DORTRONICS SYSTEMS, INC.
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Model Numbers:
1000
READ THOROUGHLY BEFORE INSTALLING

Handle Electromagnets and Armatures carefully. Any damage to the mating surfaces may significantly reduce holding efficiency.

The 1000 Series Electromagnet assembly mounts firmly and rigidly to the underside of the header on the stop side of the door. The armature mounts to the face of the door with special hardware for proper floating action to assure total mating with the face of the Electromagnet.

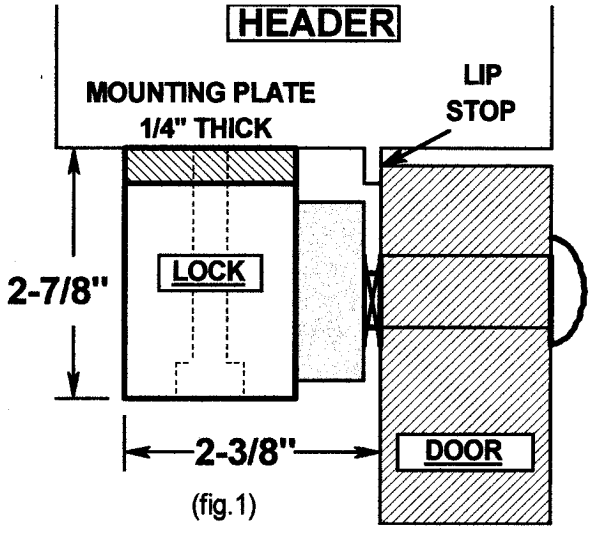
Note: For hinge side of door mounting the TJ series is required.

Note from applicable template that 2-3/8" minimum reveal is required to assure rigid mounting of the Electromagnet assembly. If this minimum is not met see Fig. 1 to determine the need for either an 1180 Series Filler Plate or an 1190 Series Angle Bracket. Consult Application Bulletin "Elevation Profiles" for specific part numbers.

Mark door(s) and frame for drilling in accordance with applicable template dimensions. The 1000 Series is for single outswinging doors All measurements are to be made with door(s) in closed position.

Follow this 4 step mounting process:

STEP 1) FRAME PREPARATION:
Prepare frame for Electromagnetic lock assembly by drilling for #10 Sheet metal screws or drilling and tapping for #10-32 machine screws with external tooth lock washers (**slotted holes only**). Tighten screws enough to hold the unit in place yet allowing adjustment. If filler plate is used, drill clearance holes in filler plate for Electromagnet mounting screws.**CAUTION: Do not attach mounting plate to filler plate only**. Mounting plate should be attached through filler plate. Drill clearance hole in filler plate for wiring. **Insert & tighten (2) 1/4-20 mounting bolts**. Make all electrical connections in accordance with applicable wiring diagrams, using either wire nuts or crimp connectors.



(fig.1)

STEP 2) ARMATURE PREPARATION: *fig.3 over*
Prepare armature for mounting: Note that armature has two 3/16th dia. holes open from back only. Press the two roll pins provided into these holes. Tap pins gently until they are firmly seated being extremely careful not to mar the face of the armature.

Insert one spring washer on the 5/16-18 shoulder screw then insert the screw through the armature. Add three spring washers and the flat washer (per diagram in kit)

STEP 3) ARMATURE MOUNTING:
THRU BOLT MOUNTING HOLLOW METAL DOOR
fig.2A
Drill 11/32 hole through door enlarge hole in outside face to 1/2" for knurled sex nut. BE SURE ROLL PINS POCKET and float freely in 1/4" holes in door. If not, remove armature and enlarge holes in door. Insert shoulder screw armature assembly thru face of door, being sure that spring washers remain over shoulder, and hold firmly against door by pushing directly on head of screw. Insert sex nut from opposite face and assemble. When armature is floating freely, Tighten 5/16-18 shoulder screw securely with allen wrench.

OVER.

CONTINUED.

THRU BOLT MOUNTING IN SOLID WOOD DOOR *fig.2B*

Drill 1/2" hole through door; insert shoulder screw/armature assembly thru face of door, being sure that spring washers remain over shoulder. Hold firmly against door by pushing directly on head of screw. Insert sex nut from opposite face and assemble.

MACHINE SCREW MOUNTING *fig.2c*

Door must be properly steel reinforced to 3/8" minimum thickness and structured for 1200 lb load. Drill and tap thru reinforcing for 5/16-18 machine screw. Insert shoulder screw/armature assembly, being sure that spring washers remain over shoulder and flat washer is between shoulder and face of door.

4) LOCK & ARMATURE ALIGNMENT

With the DOOR IN THE CLOSED POSITION AND THE ELECTROMAGNET ENERGIZED make sure the armature is fully engaged and aligned, position the mounting plate and magnet so that the door is snug against the stops.

Mark the position, turn power off and remove the (2) 1/4-20 mounting screws revealing the mounting plate. Tighten the (2) #10 Sheet metal screws or the 10-32 machine screws in each of the **slotted holes**.

Using the mounting plate as a physical template, drill for (4) # 10 Sheet metal screws or drill & tap for 10-32 machine screws. After securing the unit with these screws provided; check installation alignment of Armature and Electromagnet by opening & closing the door while turning the system on and off. Armature surface must be in full contact with the Electromagnet as shown in Fig. 1 .

figure 2-A

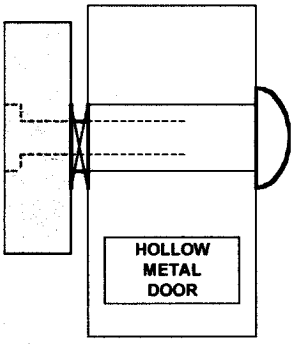


figure 2-B

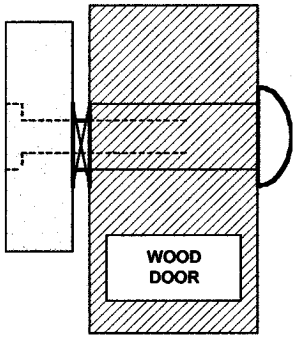


figure 2-C

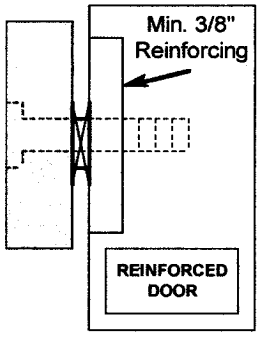
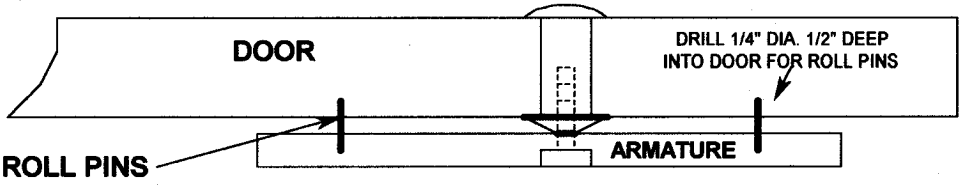


figure 3



DRIVE 2 ROLL PINS INTO HOLES PROVIDED IN ARMATURE. MAKE SURE PINS BOTTOM

1000INST.01/00

CURRENT DRAW

170 mA @ 24VDC
340 mA @ 12VDC

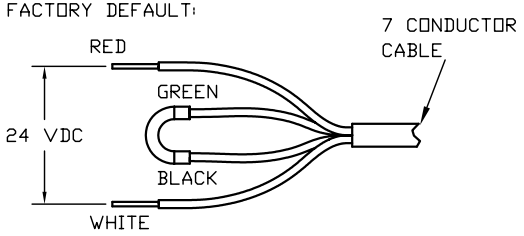
BEFORE INSTALLING, READ MOUNTING INSTRUCTIONS THOROUGHLY!

WIRING DETAIL:

DUAL VOLTAGE MAGNET

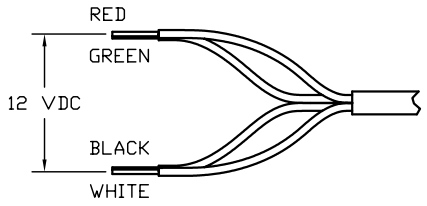
24 VDC @ 170 mA

FACTORY DEFAULT:



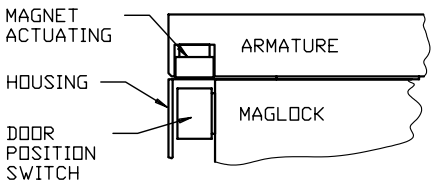
12 VDC @ 340 mA

CUT LOOP AND CONNECT GREEN TO RED, AND BLACK TO WHITE AS SHOWN:

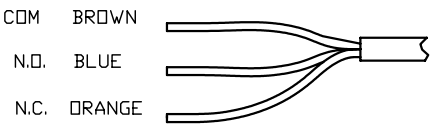


OPTIONS:

DOOR POSITION SWITCH (DPS)

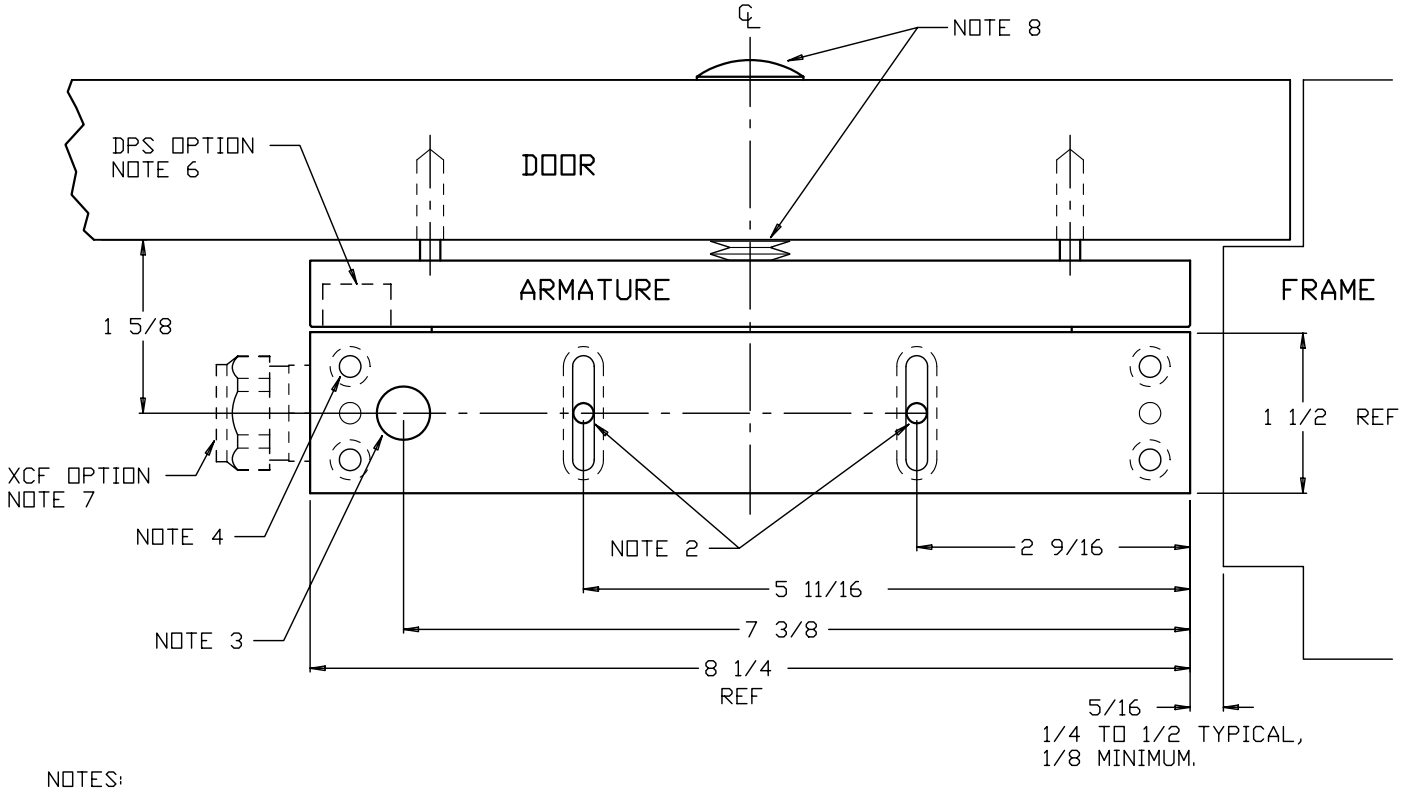


THE DPS SWITCH IS ALWAYS LOCATED ON THE WIRING ENTRY SIDE.



WIRE COLOR	FUNCTON	MODE STATUS WITH DOOR CLOSED & SW ACTUATED
BROWN	COMMON	
BLUE	N.O.	HELD CLOSED
ORANGE	N.C.	HELD OPEN

SPEC: SPDT, 100 mA @ 30 VDC



NOTES:

1. SEE 1000 SERIES ELEVATION PROFILES (IN 3 RING BINDER) TO DETERMINE NEED FOR, AND SELECTION OF 1000 SERIES FILLER PLATE OR 1000 SERIES SOFFIT ANGLE BRACKET.
2. DRILL & TAP FRAME FOR 10-32 MACHINE SCREW, OR #10 SHEET METAL SCREW. SLOT PERMITS SOME FLEXIBILITY IN HOLE LOCATION, WHILE ALLOWING FOR ADJUSTMENT PRIOR TO FINAL MOUNTIING.
3. DRILL 9/16" DIA. HOLE IN FRAME FOR WIRE ACCESS, (EXCEPT FOR XCF OPTION). REMOVE SHARP EDGES OF HOLE AND CLEAN.
4. ONLY AFTER LOCK HAS BEEN PROPERLY POSITIONED, USE THE 4 COUNTERSUNK HOLES AS A FIXED TEMPLATE TO DRILL & TAP FOR #10-32 MACHINE SCREWS OR #10 SHEET METAL SCREWS.
5. SEE DETAILED MOUNTING INSTRUCTIONS FOR APPLICABLE DOOR PREPARATION FOR MOUNTING ARMATURE.
6. DPS (DOOR POSITION SWITCH), IF APPLICABLE.
7. CONDUIT FITTING IF APPLICABLE, (MAGNET MAY BE MOUNTED WITH FITTING FACING EITHER END).
8. THE ARMATURE MOUNTING HARDWARE PROVIDED IS FOR A STANDARD 1 3/4" THICK DOOR ONLY. CONSULT FACTORY FOR MOUNTING ON EITHER A THICKER OR OTHERWISE NONSTANDARD DOOR.

REV.	REVISION DESCRIPTION	DATE
A	ADDED DPS WIRING	12/13/06

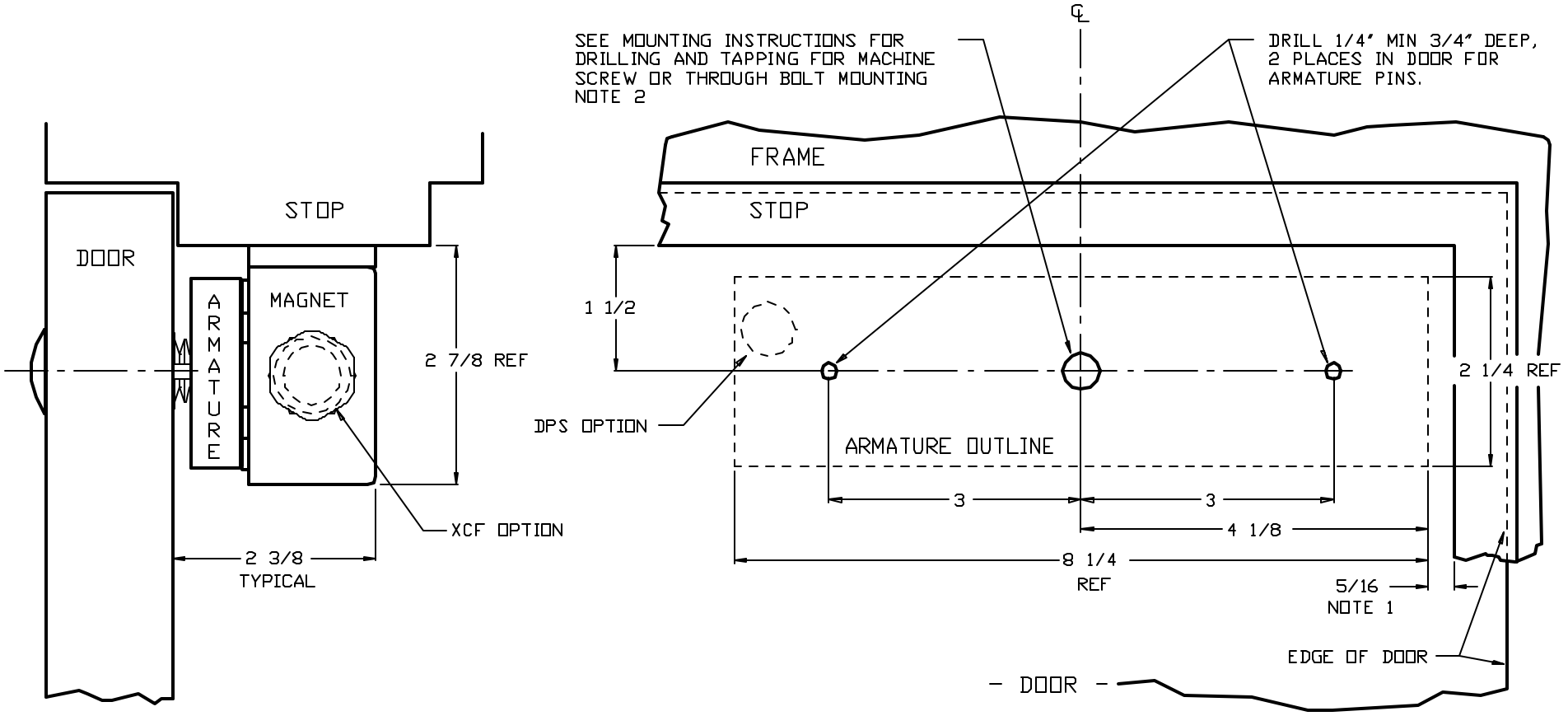
TITLE: 1000 SERIES SURFACE APPLICATION ON SINGLE OUTSWINGING DOOR INSTALLATION: LOCK PREPARATION

DORTRONICS SYSTEMS, INC.

DRAWN	GSG	DATE	7/15/03	SCALE	TO FIT	CAD FILE	T110000-1		
APPR.	JTF	DATE	12/13/06	UNITS	INCHES	SHEET	1 OF 1	SIZE	A

DWG. NO. T110000-1 REV. A

BEFORE INSTALLING, READ MOUNTING INSTRUCTIONS THOROUGHLY!



NOTES:

1. ARMATURE IS THE SAME WIDTH AS MAGNET HOUSING AND MUST BE INSTALLED IN HORIZONTAL ALIGNMENT. TYPICAL HORIZONTAL MOUNTING DISTANCE BETWEEN EDGE OF UNIT AND STOP IS 1/4" TO 1/2" (5/16" SHOWN); MINIMUM DISTANCE IS 1/8". USE MOUNTING TEMPLATE (PROVIDED).

2. REINFORCING AND STRUCTURING IS REQUIRED TO WITHSTAND 1200 LB LOAD.

REV.	REVISION DESCRIPTION	DATE
(NC)	(NC)	(NC)

TITLE: 1000 SERIES SURFACE APPLICATION ON SINGLE OUTSWINGING DOOR: ARMATURE DOOR PREPARATION						DORTRONICS SYSTEMS, INC.
DRAWN GSG	DATE 7/15/03	SCALE TO FIT	CAD FILE T110000-2		DWG. NO. T110000-2	REV. NC
APPR. XXX	DATE XX/XX/XX	UNITS INCHES	SHEET 1 OF 1	SIZE A		

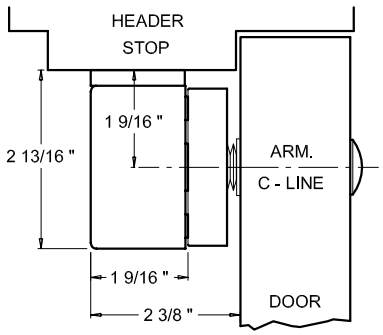
Application Bulletin

1000 SERIES ELEVATION PROFILES

AB1180_91_2_3_4_1000_P1

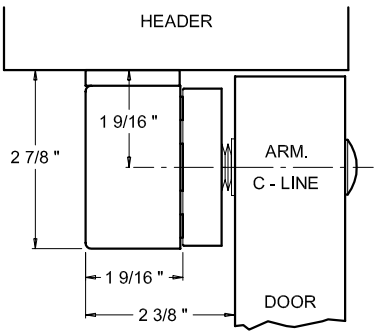
TYPICAL OUTSWINGING DOOR APPLICATIONS

A



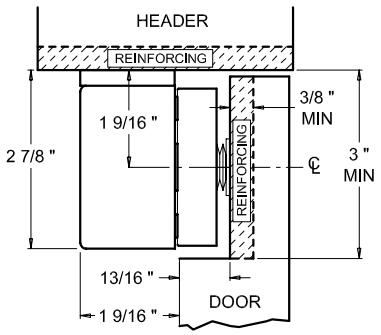
ON FULL WIDTH STOP WITH
SURFACE MOUNTED ARMATURE

B



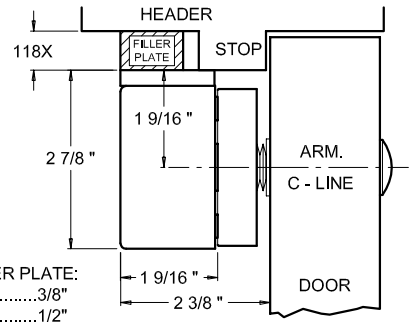
IN CASED OPENING WITH
SURFACE MOUNTED ARMATURE

C



IN CASED OPENING WITH
POCKETED ARMATURE

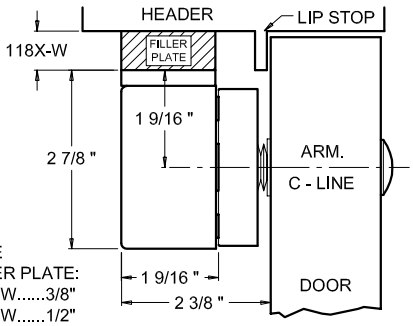
D



FILLER PLATE:
1183.....3/8"
1184.....1/2"
1185.....5/8"

1180 SERIES FILLER PLATE FOR
FRAME WITH NARROW STOP

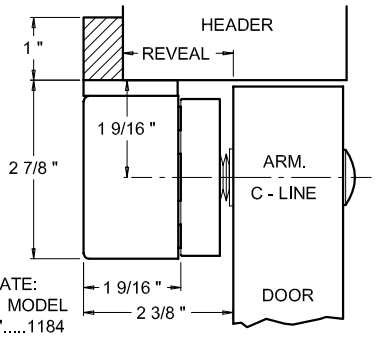
E



WIDE
FILLER PLATE:
1183-W.....3/8"
1184-W.....1/2"
1185-W.....5/8"

1180-W SERIES WIDE FILLER
PLATE FOR FRAME WITH LIP STOP

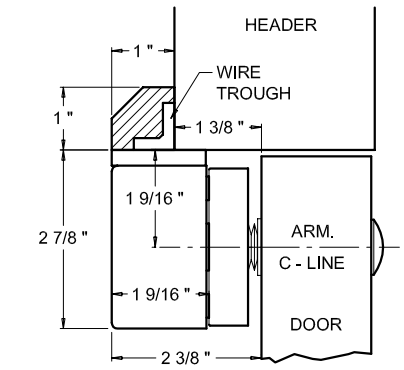
F



FILLER PLATE:
REVEAL MODEL
1 3/4-1 7/8".....1184
1 5/8-1 3/4".....1185

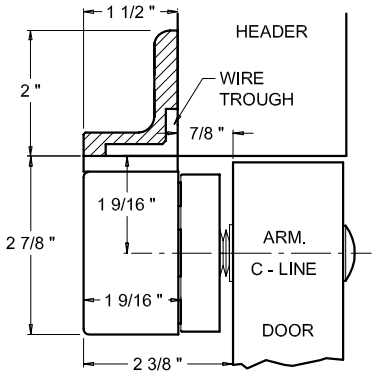
1180 SERIES FILLER PLATE AS
HEADER EXTENSION BLOCK

G



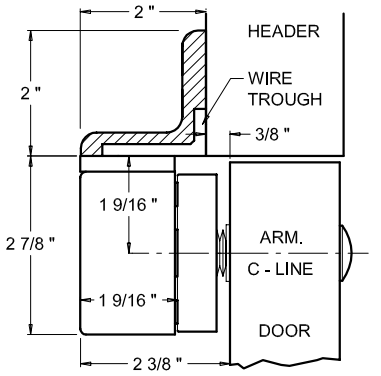
1191 ANGLE BRACKET

H



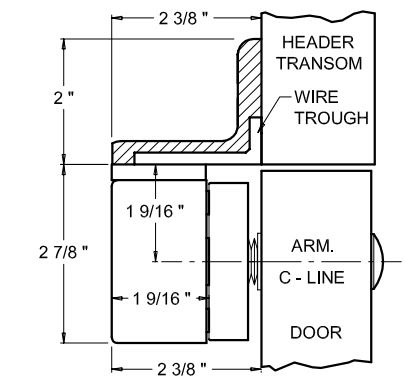
1192 ANGLE BRACKET

I



1193 ANGLE BRACKET

J



1194 ANGLE BRACKET

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Application Bulletin

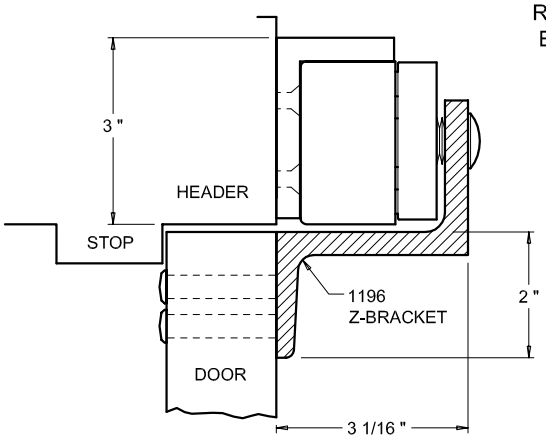
1000 SERIES ELEVATION PROFILES

AB1195_6_7_1000_P2

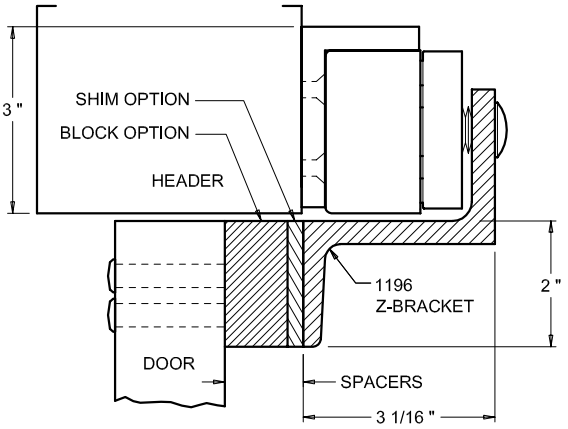
TYPICAL INSWINGING DOOR APPLICATIONS

A

REFER TO THE APPLICATION BULLETIN FOR 1176 SERIES SPACERS



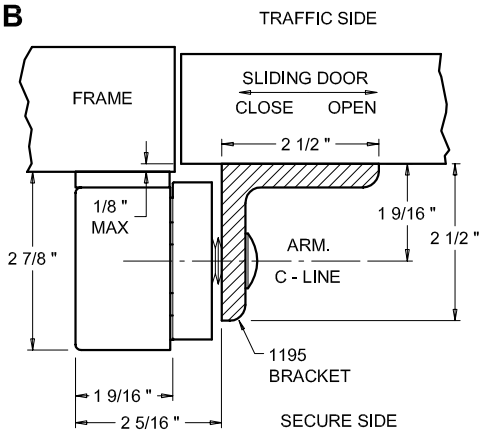
TOP JAMB MOUNT WITH STANDARD INSWINGING DOOR



TOP JAMB MOUNT ON CENTER HUNG INSWINGING DOOR

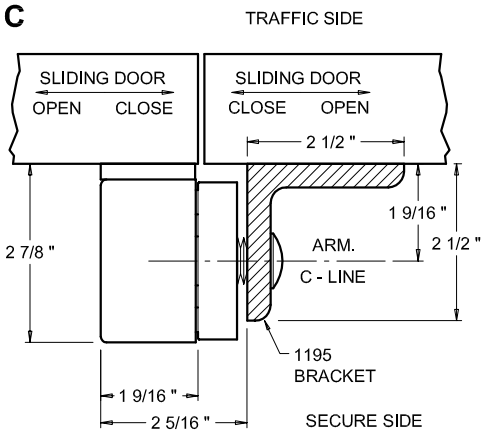
TYPICAL SINGLE & BI-PART SLIDING DOOR APPLICATIONS

B



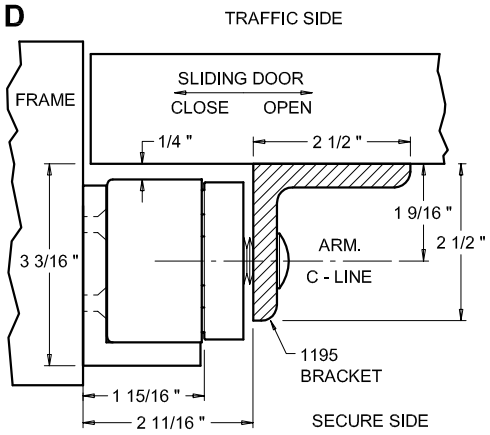
1195 ARMATURE BRACKET ON SINGLE SLIDER

C



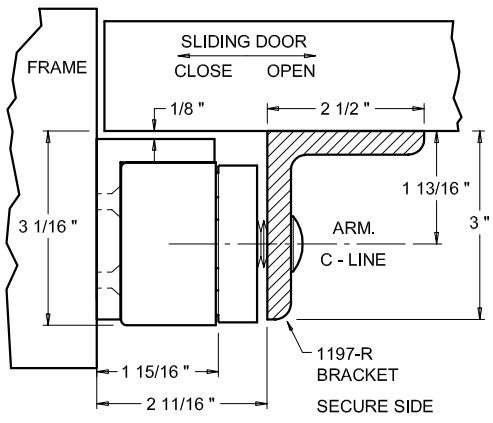
1195 ARMATURE BRACKET ON BI-PART SLIDERS

D



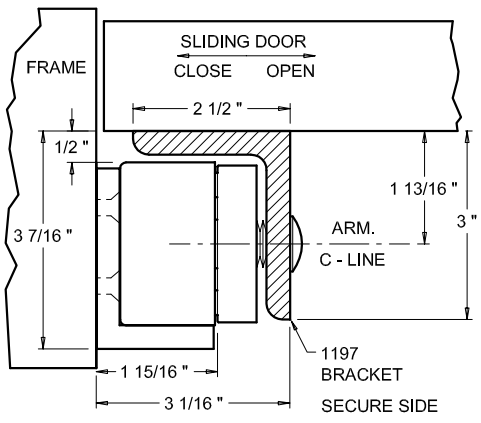
BACK MOUNT LOCK AND 1195 ARMATURE BRACKET ON SINGLE SLIDER

E



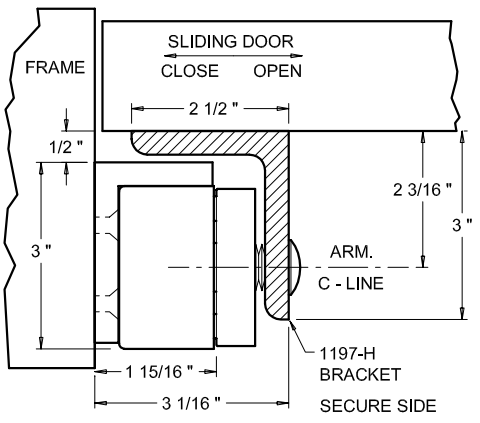
BACK MOUNT LOCK AND 1197-R ARMATURE BRACKET ON SINGLE SLIDER

F



BACK MOUNT LOCK AND 1197 ARMATURE BRACKET ON SINGLE SLIDER

G



BACK MOUNT LOCK AND 1197-H ARMATURE BRACKET ON SINGLE SLIDER

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