SECURITY DOOR CONTROLS ■ WWW.SDCSECURITY.COM
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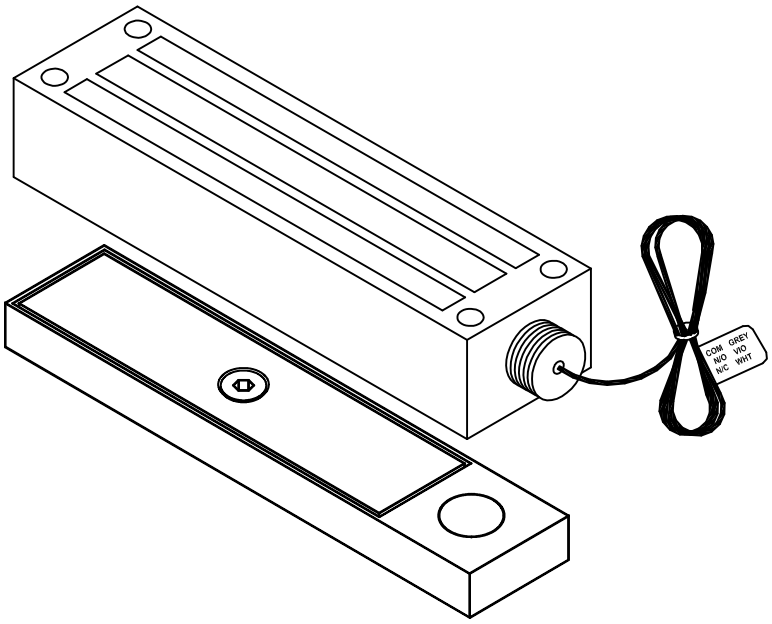
# *INSTALLATION INSTRUCTIONS*

## 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.

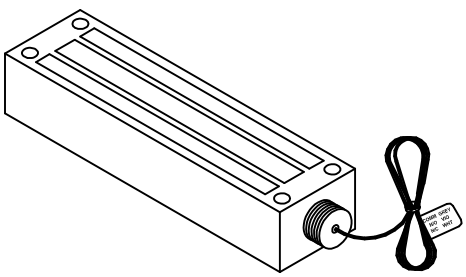
A rust inhibitor such as M1 manufactured by Starret, or LPS3 manufactured by LPS Laboratories (available at most hardware stores) may be applied.

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

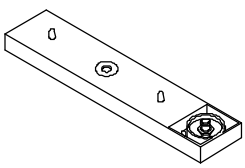
Emlocks are fail-safe (locked when energized) devices and require power to remain locked. A power supply with battery backup is required when power outages may interfere with desired security.

### Included in Package

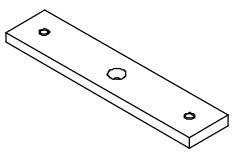
EMLOCK
1576DE



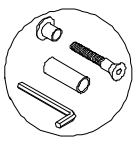
ARMATURE BASE
1511S-11



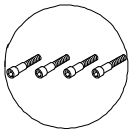
ARMATURE PLATE
1511S-12T



ARMATURE
SCREW PACK
1580S-101-C



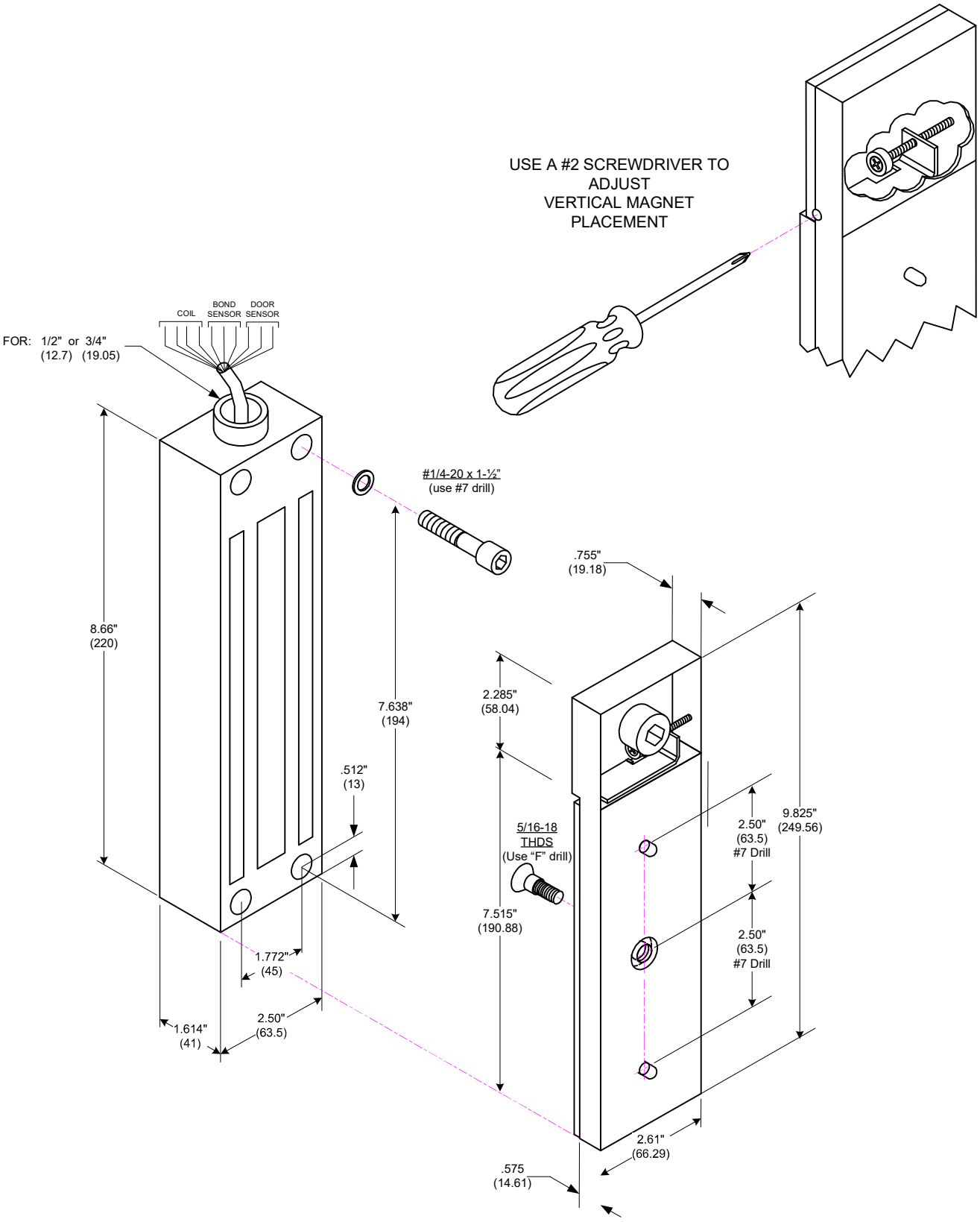
MOUNTING
SCREW PACK
1575-DE



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

# MODEL 1576DE

***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 DEPENDING ON DOOR DESIGN.***



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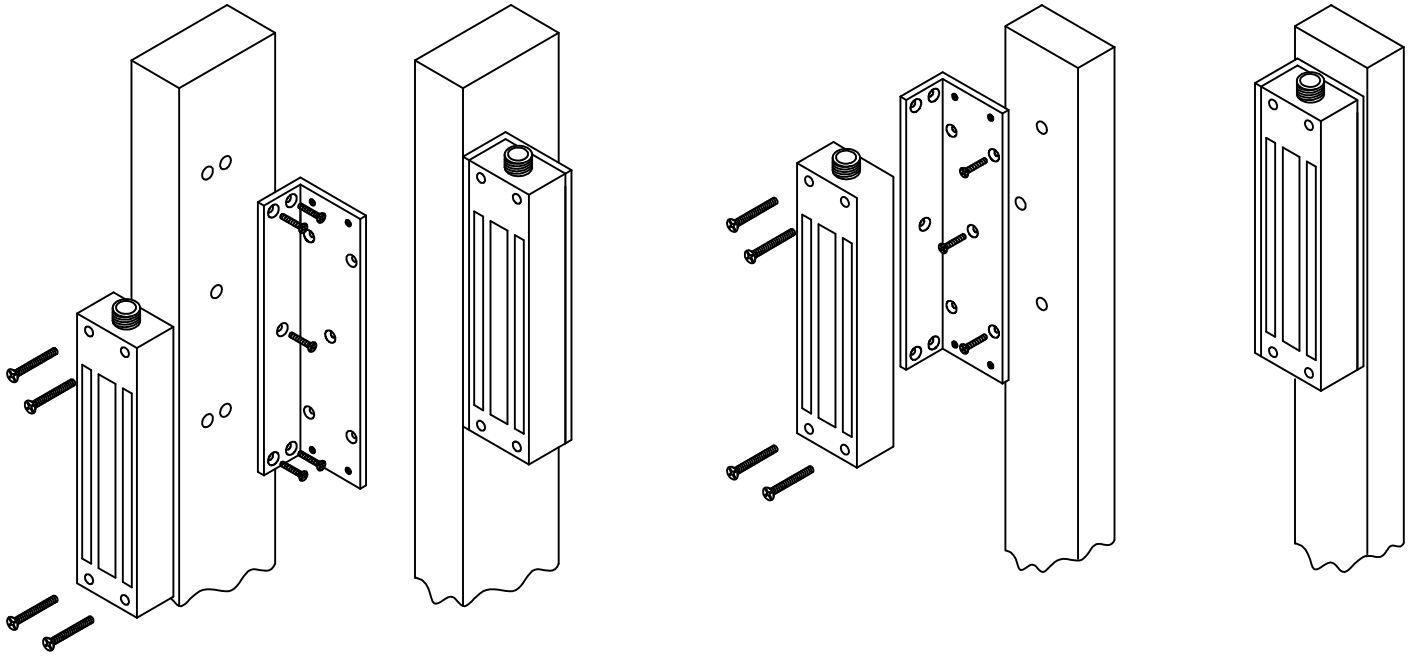
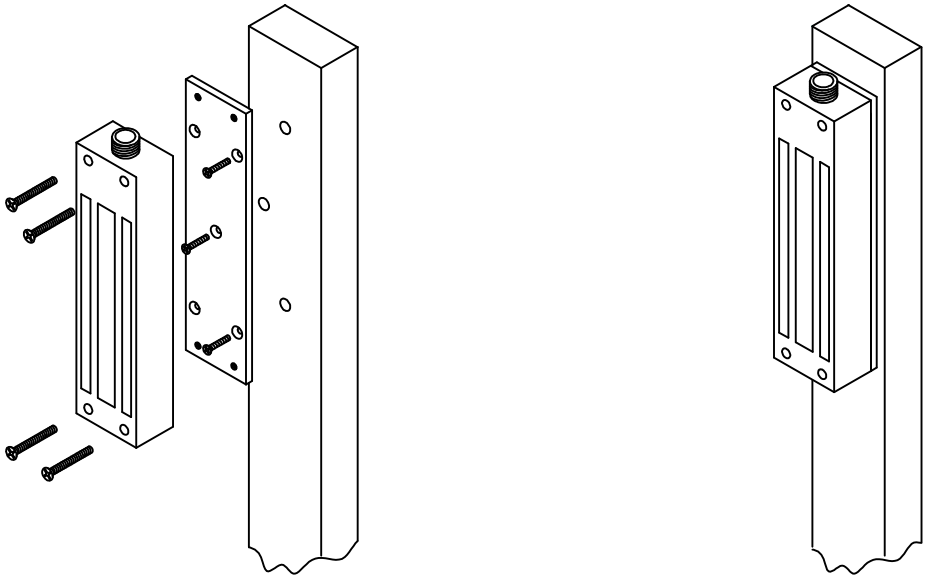
# GATE EMLOCK®
# MOUNTING ACCESSORIES

Below are optional accessories that might be required for a gate installation. Installation and accessories will vary depending on door design.

## 1576-BK – MOUNTING BRACKET FOR 1576



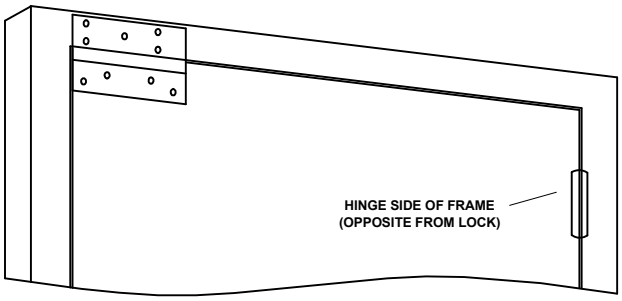
## 1576-MP – MOUNTING PLATE FOR 1576

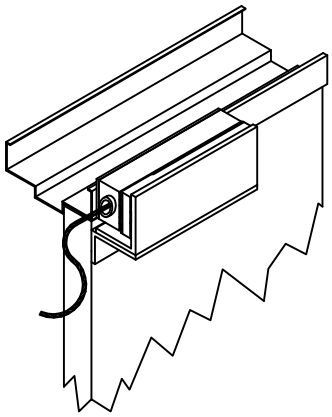


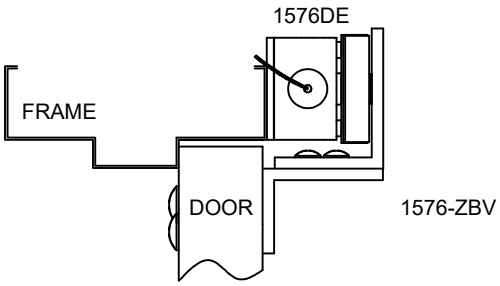
# DOOR AND FRAME EMLOCK®
# MOUNTING ACCESSORIES

Mounting this lock onto a door and frame will require a top jamb bracket. This item is sold separately.
P/N: 1576DE-ZBV

**IMPORTANT!: THE PAPER TEMPLATE THAT IS SUPPLIED WITH THE TOP JAMB BRACKET IS CRUCIAL FOR PROPER ALIGNMENT OF THE ARMATURE AND MAGNET.**

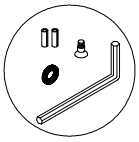





When mounting to the top jamb it is also suggested to discard the armature screw pack that came with the lock and use the armature screw pack that is supplied with the top jamb bracket.

ARMATURE
SCREW PACK
1576-101-TJ1



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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' |
| .25 | 18 | 18 | 18 | 18 | 18 | 18 | 16 | 16 | 14 | 12 | |
| .50 | 18 | 18 | 18 | 18 | 18 | 16 | 16 | 14 | 12 | | |
| .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 | | | | | | | |
| 2.50 | 18 | 14 | 12 | | | | | | | | |
| 3.00 | 16 | 14 | | | | | | | | | |
| 3.50 | 16 | | | | | | | | | | |

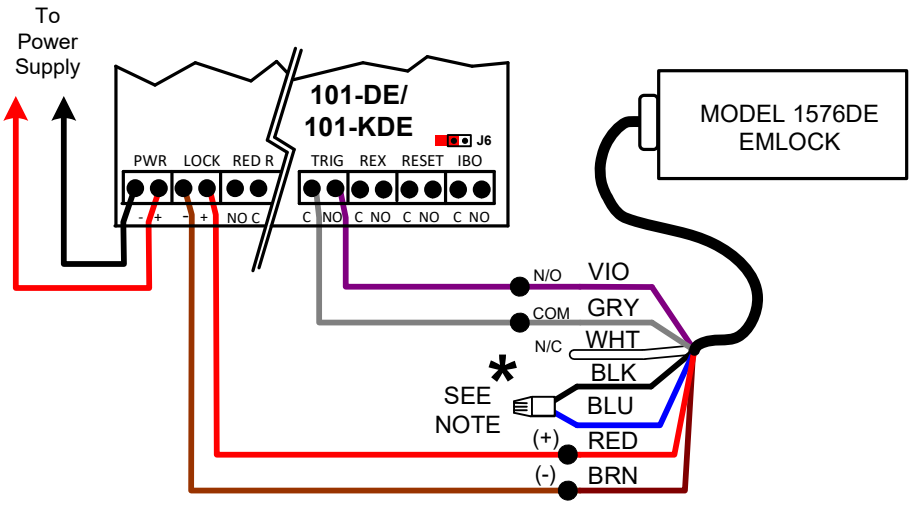
**MINIMUM WIRE GUAGE REQUIRED FOR 12 VOLTS AC OR DC**

| TOTAL AMPS | DISTANCE IN FEET FROM POWER SOURCE TO FARTHEST LOCKING DEVICE | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 25' | 50' | 75' | 100' | 150' | 200' | 250' | 300' | 400' | 500' | 1000' |
| .25 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 16 | 16 |
| .50 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 16 | 16 | 14 | |
| .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 | | | | |
| 2.50 | 18 | 18 | 16 | 14 | 14 | 12 | | | | | |
| 3.00 | 18 | 16 | 14 | 14 | 12 | 12 | | | | | |
| 3.50 | 18 | 16 | 14 | 12 | | | | | | | |

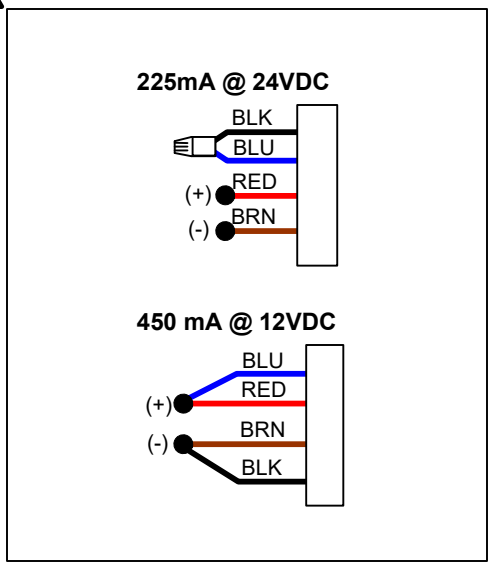
**MINIMUM WIRE GUAGE REQUIRED FOR 24 VOLTS AC OR DC**

## Typical System Wiring

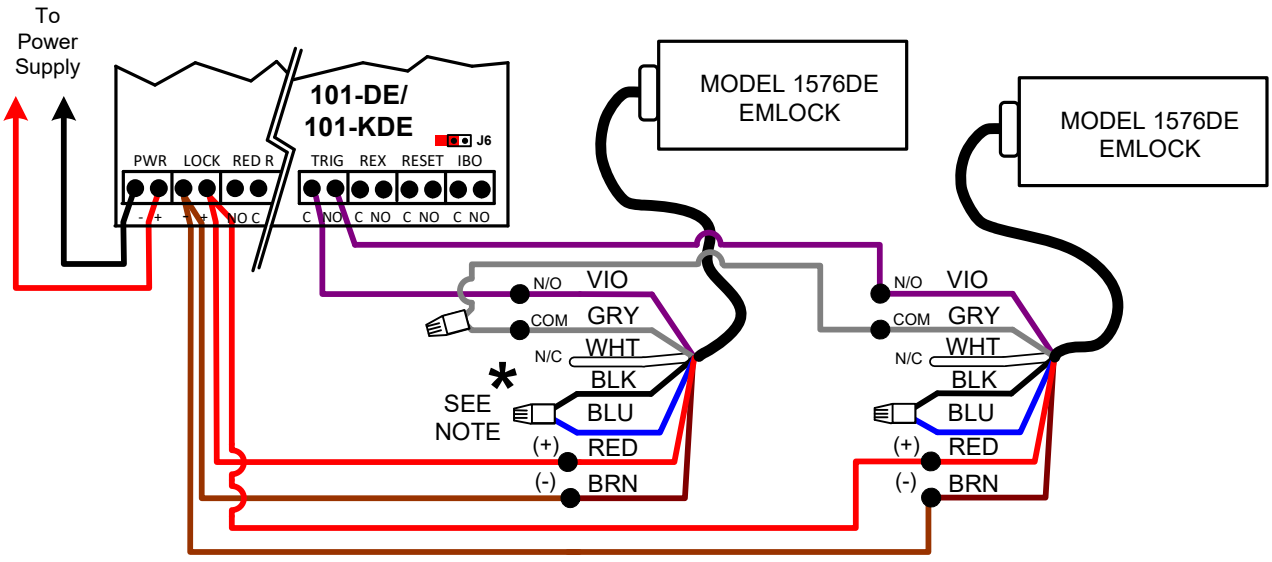
### SINGLE DOOR




### MAGNET VOLTAGE CONFIGURATIONS




### PAIR OF DOORS




| 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 |

# 1575DE EMLOCK
# TROUBLE SHOOTING

| PROBLEM | CAUSE | SOLUTION |
|---|---|---|
| Residual magnetism.<br><br>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.<br><br>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:<br><br>Insufficient voltage:<br><br>AC voltage output: | The armature must pivot loosely from its center mounting point to permit full armature contact.<br><br>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.<br><br>Check the power supply load capacity. It must meet or exceed the combined current rating of the Emlocks on the circuit.<br><br>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.<br>Door does not lock. | No power:<br><br>Input polarity reversed:<br><br>Open circuit in lock coil:<br><br>Coil short: | Check the input voltage at the Emlock. If the voltage is zero or a low reading, double check all wire connections.<br><br>Note Polarity:<br>12VDC Config.: RED/BLU – Positive, BRN/BLK – Negative<br>24VDC Config.: RED – Positive, BRN – Negative<br><br>Check the Emlock coil continuity with OHM meter. If the reading is high or open, replace the magnet.<br><br>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.<br><br>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:<br><br>Armature installed rigidly or misaligned:<br><br>Surface of magnet or armature rusted or pitted: | 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.<br><br>The armature must pivot loosely from its center mounting point to permit full armature contact.<br><br>Clean the armature and surface of the lock (see Page 1) |