

SECTION 08710

DOOR HARDWARE

PART 1 GENERAL

1.1 SUMMARY

A. Scope

1. Furnish all door hardware as specified, scheduled, shown, or required for a complete installation.

B. Related Work Specified In Other Sections

1. Casework – Division 6.
2. Astragals as part of a fire rated assembly, Steel Doors and Frames – Division 8.
3. Door silencers as part of a steel door frame, Steel Doors and Frames – Division 8.
4. Astragals as part of a fire rated assembly, Wood Doors – Division 8.
5. Gaskets as part of a sound rated assembly and door silencers as part of a sound rated door frame, Sound Control Doors and Frames – Division 8.
6. Entrance door hardware except cylinders, Aluminum Entrances and Storefronts – Division 8.
7. Hardware for wire mesh doors, except cylinders, Wire Mesh Partitions – Division 10.
8. Door hardware except cylinders, Pre-Engineered Building – Division 13.
9. Intrusion detectors for door switches, Intrusion Detection – Division 13.
10. Electrical rough-in, conduit, junction boxes, wiring, primary power and final hook-up of all finish hardware requiring electrical connections - Division 16.

C. Products Furnished But Not Installed Under This Section

1. Door Hardware furnished in this Section, installed under the following Sections:
 - a. Finish Carpentry - Division 6.
 - b. Steel Doors and Frames – Division 8.
 - c. Aluminum Doors and Frames – Division 8.
 - d. Wood Doors – Division 8.
 - e. Aluminum Doors and Storefronts – Division 8.
 - f. Glazed Aluminum Curtain Walls – Division 8.
 - g. Hinged Blast-Resistant Doors – Division 8.
 - h. Sound Control Doors and Frames – Division 8.
 - i. Security Door Hardware – Division 16.
 - j. Final replacement cores and keys to be installed by the Owner.

1.2 QUALITY ASSURANCE

A. Requirements Of Regulatory Agencies

1. Door hardware shall comply with the requirements of laws, codes, ordinances, and regulations of the governmental authorities having jurisdiction. Where such requirements exceed the requirements of the Specifications, use the most stringent.

2. The following codes in the most current editions shall be adhered to for the purposes of determining the correct application of the finish hardware:
3. NFPA 101 "Life Safety Code", Current Edition.
4. NFPA 80 "Installation of Fire Doors and Windows, Current Edition.
5. BOCA, Current Edition.
6. Local Barrier Free Code, Current Edition.
7. UBC CODE, Current Edition.
8. American with Disabilities Act, Current Edition.
9. UL10C
10. Door hardware to hazardous areas of public buildings shall comply with the requirements of the governmental agencies having jurisdiction. For public building accommodations, door hardware shall comply with the latest governmental laws and regulation for the physically handicapped, including Americans With Disabilities Act of 1990, effective January 26, 1992.
11. All hardware items for listed fire door assemblies shall comply with the requirements of the NFPA Standard No. 80 and shall bear the appropriate label for the opening classification indicated in the Door Schedule, and shall also comply with the requirements of the State Fire Marshall or other authorities having jurisdiction. NFPA requirements shall take precedence over all other provisions of this section.
12. Where emergency exit devices are required on fire-rated doors that carry supplementary marking on the doors UL labels indicating "fire door to be equipped with fire exit hardware" provide UL label on exit devices indicating "Fire Exit Hardware".
13. Finish hardware supplier shall be a factory authorized distributor for all products required, and shall have display samples, inventory, and qualified personnel trained and experienced in preparing Hardware Schedules, issuing templates, ordering, furnishing, and servicing finish hardware for architecturally designed projects, and located within one hour travel time of the project.
14. Prior to commencement of the Hardware Supplier's development of the Hardware Schedule, a Finish Hardware Meeting will be held at the Architect-Engineer's office. The Contractor and the Hardware Supplier's personnel directly responsible for preparing the Hardware Schedule shall meet with the Architect-Engineer and the Architect-Engineer's Hardware Consultant. Attendance at this meeting is mandatory. Purpose of the finish hardware meeting is to review the Contract Documents' hardware schedule requirements and will include, but not be limited to, the following:
 - a. Review specification requirements for Hardware Schedule, formats, hardware locations, opening descriptions, and other information specified.
 - b. Hardware Supplier shall distribute, at the meeting, samples of schedules from other projects of similar nature prepared by the same person as will prepare schedule for this project.
15. Preinstallation Meeting: Before hardware installation, Contractor shall request a hardware installation seminar be conducted on the installation of hardware; specifically of locksets, closers, exit devices, overhead stops and coordinators. Manufacturer's Representatives of the above products to present seminar. Seminar to be held at job site and attended by installers of hardware for aluminum, hollow metal and wood doors. Seminar to address proper coordination and installation of hardware, per finish hardware schedule for this specific project by using installation manuals, hardware schedule, templates, physical product samples and installation video's.

1.3 SUBMITTALS

A. Furnish submittals for items that are identified in this Section by a different typeface and a bracketed code (e.g., *Item [L]*). Refer to Division 1 General Requirements for definition of codes for types of submittals and the administrative requirements governing submittal procedure. Additional submittal requirements pertaining to this Section are specified under this Article.

B. *Hardware Schedules [D]*: Submit proper number of Hardware Schedules to allow the Architect-Engineer to retain two copies for his use, plus the number of copies required by the Contractor for his distribution and use. But, in any event, do not submit more than six copies. Include the following:

1. Door Index: Provide using Architects door numbers, hardware set numbers and page numbers where hardware is listed.
2. Preface sheet listing category only and manufacturers' names of items being furnished, as follows:

CATEGORY	SPECIFIED	SCHEDULED
Hinges	Manufacturer A	Manufacturer B
Locksets	Manufacturer X	Manufacturer X
Kick Plates	Open	Manufacturer Z

3. Hardware Locations: Refer to Article LOCATIONS.
4. Opening Description: Single or pair, number, room locations, hand, active leaf, degree of swing, size, material, frame material, and UL Listing.
5. Hardware Description: Quantity, category, product number, fasteners, and finish.
6. Headings that refer to the specified Hardware Set Numbers.
7. Scheduling sequence shown in Hardware Sets and as outlined in "Sequence and Format for the Hardware Schedule" published by DHI.
8. Product data of each hardware item, and shop drawings where required, for items to be connected to the electrical or fire alarm systems complete with power requirements and wiring diagrams and for other special conditions and specialty hardware.
9. "Vertical" scheduling format only. "Horizontal" schedules will be returned without review noted "RESUBMIT".
10. Typed copy.
11. Double spacing.
12. 8¹/₂ x 11 inch sheets.
13. U. S. Standard or B.H.M.A. finish symbols.

C. *Hardware Schedule Product Data [P]*: Submit product data concurrently with Hardware Schedule. Submit in booklet form, using Supplier's Hardware Schedule covers as binders.

D. Upon return of the reviewed finish hardware schedule, hardware supplier shall arrange for a keying meeting with the Owner's Representative, hardware supplier, and other involved parties to insure all locksets are functionally correct and keying fulfills the project requirements. As soon as possible after the keying conference, typed copies of the keying schedule shall be furnished to the Owner's Representative.

- E. *Electrical Equipment Schedule [D]*: In addition to the finish hardware schedule, provide complete set of riser and installation drawings for all electrically controlled or operated hardware equipment. Drawing should include relationship of all related equipment, mounting locations, wire type and size, voltage and current requirements. Documentation shall include function, operation characteristics of all equipment and point to point termination of all wires.
- F. **Warranty**: All products supplied on project shall be warranted by manufacturer against defect in materials and workmanship for at least one year from date of substantial completion. The defective product shall be replaced promptly, free of charge to the Owner, and installed by a factory representative. Defective products shall be returned to Hardware Supplier after replacement. Warranties shall be supplied as follows:
 - 1. Closers: Ten years, minimum.
 - 2. Exit Devices: Three years minimum.
 - 3. Hinges: Life of building.
 - 4. Mortise Locks: One year.
 - 5. Miscellaneous Hardware: One year.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Label each item of hardware with the appropriate door number and Hardware Schedule heading number, and deliver individually packaged hardware items at the proper times to the proper locations (shop or project site) for installation.

1.5 CERTIFICATIONS

- A. The Architectural Hardware Consultant or equivalent in the employ of the hardware supplier shall inspect and certify that all hardware has been furnished and installed in accordance with manufacturer's instructions and as specified herein, and is functioning properly.
- B. Provide two copies of certification to the Architect-Engineer.

1.6 COORDINATION

- A. Provide and distribute templates for shop preparation of door hardware. Review shop drawings of related work and indicated requirements to properly locate and install door hardware.
- B. Provide a coordinated layout for electrical system rough-in of electrified door hardware connections for (power) (fire alarm and detection systems) (security access) (building controls.).

1.7 MAINTENANCE SERVICE

- A. Provide instructions for maintenance and special tools for continued hardware maintenance.

PART 2 PRODUCTS

2.1 SCHEDULED DOOR HARDWARE

- A. General: Provide door hardware complying with requirements specified in this Section, the door set indicated in the door schedule and the hardware schedule as per Part 3 in this section.
- B. Furnish each category with the products of only one manufacturer, unless specified other; this requirement is mandatory whether various manufacturers are listed or not.
- C. Furnish hinges, continuous hinges, electric hinges, pivot sets, electric pivots, roller latches, exit devices, push and pull hardware, closers, overhead holders, kickplates, armor plates, door edgings, bumpers, stops, seals, automatic door bottoms, bottom seals, weather-stripping and thresholds for both leaves of pairs and batteries of doors unless specified otherwise.
- D. Provide the products of manufacturer designated or if more than one manufacturer is listed, the comparable product of one of the other manufacturers listed. Where only one manufacturer or product is listed, "no substitution" is implied.

2.2 HINGES

- A. Hinges: Furnish class 5BB1 and size $4\frac{1}{2}$ x $4\frac{1}{2}$ inches, unless specified otherwise. Numbers specified are Ives.
 - 1. Equal products of any B.H.M.A. member will also be acceptable.
- B. Hinge Sizes unless specified otherwise:
 - 1. Doors up to and including 36 inches wide. $4\frac{1}{2}$ x $4\frac{1}{2}$ inches.
 - 2. Doors 38 inches to 48 inches wide. Use continuous gear hinges (Section 2.3).

2.3 CONTINUOUS GEAR HINGE

- A. 6063-T6 aluminum alloy, anodized finish (cap on entire hinge painted if specified). Manufacture to template, uncut hinges non-handed, pinless assembly, three interlocking extrusion, full height of door and frame, lubricated polyacetal thrust bearing, fasteners 410 stainless steel plated and hardened.
- B. Length: 1" less than door opening height. Fastener 12-24 x $1\frac{1}{2}$ " #3 Phillips keen form self tapping at aluminum and hollow metal doors, 12- $1\frac{1}{2}$ " #3 Phillips, flathead full thread at wood doors.
- C. Furnish fire rated hinges at labeled opening. Pins or studs are not acceptable.
- D. Unless specified otherwise in sets furnish continuous gear hinges as follows:
 - 1. Aluminum and F.R.P. Doors: SL11-HD
 - 2. Wood and hollow metal doors: SL24-HD
 - 3. Lead Lined doors: SL24-LL
- E. Numbers used are Select Products, Ltd., Kalamazoo, Michigan. Equal products by Ives, Markar, McKinney or Pemko are also acceptable.

2.4 FLUSH BOLTS

- A. Automatic Flush Bolts: Products listed in sets are Ives FB series.
 - 1. Equal products of any B.H.M.A. member will also be acceptable.

2.5 LOCKSETS AND LATCHSETS

- A. Mortise Locksets and Latchsets; Lever Trim: At lead lined doors, furnish lead wrapped case. Locks shall meet ANSI 156.13 Series 1000, Operational Grade 1, Security Grade 1 and be listed by UL. Curved lip type, shall be furnished with all locks and latches.
- B. Products listed in sets are Schlage L9000 series with 17A lever trim.
 - 1. Sargent 8200
 - 2. Best 45H
- C. Strikes shall be furnished with extended lips where required to protect trim from being marred by latch bolts. Strike lips shall be furnished which do not project more than $\frac{1}{8}$ inch beyond door frame trim at single doors and have $\frac{7}{8}$ inch lip to center at pairs of $1\frac{3}{4}$ inch doors.
- D. Locks and cores shall be as follows:
 - 1. All locks and cylinders shall be manufactured by Best Lock Corporation, complete with 1C7A1 x US4 x US26D uncombined cores. No substitutions will be accepted. Place all orders with Best Lock Corporation, RD 2 Fields Lane, North Salem, New York 10560, specifying that the material is for Brookhaven National Laboratory and that all packages, shipping tickets and correspondence have the following identification information prominently printed thereon:

"For installation in Bldg. 600, Job No.11705"
 - 2. Upon receipt of uncombined cores, exchange same for "Contractor Cores" and keys from MPO, and install "Contractor Cores" in all locks. At job completion, return all keys properly tagged to MPO. MPO will then have "Contractor Cores" removed and replace with final cores.

2.6 LOCK GUARDS

- A. Lock Guards: Finish US32D
 - 1. Ives LG10
 - 2. MarKar M-930-LG-SS
 - 3. Precision 1625

2.7 EXIT DEVICES

- A. Exit Devices: Furnish specified outside trim. Function designations are Von Duprin 98 series.
 - 1. Sargent 80 series
 - 2. Precision Apex series

2.8 PUSH AND PULL HARDWARE

- A. Push Plates: Plain design, wrought, 6 x 16 x 0.050 inches, square corners, beveled edges. If stile widths will not accept 6 inches, furnish stile width less two inches.
- B. Pull Plates: Plain design, with wrought plate 4 x 16 x 0.050 inches, square corners, beveled edges; 1 inch round rod, straight grip with 10 inch centers with 2-1/2 inch clearance.
- C. Furnish Push and Pull Hardware from any member of B.H.M.A.

2.9 COORDINATORS

- A. Face Mounted Coordinators: Gravity type by any member of B.H.M.A.
- B. Stop Mounted Coordinators: Furnish fillers for full jamb openings and mounting brackets for stop-applied hardware. Provide special notching for concealed exit device top bolt latch trigger release device. Products listed in sets are Ives COR series.
 - 1. Equal products of any B.H.M.A. member will also be acceptable.

2.10 CLOSERS

- A. Closers: All closers shall meet or exceed ANSI A.156.4 Grade 1 Certification.
 - 1. Review the door frame and plan details to determine the proper length of arm and the degree of swing. Indicate the degree of swing in the hardware schedule.
 - 2. Provide manufacturer's minimum 10 year warranty on closers against manufacturing defects and workmanship.
 - 3. Closers shall be inspected and adjusted by the Factory Representative after installation and after the HVAC System is in operation to insure proper adjustment in operation. The Manufacturer's Representative shall prepare written report stating compliance, and also record locations and kind of non-compliance. The original report shall be forwarded to the Architect-Engineer with a copy to the Owner's Representative and Hardware Distributor.
 - 4. Provide one shoe support with each closer 4111, where required. When used with stop-applied weather-stripping, provide special shoe or stop spacer for arm to pass below stop and weather-stripping.
 - 5. Door closers shall have fully hydraulic, full rack and pinion action with a high strength cast iron cylinder. Cylinder body shall be 1-1/2" in diameter, and double heat treated pinion shall be 11/16" in diameter with double D slab drive arm connection.
 - 6. Hydraulic fluid shall be of a type requiring no seasonal closer adjustment for temperatures ranging from 120 degrees F to -30 degrees F and shall meet UL10-C requirements for positive pressure testing.
 - 7. Spring power shall be continuously adjustable over the full range of closer sizes, and allow for reduced opening force for the physically handicapped. Hydraulic regulation shall be by tamper-proof, non-critical valves. Closers shall have separate adjustment for latch speed, general speed, and backcheck.
 - 8. All closers shall have solid forged steel main arms (and forged forearms for parallel arm closers).
 - 9. All surface mounted mechanical closers shall be certified to exceed ten million (10,000,000) full load cycles by a recognized independent testing laboratory.

10. Powder coating finish to be certified to exceed 100 hours salt spray testing by ETL, an independent testing laboratory used by BHMA for ANSI certification.
 11. Refer to door and frame details and furnish accessories such as drop plates, panel adapters, spacers and supports as required to correctly install door closers. State degree of door swing in the hardware schedule.
- B. Products listed in sets are LCN 4000 Smoothie series.
1. Sargent 281 series
- C. In all cases provide fasteners as required to meet “UL” requirements.

2.11 OVERHEAD HOLDERS AND STOPS

- A. Type, function, and fasteners must be the same as Glynn-Johnson specified. Size per manufacturer’s selector chart. Plastic end caps, hold open mechanisms and shock blocks are not allowed. End caps must be finished same as balance of unit.
- B. Manufacture products using base material of Brass/Bronze for US3, US4 and US10B finished products and 300 Stainless Steel for US32 and US32D finished products.
- C. Type, function, and fasteners must be the same as Glynn-Johnson specified. Size per manufacturer’s selector chart.
1. Glynn-Johnson
 2. ABH
 3. Rockwood
 4. Rixson

2.12 KICK PLATES

- A. Kick Plates: Furnish 10 x 0.050 inches x door width less 2 inches at single doors and less one inch at pairs. Where glass or louvers prevent this height, supply with height equal to height of bottom rail less two inch. When specified to be installed above surface mounted automatic door bottoms, deduct height of door bottoms. Drill and countersink screw holes for oval head undercut screws. Install to within $\frac{1}{4}$ inch of the door bottom. Bevel three edges.

2.13 WALL STOPS

- A. Wall Stops: Furnish with pictorial installation instructions illustrating downward slope of diagonal side.
1. H.B. Ives – WS33

2.14 WEATHER-STRIPPING

- A. Weather-stripping: Apply at head and jamb stops.
- B. Numbers specified are National Guard. Products from other manufacturers are acceptable if equal in material, shape, thickness, and contain equal gasket material.
1. National Guard
 2. Pemko
 3. Reese

2.15 SWEEPS

- A. Sweeps: Apply at door bottom, hinge side.
- B. Numbers specified are National Guard. Products from other manufacturers are acceptable if equal in material, shape, thickness, and contain equal gasket material.
 - 1. National Guard
 - 2. Pemko
 - 3. Reese

2.16 THRESHOLDS

- A. Thresholds: Numbers specified are National Guard. Products from other manufacturers are acceptable if equal in material, shape, thickness, and contain equal bumper gaskets and foot seals.
- B. Thresholds of sufficient width to project beyond faces of doors and frames shall be coped around frame and mullion stops and faces, equal in length to full masonry openings, excluding side lights, when faces of frames are not flush with adjacent walls.
- C. When faces of frames are flush with adjacent walls, such thresholds shall be coped similarly at stops and mullions but not in front of faces of frames.
- D. Thresholds without projection shall be equal in length to door openings and coped at frame and mullion stops only.
- E. Furnish thresholds with floor closers.
- F. Furnish one unit or assembly per door opening, at batteries, butted together with only hair line joints.
- G. Furnish National Guard 425 unless listed otherwise in sets.

2.17 KEY CABINET

- A. Key Cabinet: TelKee WC Series with key loan record system, preindexed by this supplier, who shall instruct Owner in usage and maintenance of key records. Accommodate all keys under this Contract, plus 50% future expansion.

2.18 MISCELLANEOUS

- A. Furnish items not categorized in the above descriptions but specified by names in Hardware Sets.

2.19 FASTENERS

- A. Furnish fasteners of the proper type, size, quantity, and finish. Use machine screws and expansion shields for attaching hardware to concrete or masonry, and wall grip inserts at hollow wall construction. Supply sex bolts for closers at lead-lined or UL Listed wood doors only. Supply sex bolts when UL listing of wood doors requires them. Furnish machine screws for attachment to reinforced hollow metal doors and

frames and reinforced aluminum doors and frames. Furnish full thread wood screws for attachment to solid wood doors and frames. "TEK" type screws are not acceptable.

2.20 FINISHES

- A. Generally, Satin Chrome, US26D. Furnish finish for each item as indicated in sets.

2.21 TEMPLATES AND HARDWARE LOCATION

- A. Furnish hardware made to template. Supply required templates and hardware locations to the door and frame manufacturers.
- B. No mortising will be required for channel iron frames.
- C. Refer to Article LOCATIONS and coordinate with templates.

2.22 CYLINDERS AND KEYING

- A. Provide an IC core cylinder for all hardware components capable of being locked.
- B. Provide cylinders factory master and grand master keyed to the existing grand master system, according to Owner's instructions. Provide two change keys for each cylinder, three master keys for each master key set, and three grand master keys for system.
- C. Provide cylinders with construction keying for use during the construction period. When so directed, and in the presence of the Owner's security department or representative, convert construction cores to final cores.
- D. Provide construction master keys as required by Contractor.
- E. Furnish visual key control - stamp key bows only with key set symbol.

PART 3 EXECUTION

3.1 INSTALLATION

- A. General
 - 1. Install hardware according to manufacturers installations and to manufacturers template dimensions. Attach all items of finish hardware to doors, frames, walls, etc. with fasteners furnished and required by the manufacturer of the item.
 - a. Reinforced hollow metal doors and frames and reinforced aluminum door and frames: drilled and tapped machine screws.
 - b. Solid wood doors and frames: full thread wood screws. Drill pilot holes before inserting screws.
 - c. Continuous gear hinges attached to hollow metal doors and frames and aluminum doors and frames: 12-24 x 1/2" #3 Phillips Keenform self tapping. Use #13 or 3/16 drill for pilot.
 - 2. Continuous Gear Hinges require continuous mortar guards of foam or cardboard 1/2" thick x frame heights, applied with construction adhesive.
 - 3. Refer to Article "Cylinders And Keying" hereinbefore regarding conversion of construction cores to final cores.

4. Install weather-strip gasket prior to parallel arm closer bracket, rim exit device or any stop mounted hardware. Gasket to provide a continuous seal around perimeter of door opening. Allow for gasket when installing finish hardware. Door closers will require special templating. Exit devices will require adjustment in backset.

B. Locations

1. Dimensions are from finish floor to center line of items. All dimensions shall meet current heights applicable for the handicapped.
2. No mortising will be required for steel channel or tube steel frames.
3. Include this list in Hardware Schedule

CATEGORY	DIMENSION
Electric Hinges	Center Hinge
Hinges	Door Manufacturer's Standard
Levers	40 ⁵ / ₁₆ " C/L of Strike
Exit Device Touch Bars	Manufacturer's Template
Push Plates	45" C/L
Pull Plates	40" C/L Pull portion
Wall Stops	At Head

C. Quantities

1. Furnish one hinge for each 30" of door height, or fraction thereof, except where quantities are specified otherwise.
2. Furnish one additional intermediate pivot for doors over 90".
3. Furnish hinges, electric hinges, pivot set, exit devices, push and pull hardware, closers, overhead holders, kick plates, armor plates, door edgings, bumpers, stops, seals, automatic door bottoms, weather-stripping and thresholds for both leaves of pairs unless specified otherwise.

D. Protection

1. Protect all items of hardware until the Owner accepts the project as complete.

E. Inspection

1. After installation has been completed, hardware supplier shall have a qualified hardware consultant (member of DHI) inspect the job to determine that the correct hardware has been furnished, installed and is operating properly and is in accordance with the approved hardware schedule and keying schedule. Also, check the operation and adjustment of all hardware items and instruct the Owner's personnel in the care, adjustment and maintenance of the hardware.

F. Adjusting and Cleaning

1. At final completion, all hardware shall be left clean and free from disfigurement. Make a final adjustment to all door closers and other items of hardware. Where hardware is found defective, repair or replace or otherwise correct as directed.
2. Provide the services of a representative to inspect material furnished and its installation and adjustment, to make final hardware adjustment, and to instruct the Owner's personnel in adjustment, care, and maintenance of the hardware.
3. Locksets, closers and exit devices shall be inspected by the factory representative and adjusted after installation and after the HVAC system is in operation, to

insure correct installation and proper adjustment in operation. The manufacturer's representative shall prepare a written report stating compliance, and also recording locations and kinds of noncompliance. The original report shall be forwarded to the Architect-Engineer with copies to the Contractor, hardware distributor, hardware installer and building Owner.

3.2 HARDWARE SETS

HW SET: 1

6	EA	HINGE	5BB1 4.5 X 4.5	652	IVE
1	EA	AUTO FLUSH BOLT	FB31T	630	IVE
1	EA	PASSAGE SET	L9010 17A	626	SCH
2	EA	SURFACE CLOSER	4111 SCUSH	689	LCN
2	EA	KICK PLATE	8400 10" X 1" LDW	630	IVE
1	SET	SEALS	133NA	AL	NGP
1	EA	ASTRAGAL SEAL	114NA	AL	NGP
1	EA	DOOR SWEEP	202NA	AL	NGP
1	EA	THRESHOLD	211	AL	NGP

HW SET: 2

3	EA	HINGE	5BB1 4.5 X 4.5	652	IVE
1	EA	PASSAGE SET	L9010 17A	626	SCH
1	EA	SURFACE CLOSER	4111 SCUSH	689	LCN
1	EA	KICK PLATE	8400 10" X 1" LDW	630	IVE
1	SET	SEALS	133NA	AL	NGP
1	EA	DOOR SWEEP	202NA	AL	NGP
1	EA	THRESHOLD	211	AL	NGP

HW SET: 3

1	EA	CONTINUOUS HINGE	SL24 HD	628	SEL
1	EA	PANIC HARDWARE	98NL	626	VON
1	EA	SURFACE CLOSER	4111 SCUSH X ST-1586	689	LCN
1	EA	KICK PLATE	8400 10" X 34"	630	IVE
1	SET	SEALS	700NA	AL	NGP
1	EA	DRIP CAP	16A	AL	NGP
1	EA	DOOR SWEEP	C627A	AL	NGP
1	EA	THRESHOLD	425	AL	NGP

HW SET: 4

1	EA	CONTINUOUS HINGE	SL24 HD	628	SEL
1	EA	STOREROOM LOCK	L9080BDC 17A	626	SCH
1	EA	SURFACE CLOSER	4111 SCUSH X ST-1586	689	LCN
1	EA	KICK PLATE	8400 10" X 34"	630	IVE
1	SET	SEALS	700NA	AL	NGP

1	EA	DRIP CAP	16A	AL	NGP
1	EA	DOOR SWEEP	C627A	AL	NGP
1	EA	THRESHOLD	425	AL	NGP

HW SET: 5

3	EA	HINGE	5BB1 4.5 X 4.5	652	IVE
1	EA	STOREROOM LOCK	L9080BDC 17A	626	SCH
1	EA	SURFACE CLOSER	4111 SCUSH	689	LCN
1	EA	KICK PLATE	8400 10" X 34"	630	IVE

HW SET: 6

3	EA	HINGE	5BB1 4.5 X 4.5	652	IVE
1	EA	PRIVACY SET	L9040 17A L583-363	626	SCH
1	EA	SURFACE CLOSER	4011	689	LCN
1	EA	KICK PLATE	8400 10" X 34"	630	IVE
1	EA	WALL STOP	WS33	626	IVE

HW SET: 7

3	EA	HINGE	5BB1HW 4.5 X 4.5	652	IVE
1	EA	PUSH PLATE	8200 6" X 16"	630	IVE
1	EA	PULL PLATE	8303-0 4" X 16"	630	IVE
1	EA	SURFACE CLOSER	4011	689	LCN
1	EA	KICK PLATE	8400 10" X 34"	630	IVE
1	EA	WALL STOP	WS33	626	IVE

HW SET: 8

3	EA	HINGE	5BB1 4.5 X 4.5	652	IVE
1	EA	PANIC HARDWARE	98NL-F	626	VON
1	EA	SURFACE CLOSER	4111 SCUSH	689	LCN
1	EA	KICK PLATE	8400 10" X 34"	630	IVE
1	SET	SEALS	2525B	BRN	NGP

END OF SECTION

Revision History	
Date	Rev. No.
A	0
B	0
C	0
D	0
E	0
F	0
02-19-09	0

DS/djo

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