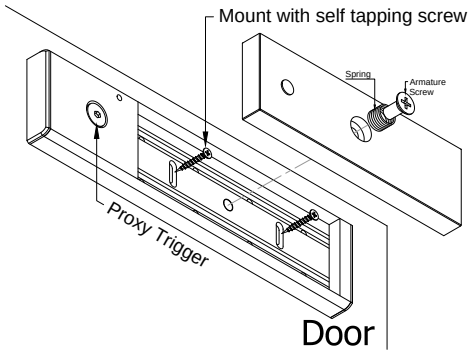
Step 3: Place the mounting plate against the door frame and screw in according to the template holes position.





Step 4: Place the armature housing against the door and screw in according to the template holes position.





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Step 5: Slot in the electromagnet LOCK unit through the shoulder screw into the EZ mounting plate as shown in the figure: 1-3 below. CAUTION: The LOCK unit must be held in place until secured with fixing screws.

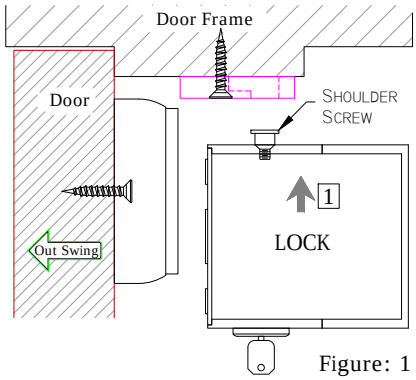


Figure: 1

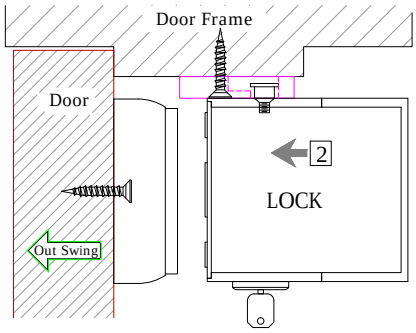


Figure: 2

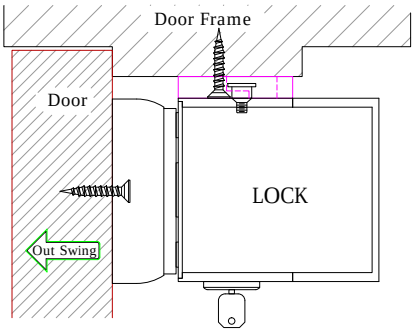
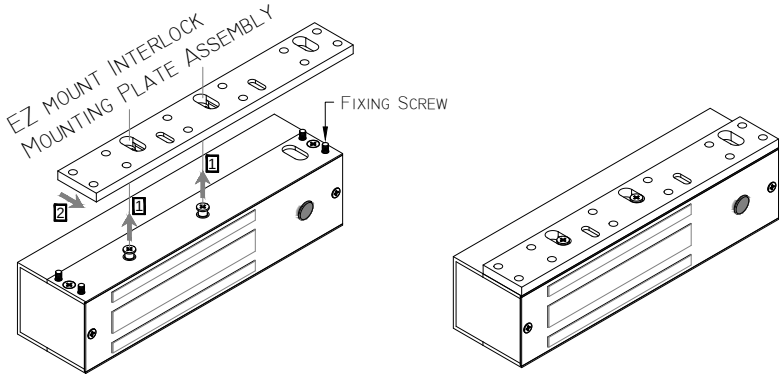
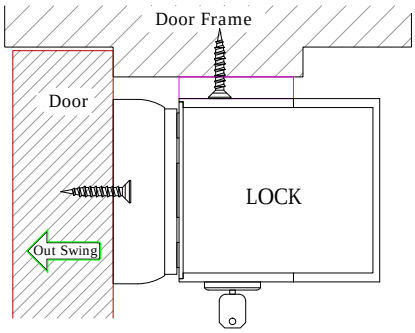


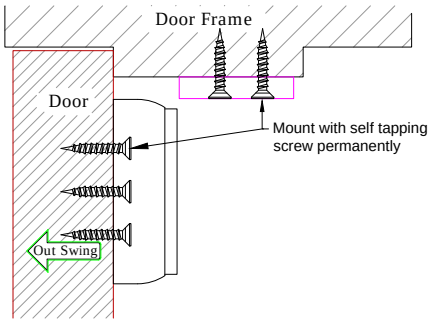
Figure: 3



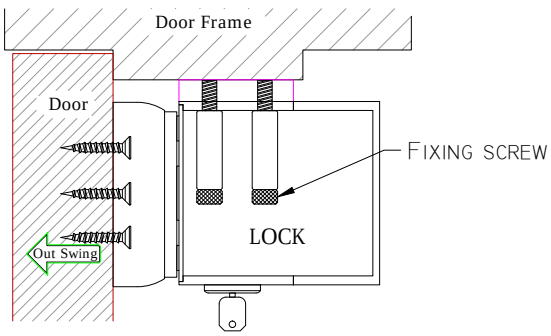
Step 6: Align the LOCK unit with the mounting plate . Fix the LOCK unit to the mounting plate with the allen key given through fixing screw. Carefully screw into the mounting plate to avoid stripping the threads. Check & confirm the alignment & mating surface between the armature plate & LOCK unit.

Notice: Please loosen screw #1 or #2 to re-align the mounting plate and position the LOCK unit mating surface to fully attached with the armature plate. Re-tighten the screw #1,#2 and screw-in the balance screw holes of mounting plate & armature housing.

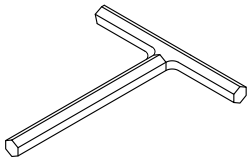




Step 7: Pull the wires through door frame, mounting plate and into the electromagnet LOCK unit casing. Fix the electromagnet LOCK unit to the mounting plate with the fixing screw. Make sure to fully tighten the fixing screw with proper tool eg. "T" Handle Allen Key.



T Handle Allen Key M5



(Not Included In package)

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Delayed Egress Electromagnetic Lock Installation Guide
(Intend for use in indoor dry location- Out Swing)

Step 8: After the LOCK unit has been mounted to the door and frame as per the provided template, rout the wires through the access hole and out to the controller board. Re-mount the lock front cover onto the lock. Make sure the proxy sensor is aligned with the hole on the cover. The sensor height is factory default which slightly projected out from the surface cover.

CAUTION : DO NOT ATTEMPT TO ADJUST THE PROXY SENSOR HEIGHT. AS THIS WILL RESULT IN DAMAGE TO THE SENSOR AND VOID THE WARRANTY.

Step 9: Make all wiring connections to the lock controller board. Special precaution on the polarity of the input power terminals. This lock has auto sensing voltage feature which automatically configures itself for 12VDC or 24VDC operation. The required use of listed power source with Class 2, power-limited output.

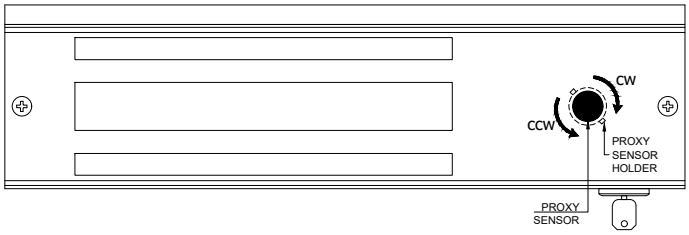
CAUTION: INPUT TERMINALS FOR R-Exit, RESET & Ex-Trig MUST ONLY BE CONNECTED TO A NORMALLY OPEN MOMENTARY DRY CONTACT SWITCH. CONNECTION TO A VOLTAGE OR A "WET" OUTPUT MAY DAMAGE THE LOCK AND VOID THE WARRANTY.

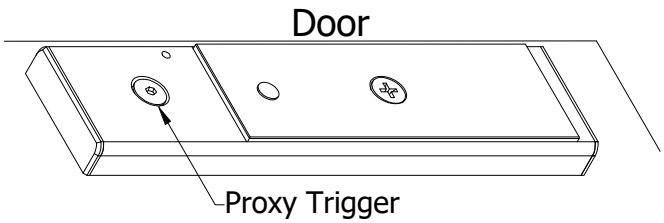
Step 10: Slowly swing the door close and visually check the position of the proxy trigger as it approaches the proxy sensor on the lock. The proxy trigger & sensor should align between one another either horizontally and vertically, if the installation was done perfectly using the provided mounting template. The LED at the back of the proxy sensor will light on when the proxy trigger is detected.

IMPORTANT NOTICE : STANDARD OPERATION OF THE LOCK DEPENDS ON THE PROXY SENSOR BEING ABLE TO DETECT THE PROXY TRIGGER WHEN THE DOOR IS SWING CLOSED. A MINOR ADJUSTMENT CAN BE MADE TO THE PROXY SENSOR HEIGHT FOR FINE TUNING.

Step 11: FINE TUNING PROXY SENSOR HEIGHT:-

- Turning proxy sensor holder clockwise (CW) will increase the height of the proxy sensor from the front cover surface; hence decrease the gap between the sensor and proxy trigger.
- Turning proxy sensor holder counterclockwise (CCW) will decrease the height of the proxy sensor from the front cover surface; hence increase the gap between the sensor and proxy trigger.



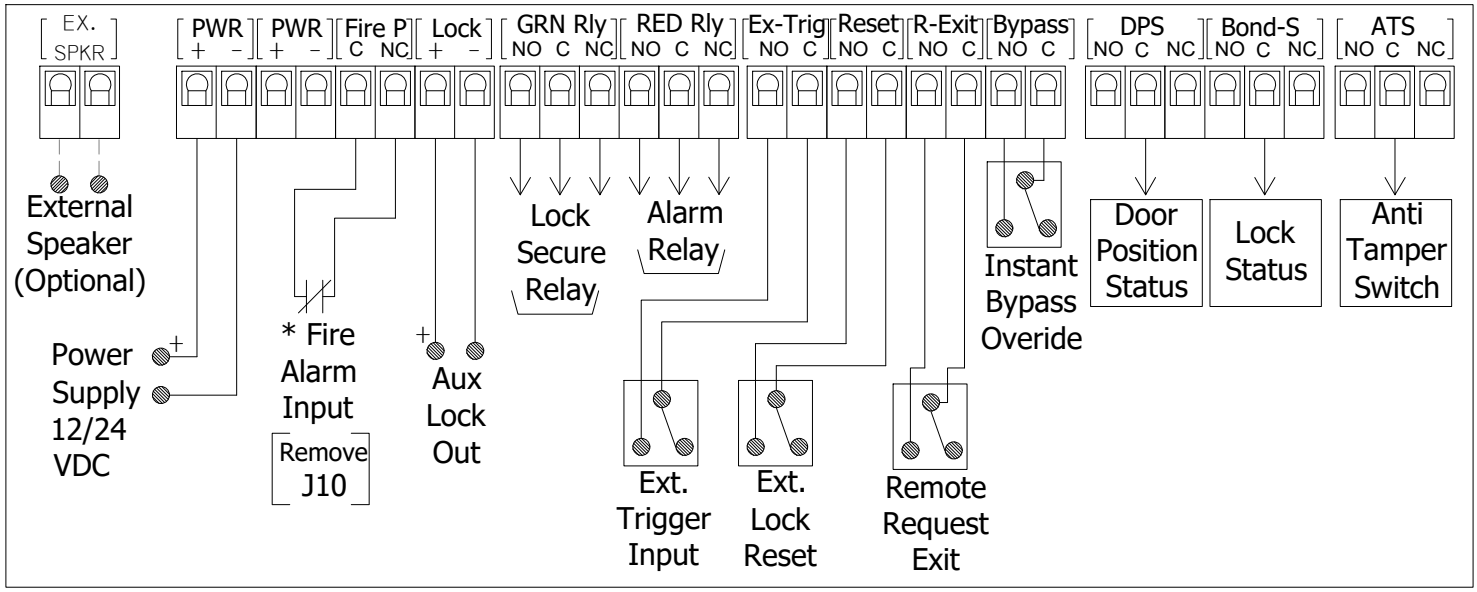


Step 12: FINE TUNING DOOR MOVEMENT DETECTION SENSITIVITY :-

The proxy trigger is spring loaded & can be screwed in or out from the proxy trigger ABS housing using the provided Allen key M5. Hence increase or decrease the gap between the sensor and proxy trigger.

IMPORTANT NOTICE : STANDARD INSTALLATION OF THE PROXY SENSOR & PROXY TRIGGER DOES NOT HAVE TO TOUCH EACH OTHER PHYSICALLY TO OPERATE CORRECTLY.

Complete Wiring Options & Functions



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