#### SUBMITTAL FORM

Submittal No: <u>25-08710-01</u> Date submitted by Contractor to A/E: <u>03/25/2021</u>

**<u>CONTRACTOR'S SUBMITTAL</u>**: (Submit items from only one section of Specifications at a time on this form.)

Specification Section: 08710 Section Description of item: Hardware Name of Producer: Quality Engineered P Name of Subcontractor: JRT Construction, Contractor's Certification: This submittal co coordinated with This submittal is	- GOB Project MDCPS Project No: 01885800 ion Title: Hardware moducts - Multiple Manufactures Submitted. Co. pomplies with the Construction Documents and has been the rest of the Work a proposed Substitution (Substitution Request Form must the A/E for Board Approval ) <u>Carlos R. Tarafa</u> 03/25/2021 Print name of Contractor's officer Date <u>J.R.T. Construction, Co.</u> Contractor's firm name
ACTION SUBMITTALSQuantityProduct data attached1Shop drawings attached0Accompanying sample(s)0Design or calculations0Statement of qualifications0Warranty Sample0Other item(s)0	Submittal (require approval or other action)         Reviewed         N/A         Be construct or transmission remains the responsibility of the subcontractor         VENDOR OF THE RESPONSIBILITY FOR COMPLYING FULLY with the contract documents.         By:       MAA
Signature of A/E	Print name of A/E Date
A/E Title (The space below is for the APE's submittal action sta Approved Approved Approved as Noted Revise and Resubmit Approved as Noted Rejected Approval is only for general conformance with the design concept of the Project and the information given in the Contract Documents. Contractor is responsible for dimensions to be confirmed and correlated at the job site; information that pertains solely to the fabrication process or to the means and methods of perturbation: and performing	<ul> <li>A/E firm name</li> <li><i>mp</i>)</li> <li>1. See Memo Attached to Leonel Vasquez, PM dated Feb. 10, 2021 from Oscar Zapata, of Central Maintenance Operations.</li> <li>2. As noted.</li> </ul>
construction; coordination of the work of all trades; and performing all work in a safe and satisfactory manner. This approval does not modify Contractor's duty to comply with the Contract Documents. SR Architects, P.A. 7469 SW 50 <sup>th</sup> Terrace, Miami, FL 33155 Tel. 305-661-8572 / Fax. 305-661-8573 Date: 03/26/2021 By Ernesto L. Santos, AIA Sylvania Heights Elementary School - GOB Project No. 01885800	Project Submittals



# 3050 N.W. 77 Court, Doral, FL 33122 • Tel: 305-557-9911 • Fax: 305-557-9922

**PROJECT:**SYLVANIA HEIGHTS ELEMENTARY SCHOOL - GOB PROJECT NO. 01885800**PROJECT NO.:**2018-50-04

SHOP DWG. SUBMITTAL

**TRANSMITTAL #** 25-08710-01

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 1
 of
 1

 Date:
 March
 25, 2021
 1

TRANSMITTAL	To: J.R.T. CONSTRUCTION, CO.	Date:	March 25, 2021			
Α	From: Quaility Engineered Products, Inc. (VENDOR)	Ву:	Andrew Bernstein	Resubmission		
Quantity	Description & Manufacturer		Spec Section/ Paragraph/ Dra	awing No./ Detail		
1 Digital Copy	Quality Engineered Products Hardware Shop Drawing:		Section 08710 - Hardware			
	Hardware Cutsheets for Hinges, Cylinders, Panic Device	ces, Trims, Mullior	ns, Closures SHOP DRAW	NG REVIEW		
	Leversets, Surface Bolts, Auxilory Trims, and Threshold	ds,	J.R.T. CONSTR	RUCTION, CO.		
			THIS WILL CONFIRM THAT			
		APPROVAL OF THIS SUB RESPONSIBILITY OF THE A/I				
			BE CONSTRUED AS RELIEVING THE SUBCONTRACTOR/			
				VENDOR OF THE RESPONSIBILITY FOR COMPLYING FULLY WITH THE CONTRACT DOCUMENTS.		
		BY: Curl Carl	-			
X Submitted for	or review and approval	Substitution	involved - Substitution request attached			
X Complies wi	d for review and approval	on involved, submittal includes point-by arative data or preliminary details ed in submittal will be ordered upon receipt of approval				

TRANSMITTAL	From: J.R.T. CONSTRUCTION, CO.	By: Carlos R. Tarafa	Date Transmitted by JRT: 3/25/2021
B	To: SR Architects, P.A.	Attn: Ernesto Santos	Date Received by GMA:
COMMENTS:			

TRANSMITTAL     From: SR Architects, P.A.	By: Ernesto Santos	Date Transmitted by GMA:
<b>C To:</b> J.R.T. CONSTRUCTION, CO.	Attn: Carlos R. Tarafa	Date Received by JRT:
Approved	Revise/Resubmit	
Approved as noted	Rejected/Resubmit	
Not subject to review	Approved as noted/Resubmit	
No action required	Submission incomplete/Resubmit	
Other remarks on above submittal	One copy retained by sender	
COMMENTS:		

TRANSMITTAL	From: J.R.T. CONSTRUCTION, CO.	By: Carlos R. Tarafa	Date Transmitted by JRT:
D	<b>To:</b> Quaility Engineered Products, Inc.	Attn: Andrew Bernstein	Date Received by SUB:
COMMENTS:			



#### M E M O R A N D U M

TO:	Leonel Vasquez, PM
	Miami-Dade County Public Schools
	Office of School Facilities - Construction
FROM:	Oscar Zapata, Foreperson Lks
	Central Maintenance Operations
SUBJECT	Review Construction door/lock hardware schedule
	School: Sylvania Heights El.
	Project: 01885800

Upon review of the door/lock hardware schedule for the above referenced project, the Central Locks department has found the following:

Construction door hardware schedule dated 02-10-2021 submitted for review have certain discrepancies with the M-DCPS Master Specifications and /or Design Criteria. Resubmit revised hardware and door schedules for approval and authorization prior to ordering doors and lock hardware. <u>See attached hardware schedule with comments</u>.

#### GENERAL NOTES

1. Storefront glass doors shall be steel.

2. Hollow metal doors to be 16 gauge, seamless edge, door closer reinforcement 12 gauge full width of door x 5-3/4" as per MDCPS Master specifications 08110.

**3.** Install door closers to open 180 regardless of opening. Provide a spring cush-stop arm where a wall or floor stop cannot be specified.

4. Provide exit devices at all exterior doors

5. Install exit devices @ 40" and lever locksets @ 38".

6. Provide security grilles, insect screens at all exterior louvered doors

7. Provide knurled lever handles and door pulls at all hazardous areas, mechanical, electrical, custodial storerooms.

For more information, contact the Locks Department at 305- 995-4027, cell 305-873-9472

Oscar Zapata

cc: Jeff Ware, Director Central Operations & CTF School File

#### 3.7 THE FOLLOWING IS THE HARDWARE SCHEDULE

#### Hardware Schedule No. 1

Doors: 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 119, 120, 121, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 145, 147, 148, 150, 151, 152, 153, 154, 155, 157, 158, 161, 165, 166, 167, & 207.

Total 55 Doors - Single - 3'-0" x 7'-0" x 1-3/4" - Doors / Frames Galvaneal - NL

	<u>Mfr.</u>	<u>Qty</u>	Туре	Series/Description	<u>Finish</u>
	STA	3	Hinge	FBB168 4.5" x 4.5" NPR	600/USP
	MAR	1	Lockset	195S x G3 Classroom	626/US26D
	SCH	1	Core - Permanent	23-001 - ₩TSR WUTR	626/US26D
••••••		1	Door Closer 4	HEDNAVB SUB	689/US28
	HHC	1	Kick Plate	214S 16" x 34"	PK
	HHC	1	FLOOR STOP	259 H	626/US26D
	HHC	1	Weatherstripping	891SV 36" x 84" Vinyl	Alum
	-HHC.	and the second	Silencer	-307D	<del>—Gray</del> —

#### Hardware Schedule No. 2

Doors: 118, 122 Total 2 Doors – Single – 3'-0" x 7'-0" x 1-3/4" " – Doors / Frames Galvaneal – NL Doors: 144, 169

Total 2 Doors - Single - 3'-0" x 7'-0" x 1-3/4" - Doors / Frames Galvaneal - NL

•	<u>Mfg.</u>	<u>Qty</u>	Туре	Series/Description	<u>Finish</u>
<b></b>	LC ⊷↓ HHC	3 1 1 1 1 1	Hinge Lockset Core - Permanent Door Closer Kick Plate FLOOR STOP Weatherstripping Threshold	FBB168 4.5" x 4.5" NPR 195F x A4 - G3 Storeroom 23-001 - WFR WUTR 11 E PA KVO SNB 214F 16" x 34" 2 S9 H 891SV 36" x 84" Vinyl 520SV 36" x 5" x 1/4"	600/USP 626/US26D 626/US26D 689/US28 PK 626/US26D Alum Alum
	HHC	1	Threshold	520SV 36" x 5" x 1/4"	Alum

& PROVIDE MARGLE THRESHOLD FOR DOORS: 118-122

Sylvania Heights ES Project Number: 01885800 SR Architects, P.A. M-DCPS MASTER SPECIFICATIONS GUIDELINES Door Hardware

# Hardware Schedule No. 3 Doors: Pair 168

ł.

Total 1 Pair Doors – Double – 3'-0" x 7'-0" x 1-3/4" – Doors / Frames Galvaneal – NL

				,	
	Mfg.	<u>Qty</u>	Туре	Series/Description	<u>Finish</u>
	STA	6	Hinge	FBB199 4.5" x 4.5" NPR	600/US32D
Constant of the owner	ROC	2	Surface Bolt	585-12 Heavy Duty, Bolt Length	626/US26D
			•	12" Bolt Throw 1 1/4" LHR	
	PHI	1	Mullion	HCKR822 x 84"	600/USP
2000 100 100 100 100 100 100 100 100 100	SCH	2	Cylinder Rim	20-022 WTSR WUTR	626/US26D
	PHI	1	Exit Device	3R0HC2103LDSNB x Less Trim x Less Dogging	626W/US26D/Active
	HHC	1	Door Pull	H4G 8" TW (Knurled)	628/US28
	LCN	2		ALLEDA AVB SNB SR	
	ННС	2	Kick Plate	214S 16" x 34"	PK
	HHC		Floor Stop	259H	626/US26D
	HHC		Weatherstripping	891SV 36" x 84" Vinyl	Alum
	HHC	2	Sweep Strip	753SN 36" CLR	Alum
	HHC	1	Threshold	520S 36" x 5" x 1/4"	Alum
and the second	HHC		RALL PRUP	8105 × 76"	ALUM
Contraction of the second s				DI DE USED PROVIDE	SPRING CUSH ON POOR
-		,	edule No. 4		C L OJG RS
	Door: 16		Single $2^{i} \Omega^{n} \times 7^{i} \Omega^{n}$	x 1-3/4" – Doors / Frames Galvane	
and the second se		/001 - C	$Single = 5 - 0 \times 1 - 0$	x = 0.0013 / 1  Talles Galvance	
[	Door: 20	8			
-	Total 1 D	0or – S	Single – 3'-0" x 7'-0" :	x 1-3/4" – Doors / Frames Galvane	eal – NL
		~	-		
	<u>Mfg.</u>	<u>Qty</u>	Түре	Series/Description	<u>Finish</u>
	STA	3	Hinge	FBB168 4.5" x 4.5" NPR	600/USP
	MAR	1	Lockset	195F x G3 Storeroom	626/US26D
	SCH	1	Core - Permanent	23-001 - WTSR WUTR	626/US26D
	LCN	1	Door Closer	ATTIEDA AVB SNO	689/US28
	HHC	1	Kick Plate	214S 16" x 34"	PK
	HHC HHC	1 3	FLOOR STOP	2 <b>59Н</b> 307D	626/US26D
			Silencer		Gray
ΓK	ovide	FIRR	BUG THRESH	and far pour # 160	
ŀ	Hardwar	e Sche	dule No. 4.1		
	Doors: 20				
	÷.	• )		' x 1-3/4" – Doors / Frames Galvar	neal – NL
	Mfa	064	Tuno	Series/Deceription	Finiah
	Mfg.	<u>Qty</u>	Түре	Series/Description	<u>Finish</u>
	STA	3	Hinge	FBB168 4.5" x 4.5" NPR	600/USP
	MAR	1	Lockset	195F x G3 Storeroom	626/US26D
	SCH	1	Core - Permanent	23-001	626/US26D
	LCN	1		ILLEDA AVB-SHB	689/US28
	HHC HHC	1	Kick Plate	214S 16" x 34" こうつい	PK 626/US26D
	HHC	3	Silencer	307D	Gray
	THE C	0	Oliencei	3070	Clay
ł	PPOVI	x s	LOVER FOR	STOP FOR DOOR # 20 110: SWING	04 (INTALL DOOR
Svlvania	a Heights			M-DCPS MASTER	August, 2018
	Number:		00 SPECI	FICATIONS GUIDELINES	08710 - 23
	nitects, P.			Door Hardware	

#### Hardware Schedule No. 5

,

. С. У.

> Doors: Pair 163 Total 1 Pair Doors – Double – 3'-0" x 7'-0" x 1-3/4" – Doors / Frames Galvaneal – NL

	Mfg.	<u>Qty</u>	Type	Series/Description	Finish
	STA	6	Hinge	FBB199 4.5" x 4.5" NPR	600/US32D
	PHI	1	Mullion	FL822 x 84"	689/US28
ومحمد ومستعمل ومستعرين	SCH	1	Cylinder Rim	20-022 WISR W UTR	626/US26D
	PHI	1	Exit Device	3R0FL2108SNB x V4908A	626W/US26D/Active
	PHI LC N	1	Exit Device	3R0FL2101SNB x Less Trim	630/US32D/Inactive
*	HHC	2 2	Door Closer 4 Kick Plate	111 EDA AVE CS SN8 2145 16" x 34"	689/US28 PK
¥.,		2			-626/US26D
Same and a second s	HHC	2	Weatherstripping	891SV 36" x 84" Vinyl	Alum
	HHC	2	Door Bottom – Auto	747SN 36" x Neoprene	Alum
	HHC	1	Threshold	520S 36" x 5" x 1/4"-	Alum
-	PROV	103 5	PRING FULL	5205 36" x 5" x 1/4" 4175 36 x 6 x 1/4 SAOC	) L I
	8 9 W HOL V	-	AUU -	the on book crocker	CLOSERS TO BE INSTAN
	Hardwa	re Sche	edule No. 6	DR 1102 JUING	~
	Doors: 4				
				x 1-3/4" - Doors / Frames Galvar	neal – NL *
			_		
	<u>Mfg.</u>	<u>Qty</u>	Түре	Series/Description	<u>Finish</u>
	STA	3	Hinge	FBB168 4.5" x 4.5" NPR	600/USP
<b>***</b>	SCH	1	Cylinder Rim	20-022 WISR WUTR	626/US26D
	PHI	1	Exit Device	3R0FI 2108SNB x V4908A	626W/US26D
Construction of the Constr	LCN	1	Door Closer	ALLIEDA MYB CS SNO	
	HHC	1	Kick Plate	214S 16" x 34"	PK
	HHC	1	Weatherstripping	891SV 36" x 84" Vinyl	Alum
	HHC	1		747SN 36" x Neoprene	Alum
	HHC	1	Threshold	417S 36" x 6" x 1/4" Saddle	Alum
	PROM	bg a	parks cosh	STUP UN DOUR CLOUEI	R (CLOLER TO BE
	Llonduro	ro Cobi	IUJ · MUL( adula Na 7	D FOR NOS SWING	• )
			edule No. 7		
	Doors: 1			v 1.2/4" Deere / Evenese Calver	
:	TOTAL 2 L	500IS –	Single - 5-0 X7-0	x 1-3/4" – Doors / Frames Galvar	
	<u>Mfg.</u>	<u>Qty</u>	Түре	Series/Description	<u>Finish</u>
	STA	3	Hinge	FBB168 4.5" x 4.5" NPR	600/USP
	SCH	1	Cylinder – Rim	20-022 WTSR WUTR	626/US26D
soone K	PHI	1	Exit Device	3R0FL2108SNB x V4908A	626W/US26D
the second se	LCN	1	Door Closer	AILLEON AVB SNB	689/US28
	HHC	1	Kick Plate	214S 16" x 34"	РК
	HHC	1	Weatherstripping	891SV 36" x 84" Vinyl	Alum
	-HHC	and a subscription of the	Door Bottom - Auto	747SN 36" x Neoprene	Alum
\$200-000 million	HHG	-	Threshold	417S 36" x 6" x 1/4" Saddle	Alum
Constraint and a second se	HHC	I	FLOON STOP	259 H	626
T		-	in di		~~ ~~ ~~ ~~ ,

Sylvania Heights ES Project Number: 01885800 SR Architects, P.A.

M-DCPS MASTER SPECIFICATIONS GUIDELINES Door Hardware August, 2018 08710 - 24

## Hardware Schedule No. 6-1

Doors: 162,

Total 2 Doors - Single - 3'-0" x 7'-0" x 1-3/4" - Doors / Frames Galvaneal - NL

	<u>Mfg.</u>	Qty	Туре	<u>Series/Description</u>	<u>Finish</u>
alisensi an	STA	3 4 1 1 1 1 1	Hinge <del>Cylinder Rim</del> Exit Device	FBB168 4.5" x 4.5" NPR 20-022 WTSR- 3R0FL210(1 SNB LESS TRUM 1 EDA AVB CS SNO 214S 16" x 34" 891SV 36" x 84" Vinyl 747SN 36" x Neoprene 417S 36" x 6" x 1/4" Saddle	600/USP 626/US26D 626W/US26D 689/US28 PK Alum Alum Alum

PROVIDE JERING (WH JTOP ON DOUR CLOSER (INSTALL DOUR CLOSER FOR 110 - SWING)

#### Hardware Schedule No. 8

Doors: Pair 202

1

Total 1 Pair Doors - Double - 3'-0" x 7'-0" x 1-3/4" - Doors / Frames Galvaneal - NL

<u>Mfg.</u>	<u>Qty</u>	<u>Type</u>	Series/Description	<u>Finish</u>
STA	6	Hinge	FBB199 4.5" x 4.5" NPR	630/US32D
PHI	1	Mullion	HC822 x 84"	689/US28
SCH	1	Cylinder – Mortise	20-001 WTSR いしてに	626/US26D
SCH	1	Cylinder – Rim	20-022 WTSR WJTR	626/US26D
PHI	1	Exit Device	3R0HC2103CDSNB x Less Trim	626W/US26D/Active
PHI	1	Exit Device	3R0HC2101LDSNB x Less Trim	626W/US26D/Inactive
HHC	2	Push Plate	214S 16" x 16"	PK
HHC	1	Door Pull	H4G 8"	628/US28
s LCN	2	Door Closer 🛛 🗳	HIGON AVA SNO	689/US28
HHC	2	Kick Plate	214S 16" x 34"	PK
HHC	2	Floor Stop	259H	626/US26D
HHC	2	Weatherstripping	891SV 36" x 84″ Vinyl	Alum
HHC	1	Threshold	520SV 36" x 5" x 1/4"	Alum

#### Hardware Schedule No. 9

Doors: 201. 203

Total 2 Doors – Single – 3'-0" x 7'-0" x 1-3/4" – Doors / Frames Galvaneal – NL

<u>N</u>	<u>/lfg.</u>	<u>Qty</u>	Туре	Series/Description	<u>Finish</u>
9	STA	3	Hinge	FBB199 4.5" x 4.5" NPR	630/US32D
	SCH	1	Cylinder – Mortise	20-001 WTSR- W してR	626/US26D
b S	SCH	1	Cylinder – Rim	20-022 WISR WUTR	626/US26D
F	PHI	1	Exit Device	3R0HC2103CDSNB x Less Trim	626/US26D
F	HC	1	Push Plate	214S 16" x 16"	PK
+	HC	1	Door Pull	H4G 8"	628/US28
	Chi	1	Door Closer 🛛 🔺	IN EDA AVA SAR	689/US28
F	HC	1	Kick Plate	214S 16" x 34"	PK
F	HC	1	Floor Stop	259H	626/US26D
F	IHC	1	Weatherstripping	891SV 36" x 84" Vinyl	Alum
F	IHC	1	Threshold	520SV 36" x 5" x 1/4"	Alum

.

END OF SECTION

Sylvania Heights ES Project Number: 01885800 SR Architects, P.A.

M-DCPS MASTER SPECIFICATIONS GUIDELINES Door Hardware

## Finish Hardware Schedule

for

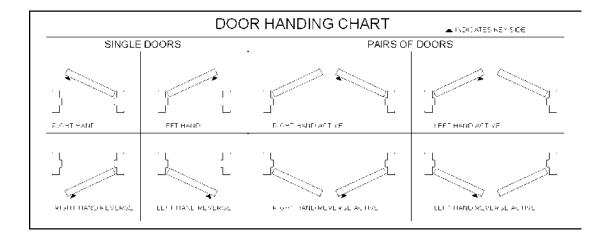
Dade County- Sylvania Heights Elementary 5901 SW 16th Street West Miami, FL 33155 Page 1 of 14

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Architect:	S/R Architects P.A. 7469 SW 50 Terace Miami, FL 33155 USA
	Phone: (305)661-8572 Fax: (305)661-8573
Contractor:	JTR Contractors Inc. PO Box 2096 Valrico, FL 33595-2096 USA Phone: (813)661-3150 Fax: (813)653-2684
Supplier:	Quality Engineered Products Co. Inc. 4506 Quality Lane Tampa, FL 33634 (813)885-1693 Fax# (813)884-2673
Salesperson:	Andrew Bernstein
Job Number:	21-131
Date:	March 16, 2021

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#### Job Number: 21-131



#### Preamble:

#### HARDWARE GENERAL NOTES:

- 1. After final approval, this schedule is to be used as a guide for shipping, delivery, installation and construction use. Therefore, it is the responsibility of all parties to make sure all items are scheduled accurately.
- 2. Corrections should be made by lining out incorrect items with contrasting colored pen in order to accentuate changes.
- 3. Materials on this project will not be ordered until final approval has been received. Any item added or changed from that specified will be an extra to the contract, and will not be ordered until a written order has been received. We can not be responsible for any delays or changes incurred because of insufficient time for delivery caused by approval or change order requests.
- 4. Materials specified and approved on this schedule have been special ordered for this project. Any item changed or cancelled will be at the purchaser's expense and no credit will be allowed without written approval.
- 5. Availability of materials is subject to the manufacturers' ability to produce and ship these to us. Normal lead times may vary from as little as two weeks to as much as 12 16 weeks, depending on the type of materials involved, manufacturer's back-log of orders, and other factors, none of which we can control. All lead times are from the manufacturer's receipt of a purchase order. We know from experience, what is reasonable to expect from a manufacturer for a given type of product. We will exercise every reasonable means to expedite delivery of products for your job. In NO case, however, will our firm be responsible for any manufacturer's inability to produce and deliver product on a specific date.
- 6. All installation and maintenance instruction, and all tools and wrenches packed with hardware items shall be identified and given to owner.

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- 7. Closers used on this project meet or exceed handicap accessibility requirements if properly adjusted at time of installation as follows:
  - a. Maximum force to open door shall be 8.5 lbs for exterior door and 5 lbs on interior door. A momentary auxiliary force exceeding the maximum is approved in order to overcome the inertia of the door.
  - b. Through the long closing arc, a uniform reasonable (main) speed should be maintained. The lacthing arc allows the door to close quietly and firmly.
- 8. All closers shall be installed on the push side of the door unless otherwise listed:
  - a. If item description or product number is prefixes with "P" or "PA", mount on push side of door using a soffit bracket.
  - b. Unless otherwise noted on schedule, install all closers for 180 degree opening.
- 9. Closers used on this project are fully adjustable type, usually sizes 1 thru 6. In addition to "Spring Power", these closers must be adjusted for latch speed, sweep speed and back check at time of installation in accordance with manufacturer's instruction for size and weight of door and handicap accessibility requirements. Selector Valves: Valves are factory preset for regular arm installation. When parallel arm is required, adjustment must be make in field. Cush arms, closers/stop or closer holders are designed for the adjustable back check to provide a buffering effect before the arm comes to a dead stop against a built-in lug on the soffit bracket. IT IS IMPERATIVE THAT THE BACK CHECK BE PROPERLY ADJUSTED ON ALL CLOSERS TO PREVENT DAMAGE TO THE DOOR, FRAME OR HARDWARE.
- 10. Any exceptions to the job specifications or any special instructions are listed as "Hardware Set Notes" following item listings.

Job Number: 21-131

Based On: Hinge Stanley Hardware (STA) Surface Bolt Rockwood (ROC) Mullion Precision Hardware, Inc. (PHI) Cylinder - Mortise Schlage Lock Company (SCH) Cylinder - Rim Schlage Lock Company (SCH) Lockset Marks USA (MAR) Exit Device Precision Hardware, Inc. (PHI) Core - Permanent Schlage Lock Company (SCH) Push Plate Hager Hinge Company (HHC) Door Pull Hager Hinge Company (HHC) Door Closer LCN Closers (LCN) **Kick Plate** Hager Hinge Company (HHC) Floor Stop Hager Hinge Company (HHC) Hager Hinge Company (HHC) Weatherstripping Sweep Strip Hager Hinge Company (HHC) Door Bottom - Auto Hager Hinge Company (HHC) Threshold Hager Hinge Company (HHC) Drip Cap Hager Hinge Company (HHC) Schlage Lock Company (SCH) Key, Cut Telkee- Oasis International (tel) Key Control Cabinet Keying Schlage Lock Company (SCH) Silencer Hager Hinge Company (HHC)

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Job Number: 21-131

Hardware Finishes:

**Finish Description** 

Finish 600/USP 626/US26D 626W/US26D 628/US28 630/US32D 689/US28 Alum Gray NS PK

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Job Number: 21-131

Door List

Door List

Door#	Hardware Set#	Door#	Hardware Set#
002	#09	138	#01
043J	#08	139	#01
101	#01	140	#01
102	#01	141	#01
103	#01	142	#01
104	#01	143	#01
105	#01	144	#02
106	#01	145	#01
107	#01	146	#07
108	#01	147	#01
109	#01	148	#01
110	#01	149	#07
111	#01	150	#01
112	#01	151	#01
113	#01	152	#01
114	#01	153	#01
115	#01	154	#01
116	#01	155	#01
118	#02.1	157	#01
119	#01	158	#01
120	#01	160	#04
121	#01	161	#01
122	#02.1	162	#06.1
124	#01	163	#05
125	#01	164	#06
126	#01	165	#01
127	#01	166	#01
128	#01	167	#01
129	#01	168	#03
130	#01	169	#02
131	#01		
132	#01		
133	#01		
134	#01		
135	#01		
136	#01		
137	#01		

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Job Number: 21-131

<u>Key Set</u>	<u>Qty</u> <u>Units</u>	Door#	Door Location	<u>Hand</u>	Label	Deg
	1 Single	101	Int Circ. 052 From Classroom 101	RHR		180
	1 Single	102	Int Circ. 052 From Classroom 002	LHR		180
	1 Single	103	Int Circ. 052 From Classroom 002	RHR		180
	1 Single	104	Int Circ. 052 From Classroom 001	LHR		180
	1 Single	105	Int Circ. 052 From Classroom 004	LHR		180
	1 Single	106	Int Circ. 052 From Classroom 003	RHR		180
	1 Single	107	Int Circ. 052 From Classroom 004	RHR		180
	1 Single	108	Int Circ. 052 From Classroom 003	LHR		180
	1 Single	109	Int Circ. 052 From Classroom 006	LHR		180
	1 Single	110	Int Circ. 052 From Classroom 005	RHR		180
	1 Single	111	Int Circ. 052 From Classroom 006	RHR		180
	1 Single	112	Int Circ. 052 From Classroom 005	LHR		180
	1 Single	113	Int Circ. 052 From Classroom 008	LHR		180
	1 Single	114	Int Circ. 052 From Classroom 007	RHR		180
	1 Single	115	Int Circ. 052 From Classroom 008	RHR		180
	1 Single	116	Int Circ. 052 From Classroom 007	LHR		180
	1 Single	119	Int Circ. 051 From Classroom 010	LHR		180
	1 Single	120	Int Circ. 051 From Classroom 010	RHR		180
	1 Single	121	Int Circ. 051 From Classroom 012	LHR		180
	1 Single	124	Int Circ. 051 From Classroom 012	RHR		180
	1 Single	125	Int Circ. 051 From Classroom 014	LHR		180
	1 Single	126	Int Circ. 051 From Classroom 015	RHR		180
	1 Single	127	Int Circ. 051 From Classroom 015	LHR		180
	1 Single	128	Int Circ. 051 From Classroom 014	RHR		180
	1 Single	129	Int Circ. 051 From Classroom 017	RHR		180
	1 Single	130	Int Circ. 051 From Classroom 016	LHR		180
	1 Single	131	Int Circ. 051 From Classroom 017	LHR		180
	1 Single	132	Int Circ. 051 From Classroom 016	RHR		180
	1 Single	133	Int Circ. 051 From Classroom 019	RHR		180
	1 Single	134	Int Circ. 051 From Classroom 018	LHR		180
	1 Single	135	Int Circ. 051 From Classroom 019	LHR		180
	1 Single	136	Int Circ. 051 From Classroom 018	RHR		180
	1 Single	137	Int Circ. 051 From Classroom 021	RHR		180
	1 Single	138	Int Circ. 051 From Classroom 020	LHR		180
	1 Single	139	Int Circ. 051 From Classroom 021	LHR		180
	1 Single	140	Int Circ. 051 From Classroom 020	RHR		180
	1 Single	141	Int Circ. 051 From Classroom 023	RHR		180
	1 Single	142	Int Circ. 051 From Lounge 022	LHR		180
	1 Single	143	Int Circ. 051 From Classroom 023	LHR		180
	1 Single	145	Int Circ. 050 From Classroom 029	RHR		180
	1 Single	147	Int Circ. 050 From Classroom 029	LHR		180
	1 Single	148	Int Circ. 050 From Classroom 031	RHR		180

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180

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180

#### Job Number: 21-131

1 Single

54 Single

GA verily.

167/

#### Hardware Set#: #01 (Continued) 150 1 Single Int Circ. 051 From Classroom 031 LHR 1 Single 151/ Int Circ. 050 From Classroom 033 RHR 1 Single 152/ Int Circ. 050 From Classroom 033 LHR 1 Single 153/ Int Circ. 050 From Planning 035 RHR 1 Single 154 / Int Circ. 050 From Classroom 036 LHR 1 Single 155 / Int Circ. 051 From Planning 035 LHR 157/ 1 Single Int Circ. 051 From Classroom 036 RHR 1 Single 158/ Int Circ. 050 From ART E.I. 038 LHR 1 Single 161/ Int Circ. 050 From ART E.I. 038 LHR 1 Single 165/ Int Circ. 050 From Musci E.I. 040 LHR 1 Single 166/ Int Circ. 050 From Musci E.I. 040 RHR

Size:	3-0 X 7-0 X 1 3/4	1

Galvaneal-NL Door X Galvaneal Frame

RHR

Tot Qty	Qty	<u>UOM</u>	Manf	<u>Item Type</u>	Item Series/Description	Finish
162	3	EA	STA	Hinge	FBB168 4.5" x 4.5" NRP	600/USP
54	1	EA	MAR	Lockset	195S x G3 Classroom 🗚	626/US26D
54	1	EA	SCH	Core - Permanent	23-001 WUTR -	626/US26D
54	1	EA	LCN	Door Closer	4111 Extra Duty Arm x AVB x TB/MS	689/US28
54	1	EA	HHC	Kick Plate	2145 16" x 34"	PK
54	1	EA	HHC	Floor Stop	259H -	626/US26D
54	1	EA	HHC	Weatherstripping	891SV 36" x 84" Vinyl	Alum
* Ve	erify	and	/or P	rovide Handing	8915V 36" x 84" Vinyl 9295V 36" × 94" per Mark #167	

Dining 043 From Food Servicen 043B

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#### Job Number: 21-131

.

#### Hardware Set#: #02

Key Set	<u>Qt</u>	<u>y</u> <u>Units</u> 1 Single		<u>oor#</u> 9 /		<u>Door Locat</u> New Custodi		5 From	n Elect 045B	<u>Han</u> RHF	solo-E-setal	<u>Label</u> 45-min	<u>Deg</u>
		1 Single	net men anne anne page hang binge	\$	Size:	3-0 X 7-0 X 1	3/4	/	Galvaneal-Flus	h Door X G	alvaneal I	- rame	
		1 Single	14	4		Int Circ. 051	From	Vault (	)22A	RHF	R		180
	,	1 Single		ç	Size:	3-0 X 7-0 X 1	3/4	1	Galvaneal-NL [	Door X Galv	aneal Fra	me	
<u>Tot Qty</u> 6 2 2 2 2 2 2 2 2 2 2	<u>Qty</u> 3 1 1 1 1 1	UOM EA EA EA EA EA EA EA EA	Manf STA MAR SCH LCN HHC HHC HHC HHC	Hing Lock Core Door Kick Floo Wea				FBB1 195F 23-00 4111 214S 259H 891S	Series/Description 68 4.5" x 4.5" NRP x A4 - G3 Storeroo 1 WUTR Extra Duty Arm x A 16" x 34" / 36" x 84" Vinyl / 36" x 5" x 1/4"	 m -	1	<u>Finish</u> 600/US 626/US 689/US PK 626/US Alum Alum	26D 26D 28

<u>Key Set</u>		<u>y</u> <u>Units</u> 1 Single 1 Single 2 Single	11 12	<u>500r#</u> 8 ∕ 22 ✓ Size:		011 From RR 009 To	New Custodian 011A New Custodian 009A Galvaneal-BL Door X	<u>Hand</u> LHR LH	Label	<u>Deg</u>
		U		0.0000.0				Carranourr	unio	
<u>Tot Qty</u>	Qty	<u>UOM</u>	Manf	Item Type			Series/Description		<u>Finish</u>	-
6	3	EA	STA	Hinge		FBB1	68 4.5" x 4.5" NRP 🧹		600/US	SP
2	1	EA	MAR	Lockset		195F	x A4 - G3 Storeroom 🧹		626/US	S26D
2	1	EA	SCH	Core - Perma	anent	23-00	1 WUTR 🖌		626/US	S26D
2	1	EA	LCN	Door Closer			Extra Duty Arm x AVB x T	B/MS 🧹	689/US	\$28
2	1	EA	HHC	Kick Plate		214S	16" x 34" 🗸		PK	
2	1	EA	HHC	Floor Stop		259H	1		626/US	326D
2	1	EA	HHC	Weatherstrip	ping	891S	V 36" x 84" Vinyl 🆌		Alum	
*Ma	arbl	e Th	resho	ld by O	thers	MAR	BLE THPEShe			

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#### Job Number: 21-131

Hardware	Set#:	#03
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<u>Key Set</u>		<u>y</u> <u>Units</u> 1 Pair	<u>Do</u> 16	<u>oor#</u> 8	<u>Door Locati</u> Exterior From		/ Mechanical 045A	<u>Hand</u> RHRA/LHR	<u>Label</u>	Deg
		1 Pair			3-0 X 7-0 X 1 3-0 X 7-0 X 1		Galvaneal-Flush Door	<sup>-</sup> X Galvaneal	Frame	
<u>Tot Qty</u> 6	Qty 6	<u>UOM</u> EA	Manf	Item Type			Item Series/Description		<u>Fin</u>	
2	2	EA	STA ROC	Hinge Surface Bolt			FBB199 4.5" x 4.5" NRP / 585-12 Heavy Duty, Bolt Length 1/4"	12", Bolt Throv		/US32D /US26D/Inact
1	1	EA	PHI	Mullion			HCKR822 x 84"			/USP
2	2	EA	SCH	Cylinder - Rim	1		20-022 WUTR		626	/US26D
1	1	EA	PHI	Exit Device 🧹			3R0HC2103LDSNB x Less Trim	n x Less Doggin	g 🖌 626 tive	W/US26D/Ac
1	1	EA	HHC	Door Pull 🦊			H4G 8" TW (Knurled) 🧹			/US28
2	2	EA	LCN	Door Closer 1			4111 Extra Duty Arm x AVB x T	B/MS 🦯	689	/US28
2	2	EA	HHC	Kick Plate 🗸			214S 16" x 34"		PK	
2	2	EA	HHC	Floor Stop 🖊			259H /		626	US26D
2	2	EA	HHC	Weatherstripp	ing /		891SV 36" x 84" Vinyl 🦯		Alur	n
2	2	EA	HHC	Sweep Strip 🗸			753SN 36" CLR 🖊		Alur	n
1	1	EA	HHC	Threshold 🖌			520SV 72" x 5" x 1/4" 🖌		Alur	n
1	1	EA	HHC	Drip Cap 🧹			810S 76"w 🤛		Alur	n
* 0	1.		D	1 . 10	A 1110 0	FO		,		

\* Quality Eng Products NOA #19-0507.03 Combined w/ Dormakaba (Aka Precision) Component FL#16202-R6 Pair of Flush HM Doors @ +/-65PSI

#### Hardware Set#: #04

Key Set	<b>Electrony</b>	<u>y Units</u> 1 Single		0 🗸	<u>Door Locati</u> Int Circ. 050 1	nde buenetett	stodial 045	<u>Hand</u> LH	<u>Label</u>	Deg
		1 Single		Size:	3-0 X 7-0 X 1	3/4 🧹	Galvaneal-Flush Do	oor X Galvanea	al Frame	
<u>Tot Qty</u>	<u>Qty</u>	<u>UOM</u>	Manf	<u>ltem Type</u>			Series/Description		<u>Finis</u> ł	<u>1</u>
3	3	EA	STA	Hinge		FBB	168 4.5" x 4.5" SP		600/U	SP
1	1	EA	MAR	Lockset		195F	x G3 Storeroom		626/U	S26D
1	1	EA	SCH	Core - Perma	anent	23-0	01 WUTR 🧹		626/U	S26D
1	1	EA	LCN	Door Closer		4111	Extra Duty Arm x AVB :	K TB/MS 🦯	689/U	S28
1	1	EA	HHC	Kick Plate		2145	6 16" x 34" 🗹		PK	
1	1	EA	HHC	Floor Stop		259F	1 🖌		626/US	S26D
3	3	EA	HHC	Silencer		307E	)/		Gray	
*D		1 /	11 (0)		r 11 m		111 01			

\*Per Mark #160 ONLY-Marble Threshold by Others

Finish Hardware Schedule

Dade County- Sylvania Heights Elementary

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#### Job Number: 21-131

3

Hardware Set#: #05	Har	dware	Set#:	#05
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<u>Key Set</u>		<u>y</u> <u>Units</u> 1 Pair	<u>Do</u> 16	Door#         Door Locat           03         Int Circ. 050		<u>Hand</u> RHRA/LHR	Label	Deg
		1 Pair		Size: 3-0 X 7-0 X 1 3-0 X 7-0 X 1	3/4 Galvaneal-NL Door X G 3/4	Galvaneal Fra	ame	
<u>Tot Qty</u>	Qty	UOM	Manf	Item Type	Item Series/Description		Finish	
6	6	EA	STA	Hinge	FBB168 4.5" ¥ 4.5" NRP		600/USF	þ
1	1	EA	PHI	Mullion	FL822 x 84"		689/US2	28
1	1	EA	SCH	Cylinder - Rim	20-022 WUTR 🛩		626/US2	26D
1	1	EA	PHI	Exit Device	3R0FL2108SNB x V4908A		626W/U tive	S26D/Ac
1	1	EA	PHI	Exit Device	3R0FL2101SNB x Less Trim /			2D/Inact
2	2	EA	LCN	Door Closer	4111 Spring Cush-n-Stop x AVB >	x TB/MS	689/US2	8
2	2	EA	HHC	Kick Plate	214S 16" x 34" 🖌		PK	
2	2	EA	HHC	Weatherstripping	891SV 36" x 84" Vinyl		Alum	
2	2	EA	HHC	Door Bottom - Auto	747SN 36" x Neoprene 🖌 🏼 /		Alum	
1	1	EA	HHC	Threshold	417S 72" x 6" x 1/4" Saddle		Alum	
		$\sim 1$						

\* Door Closers to be installed for 110 Degree Swing

<u>Key Set</u>	Qt	<u>y</u> <u>Units</u> 1 Single		<u>oor#</u> 64	<u>Door Locati</u> Int Circ. 050 F		<b>j</b> 043	<u>Hand</u> LHR	Label	Deg
		1 Single	;	Size:	3-0 X 7-0 X 1	3/4 🖌	Galvaneal-NL Doo	or X Galvaneal Fr	ame	
Tot Qty 3 1 1 1 1 1 1 1 *Clo	Qty 3 1 1 1 1 1 1 1 1 5SET	UOM EA EA EA EA EA EA EA	Manf STA SCH PHI LCN HHC HHC HHC HHC HHC HHC	Item Type Hinge Cylinder - Rin Exit Device Door Closer Kick Plate Weatherstrip Door Bottom Threshold	ping	FBB1 20-02 3R0F 4111 214S 891S -747S 417S	Series/Description 168 4.5" x 4.5" NRP 22 WUTR 52 2000 Cush-n-Stop x 16" x 34" V 36" x 84" Vinyl N 36" x Neoprene 36" x 6" x 1/4" Saddle W1112	AVB x TB/MS 📈	Finis 600/U 626/U 626W 689/U PK Alum Alum Alum	SP S26D /US26D S28

Finish Hardware Schedule

Dade County- Sylvania Heights Elementary

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#### Job Number: 21-131

2

#### Hardware Set#: #06.1

Key Set	Qt	<u>y</u> <u>Units</u> 1 Single		/	or Locati Circ. 050 F	on rom Dining 043	<u>Hand</u> RHR	<u>Label</u> <u>Deg</u>
		1 Single	2	Size: 3-02	X 7-0 X 1	3/4 🧹 Galvaneal-NL I	Door X Galvaneal Fra	ame
<u>Tot Qty</u> 3 1 1	<u>Qty</u> 3 1 1	<u>UOM</u> EA EA EA EA	<u>Manf</u> STA PHI LCN	<u>Item Type</u> Hinge Exit Device Door Closer		Item Series/Descripti FBB168 4.5" x 4.5" NRF 3R0FL2101SNB x Less 4111 Spring Cush-n-Sto	Trim	<u>Finish</u> 600/USP 626W/US26D 689/US28
1	1	EA	HHC HHC	Kick Plate Weatherstripping		214S 16" x 34" -/	/	PK Alum
1	1	EA	HHC	Door Bottom - Auto	D	747SN 36" x Neoprene		Alum
1 * In	1 stol	EA 1 Doc	HHC	Threshold		417S 36" x 6" x 1/4" Sac		Alum
	stal				Degr	ee Swing 🗸 🗡	on poor cio	SER CUSHSEP

<u>Key Set</u>		<u>y</u> <u>Units</u> 1 Single 1 Single	14 14	00r# 6 9	<u>Door Locatio</u> Int Circ. 050 F Int Circ. 050 F	rom Workr		<u>Hand</u> LHR LHR	<u>Label</u>	<u>Deg</u> 180 180
		2 Single		Size:	3-0 X 7-0 X 1	3/4 🦯	Galvaneal-NL Door X	Galvaneal Fr	ame	
<u>Tot Qty</u>	Qty	<u>UOM</u>	Manf	Item Type		Item	Series/Description		Finish	
6	3	EA	STA	Hinge			168 4.5" x 4.5" NRP		600/US	Tana
2	1	EA	SCH	Cylinder - Rin	n	20-02	22 WUTR		626/US	626D
2	1	EA	PHI	Exit Device		3R0F	L2108SNB x V4908A 🦯		626W/U	US26D
2	1	EA	LCN	Door Closer		4111	Extra Duty Arm x AVB x T	B/MS	689/US	\$28
2	1	EA	HHC	Kick Plate		214S	16" x 34"		PK	
2	1	EA	HHC	Floor Stop		259H			626/US	26D
2	1	EA	HHC	Weatherstripp	ping	891S	V 36" x 84" Vinyl		Alum	•

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#### Job Number: 21-131

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<u>Key Set</u>		<u>y Units</u> 1 Pair		<u>oor#</u> 13J	<u>Door Locati</u> Interior Circ. (		From Dining 043	<u>Hand</u> RHRA/LHR	<u>Label</u>	Deg
		1 Pair		Size:	3-0 X 7-0 X 1	3/4	Galvaneal-NL Door X	Galvaneal Fr	ame	
					3-0 X 7-0 X 1	3/4				
Tot Qty	Qty	UOM	Manf	Item Type			Item Series/Description		Finis	h
6	6	EA	STA	Hinge			FBB199 4.5" x 4,5" NRP 🗸		630/L	JS32D
1	1	EA	PHI	Mullion			HC822 x 84"		689/L	JS28
1	1	EA	SCH	Cylinder - Mo	rtise		20-001 WUTR 🖌		626/L	JS26D
1	1	EA	SCH	Cylinder - Rir	n		20-022 WUTR 🖌		626/L	JS26D
1	1	EA	PHI	Exit Device			3R0HC2103CDSNB x Less Trir	m /	626W	//US26D/Ac
1	1	EA	PHI	Exit Device			3R0HC2101LDSNB x Less Trin	n /	tive 626W active	//US26D/In
2	2	EA	HHC	Push Plate			214S 16" x 16" 🧹		PK	
1	1	EA	HHC	Door Pull			H4G 8" 🖌		628/L	IS28
2	2	EA	LCN	Door Closer			4111 Extra Duty Arm x AVB x T	B/MS 🧹	689/L	IS28
2	2	EA	HHC	Kick Plate			214S 16" x 34" 🧹		PK	
2	2	EA	HHC	Floor Stop			259H		626/U	IS26D
2	2	EA	HHC	Weatherstripp	ping		891SV 36" x 84" Vinyl 🦯		Alum	
1	1	EA	HHC	Threshold			520SV 72" x 5" x 1/4"		Alum	

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#### Job Number: 21-131

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#### Hardware Set#: #09

Key Set		<u>y</u> <u>Units</u> 1 Single		2 /	<u>Door Location</u> Exterior From		ssroom 002	<u>Hand</u> LHR	Label	Deg
		1 Single Pall		Size:	3-0 X 7-0 X 1	3/4	( Galvaneal-NL Door )	( Galvaneal	Frame 🧹	t an Tao
<u>Tot Qty</u>	Qty	UOM	Manf	<u>Item Type</u>			Item Series/Description		Finis	h
3	3	EA EA	STA	Hinge	M		FBB199 4.5" x 4.5" NRP		630/	
1	1	EA	STA SCH	Cylinder - Mo	ortise		FBB199 4.5" x 4.5" NRP 20-001 WUTR		626/	J\$26D 28
1	1	EA	SCH	Cylinder - Rir	n		20-022 WUTR 🗹			JS26D
1	1	EA	PHI	Exit Device			3R0HC2103CDSNB x Less Tri	m 🖊	626/L	JS26D
1	1	EA	HHC	Push Plate			214S 16" x 16"		PK	
1	1	EA	HHC	Door Pull			H4G 8" 🖌	,	628/L	JS28
1	1	EA	LCN	Door Closer			4111 Extra Duty Arm x AVB x <sup>-</sup>	TB/MS	689/L	JS28
1	1	EA	HHC	Kick Plate			214S 16" x 34" 🗸		PK	
1	1	EA	HHC	Floor Stop			259Н 🖌		626/L	IS26D
1	1	EA	HHC	Weatherstrip	ping		891SV 36" x 84" Vinyl 🦯		Alum	
1	1	EA	HHC	Threshold			520SV 36" x 5" x 1/4" 🧹		Alum	
* 01	alit	v Ene	Proc	ducts N(	λ <i>#</i> 19_0	50	7 04 (Page 3 of 1)	3)		

\* Quality Eng Products NOA #19-0507.04 (Page 3 of 13) 3'-0" x 7'-0" NL HM Doors @ +/-70PSF

Hardware Set#: Set 000

<u>Tot Qty</u>	Qty	<u>UOM</u>	Manf	Item Type	Item Series/Description	Finish
10	10	EA	SCH	Key, Cut	35-057 Extractor Tool	
12	12	EA	SCH	Key, Cut	48-104 Construction Key, Standard Bow, Embossed	NS
105	105	EA	SCH	Key, Cut	49-131 Standard Bow, Unembossed Both Sides (MK)	NS
510	510	EA	SCH	Key, Cut	50-221 Bitting Not Stamped, Delete Key Combination	
243	243	EA	SCH	Key, Cut	50-232 Extra Cut Restricted MDCPS	NS
81	81	EA	SCH	Key, Cut	60-001 Pack Change Keys Independently (PKI)	
1	1	EA	tel	Key Control Cabinet	AWC-450-S	Gray
510	510	EA	SCH	Keying	XQ06-878 Keys Stamped Do Not Duplicate	
510	510	EA	SCH	Keying	50-003 Non Standard Code (Post #)	
81	81	EA	SCH	Keying	50-210 Master Keyed (GGMK, GMK, MK)	
81	81	EA	SCH	Keying	50-211 Split Construction Keying Charge	

#### **5 KNUCKLE FULL MORTISE HINGES**

**Heavy Weight Ball Bearing** 

FBB168 – (ANSI A8111) Steel – polished and plated or phosphated and prime coated for painting FBB199 – (ANSI A2111) Brass or bronze – polished and plated or painted FBB199 (32) – (ANSI A5111) Stainless steel – highly polished FBB199 (32D) – (ANSI A5111) Stainless steel – satin finish

- For use on heavy doors or doors where high frequency is expected such as entrance doors to office buildings, stores, public buildings and corridor entrance doors to offices
- · All hinges have template screw hole location for use on either wood or hollow metal doors and frames
- · Equipped with four Stanley permanently lubricated non-detachable ball bearings
- · Pins in non-ferrous hinges are stainless steel
- Hole in bottom tip for easy pin removal
- · Reversible flush tips and pins

ANSI

· Hinges can be furnished as follows:

with raised barrel (RB)

with electric wires and/or switches (CE and/or CS)

with hospital tips (HT)

with decorative tips

with security studs

with non-removable pins (NRP)



Siz	e Open	Gau	uge	Flat Hea	d Screws	Quantity	Quantity		Case W	/eight	
		of M	letal	Perl	Piece	Per Box	Per Case	Bron	ze	S	teel
Inches	(mm)	Inches	(mm)	Machine	Wood			Lbs.	(Kg)	Lbs.	(Kg)
41/2 x 41/2	(114 x 114)	.180	(4.6)	8 - 12-24 x 1/2	8 -12 x 11/4	3 EA.	30 EA.	45	(21)	42	(19)
5 x 4 <sup>1</sup> / <sub>2</sub>	(127 x 114)	.190	(4.8)	8 - 12-24 x 1/2	8 -12 x 11/2	3 EA.	24 EA.	46	(21)	40	(18)
5 x 5	(127 x 127)	.190	(4.8)	8 - 12-24 x 1/2	8 -12 x 11/2	3 EA.	24 EA.	50	(23)	46	(21)
6 x 4 <sup>1</sup> / <sub>2</sub>	(152 x 114)	.203	(5.2)	10 - 1/4-20 x 1/2	10 -14 x 11/2	3 EA.	24 EA.	63	(29)	53	(24)
6 x 5	(152 x 127)	.203	(5.2)	10 - 1/4-20 x 1/2	10 -14 x 1 <sup>1</sup> / <sub>2</sub>	3 EA.	24 EA.	65	(30)	55	(25)
6 x 6	(152 x 152)	.203	(5.2)	10 - 1/4-20 x 1/2	10 -14 x 1 <sup>1</sup> / <sub>2</sub>	3 EA.	24 EA.	76	(35)	61	(28)
8 x 6*	(203 x 152)	.203	(5.2)	16 - 1/4-20 x 1/2	16 -14 x 11/2	3 EA.	12 EA.	57	(26)	51	(23)
8 x 8*	(203 x 203)	.203	(5.2)	16 - 1/4-20 x 1/2	16 -14 x 1 <sup>1</sup> / <sub>2</sub>	3 EA.	12 EA.	68	(31)	61	(28)

\*Available in Steel only

Consult factory for other sizes not listed

STANLEY



# Cylinders for exit devices, aluminum door, etc.

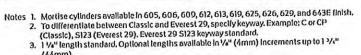
Rim cylinders		
Number	Description	Tall plece
20-022	Conventional cylinder	Horizontal
20-021	Conventional cylinder	Vertical
20-710	Primus cylinder	Horizontal
20-710-XP	Primus XP cylinder	Horizontal
20-709	Primus cylinder	Vertical
20-709-XP	Primus XP cylinder	Vertical
20-716	Primus lockout cylinder	Horizontal
20-716-XP	Primus XP lockout cylinder	Horizontal
20-510	Primus UL437 Listed cylinder	Horizontal
20-510-XP	Primus XP UL437 Listed cylinder	Horizontal
20-509	Primus UL437 Listed cylinder	Vertical
20-509-XP	Primus XP UL437 Listed cylinder	Vertical
20-516	Primus UL437 Listed lockout cylinder	Horizontal
20-516-XP	Primus XP UL437 Listed lockout cylinder	Horizontal

Available in 605, 606, 609, 612, 613, 619, 625 and 626 linish.

Cylinders for Adams Rite MS 4500 and 4700 Series Lorl 4500 Series and Corbin Russwin DL3000 Series

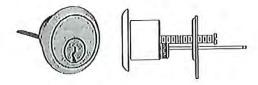
Number	Description
26-072	Conventional cylinder only
20-013	Conventional cylinder with 1/4" blocking ring
20-706	Primus cylinder with 3/6" blocking ring
20-706-XP	Primus XP cylinder with 3/6" blocking ring
20-506	Primus UL437 Listed cylinder with 3/8" blocking ring
20-506-XP	Primus XP UL437 Listed cylinder with 3/6" blocking ring
20-718	Primus lockout cylinder
20-718-XP	Primus XP lockout cylinder
20-518	Primus UL437 Listed lockout cylinder
20-518-XP	Primus XP UL437 Listed lockout cylinder

Cylinders for	r Adams Rite 4070 Serles	
Number	Description	
26-073	Conventional cylinder only	
20-708	Primus cylinder only	
20-708-XP	Primus XP cylinder only	
20-508	Primus UL437 Listed cylinder only	
20-508-XP	Primus XP UL437 Listed cylinder only	



- (44mm).
  4. To order less Schlage logo, specify with K510-612 faceplate.
  5. Lockout keys must be ordered separately and lockout cylinders will not be master
- keyed by Schlage.
  Specify LKB If 0-bitted Primus XP cylinders are required less key blanks.
  Plugs and FSIC cores available in 606 and 626 only.

28 · Schlage · Key systems, cylinders and keys reference guide







B502-292 Carn for classic conventional prior to July 2010



B502-944 Cam for Everest 29 & Primus XP prior to July 2010



B502-380 Cam for classic conventional prior to July 2010



B502-945 Cam for Everest 29 & Primus XP prior to July 2010



Modular cam



L583-446 Modular cam



L520-744 Modular Cam



Modular Cam

Cylinders

# Cylinders for Schlage L Series mortise locksets

ing rings (	Cylinde	ronly Compr. r	 ring and spring	<u>ج</u> ر؟	Con	JAMI) cealed shell cylin	der
nder mee	hanlsm						
	Design	Function	Conventional	Primus/ Primus XP	Primus UL437/ Primus XP UL437	Primus XP lockout	Primus XP UL437 lockout
6	LondN	All except below	30-021	20-793/ 20-793-XP	20-593/ 20-593-XP	20-717**	20-517**
	L and N Escutcheons (cylinders and	L9060P outside	26-021	20-701/ 20-701-XP	20-501/ 20-501-XP	20-715**	20-515**
	spring only)	L9485, L9486 Hotel functions	30-022'	N/A	N/A	N/A	N/A
•	Lescutcheon	All except below	30-004	20-789/ 20-789-XP	20-589/ 20-589-XP	N/A	N/A
•	with concealed shell cylinder	L9060P outside	26-023	24-767/ 24-767-XP	24-567/ 24-567-XP	N/A	N/A
	(C sulfix)	L9485, L9486 Hotel functions	30-005'	N/A	N/A	N/A	N/A
6		All except below	30-001	20-787/ 20-787-XP	20-587/ 20-587-XP	20-715	20-517
0	Sectional trim (cylinder with compression ring	L9060P outside	20-001	20-700/ 20-700-XP	20-500/ 20-500-XP	20-715	20-515
(i)	& spring)	L9485, L9486 Hotel Functions	30-002'	A	N/A	N/A	N/A

\* Specify door hand for hotel function cylinders.

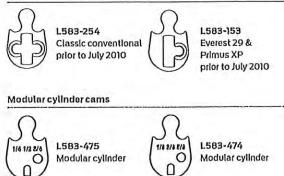
\*\* Discard compression ring for Lockout cylinders with escutcheon trim.

Available in 605, 606, 609, 612, 613, 625, 626, 629, and 643E (inish, Concealed shell cylinders available in 606 and 626 only.
 To differentiate between Classic and Everest 29, specify keyway. Example: C or CP (Classic), S123 (Everest 29). Everest 29 S123 keyway standard.
 1 ¼" length standard. Optional lengths available in ¼" (4mm) increments up to 1 ¼" (44mm).

4. To order less Schlage logo, specify with K510-612 faceplate.

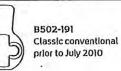
Lockout keys must be ordered separately and lockout cylinders will not be master keyed by Schlage.
 Specify LKB If 0-billed Primus XP cylinders are required less key blanks.

Cam for all functions except L9060 outside



Modular cams are used for all cylinders made after Aug 2010, whether Classic, Everest 29 or Primus. L5B3-474 is used on cylinders 1 14,", 14,4" and 1 1/1", 1583-475 is used on cylinders 1 1/1", 1 1/1" & 1 1/1".

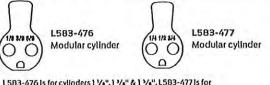




-

B502-948 Everest 29 & Primus XP prior to July 2010

Modular cam for L9060 outside



L583-476 is for cylinders 1 ¼•", 1 ¼•" & 1 ¼•", L583-477 is for cylinders 1 ¼•", 1 ½•", L583-477 is for



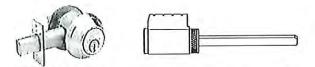






Number	Description	Door thickness	
22-645	Conventional	]3/6" - ]7/6"	
22-646	Conventional	> 11/0" - 21/4"	
20-745	Primus	13/8" - 17/8"	
20-745-XP	Primus XP	13/6" - 17/6"	
20-746	Primus	> 11/0" - 21/4"	
20-746-XP	Primus XP	> 11/0" - 21/4"	
20-545	Primus UL	]3/s" - ]7/s"	
20-545-XP	Primus XP UL	13/8" - 17/8"	
20-546	Primus UL	> 11/8" - 21/4"	
20-546-XP	Primus XP UL	> 11/8" - 21/4"	

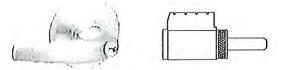
Cylinder Itself available in 606 and 626 finish only. Housing is available in B250, H, and S200 Series finishes.



Lockset function	Cylinder number	Door thickness	Cylinder mechanism
8660, 8663	22-644	1 3/8" - 2 1/2"	Conventional
B661, B664	22-642	1 3/8" - 2"	
	22-643	>2-21/2"	
664	22-642	1 3/8" - 2 1/2"	
8662'	22-087	1 3/6" - 2"	
	22-088	>2-21/2"	
B760, B760-XP B763, B763-XP	20-744, 20-744-XP	1 3/8" - 2 1/2"	Primus/ Primus XP
B761, B761-XP	20-742, 20-742-XP	1 3/8" - 2"	
	20-743, 20-743-XP	>2-21/2"	
B764, B764-XP	20-742, 20-742-XP	1 3/0" - 2 1/2"	а. С
B762', B762-XP'	20-745, 20-745-XP	1 3/8" - 2"	
	20-746, 20-746-XP	> 2 - 2 1/2"	
8860, 8860-XP 8863, 8863-XP	20-544, 20-544-XP	1 3/a" - 2 1/2"	Primus/ Primus XP
8861, 8861-XP	20-542, 20-542-XP	1 3/0" - 2"	UL437 Listed
	20-543, 20-543-XP	>2-21/2"	
8864, 8864-XP	20-542, 20-542-XP	1 3/8" - 2 1/2"	
8862', 8862-XP'	20-545, 20-545-XP	1 3/a" - 2"	
	20-546, 20-546-XP	>2-21/2"	

Number	Description			
23-001	6-pin conventional cylinder (standard)			
20-748	Primus cylinder			
20-748-XP	Primus XP cylinder			
20-548	Primus UL437 Listed high security cylinder			
20-548-XP	Primus XP UL437 Listed high security cylinder			
23-003	Conventional hotel function (D85) with occupancy indicator			
21-002	6-pin conventional cylinder, 2" - 2 ½" thick door			
20-724	Primus cylinder, 2" - 2 1/2" thick door			
20-724-XP	Primus XP cylinder, 2" - 2 1/2" thick door			
20-524	Primus UL437 Listed high security cylinder, 2" - 2 1/2" door			
20-524-XP	Primus XP UL437 Listed high security cylinder, 2" - 2 1/2" door			
23-003-098	Conventional hotel function (D85) w/indicator, 2" - 2 ¼" door			

Available in 606 and 626 finish only.

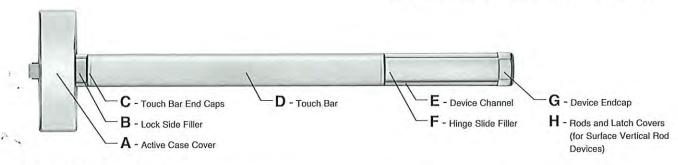


Cylinders for	D Serles levers (old style)		
Number	Description		
23-013	6-pin conventional cylinder (standard)		
20-750	Primus cylinder		
20-750-XP	Primus XP cylinder		
20-550	Primus UL437 Listed high security cylinder		
20-550-XP	Primus XP UL437 Listed high security cylinder		
23-014	Conventional hotel function (D85) with occupancy indicator		

Available in 606 and 626 finish only.

Available in 606 and 626 finish only. • Part numbers for double-sided deadbolts represent one cylinder only.

#### GENERAL INFORMATION



#### **Base Materials**

Finishes 4	ANSI/BHMA	US	Aluminum	Brass	Bronze	Stainless Steel
Polished Brass, Clear Coated	605	US3	<u> </u>	A,B,C,D,E,F,G,H	—	
Satin Brass, Clear Coated	606	US4		A,B,C,D,E,F,G,H		1. Sec. 1. Sec
Satin Bronze, Clear Coated	612	US10	1	_	A,B,C,D,E,F,G,H	
Dark Oxidized Satin Bronze	613	US10B	-	_	A,B,C,D,E,F,G,H	
Satin Aluminum, Clear Anodiz	zed 628	<b>US28</b>	A,E,F			B,C,D,G,H
Satin Chrome, Weatherized	626W	US26D	_	A,B,C,D,E,F,G,H	· · · · ·	
Satin Stainless Steel	630	US32D		<u> </u>		A,B,C,D,E,F,G,H

#### Finishes

ANSI/BHMA	US	Description
605	US3	Polished Brass, Clear Coated
606*	US4	Satin Brass, Clear Coated
612	US10	Satin Bronze, Clear Coated
613	US10B	Dark Oxidized Satin Bronze
625	<b>US26</b>	Polished Chromium Plated
626W	US26D	Satin Chrome, Weatherized
628	<b>US28</b>	Satin Aluminum, Clear Anodized
630	US32D	Satin Stainless Steel

#### **Mullion finishes**

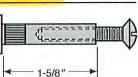
USP	Primed for Paint	
	Aluminum Paint	
	Dark Bronze Paint	
	USP	Aluminum Paint

#### Fasteners

Furnished standard with machine screws and full thread wood/sheet metal screws. Specify Sex Nuts and Bolts (SNB) where recommended or required by the door manufacturer.

#### Sex Nuts & Bolts (not furnished std.)

Sex Nuts & Bolts are furnished with No. 10-24 x 1"OHMS (1-1/2"long screws required for guides).



#### Security Screws

All exposed screws will be a Torx pin in tamper resistant type, machine screws only. Specify (SEC) Security Screws. Cover Screws use a T20 driver, End Cap Screws use a T25 driver.

#### Door Sizes

Stock sizes for door widths and heights are listed below. If required, cut to size in the field.

Door Widths	Stock Sizes	
2'-0" to 2'-6	2'-6"*	
2'-7" to 3'-0"	' 3'-0"	
3'-1" to 4'-0"	' 4 <b>'</b> -0"	
+ Materiallable	A Manual Otile Devices	

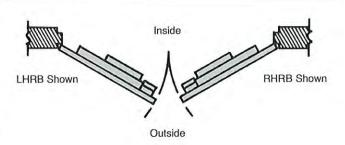
\* Not available for Narrow Stile Devices.

#### **Vertical Rod Devices**

Tornour mou bornood			
Device	Door Heights	Stock Sizes	
Surface Vertical	up to 7'-0"	7'-0"	
Rod Device*	7'-1" to 8'-0"	8'-0"	
	8'-1" to 10'-0"	10'-0"	
Concealed Vertical	6'-8" to 8'-0"	8'-0"	
Rod Device	8'-1" to 10'-0"	10'-0"	

\* Surface Vertical Rods are furnished of the same material as the device. Stainless steel rods are furnished for 625, 628 and 630 devices.

#### Hand of Doors





#### RIM EXIT DEVICES



#### Apex 2100 Series - Reversible Apex FL2100 Fire Exit Series - Reversible

- DOORS For all types of single and double doors with a mullion. For mullions, see page 18. Available for 1-3/4" to 2-1/4" thick, up to 4'-0" wide opening. For thicker doors, consult factory. Furnished standard for 1-3/4" thick, 3'-0" wide opening.
- DEVICE Covers ANSI A115.2 (Type 161), A115.18 cylinder lock and A115.1 (Type 86) Mortise Lock preparation.
- FUNCTIONS Functions are field selectable except for the Double Cylinder option. The device is furnished for a desired function if specified. If not specified the "03" function is furnished standard.
- DOUBLE CYLINDER Handed, "10" Function available. Requires two rim type cylinders, not furnished standard. See page 5 and 19.
- BASE MATERIAL The Cover, Touchbar, Device Channel, Lock/Hinge Side Filler and End Cap are furnished of heavy wrought Brass, Bronze or Stainless Steel. 628 Devices are furnished with Aluminum, Brass, Bronze and Stainless Steel components. See "Finish & Base Material" chart page 3.
- CHASSIS Investment Cast Steel, Zinc Dichromated.
- LATCHBOLT Stainless Steel, Deadlocking, 3/4" throw.
- STRIKES No. S300, Investment Cast Stainless Steel, Black Powder Coated furnished standard. No. S988, optional strike for use on Aluminum Door applications, please specify when ordering. No. S458, optional strike for use on Mullion applications, please specify when ordering.
  - For optional strike information see page 34.
- DOGGING 1/4" turn hex key dogging standard. NOT available on Fire Exit Hardware.
- TOUCHBAR HEIGHT 39-15/16" from floor standard. May be varied as situation dictates.
- **REVERSIBLE** Reversible for all functions and Trims. Standard packaging RHRB.
- UL LISTED Panic and Fire Exit Hardware. For FIRE EXIT HARDWARE Ratings see page 33. Conforms to UL10C and UBC 7-2.
- ANSI/BHMA Devices are BHMA certified for ANSI 156.3, Grade 1.
- FINISHES 605, 606, 612, 613, 625, 626W, 628, 630. For Finish description see page 3.

- CYLINDERS Rim Type, not furnished standard. Specify when required. For cylinder details see page 19.
- STILE WIDTH See Stile Information on page 36.
- RETROFIT APPLICATIONS The 2100 and FL2100 Series Devices are designed to retrofit into other manufacturers' mounting hole locations. 1700 Series Pull Trim and 4900 Series Lever Trim may also be factory set for these applications by specifying prefix "R" (e.g. 2108 R4908A). Consult factory for details.

#### Apex 21 Series - Nonhanded

The 21 Series Device is designed to be compatible with many manufacturers' Access Control exterior trim. The device incorporates a center driven cam to receive the tailpiece of the access control product. The tailpiece rotation required to retract the latch is a minimum of 50 degrees. Consult factory for details.

#### **DEVICE OPTIONS**

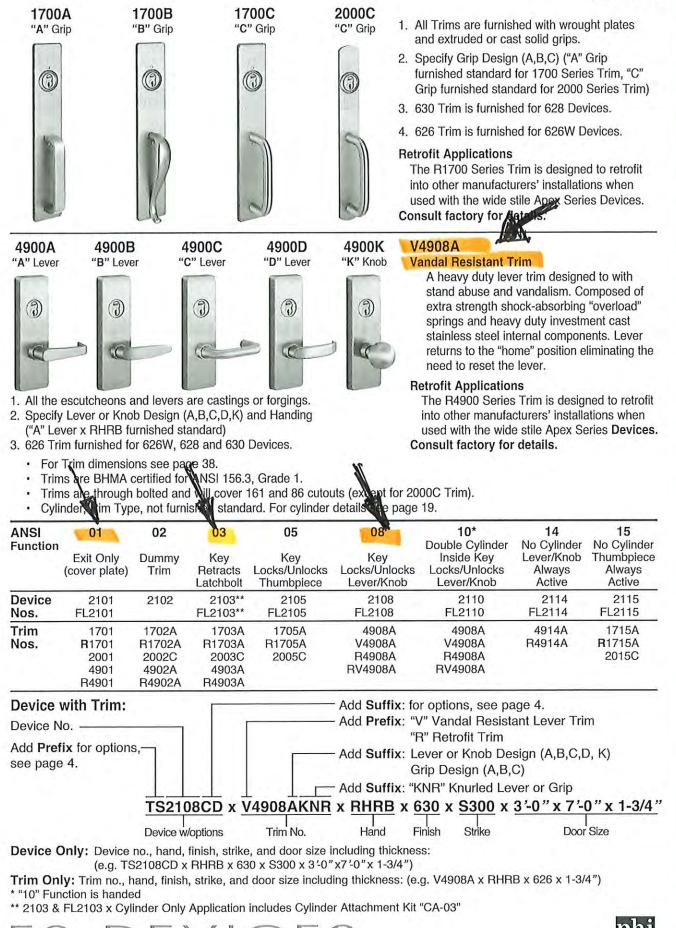
Prefix	Description	Page
С	Quick Connect Plugs	
DE	Delayed Egress	
Е	Electric Device	
ELR	Electric Latch Retraction	21
FL	Fire Exit Hardware	4
HC	Windstorm and Hurricane Code Device	20
LDS	Latchbolt Monitoring Double Switch	
LS	Latchbolt Monitoring Switch	
MLR	Motorized Latch Retraction	
Q	Wireless Access Management System	
TDS	Touchbar Monitoring Double Switch	
TS	Touchbar Monitoring Switch	
WTDS	Weatherized Touchbar Mon. Dbl. Switch	
WTS	Weatherized Touchbar Monitoring Switch	
To specif	y add Prefix to Device No. (e.g. TS2103)	

Suffix	Description	Page
ALK	Exit Alarm: battery operated	27
ALW	Exit Alarm: remote power	
BRL	Braille Touchbar	
CD	Cylinder Dogging	19
DS	Door Position Monitoring Switch	
LD	Less Dogging	19
SEC	Security Screws	
SNB	Sex Nut and Bolt	
WALW	/ Weatherized Exit Alarm: remote power	27

To specify add Suffix to Device No. (e.g. 2103CD)



4



PRECISION

#### MULLIONS

Mullion Cap MC822



**Key Removable Mullion Cap KMC822** (Rim Cylinder required)



Interlock S1447

#### **Removable Mullions**

The Mullion is used to adapt a double door opening to two single door openings with Rim Exit Devices. When the full width of an opening is required, the mullion may be removed.

KEY REMOVABLE MULLION (KR) - Provides a secure yet quick & easy means of removing the 822 or FL822 Mullion. The mullion can be reinstalled and locked without the need of the key.

STOCK SIZE - For openings 8<sup>2</sup>0" high. For openings less than 8<sup>2</sup>0" high the mullion can be cut down. For openings greater than 8<sup>2</sup>0" high using the 822, KR822 or 811 mullions, consult factory.

FINISHES - 600, 689 95. For finish description see page 3.

#### 822, FL822, KR822, FLKR822 Mullion

Mullion Cap Spacer

MCS822

Stabilizer

ST989

U.L. LISTED - FL822 and FLKR822 listed for Fire Exit Hardware. For FIRE LABEL RATING Chart see page 33.

MULLION - 2"x 3" Steel.

MULLION BASE - Investment Cast Steel, 2" wide 3-1/2" deep. Furnished with steel anchors for concrete floors.

INTERLOCK - Black Powder Coated Investment Cast Stainless Steel. Furnished standard for FL822 and FLKR822 Mullions. It interlocks the mullion to the Rim Active Case and S300 or S301 strike.

- STABILIZERS Black Powder Coated Steel. Stabilizers are furnished standard for FL822 and FLKR822 Mullions.
- MULLION CAP SPACER Minimum width 3-1/2". For 2-1/4" frame spacer specify part No. MCS822. For use with 822 series mullion only (e.g. 822, FL822, HC822, HCKR822, KR822, FLKR822). MCS822 Kit or 822 mullion sufix option. See "To Order" example below.

822, FL822 MULLION CAP - MC822 Investment Cast Steel, 4" wide 3-5/8" deep.

KR822, FLKR822 KEY REMOVABLE MULLION CAP ASSEMBLY - Investment Cast Steel - can be ordered to convert existing 822 or FL822 mullions to Keyed Removable Mullions. Retrofits to the hole pattern of an MC822 Mullion Cap. To order specify: KMC822 or KMC822F.

- not furnished standard - Rim Type required. See page 19 for cylinder details. CYLIND

#### IC822, HCKR822 Mullion

MULLION - 2"x 3" Steel Mullion is reinforced with a 1-1/2" x 2-1/2" 11 gage Steel Tube. MC822 or KMC822 Mullion Cap and MB822 Mullion Base Assemblies are used to secure the HC Mullion in the door opening. The S1447 Interlock must be used to Interlock the Active Case with the strike and is furnished standard with the HC822 Mullion.

To Order: Specify Mullion No. Height Finish (e.g. MCS822 x 8'-0" x 600)

#### 811 Mullion

MULLION - 2"x 2" Steel Mullion.

MULLION CAP - Cast 4-1/2" wide x 2-5/16", furnished with machine screws for metal frames. MULLION BASE - Cast 2" wide x 2-3/4", furnished with sheet metal screws and plastic anchors.

X

To Order: Specify Mullion No. Height Finish (e.g. 822 x 8'-0" x 600)



Mullion

Cap MC811

Mullion

Base MB822





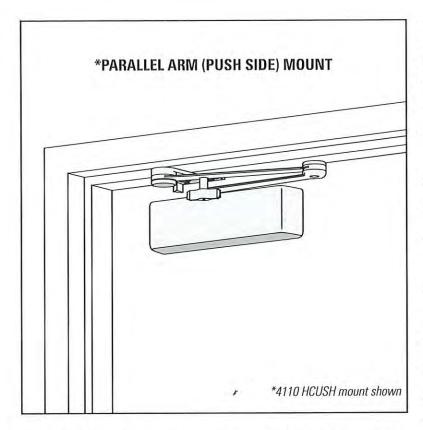
Mullion

Base

MB811



E D



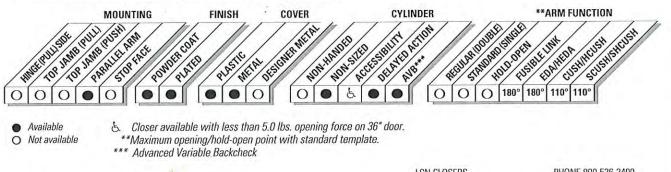
- Standard 4110 series closer is shipped with EXTRA DUTY arm, standard plastic cover, 4110-201 FIFTH SCREW SPACER and self reaming and tapping screws. See 4110 Series pages 61 & 62 for options.
- Sized cylinders adjustable for interior doors to 5'0" and exterior doors to 4'0".
- Non-sized cylinder adjustable for interior doors to 4'6" and exterior doors to 3'6".
- ► Closer mounts parallel arm, specify right or left swinging door.
- ▶ 4111 cylinder meets ADA requirements. See 4110 Series page 63.
- Standard or optional custom powder coat finish.
- Optional plated finish on metal cover, arm and fasteners.
- Optional SRI primer for installations in corrosive conditions is available with powder coat only.
- The 4110 Series is UL and cUL listed for self-closing doors without holdopen.
- Tested and certified under ANSI Standard A156.4, grade one.

The 4110 SMOOTHEE® is LCN's best performing heavy duty closer designed specifically for institutional and other rugged high traffic applications.

- ► Ten Million Cycles
- Cast Iron
- Extra Duty Forged Steel Arm Standard
- Double Heat Treated Steel
   Pinion
- ► All Weather Fluid
- ► LCN<sub>®</sub> Fast<sup>™</sup> Power Adjust
- Fast & Accurate Installation
- ► UL & cUL Listed



LCN. FAST<sup>™</sup> Power Adjust, a revolutionary visual indicator for Spring Power Adjustment.







LCN CLOSERS 121 W. RAILROAD AVE. P.O. BOX 100 PRINCETON, IL, USA 61356-0100 PHONE 800-526-2400 FAX 800-248-1460 www.lcn.ingersollrand.com 3/07

#### PARALLEL ARM (PUSH SIDE) MOUNTING

#### MAXIMUM OPENING

**MOUNTING DETAILS** 

EDA or Fusible Link arm can be templated for 100°, (A) = 5 15/16" (151 mm) (B) = 7 1/4" (184 mm) 140°, (A) = 4 7/16" (113 mm) (B) = 5 3/4" (146 mm) or 180°. (A) = 2 15/16" (75 mm) (B) = 4 1/4" (108 mm) Hold-open points up to maximum opening with HEDA or Fusible Link arm.

CUSH arm can be templated for maximum opening at 85°. (A) = 85/16'' (211 mm)(B) = 95/8'' (244 mm)90°,  $(A) = 7 \, 11/16'' \, (195 \, \text{mm})$ (B) = 9'' (229 mm)100°. (A) = 67/16'' (164 mm)(B) = 7 3/4'' (197 mm)or 110°. (A) = 59/16'' (141 mm)(B) = 67/8'' (175 mm)Hold-open point at maximum opening with HCUSH arm. Spring Cush hold-open points are

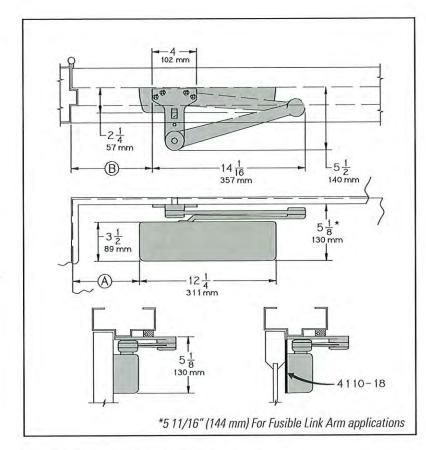
approximately 5° less than templated stop point.

#### Options

- Sized or non-sized cylinder.
- Delayed Action and/or Advanced Variable Backcheck cylinder.
- HEDA, CUSH, HCUSH, SPRING CUSH, SPRING HCUSH or Fusible Link arm.
- Metal or lead lined cover.

#### **Special Templates**

Customized installation templates or products may be available to solve unusual applications. Contact LCN for assistance.



- Butt Hinges should not exceed 5" (127 mm) in width.
- Auxiliary Stop is recommended at hold-open point, where a door cannot swing 180°, or where CUSH-N-STOP arm is not used.
- Clearance for EDA, or CUSH shoe is 5 1/2" (140 mm) from door face.
- Top Rail less than 5 1/8" (130 mm) measured from stop requires PLATE, 4110-18. Plate requires 2" (51 mm) minimum measured from the stop.
- Stop Width minimum 1" (25 mm).

60

- Head Frame flush or rabetted requires 4110-145 arm or PA SHOE ADAPTER, 4110-418, Use CUSH FLUSH PANEL ADAPTER, 4110-419 with CUSH arms.
- Reveal less than 2 3/4" (70 mm), use CUSH SHOE SUPPORT, 4110-30 with CUSH arms.
- Blade Stop Spacer, 4110-61 required to clear 1/2" (13 mm) blade stop.
- Cush Arm requires CUSH SHOE SUPPORT, 4110-30 for fifth screw anchorage with CUSH arms.
- Delayed Action Add suffix "DEL" to selected cylinder (eg. 4114 DEL). Not available with 4115 or 4116 cylinder. Delays closing from maximum opening to approximately 70°. Delay time adjustable up to approximately 1 minute.
- Advanced Variable Backcheck cylinder starts backcheck at approximately 45° instead of the normal 75°. Add suffix "AVB" to selected cylinder. When combined with Delayed Action consult factory for special template.

# CCESSORIES



#### CYLINDER, 4110-3071

Standard, handed cast iron cylinder assembly. For various applications see "Table of Sizes" on 4110 Series page 63.

#### COVERS

**COVER, 4110-72** Standard, non-handed plastic cover.

#### LEAD LINED COVER, 4110-72LL

Optional, non-handed plastic cover.

#### METAL COVER, 4110-72MC

Optional, handed cover. Required for plated finishes and custom powder coat finishes.

#### ARMS

# EXTRA DUTY ARM, 4110-3077EDA, 4110-62G, 4110-145

Non-handed parallel arm features forged, solid steel main and forearm for potentially abusive installations.

Optional 4110-62G thick hub shoe for blade stop clearance. Optional 4110-145 flush transom shoe for single rabetted installations. Optional shoes require special templating.

#### HOLD-OPEN ARM 4110-3049EDA

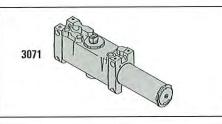
Optional handed arm provides hold-open function, adjustable at shoe.

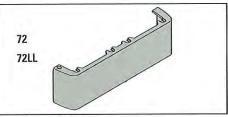
#### FUSIBLE LINK ARM, 4110-3049FL

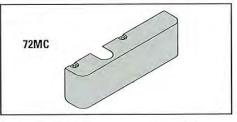
Optional, handed arm releases hold-open function adjustable at shoe when exposed to temperatures above 165° F. NOTE: Check local codes before specifing FL arms. NOT A LIFE SAFETY PRODUCT!

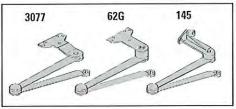
#### CUSH-N-STOP ARM, 4110-3077CNS

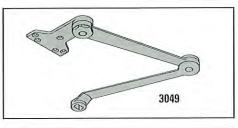
Optional, handed parallel arm features solid forged steel main arm and forearm with built-in stop in soffit shoe.

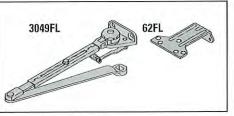


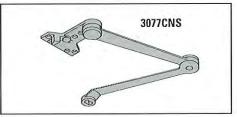












LCN CLOSERS 121 W. RAILROAD AVE. P.O. BOX 100 PRINCETON, IL, USA 61356-0100 PHONE 800-526-2400 FAX 800-248-1460 www.lcn.ingersollrand.com 3/07



61

#### H-CUSH ARM 4110-3049CNS

Optional handed arm provides hold-open function with templated stop/hold-open points. Handle controls hold-open function.

#### SPRING CUSH ARM, 4110-3077SCNS

Optional, non-handed parallel arm for abusive applications features solid forged steel main arm and forearm with spring loaded stop in the soffit shoe.

#### SPRING H-CUSH ARM, 4110-3049SCNS

Optional, non-handed parallel arm for abusive applications features solid forged steel main arm and forearm with spring loaded stop in the soffit shoe. Handle controls hold-open function.

#### INSTALLATION ACCESSORIES PLATE, 4110-18, 4110-18CUSH

Required for push side mount where top rail is less than 5 1/8" (130 mm), measured from the stop.

Plate requires minimum 2" (51 mm) minimum top rail. Plate also used with CUSH Arm installations.

#### CUSH SHOE SUPPORT, 4110-30

Provides anchorage for fifth screw used with CUSH arm, where reveal is less than 3 1/16" (78 mm).

#### **BLADE STOP SPACER, 4110-61**

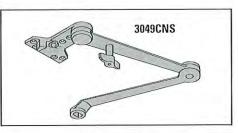
Lowers parallel arm shoe to clear 1/2" (13 mm) blade stop

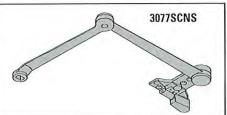
#### PA SHOE ADAPTER, 4110-418

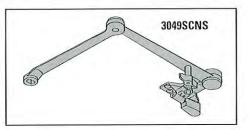
Provides horizontal mounting surface for parallel arm shoe on single rabetted or flush frame.

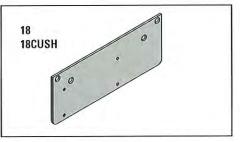
#### CUSH FLUSH PANEL ADAPTER, 4110-419

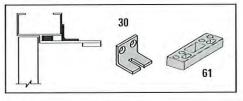
Provides horizontal mounting surface for CUSH shoe on single rabetted or flush frame.

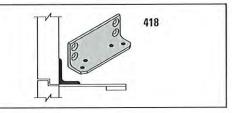


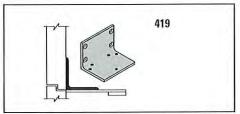












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**TABLE OF SIZES** Select closer based on width of door. The spring power of non-sized 4111 cylinder is adjustable from size 1 through size 5 and is shipped set to size 3. Sized 4110 series cylinders available in size 2, 3, 4, 5, or 6. Closing power of all 4110 Series closers can be increased 50%. Specify next higher size closer where strong drafts exist.

Delayed action not available with 4115 or 4116 cylinder

H - CUSH and SPRING H-CUSH arm not available with 4116 cylinder.

Indicates recommended range of door width for closer size

#### EXTERIOR (and VESTIBULE) DOOR WIDTH

11mm 762		and the second second	2" 48" 7mm 1219mm	
size 3	size 4	size 5	size 6	
; ;				

#### INTERIOR DOOR WIDTH

28" 711mr	n 8	34" 38" 64mm 965m		18" 54" 9mm 1372n	' 60" nm 1524mm
111	size 2	size 3	size 4	size 5	size 6
112					
113	arararaa	>			1 A A
14	••••••			>	
15					
16		ll.			
Minimum Door Width		* Adjustab	le Size 1 thru !	5	

#### **REDUCED OPENING FORCE 4110 CLOSERS**

**CAUTION !** Any manual door closer, including those certified by BHMA to conform to ANSI Standard A156.4, that is selected, installed and adjusted based on ADA or other reduced opening force requirements may not provide sufficient power to reliably close and latch a door.

Refer to POWER OPERATORS section for information on systems that meet reduced opening force requirements without effecting closing power.

Long	DOOR WIDTH	36"	42"	48"
5	8.5* lbs.	4111	4111	4111
	5.0* lbs.	4111	4111	4111

\* Maximum opening force

#### HOW-TO-ORDER 4110 SERIES CLOSERS 1. SELECT CYLINDER SIZE

- □ 4111 (adjustable from size 1 to 5)
- □ 4112
- □ 4113
- □ 4114

□ 4115 (DEL not available)

- □ 4116 (DEL, SHCUSH or HCUSH arm not available) 2. SPECIFY HAND

#### 3. SELECT FINISH

- Standard Powder Coat
  Aluminum, Dark Bronze, Tan, Statuary,
- Light Bronze, Black, Brass.

#### Closer will be shipped with:

- STANDARD COVER,
- FIFTH SCREW SPACER
- EDA ARM,
- SELF-REAMING and TAPPING SCREWS, unless options listed below are selected.

#### 4110 CLOSER OPTIONS CYLINDER

- Delayed Action ((DEL), not available with 4115 or 4116)
- □ Advanced Variable Backcheck (AVB)
- COVER
- □ Lead Lined (LL)
- □ Metal (MC)

#### FINISH

- Custom Powder Coat (RAL) \_\_\_\_\_\_
  (handed metal cover required)
- □ SRI primer

#### SPECIFY ARM

- □ Hold-Open Extra Duty (HEDA)
- □ Fusible Link,165° F (FL)
- Cush-N-Stop (CUSH)
- □ H-Cush-N-Stop (n/a with 4116 cylinder) (HCUSH)
- □ Spring Cush (SCUSH)

□ Spring H-Cush (n/a with 4116 cylinder) (SHCUSH) SCREW PACK

- □ TB\*, Self-Reaming & Tapping (TBSRT)
- □ Wood & Machine Screw (WMS)
- □ TB\*, Wood & Machine Screw (TBWMS)
- □ TORX Machine Screw (TORX)
- □ TB\* & TORX Machine Screw (TBTRX)
- \* Specify door thickness if other than 1 3/4". INSTALLATION ACCESSORIES

#### □ Plate, 4110-18

- □ CUSH Shoe Support, 4110-30
- □ Blade Stop Spacer, 4110-61
- □ PA Shoe Adapter, 4110-418

CUSH Flush Panel Adapter, 4110-419

- SPECIAL TEMPLATE
- 🗆 ST-\_\_\_\_

#### SURVIVOR SERIES

#### CYLINDRICAL LEVERSETS ANSI 156.2 GRADES 1 & 2

#### SURVIVOR SERIES

Marks USA Survivor Series locksets are the most durable cylindrical lever locksets. The series is offered in four lever styles, conventional cylinder, IC core for "Best" size cores and Schlage® as well as others. The Survivor Series locksets are backed by Marks lifetime mechanical warranty. All functions are available in six standard finishes, are UL Listed for 3-hour fire rating, and satisfy ADA requirements.

国士の ITT 111 -11 25 ES CYLINDR COMM. N 1 LK ----NE P DC RDC 111 A RA 2p B RB AB RAB n'r AQ RS S URVIVO RF F DW RDW DA RDA FQ RT Т ΤK RTK GB RGB BS RBS H

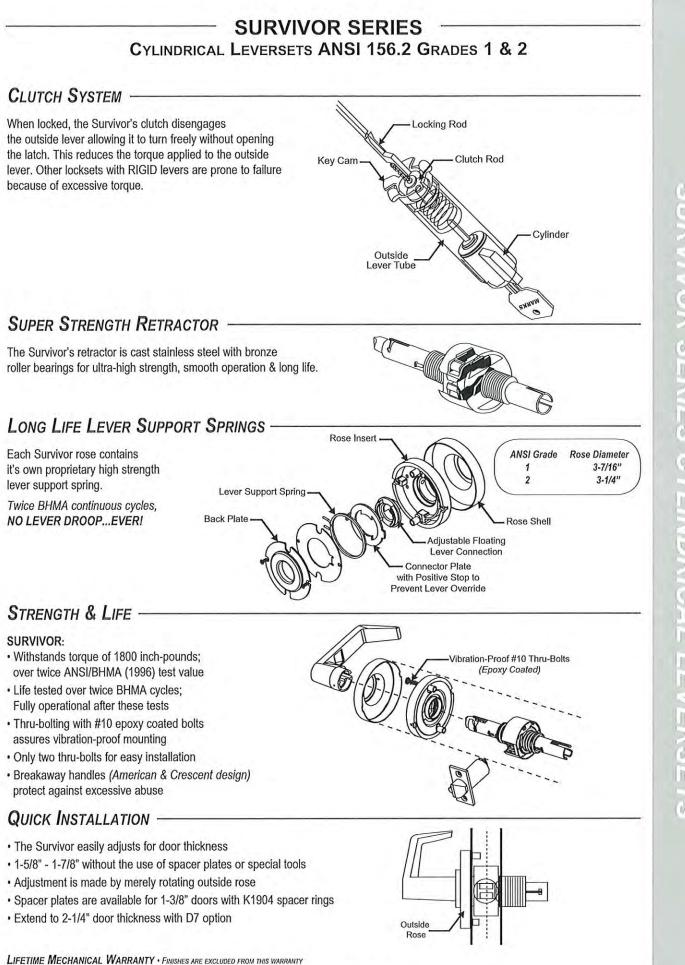


LIFETIME MECHANICAL WARRANTY . FINISHES ARE EXCLUDED FROM THIS WARRANTY

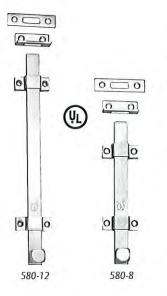
www.marksusa.com • 631-225-5400 • 800-526-0233 • Fax: 631-225-6136 • @2015, Marks USA

# Cylindrical Lever Functions

ANSI# CODE	Marks Fu	inction	ANSI# CODE	Marks Functi	ion
F75 PASSAGE:		O/S	F90 (MOD.) HOSPITAL/PRIVACY: Deadlocking latch by knob/lever either side unless	1/S 0/S	
Latch by knob/lever either side.		N	outside locked by knob/lever or inside push-button. Unlock by tum-knob, tuming inside knob/lever or		тк
F76 PRIVACY: Latch by knob/lever either side unless outside knob/lever locked by push-button from inside. Outside unlocks by turning inside knob/lever, outside emergency turn or closing door.	-0	<b>–</b> L	closing door. F91 STORE DOOR (95 Series Leverset ONLY): Deadlocking latch by knob/lever either side except when both knob/levers are locked by key from either		GB
F76 (MOD.) HOSPITAL/PRIVACY: Latch by knob/lever either side unless outside knob/lever locked by push-button from inside. Outside unlocks by turning inside knob/lever, outside emergency turn-knob or closing door.		LK	side. F92 SERVICE STATION LOCK: Deadlocking latch by knob/lever either side unless outside locked by key or inside push-button. Unlock by key, tuming inside knob/lever or closing door, except		BS
F77 PATIO: Deadlocking latch by knob/lever either side unless outside knob/lever locked by push-button inside. Unlocks by turning inside knob/lever or closing door.		P	when slotted push-button is turned in locked position. Inside knob/lever always opens latch. F93 HOTEL:		
F80 COMMUNICATING: Key both sides. Locks or unlocks either knob/lever independent of the other. Deadlocking latch.		DC 🛤	Deadlocking latch by knob/lever inside. Outside knob/ lever always locked. Inside push-button projects indica- tor on cylinder face shutting out all keys except emer- gency key. Turning inside knob/lever or closing door releases push-button.	-	н
F81 ENTRY: Deadlocking latch bolt by knob/lever either side except when outside locked by turn-button inside. When outside locked, key outside or knob/lever inside opens lock. Turn-button operated manually.	-0	A	F109 ENTRY: Outside locked by pushing turn-button inside. Key outside opens lock. Rotating inside knob/lever releases button and outside knob/lever. By pushing and turning		АВ
F82A ENTRY: Deadlocking latch by knob/lever either side. Outside locked by push-button inside. When outside locked by push-button inside, key opens lock, unlocks push-button. Inside knob/lever always opens latch.	-	B	inside button, outside knob/lever remains locked. Deadlocking latch. F110 CLASSROOM INTRUDER: Deadlocking latch by knob/lever either side, except when outside locked by key inside. Key outside locks		DB
Closing door does not release push-button. F83 EXIT: Deadlocking latch by knob/lever either side except when outside locked by turn-button inside. Inside knob/ lever always opens latch. Turn-button operated manu-	-	AQ	or unlocks outside. Inside always open DUMMY TRIM: Outside only, rigid.		DO
ally.  F84 CLASSROOM:		_	DUMMY TRIM: Both sides, rigid.		DT
Deadlocking latch by knob/lever inside. Outside knob/lever locked or unlocked by key.		S S	F111 COMMUNICATING PASSAGE: Blank outside. Deadlocking latch by knob/lever inside.	3-	NB
F86 STOREROOM: Deadlocking latch by knob/lever inside, key outside. Outside knob/lever always locked.		F	F112 COMMUNICATING STOREROOM: Blank outside. Deadlocking latch by key only. Knob/lever always locked.		FB
F87 INSTITUTION: Both knob/levers always locked. Deadlocking latch by key both sides.		DW e	F113 COMMUNICATING CLASSROOM: Blank outside. Inside knob/lever locked or unlocked by	[]	SB
F88 VESTIBULE: Deadlocking latch by knob/lever either side, except when outside knob/lever locked by key inside. Key outside retracts deadlocking latch. Inside always open.	(0)-	DA	key. Deadlocking latch. ELECTRICALLY LOCKED - FEL: (Fail Safe) Outside schware locked sleetdeeller. Onen by key		FEL
F89 EXIT: Deadlocking latch by knob/lever inside. Outside always locked.		FQ	Outside always locked electrically. Open by key outside, switch or loss of power. Deadlocking latch by lever inside. Lever only.		
F90 CORRIDOR: Deadlocking latch by knob/lever either side unless outside locked by key or inside push-button. Unlock by key, turning inside knob/lever or closing door.		T See	ELECTRICALLY UNLOCKED - FEU: (Fail Secure) Outside always locked until unlocked by key or electrically energized. Deadlocking latch by lever inside. Lever only.		FEU



0 ŋ 11 20 NJ. 10 In MA 10 N II



# Surface Bolts No. 580, 582 Series

Material: No. 580: Steel, stainless steel No. 582: Stainless steel

Other:

 Finishes:
 US3, US10, US10B painted, US26D, US32D

 Fastener:
 No. 580: 8 ea. #10 x 1¼" FH SMS, 8 ea. #10 - 24 x 1" FH MS

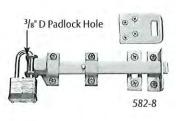
No. 582: Bolt: 4 ea. #10 - 24 x 1<sup>1</sup>/2" PH MS; 4 ea. #10 x 1<sup>1</sup>/4" PH WS Strikes: 6 ea. #10 - 32 x 1<sup>1</sup>/2" FH MS; 6 ea. #10 - 32 x 1<sup>1</sup>/2" FH WS

- 11/8" bolt throw, 1/4" x 3/4" bolt material
- Features: No. 580 Series bolts are UL listed for use on inactive leaf of a pair of 3-hour labeled fire doors

 No. 580 and No. 582 series both include a universal top strike and a mortise bottom strike

No. 582 Series has a bracket for padlock (padlock not included)

Options: Sex bolts available for extra secure mounting



No.	Bolt Length	Weight	ANSI A156.16	
580-8	8°	1.1 lbs.	L04161	
580-12	12 <sup>°</sup>	1.4 lbs.	L04161	
580-18	18"	1.7 lbs.	L04161	
580-24	24"	2.0 lbs.	L04161	
582-8	8°	1.3 lbs.		
582-12	12"	1.6 lbs.		

# Jar D Padlock Hole

# Heavy Duty Surface Bolts No. 585 Series

Material:	Steel
Finishes:	US26D
Fastener:	Bolt: 4 ea. ¼-20x2¼" FH MS 4 ea. ¼-20x1¾" sex bolts Strike: 2 ea. #14x2½" FH SMS, 2 ea. Plastic Anchors 2 ea. ¼-20x1" FH MS, 2 ea. ¼-20 Lead Anchors
Other:	1¼" bolt throw, ¾" x¾" bolt material
Features:	<ul> <li>UL listed for use on inactive leaf of a pair of 3-hour labeled fire doors</li> <li>Includes a universal top strike and a mortise bottom strike</li> <li>Locks in both the up and down position</li> <li>Bolt locks automatically when thrown – can be released only by pressing knob toward door while retracting</li> <li>Can be used on any type of door</li> </ul>

· Can be used on any type of door

Accommodates padlock

No.	Bolt Length	Weight	ANSI A156.16
585-12	12"	3.9 lbs.	L04161
585-24	24"	6.1 lbs.	L04161

800-458-2424 | www.rockwoodmfg.com Check the web site for the up-to-date catalog

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# ASSA ABLOY

The global leader in door opening solutions

E5

4		CTC Length	4G	4H	43	4L
Round Wrought Door Pull		Inches	8	9	10	12
Certification:	Meets ANSI A156.6 for J401 Pulls	Millimeters	203	229	254	305
Base Diameter:	1″ (25 mm)	Minimeters	203	223	234	1 303
Projection:	2-3/4" (70 mm)					
Clearance:	1-3/4" (45 mm)					
Door Thickness:	1-3/4" (45 mm) - Standard					
Materials:	Aluminum, brass, bronze, stainless ste	el				
Finishes:	US3, US4, US10, US10B, US26, US26D	, US28, US32, US3	32D			
Fasteners:	Two (2) 1/4-20 thru-bolts with finish w					
Handicap:	2-1/2" (64 mm) clearance available on	special orders. Ad	ld prefix "	'H" to r	number	1
	(i.e., H4E)					
Notes:	<ul> <li>For sizes or finishes not listed in this availability</li> </ul>	catalog, contact H	lager Cus	tomer	Service	for

- . May be combined with a plate to make a pull plate
- Other centers on special order
- If ordered with tempered glass, specify glass thickness and hole size

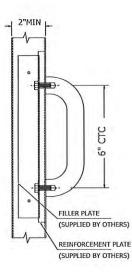
### P4E Security Pull

Certification: Base: Projection: Clearance: CTC Length: Material: Finish: Fasteners:

Notes:

Meets ANSI A156.6 for J401 Pulls 1" (25 mm) diameter 2-1/4" (57 mm) 1-1/4" (32 mm) 6" (152 mm) Stainless Steel US32D Two (2) 3/8-16 x 1-1/4" "NYLOC" hex head cap screws · For metal doors

· Requires reinforcing plate with an access plate and Torx screws for door edge





T4E

Security Pull Certification: Base: Projection: Clearance: Door Thickness: CTC Length: Material: Finish: Fasteners:

Meets ANSI A156.6 for J401 Pulls 1" (25 mm) diameter 2-1/4" (57 mm) 1-1/4" (32 mm) 1-3/4" (45 mm) - Standard 6" (152 mm) Stainless Steel US32D Two (2) 1/4-20 x 2-1/4" Security Torx thru-bolts



MIL, DBA, GLD

Z

BHMA

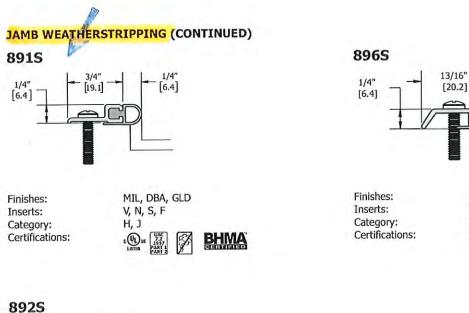
V, N, S

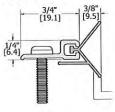
LISTEN PART 2

Н, Ј



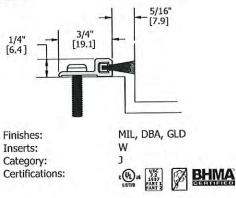
1/4" [6.4]





Finishes:	MIL, DBA, GLD
Inserts:	N
Category:	Н, Ј
Certifications:	C () 10 () 1





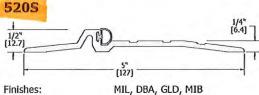




### PANIC THRESHOLDS

Use in conjunction with surface applied vertical rod exit device Fasteners: #10 x 1-1/2" flat head wood screws, other screw types and anchors available upon request Options: Available with Sure Step non-slip abrasive coating Notes: • MIL finish thresholds are supplied with zinc plated screws • Brass thresholds are supplied with brass screws • Color anodized thresholds are supplied with

screws plated to match

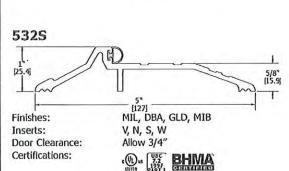


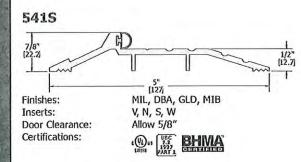
V, N, S, W

Allow 3/8"

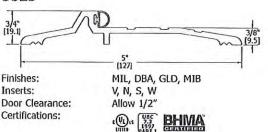
Finishes: Inserts: Door Clearance: Certifications:

THRESHOLDS

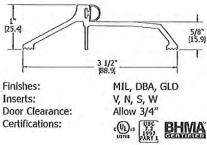




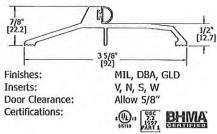
### 552S



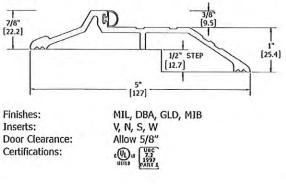




### 565S



**570S** 







### 259F Tri Base Floor Stop

Base: Overall Height: Material: Finishes: Fasteners: 2-1/2" wide x 1-9/16" deep (64 mm x 40 mm) 1-11/16" (43 mm) Cast brass with grey rubber bumper US3, US4, US10, US10B, US26, US26D Three (3) #10 x 1-1/4" FPHWS, three (3) plastic anchors, three (3) 10-32 x 3/4" FPHMS, and three (3) 10-32 lead anchor • 1/2" (13 mm) max door to floor clearance

Three (3) #10 x 1-1/4" FPHWS, three (3) plastic anchor, three (3) 10-32 x 3/4"

Notes:

· Heavy duty - for use in high traffic areas

2-1/2" wide x 1-9/16" deep (64 mm x 40 mm)

· For use on wood or concrete floors

Cast brass with grey rubber bumper

US3, US4, US10, US10B, US26, US26D

FPHMS, and three (3) 10-32 lead anchors • 1" (25 mm) max door to floor clearance

Heavy duty - for use in high traffic areas
For use on wood or concrete floors

2-1/4" (57 mm)



### 259H Tri Base Floor Stop - Tall

Base: Overall Height: Materials: Finishes: Fasteners:

Notes:

G

# 267F

**Cast Floor Stop** Certifications: Meets ANSI A156.16 for L02131 Base Diameter: 2-1/4" (57 mm) 3-1/8" (80 mm) **Overall Height:** Materials: Cast brass with black rubber bumper US3, US10, US10B, US15, US15A, US19, US26, US26D Finishes: One (1) #10 x 1" OPHWS, one (1) plastic anchor, one (1) 5/16-18 lead anchor, Fasteners: one (1) 5/16-18 x 2-1/2" threaded stud, and one (1) 5/16-18 x 2-1/2" combo threaded stud Notes: 2-3/8" (60 mm) max door to floor clearance

- Heavy duty for use in high traffic areas
- · For use on concrete floors



### 267S Cast Floor Stop

Certifications: Base Diameter: Overall Height: Materials: Finishes: Fasteners: Notes:

Meets ANSI A156.16 for L02121 2-1/4" (57 mm) 3-1/8" (80 mm) Cast brass with black rubber bumper US3, US10, US10B, US15, US15A, US19, US26, US26D Three (3) #10 x 1" OPHWS and three (3) plastic anchors • 2-3/8" (60 mm) max door to floor clearance • Heavy duty - for use in high traffic areas

For use on wood floors





### **Door Protection Plates**

The metal door protection plates below meet ANSI A156.6 for J101 Metal Armor Plate, J102 Metal Kickplate, and J103 Metal Mop Plate. The plastic door protection plates below meet ANSI A156.6 for J105 Plastic Armor Plate, J106 Plastic Kickplate, and J107 Plastic Mop Plate. Options for all plates include countersunk holes, UL armor plate stamped, self-adhesive tape, spanner head screws, torx head screws, round corners, wrap around side and bottom return, and 0.125" (3.2 mm) material. All plates below are supplied standard with #6 x 5/8" truss head screws (unless specified otherwise). They are available in mop plate, kick plate, stretcher plate, and armor plate sizes.

Mop Plate:	Protects the bottom of the pull side of doors subject to cleaning and mopping procedures.
Kick Plate:	Protects the bottom of the push side of doors subject to scuffing from foot traffic.
Stretcher Plate:	Protects doors in specific areas where constant contact is made by stretchers, service carts, or other equipment.
Armor Plate:	Protects lower half of doors from abuse by carts, trucks, and rough usage.

### **190S**

Gauge: 0.050" (1.3 mm) Mate Finis

Materials:	Aluminum, brass, bronze, stainless steel
Finishes:	US3, US4, US10, US10B, US28, US32,
	US32D
Bevel:	None
Options:	UL Listed for US32 and US32D*

### **193S**

0.050" (1.3 mm) Gauge: Aluminum, brass, bronze, stainless steel Materials: Finishes: US3, US4, US10, US10B, US28, US32, US32D Bevel: 3 edges Options: UL Listed for US32 and US32D\*

### 194S

Gauge: 0.050" (1.3 mm) Aluminum, brass, bronze, stainless steel Materials: US3, US4, US10, US10B, US28, US32, Finishes: US32D 4 edges Bevel: UL Listed for US32 and US32D\* Options:

### **198S**

0.038" (0.8 mm) Gauge: Stainless steel Materials: Finishes: US32D **Options: UL Listed\*** 

### 199B

Gauge: Materials: Finishes: Fasteners: 0.038" (0.8 mm) Aluminum Bright gold anodized #6 x 5/8" TPH Tapping Screws

### 220S

0.062" (1.6 mm) Gauge: Aluminum, brass, bronze, stainless steel Materials: US3, US4, US10, US10B, US28, US32, Finishes: US32D Bevel: None

### 2235

0.062" (1.6 mm) Gauge: Aluminum, brass, bronze, stainless steel Materials: US3, US4, US10, US10B, US28, US32, Finishes: US32D Bevel: 3 edges 224S 0.062" (1.6 mm) Gauge: Aluminum, brass, bronze, stainless steel Materials: Finishes: US3, US4, US10, US10B, US28, US32, US32D Bevel: 4 edges

### 204S

0.125" (3.2 mm) Gauge: Materials: Clear plastic Bevel: 4 edges

### 2145

Gauge: 0.125" (3.2 mm) Materials: Plastic laminate Bevel: 4 edges Colors: Black, Brown, Grey de Notes: Other colors are available and will be subject to minimum order quantities; priced on application

### 225S

Gauge:	0.060" (1.9 mm)
Materials:	Kydex®
Colors:	CBO - Calcutta Black, KGO - Beige,
	KHO - Chocolate
Notes:	Other colors are available and will be subject to minimum order quantities;
	priced on application
Options:	UL Listed*

. . . . . . .

\*Must specify UL stamp.



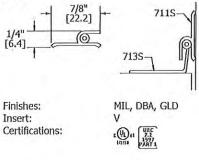


### INTERLOCKING/OVERHEAD DRIP GUARDS

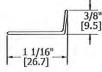
Fasteners:

### #6 x 5/8" pan head sheet metal screws

### 711S



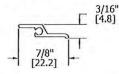


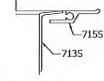


Finishes: Certifications:







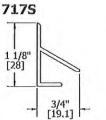


717S

7185

Finishes: Certifications:



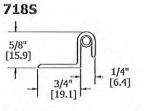


Finishes: Certifications:

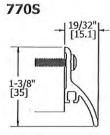


HEAD





Finishes: Inserts: Certifications: MIL, DBA, GLD V 100 rs UAC 1597

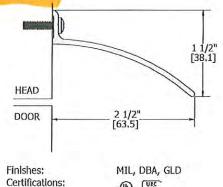


Certifications:

MIL, DBA, GLD B, V CUL 11 UEC 7.1 1997 PART L



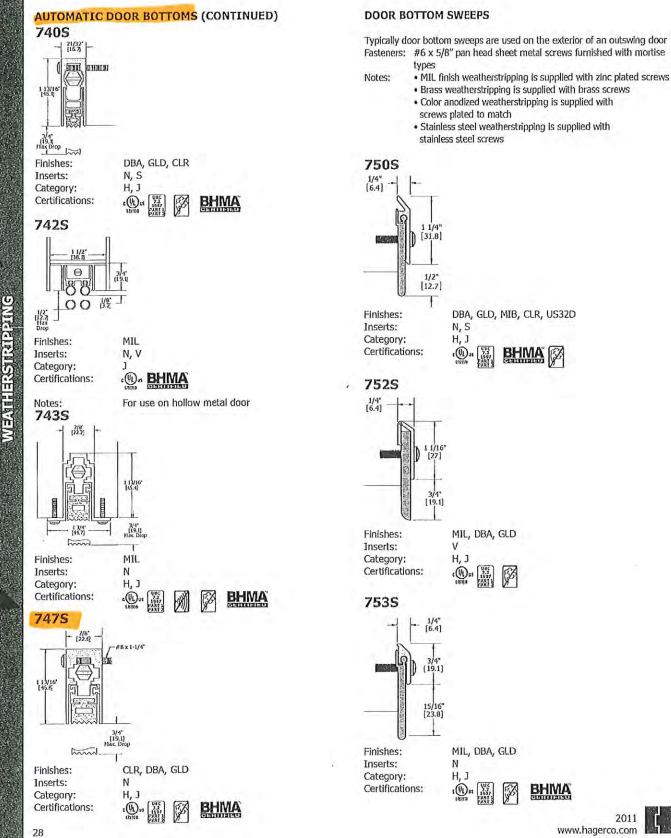
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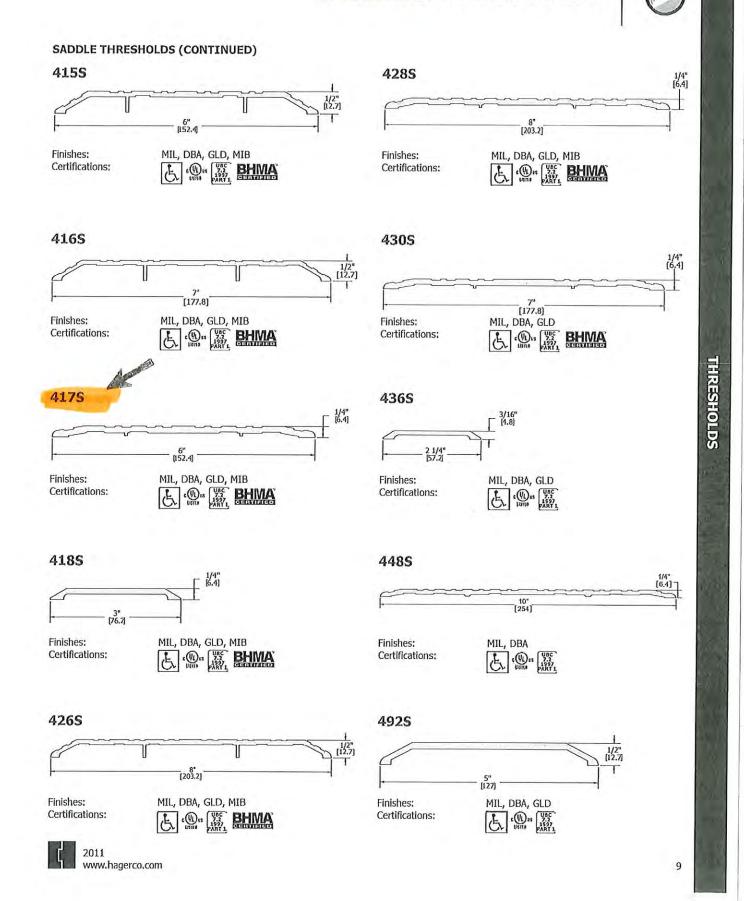
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WEATHERSTRIPPING

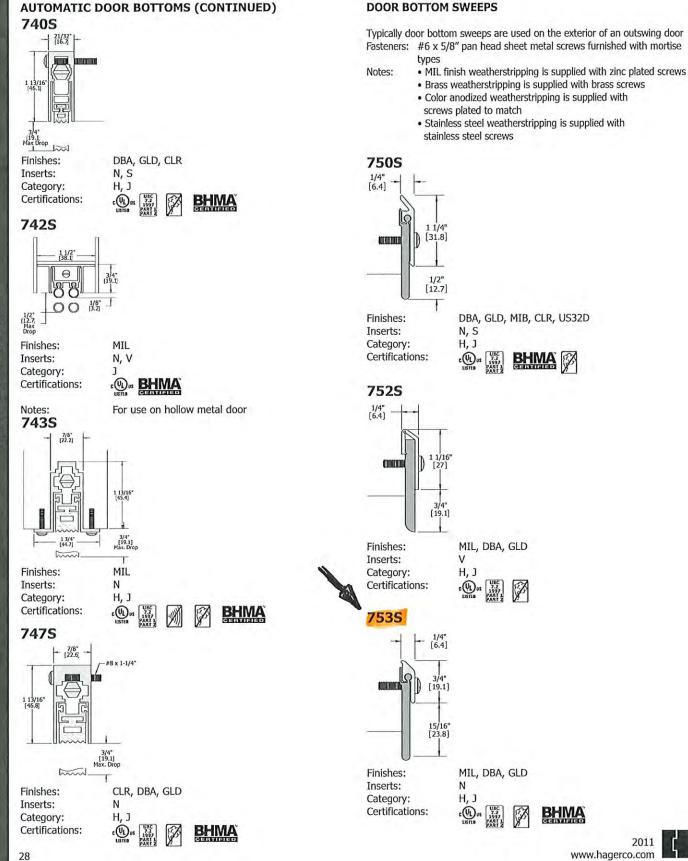




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### 301D

### Heavy Duty Hinge Pin Stop

Certifications: Materials: Finishes: Notes: Meets ANSI A156.16 for L02223 Wrought steel with rubber bumpers US3, US26D Works with 1/4" (6 mm) and 5/16" (1

- $\bullet$  Works with 1/4" (6 mm) and 5/16" ( 8 mm) hinge pins
- For use where standard door stops are not desirable
- Positive slip proof design
- Adjustable from 70 degrees to 100 degrees



# 303W

Handrail Bracket Certifications: Base Diameter: Base to Center of Rail: Materials: Finishes: Fasteners:

Meets ANSI A156.16 for L03061 3-5/32" (80 mm) 2-3/4" (70 mm) Brass US3, US4, US10, US10B, US15A, US19, US26, US26D Three (3) #10 x 1-1/4" FPHWS, three (3) plastic anchors, three (3) 10-24 x 13/16" FPHMS, and three (3) 10-24 lead anchors



### 305D Wire Pull

Certifications: Diameter of Rod: Projection: CTC Lengths: Materials: Finishes: Fasteners:

# 307D

**Door Silencer** Certifications: Diameter: Projection: Materials: Notes:



308D Door Silencer Certifications: Projection: Base: Length: Materials: Notes: Meets ANSI A156.9 for B02011 5/16" (7.9 mm) 1-9/32" (32.5 mm) 3" (76 mm), 3-1/2" (89 mm), 4" (102 mm) Brass US3, US4, US10, US10B, US26, US26D Two (2) 8-32 x 1-3/4" TPHMS

Meets ANSI A156.16 for L03011 1/2" (13 mm) 1/8" (3 mm) Rubber • For use with metal frames

• Proper installation eliminates door rattle and provides constant tension for door latches or locks

Meets ANSI A156.16 for L0302 9/64" (3.5 mm) 3/8" x 3/4" (9.5 mm x 19 mm) 3/4" (19 mm) Rubber • For use with wood frames

- · Eliminates door rattle when door is latched
- Proper installation eliminates door rattle and provides constant tension for door latches or locks

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Florida	Product Approval USER: Public User		
ARE SHERE	Product Approval Menu > Product or Application Search > Application	List > Application Detail	
IN OFFICE OF THE	FL #	FL16202-R6	
SECRETARY	Application Type	Revision	
	Code Version	2017	
	Application Status	Approved	
	Application Status	hppiered	
	China State		
	Comments	0	
	Archived		
	and the second second	development environmente de la servicio	
	Product Manufacturer	dormakaba USA Inc. / Door Hardware	
	Address/Phone/Email	6161 E 75th Street Indianapolis, IN 46250	
		(317) 806-3288	
		bob.strong@dormakaba.com	
	Authorized Signature	Robert Strong	
		bob.strong@dormakaba.com	
	The local Design of the lo		
	Technical Representative		
	Address/Phone/Email		
	Ouslike Assumes Descentation		
	Quality Assurance Representative Address/Phone/Email		
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	Category	Exterior Door Components	
	Subcategory	Extensi Door Components	
	Compliance Method	Evaluation Report from a Florida Registered A	chitect or a Licensed
		Florida Professional Engineer	childer of a licensed
		Evaluation Report - Hardcopy Received	
	Florida Engineer or Architect Name who developed	Hermes F. Norero, P.E.	
	the Evaluation Report	05 30330	
	Florida License	PE-73778	
	Quality Assurance Entity	Intertek Testing Services NA, Inc QA Entity	
	Quality Assurance Contract Expiration Date	12/31/2020	
	Validated By	Locke Bowden P.E.	
		Validation Checklist - Hardcopy Received	
	Certificate of Independence	FL16202 R6 COI COI dormakaba USA SS 20	<u>19-02-18.pdf</u>
	Deferenced Standard and Very (of Charder 1)		-201
	Referenced Standard and Year (of Standard)	Standard	Year
		TAS 201	1994
		TAS 202 TAS 203	1994 1994
		TAS 203	1994
	Equivalence of Product Standards Certified By		
	Sections from the Code		
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Product Approval Method

Method 1 Option D

Date Submitted	04/09/2020
Date Validated	04/09/2020
Date Pending FBC Approval	04/14/2020
Date Approved	06/02/2020

Summary of Products

FL #	Model, Number or Name	Description	
16202.1	Best Access Series 45H & 47H Mortise Locksets With/Without Deadlock and 48H & 49H Mortise Deadlocks	Best Access Series 45H & 47H Mortise Locksets With/Withou Deadlock and 48H & 49H Mortise Deadlocks - Component Approval	
Impact Resistan Design Pressure Other: See Instal Report for hardwar	e outside HVHZ: Yes It: Yes It: N/A lation Instructions and Product Evaluation re details, door construction requirements, sign pressures, configurations, installation	Installation Instructions FL16202 R6 II DOR005 SS 2019-02-18.pdf Verified By: Hermes F. Norero, P.E. Florida P.E. 73778 Created by Independent Third Party: Yes Evaluation Reports FL16202 R6 AE PER6055 SS 2019-02-18.pdf Created by Independent Third Party: Yes	
16202.2	Best Access Series 9K Cylindrical Lockset Hardware	Best Access Series 9K Cylindrical Lockset Hardware - LMI - Component Approval	
Impact Resistan Design Pressure Other: See Instal Report for hardwar	e outside HVHZ: Yes It: Yes N/A lation Instructions and Product Evaluation re details, door construction requirements, sign pressures, configurations, installation	Installation Instructions FL16202 R6 II DOR001 SS 2019-02-18.pdf Verified By: Hermes F. Norero, P.E. Florida P.E. 73778 Created by Independent Third Party: Yes Evaluation Reports FL16202 R6 AE PER6051 SS 2019-02-18.pdf Created by Independent Third Party: Yes	
16202.3	dormakaba C100 Series Leversets	dormakaba C100 Series Leversets - Component Approval	
Impact Resistan Design Pressure Other: See Instal Report for hardwar	e outside HVHZ: Yes It: Yes It: NA lation Instructions and Product Evaluation re details, door construction requirements, sign pressures, configurations, installation	Installation Instructions <u>FL16202 R6 II DOR017 SS 2020-04-09.pdf</u> Verified By: Hermes F. Norero, P.E. Florida P.E. 73778 Created by Independent Third Party: Yes <b>Evaluation Reports</b> <u>FL16202 R6 AE PER6753 SS 2020-04-09.pdf</u> Created by Independent Third Party: Yes	
16202.4	dormakaba DB80 Series Deadbolts with C100 Leversets	dormakaba DB80 Series Deadbolts with C100 Leversets - Component Approval	
Impact Resistan Design Pressure Other: See Instal Report for hardwar	e outside HVHZ: Yes It: Yes :: N/A lation Instructions and Product Evaluation e details, door construction requirements, sign pressures, configurations, installation	Installation Instructions FL16202 R6 II DOR018 SS 2020-04-09.pdf Verified By: Hermes F. Norero, P.E. Florida P.E. 73778 Created by Independent Third Party: Yes Evaluation Reports FL16202 R6 AE PER6752 SS 2020-04-09.pdf Created by Independent Third Party: Yes	
16202.5	PHI Series ARM-A-DOR Panic Exit Device	PHI Series "Arm-A-Dor" Panic Exit Device - Component Approval	
Impact Resistan Design Pressure Other: See Instal Report for hardwar	e outside HVHZ: Yes t: Yes : N/A lation Instructions and Product Evaluation re details, door construction requirements, sign pressures, configurations, installation	Installation Instructions FL16202 R6 II DOR008 SS 2019-02-18.pdf Verified By: Hermes F. Norero, P.E. Florida P.E. 73778 Created by Independent Third Party: Yes Evaluation Reports FL16202 R6 AE PER6142 SS 2019-02-18.pdf Created by Independent Third Party: Yes	
16202.6	PHI Vertical Rod & Rim Exit Devices	PHI Series HC2200, HC2300, & HC2800 Vertical Rod Panic Exit Devices and HC2100 Rim Exit Device with HCK822 Removable Mullion - LMI - Component Approval	
Limits of Use Approved for us Approved for us Impact Resistan Design Pressure	e outside HVHZ: Yes t: Yes	Installation Instructions <u>FL16202 R6 II DOR002 SS 2019-02-18.pdf</u> Verified By: Hermes F. Norero, P.E. Florida P.E. 73778 Created by Independent Third Party: Yes <b>Evaluation Reports</b>	

https://www.floridabuilding.org/pr/pr\_app\_dtl.aspx?param=wGEVXQwtDqsNc735f0bMi... 11/2/2020

Other: See Installation Instructions and Product Evaluation FL16202 R6 AE PER6052 SS 2019-02-18.pdf Report for hardware details, door construction requirements, Created by Independent Third Party: Yes allowable sizes, design pressures, configurations, installation requirements and limits of use. 16202.7 Stanley Commercial Hardware Stanley QDB Series Deadbolts with QCL or QTL Leverset Series - QDB Series Deadbolts with Locking Hardware - Component Approval QCL or QTL Series Leversets **Installation Instructions** Limits of Use Approved for use in HVHZ: Yes FL16202 R6 II DOR003 SS 2019-02-18.pdf Approved for use outside HVHZ: Yes Verified By: Hermes F. Norero, P.E. Florida P.E. 73778 **Impact Resistant: Yes** Created by Independent Third Party: Yes Design Pressure: N/A **Evaluation Reports** FL16202 R6 AE PER6053 SS 2019-02-18.pdf Other: See Installation Instructions and Product Evaluation Report for hardware details, door construction requirements, Created by Independent Third Party: Yes allowable sizes, design pressures, configurations, installation requirements and limits of use. Stanley QED Series 100RIM & 100SVR (Surface Vertical Rod) 16202.8 Stanley Commercial Hardware Series - QED 100RIM & QED 100SVR Devices Panic Exit Devices (Single Door application) - Component Approval Installation Instructions Limits of Use Approved for use in HVHZ: Yes FL16202 R6 II DOR004 SS 2019-02-18.pdf Verified By: Hermes F. Norero, P.E. Florida P.E. 73778 Approved for use outside HVHZ: Yes **Impact Resistant: Yes** Created by Independent Third Party: Yes **Evaluation Reports Design Pressure: N/A** Other: See Installation Instructions and Product Evaluation FL16202 R6 AE PER6054 SS 2019-02-18.pdf Report for hardware details, door construction requirements, Created by Independent Third Party: Yes allowable sizes, design pressures, configurations, installation requirements and limits of use.

Back Next

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# dormakaba USA, Inc.

PHI SERIES HC2200, HC2300 & HC2800 VERTICAL ROD PANIC EXIT DEVICES AND HC2100 RIM EXIT DEVICE WITH HCK822 STEEL REMOVABLE MULLION (PANIC HARDWARE COMPONENT APPROVAL)

### GENERAL NOTES:

 THIS PRODUCT HAS BEEN DESIGNED AND MANUFACTURED TO COMPLY WITH THE 6TH EDITION FLORIDA BUILDING CODE (FBC) INCLUDING PROVISIONS SET FORTH FOR HIGH-VELOCITY HURRICANE ZONES (HVHZ).

2. THE DOORS SHALL MEET THE FOLLOWING MINIMUM REQUIREMENTS:

- 2.1. THE DOOR SHALL BE 1-3/4" MIN. OVERALL THICKNESS
- 2.2. DOOR PANEL SHALL BE REINFORCED WITH 22 GA. (0.029") "HAT-STIFFENERS" AT A MAXIMUM OF 6" O.C.
- 2.3. HINGE REINFORCEMENTS AT DOOR PANEL AND AT FRAME SHALL BE A MINIMUM OF 7 GA. (0.1875") THICK STEEL.
- 2.4. FULL-LENGTH 16 GA. (0.053" MIN.) STEEL TUBE (2 X C-NESTED CHANNELS) AT TOP & BOTTOM RAILS OF DOORS.
- 2.5. MIN. 12 GA. (0.101" MIN.) STEEL REINFORCEMENT AT HINGE & STRIKE PLATES WHERE APPLICABLE.
- 2.6. MIN. 14 GA. (0.067" MIN.) STEEL C-CHANNEL AT HINGE & LOCK STILES WHERE APPLICABLE.
- 2.7. FULL LENGTH 12 GA. (0.101" MIN.) STEEL TUBE (2 X C-NESTED CHANNELS) AT STILES WHERE APPLICABLE.
- PLEASE REFER TO DOOR ELEVATIONS, SHEET 2, AND CORRESPONDING DETAILS FOR APPLICABILITY OF REINFORCEMENT REQUIREMENTS (SHEETS 3-7).
- 3. STRIKES, HINGES, AND ALL APPLICABLE REINFORCEMENTS AS REQUIRED ON DETAIL DRAWING IN THIS APPROVAL.
- 4. LOCKING HARDWARE SHALL BE INSTALLED AS PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- ALL FASTENERS AND ASSOCIATED HARDWARE MUST BE MADE OF CORROSION RESISTANT MATERIAL OR HAVE A CORROSION RESISTANT COATING.
- STEEL COMPONENTS SHALL BE COATED OR COMPLY WITH CORROSION RESISTANCE PROTECTION IN CONFORMANCE WITH THE MATERIAL PROTECTION PROVISIONS OF THE 6TH EDITION FBC, CHAPTER 22.
- 7. ALL TRIMS SHALL BE THRU BOLTED WITH #10-24 MACHINE SCREWS.
- 8. 1700 & 200 SERIES TRIMS AVAILABLE WITH A, B, & C STYLE PULLS.
- 9. 3900 & 4900 SERIES TRIMS AVAILABLE WITH A, B, C, & D LEVERS AND KNOBS.

10. OPTIONAL TRIMS MODELS INCLUDE: 1703, 2003, 4900.

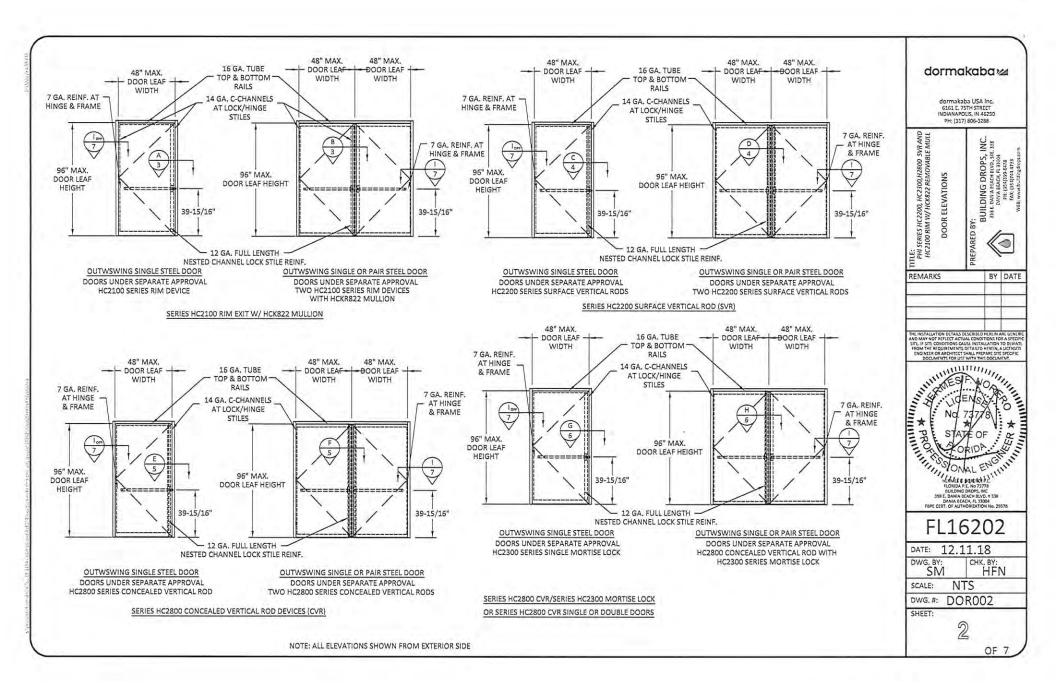
11.CONFORMS TO ULIOC AND UBC7-2, BHMA CERTIFIED FOR ANSI 156.3 GRADE 1.

### LIMITATIONS OF USE:

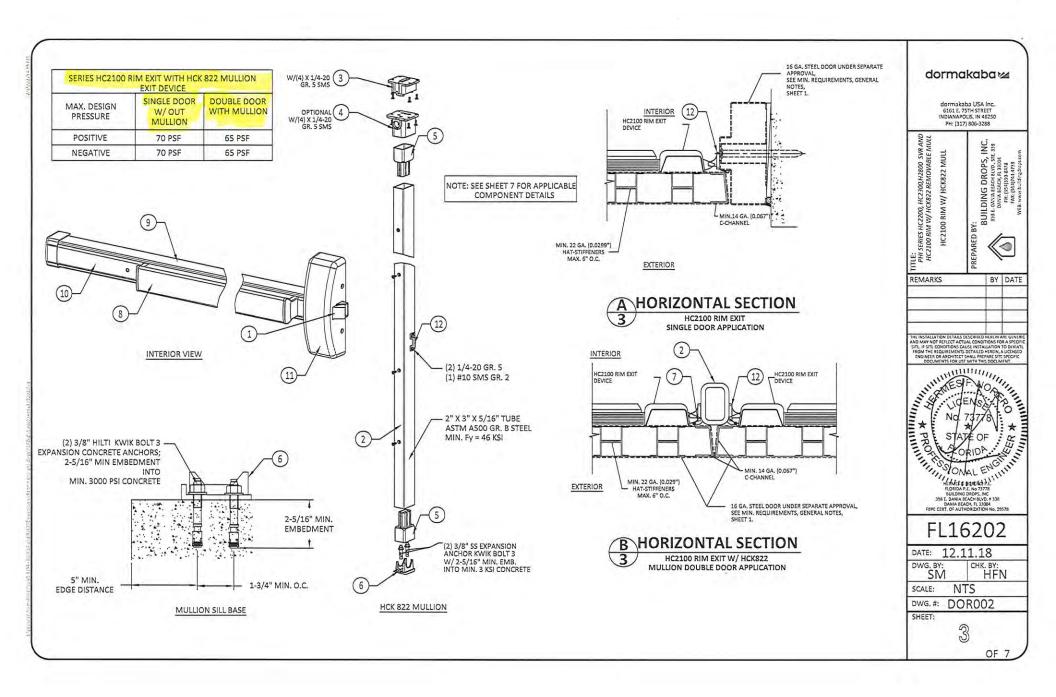
- PANIC EXIT HARDWARE DEVICES ARE APPROVED TO BE EQUAL ALTERNATIVES OF TESTED COMPONENTS TO BE USED IN 16 GA. STEEL FRAME AND 16 GA. (0.053" MIN.) STEEL SINGLE OR DOUBLE DOORS, HOLDING CURRENT NOA. THE LOWEST DESIGN PRESSURE RATING OF DOOR OR THE COMPONENT APPROVAL HEREIN SHALL CONTROL.
- 2. DOOR PANELS MUST NOT BE WIDER THAN 48" AND HIGHER THAN 96".
- ELECTRICAL/ELECTRONIC FUNCTION AND INSTALLATION OTHER THAN SELF CONTAINED ELECTRONIC DEVICES ARE <u>NOT</u> PART OF THIS APPROVAL AND MUST BE REVIEWED BY AUTHORITY HAVING JURISDICTION(AHJ) IN THE AREA.
- 4. COMPLIANCE WITH BUILDING EGRESS REQUIREMENTS TO BE REVIEWED BY BUILDING OFFICIAL.

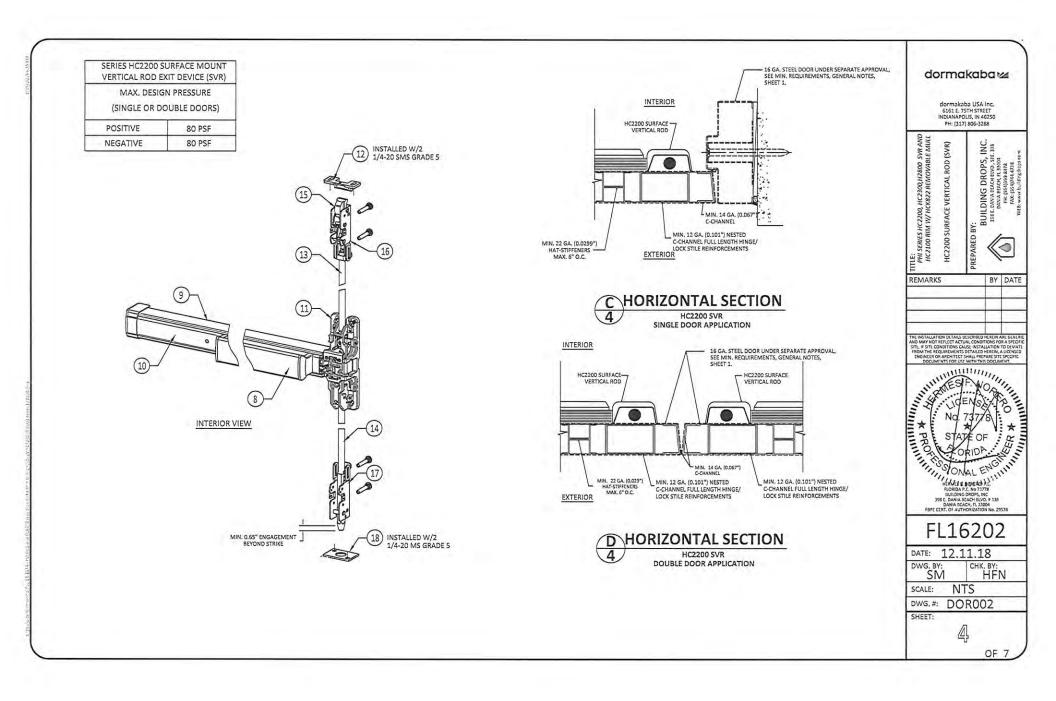
TABLE OF CONTENTS					
SHEET REVISION		SHEET DESCRIPTION			
1	17. ter (	GENERAL NOTES			
2	1.04	DOOR ELEVATIONS			
3		HC2100 RIM EXIT W/ HCK822 MULLION			
4		HC2200 SURFACE VERTICAL ROD (SVR)			
5		HC2800 CONCEALED VERTICAL ROD (CVR)			
6	-	HC2800 CVR W/ HC2300 MORTISE LOCK EXIT DEVICE			
7	5 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	BILL OF MATERIALS (BOM) & COMPONENTS			

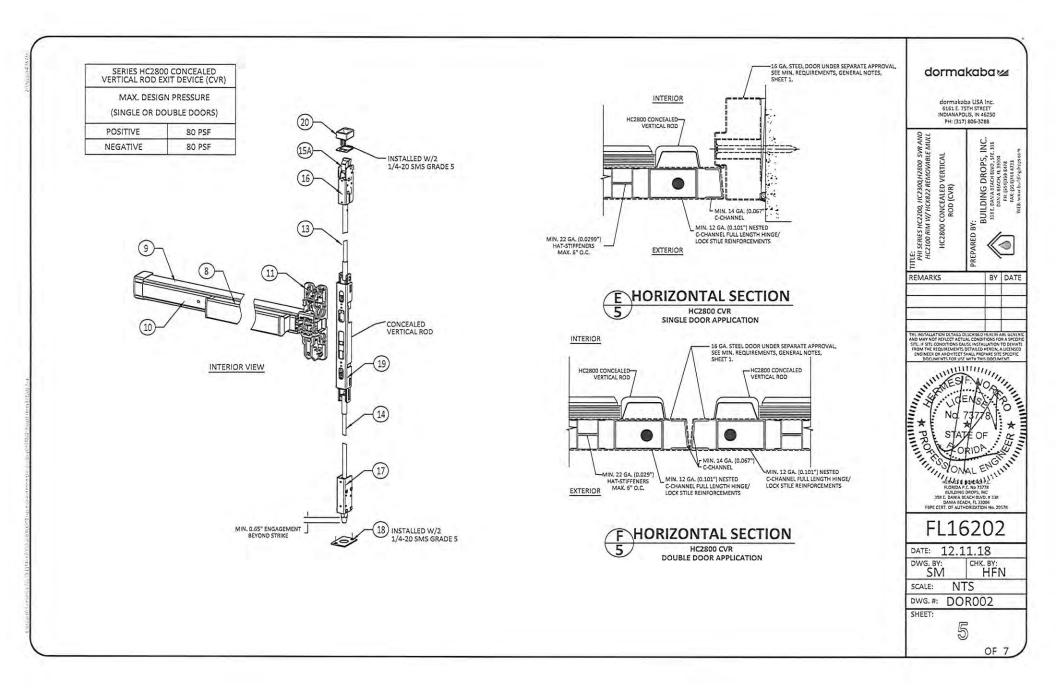




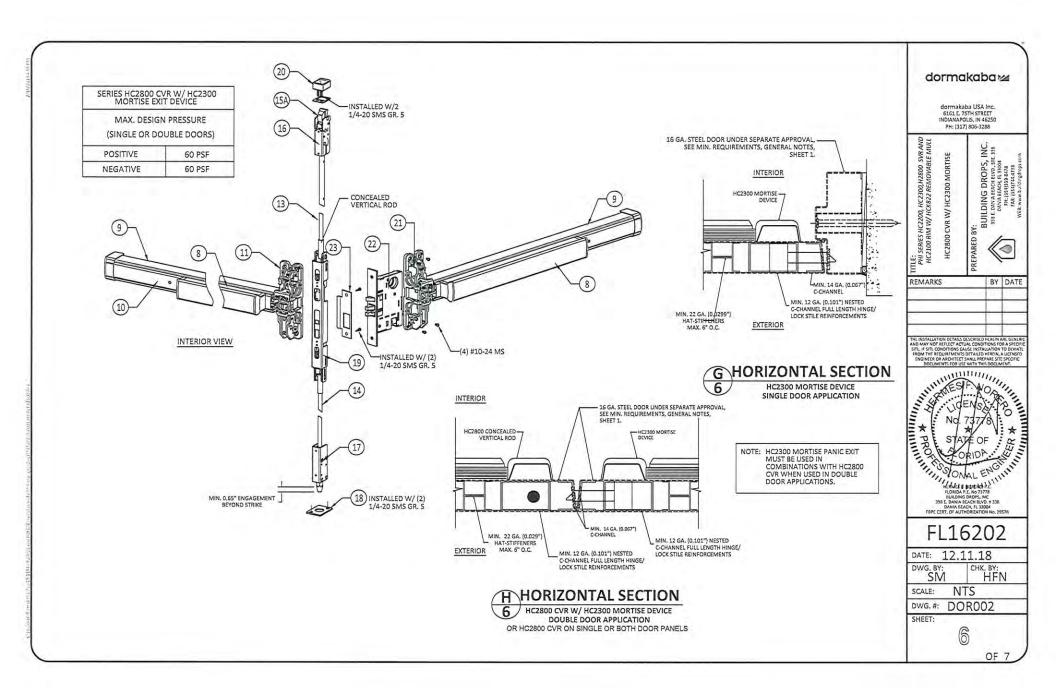
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tem No.	QTY.	Description	Part No.	Series
1	1	3/4 THROW DEADLOCKING LATCHBOLT		HC2100
	1	HC822 STEEL MULLIONS (ASTM-A500 STEEL		HC2100
2		GRADE B OR HIGHER STRENGTH MATERIAL)		
		W/(4) 1/4-20 SS FLAT HEAD SCREWS		
	1	HCK822 MULLION CAP W/(1) 1/4-20 SET		
3		SCREW & (4) 1/4-20 GR. 5 MACHINE		HC2100
		SCREWS		
		HCKR822 MULLION ALTERNATE CAP W(4)		-
4		1/4-20 GR. 5 MACHINE SCREWS		HC2100
5	2	MULLION FITTING ADAPTER TOP/BOTTOM	1	HC2100
	1	MULLION STILL BASE W/ (2) 3/8 HILTI KWIK	1	1
6		BOLT 3 EXPANSION ANCHORS W/ 2 5/16"		10
		EMB. INTO CONCRETE & (1) 1/4-20 SET		HC822
		SCREW		
	1	INTERLOCKING ANGLE W/(1) 1/4-20 & (1)		
7		#10-24 MACHINE SCREWS S216	S216	HC2100
	1	TOUCHBAR ASSEMBLY		HC2100, HC2200
8				HC2300, HC2800
	1	DEVICE CHANNEL		HC2100, HC2200
9		a a construction of the second s		HC2300, HC2800
	1	HINGE FILLER	1	HC2100, HC2200
10				HC2300, HC2800
	1	ACTIVE CASE W/(4) #10-24 MACHINE	1	HC2100, HC2200
11		SCREWS		HC2300, HC2800
-	1	STRIKE W/(2) 1/4-20 & (1) 10-24 MACHINE		
12		SCREW	\$300	HC2100, HC2200
13	1	TOP TOD	1	HC2200, HC2800
14	1	BOTTOM ROD	1	HC2200, HC2800
15	1	DEADLOCKING LATCHBOLT W(2) 1/4-20		
		MACHINE SCREWS & SEX BOLTS		HC2200
15A	1	DEADLOCKING LATCHBOLT W(2) 10-24	1	
		MACHINESCREWS		
16	1	TOP LATCH ASSEMBLY		HC2800
17	1	BOTTOM BOLT ASSEMBLY	1	HC2200, HC2800
18	1	BOTTOM STRIKE W/(2) 3/8 X 2 1/4" STUD	S460	HC2200, HC2800
		ANCHORS		
19	1	CENTER CHASSIS	· · · · · · · · · ·	HC2800
20	1	TOP STRIKE W(2) #10-24 MACHINE SCREWS	S519	HC2800
21	1	MORTISE ACTIVE CASE W(4) #10-24, (2) 1/4-		
		20 GR. 5 MACHINE SCREWS		HC2300
		(SINGLE DOOR ONLY)		averaged.
22	1	MORTISE CASE		HC2300
	1	STRIKE - MORTISE CURVED LIP W/ (2) 1/4-20		
23		SMS GR. 5		HC2300

