SECURITY DOOR CONTROLS ■ WWW.SDCSECURITY.COM
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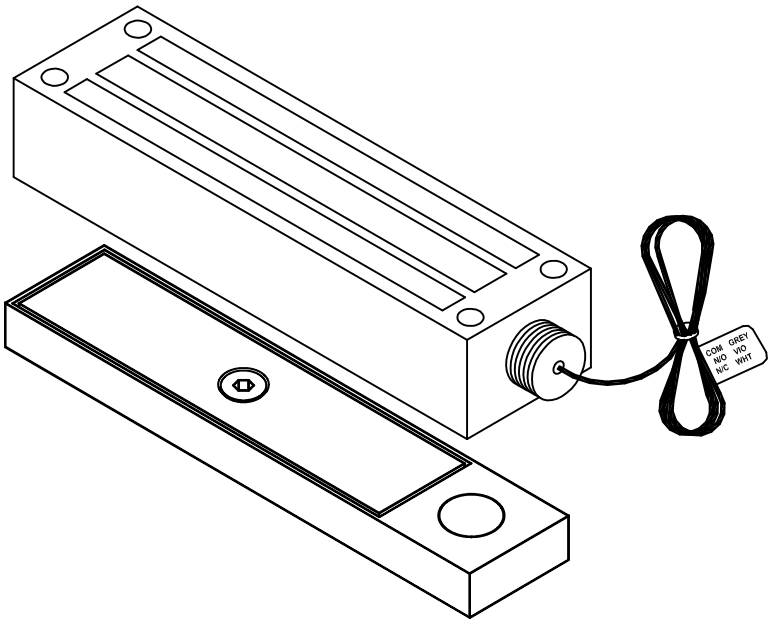
INSTALLATION INSTRUCTIONS

1576DE
DELAYED EGRESS EMLOCK



PUSH UNTIL ALARM SOUNDS. DOOR CAN BE OPENED IN 15 SECONDS.

KEEP PUSHING. THIS DOOR WILL OPEN IN 15 SECONDS. ALARM WILL SOUND.

California Building Code Compliant

During installation, care must be taken to assure full electro-magnet and armature contact.

The Emlock and armature should be handled carefully. Any damage to the surface such as paint, burrs and dirt will hinder full holding power.

Although all SDC Emlocks are provided with the best possible plating for corrosion resistance, the continued impact of the armature against the Emlock may cause eventual wear of the plating.

If wear causes rust to occur, clean the surface using a 3M Scotch-Brite pad. Do not use coarse material to clean surfaces.

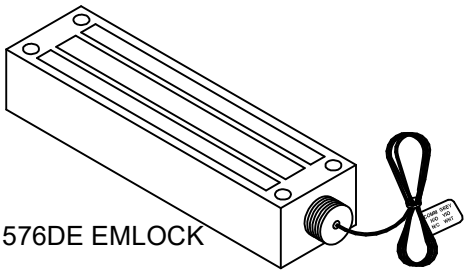
After cleaning, do not touch the Emlock face or armature with your hands.

A rust inhibitor such as M1 manufactured by Starret, or LPS3 manufactured by LPS Laboratories (available at most hardware stores) may be applied.

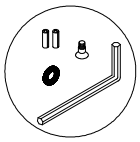
Mount the Emlock to a door frame or similar structure. The armature is mounted to the door. The fabrication of additional mounting plates and angle brackets may be required by the installer. Due to various door designs, there is not a standard or recommended method of installation.

Emlocks are fail-safe (locked when energized) devices and require power to remain locked. A power supply with battery backup is required when power outages may interfere with desired security.

Included in Package

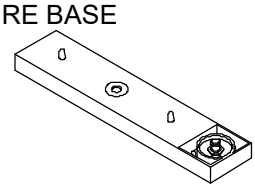


1576DE EMLOCK

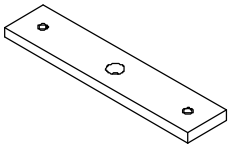


ARMATURE
SCREW PACK
1576-101-TJ1

ARMATURE BASE
1511S-11



ARMATURE PLATE
1511S-12T



Any suggestions or comments to this instruction or product are welcome. Please contact us through our website or email engineer@sdcsecurity.com

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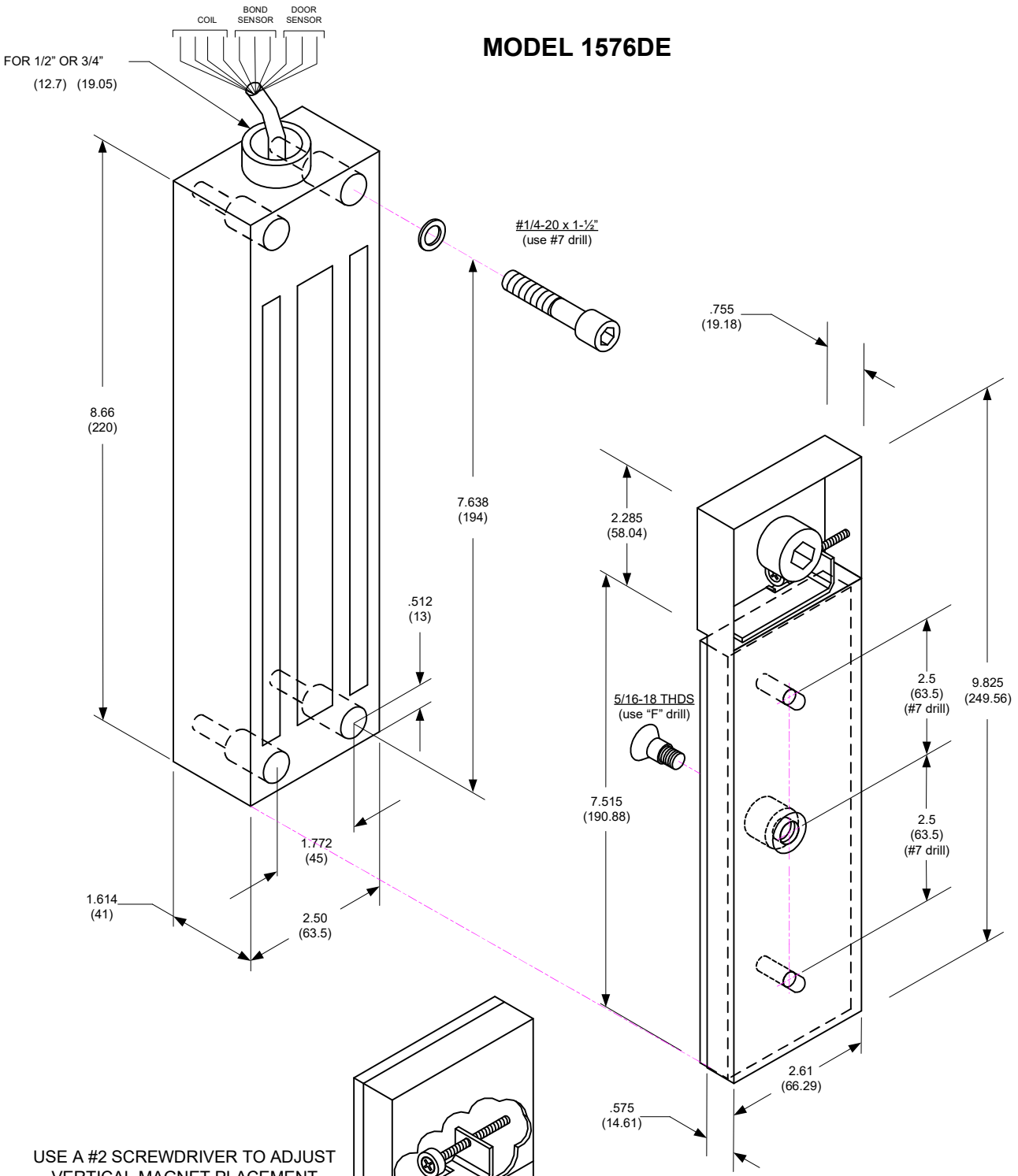
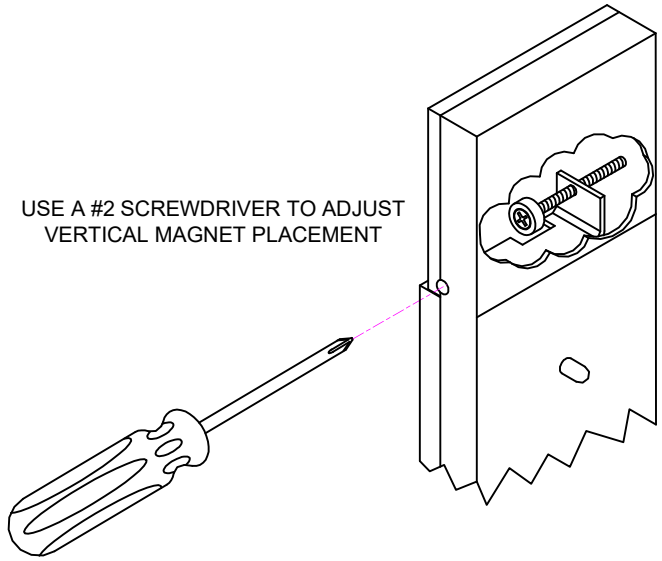
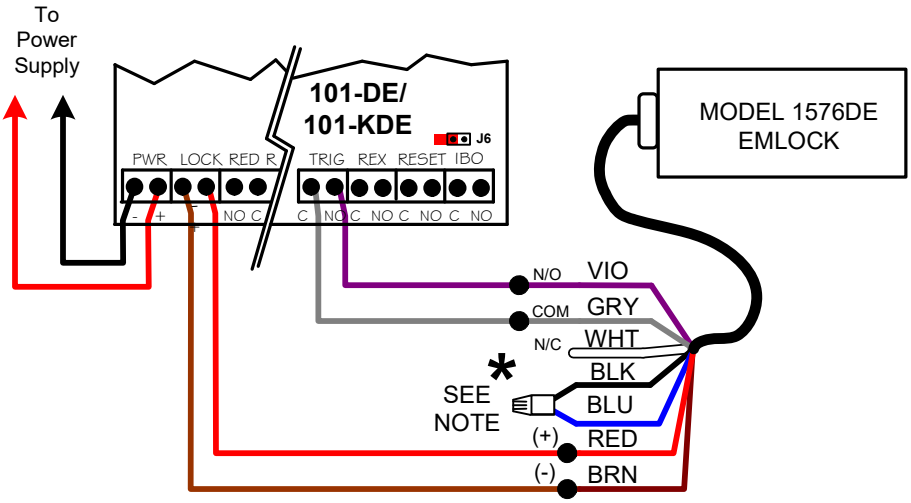
MODEL 1576DE



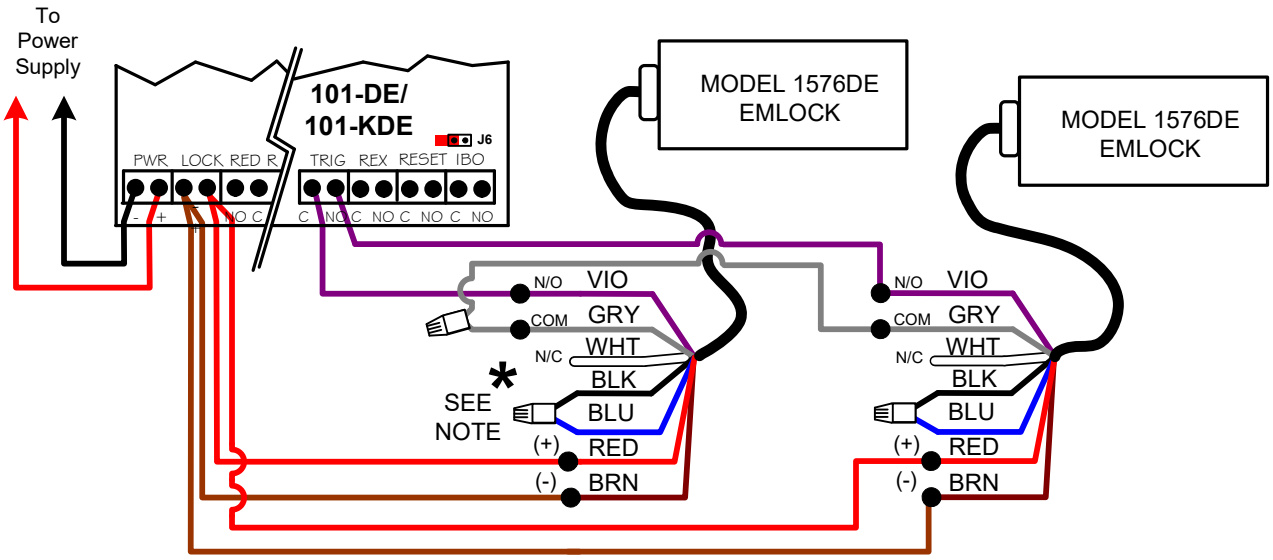


Typical System Wiring

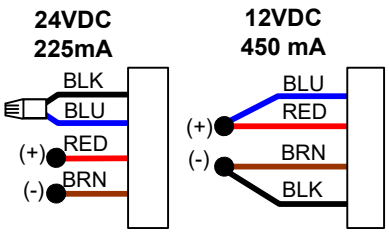
SINGLE DOOR



PAIR OF DOORS



*** MAGNET VOLTAGE CONFIGURATIONS**



TRIGGER SENSOR WIRING		
WIRE COLOR	CONTACT	DESCRIPTION
VIO	N/O	ACTIVATE WHEN DOOR CLOSED
GRY	COM	COMMON
WHT	N/C	ACTIVATE WHEN DOOR OPEN

Bond Sensor (BAS) Wiring		
Wire Color	Contact	Description
YEL	N/O	Good Bond
GRN	COM	Common
ORG	N/C	No/Poor Bond

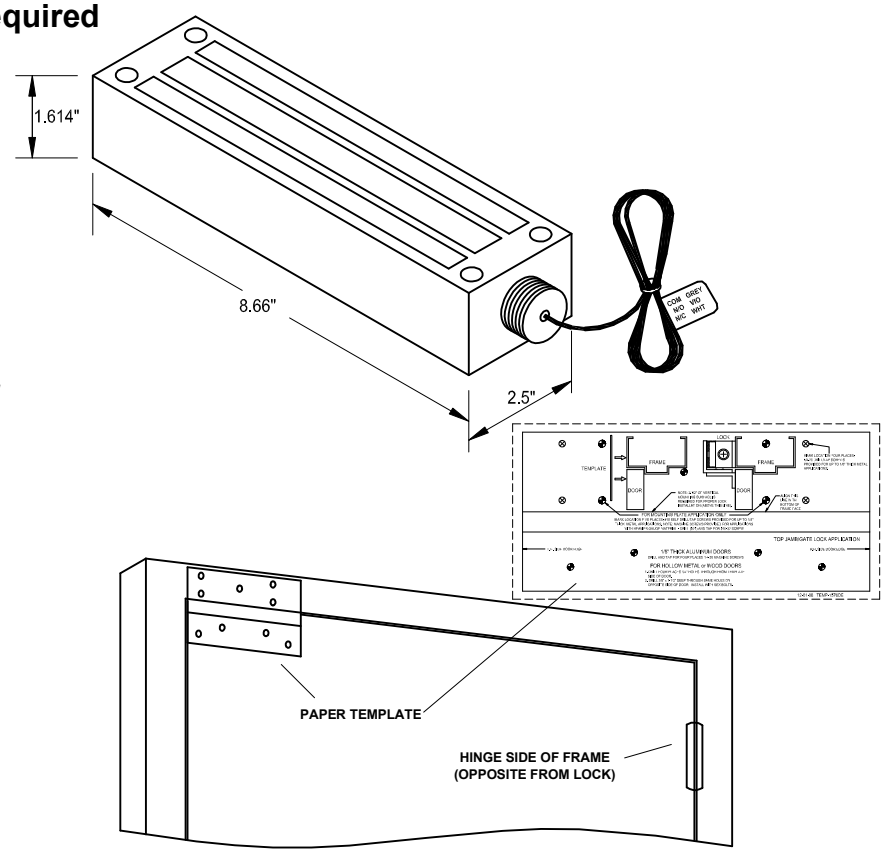
Door and Frame Preparation Instructions

NOTE: Top Jamb Mounting Bracket required

STEP 1. Locate the paper template. Align the indicating line with the bottom of the frame face at the header while against the vertical stop, opposite the hinge side of the door. Tape in place at this position.

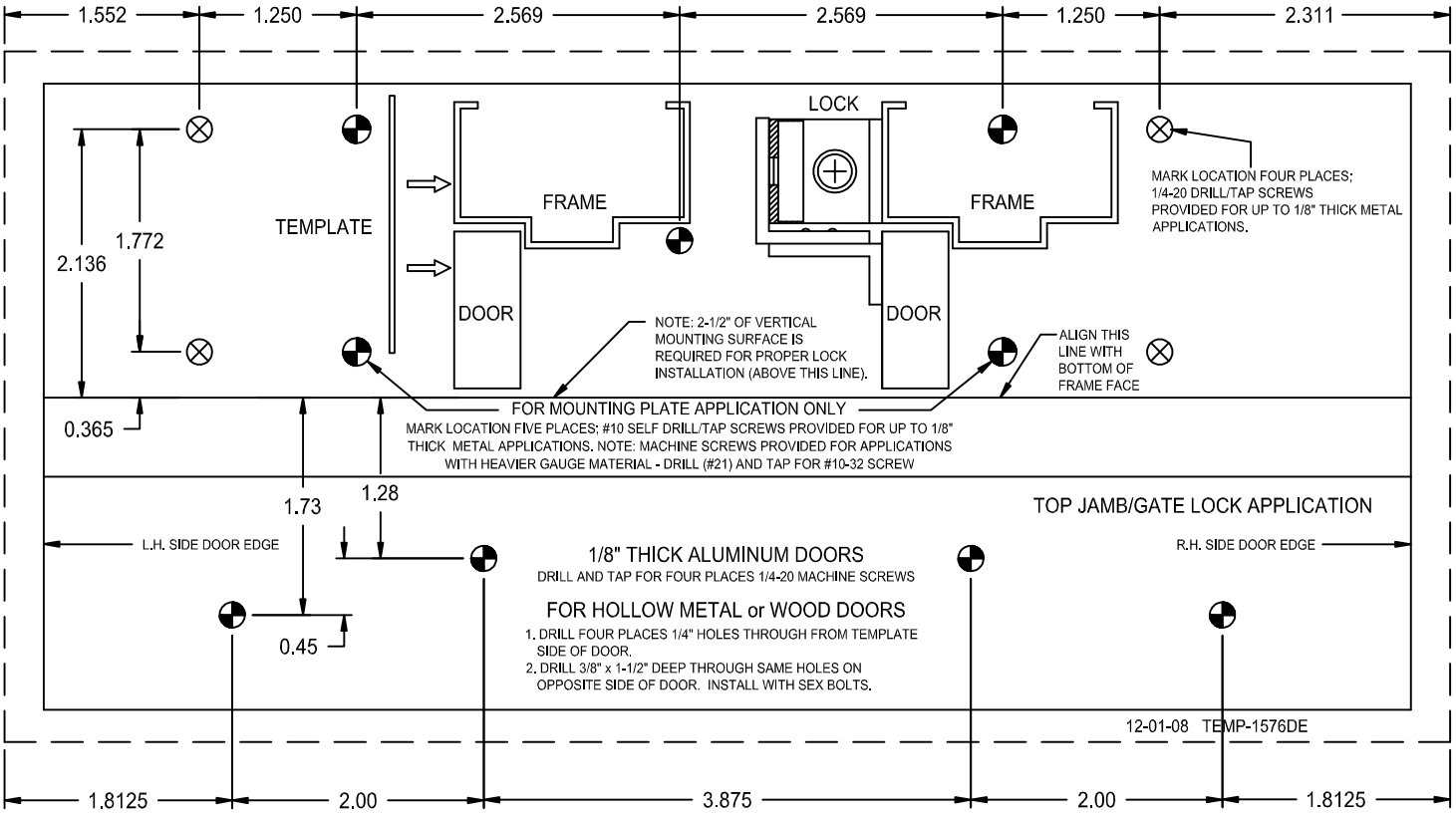
STEP 2. As indicated on the paper template, punch the designated hole locations on the frame and armature mounting holes on the door. ***(NOTE: PRIOR TO DRILLING, INSPECT TO SEE IF ANY OF THE HOLES CANNOT BE DRILLED DUE TO THE FRAME OR DOOR CONFIGURATION. A FILLER PLATE OR ANGLE BRACKET MAY NEED TO BE FABRICATED.)***

STEP 3. Drill and tap the four mounting holes as indicated on the paper template.



Door and Frame Reference Dimensions

IMPORTANT! – PAPER TEMPLATE IS CRUCIAL FOR PROPER ALIGNMENT OF ARMATURE AND MAGNET



ARMATURE MOUNTING INSTRUCTIONS

STEP 1. Install mounting hardware to door and mount the armature and armature base to the bracket. Verify that the armature trigger magnet is towards the conduit side of the lock.

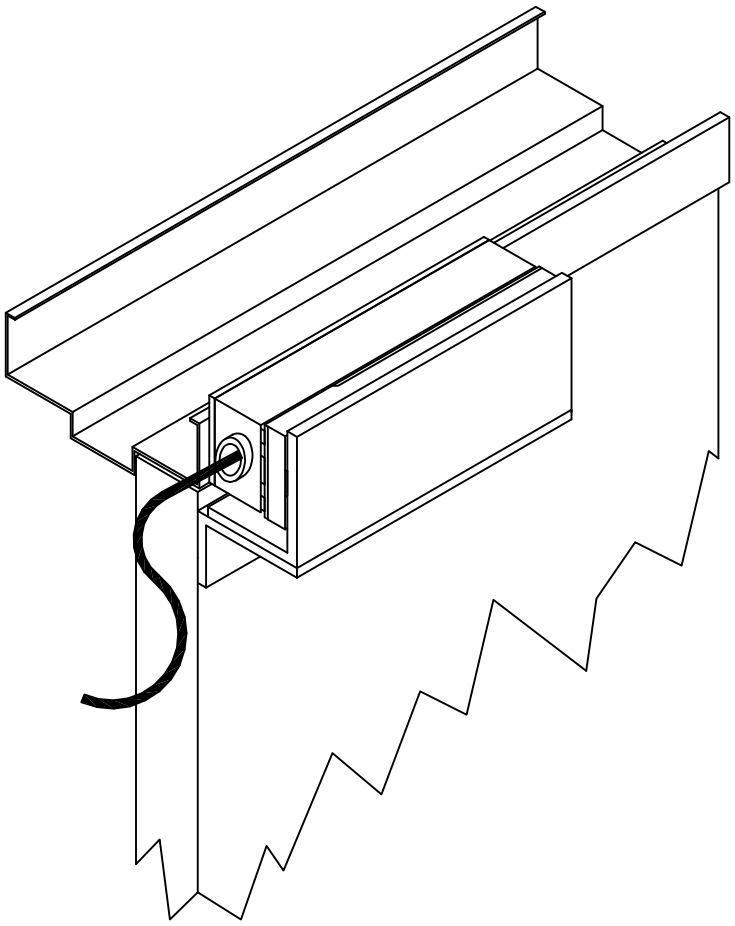
STEP 2. Install the mounting plate to the header with the four proper screws using the paper template provided. Snug the screws down (do not over torque).

STEP 3. **I**nstall the lock to the mounting plate with the 1/4-20 socket head screws provided.

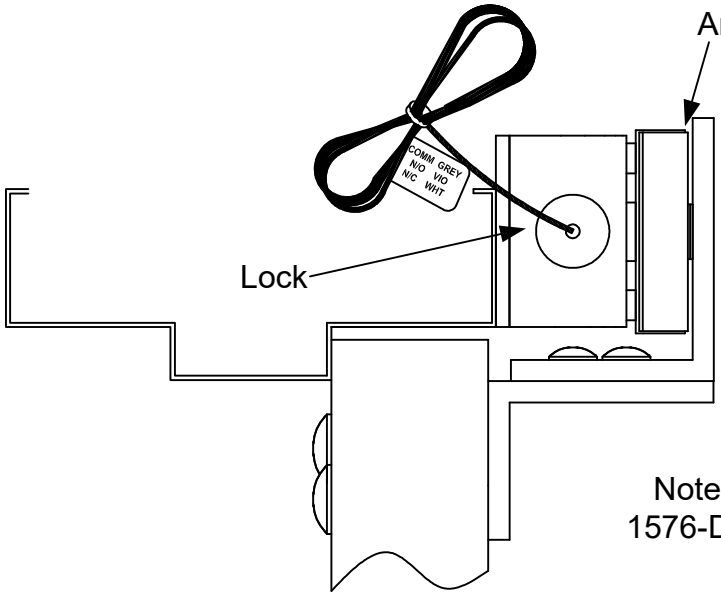
STEP 4. With the lock mounted, close the door so the armature holder just comes into contact with the face of the lock. If the door is not completely closed when the lock & armature touch, open the door and reposition the armature bracket away from the door.
(THIS IS TO PREVENT THE DOOR FROM USING THE LOCK AS THE DOOR STOP.)

STEP 5. Remove the lock, mark & punch all remaining screws. Drill & tap holes as indicated on the paper template and install all screws.

STEP 6. Reinstall the lock. At this point, if there is no need to remove the lock for painting or any other reason, install the anti-tamper plugs over the socket head mounting screws, using a soft hammer to avoid damage to the lock case.



Armature Base
And Armature

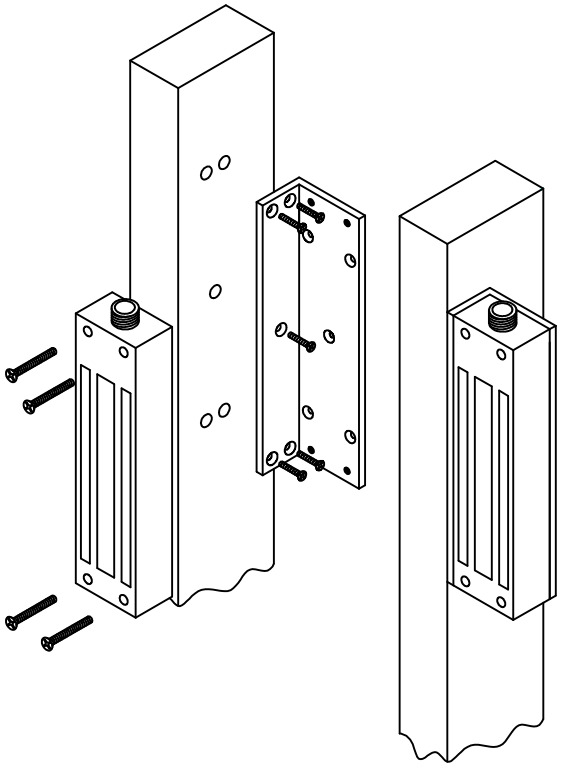


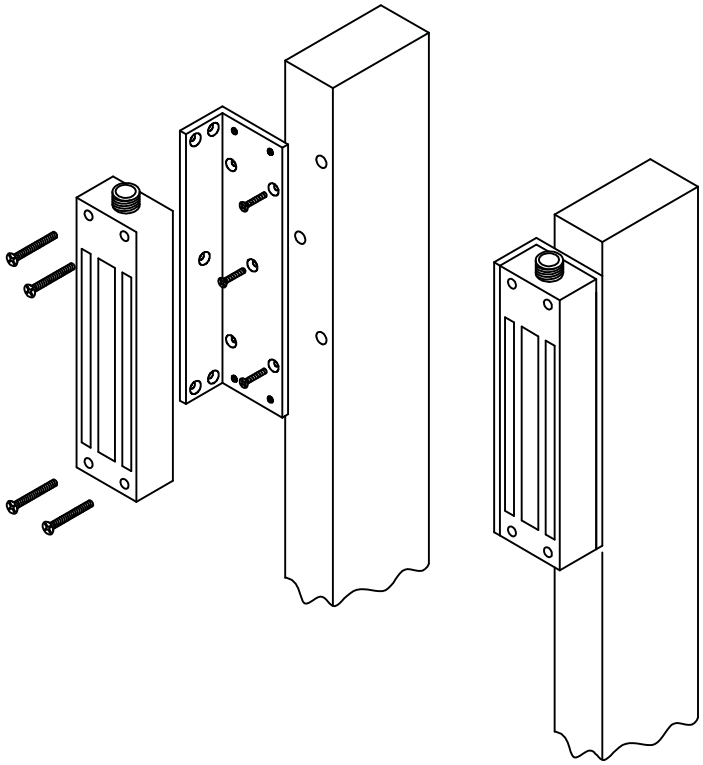
Lock

Note: Top Jamb Mounting Bracket Assembly
1576-DE - TOP JAMB/Z BRKT MOUNTING KIT

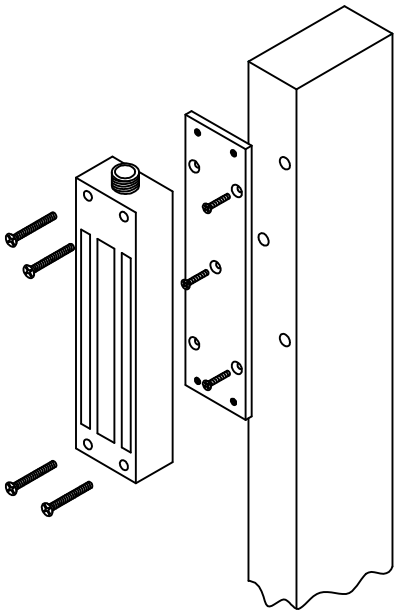
1576DE GATE EMLOCK®
MOUNTING ACCESSORIES

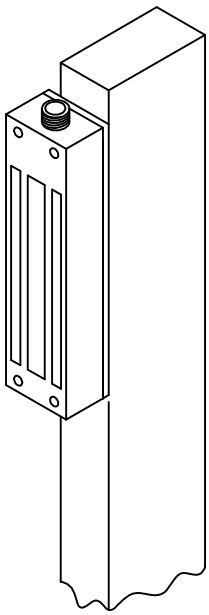
1576-BK – MOUNTING BRACKET FOR 1576





1576-MP – MOUNTING PLATE FOR 1576





TROUBLE SHOOTING
1576DE EMLOCK

PROBLEM	CAUSE	SOLUTION
Residual magnetism. The lock releases slowly.	Control switch wired on the AC side of the power source	The access control switch must be wired on the DC side of the power supply. When an AC transformer and a bridge rectifier are used, the access control switch must be wired between the rectifier and the Emlock.
Poor holding power	Armature installed rigidly.	The armature must pivot loosely from its center mounting point to permit full armature contact.
	Insufficient voltage	Check for proper voltage at the Emlock input. If the voltage is low, determine if the correct wire gauge is being used to prevent excessive voltage drop. Check the power supply load capacity. It must meet or exceed the combined current rating of the Emlocks on the circuit.
	AC voltage output	Emlocks require DC input voltage. When an AC transformer is used, a bridge rectifier must be installed to convert the AC output of the transformer to DC.
No magnetic power. Door does not lock.	No power	Check the input voltage at the Emlock. If the voltage is zero or a low reading, double check all wire connections.
	Input polarity reversed.	Note Polarity: 12VDC Config.: RED/BLU – Positive, BRN/BLK – Negative 24VDC Config.: RED – Positive, BRN – Negative
	Open circuit in lock coil.	Check the Emlock coil continuity with OHM meter. If the reading is high or open, replace the magnet.
	Coil short.	A coil short or incorrect wiring will blow fuses. Measure the coil for correct resistance. If the coil reading is zero or low, replace the magnet. If the coil resistance is correct, check the field wiring for shorts. Locate and repair the short in the field wiring.
BAS Option does not show lock secure.	Insufficient voltage	Check for proper voltage at the Emlock input. If the voltage is low, determine if the correct wire gauge is being used to prevent excessive voltage drop.
	Armature installed rigidly or misaligned.	The armature must pivot loosely from its center mounting point to permit full armature contact.
	Surface of magnet or armature rusted or pitted.	Clean the armature and surface of the lock (see Page 1)

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WIRE GAUGE CHART

To determine the correct wire gauge to use on a single “circuit” the following information is required:

1. The quantity, voltage and current draw of all lock(s) to be connected to the circuit.
2. The distance in feet from the power supply to the furthest lock on the circuit.

Add together the current draw (amps) of all locks on the same circuit. Using the AWG Chart below, cross reference the total amps with the distance between the power source and the furthest lock to determine the wire gauge required.

A single “circuit” describes a pair of wires run from the power supply to one or more locks that are wired in parallel. The distance from the power supply to the furthest lock in the “circuit” must not exceed the distance number shown in the chart below and is based on your selected wire gauge. If the distance shown in the chart is inadequate for your application, divide your locks up into 2 or more separate “circuits” and use the chart to check each circuit independently. Fewer locks on each circuit may allow you to use a smaller gauge wire or will allow you to increase the maximum distance between the power supply and the furthest lock on the circuit. More than one circuit can be connected on the same power supply as long as the combined current required from all connected circuits does not exceed the power supply rating.

NOTE: All wiring must be installed in accordance with all state and local codes.

TOTAL AMPS	DISTANCE IN FEET FROM POWER SOURCE TO FARTHEST LOCKING DEVICE										
	25	50	75	100	150	200	250	300	400	500	1000
0.25	18	18	18	18	18	18	16	16	14	12	
0.50	18	18	18	18	18	16	16	14	12		
0.75	18	18	16	16	14	14	14	12			
1.00	18	18	16	16	14	12					
1.50	18	16	14	14	12						
2.00	18	16	14	12					MINIMUM		
2.50	18	14	12						WIRE GUAGE		
3.00	16	14							REQUIRED		
3.50	16										

TOTAL AMPS	DISTANCE IN FEET FROM POWER SOURCE TO FARTHEST LOCKING DEVICE										
	25	50	75	100	150	200	250	300	400	500	1000
0.25	18	18	18	18	18	18	18	18	18	16	16
0.50	18	18	18	18	18	18	18	16	16	14	
0.75	18	18	18	18	18	16	16	16	14	12	
1.00	18	18	18	18	16	16	14	14	12		
1.50	18	18	18	16	16	14	12				
2.00	18	18	18	16	14	14	12		MINIMUM		
2.50	18	18	16	14	14	12			WIRE GUAGE		
3.00	18	16	14	14	12	12			REQUIRED		
3.50	18	16	14	12							