



INSTALLATION INSTRUCTIONS

**1561, 1562, 1565, & 1566
FTC / ITC**

**HiSHEAR® CONCEALED MAGNETIC LOCK
INTERGRATED & EXTERNAL ELECTRONIC**

REFER TO THE PROPER DIMENSIONAL REFERENCE ACCORDING TO THE TYPE OF DOOR AND FRAME APPLICATION.
READ THESE INSTRUCTIONS AND STUDY THE DIMENSIONS THOROUGHLY BEFORE BEGINNING THE INSTALLATION.

IMPORTANT NOTES:

Although electromagnetic shear locks provide the utmost in aesthetics for fail-safe applications, they are less forgiving than electric bolt locks and direct pull magnetic locks where alignment problems exist. Therefore, great care must be taken during preparation and installation of the frame, door hardware and the shear lock to attain proper alignment and ensure positive lock operation.

Unbalanced air conditioning (stack pressure) can hinder door alignment and must be corrected to help ensure positive locking.

Use only the highest quality door closer.

Door latching problems must be corrected prior to installation.

The maximum locking strength of the 1561/1562 HiShear® lock is 2000 lbs.
The maximum locking strength of the 1565/1566 HiShear® lock is 2700 lbs.

INSTALLATION:

1. Make sure the clearance between the door top rail and frame header is 1/8". Make adjustments to the door as required before installing magnet lock.
2. Adjust single acting door and door closer to ensure the door settles immediately and is fully closed and at rest against the stop allowing for mutes, smoke seals or weather stripping where applicable.
3. **For proper installation, verify that the labels on the L-brackets of Magnet Lock & Armature are facing towards the leading edge of door.**

CAUTION:

Wood door applications require the armature reinforcement back box (WDRBM for 1561/62, WDRB for 1565/66) to have an ample distance from the door edge, to avoid splitting the wood door. These are sold separately.

4. Before determining the frame header centerline, double check that single acting doors are fully closed and at rest against the stop allowing for mutes, smoke or weather stripping where applicable. Double acting doors must be fully closed and at rest in the dead center of the frame.
5. Mark the frame header per the dimensions given on page 3 for models 1561 & 1562 or page 5 for models 1565 & 1566.
6. Mark the door per the dimensions given on page 4 for models 1561 & 1562 or page 6 for models 1565 & 1566. The horizontal centerline of armature will be the same as the centerline of the door top rail thickness.



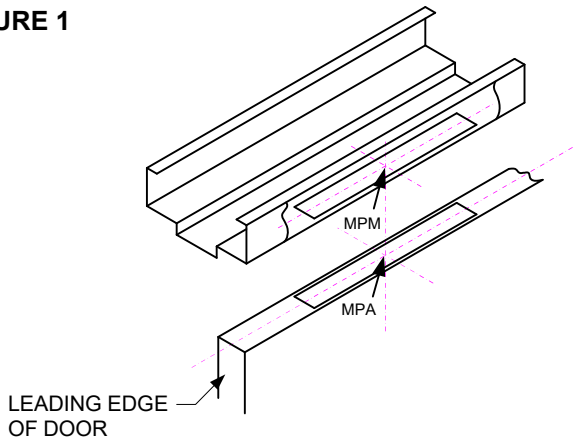
7. Prep the frame header & door based on markings.
8. An auto relock time delay is provided for all installations to delay relocking 1 to 6 seconds after initial door closure. This will help to ensure that the door is fully closed and at rest to obtain optimum alignment before the lock is energized. Refer to Figure 2A or 2B (page 7) according to model ordered for location of potentiometer.

With the power off, make all wire connections to a properly fused power source.
9. When installing models 1562 or 1566, use Figure 2B. Make the timer adjustment as required and test the TDA time delay prior to mounting in the frame. The TDA timer is field adjustable for 1 to 6 seconds and is factory set at approximately 3 seconds turn clockwise to increase and counter clockwise to decrease the delay time.
10. **Install the HiShear® lock and armature with the auto relock switch assembly towards the leading edge of the door.**

On models 1561 & 1565 the timer adjustment can be made after the lock is installed through the small hole in the face of the magnet. Using a small flat blade screwdriver, turn clockwise to increase time, counter clockwise to decrease time.
11. For proper operation, the armature must be adjusted upward as close as possible and parallel to the lock without interfering with opening and closing of the door. Proper operation cannot be expected with more than 1/8" clearance between the armature and the lock. If you find the clearance to be more than 1/8", adjust the armature screws and or on model ITC add shims as needed.
12. With the door closed, turn the lock power on. Check the lateral alignment. The armature shear stops should be centered between each pair of magnet lock shear stops.
13. If the clearance between the shear stops is sufficient, open and close the door a few times to ensure the magnet lock will lock and unlock positively.
14. If positive locking cannot be attained due to misalignment, refer to Fig. 3 on page 7 for suggestions on how to adjust.
15. Repeat step 12 to verify operation after changes have been made.
16. Cycle the door and lock several times after the completion of installation.

MODEL #	LOCK DIMENSION			ARMATURE DIMENSION			HOLDING FORCE	POWER CONSUPTION				
	L	W	D	L	W	D		12VDC	24VDC			
1561	8"	1-1/2"	1-5/8"	8-7/16"	1-3/8"	7/8"	2000 lbs.	650mA	350mA			
1562			1-1/16"									
1565	10-7/16"		1-5/8"	11"						2700 lbs.	800mA	400mA
1566			1-1/16"									

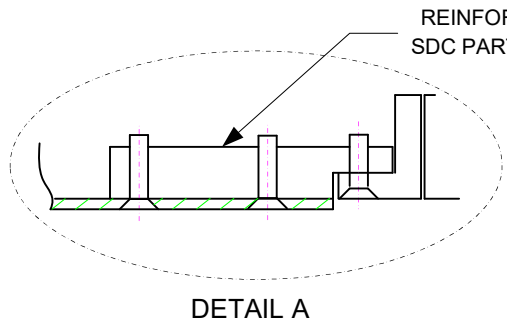
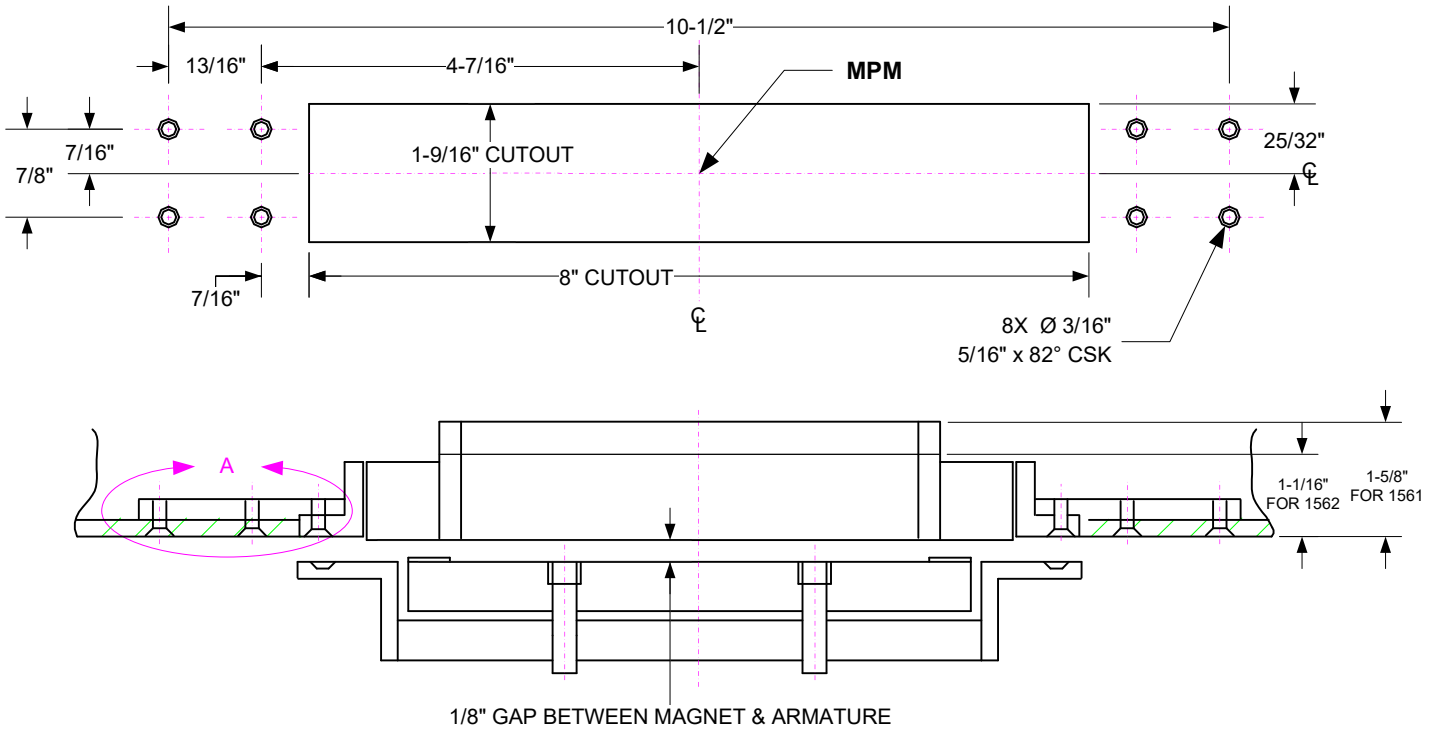
FIGURE 1



MIDPOINT IDENTIFICATION
 MPM – MIDPOINT MAGNET
 MPA – MIDPOINT ARMATURE

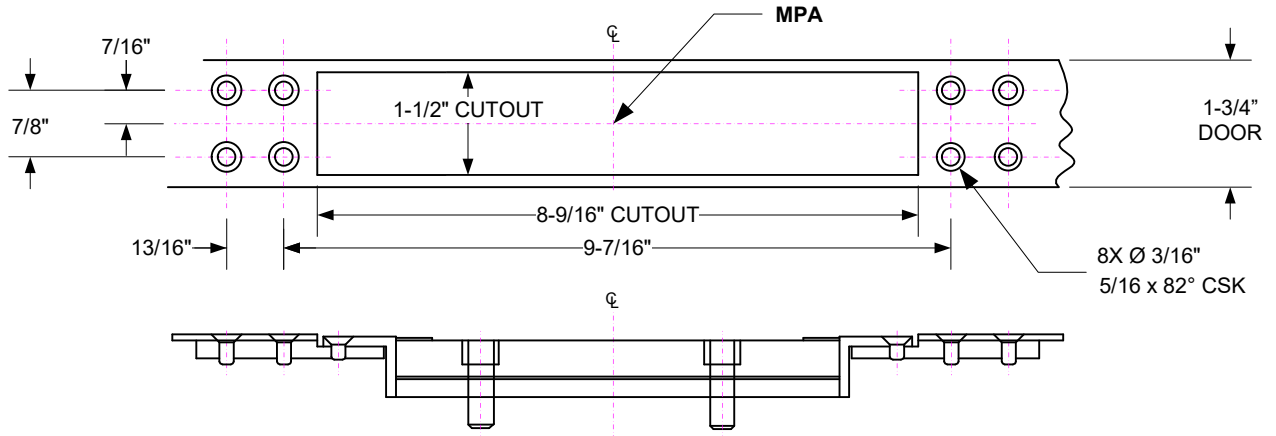
THE MOST IMPORTANT ELEMENTS FOR THE PROPER INSTALLATION OF THE HiSHEAR® MAGNET ASSEMBLY ARE THAT THE MIDPOINT OF THE ARMATURE AND THE MIDPOINT OF THE MAGNET MUST LINE UP EXACTLY. ALL CENTERLINES OF THE ARMATURE MUST LINE UP WITH THE RESPECTIVE CENTERLINES OF THE MAGNET

1561 & 1562 FRAME PREP

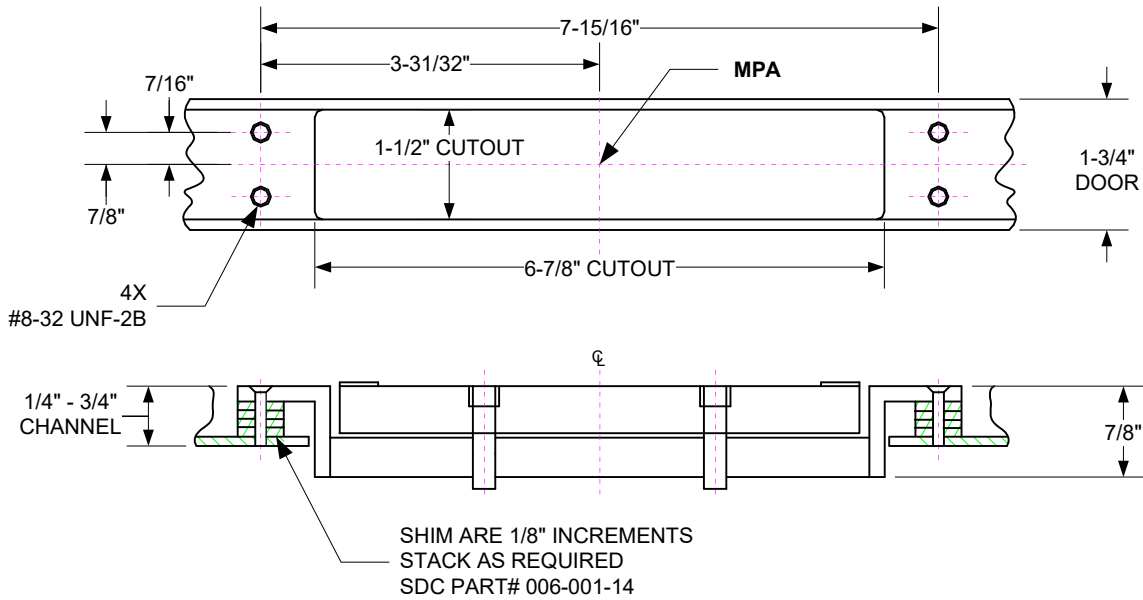




1561 & 1562 FTCM DOOR PREP HOLLOW METAL DOOR WITH CAPPED TOP



1561 & 1562 ITCM DOOR PREP HOLLOW METAL DOOR WITH 1/4" TO 3/4" DEPTH TOP CHANNEL



HOLLOW METAL DOOR WITH 7/8" TO 1-1/8" DEPTH TOP CHANNEL

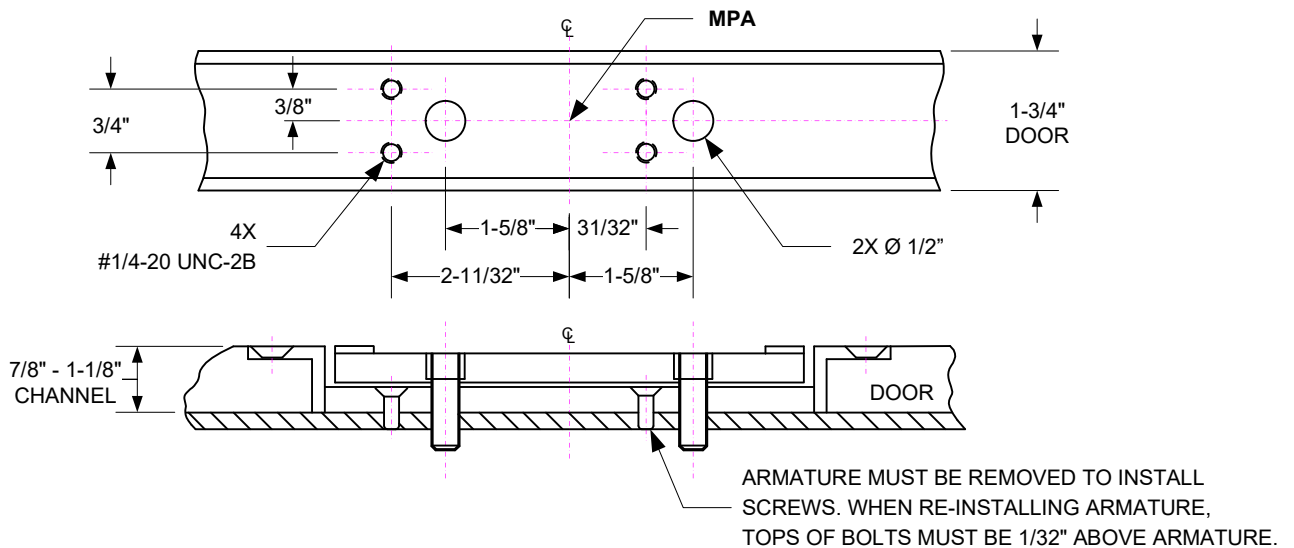
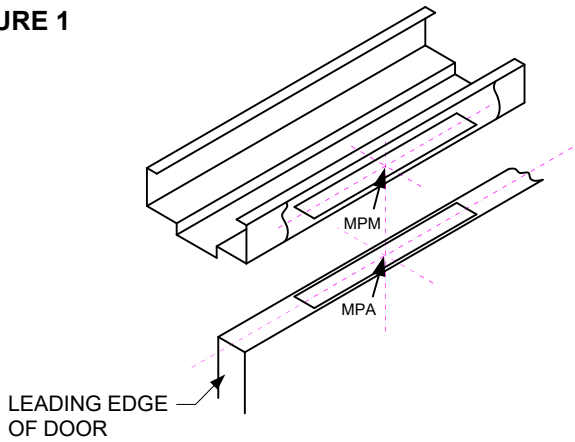


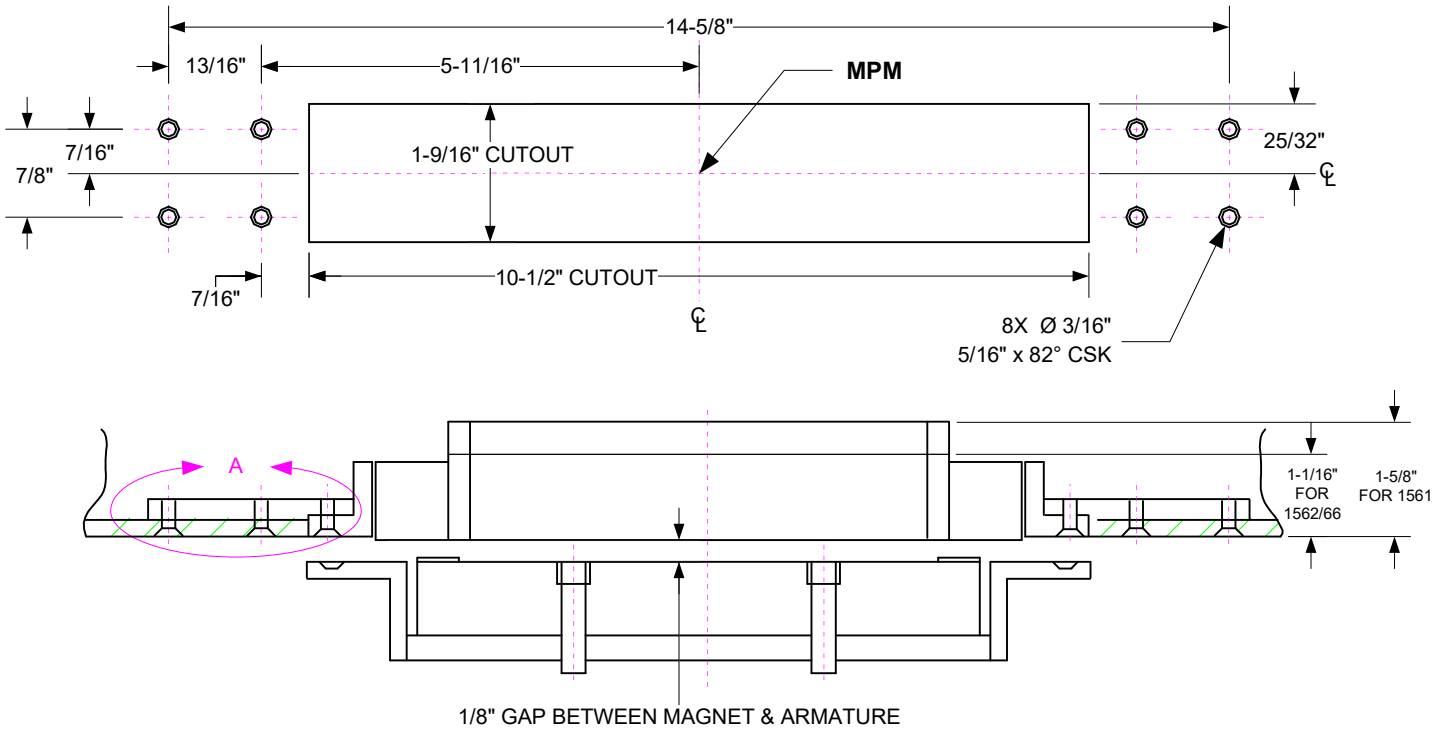
FIGURE 1



MIDPOINT IDENTIFICATION
 MPM – MIDPOINT MAGNET
 MPA – MIDPOINT ARMATURE

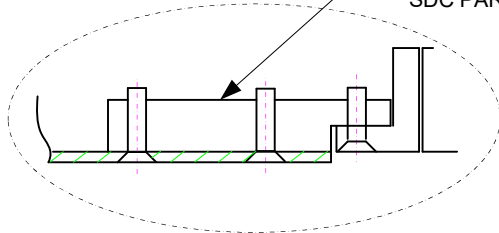
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1565 & 1566 FRAME PREP



1/8" GAP BETWEEN MAGNET & ARMATURE

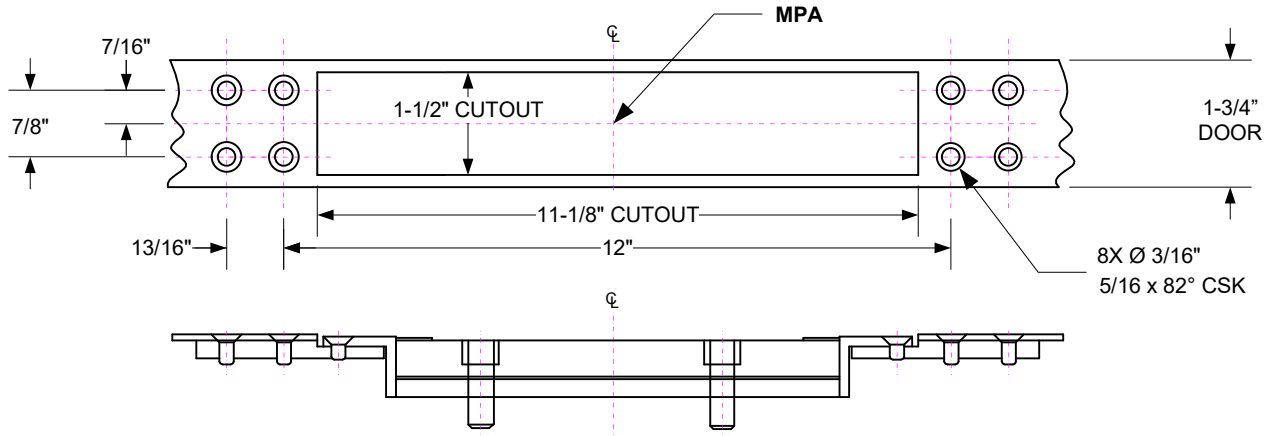
REINFORCEMENT TAB
 SDC PART#: 006-007-10



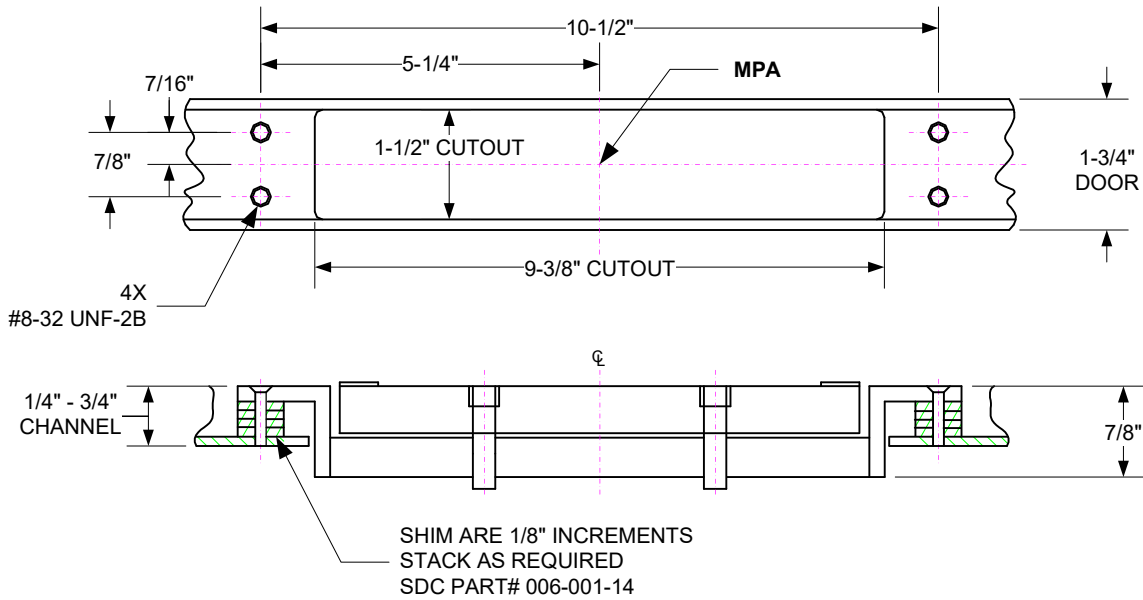
DETAIL A



1565 & 1566 FTC DOOR PREP HOLLOW METAL DOOR WITH CAPPED TOP



1565 & 1566 ITC DOOR PREP HOLLOW METAL DOOR WITH 1/4" TO 3/4" DEPTH TOP CHANNEL



HOLLOW METAL DOOR WITH 7/8" TO 1-1/8" DEPTH TOP CHANNEL

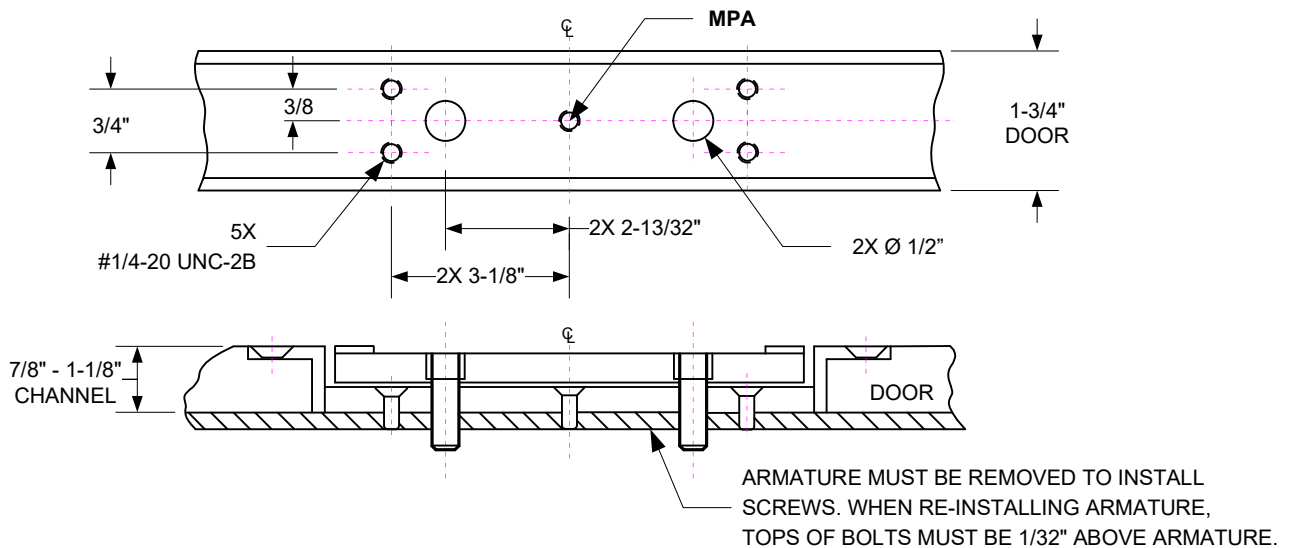
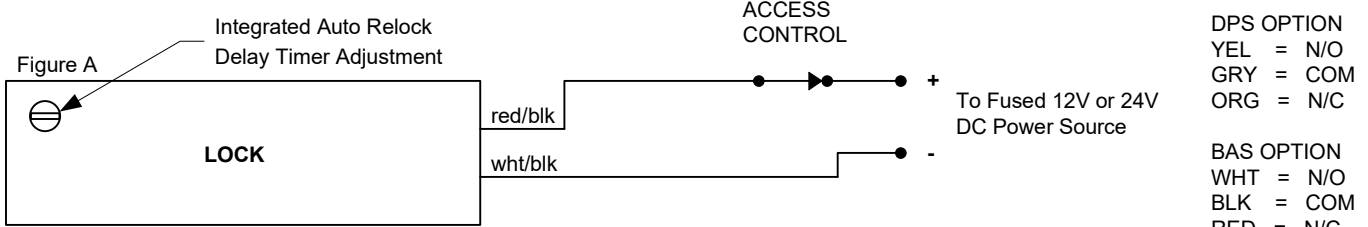
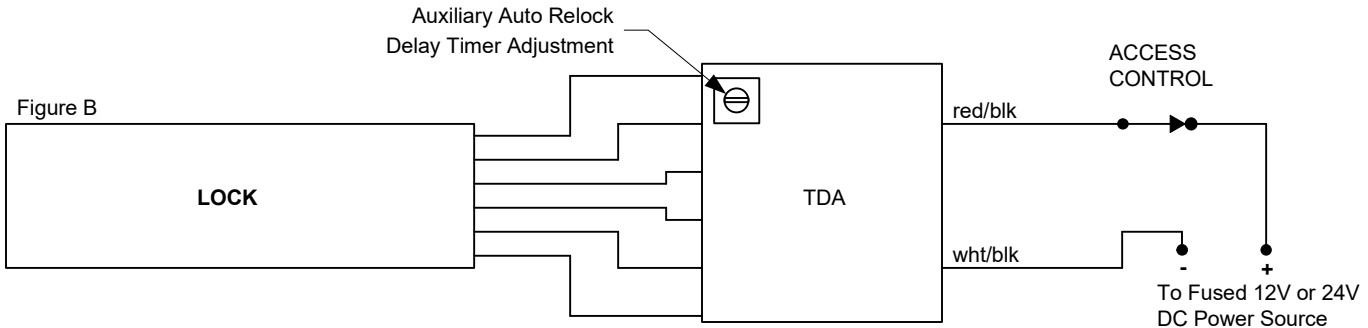


FIGURE 2



Models 1561 & 1565 – With built in Auto Relock Switch & Integrated Auto Relock Delay Timer



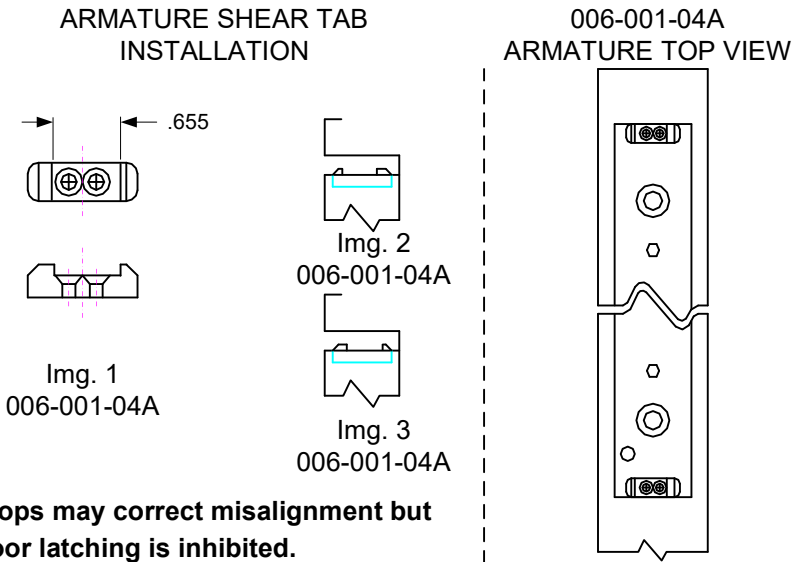
Models 1562 & 1566 – With built in Auto Relock Switch and Auxiliary Auto Relock Delay Timer Board

FIGURE 3

Please note the drawing in Img. 1. It shows the open dimension of the shear tab.

For normal single acting and double acting door alignment see Img. 2.

For slightly warped single acting doors see Img. 3.



CAUTION:

The use of armature offset shear stops may correct misalignment but should not be used when proper door latching is inhibited.

MAINTENANCE INSTRUCTIONS

The electromagnet and the armature should be handled carefully. Any damage to the surface such as paint, burrs, dirt, or rust may hinder bonding of the surface and reduce holding power.

IF THE SURFACE PLATING BECOMES DAMAGED

1. Do not touch lock face with your hands.
2. Use a soft clean dry cloth or abrasive cloth (i.e., Scotch-Brite by 3M) to clean the lock face. Do not use sand paper.
3. A rust inhibitor, such as M1 manufactured by Starret, or LPS3 manufactured by LPS Laboratories (available in most hardware stores) can then be applied to the lock face.
4. Apply a coat of rust inhibitor to the armature face also.