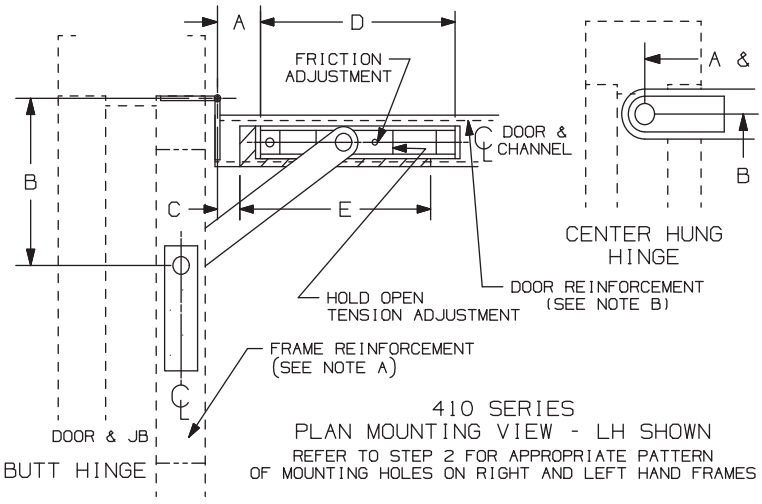
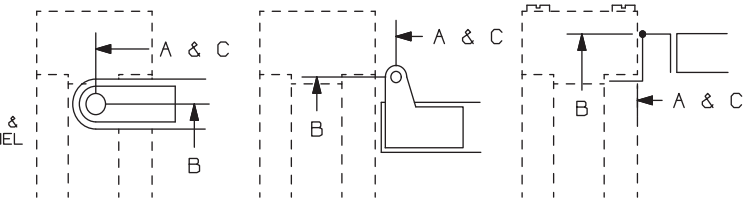
OVERHEAD HOLDERS OR STOPS MUST BE INSTALLED BEFORE CLOSERS

1. A. DETERMINE THE MOUNTING BEING USED FROM ILLUSTRATION BELOW.
   B. SELECT MOUNTING GROUP NUMBER FROM THE CHART BELOW. MOST CONTINUOUS HINGES ARE GROUPED WITH 4 1/2" WIDE BUTT OR 4 1/2" SWING CLEAR HINGE.
   C. USING THE MOUNTING GROUP NUMBER AND THE OVERHEAD HOLDER OR STOP SIZE AND THE DEGREE OF OPENING DESIRED, FIND "A","B","C","D", AND "E" DIMENSIONS FROM CHARTS ON PAGE 3 THRU 6. FOR DEAD STOP ADD 9/16"(14) TO THE "A" DIMENSION FROM THE CHART. SEE NOTE D FOR INFORMATION ABOUT DEAD STOP.



410 SERIES
PLAN MOUNTING VIEW - LH SHOWN
REFER TO STEP 2 FOR APPROPRIATE PATTERN OF MOUNTING HOLES ON RIGHT AND LEFT HAND FRAMES



DOOR THICKNESS	HINGE TYPE & STYLE	MOUNTING GROUP
1 3/8" (35)	3" WIDE BUTT	3
	3 1/2" WIDE BUTT	3
	3/4" OFFSET PIVOT	4
	CENTERHUNG PIVOT	4
1 3/4" (44)	4" WIDE BUTT	2
	4 1/2" WIDE BUTT	2
	5" WIDE BUTT	1
	3/4" OFFSET PIVOT	2
	4" SWINGCLEAR	1
	4 1/2" SWINGCLEAR	2
	5" SWINGCLEAR	2
	SOSS 218	3
	CENTERHUNG PIVOT	4
2" (51)	4 1/2" WIDE BUTT	2
	5" WIDE BUTT	1
	3/4" OFFSET PIVOT	1
	4 1/2" SWINGCLEAR	2
	5" SWINGCLEAR	2
	SOSS 220	2
	CENTERHUNG PIVOT	4
2 1/4" (57)	4 1/2" WIDE BUTT	2
	5" WIDE BUTT	2
	3/4" OFFSET PIVOT	1
	4 1/2" SWINGCLEAR	1
	5" SWINGCLEAR	1
	SOSS 220	2
	CENTERHUNG PIVOT	4

NOTES:

A. HOLLOW METAL FRAMES SHOULD BE PROPERLY REINFORCED WITH A 3/16"(5) MINIMUM THICKNESS BY 12"(305) MINIMUM LENGTH PLATE.

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

C. STOP ONLY UNITS ARE PERMITTED ON MANY FIRE DOOR APPLICATIONS. HOWEVER, MECHANICAL HOLD-OPEN DEVICES THAT REQUIRE MANUAL RELEASE ARE NOT PERMITTED FOR USE ON ANY FIRE DOOR AS OUTLINED ON NFPA80 Ⓡ OR NFPA101 Ⓡ. CONTACT GLYNN-JOHNSON OR YOUR LOCAL REPRESENTATIVE FOR ASSISTANCE.

D. DEAD STOP (DS) TEMPLATING MAY BE USED ON HOLD OPEN, FRICTION AND STOP ONLY MODELS, BUT SHOULD NOT BE USED ON "SE" MODELS. THE DS POSITION IS REACHED WHEN THE SHOCK SPRING IS FULLY COMPRESSED. WHEN DS TEMPLATING IS USED, THE INITIAL DEGREE OF STOP WILL BE 5°-7° LESS THAN THE DS OPENING. FOR USE ON DOORS OPENING BACK-TO-BACK, AGAINST A WALL OR OBSTRUCTION.

410 ADJUSTMENTS:

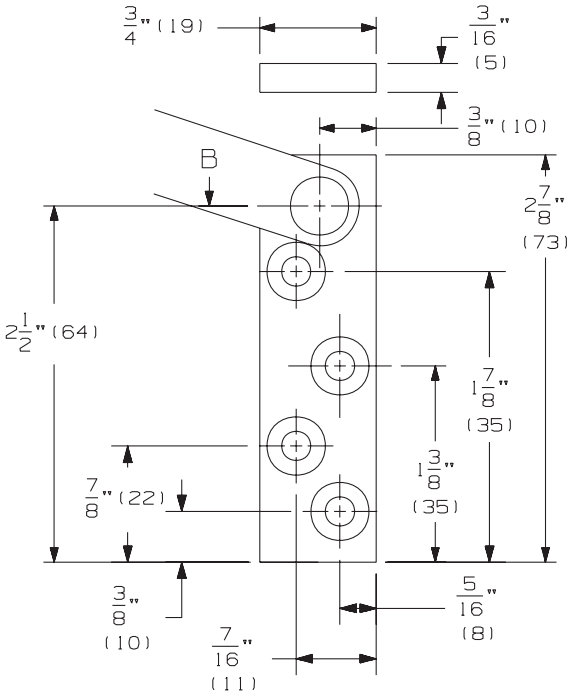
HOLD-OPEN TENSION ADJUSTMENT (HOLD-OPEN UNIT ONLY)- USING A 5/32" BALL END ALLEN WRENCH, TURN SCREW INSIDE "LONG" END OF THE CAM CLOCKWISE TO DECREASE HOLD-OPEN TENSION AND COUNTERCLOCKWISE TO INCREASE HOLD-OPEN TENSION. TENSION SET TO MINIMUM AT FACTORY.

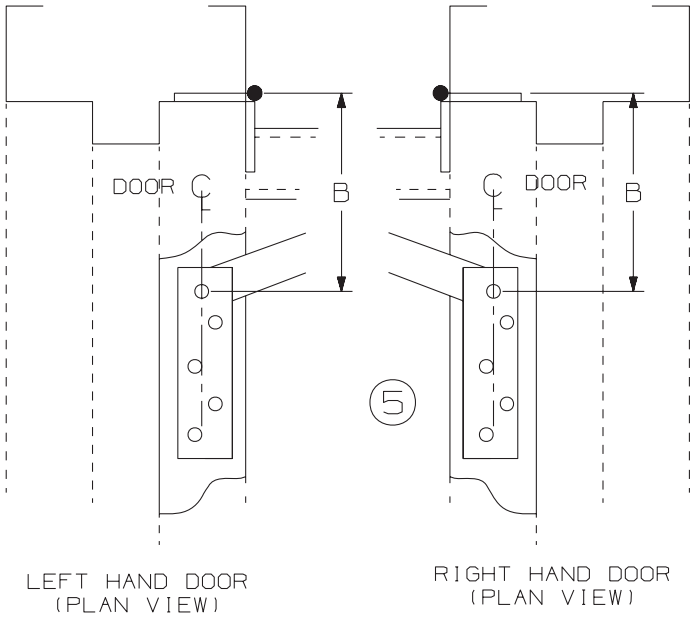
FRICTION TENSION ADJUSTMENT (FRICTION UNIT ONLY)- USING A 3/32" ALLEN WRENCH, TURN SCREW SHOWN CLOCKWISE TO INCREASE THE FRICTION TENSION AND TURN COUNTERCLOCKWISE TO DECREASE THE FRICTION TENSION.

DIMENSIONS IN ( ) ARE IN MILLIMETERS

SCREW DETAILS			
	QTY	WOOD	METAL
DOOR	2	#10 x 1 1/2" FILPHSMS	10-32 x 1 1/2" FILPHMS
JAMB	4	#10 x 1 1/2" FPHSMS	10-32 x 1/2" FPHMS

2. A. LOCATE "B" DIMENSION ON THE FRAME. NOTE THAT THE "B" DIMENSION IS MEASURED FROM THE CENTERLINE OF THE HINGE AS SHOWN.
   B. MORTISE FOR THE JAMB BRACKET AS SHOWN. REFER TO LEFT AND RIGHT HAND PLAN VIEWS FOR APPROPRIATE HOLE PATTERN.
   C. FOR METAL FRAMES, USE A #21 DRILL AND A 10-32 TAP IN 4 PLACES. FOR WOOD FRAMES, DRILL A 1/16" PILOT HOLE IN 4 PLACES.



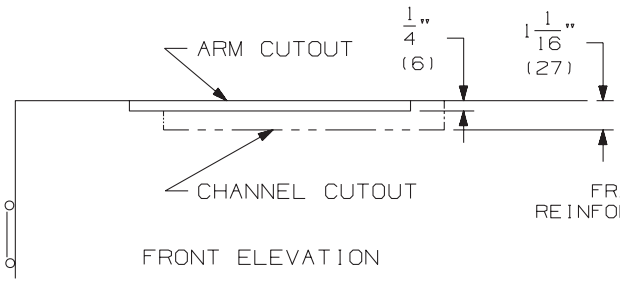


LEFT HAND DOOR (PLAN VIEW)

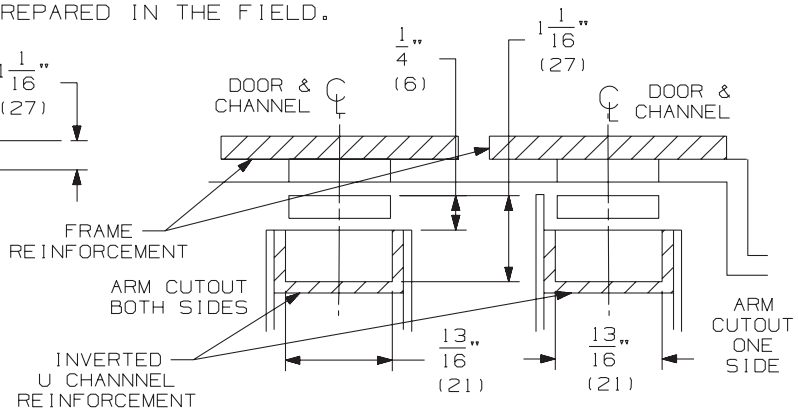
RIGHT HAND DOOR (PLAN VIEW)

REFER TO ILLUSTRATION BELOW AND ON SHT 1 FOR THE FOLLOWING NOTES:

3. A. LOCATE "A" AND "D" DIMENSIONS ON THE CENTERLINE OF THE DOOR. NOTE THAT THE "A" DIMENSION IS MEASURED FROM THE CENTERLINE OF THE HINGE AS SHOWN.
   B. MORTISE FOR THE CHANNEL AS SHOWN IF REQUIRED.
   C. LOCATE "C" AND "E" DIMENSIONS ON THE TOP OF THE DOOR. NOTE THAT THE "C" DIMENSION IS MEASURED FROM THE CENTERLINE OF THE HINGE AS SHOWN.
   D. MORTISE FOR ARM CUTOUT AS SHOWN.
   E. FOR METAL DOORS, USE A #21 DRILL AND 10-32 TAP IN 2 PLACES. FOR WOOD DOORS, DRILL 1/8" PILOT HOLES IN 2 PLACES. MOUNTING HOLES SHOULD BE PREPARED IN THE FIELD.



FRONT ELEVATION



CROSS SECTION IN CLOSED POSITION

4. A. INSTALL THE CHANNEL IN THE DOOR WITH THE SHOCK SPRING TOWARDS THE HINGE EDGE OF DOOR.
   B. INSTALL JAMB BRACKET IN FRAME.

DIMENSIONS IN ( ) ARE MILLIMETERS.

		DEGREE	85 HO				90 HO				95 HO				100 HO				105 HO				110 HO					
		DIM.	DOOR OPENING	A	B	C	E	A	B	C	E	A	B	C	E	A	B	C	E	A	B	C	E	A	B	C	E	D	I
MOUNTING GROUP #1	411	IN.	18-23 * /	1 15/16	4 1/4	0	13	1 5/8	4	0	12 3/4	1 7/16	3 13/16	0	12 1/2	1 1/4	3 5/8	0	12 1/4	1 1/16	3 7/16	0	12 1/4	-	-	-	-	15 9/16	8 1/4
		mm	457-584	49	108	0	330	41	102	0	324	37	97	0	318	32	92	0	311	27	87	0	311	-	-	-	-	395	210
	412	IN.	23 1/16-27*	3 3/8	5 3/8	2	14 1/2	3 1/16	5 1/4	2	14 1/2	2 13/16	5	1	14 1/2	2 9/16	4 13/16	1	14 1/2	2 3/8	4 9/16	0	15	2 3/16	4 3/8	0	15	17 3/16	10
		mm	585-686	86	143	51	368	78	133	51	368	71	127	25	368	65	122	25	368	60	116	0	381	56	111	0	381	437	254
	413	IN.	27 1/16-33	7 5/16	6 3/4	5 3/4	16	6 15/16	6 3/8	5	16 1/4	6 9/16	6	4 1/4	16 1/4	6 5/16	5 11/16	3 1/2	16 3/4	6 *	5 7/16 *	3 1/4 *	16 3/4 *	5 13/16*	5 1/4 *	3 *	17 *	18 7/16	14
		mm	687-838	186	171	146	406	176	162	127	413	167	152	108	413	160	144	89	425	152	138	83	425	148	133	76	432	468	356
	414	IN.	33 1/16-39	11 3/16	8 3/8	7 3/8	20	10 5/8	7 7/8	6 7/8	20	10 1/4	7 7/16	6 7/16	20	9 7/8	7	5 7/8	20 1/8	9 1/2	6 11/16	5 9/16	20 1/8	9 1/4	6 7/16	5 5/16	20 1/8	20 3/16	18
		mm	839-991	284	213	187	508	270	200	175	508	260	189	164	508	251	178	149	511	241	170	141	511	235	164	135	511	513	457
	415	IN.	39 1/16-45	14 3/4	9 3/4	8 3/4	23 5/8	14 3/16	9 3/16	8 3/16	23 5/8	13 11/16	8 5/8	7 5/8	23 3/4	13 1/4	8 1/8	7	23 7/8	12 7/8	7 13/16	6 11/16	23 7/8	12 9/16	7 7/16	6 5/16	23 7/8	21 11/16	21 3/4
		mm	992-1143	375	248	222	600	360	233	208	600	348	219	194	603	337	206	178	606	327	198	170	606	319	189	160	606	551	552
MOUNTING GROUP #2	411	IN.	18-23 * /	2 1/16	4 7/16	0	13	1 13/16	4 3/16	0	13	1 9/16	3 15/16	0	12 3/4	1 3/8	3 3/4	0	12 1/2	1 1/4	3 9/16	0	12 1/4	1 1/16	3 7/16	0	12 1/4	15 9/16	8 1/4
		mm	457-584	52	113	0	330	46	106	0	330	40	100	0	324	35	95	0	318	32	90	0	311	27	87	0	311	395	210
	412	IN.	23 1/16-27*	3 1/2	5 3/4	2	14 1/2	3 3/16	5 7/16	2	14 1/2	2 15/16	5 1/8	2	14 1/2	2 11/16	4 15/16	1	14 1/2	2 1/2	4 3/4	0	15	2 5/16	4 1/2	0	15	17 3/16	10
		mm	585-686	89	146	51	368	81	138	51	368	75	130	51	368	68	125	25	368	64	121	0	381	59	114	0	381	437	254
	413	IN.	27 1/16-33	7 1/2	6 15/16	5 15/16	16	7 1/16	6 1/2	5 1/2	16	6 3/4	6	5	16	6 7/16	5 7/8	4 1/4	16 1/4	6 3/16	5 9/16	3 1/2	16 3/4	5 13/16	5 1/4	3	16 3/4	18 7/16	14
		mm	687-838	191	176	151	406	179	165	140	406	171	156	130	406	164	149	108	413	157	141	89	425	148	133	76	425	468	356
	414	IN.	33 1/16-39	11 5/16	8 1/2	7 1/2	20	10 13/16	8	7	20	10 5/16	7 9/16	6 9/16	20	10	7 3/16	6 1/16	20 1/8	9 11/16	6 7/8	5 3/4	20 1/8	9 3/8	6 9/16	5 7/16	20 1/8	20 3/16	18
		mm	839-991	287	216	191	508	275	203	178	508	262	192	167	508	254	183	154	511	246	175	146	511	238	167	138	511	513	257
	415	IN.	39 1/16-45	14 15/16	9 7/8	8 7/8	23 3/4	14 5/16	9 5/16	8 5/16	23 3/4	13 13/16	8 3/4	7 3/4	23 3/4	13 3/8	8 5/16	7 3/16	23 7/8	13	7 7/8	6 3/4	23 7/8	12 11/16	7 9/16	6 7/16	23 7/8	21 11/16	21 3/4
		mm	992-1143	379	251	225	603	364	237	211	603	351	222	197	603	340	211	183	606	330	200	171	606	322	192	164	606	551	552
MOUNTING GROUP #3	411	IN.	18-23 * /	2 1/4	4 9/16	0	13 1/4	1 15/16	4 5/16	0	13	1 3/4	4 1/16	0	13	1 9/16	3 7/8	0	12 3/4	1 3/8	3 3/4	0	12 1/2	1 1/4	3 9/16	0	12 1/4	15 9/16	8 1/4
		mm	457-584	57	116	0	337	49	110	0	330	44	103	0	330	40	98	0	324	35	95	0	318	32	90	0	311	395	210
	412	IN.	23 1/16-27*	3 5/8	5 7/8	2	14 1/2	3 5/16	5 9/16	2	14 1/2	3 1/16	5 1/16	2	14 1/2	2 13/16	5 1/16	1	14 1/2	2 5/8	4 13/16	1	14 1/2	2 7/16	4 5/8	0	15	17 3/16	10
		mm	585-686	92	149	51	368	84	141	51	368	78	135	51	368	71	129	25	368	67	122	25	368	62	117	0	381	437	254
	413	IN.	27 1/16-33	7 5/8	7 1/16	6 1/16	16	7 1/4	6 5/8	5 5/8	16	6 7/8	6 5/16	5	16	6 9/16	6	4 1/4	16 1/4	6 5/16	5 3/4	3 1/2	16 3/4	6 1/16	5 1/2	3	17	18 7/16	14
		mm	687-838	194	179	154	406	184	168	143	406	175	160	127	406	167	152	108	413	160	146	89	425	154	140	76	432	468	356
	414	IN.	33 1/16-39	11 1/2	8 9/16	7 9/16	20 1/8	11	8 1/16	7 1/16	20 1/8	10 1/2	7 11/16	6 11/16	20	10 1/8	7 5/16	6 3/16	20 1/8	9 3/4	7	5 7/8	20 1/8	9 1/2	6 5/8	5 1/2	20 1/8	20 3/16	18
		mm	839-991	292	217	192	511	279	205	179	511	267	195	170	508	257	186	157	511	248	178	149	511	241	168	140	511	514	457
	415	IN.	39 1/16-45	15 1/16	10	9	23 5/8	14 7/16	9 7/16	8 7/16	23 5/8	13 15/16	8 7/8	7 7/8	23 3/4	13 1/2	8 7/16	7 5/16	23 7/8	13 1/8	8	6 7/8	23 7/8	12 3/4	7 11/16	6 9/16	23 7/8	21 11/16	21 3/4
		mm	992-1143	383	254	229	600	367	240	214	600	354	225	200	603	343	214	186	606	333	203	175	606	324	195	167	606	551	552
MOUNTING GROUP #4	411	IN.	23 1/16-27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15 9/16	8 1/4
		mm	585-686	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	395	210
	412	IN.	27 1/16-33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17 3/16	10
		mm	687-838	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	437	254
	413	IN.	33 1/16-39	8	7 7/16	6 7/16	16	7 5/8	7	6	16	7 1/4	6 11/16	5 11/16	16	6 15/16	6 5/16	5 3/16	16 1/8	6 3/4	5 15/16	4 13/16	16 3/8	6 7/16	5 13/16	4 11/16	16 1/8	18 7/16	14
		mm	839-991	203	189	164	406	194	178	152	406	184	170	144	406	176	160	132	410	171	151	122	416	164	148	119	410	458	356
	414	IN.	39 1/16-45	11 7/8	9 1/16	8 1/16	20	11 5/16	8 9/16	7 9/16	20	10 15/16	8 1/16	7 1/16	20	10 1/2	7 3/4	6 5/8	20	10 3/16	7 5/16	6 3/16	20 1/8	9 7/8	7	5 7/8	20 1/8	20 3/16	18
		mm	992-1143	302	230	206	508	287	217	192	508	278	206	179	508	267	197	154	508	259	186	157	511	251	178	149	511	516	457
	415	IN.	45 1/16-51	15 1/2	10 1/2	9 1/2	23 5/8	14 7/8	9 7/8	8 7/8	23 5/8	14 3/8	9 5/16	8 5/16	23 3/4	13 15/16	8 13/16	7 11/16	23 7/8	13 1/2	8 7/16	7 5/16	23 7/8	13 1/8	8 1/8	7	23 7/8	21 11/16	21 3/4
		mm	1144-1295	394	267	241	600	378	251	225	600	305	237	211	603	354	224	195	606	343	214	186	606	333	206	178	606	551	552

CAUTION: "A", "B", & "C" DIMENSIONS ARE MEASURED FROM THE CENTERLINE OF PIVOT, NOT EDGE OF DOOR

NOTE: DIMENSIONS IN ( ) ARE MILLIMETERS.

FOR EAD STOP ADD 9/16" (14) TO THE "A" DIMENSION
FOR SE STOPS USE HOLD-OPEN MOUNTING INSTRUCTIONS
HO=HOLD-OPEN FOR HOLDERS, OPENING FOR STOPS
I=ARM LENGTH FROM PIVOT CENTERLINE TO PIVOT CENTERLINE
(FOR REFERENCE ONLY)

* NOT TO BE USED WITH OFFSET PIVOTS
/ NOT TO BE USED WITH SWINGCLEAR HINGES