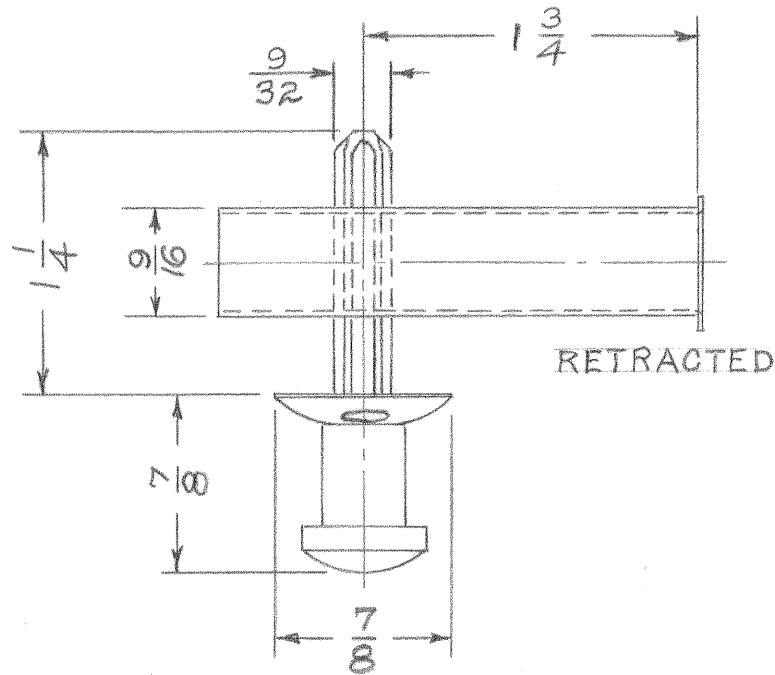


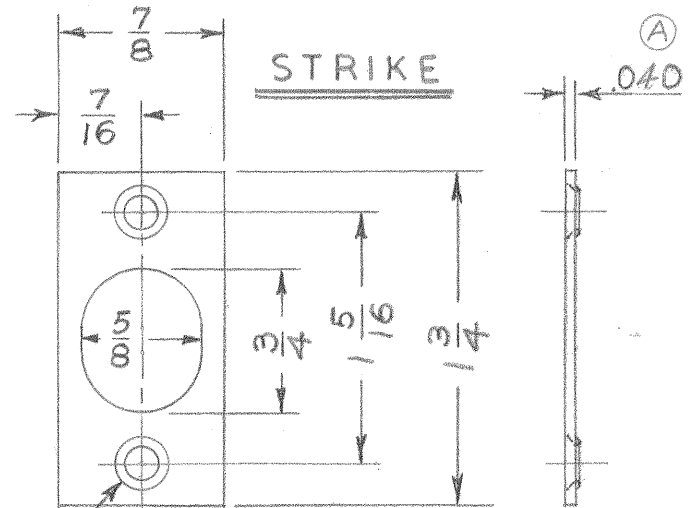
DO NOT SCALE

TEMPLATE DRAWING

DWG. NO. 223B



RETRACTED



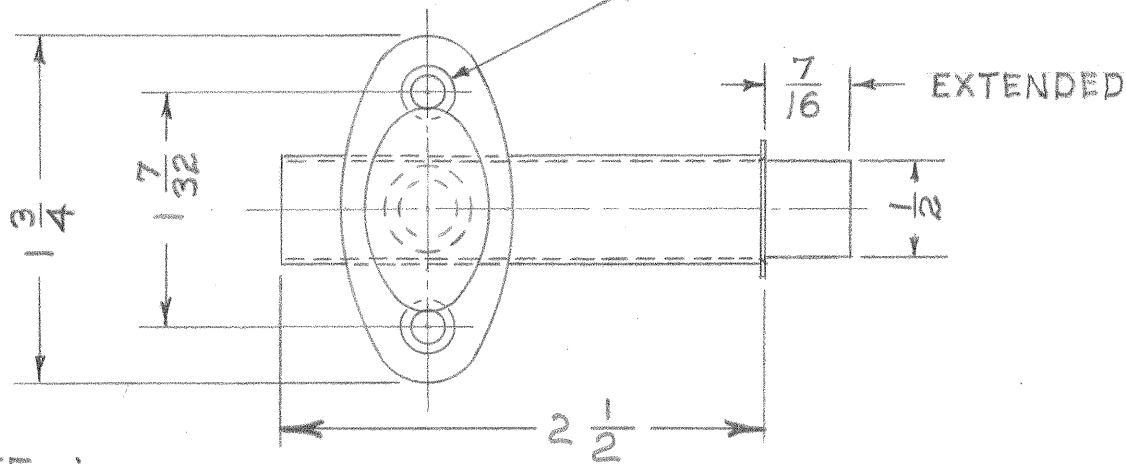
STRIKE

Ⓐ

.040

(2) 5/8 X 5 O.H. WOOD SCREWS

(2) 5/8 X 5 F.H. WOOD SCREWS



EXTENDED

NOTE :

DRILL THROUGH ONE SIDE OF DOOR ONLY  
 FOR BOLT ASSEMBLY USE 9/16" DRILL 2 5/8" DEEP  
 FOR KNOB USE 5/16" DRILL 1 1/4" DEEP

Ⓑ

48 MORTISE DOOR BOLT

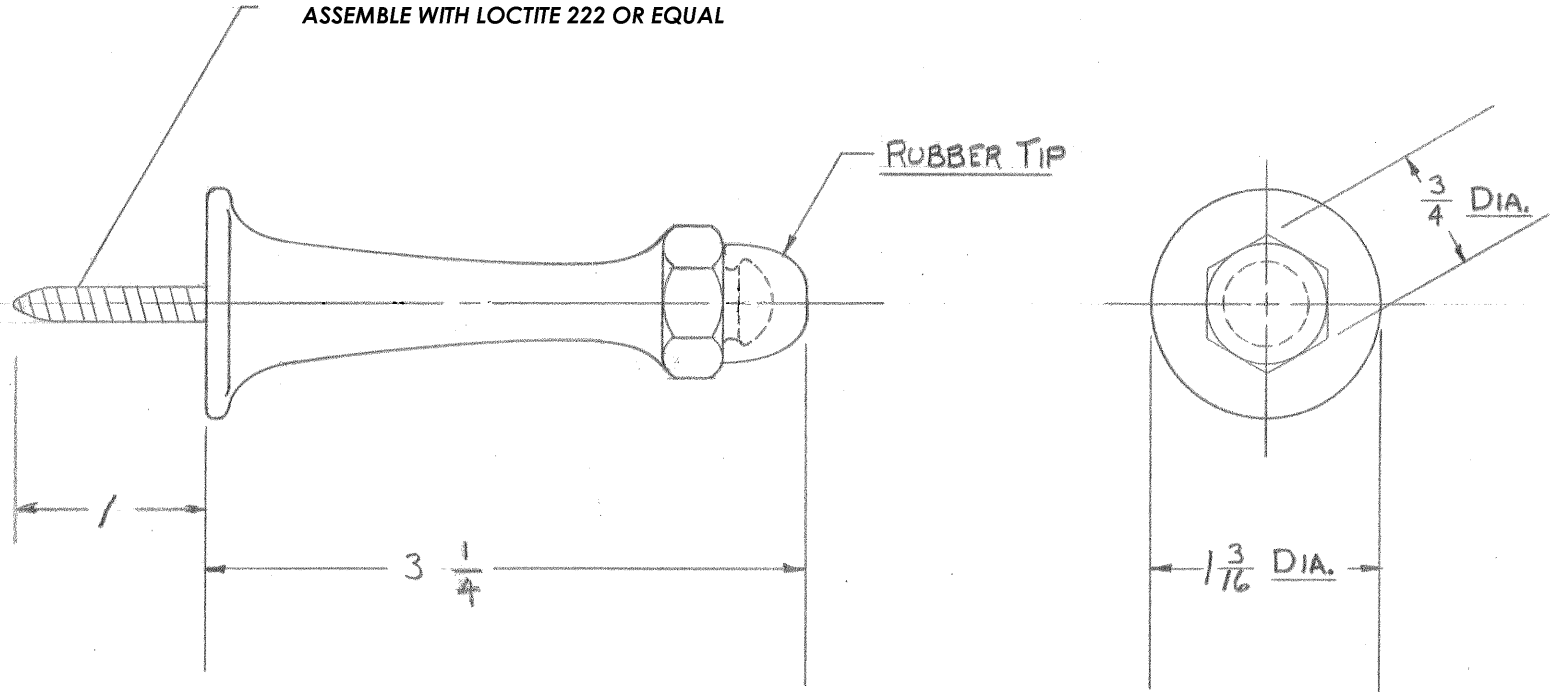
LETTER	CHANGE	DATE
A	.040 WAS .050	R.S.L. 1-6-69
B	ADDED NOTE	R.K. 12-13-76
C		
F.C.B. 11-6-57		FULL SIZE

IVES DIVISION  
 LEIGH PRODUCTS, INC.  
 P. O. BOX 1887, NEW HAVEN, CONN. 06508

# TEMPLATE DRAWING

DWG No. 190 A

61 COMBINATION SCREW (DWG NO. 1505)  
ASSEMBLE WITH LOCTITE 222 OR EQUAL



RUBBER TIP

64 DOOR STOP

LETTER	CHANGE	DATE
A.	61 COMBINATION SCREW WAS NO. 10 SHEET METAL SCREW	2/22/00
B		
C		

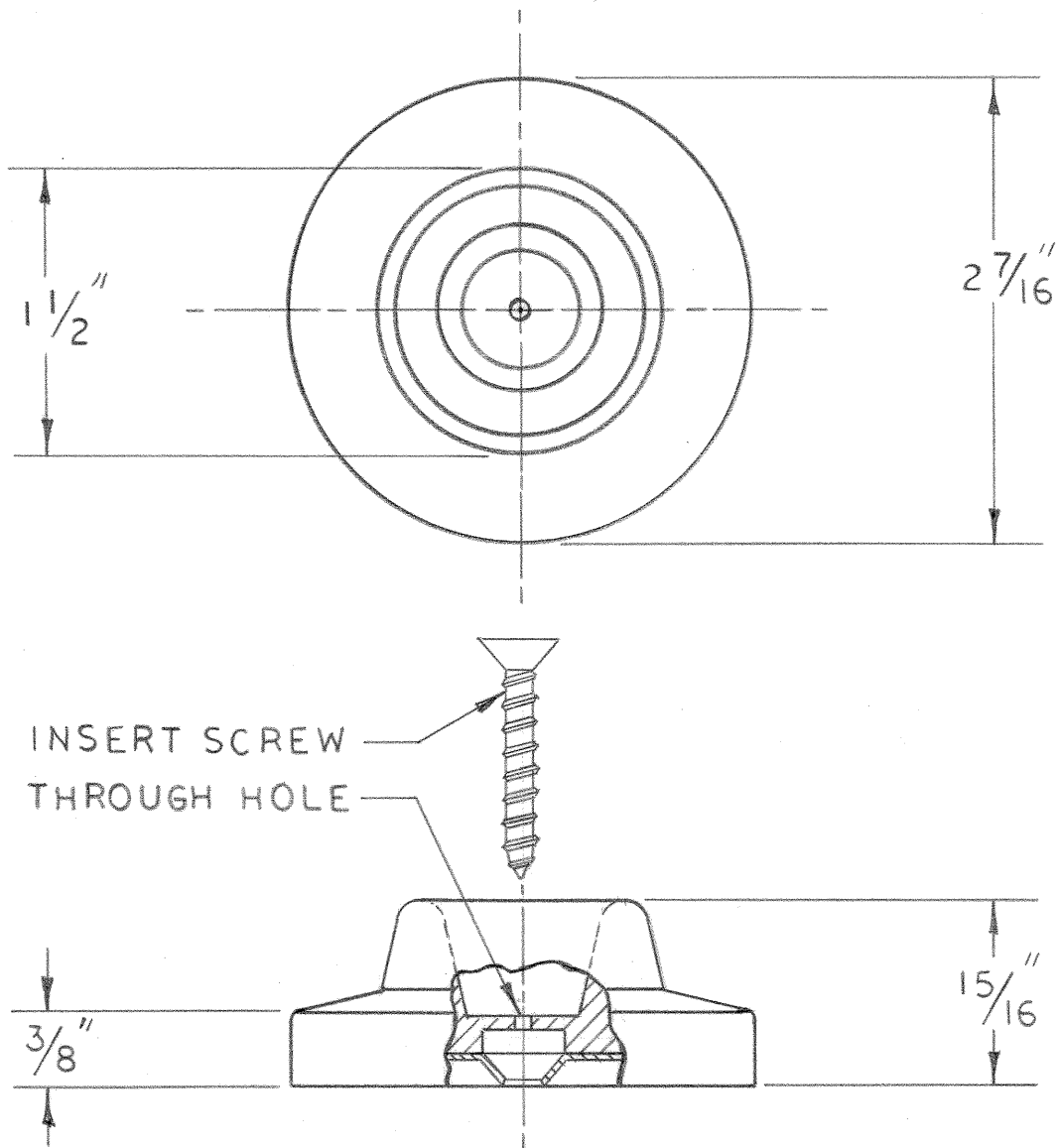
LOR-LEW 5-8-47

FULL SIZE

IVES DIVISION  
LEIGH PRODUCTS, INC.  
P. O. BOX 1887, NEW HAVEN, CONN. 06508

# TEMPLATE DRAWING

DWG # 2237 A  
Rev 4, new drawing #  
10/5/99



ON THE 406 1/2 —  
USE (1) #10 X 1" FLAT HEAD SHEET METAL SCREW WITH  
PLASTIC ANCHOR - DRILL 1/4" HOLE, 1 1/4" DEEP.

ON THE 407 1/2 —  
USE (1) #8 X 1 1/4" OVAL HEAD WOOD SCREW AND PLASTIC  
ANCHOR - DRILL 5/16" HOLE

ON THE 408 1/2 —  
USE (1) #10-24 X 1" FLAT HEAD MACHINE SCREW WITH  
#10-24 EXPANSION SHIELD - 3/8" HOLE, 1" DEEP.

**IVES**

406 1/2 - 407 1/2 - 408 1/2 WALL BUMPER

TEMPLATE NO. HB-406 1/2 -66

DRAWN BY: FJH

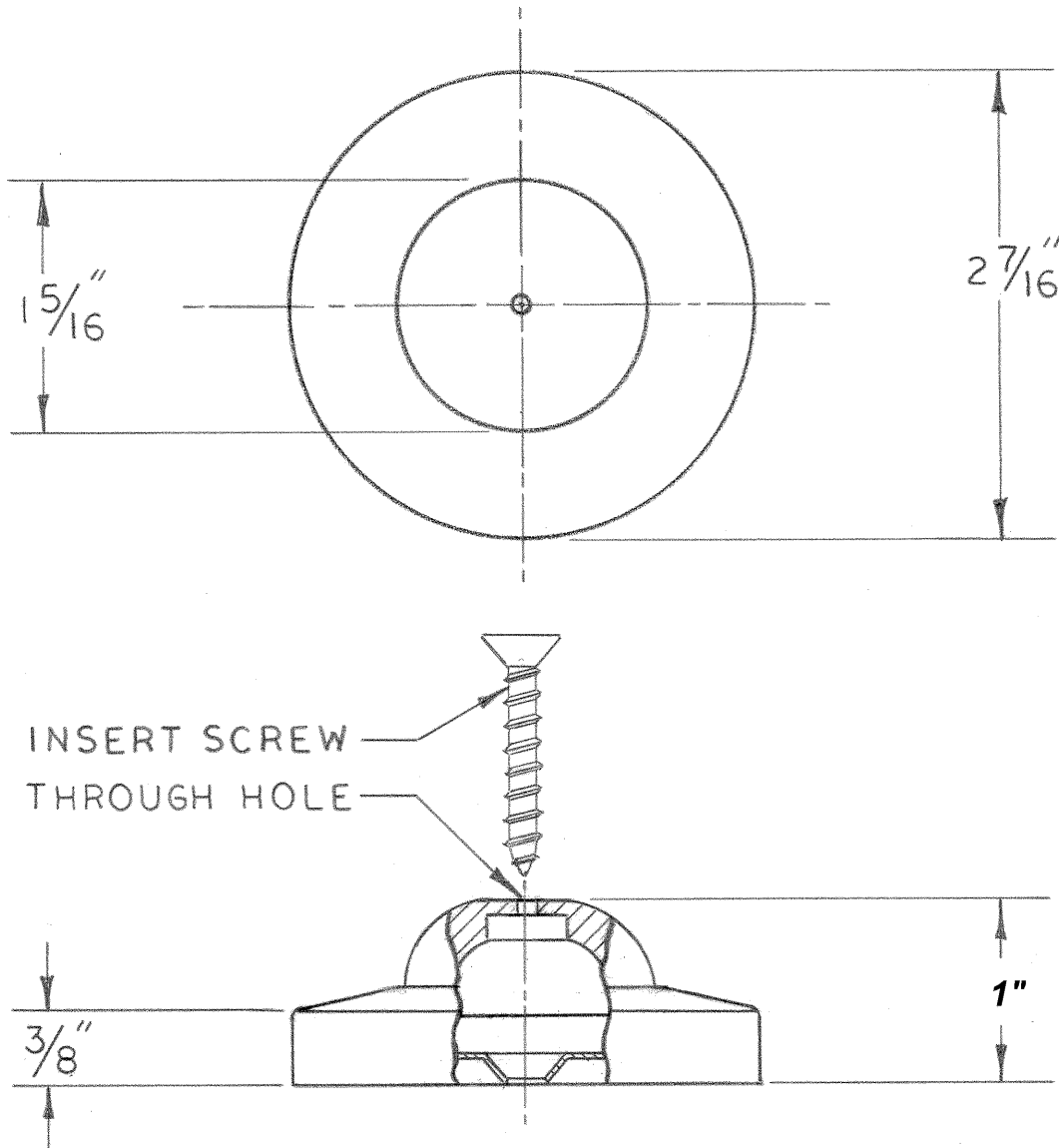
DATE: 6-22-84

THE H. B. IVES CO.

P.O. BOX 1887, NEW HAVEN, CONN. 06508

# TEMPLATE DRAWING

DWG # 2238 **B**  
Rev **B**, new drawing #  
3/12/03



## ON THE 406

USE (1) #10 X 1" FLAT HEAD SHEET METAL SCREW WITH  
PLASTIC ANCHOR-DRILL 1/4" HOLE, 1 1/4" DEEP.

## ON THE 407

USE (1) #8 X 1 1/4" ROVAL HEAD WOOD SCREW AND PLASTIC  
ANCHOR-DRILL 5/16" HOLE.

## ON THE 408

USE (1) #10-24 X 1" FLAT HEAD MACHINE SCREW WITH  
#10-24 EXPANSION SHIELD-3/8" HOLE, 1" DEEP.

**IVES**

406 - 407 - 408 WALL BUMPER

TEMPLATE NO. HB-406-65

DRAWN BY: FJH

DATE: 6-22-84

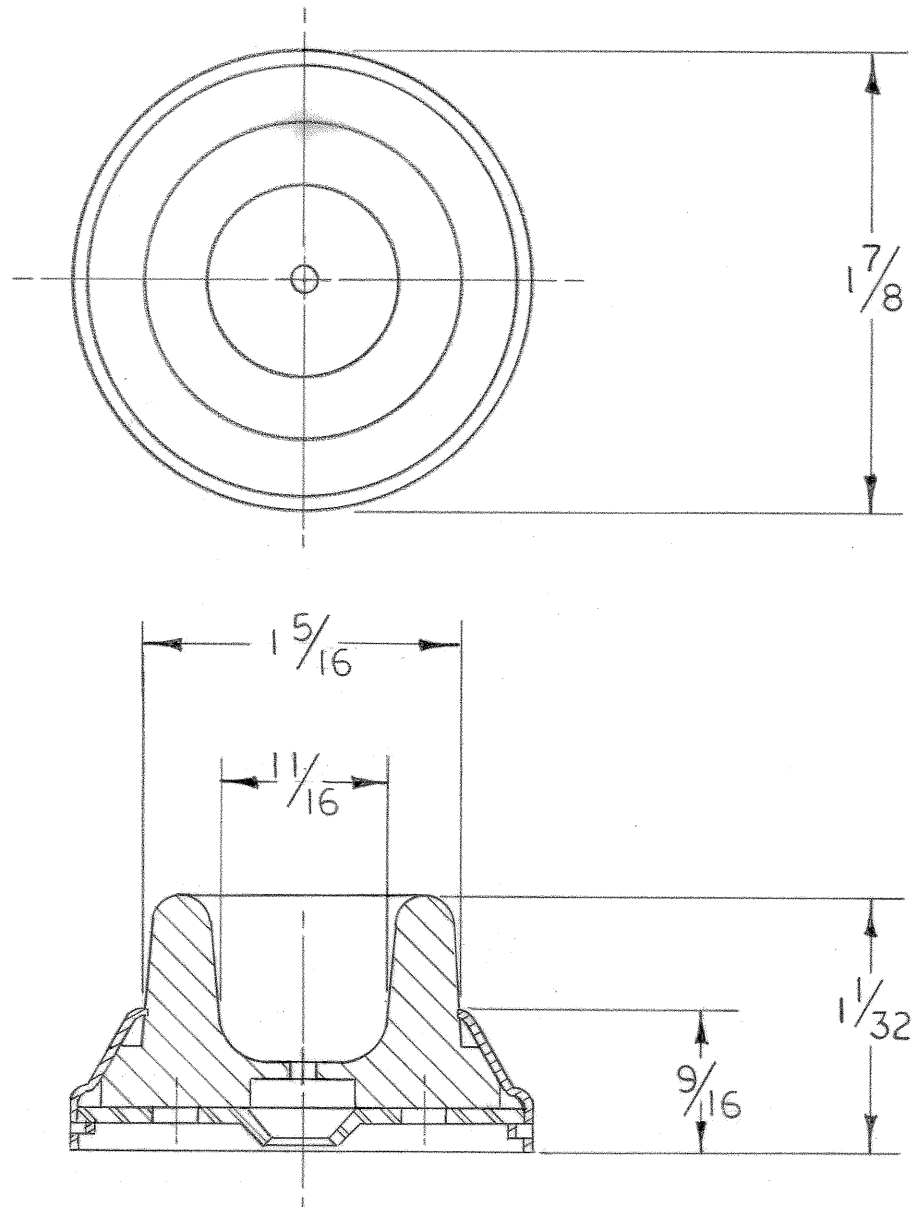
THE H. B. IVES CO.

P.O. BOX 1887, NEW HAVEN, CONN. 06508



# TEMPLATE DRAWING

DWG # 2236A  
Rev A, new drawing #  
10/5/99



INSERT (1)  $\frac{1}{4}$  X 8 PHILLIPS OVAL HEAD WS THROUGH  
HOLE IN RUBBER. DRILL  $\frac{5}{16}$  DIAMETER HOLE FOR  
PLASTIC ANCHOR -  $\frac{1}{4}$  DEEP IF IN SOLID MASONRY.

**IVES**

409 $\frac{1}{2}$  WALL BUMPER

TEMPLATE NO. HB-409 $\frac{1}{2}$ -63

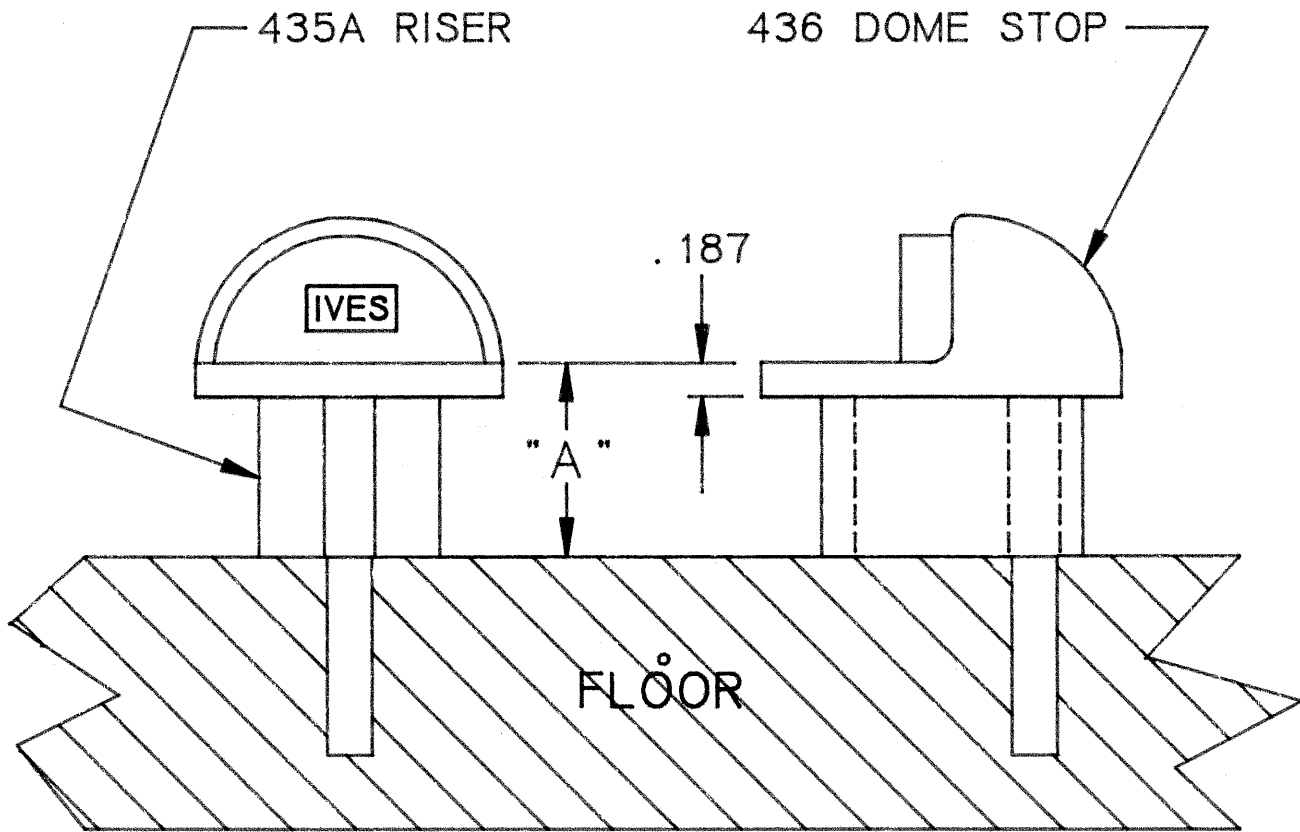
DRAWN BY: F.J.H

DATE: 7-1-83

THE H. B. IVES CO.

P.O. BOX 1887, NEW HAVEN, CONN. 06508

# TEMPLATE DRAWING



PRODUCT NO.	"A"
436X435A-1/4	.437
436X435A-3/8	.562
436X435A-1/2	.687
436X435A-5/8	.812
436X435A-3/4	.937
436X435A-1.0	1.187

436X435A



## 436X435A COMBO HEIGHTS

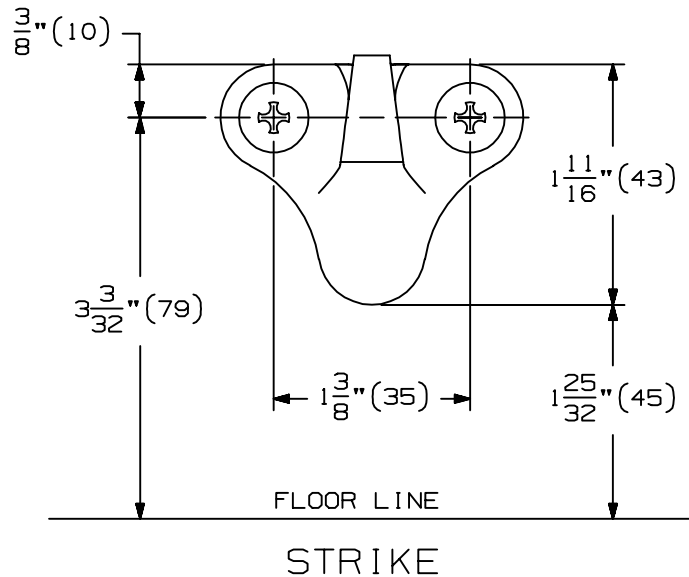
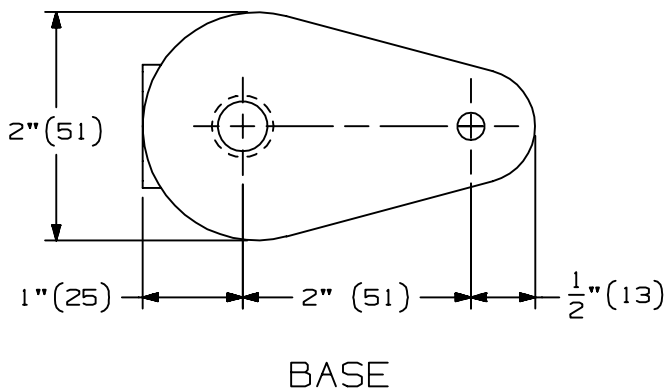
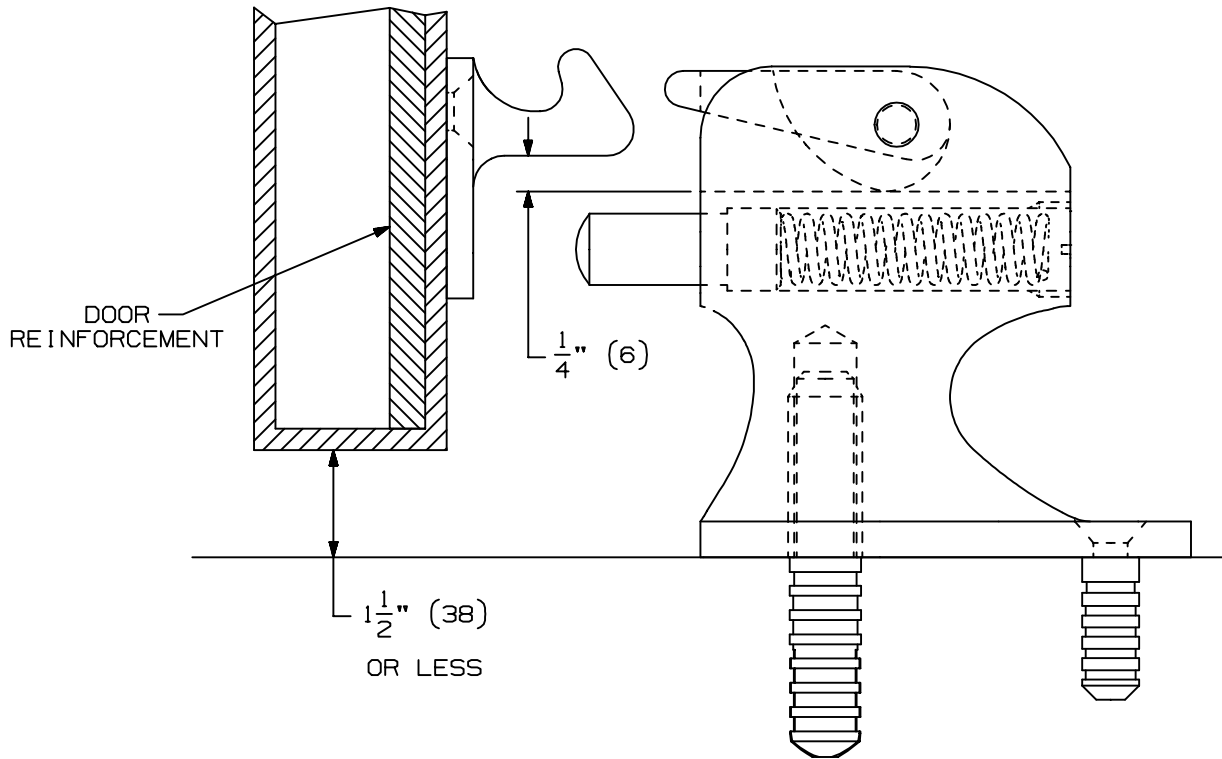
TEMPLATE NO. HB-436X435A-92

H.B. IVES

DRAWN BY: FJH

DATE: 5-16-89

P.O. BOX 1887, NEW HAVEN, CONN. 06508



**INSTRUCTIONS:**

1. OPEN DOOR TO DESIRED POSITION.
2. PLACE STRIKE AND HOLDER AS ILLUSTRATED.
3. LOCATE THE MOUNTING HOLES.
4. PREPARE MOUNTING HOLES AS NECESSARY.
5. INSTALL BODY AND STRIKE.

**NOTES:**

1. METAL DOORS SHOULD BE PROPERLY REINFORCED WITH  $\frac{3}{16}$ " (5) MINIMUM THICKNESS PLATE.

	QTY	SCREW DETAILS
BODY	1	1/2"-13 THREADED STUD
	1	LEAD EXPANSION SHIELD
	1	#14 X 1-1/2" FPHSMS
	1	PLASTIC EXPANSION SHIELD
STRIKE	2	#14 X 1-1/2" FPHSMS

**IVES**

**FS9 SEMI-AUTOMATIC FLOOR HOLDER  
INSTALLATION INSTRUCTIONS**

**ALLEGION**

NOTE: DIMENSIONS IN ( ) ARE IN MILLIMETERS

TEMPLATE  
NUMBER:

**INST.FS9\_B**

DATE:  
**05-29-15**



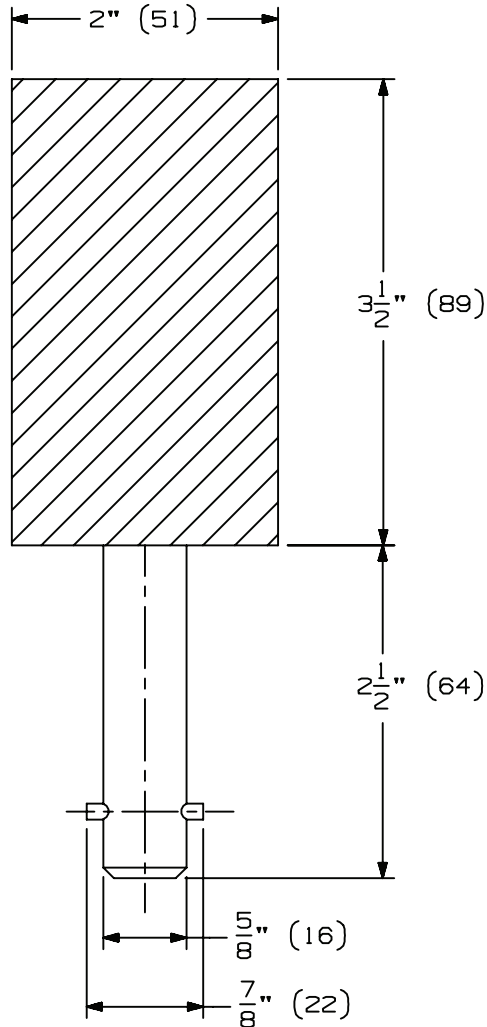
# FS18L

# IVES

## INST.FS18L

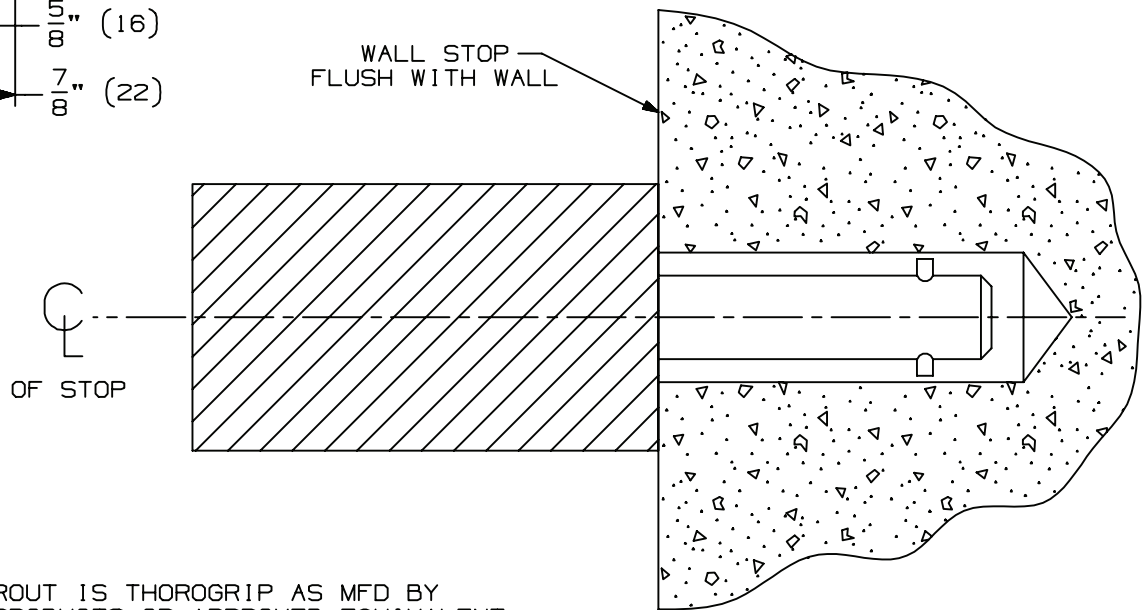
Wall Stop

Installation Instructions



### INSTRUCTIONS:

1. OPEN DOOR TO DESIRED LOCATION.
2. LOCATE MOUNTING HOLES.
3. DRILL 1" (25mm) DIAMETER BY 2-3/4" (70mm) DEEP HOLE.
4. REMOVE MATERIAL AS REQUIRED.
5. GROUT STOP INTO WALL\* OR FLOOR\*.



\*RECOMMENDED GROUT IS THOROGRIP AS MFD BY THORO SYSTEM PRODUCTS OR APPROVED EQUIVALENT

NOTE: DIMENSIONS IN ( ) ARE IN MILLIMETERS

**Customer Service**

1-877-671-7011 [www.allegion.com/us](http://www.allegion.com/us)



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INST.FS18L Rev. 01/14-b



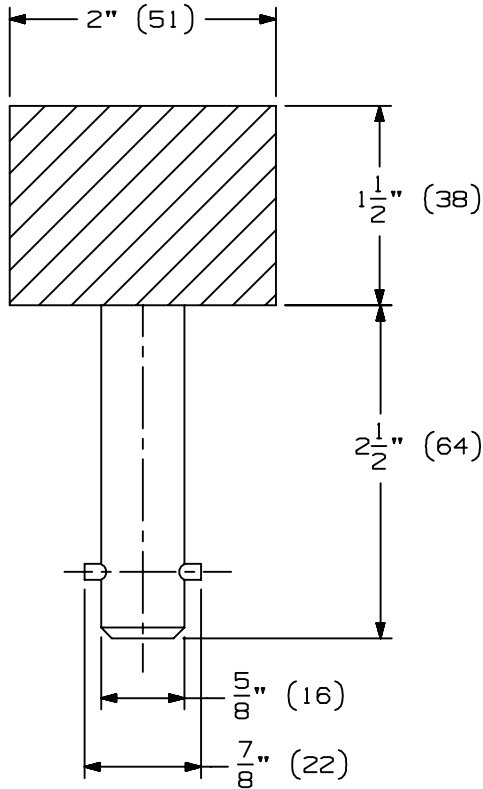
# FS18S

# IVES

## INST.FS18S

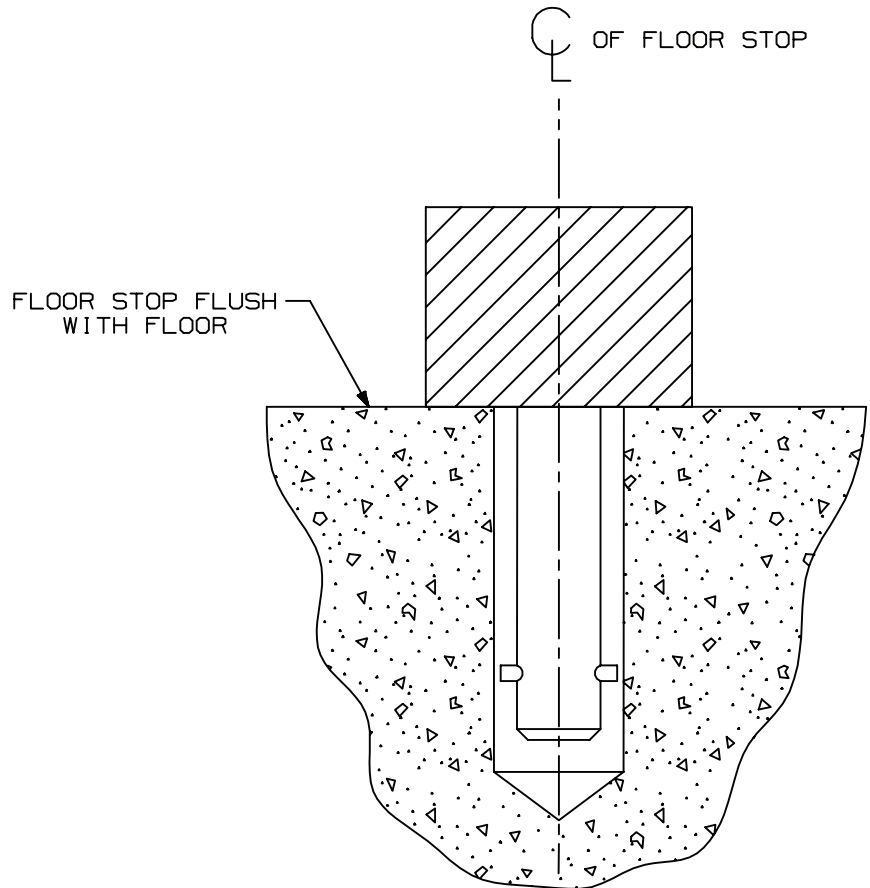
Floor Stop

Installation Instructions



### INSTRUCTIONS:

1. OPEN DOOR TO DESIRED LOCATION.
2. LOCATE MOUNTING HOLES.
3. DRILL 1" (25mm) DIAMETER BY 2-3/4" (70mm) DEEP HOLE.
4. REMOVE MATERIAL AS REQUIRED.
5. GROUT STOP INTO FLOOR\*.



\*RECOMMENDED GROUT IS THOROGRIP AS MFD BY THORO SYSTEM PRODUCTS OR APPROVED EQUIVALENT

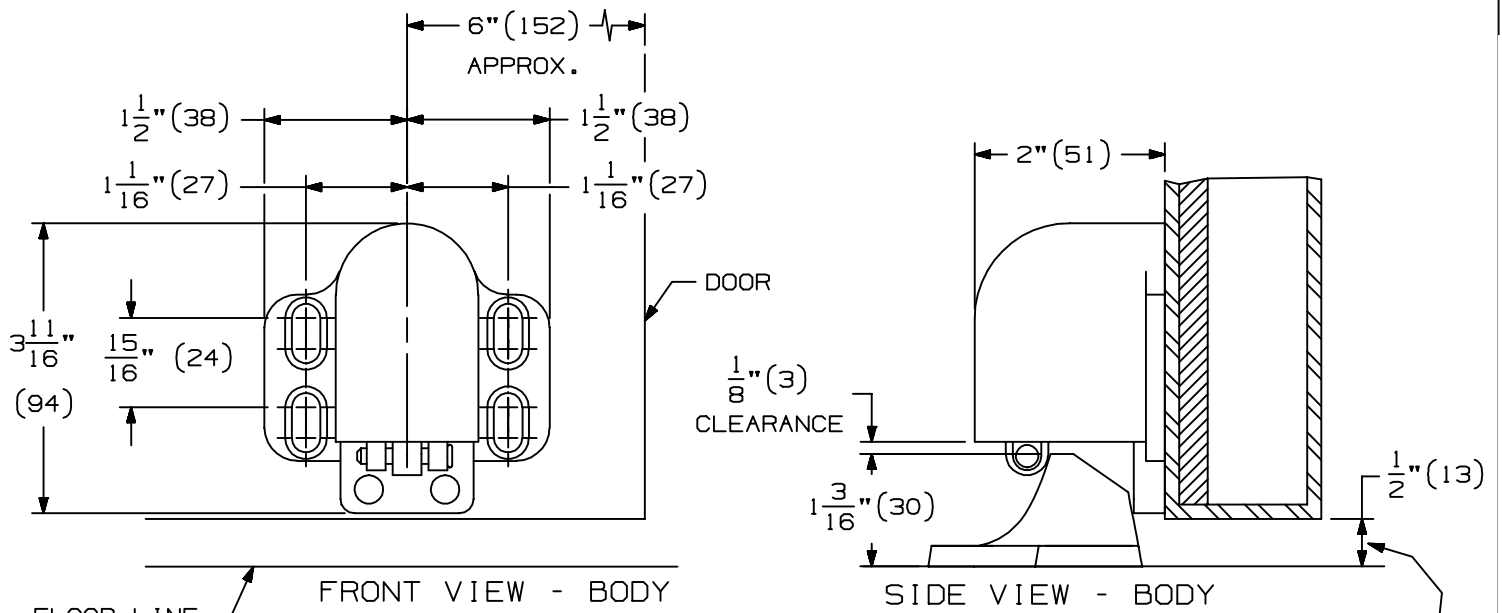
Customer Service

1-877-671-7011

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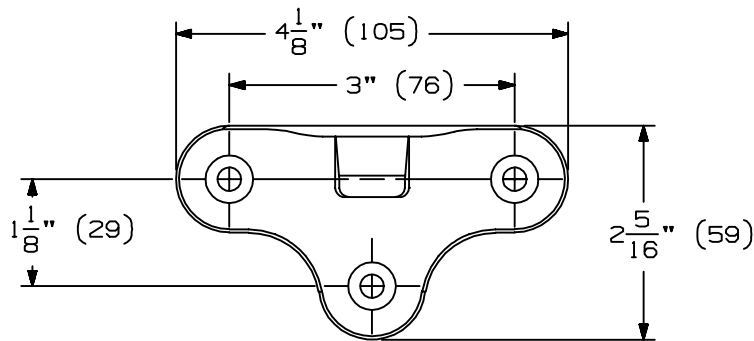
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 INST.FS18S Rev. 01/14-b



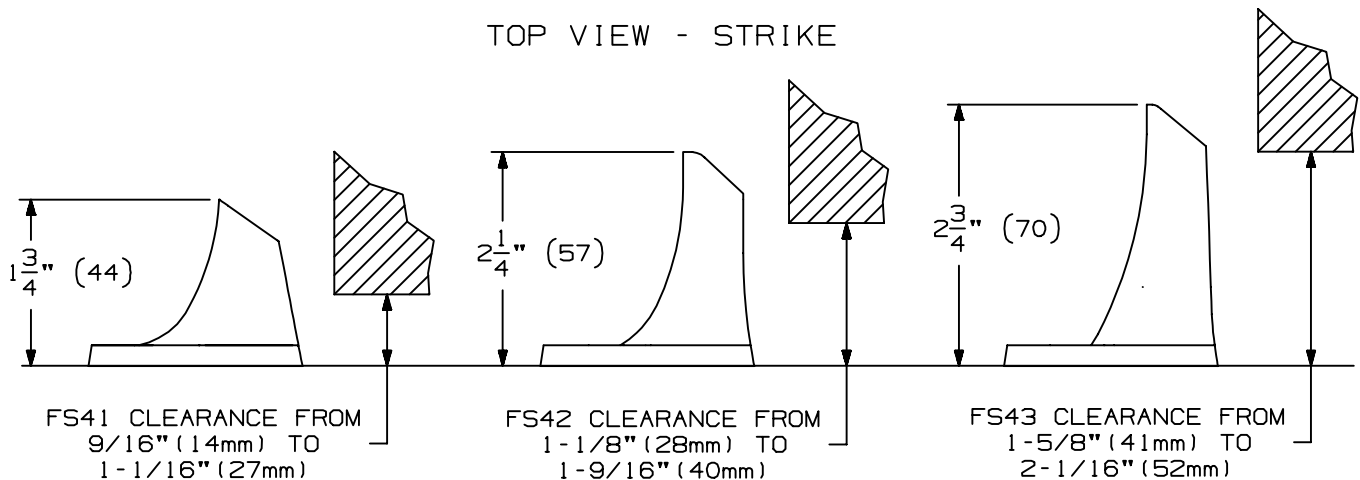
FRONT VIEW - BODY

SIDE VIEW - BODY

FS40 MAXIMUM DOOR CLEARANCE



TOP VIEW - STRIKE



**INSTRUCTIONS:**

1. OPEN DOOR TO DESIRED POSITION.
2. PLACE STRIKE ON FLOOR AND HOLDER BODY ON DOOR AS ILLUSTRATED. ROLLER MUST ENGAGE STRIKE SQUARELY.
3. LOCATE THE MOUNTING HOLES.
4. PREPARE MOUNTING HOLES AS NECESSARY.
5. INSTALL STRIKE AND HOLDER BODY.

**NOTES:**

1. METAL DOORS SHOULD BE PROPERLY REINFORCED WITH  $\frac{3}{16}$ " (5) MINIMUM THICKNESS PLATE.

	QTY	SCREW DETAILS
BODY	4	#14 X 1-1/4" TRPHSMS
BODY	3	#14 X 1-1/4" FPHSMS
	3	PLASTIC EXPANSION SHIELD



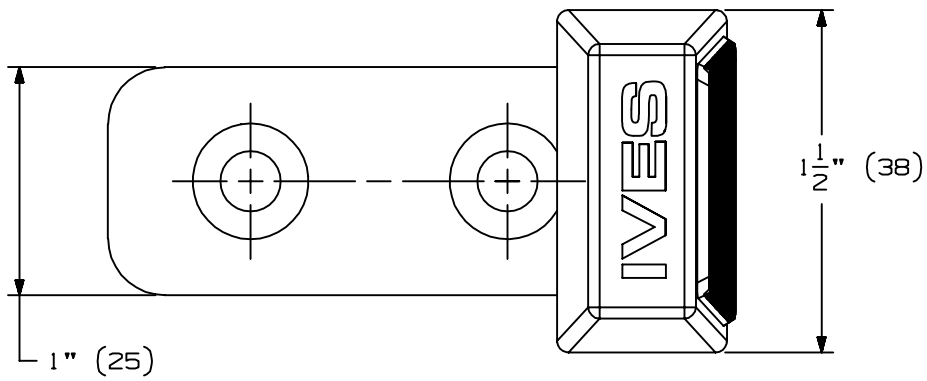
FS40, FS42, & FS43 AUTOMATIC DOOR HOLDER INSTALLATION TEMPLATE



NOTE: DIMENSIONS IN ( ) ARE MILLIMETERS.

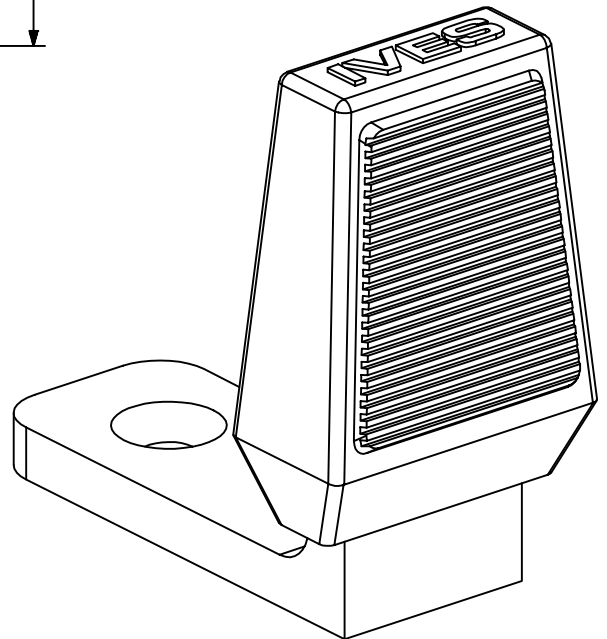
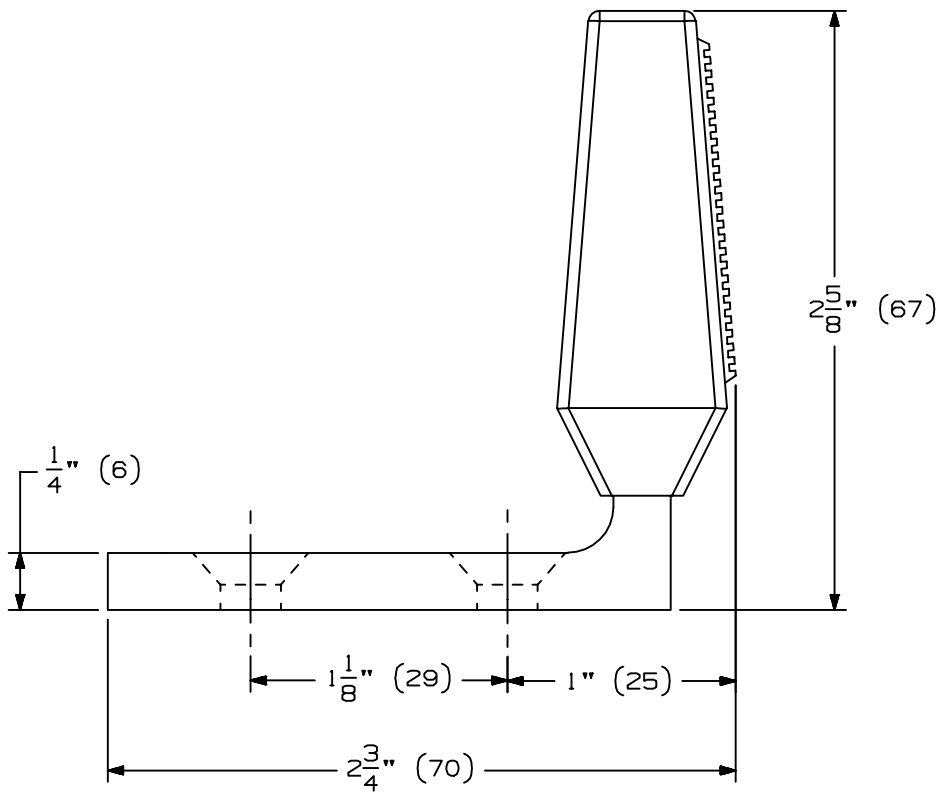
TEMPLATE NUMBER: INST.FS40-43\_0

DATE: 09-01-01



INSTRUCTIONS:

1. OPEN DOOR TO DESIRED LOCATION.
2. LOCATE MOUNTING HOLES.
3. PREPARE HOLES.
4. INSERT PLASTIC ANCHORS IN HOLES.
5. ATTACH FLOOR STOP WITH SCREWS.



SCREW DETAILS

QTY	DESCRIPTION
2	#14 X 1-1/4" FPHSMS
2	#14 PLASTIC ANCHORS



FS434 DOOR STOP  
INSTALLATION TEMPLATE

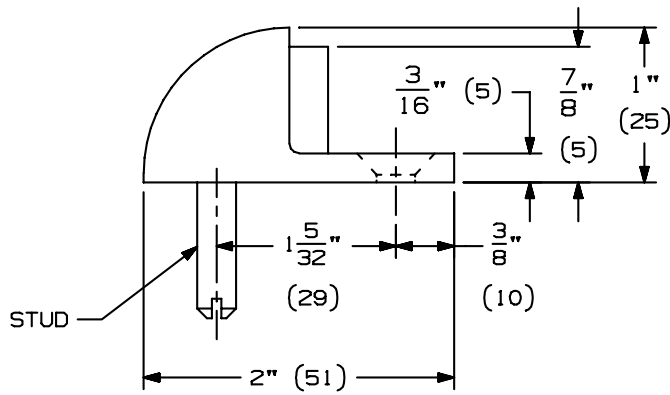


NOTE: DIMENSIONS IN ( ) ARE IN MILLIMETERS

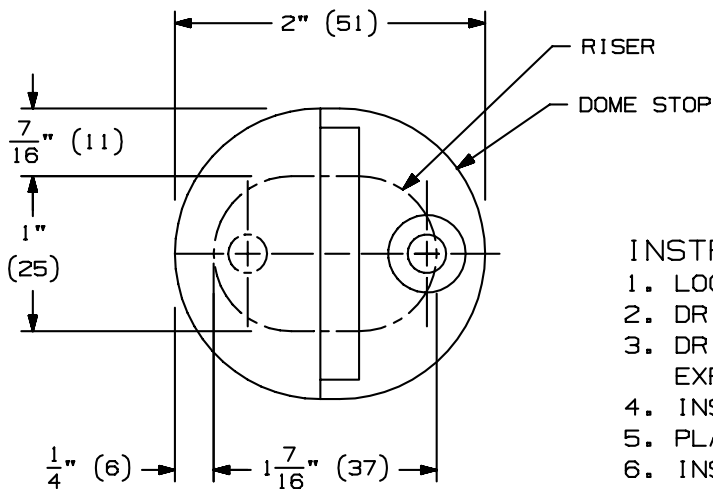
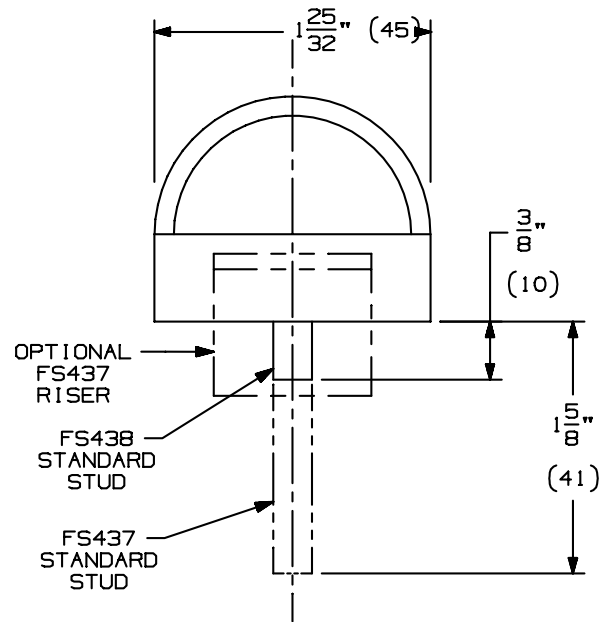
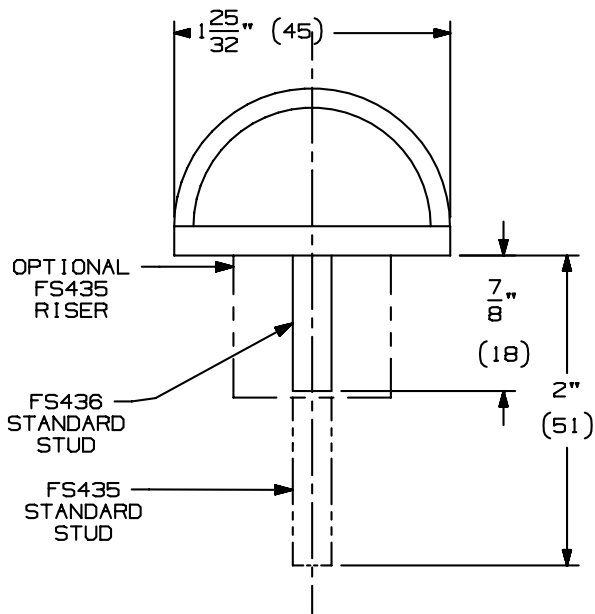
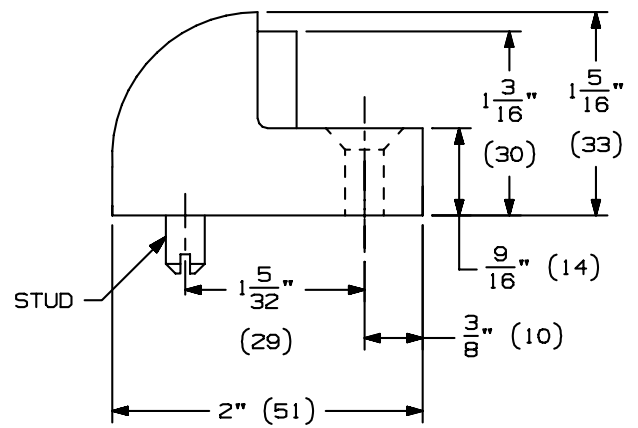
TEMPLATE NUMBER: INST.FS434\_0

DATE: 07-26-01

FS436 DOME STOP



FS438 DOME STOP



INSTRUCTIONS:

1. LOCATE POSITION OF DOME STOP.
2. DRILL 9/32" (7 MM) DIA. HOLE FOR THE STUD.
3. DRILL 5/16" (8 MM) DIA. HOLE FOR THE EXPANSION SHIELD.
4. INSERT EXPANSION SHIELD IN PROPER HOLE.
5. PLACE RISER ON DOME STOP IF USED.
6. INSTALL DOME STOP WITH PROPER SCREWS.  
(SEE SHEET 2 FOR SCREW DETAILS)



FS436 & FS438 DOME STOP  
WITH FS435 & FS437 RISERS  
INSTALLATION TEMPLATE



NOTE: DIMENSIONS IN ( ) ARE MILLIMETERS

TEMPLATE  
NUMBER: INST.FS435-438\_0.PG1

DATE:  
09/01/01



SCREW DETAIL

FS436 (ALL)	1/4" DIA. STUD
FS436 (STANDARD)	#14 X 1 1/4" FPHSMS
	#14 EXPANSION SHIELD
FS436 (TAMPIN)	1/4-20 X 1 1/4" FPHMS
	1/4-20 TAMPIN
FS436 (LEAD SHIELD)	#14 X 1 1/4" FPHSMS
	#14 LEAD SHIELD
FS435 & FS436 (ALL)	1/4" DIA. STUD
FS435 & FS436 (STANDARD)	#14 X 2 1/4" FPHSMS
	#14 EXPANSION SHIELD
FS435 & FS436 (LEAD SHIELD)	#14 X 2 1/4" FPHSMS
	#14 LEAD SHIELD
FS438 (ALL)	1/4" DIA. STUD
FS438 (STANDARD)	#14 X 1 3/4" FPHSMS
	#14 EXPANSION SHIELD
FS438 (TAMPIN)	1/4-20 X 1 3/4" FPHMS
	1/4-20 TAMPIN
FS438 (LEAD SHIELD)	#14 X 1 3/4" FPHSMS
	#14 LEAD SHIELD
FS437 & FS438 (ALL)	1/4" DIA. STUD
FS437 & FS438 (STANDARD)	#14 X 2 1/4" FPHSMS
	#14 EXPANSION SHIELD
FS437 & FS438 (LEAD SHIELD)	#14 X 2 1/4" FPHSMS
	#14 LEAD SHIELD



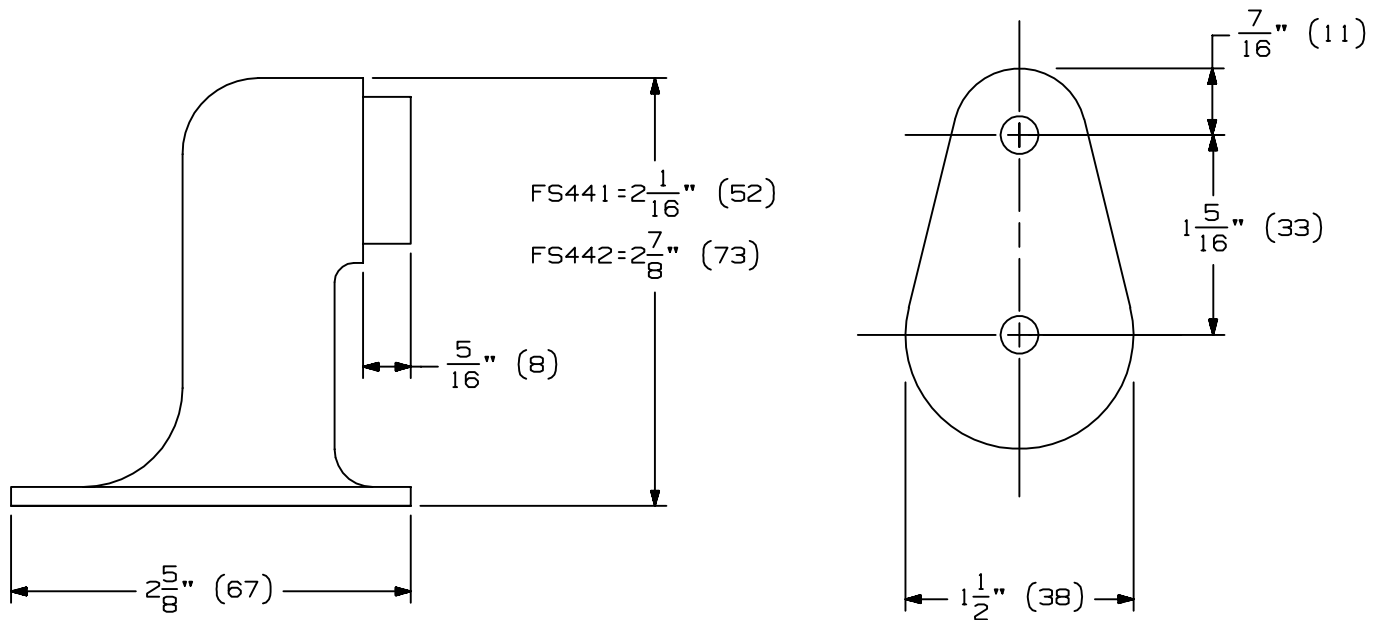
FS436 & FS438 DOME STOP  
WITH FS435 & FS437 RISERS  
INSTALLATION TEMPLATE



NOTE: DIMENSIONS IN ( ) ARE IN MILLIMETERS

TEMPLATE  
NUMBER: INST.FS435-438\_0.PG2

DATE:  
09/26/01



**INSTRUCTIONS:**

1. PLACE FLOOR STOP IN DESIRED LOCATION AND MARK HOLES.
2. PREPARE MOUNTING HOLES
3. INSTALL FLOOR STOP WITH APPROPRIATE SCREWS.

**SCREW DETAILS**

FS441-MS	1	5/16-18 X 2" STUD W/ EXPANSION SHIELD
FS442-MS	1	1/4-20 X 1" FPHMS
	1	1/4-20 TAMPIN
FS441-WS	1	5/16-18 X 2 1/2" HANGER BOLT
FS442-WS	1	#14 X 1 1/4" OPHWS

**IVES**

**FS441 & FS442 FLOOR STOP  
INSTALLATION TEMPLATE**

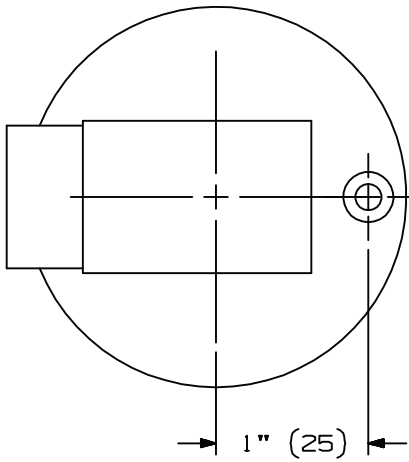
**IR Security & Safety®**

NOTE: DIMENSIONS IN ( ) ARE MILLIMETERS.

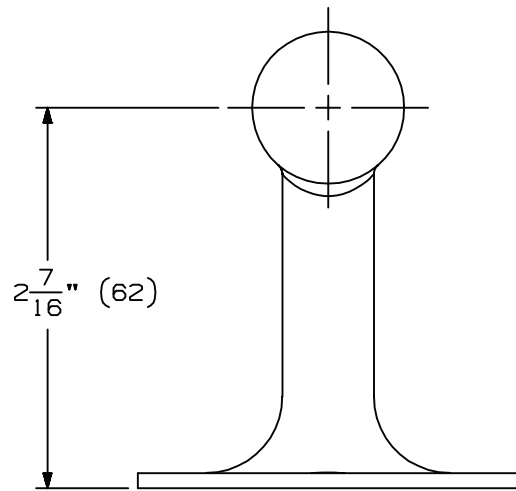
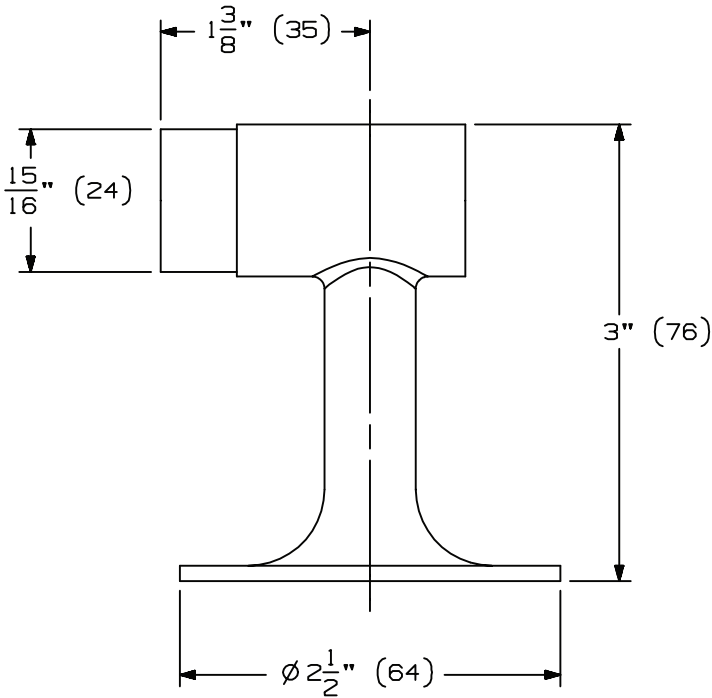
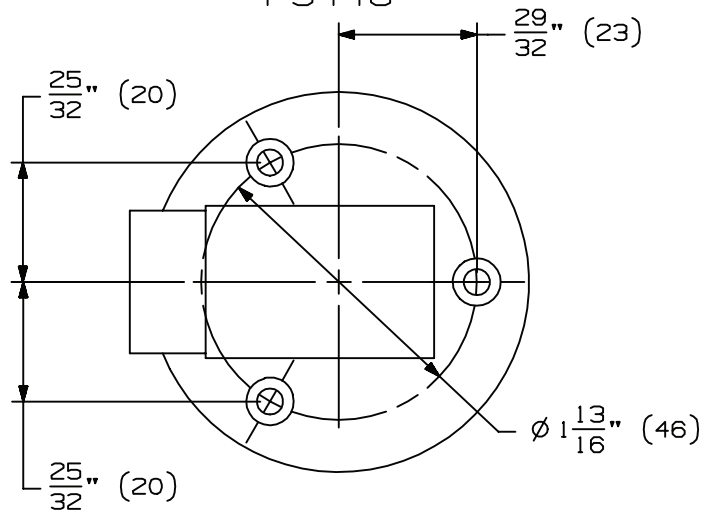
TEMPLATE NUMBER: INST.FS441-442\_0

DATE:  
07/26/01

FS444



FS448



**INSTRUCTIONS:**

1. PLACE BUMPER IN DESIRED LOCATION & LOCATE MOUNTING HOLES.
2. PREPARE MOUNTING HOLES.
3. INSTALL FLOOR STOP.

FS448	3	#12 X 1 1/4" OPHWS
FS444	1	3/8-12 THREADED STUD
	1	LEAD EXPANSION SHIELD (1/2" DIA. X 2-1/4")
	1	#8 X 1" OPHWS
	1	#8 LEAD ANCHOR

**IVES**

FS444 & FS448 FLOOR STOP  
INSTALLATION INSTRUCTIONS

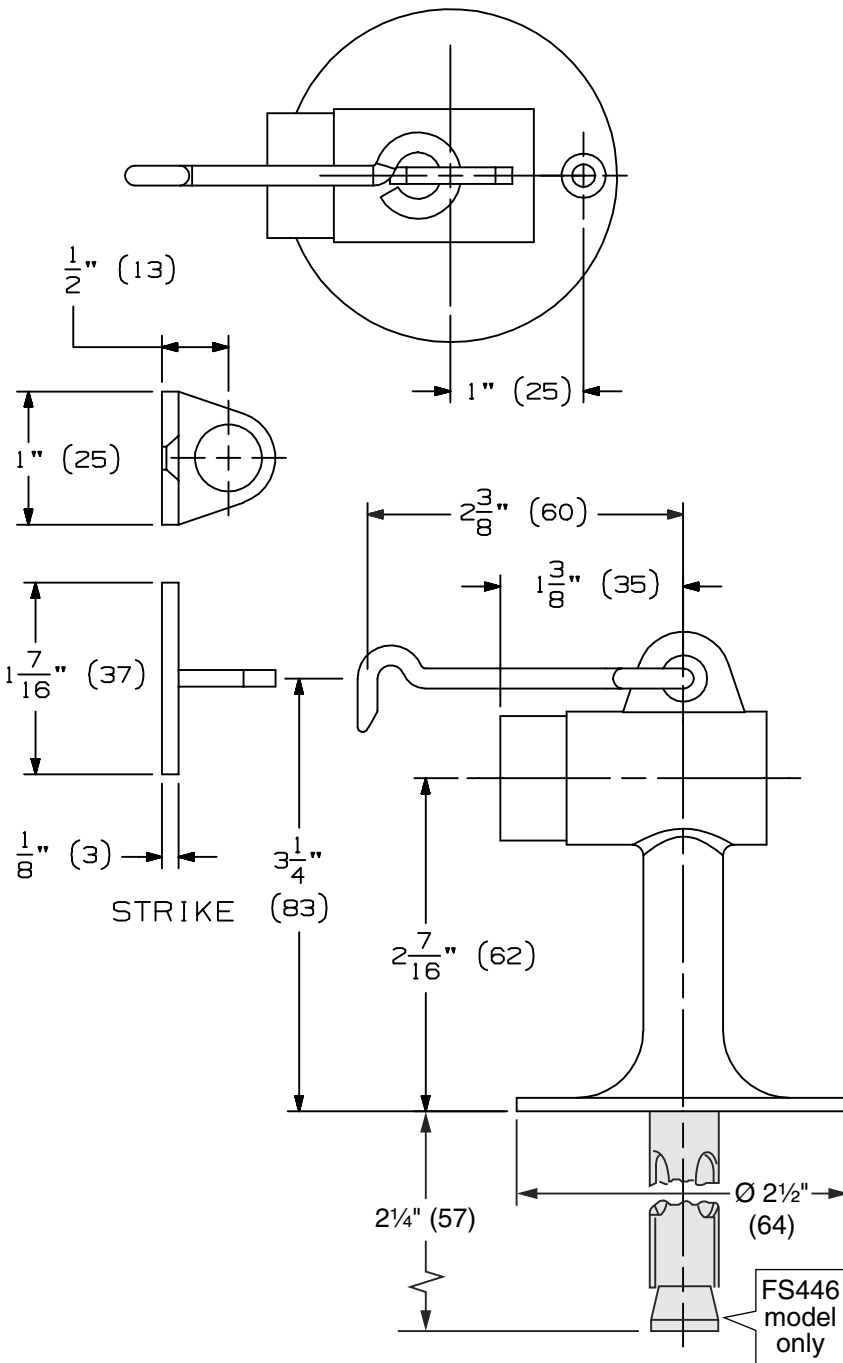
**ALLEGION**

NOTE: DIMENSIONS IN ( ) ARE IN MILLIMETERS

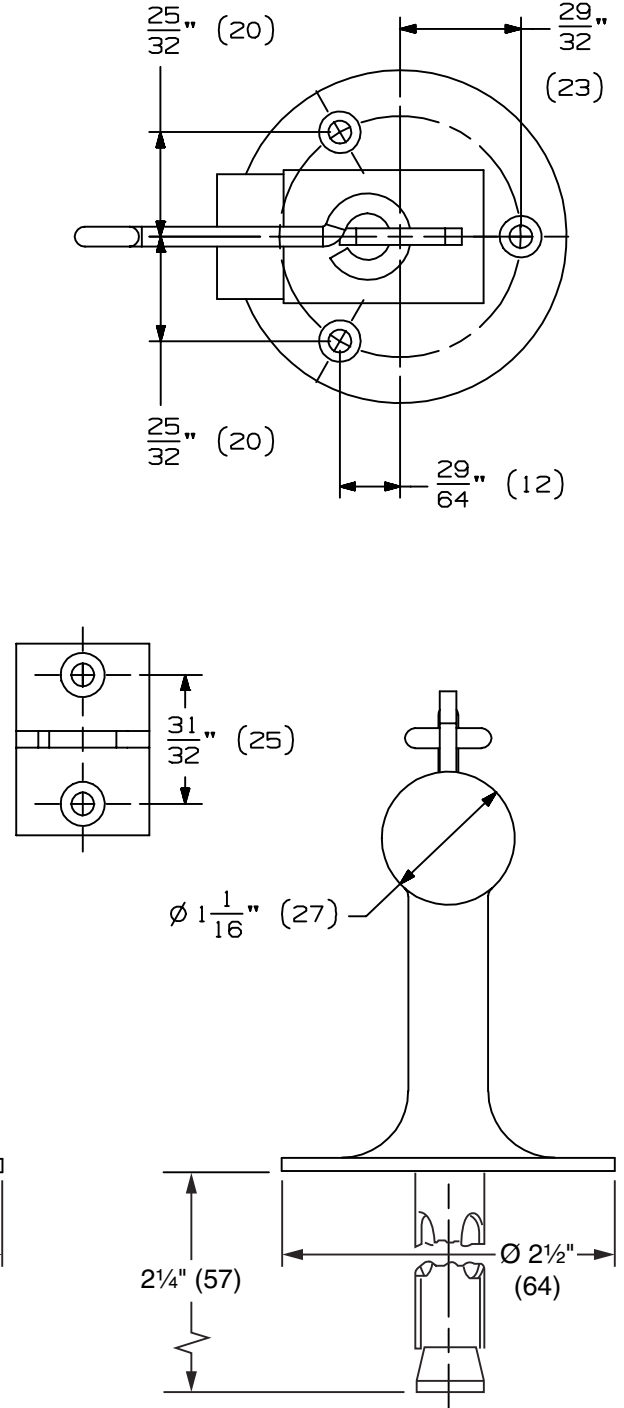
TEMPLATE  
NUMBER: INST.FS444-448\_b

Date:  
07-29-14

### FS446



### FS450



#### INSTRUCTIONS:

1. OPEN DOOR TO DESIRED POSITION.
2. PLACE STRIKE AND HOLDER AS ILLUSTRATED.
3. LOCATE MOUNTING HOLES.
4. PREPARE MOUNTING HOLES AS NECESSARY.
5. INSTALL BODY AND STRIKE.

#### NOTES:

1. METAL DOORS SHOULD BE PROPERLY REINFORCED WITH  $\frac{3}{16}$ " (5) MINIMUM THICKNESS PLATE.

	QTY	SCREW DETAILS
FS446 BODY	1	$\frac{3}{8}$ -12 THREADED STUD
	1	LEAD EXPANSION SHIELD
	1	#8 X 1" OPHWS
	1	#8 PLASTIC ANCHOR
FS450 BODY	3	#12 X $1\frac{1}{4}$ " OPHWS
STRIKE	2	#8 X 1" OPHSMS

**IVES**

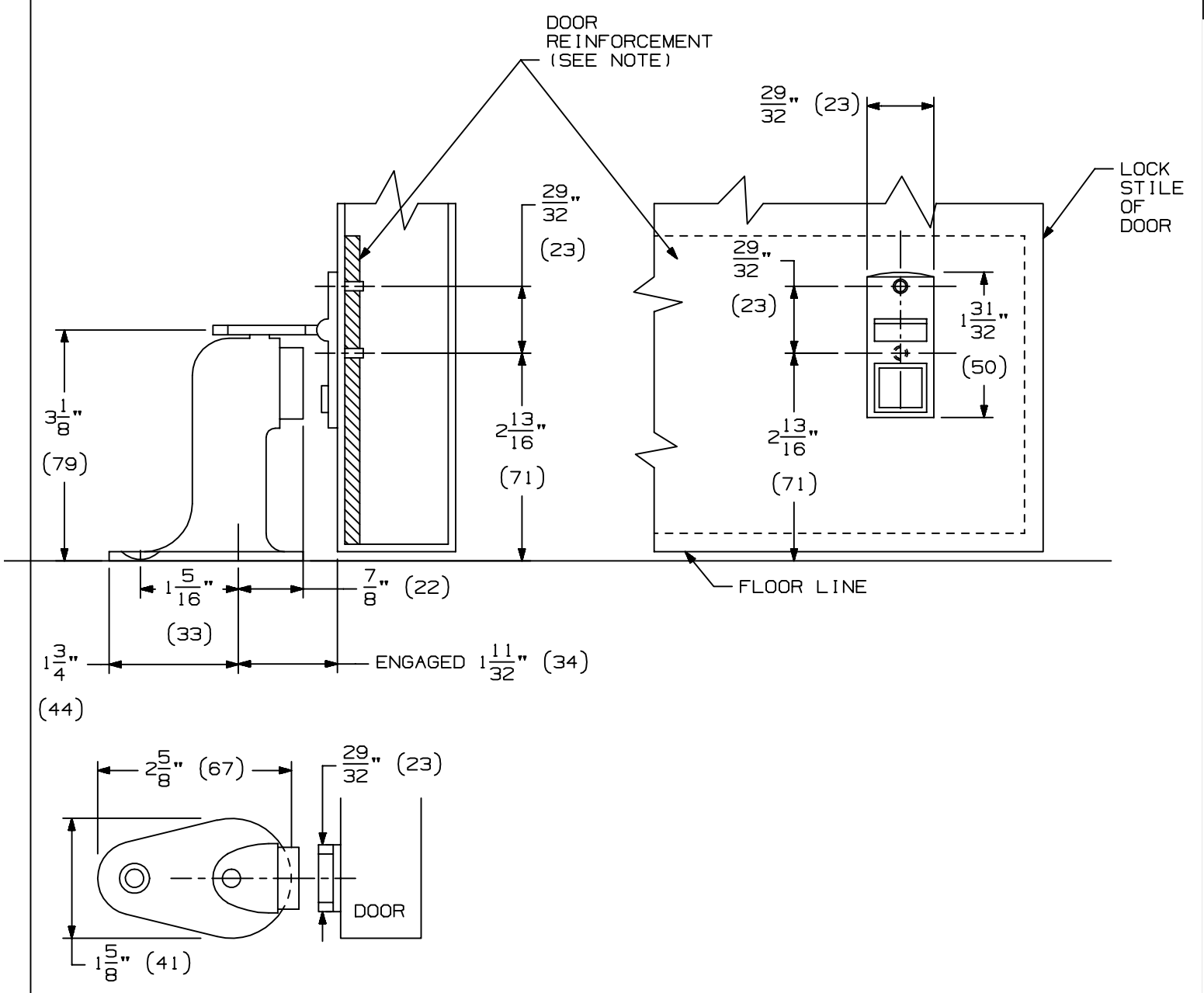
## FS446 & FS450 MANUAL FLOOR HOLDER INSTALLATION INSTRUCTIONS



NOTE: DIMENSIONS IN ( ) ARE MILLIMETERS.

TEMPLATE NUMBER: INST.FS446-450\_b

DATE:  
10-9-14



**INSTRUCTIONS:**

1. OPEN DOOR TO DESIRED POSITION.
2. PLACE STRIKE AND HOLDER AS ILLUSTRATED.
3. LOCATE THE MOUNTING HOLES.
4. PREPARE MOUNTING HOLES AS NECESSARY.
5. INSTALL BODY AND STRIKE.

**NOTES:**

1. DOORS SHOULD BE PROPERLY REINFORCED WITH  $\frac{3}{16}$ " (5) MINIMUM THICKNESS PLATE.

	QTY	SCREW DETAILS
STRIKE	2	#8 X 1" FPHSMS
FS451-MS BODY	1	$\frac{5}{16}$ -18 X 2" THREADED STUD
	1	LEAD SHIELD
	1	$\frac{1}{4}$ -20 X 1" FPHMS
FS451-WS BODY	1	$\frac{1}{4}$ -20 TAMPIN
	1	$\frac{5}{16}$ -18 HANGER BOLT
	1	#14 X 1 1/4" OPHWS



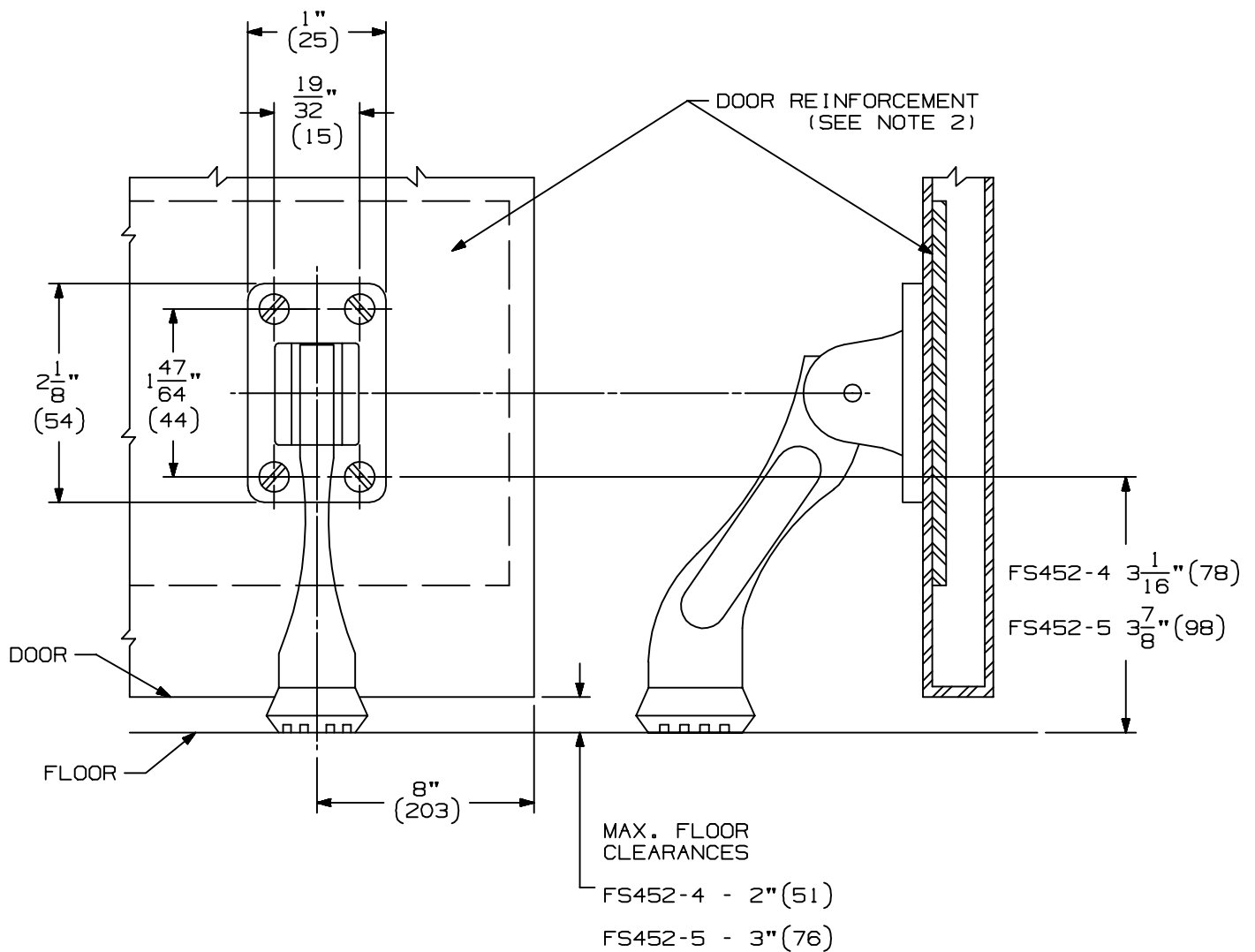
FS451 MANUAL FLOOR HOLDER  
INSTALLATION TEMPLATE



NOTE: DIMENSIONS IN ( ) ARE MILLIMETERS.

TEMPLATE NUMBER: INST.FS451\_0

DATE: 09/01/01



#### INSTRUCTIONS:

1. PLACE DOOR IN POSITION AT POINT WHERE IT IS TO BE HELD OPEN TO OVERCOME DIFFICULTY OF UNEVEN FLOORS.
2. PLACE HOLDER IN POSITION AS SHOWN WITH RUBBER SHOE OF HOLDER RESTING FLAT ON THE FLOOR APPROXIMATELY 8" (203) FROM EDGE OF DOOR (SEE NOTE 1).
3. WITH HOLDER IN THE PROPER POSITION, MARK SCREW LOCATIONS. DRILL FOR APPROPRIATE SCREWS AND INSTALL SCREWS.

#### NOTES:

1. IF DOOR PIVOTS ARE WORN OR HAVE EXCESS PLAY, INSTALL HOLDER SO THAT THE RUBBER SHOE RESTS SLIGHTLY ON HEEL.
2. DOORS SHOULD BE PROPERLY REINFORCED WITH  $\frac{3}{16}$ " (5) MINIMUM THICKNESS PLATE.

IVES

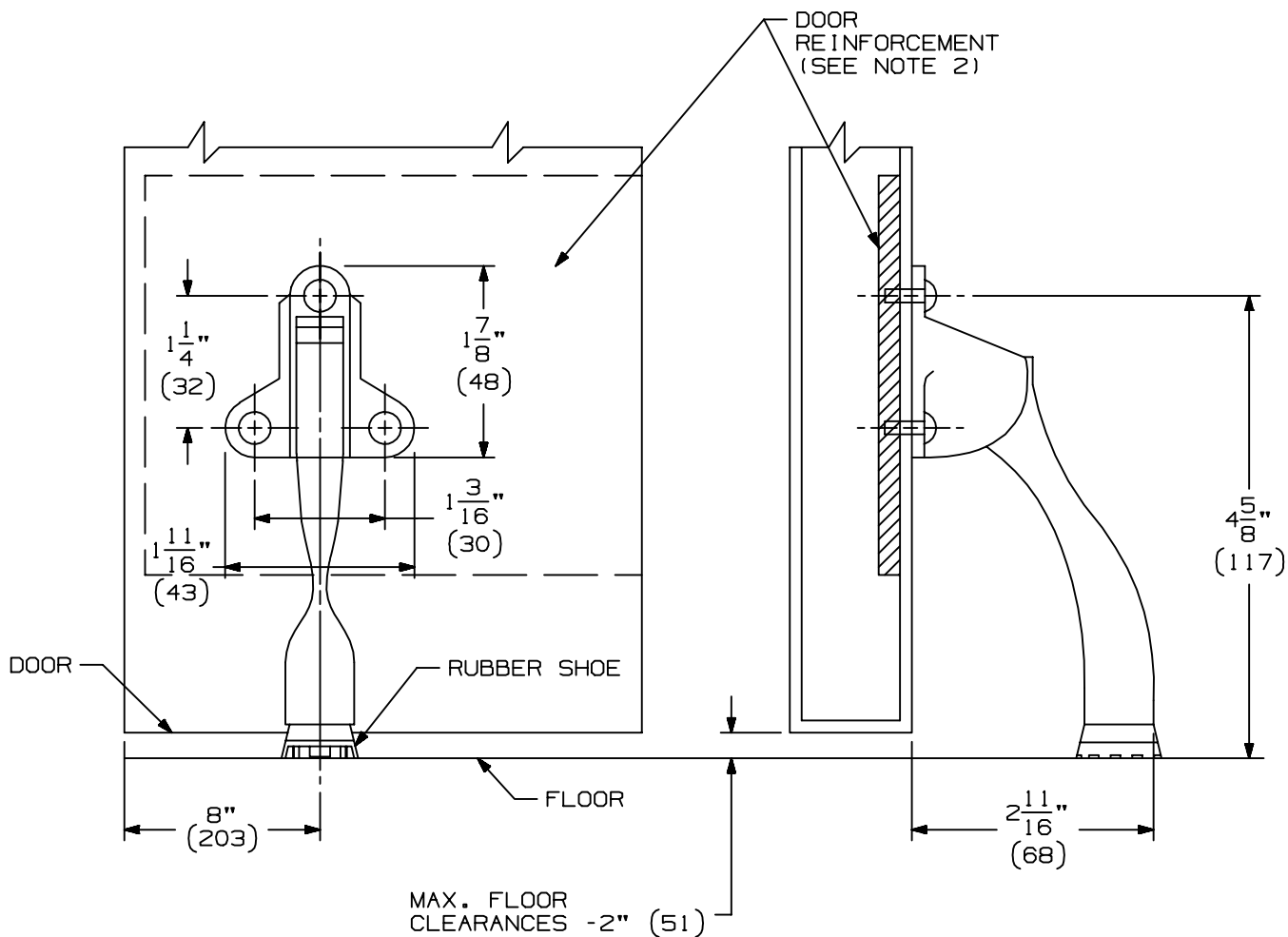
### FS452 KICK DOWN HOLDER INSTALLATION TEMPLATE

**IR Security & Safety®**

NOTE: DIMENSIONS IN ( ) ARE MILLIMETERS.

TEMPLATE  
NUMBER: INST.FS452\_0

DATE:  
09/01/01



**INSTRUCTIONS:**

1. PLACE DOOR IN POSITION AT POINT WHERE IT IS TO BE HELD OPEN TO OVERCOME DIFFICULTY OF UNEVEN FLOORS.
2. PLACE HOLDER IN POSITION AS SHOWN WITH RUBBER SHOE OF HOLDER RESTING FLAT ON THE FLOOR APPROXIMATELY 8" (203) FROM EDGE OF DOOR (SEE NOTE 1).
3. WITH HOLDER IN THE PROPER POSITION, MARK SCREW LOCATIONS. DRILL FOR APPROPRIATE SCREWS AND INSTALL SCREWS.

**NOTES:**

1. IF DOOR PIVOTS ARE WORN OR HAVE EXCESS PLAY, INSTALL HOLDER SO THAT THE RUBBER SHOE RESTS SLIGHTLY ON HEEL.
2. DOORS SHOULD BE PROPERLY REINFORCED WITH 3/16" (5) MINIMUM THICKNESS PLATE.

QTY.	SCREW DETAILS
3	#8 X 1" OPHSMS

**IVES**

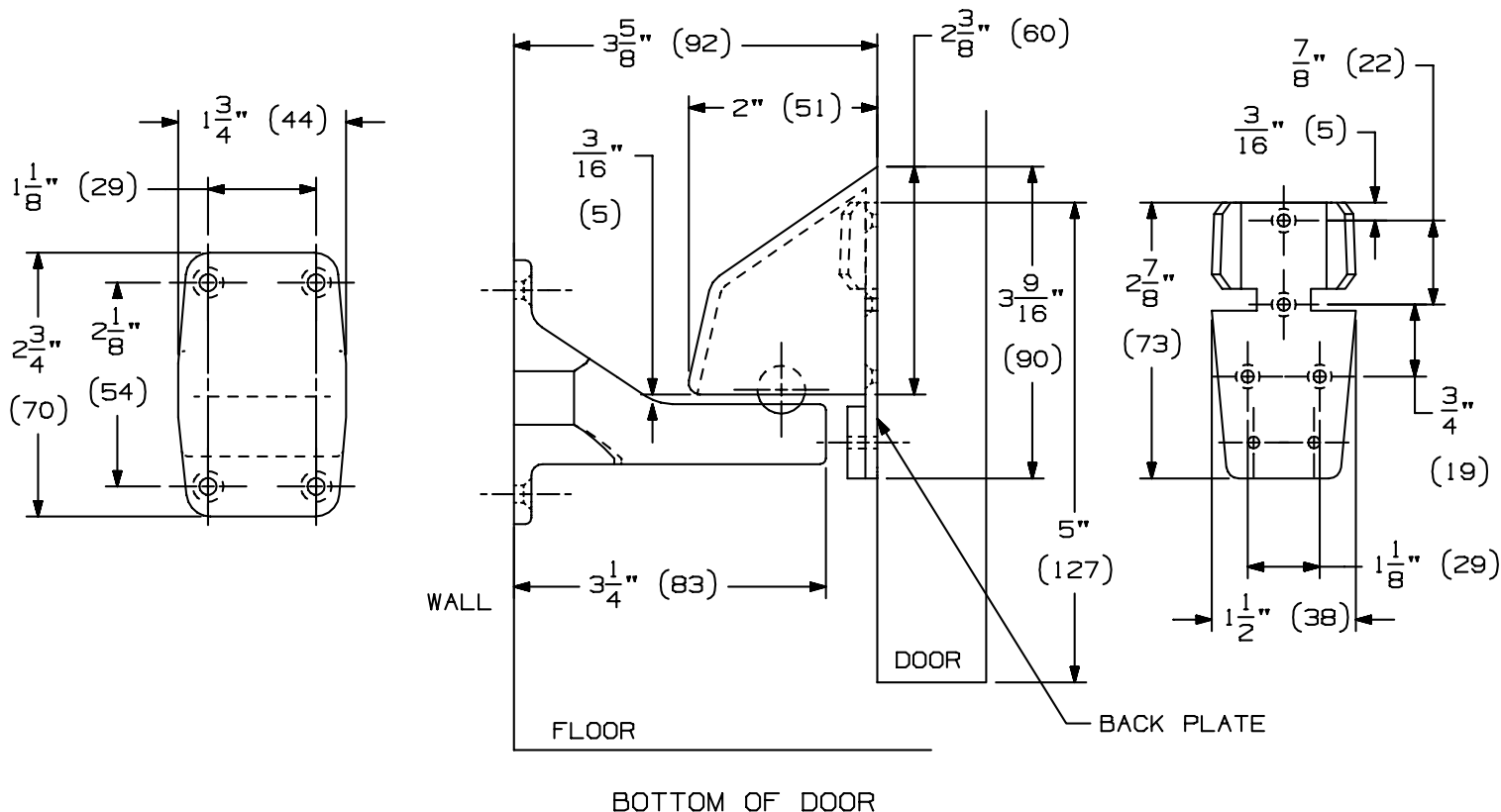
**FS455 KICK DOWN HOLDER  
INSTALLATION TEMPLATE**

**IR Security & Safety®**

NOTE: DIMENSIONS IN ( ) ARE MILLIMETERS.

TEMPLATE NUMBER: INST.FS455\_0

DATE: 09/01/01



BOTTOM OF DOOR

INSTALLATION INSTRUCTIONS

BOTTOM OF DOOR

(SEE SHEET 2 FOR OTHER MOUNTING METHODS)

1. MOUNT BACK PLATE WITH CENTERLINE 3 1/2" (89) FROM LATCH EDGE OF DOOR AND TOP OF PLATE 5" (127) FROM BOTTOM OF DOOR, AS INDICATED IN ILLUSTRATION. LOCATE SCREW HOLES BY USING BACK PLATE AS TEMPLATE.
2. PLACE STOP ASSEMBLY ON BACK PLATE AND PUSH IT DOWN ON TAPERED LEGS, WITH LOCKING SET SCREW FULLY RETRACTED. THEN RAISE STOP ASSEMBLY APPROX. 1/4" (6), TO PROVIDE ADJUSTMENT, AND LOCK IN POSITION WITH LOCKING SET SCREW.
3. HOLD STRIKE UNDER STOP ASSEMBLY WITH ROLLER FULLY ENGAGED IN SLOT. MOVE DOOR SO AS TO CONTACT WALL WITH STRIKE. LOCATE STRIKE SCREW HOLES, USING STRIKE AS TEMPLATE.
4. MOUNT STRIKE.
5. ADJUST STOP ASSEMBLY ON BACK PLATE TO 3/16" CLEARANCE BETWEEN HOUSING AND STRIKE AS SHOWN IN ILLUSTRATION, USING A 3/16" DRILL AS A SPACER. SECURE WITH LOCKING SET SCREW.
6. HOLDING POWER IS ADJUSTED BY TURNING ADJUSTING SCREW COUNTERCLOCKWISE TO INCREASE TENSION AND CLOCKWISE TO DECREASE TENSION. FURTHER ADJUSTMENT CAN BE MADE BY MOVING STOP ASSEMBLY UP OR DOWN ON BACK PLATE.

NOTES:

1. METAL DOORS SHOULD BE PROPERLY REINFORCED WITH 3/16" (5) MINIMUM THICKNESS PLATE.
2. USE SEX BOLTS ON METAL DOORS THAT ARE NOT REINFORCED.
3. RECOMMENDED MOUNTING IS STOP ON DOOR AND STRIKE ON WALL.
4. REMOVE AND DISCARD SAFETY SET SCREW EXCEPT FOR INVERTED, TOP OF DOOR APPLICATIONS.

	QTY	SCREW DETAILS
STRIKE	4	#12 X 1 1/4" OPHSMS
	4	#12 LEAD SHIELD
BACK PLATE WOOD DOORS	4	#18 X 1" FPHSMS
	4	8-32 X 1/2" FPHMS
BACK PLATE METAL DOORS	4	SEX BOLT
	4	#8 X 1/2" FPHMS



FS495 AUTOMATIC WALL HOLDER  
INSTALLATION TEMPLATE

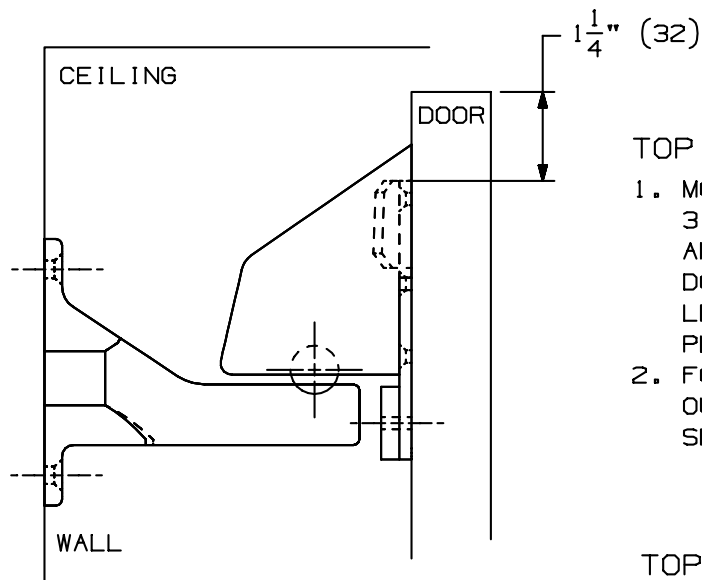


NOTE: DIMENSIONS IN ( ) ARE MILLIMETERS.

TEMPLATE INST.FS495\_0.PG1  
NUMBER:

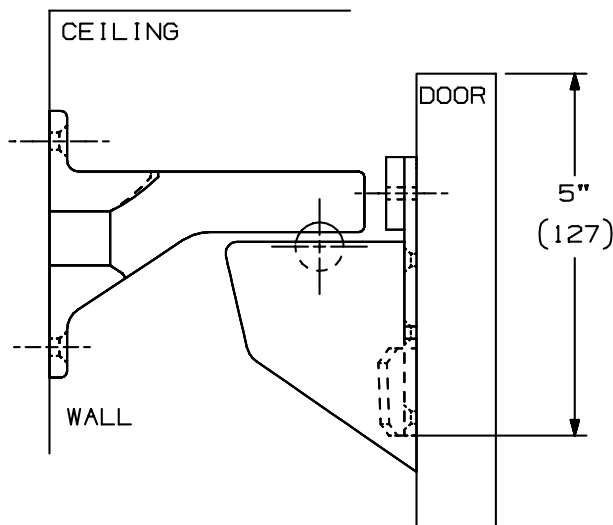
DATE:  
09-01-01





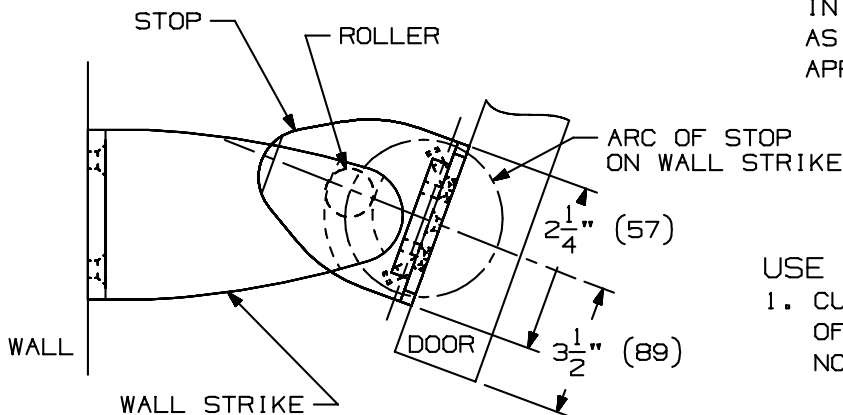
#### TOP OF DOOR

1. MOUNT BACK PLATE WITH CENTERLINE 3 1/2" (89) FROM LATCH EDGE OF DOOR AND TOP PLATE 1 1/4" (32) FROM TOP OF DOOR, AS INDICATED IN ILLUSTRATION AT LEFT. LOCATE SCREW HOLES BY USING BACK PLATE AS TEMPLATE.
2. FOLLOW INSTRUCTIONS 2 THROUGH 6 AS OUTLINED FOR BOTTOM OF DOOR APPLICATION. SEE SHEET 1.



#### TOP OF DOOR INVERTED

1. MOUNT BACKPLATE (INVERTED, WITH RUBBER BUMPER AT TOP) WITH CENTERLINE 3 1/2" (89) FROM LATCH EDGE OF DOOR AND TOP OF PLATE (INVERTED, SEE ILLUSTRATION) 5" (127) FROM TOP OF DOOR. LOCATE SCREW HOLES BY USING BACKPLATE AS TEMPLATE.
2. PLACE STOP PLATE ASSEMBLY ON BACK PLATE AND PUSH IT UP ON TAPERED LEGS WITH LOCKING SET SCREWS FULLY RETRACTED. THEN LOWER THE STOP ASSEMBLY APPROX. 1/4" (6), TO PROVIDE ADJUSTMENT, AND LOCK INTO POSITION WITH LOCKING SET SCREW. SECURE SAFETY SET SCREW BY TURNING UNTIL HEAD IS FLUSH WITH HOUSING. SCREW THEN EXTENDS BEYOND DOVETAIL OF BACKPLATE AND PREVENTS STOP ASSEMBLY FROM FALLING WHEN FINAL ADJUSTMENT IS BEING MADE.
3. HOLD STRIKE IN INVERTED POSITION OVER STOP ASSEMBLY WITH ROLLER FULLY ENGAGED IN SLOT. FOLLOW INSTRUCTIONS 3,4,5 & 6 AS OUTLINED FOR BOTTOM OF DOOR APPLICATION.



#### USE OF ARCUATE SLOT

1. CURVED SLOT IN STRIKE PERMITS USE OF WALL STRIKE WHEN DOOR AND WALL ARE NOT PARALLEL.

**IVES**

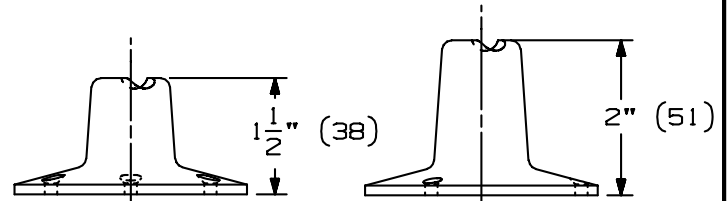
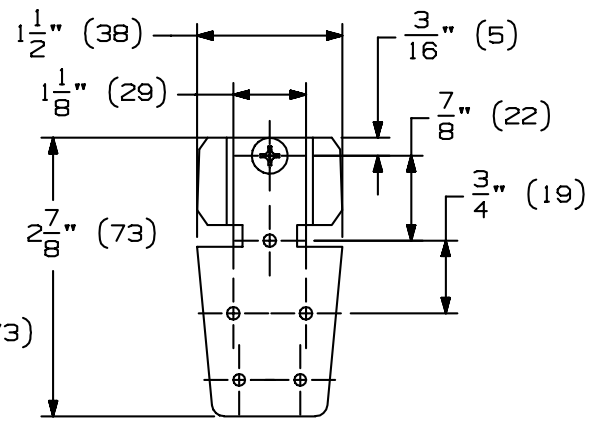
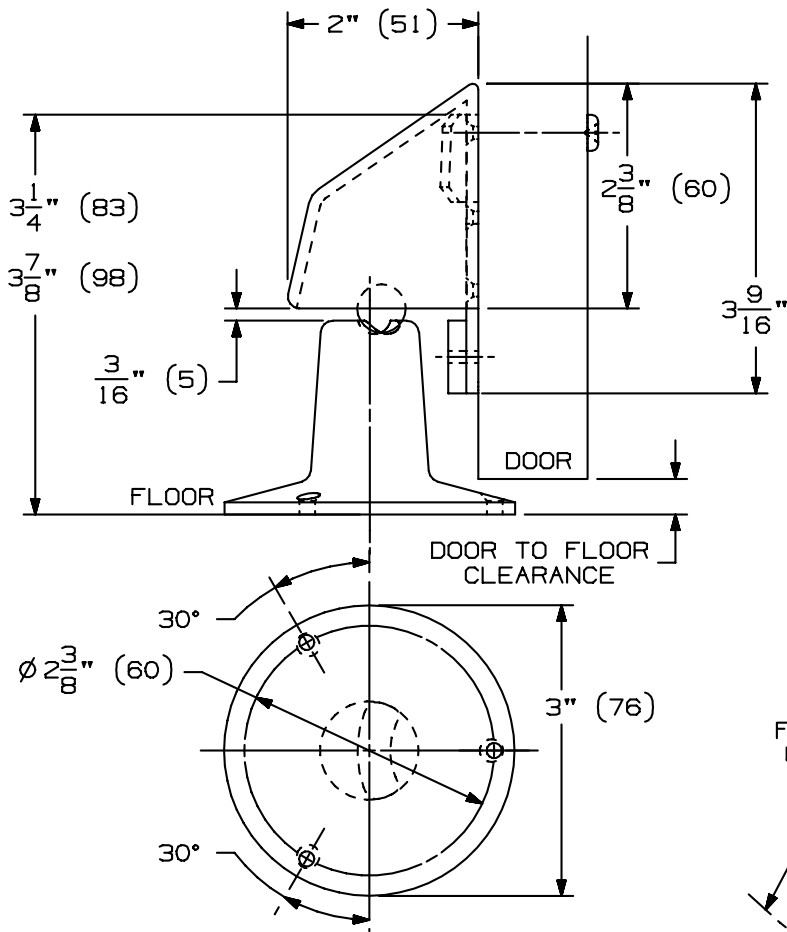
FS495 AUTOMATIC WALL HOLDER  
INSTALLATION TEMPLATE

**IR Security & Safety®**

NOTE: DIMENSIONS IN ( ) ARE MILLIMETERS.

TEMPLATE INST. FS495\_0.PG2  
NUMBER:

DATE:  
09-01-01

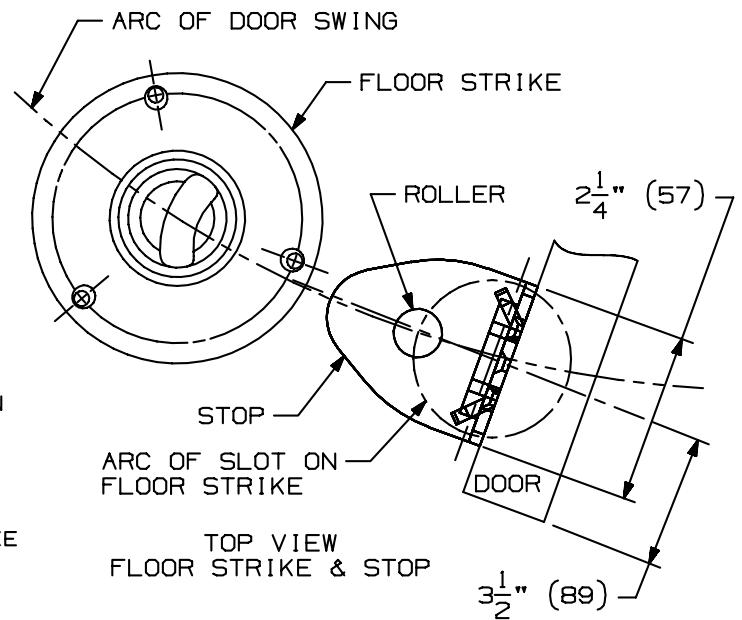


FS496  
FOR DOOR TO  
FLOOR CLEARANCES  
UP TO 3/8" (10)

FS497  
FOR DOOR TO  
FLOOR CLEARANCES  
UP TO 1" (25)

### INSTALLATION INSTRUCTIONS FLOOR STRIKE APPLICATIONS

1. MOUNT BACKPLATE WITH CENTERLINE 3/4" (89) FROM LATCH EDGE OF DOOR. USE CHART TO DETERMINE DISTANCE FROM FLOOR TO TOP OF BACKPLATE, DEPENDING ON HEIGHT OF DOOR STRIKE YOU ARE USING.
2. PLACE STOP ASSEMBLY ON BACKPLATE AND PUSH IT DOWN ON TAPERED LEGS, WITH LOCKING SET SCREW FULLY RETRACTED. THEN RAISE STOP ASSEMBLY APPROX. 1/4" (6), TO PROVIDE ADJUSTMENT, AND LOCK INTO POSITION WITH LOCKING SET SCREW.
3. LOCATE DOOR IN HOLD OPEN POSITION AND PLACE STRIKE UNDER STOP ASSEMBLY WITH ROLLER FULLY ENGAGED IN SLOT. POSITION STRIKE IN REFERENCE TO DOOR AS SHOWN IN DIAGRAM. USE STRIKE AS TEMPLATE TO LOCATE SCREW HOLES.
4. MOUNT STRIKE.
5. ADJUST STOP ASSEMBLY N BACKPLATE TO 3/4" (5) CLEARANCE BETWEEN HOUSING AND STRIKE AS SHOWN IN ILLUSTRATION ABOVE. USE 3/16" DRILL AS SPACER. SECURE WITH LOCKING SET SCREW.
6. HOLDING POWER IS ADJUSTED BY TURNING ADJUSTNG SCREW COUNTERCLOCKWISE TO INCREASE TENSION AND CLOCKWISE TO DECREASE TENSION. FURTHER ADJUSTMENT CAN BE MADE BY MOVING STOP ASSEMBLY UP OR DOWN ON BACKPLATE.



TOP VIEW  
FLOOR STRIKE & STOP

	QTY	SCREW DETAILS
STRIKE	3	#12 X 1 1/4" OPHSMS
	3	#12 LEAD SHIELD
BACK PLATE WOOD DOORS	4	#8 X 1" FPHSMS
BACK PLATE METAL DOORS	4	8-32 X 1/2" FPHMS
BACK PLATE SEX BOLTS	4	SEX BOLT
	4	8-32 X 1/2" FPHMS

**IVES**

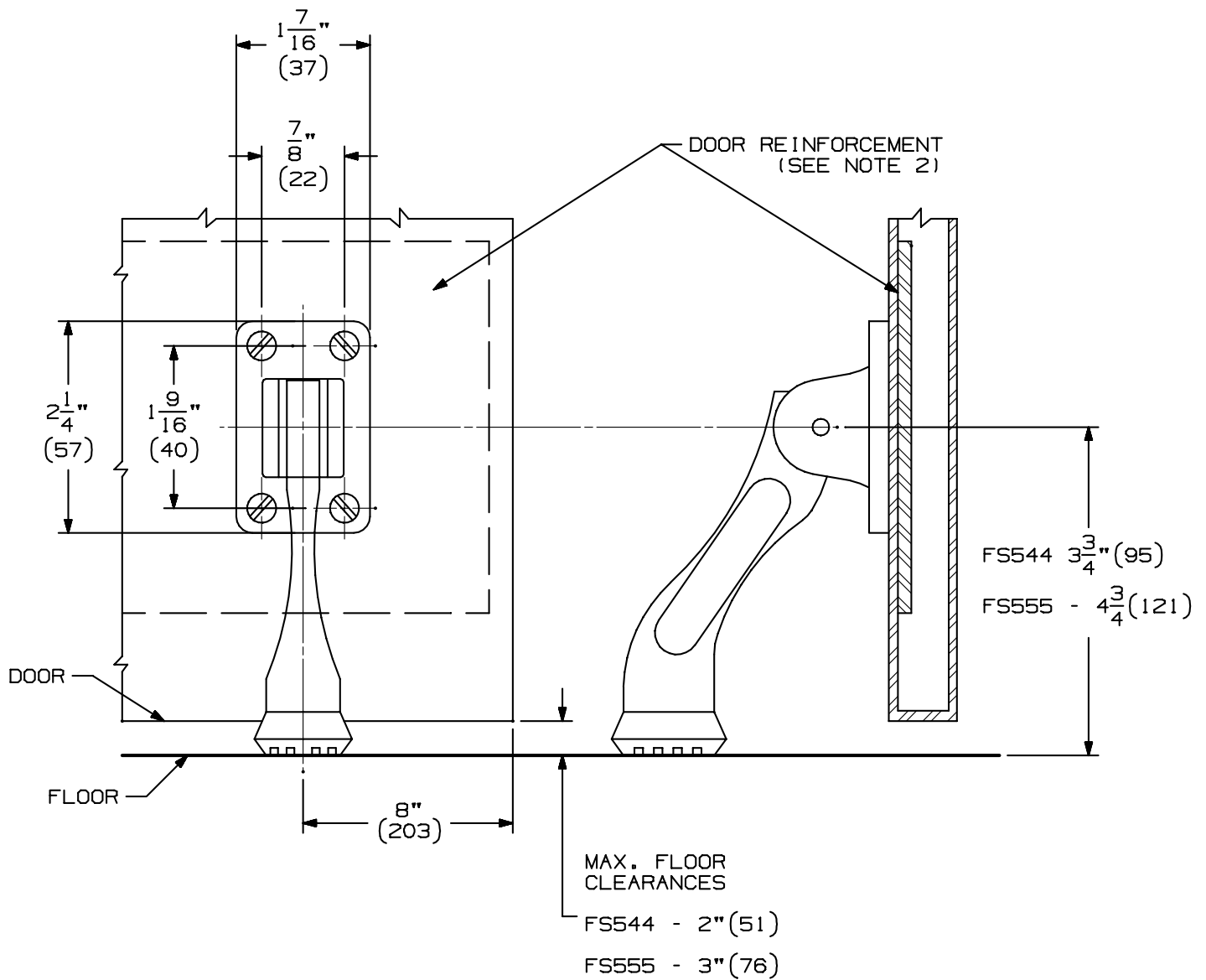
FS496 & FS497 AUTOMATIC FLOOR  
HOLDER INSTALLATION TEMPLATE

**IR Security & Safety®**

NOTE: DIMENSIONS IN ( ) ARE MILLIMETERS.

TEMPLATE INST. FS496-497\_0  
NUMBER:

DATE:  
09-01-01



**INSTRUCTIONS:**

1. PLACE DOOR IN POSITION AT POINT WHERE IT IS TO BE HELD OPEN TO OVERCOME DIFFICULTY OF UNEVEN FLOORS.
2. PLACE HOLDER IN POSITION AS SHOWN WITH RUBBER SHOE OF HOLDER RESTING FLAT ON THE FLOOR APPROXIMATELY 8" (203) FROM EDGE OF DOOR (SEE NOTE 1).
3. WITH HOLDER IN THE PROPER POSITION, MARK SCREW LOCATIONS. DRILL FOR APPROPRIATE SCREWS AND INSTALL SCREWS.

**NOTES:**

1. IF DOOR PIVOTS ARE WORN OR HAVE EXCESS PLAY, INSTALL HOLDER SO THAT THE RUBBER SHOE RESTS SLIGHTLY ON HEEL.
2. DOORS SHOULD BE PROPERLY REINFORCED WITH 3/16" (5) MINIMUM THICKNESS PLATE.

QTY.	SCREW DETAILS
4	#8 X 3/4" FPHSMS

**IVES**

**FS544 & FS555 KICK DOWN HOLDER  
INSTALLATION TEMPLATE**

**IR Security & Safety®**

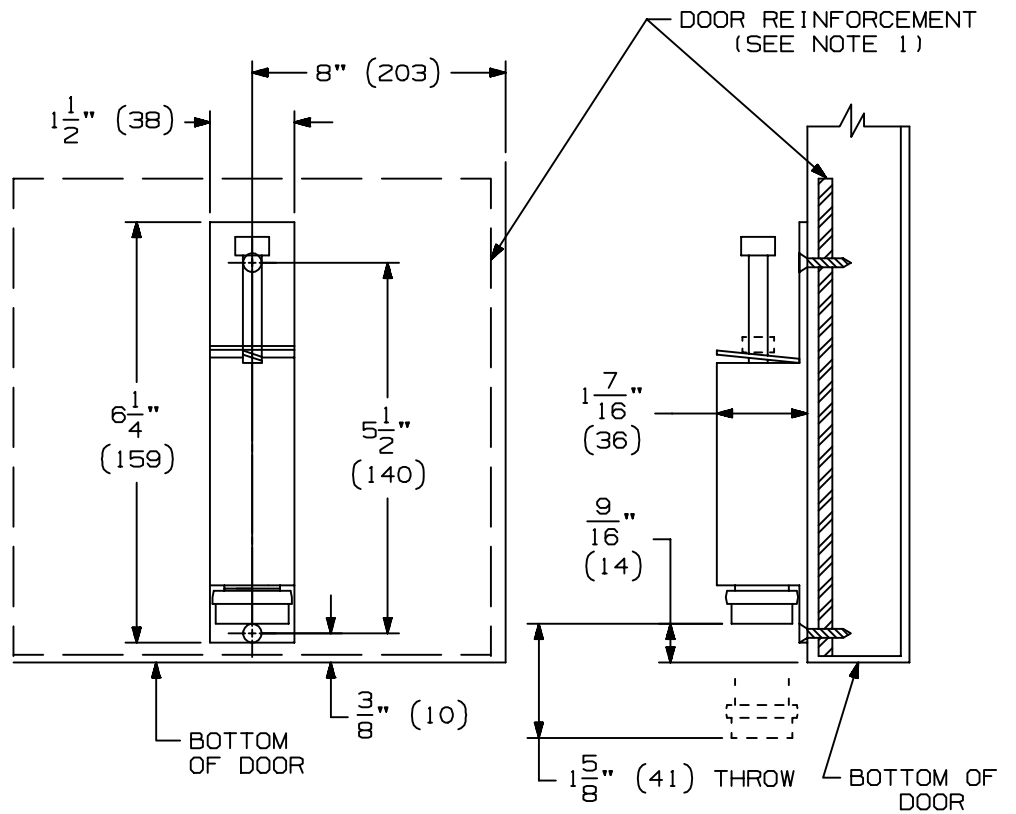
NOTE: DIMENSIONS IN ( ) ARE MILLIMETERS.

TEMPLATE NUMBER: INST.FS544-555\_0

DATE: 09/01/01

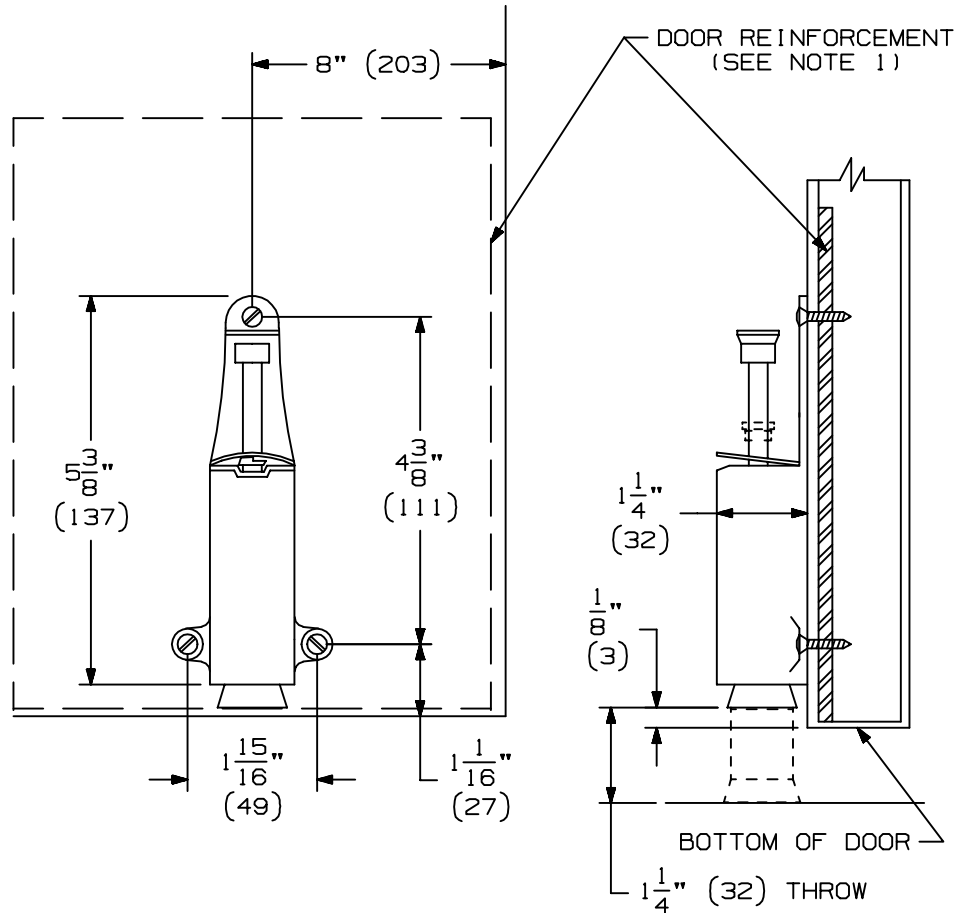
FS1153

QTY.	SCREW DETAILS
2	#8 X 1" FPHSMS



FS1154

QTY.	SCREW DETAILS
3	#10 X 3/4" OPHSMS



**INSTRUCTIONS:**

1. PLACE HOLDER IN POSITION AS SHOWN APPROXIMATELY 8" (203) FROM EDGE OF DOOR.
2. MARK SCREW LOCATIONS. DRILL FOR APPROPRIATE SCREWS AND INSTALL.

**NOTES:**

1. DOOR SHOULD BE PROPERLY REINFORCED WITH 3/16" (5) MINIMUM THICKNESS PLATE.



FS1153 & FS1154  
PLUNGER DOOR HOLDERS  
INSTALLATION TEMPLATE



NOTE: DIMENSIONS IN ( ) ARE MILLIMETERS.

TEMPLATE NUMBER: INST.FS1153-1154\_0

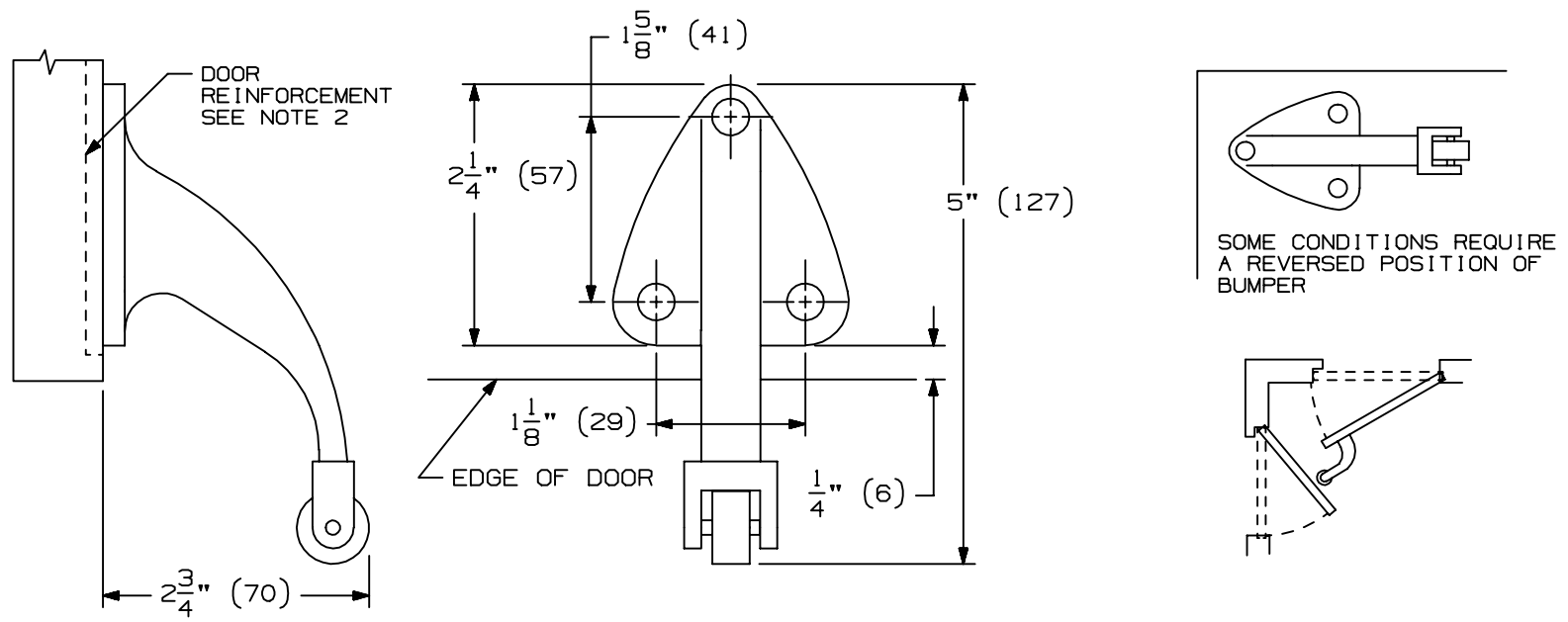
DATE: 09/01/01

NOTES: DIMENSIONS IN ( ) ARE IN MILLIMETERS.

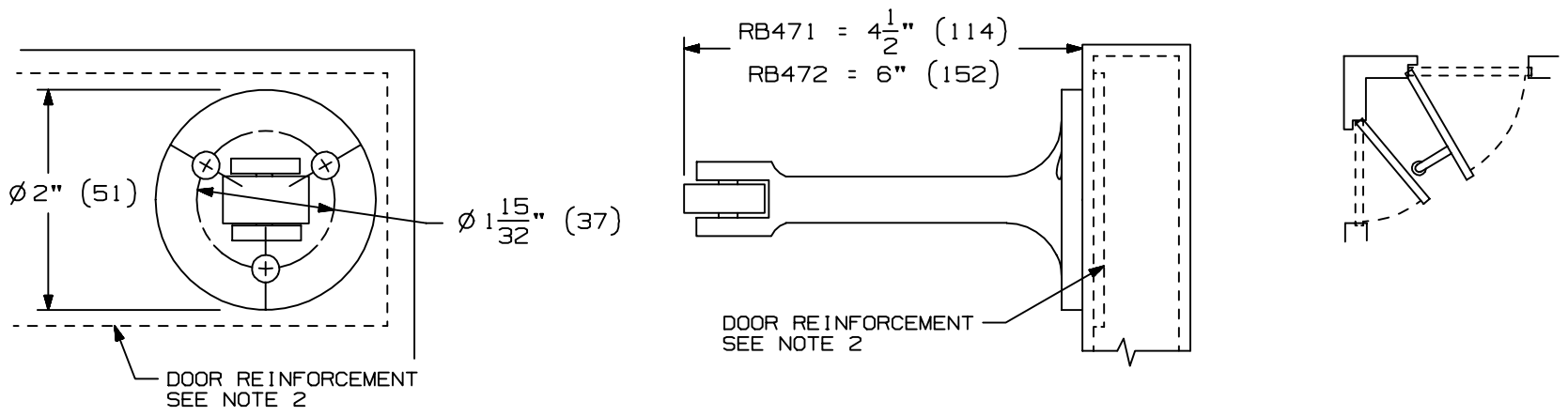
RB470, RB471 & RB472 ROLLER BUMPER INSTALLATION TEMPLATE

IVES

RB470 ROLLER BUMPER



RB471 & RB472 ROLLER BUMPER



- INSTRUCTIONS:**
1. PLACE ROLLER BUMPER AS ILLUSTRATED. THE VERTICAL LOCATION IS UP TO THE INSTALLER.
  2. MARK THE SCREW HOLES. DRILL FOR #8 SCREWS
  3. INSTALL ROLLER BUMPER.

- NOTES:**
1. WHEN TWO BUMPERS ARE REQUIRED, PLACE ONE HIGHER THAN THE OTHER TO PREVENT INTERLOCKING.
  2. DOORS SHOULD BE PROPERLY REINFORCED WITH 3/16" (5) MINIMUM THICKNESS.

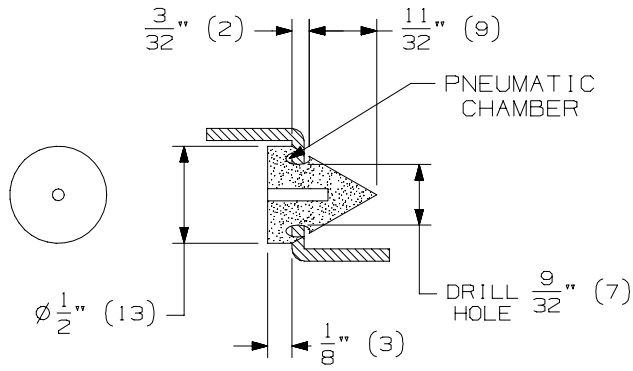
QTY	SCREW DETAIL
3	#8 X 3/4" FPHSMS

**IR** Security & Safety®

TEMPLATE NUMBER: INST. RB\_0

DATE: 08-21-01

# SR64 DOOR SILENCER



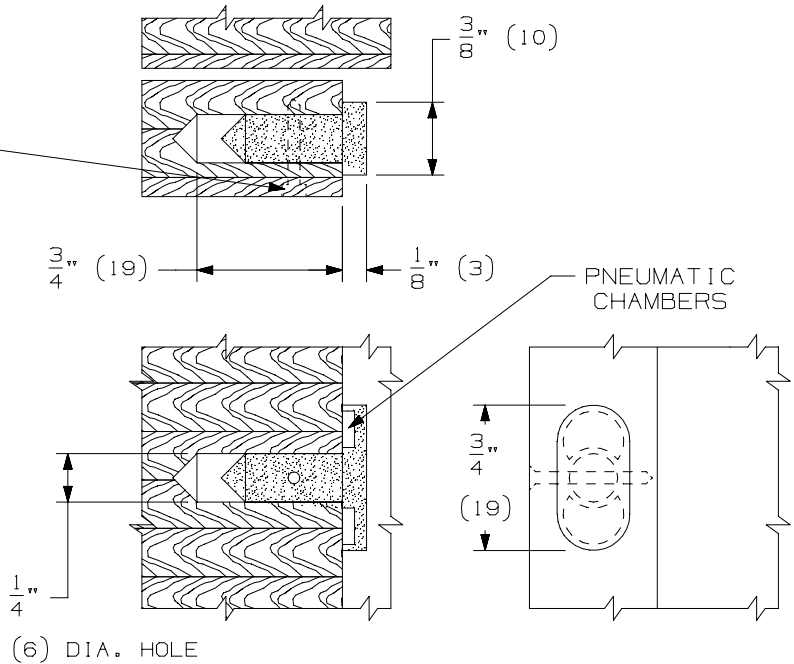
## INSTRUCTIONS:

INSERT BLUNT END OF 3/32" (2)  $\phi$  WIRE OR TOOL FURNISHED, INTO THE HOLE IN CENTER OF SILENCER. MOISTEN CONE PORTION AND INSERT INTO 9/32" (7)  $\phi$  HOLE IN STOP STRIP OF FRAME. PUSH SLOWLY WITH A CIRCULAR MOTION SO AS TO ELONGATE CONICAL PORTION SUFFICIENTLY TO SET SILENCER IN PLACE.

# SR65 DOOR SILENCER

## INSTRUCTIONS:

AFTER DRILLING HOLES IN STOP-STRIP, INSTALL DOOR SILENCERS IN POSITION SHOWN. TO ANCHOR SECURELY, DRIVE SMALL BRAD INTO STOP-STRIP AND THRU STEM OF SILENCERS, TO PREVENT REMOVAL.



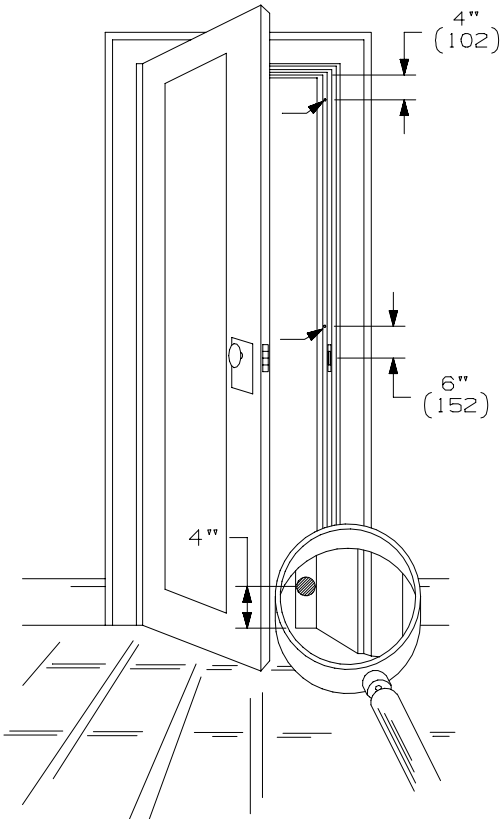
## LOCATION OF SILENCERS:

ON SINGLE DOOR FRAMES, INSTALL THREE SILENCERS IN VERTICAL STOP-STRIP AT LOCATIONS AS SHOWN ON DRAWING OPPOSITE.

ON PAIRS OF DOORS, INSTALL FOUR SILENCERS IN TOP STOP STRIP, TWO FOR EACH DOOR. THE FIRST 3" (76) FROM CENTER AND THE OTHER 2" (51) FROM THE FIRST TOWARDS THE HINGE SIDE.

## NOTES:

1. ALLOW 1/16" (2) CLEARANCE BETWEEN DOOR AND STOP STRIP.
2. ALLOW 1/8" (3) CLEARANCE BETWEEN DOOR AND STOP STRIP WHEN EQUIPPED WITH DOOR CLOSERS.
3. AVOID GETTING PAINT OR VARNISH ON SILENCERS WHEN DOORS ARE BEING FINISHED.



# SR64 & SR65 DOOR SILENCERS INSTALLATION TEMPLATE

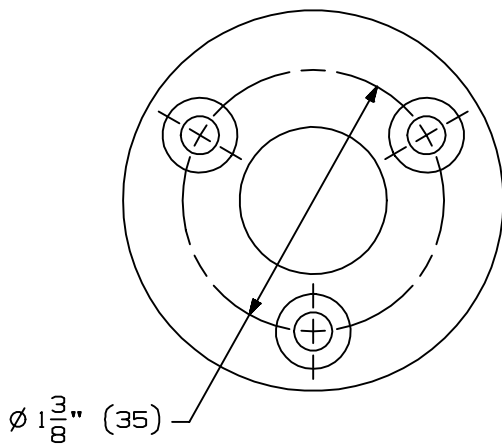
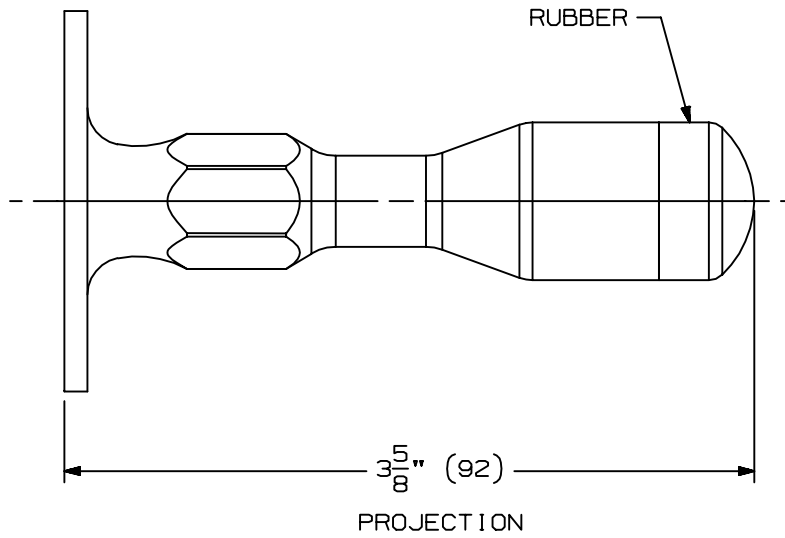


NOTE: DIMENSIONS IN ( ) ARE MILLIMETERS.

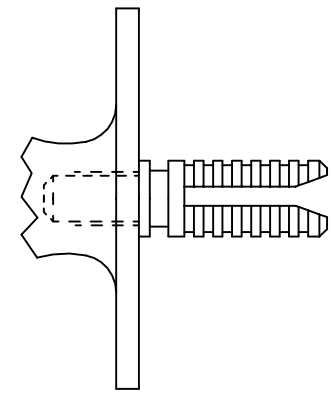
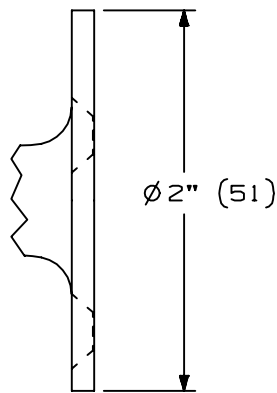
TEMPLATE  
NUMBER:

INST. SR\_0

DATE:  
09-01-01



WB11



WB11X

**INSTRUCTIONS:**

1. PLACE BUMPER IN DESIRED LOCATION AND LOCATE MOUNTING HOLES.
2. PREPARE MOUNTING HOLES.
3. INSTALL BUMPER.

	QTY	SCREW DETAILS
WS11	3	#10 X 1" FPHSMS
	3	PLASTIC EXPANSION SHIELD
WS11X	1	5/16"-18 THREAD SCREW
	1	LEAD EXPANSION SHIELD

**IVES**

**WS11 & WS11X WALL BUMPER  
INSTALLATION INSTRUCTIONS**

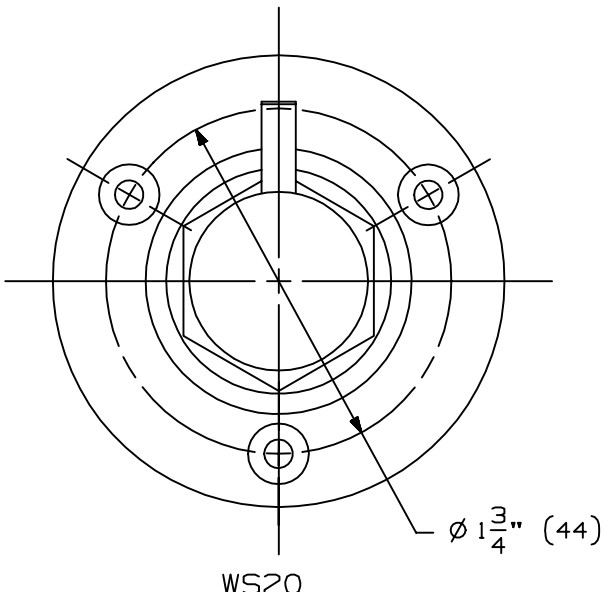
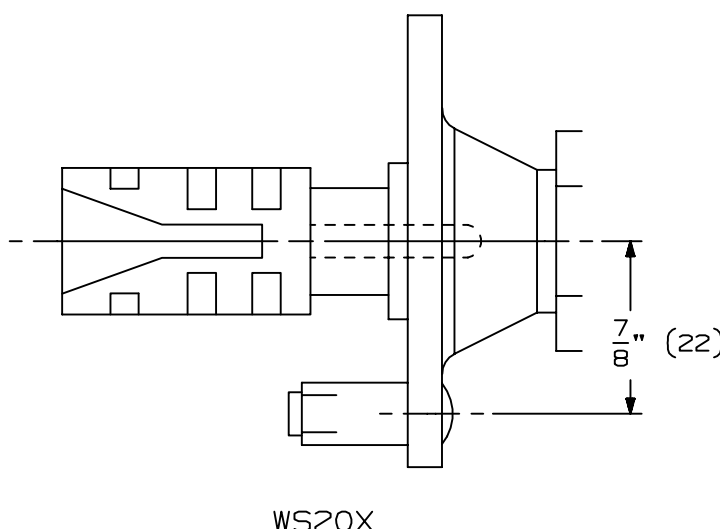
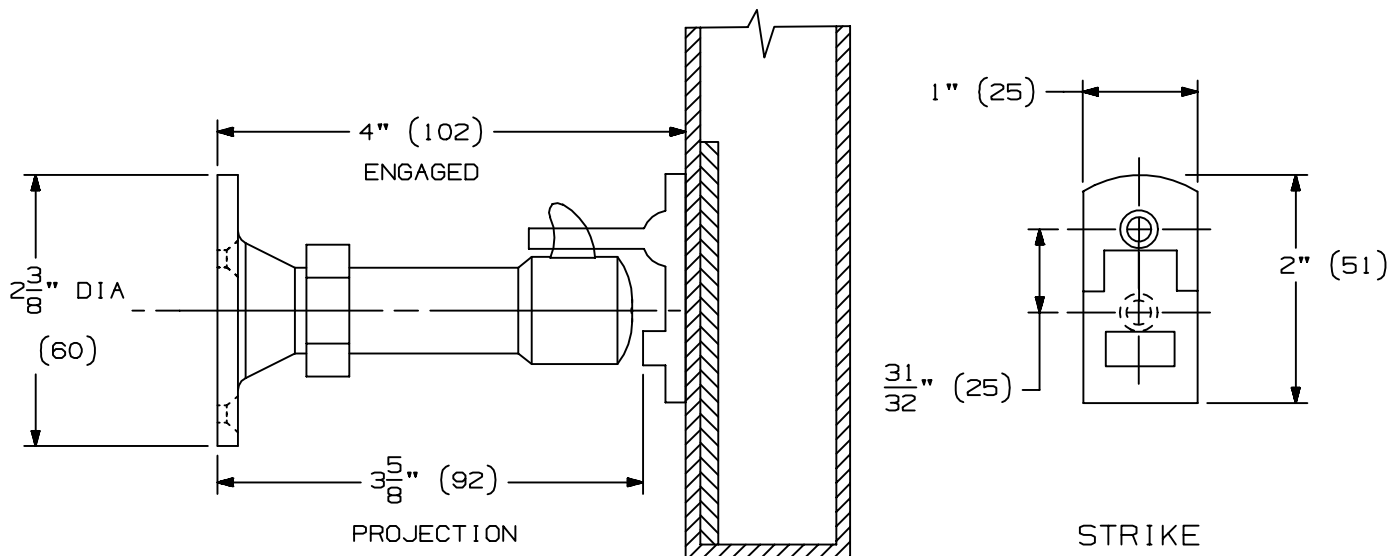
**ALLEGION**

NOTE: DIMENSIONS IN ( ) ARE IN MILLIMETERS

TEMPLATE  
NUMBER:

**INST.WS11\_B**

DATE:  
**05-29-15**



**INSTRUCTIONS:**

1. OPEN DOOR TO DESIRED POSITION.
2. PLACE STRIKE AND HOLDER IN DESIRED LOCATION.
3. LOCATE THE MOUNTING HOLES.
4. PREPARE MOUNTING HOLES AS NECESSARY.
5. INSTALL BODY AND STRIKE.

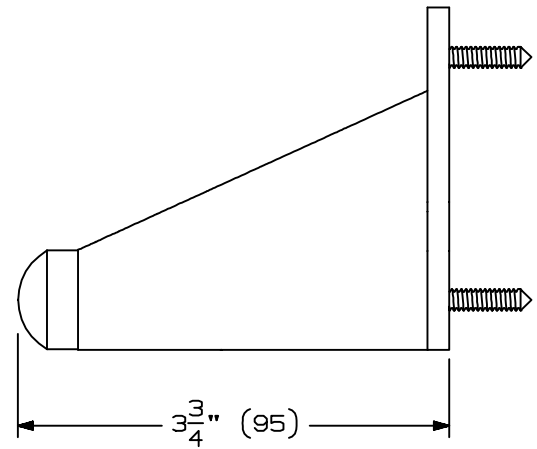
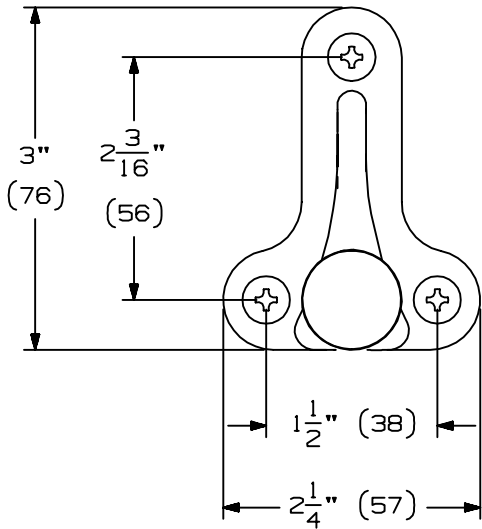
**NOTES:**

1. METAL DOORS SHOULD BE PROPERLY REINFORCED WITH 3/16" (5) MINIMUM THICKNESS PLATE.

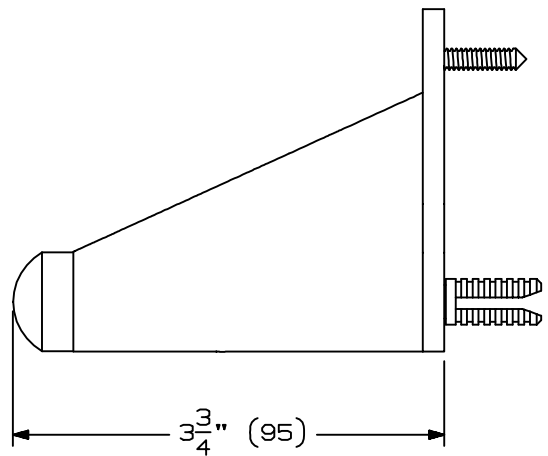
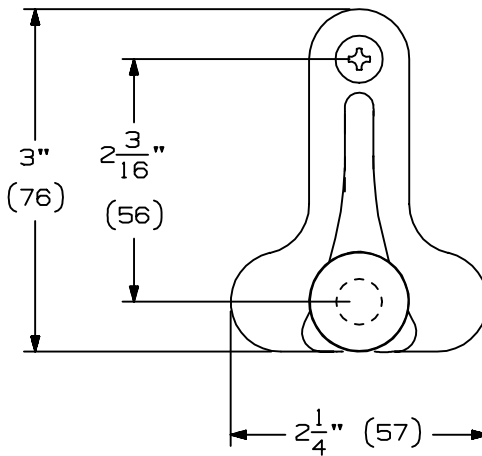
	QTY	SCREW DETAILS
W20 BODY	3	#10 X 1" FPHSMS
	3	PLASTIC EXP SHIELD
W20X BODY	1	5/16"-18 THREADED STUD
	1	LEAD EXP SHIELD
	1	#10 X 1" FPHSMS
	1	PLASTIC EXP SHIELD
STRIKE	2	#10 X 1" FPHSMS



### WS33



### WS33X



**INSTRUCTIONS:**

1. PLACE HOLDER ON WALL AND LOCATE MOUNTING HOLES.
2. PREPARE MOUNTING HOLES.
3. INSTALL HOLDER.

	QTY	SCREW DETAILS
WS33	3	#10 X 1" FPHSMS
	3	PLASTIC EXPANSION SHIELD
WS33X	1	#10 X 1" FPHSMS
	1	PLASTIC EXPANSION SHIELD
	1	5/16" - 18 THREADED STUD
	1	LEAD EXPANSION SHIELD



**WS33 & WS33X WALL BUMPER  
INSTALLATION INSTRUCTIONS**

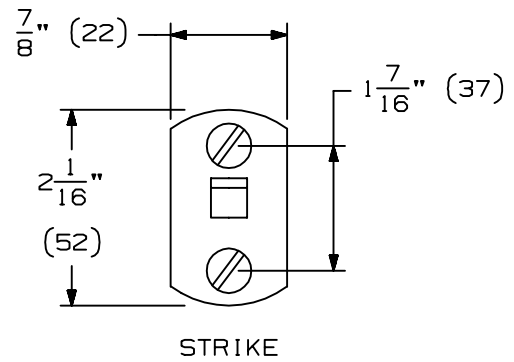
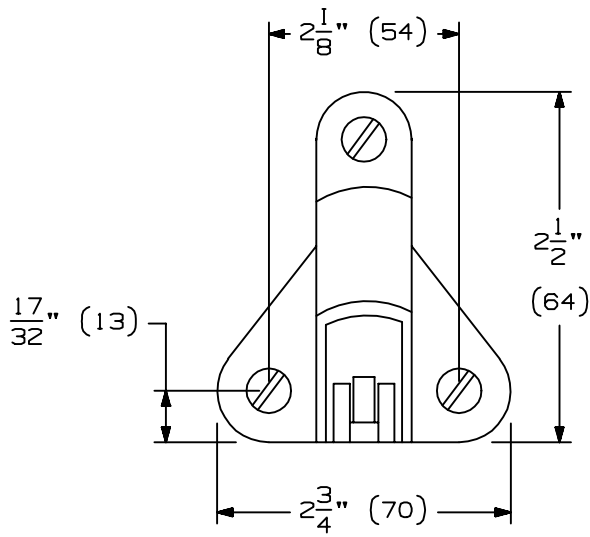
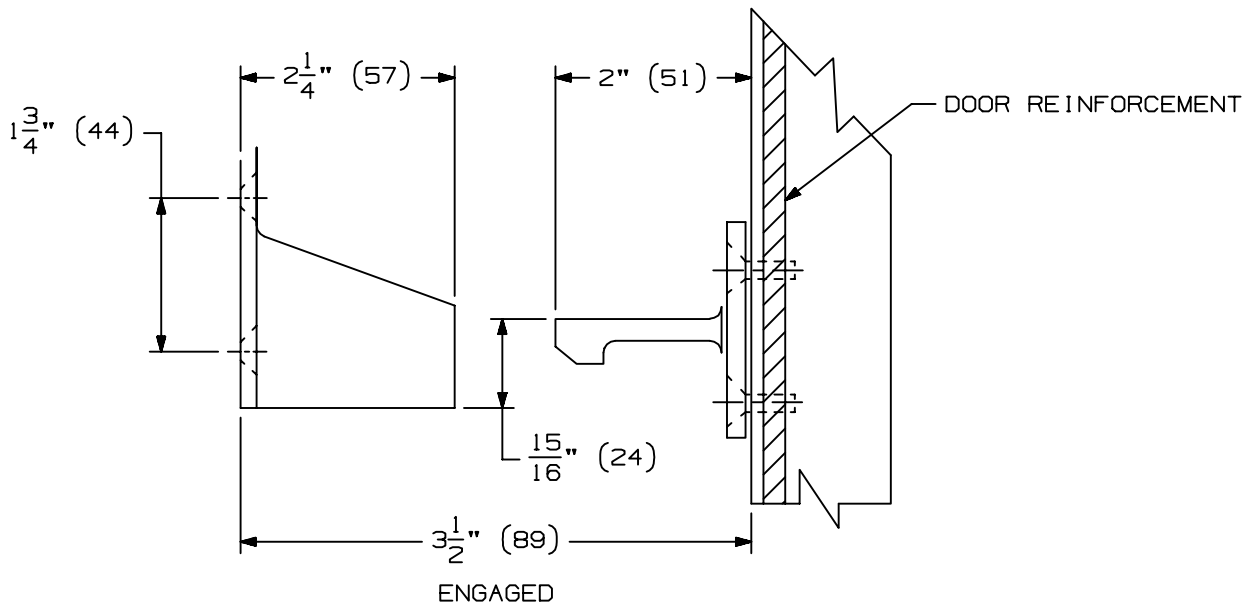


NOTE: DIMENSIONS IN ( ) ARE IN MILLIMETERS

TEMPLATE NUMBER:

**INST.WS33\_B**

DATE:  
**05-29-15**



**INSTRUCTIONS:**

1. OPEN DOOR TO DESIRED POSITION.
2. PLACE STRIKE AND HOLDER AS ILLUSTRATED.  
BODY MUST ENGAGE STRIKE SQUARELY.
3. LOCATE MOUNTING HOLES.
4. PREPARE MOUNTING HOLES AS NECESSARY.
5. INSTALL BODY AND STRIKE.

**NOTES:**

1. METAL DOORS SHOULD BE PROPERLY REINFORCED  
WITH  $\frac{3}{16}$ " (5) MINIMUM THICKNESS PLATE.

	QTY	SCREW DETAILS
BODY	3	#10 X 1" OPHSMS
	3	#10-24 X 1 1/4" FPHSMS
STRIKE	2	#10 X 1" OPHSMS
	2	PLASTIC ANCHORS

**IVES**

**WS40 WALL HOLDER  
INSTALLATION INSTRUCTIONS**

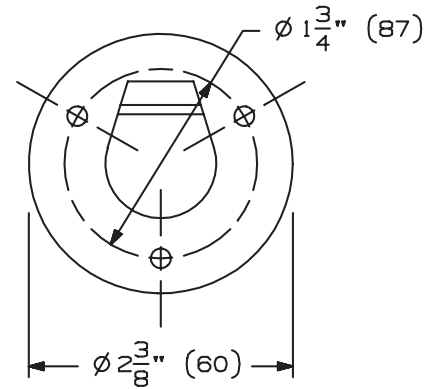
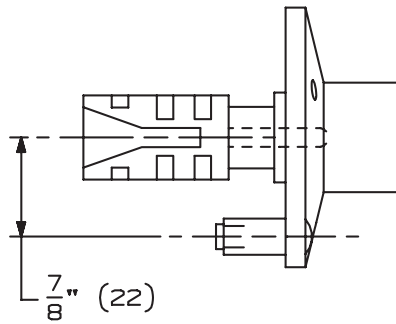
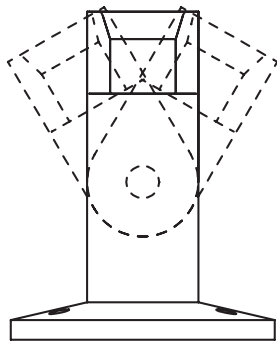
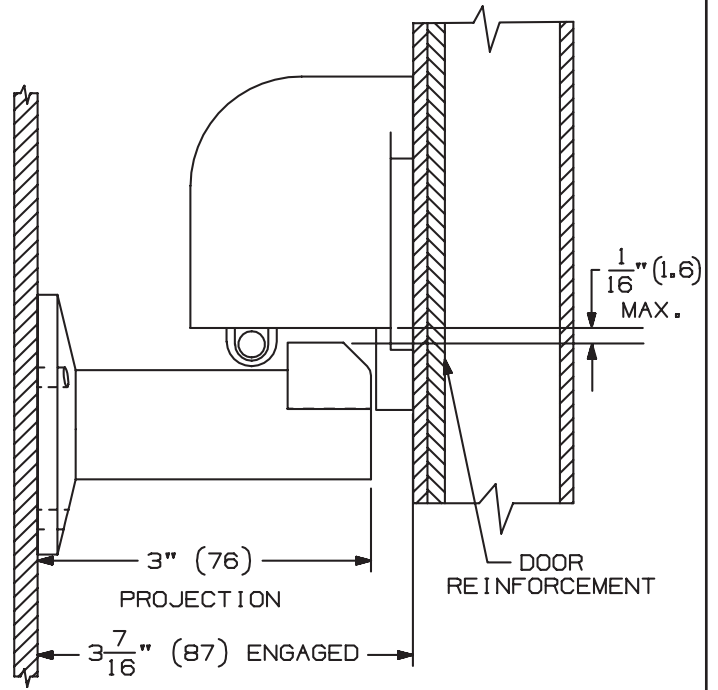
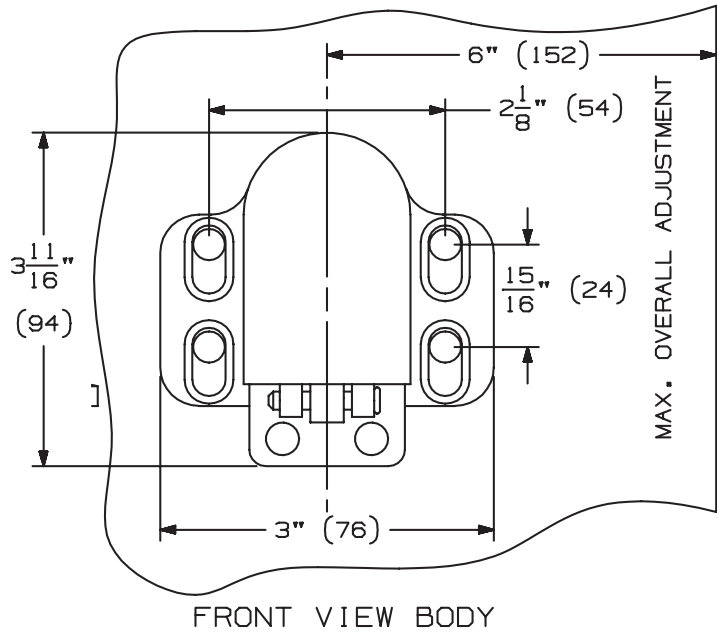
**ALLEGION**

NOTE: DIMENSIONS IN ( ) ARE IN MILLIMETERS

TEMPLATE  
NUMBER:

**INST.WS40\_B**

DATE:  
**05-29-15**



STRIKE

**INSTRUCTIONS:**

1. OPEN DOOR TO DESIRED POSITION.
2. PLACE STRIKE ON WALL AND HOLDER BODY ON DOOR AS ILLUSTRATED. ROLLER MUST ENGAGE STRIKE SQUARELY.
3. LOCATE THE MOUNTING HOLES.
4. PREPARE MOUNTING HOLES AS NECESSARY.
5. INSTALL BODY AND STRIKE.

**NOTES:**

1. METAL DOORS SHOULD BE PROPERLY REINFORCED WITH 3/16" (5) MINIMUM THICKNESS PLATE.

	QTY	SCREW DETAILS
BODY	4	#14 X 1 1/4" TRPHSMS
WS45 STRIKE	3	#10 X 1" FPHSMS
	3	PLASTIC EXP SHIELD
WS45X STRIKE	1	5/16" THREADED STUD
	1	LEAD EXP SHIELD
	1	#10 X 1" FPHSMS
	1	PLASTIC EXP SHIELD



**WS45 & WS45X AUTOMATIC WALL HOLDER  
INSTALLATION INSTRUCTION**

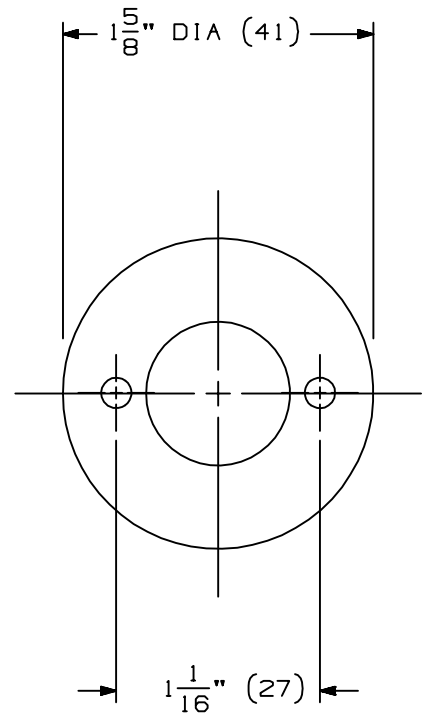
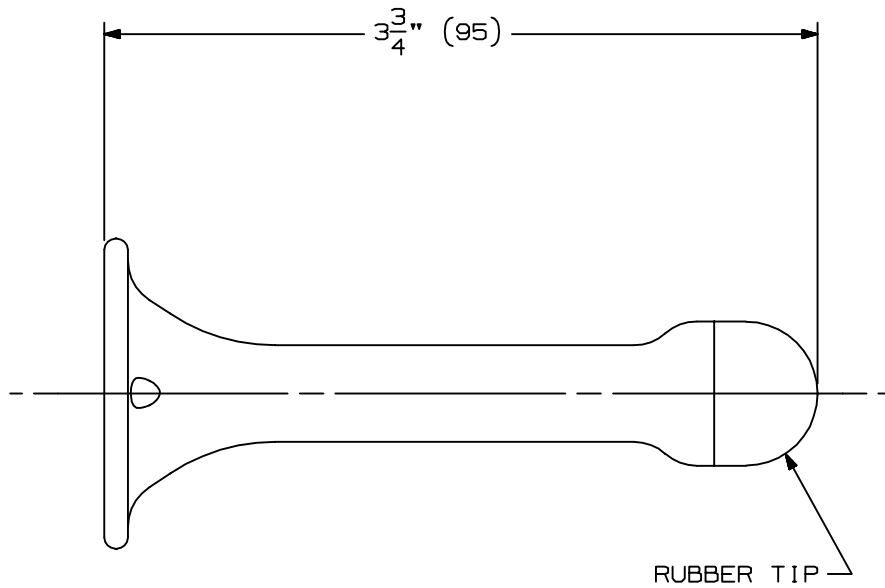


NOTE: DIMENSIONS IN ( ) ARE IN MILLIMETERS

TEMPLATE NUMBER:

**INST.WS45\_B**

DATE:  
**05-29-15**



**INSTRUCTIONS:**

1. PLACE HOLDER ON WALL AND LOCATE THE MOUNTING HOLES.
2. PREPARE MOUNTING HOLES.
3. INSTALL HOLDER.

QTY	SCREW DETAIL
2	#10 X 3/4 OPHSMS



**WS65 WALL BUMPER  
INSTALLATION INSTRUCTIONS**



NOTE: DIMENSIONS IN ( ) ARE IN MILLIMETERS

TEMPLATE  
NUMBER:

**INST.WS65\_B**

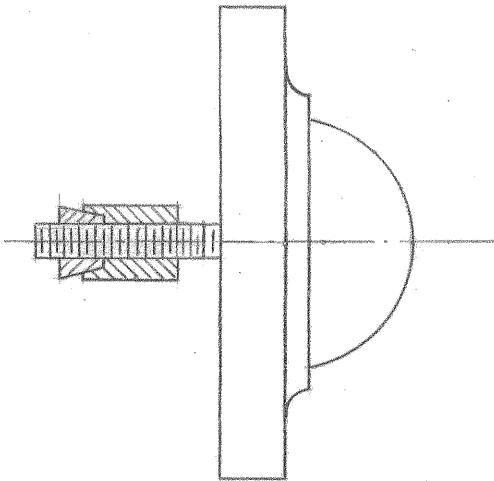
DATE:  
**05-29-15**

DO NOT SCALE

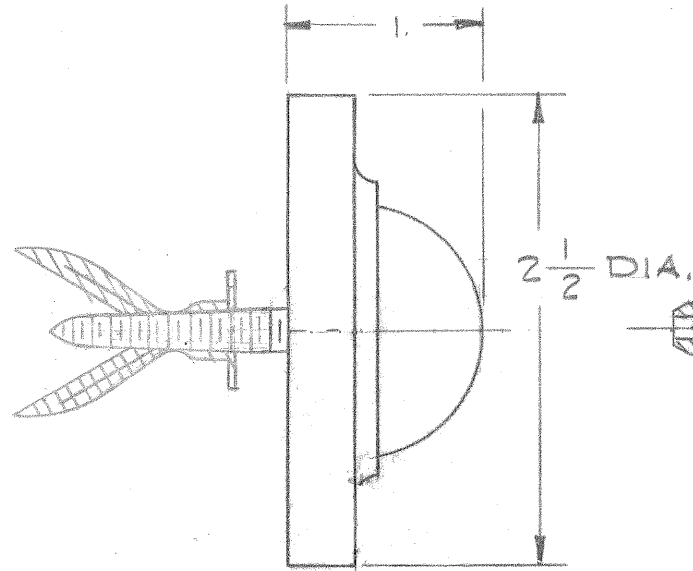
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STB

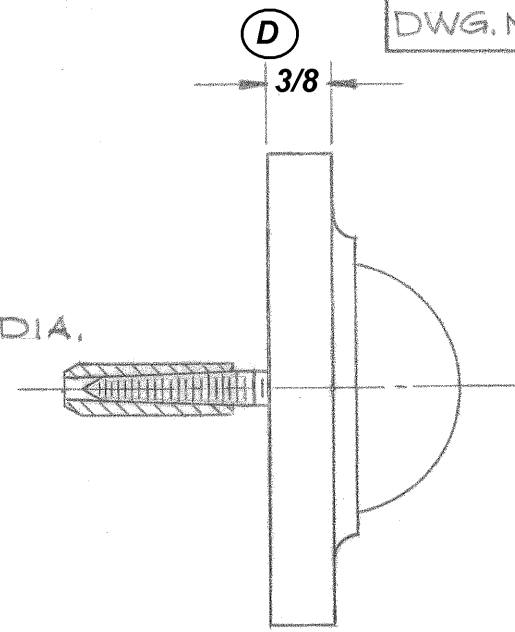
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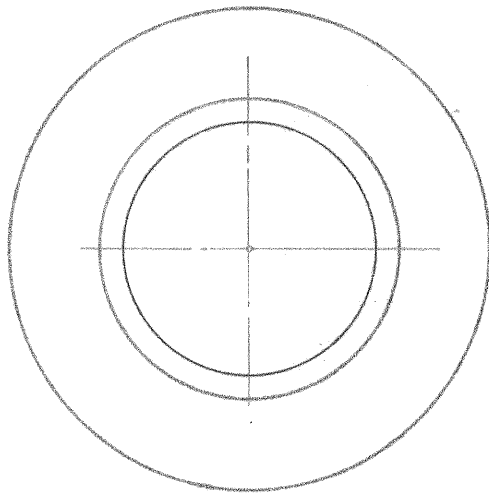
#403



#402



#401



TYPICAL VIEW

ON THE 401

USE (1) 1x#10 FLAT HD. SHEET METAL SCR WITH PLASTIC ANCHOR, DRILL 1/4 HOLE 1/4 DEEP.

ON THE 402

USE (1) 1/4x#8 OVAL HEAD WOOD SCREW AND PLASTIC DRYWALL ANCHOR DRILL 5/16" HOLE

ON THE 403

USE (1) 1x#10-24 FLAT HD. MACH. SCR. WITH #10-24 EXPANSION SHIELD. 3/8 DRILL, 1 DEEP.

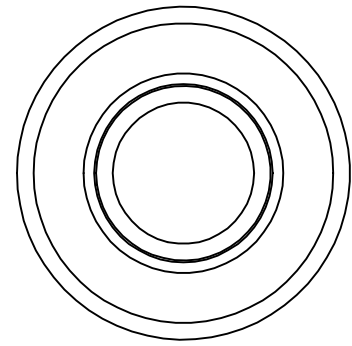
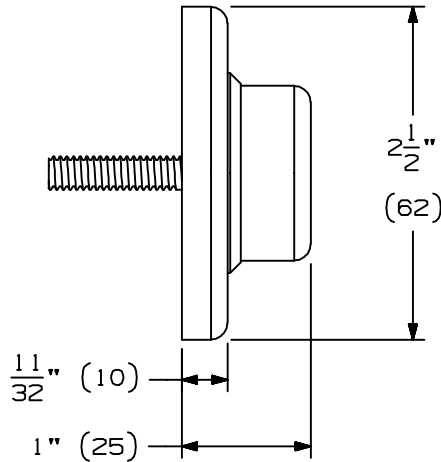
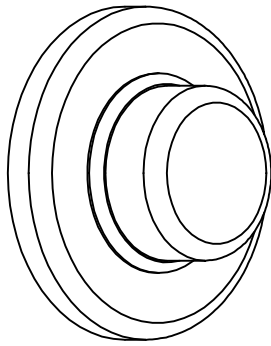
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401 - 402 - 403 WALL - BUMPERS.		
LETTER	CHANGE	DATE
A	TOGGLER WAS TOGGLE BOLT	9-22-75
B	ADDED DRILL DIMEN	8-11-78
C	REVISED SCREW AND ANCHOR ON 402	12-16-86
R.H.C. - 12-12-63 - FULL SIZE		

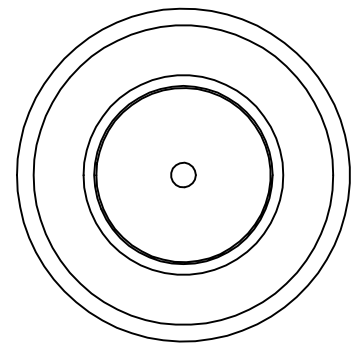
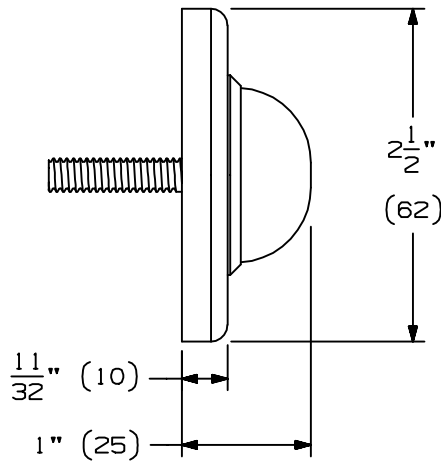
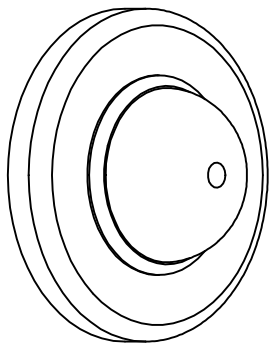
D 3/8 WAS 11/32 3/12/03

IVES DIVISION  
LEIGH PRODUCTS, INC.  
P. O. BOX 1887, NEW HAVEN, CONN. 06508

WS401CCV & WS402CCV



WS401CVX & WS402CVX



INSTRUCTIONS FOR WS401:

1. PLACE BUMPER ON WALL AND LOCTE THE MOUNTING HOLE.
2. DRILL A  $\frac{1}{4}$ " (6) DIAMETER HOLE.
3. INSERT PLASTIC ANCHOR IN HOLE.
4. USING A #2 PHILLIPS SCREWDRIVER, MOISTEN TIP OF SCREWDRIVER.
5. FORCE SCREWDRIVER THRU SMALL HOLE IN CENTER OF RUBBER TO GET TO HEAD OF SCREWDRIVER.
6. ALLOW BUMPER TO ROTATE AS SCREW IS TIGHTENED.

INSTRUCTIONS FOR WS402:

1. PLACE BUMPER ON WALL AND LOCTE THE MOUNTING HOLE.
2. DRILL A  $\frac{5}{16}$ " (8) DIAMETER HOLE.
3. INSERT DRY WALL ANCHOR IN HOLE.
4. USING A #2 PHILLIPS SCREWDRIVER, MOISTEN TIP OF SCREWDRIVER.
5. FORCE SCREWDRIVER THRU SMALL HOLE IN CENTER OF RUBBER TO GET TO HEAD OF SCREWDRIVER.
6. ALLOW BUMPER TO ROTATE AS SCREW IS TIGHTENED.

	QTY	SCREW DETAILS
WS401	1	#10 X 1" FPHSMS
	1	#10 PLASTIC ANCHOR
WS402	1	#8 X $1\frac{1}{4}$ " OPHWS
	1	DRY WALL ANCHOR

**IVES**

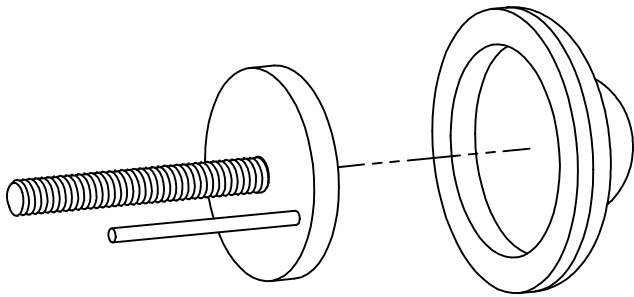
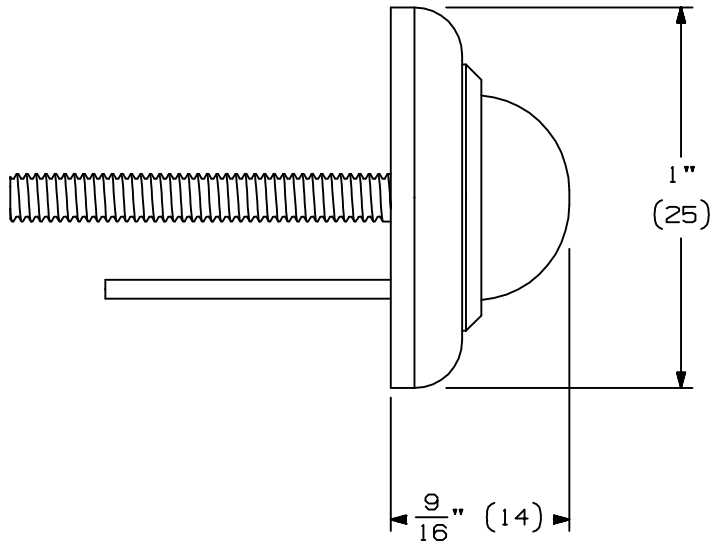
WS401CCV, WS401CVX,  
WS402CCV & WS402CVX  
WALL BUMPER INSTRUCTION

**ALLEGION**

NOTE: DIMENSIONS IN ( ) ARE IN MILLIMETERS

TEMPLATE NUMBER: INST.WS401-402\_B

DATE: 05-29-15



**INSTRUCTIONS:**

1. PLACE BUMPER ON WALL AND LOCITE THE MOUNTING HOLE.
2. DRILL A  $\frac{1}{4}$ " (6) DIAMETER HOLE.
3. INSERT PLASTIC ANCHOR IN HOLE.
4. HAMMER PIN IN.
5. SCREW BODY WITH RUBBER ON TO BACK PLATE.

QTY	SCREW DETAILS
1	#10 X 1" FPHSMS
1	#10 PLASTIC ANCHOR

**IVES**

WS404 WALL BUMPER INSTRUCTION

**ALLEGION**

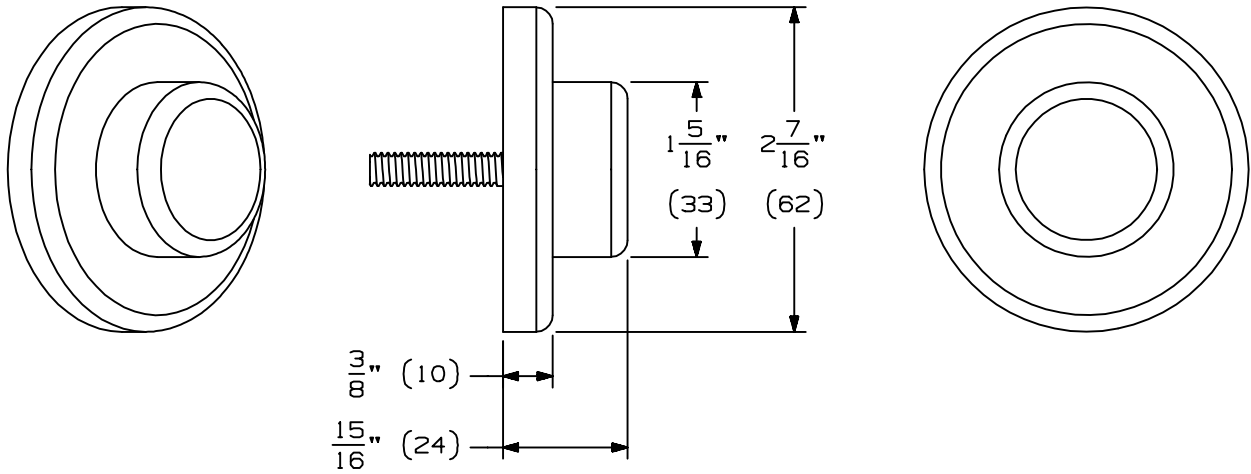
NOTE: DIMENSIONS IN ( ) ARE IN MILLIMETERS

TEMPLATE  
NUMBER:

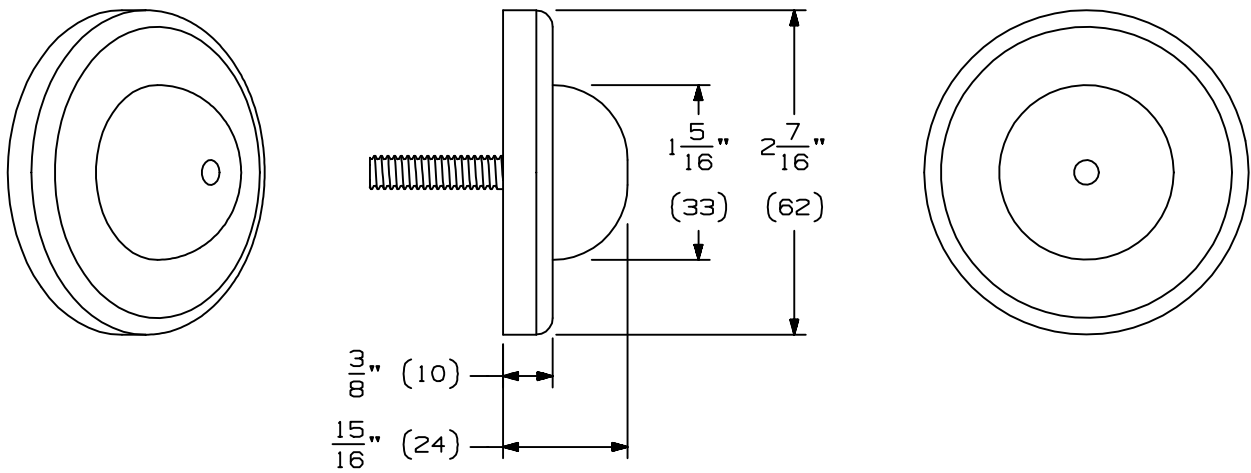
INST.WS404\_B

DATE:  
05-29-15

WS406CCV & WS407CCV



WS406CVX & WS407CVX



INSTRUCTIONS FOR WS406:

1. PLACE BUMPER ON WALL AND LOCTE THE MOUNTING HOLE.
2. DRILL A  $\frac{1}{4}$ " (6) DIAMETER HOLE.
3. INSERT PLASTIC ANCHOR IN HOLE.
4. USING A #2 PHILLIPS SCREWDRIVER, MOISTEN TIP OF SCREWDRIVER.
5. FORCE SCREWDRIVER THRU SMALL HOLE IN CENTER OF RUBBER TO GET TO HEAD OF SCREWDRIVER.
6. ALLOW BUMPER TO ROTATE AS SCREW IS TIGHTENED.

INSTRUCTIONS FOR WS407:

1. PLACE BUMPER ON WALL AND LOCTE THE MOUNTING HOLE.
2. DRILL A  $\frac{5}{16}$ " (8) DIAMETER HOLE.
3. INSERT DRY WALL ANCHOR IN HOLE.
4. USING A #2 PHILLIPS SCREWDRIVER, MOISTEN TIP OF SCREWDRIVER.
5. FORCE SCREWDRIVER THRU SMALL HOLE IN CENTER OF RUBBER TO GET TO HEAD OF SCREWDRIVER.
6. ALLOW BUMPER TO ROTATE AS SCREW IS TIGHTENED.

	QTY	SCREW DETAILS
WS406	1	#10 X 1" FPHSMS
	1	#10 PLASTIC ANCHOR
WS407	1	#8 X 1 1/4" OPHWS
	1	DRY WALL ANCHOR

**IVES**

WS406CCV, WS406CVX,  
WS407CCV & WS407CVX  
WALL BUMPER INSTRUCTION

**ALLEGION**

NOTE: DIMENSIONS IN ( ) ARE IN MILLIMETERS

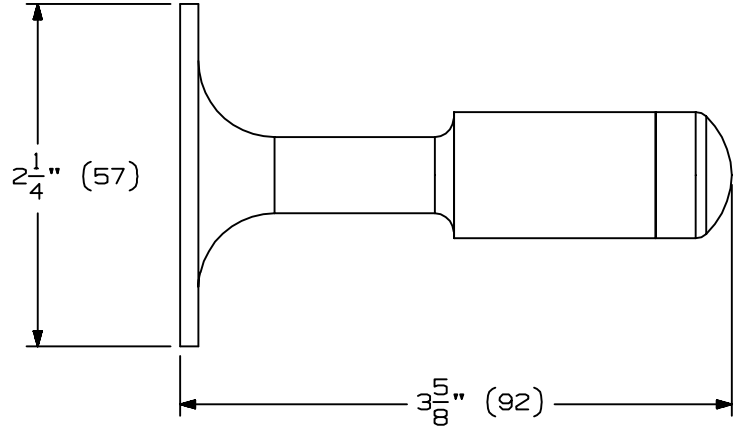
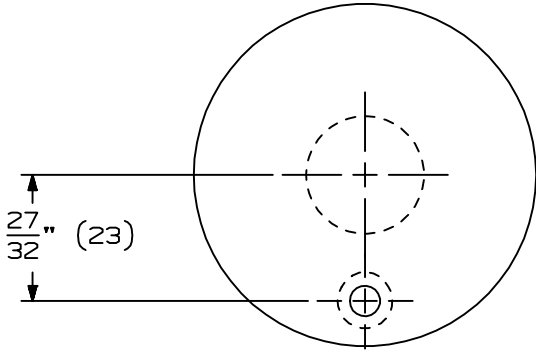
TEMPLATE  
NUMBER:

INST.WS406-407\_B

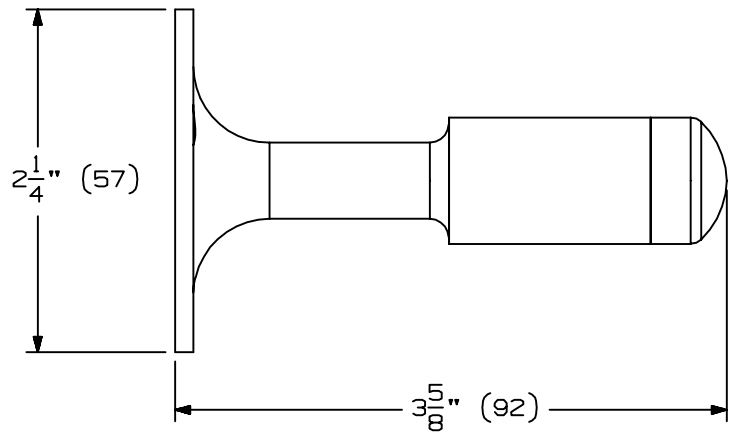
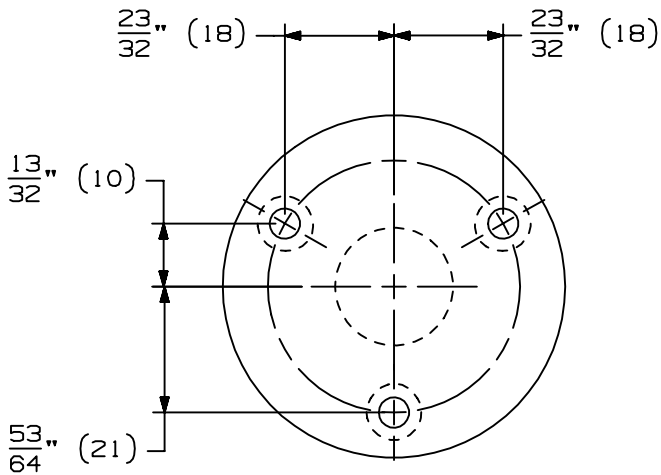
DATE:  
05-29-15



WS443



WS447



INSTRUCTIONS:

1. PLACE HOLDER ON WALL AND LOCATE MOUNTING HOLES.
2. PREPARE MOUNTING HOLES.
3. INSTALL HOLDER.

	QTY	SCREW DETAILS
WS443	1	3/8-12 THREADED STUD
	1	LEAD SHIELD
	1	#8 X 1" OPHWS
	1	LEAD SHIELD
WS447	3	#12 X 1-1/4" OPHSMS
	3	PLASTIC EXPANSION SHIELD



WS443 & WS447 WALL BUMPER  
INSTALLATION INSTRUCTIONS

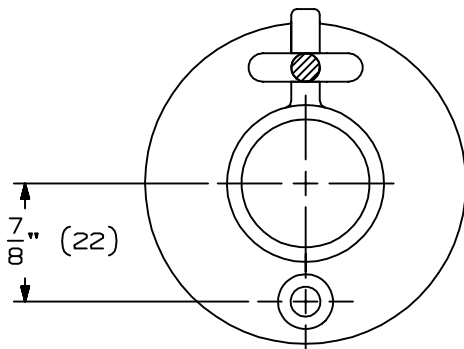
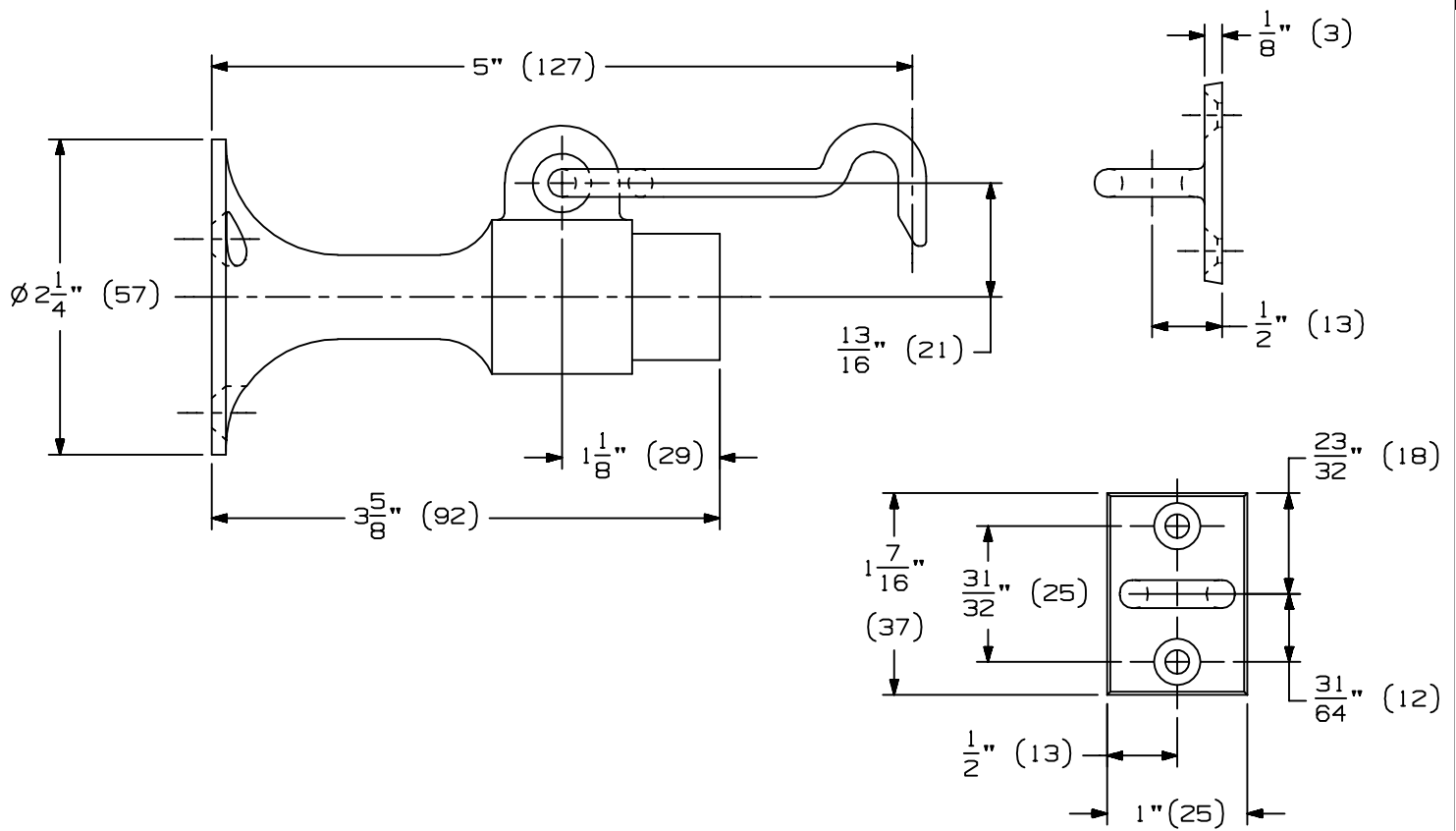


NOTE: DIMENSIONS IN ( ) ARE IN MILLIMETERS

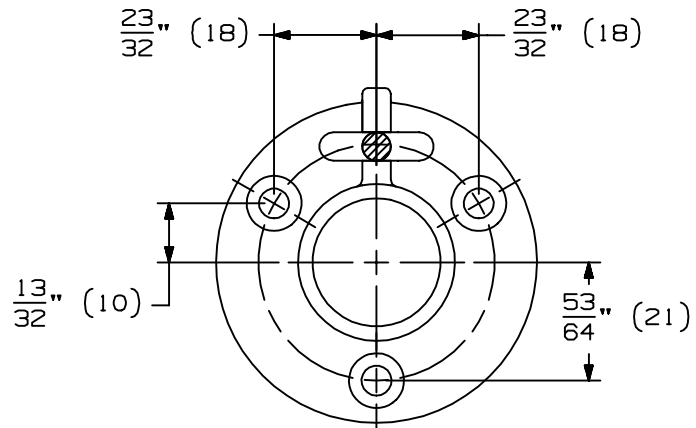
TEMPLATE  
NUMBER:

INST.WS443-447\_B

DATE:  
05-29-15



WS445



WS449

**INSTRUCTIONS:**

1. OPEN DOOR TO DESIRED POSITION.
2. PLACE STRIKE AND HOLDER IN DESIRED LOCATION.
3. LOCATE MOUNTING HOLES FOR BOTH THE STRIKE AND THE BODY.
4. PREPARE MOUNTING HOLES AS NECESSARY.
5. INSTALL BODY AND STRIKE.

	QTY	SCREW DETAILS
WS445 BODY	1	3/8"-12 THREADED STUD
	1	LEAD EXP SHIELD
	1	#8 X 1" OPHWS
WS449 BODY	3	#12 X 1 1/4" OPHWS
	3	#12 PLASTIC SHIELD
STRIKE	2	#8 X 1" OPHSMS



WS445 & WS449  
MANUAL WALL HOLDER  
INSTALLATION TEMPLATE



NOTE: DIMENSIONS IN ( ) ARE MILLIMETERS.

TEMPLATE INST. WS445-449\_0  
NUMBER:

DATE:  
09-01-01