

# **SDC** Security Door Controls

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## **INSTALLATION INSTRUCTIONS EP17624TJ EXPLOSION PROOF EMLOCK® FOR INSWING DOORS**



Overall Size:  
10.500" L x 2.275" H x 1.813" D

**IMPORTANT!** THIS INSTRUCTION DETAILS THE INSTALLATION OF THE MAGNETIC LOCK ASSEMBLY ON THE PULL SIDE OF THE DOOR. READ THOROUGHLY BEFORE ATTEMPTING INSTALLATION. DO NOT DAMAGE OR MARK MAGNETIC LOCK OR ARMATURE FACE-MAY REDUCE HOLDING EFFICIENCY.

### **Electrical Instructions:**

**NOTE:** THIS PRODUCT IS INTENDED TO BE USED IN CLASS 1, DIVISION 2 HAZARDOUS LOCATIONS. THE FOLLOWING GUIDELINES MUST BE OBSERVED TO REDUCE THE RISK OF FIRE EXPLOSION.

All national and local codes must be followed in the installation of the magnetic lock assembly. For code interpretation, consult a local code authority.

This unit must be connected to a NEC (National Electric Code, NFPA 70) Class 2 Supply Circuit rated for 24 VDC with a minimum current output of 0.5 amperes and output power of 12 watts. A UL Listed SDC 600 Series Power Controller is recommended.

Operating temperature for the magnetic lock will not exceed 185° F (85° C). Maximum ambient temperature is not to exceed 104° F (40° C). For supply connections, use a suitable wire with a minimum insulation temperature rating of 167° F (75° C).

To reduce the risk of the ignition of hazardous atmosphere, disconnect the magnetic lock assembly from the supply circuit before opening the magnetic lock housing. Keep the unit properly sealed while in operation. To reduce the risk of fire or explosion, do not install the unit where the operating temperature exceeds the ignition temperature of the hazardous atmosphere.

This unit is intended to be used in the following atmospheres: Acetone, Ammonium Hydroxide, ATSM fuel C, Benzene, Methyl-Ethylketone, Diethyl-Ether, 2-Nitropropane, Ethyl-Acetate, Furfural, Normal Hexane, Methyl Alcohol

### **Electrical Specifications:**

Input Voltage: 24VDC +/- 10%  
Power Consumption: 250mA @ 24VDC  
Holding Force: 600 lbs.  
Door Status Sensor: SPDT Output,  
100mA @ 30VDC Max.

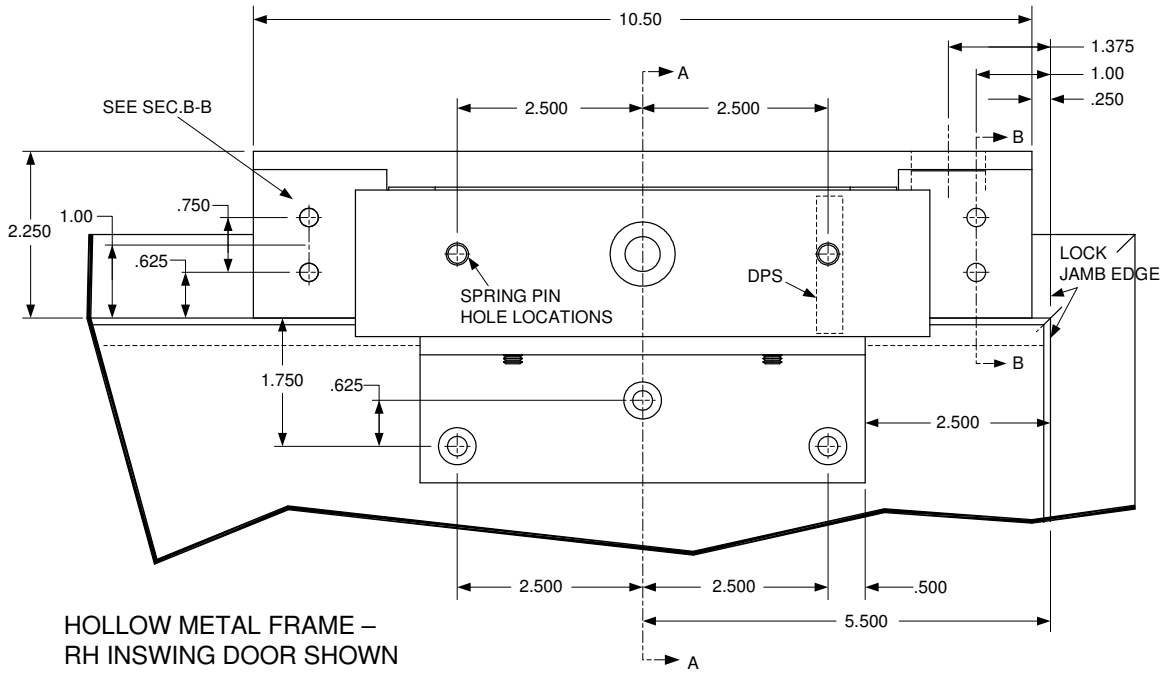
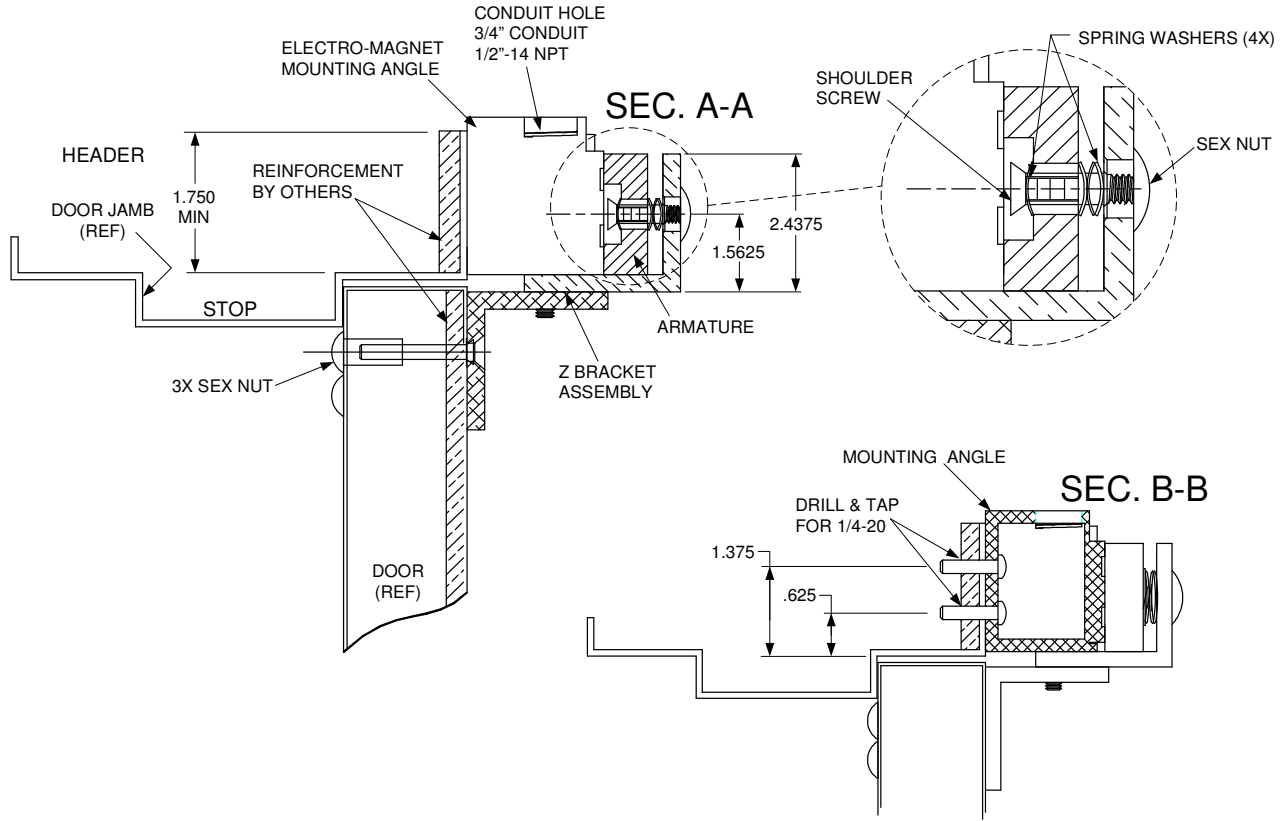
### **Wiring:**

Lock Wiring: RED/RED (Non-Polarized)  
DPS Wiring: White (N.O.)  
Red (N.C)  
Black (Common)  
(Door in the OPEN position)



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

The EP17624TJ mounts firmly & rigidly to the vertical face of the header on the **pull** side of the door. The armature attaches to the provided "Z" bracket assembly, which is thru-bolted to the door (see below). The door and frame are flush to within 1/8" (3mm). If the header projects more than 1/8" beyond the face of the door, a custom "Z" bracket must be used in lieu of the provided bracket. NOTE: Shimming the bracket is not recommended.



- STEP 1.** Mark the door and frame for drilling and tapping in accordance with the provided template. The EP17624TJ is for single door use. All measurements are to be made with the door in the closed position.
- STEP 2.** Prep the header for EMLock assembly as shown on template on Page 2. Be sure the header is adequately reinforced to hold the mounting screws. If reinforcement has not been added, jack nuts, wing bolts or equivalent must be used.
- STEP 3.** Remove the housing cover from the EMLock by removing the four (4) phillips screws on the face of the EMLock. Attach the mounting angle to the face of the header. Be sure the right angle flange is on the bottom for maximum shear resistance. Bottom of flange should be flush with rabbet in frame. Use sheet metal or machine screws and lock washers provided.
- STEP 4.** Run electrical conduit per NFPA 70 into conduit hole with ½"-14 NPT.
- STEP 5.** Prep the door for "Z" bracket mounting assuring that the bracket is centered on the face of the EMLock. Drill three (3) 3/8" diameter holes through the door per the template or drill and tap for ¼"-20 thread if the door has been properly reinforced. Mount the bracket to the pull side of the door.
- STEP 6.** Assemble the armature for mounting by pressing the two (2) black spring pins into the holes provided on one side of the armature. Tap gently to firmly seat the spring pins, taking care not mar the face of the armature.
- STEP 7.** Insert one (1) conical spring washer over the shoulder screw, and insert the screw thru the armature as shown in the details on Page 2. Insert three (3) conical spring washers over the shoulder screw on the side that will be inserted into the sex nut. Line up the (2) spring pins with the holes in the "Z" bracket, assuring that the spring washers do not slip off the shoulder screw. Tighten the shoulder screw to the "Z" bracket securely with an allen wrench. (Do not overtighten.)
- NOTE:** All armatures are normally equipped with a permanent magnet mounted in one end for actuating the door position switch (DPS) installed at one end of the EMLock housing. During the installation process, be certain that the magnet lines up with the DPS.
- STEP 8.** Check the armature and EMLock housing for proper alignment. If the armature does not quite sit against the face of the EMLock, a flat washer may be added to the armature assembly. If the door does not quite close, one of the spring washers may be removed.
- STEP 9.** Make all electrical connections per applicable wiring instructions. Use wire nuts, crimp connectors or solder to assure good connections.
- STEP 10.** Energize EMLock assembly and re-check alignment of the EMLock and armature assembly, by opening and closing the door. Make any adjustments if required.



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**DOOR HOLDER FOR USE IN HAZARDOUS LOCATIONS Class 1 Div 2**

24 VOLTS D.C. 0.25 AMP 6.0 WATTS  
OPERATING TEMPERATURE 85 DEGREE CENTIGRADE  
MAXIMUM AMBIENT TEMPERATURE 40 DEGREE CENTIGRADE  
FOR SUPPLY CONNECTIONS USE 75 DEGREE CENTIGRADE WIRE  
THIS UNIT MAY BE USED IN THE FOLLOWING ATMOSPHERE:  
ACETON, AMMONIUM HYDROXIDE, ASTM FUEL C, BENZENE,  
METHLY ETHYL KETONE, DIETHYL EHTER, 2-NITRO-PROPANE,  
ETHYL ACETATET, FURFURAL, NORMAL HEZANE, METHYL  
ALCOHOL

CAUTION:  
TO REDUCE THE RISK OF IGNITION OF HAZARDOUS ATMOSPHERES,  
DISCONNECT THE DOOR HOLDER FROM THE SUPPLY CIRCUIT BEFORE  
OPENING. KEEP TIGHTLY CLOSED WHEN IN OPERATION.  
TO REDUCE THE RISK OF FIRE OR EXPLOSION, DO NOT INSTALL WHERE THE  
MARKED OPERATION TEMPERASTURE EXCEEDS IGNITINO TEMPERATURE  
OF HAZARDOUS ATMOSPHERES.  
UNIT MUST BE CONNECTED TO A N.E.C. CLASS 2 SUPPLY CIRCUIT  
MAGNETIC LOCK: 17XHD SERIES.