



LODI USD DESIGN SPECIFICATION GUIDELINES

Edit Date: 12-14-2017

| SECTION | ITEM | MANUFACTURER | MODEL | NOTES | |
|--|--|-------------------------------|--|---------------------|--|
| DIVISION 3 | | | | | |
| Concrete Floor Leveling, Patching & Grouting | Resurface Coating - Horizontal | US Mix Products Co. | Thinpatch | | |
| | Patching / Resurface Coating - Vertical | US SPEC | VTU Resurfacer | | |
| | Leveling Compound | L & M Constr. Chemicals, Inc. | Levelex / Levelex Primer | | |
| | Patching / Resurface Coating - Vertical | US SPEC | Permasil | | |
| | Non-shrink Grout | US SPEC | Premium Grout | | |
| | Concrete Maintenance | Concrete Cleaner | ProSoCo | Consolideck | |
| | | Concrete Cleaner | ProSoCo | Sure Klean | |
| | Concrete Reinforcing | Vapor Barrier Stakes | Vaporstake | Vapor Stake | |
| | Concrete Forming | Expansion Joint Filler | Celotex Corporation | 1/2" Thick Flexcell | |
| | | Extruded Polystyrene Foam | Dow Chemical Corp | Styrofoam | |
| Cast In Place Concrete | Workability and Water Reducing Admixture | BASF | POZZOLIGHT 322N | | |
| | Vapor Barrier - Loose Laid | Reef Industries | Sheet Membrane: VAPORguard | | |
| | Anchoring Cement | US Mix Products Co. | Anchoring Cement | | |
| | Structural Bonding Adhesive | US Mix Products Co. | Maxi-Bond 2500 | | |
| | Bonding Materials | US Mix Products Co. | Acrylcoat | | |
| | Bonding Materials | US Mix Products Co. | Bond Coat | | |
| | Bond Breaking Compound | L & M Constr. Chemicals, Inc. | Debond Form Coating | | |
| Curing Compound | W.R. Meadows | 1100 Clear | | | |
| DIVISION 4 | | | | | |
| Masonry, Stone and Tile Maintenance | Custom Masonry Acidic Cleaner | ProSoCo | Sure Klean, Custom Masonry Cleaner | | |
| | Burnished Custom Masonry Acidic Cleaner | ProSoCo | Sure Klean, Burnished Custom Masonry Cleaner | | |
| | General Purpose Non-Acidic Cleaner | ProSoCo | Enviro Klean Safety Klean | | |
| | Heavy Duty Concrete Cleaner | ProSoCo | Sure Klean | | |
| | Asphalt and Tar Remover | ProSoCo | Sure Klean Asphalt & Tar Remover | | |
| | Oil and Grease Stain Remover | ProSoCo | Stand Off | | |
| Unit Masonry | Concrete Masonry Units | Basalite | Precision | | |
| DIVISION 5 | | | | | |
| Structural Steel Framing | Direct Tension Indicator Washers | J & M Turner | ASTM F959, Type 325 | | |
| | Tension Control Fastener System | Lohr | | | |
| | Powder Driven Fasteners | Hilti Fastening Systems | | | |
| | Expansion Bolts | Hilti Fastening Systems | Kwik-Bolt Concrete Expansion Anchors | | |
| | Shop Primer | Tnemec Company, Inc. | FD88 | | |
| | Shop Primer | Tnemec Company, Inc. | 90-97 Tneme-Zinc | | |
| | Hole filler for steel columns and beams | JB Industries | Industro Weld | | |
| Steel Decking | Metal Roof Deck (Non Acoustical) | Verco | PLB-36, PLN3 | | |
| | Metal Roof Deck (Cellular) | Verco | PLB-CD, PLN-CD | | |
| | Metal Roof Deck (Acoustical) | EPIC | ER2RA | | |



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| Metal Ladders | Access Ladder Components: Rungs | McNichols | Traction Tread | Exterior condition hot dipped galvanized, schedule 40 |
| Metal Fabrications | Escutcheons | Plumbing Supply Co. | Heavy Gauge Escutcheons with Springs | |
| | Boots - Pipe Penetrations | Pipetite | Pipetite Standard | |
| Metal Railings | Exterior guardrails and handrails | | | Hot dipped galvanized, schedule 40 |
| DIVISION 6 | | | | |
| Rough Carpentry | Accessories | Simpson Strong Tie | | |
| | Plywood Sheathing Backing Boards | Panel Source International | Purekor Retardant Plywood, 5-ply, Western Hemlock/Fir | |
| Laminated Veneer Lumber | Laminated Veneer Lumber (LVL) | Weyerhaeuser, iLevel | Microllam, Western Species | |
| Parallel Strand Lumber | Parallel Strand Lumber (PSL) | Weyerhaeuser, iLevel | Parallam, Western Species | |
| Wood I-Joists | Flanges | Weyerhaeuser, iLevel | Micro-Lam | |
| Glue-Laminated Construction | Glue Laminated Beams | Willamette Industries, Inc. / Weyerhaeuser | | |
| Fiberglass Reinforced Panels (FRP) | Standard FRP Panels | Nudo | Standard, Class I/A: Pebbled Texture | Marlite |
| | Standard FRP Panels: Trim | Nudo | Extruded PVC Trim | Marlite |
| | Standard FRP Panels: Sealant | Nudo | Clear Silicone | |
| | Standard FRP Panels: Adhesives | Nudo | Water Resistant, Non-Flammable | |
| | Outside Corner Guards | Korogard | Stainless Steel Corner Guard, 2"x2", #4 Satin Finish | |
| Plastic Laminate | Veneer | Formica | | Wilsonart |
| Architectural Casework | Substrates for Laminate Veneer | Roseburg Forest Products | Sky Blend | |
| | Adjustable Shelving Substrates for Laminate Veneer | Roseburg Forest Products | HyBrid | |
| | Casework Hardware: Hinges | Blum | Clip Top Series | |
| | Casework Hardware: Door & Drawer Pulls | Hafele | Stainless Steel "U" Shaped Wire Pull | |
| | Casework Hardware: Drawer Slides | Knape & Vogt | Full Extension and 1.5" Extension, Ball Bearing Captured Slides | |
| | Casework Hardware: Drawer & Cabinet Door Locks | Sugatsune | Million Locks, 6830-30MK, Mortised | |
| | Casework Hardware: Adjustable Casework/Cabinet Shelving (Recessed) | Knape & Vogt | Recessed, No. 255 | |
| | Casework Hardware: Adjustable Casework/Cabinet Shelving (Support Clips) | Knape & Vogt | Horizontal Slot, No. 256R | |



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| DIVISION 7 | | | | |
| Cold Applied Self-Adhering Membranes | Underlayment: Roofs | W.R. Grace | Vycor Ultra | |
| | Flexible Flashing: Roofs | W.R. Grace | Vycor Ultra | |
| | Flexible Flashing: Walls | W.R. Grace | Vycor Plus | |
| | Flexible Flashing: Door and Window Openings | W.R. Grace | Vycor Plus | |
| | Flexible Flashing: Copings | W.R. Grace | Vycor Ultra | |
| Concrete Slab Vapor Emission Control Treatment | Remedial Treatment | Synthetics, Intl. | Synthetic 30 - Factory Mixed | |
| Water Repellant / Anti-Graffiti Coatings | Water Repellant / Anti-Graffiti Coating | This Stuff Works (TSW), Inc. | | |
| Building Insulation | Thermal and Acoustical Insulation | Owens/Corning | Unfaced - Sound Attenuation Fire Batt Insulation | CertainTeed, Johns Manville |
| | Thermal and Acoustical Insulation | Owens/Corning | Unfaced - Thermal Batt Insulation | CertainTeed, Johns Manville |
| | Rigid Insulation - Roofs | RMAX | Multi Max FA-3 | |
| Metal Roof Panels | Roof Panel | AEP | Design Span | Metal Sales, Centria, MBCI, Garland |
| | Standing Seam Mounting Clips | S-5 | S-5 Series | |
| Spray Applied Air Barrier Membrane | Spray Applied Air Barrier | Henry Company | Air Bloc 33 MR | |
| Wall Cladding Rain Screen Assembly | Rain Screen Panels | Trespa | Solid Phenolic, Meteon | |
| Metal Siding Assembly | Wall Panel Assembly | AEP | Flex Series | Metal Sales, Centria, MBCI, Garland |
| Thermoplastic Membrane Roofing | Roofing Membrane | GAF, Sarnafill, Firestone | Everguard | 60 mils minimum |
| | Roof Walkway Pads | GAF, Sarnafill, Firestone | Walkway Pad | |
| | Membrane Coated Sheet Metal Flashing | GAF, Sarnafill, Firestone | Membrane Coated Sheet Metal | |
| | Slip Sheet - Separation Roll Goods | Atlas Roofing Corporation | FR-50 | |
| Firestopping | Through-Penetration Firestop Systems | 3M | CP 25WB+ | Hilti |
| | Through-Penetration Firestop Systems | 3M | FS - 195+, PPDs | Hilti |
| Sheet Metal Flashing & Trim | Pre-manufactured Copings, Flashings, Etc. | Fry Reglet | | |
| Isolation Membrane | Slip Sheet | Atlas | FR-50 | |
| Roof Hatches & Safety Railings | Roof Hatch at Fixed Wall Mounted Ladders | Bilco | S-50 | |
| | Roof Hatch Safety Railing | Kee Industrial Products, Inc. | KeeHatch | |
| Sealants and Caulking | Exterior | Dow Corning | 795, Type 4 | |
| | | Sika | 2c | |
| | | Tremco | Vulken | |
| | | Pecora Corporation | Dynatred | |
| | Interior | Dow Corning | 999A Type 11 | |
| | | Pecora Corporation | Dynapoxy | |
| | Mastic / Sealant (Door Thresholds) | Tremco | Vulkem 116 | Sika, Pecora |
| | Tape | 3M | Closed Cell Acrylic Foam | |
| Expansion Control | Exterior Wall Expansion Joint | Balco | 9WC | MM systems |
| | Roof to Wall Expansion Cover | Balco | FRE | MM systems |



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| DIVISION 8 | | | | |
| Steel Doors and Frames | Doors, Door Frames, and Window Frames | Ceco Doors | | Curries, Total Door, Door Components, Timely |
| | Door Louvers | Anemostat | | |
| | Door Lite Assembly Frame and Glazing Compound | Anemostat | LoPro | |
| | Sound Attenuation Fill - Door Frames | Owens Corning | Mineral Wool (Rated Conditions) | |
| | Sound Attenuation Fill, Spray In Foam | Fomospray | Spray Insulation (Non-rated) | |
| | Sound Attenuation Fill, Sealant | Macklanburg-Duncan | Insulating Foam Sealant | |
| | Fire Rated Glazing Tape | Anemostat | GT - Fire Rated Glazing Tape | |
| Steel Frames | Fixed Frames | Timely | Standard Profile, Series C | Curries, Total Door, Door Components, Ceco |
| | Pocket Door Frames | Timely | Pocket Door Trim - Series P | |
| | Casing Trim | Timely | TA-28 Casing | |
| Access Doors and Panels | Access Door and Panels - Walls | Acudor | UF-5000 (Non-rated) FW-5050 (Rated) | |
| | Cement Plaster - Flush | Acudor | PS-5030 (Non-rated) FW-5050 With Flange (Rated) | |
| | Ceilings and Soffits | Acudor | UF-5000 (Non-rated) SD-6000 (Security) | |
| | Valve Boxes | Acudor | ARVE | |
| | Non-rated Ceiling Access Hatch/Door | KARP Associates, Inc. | KSTE (acoustical tile ceiling) KSTDW (drywall finish ceiling) | |
| Wood Doors | Flush Panel - Solid Core Wood Door | Oregon Door | Standard Profile, PC-5 | |
| | Vision Glass Lite and Frame In Doors | Anemostat | LoPro | |
| | Fire Rated Glazing Tape | Anemostat | Fire Rated Glazing Tape | |
| Door Hardware | Refer to District's Hardware Specification Guidelines | | | Refer to District's Hardware Specification Guidelines |
| Overhead Insulated Coiling Doors | Smokeshield Insulated Rolling Fire Door | Cornell Iron Works, Inc. | ERD21 | Cookson Co., Alpine Overhead Doors |
| Glazing | Steel Framed Windows: Non Rated | PPG Glass | Clear Single Glazing | |
| | Fire Rated Glazing - Door and/or Window Locations | Technical Glass Products | FireLite - NT | |
| | Storefront Windows and Doors | PPG Glass | SolarBan 70XL | |
| | Framed Door Vision Lite | PPG Glass | Clear Laminated Glazing | |
| | Glazing Fire Tape | Pemko | FG300S90 | |
| Overhead Doors | Vertical Rise Door Assembly | SGCA Doors | Rise | Cookson Co., Overhead Door |
| Entrances, Window Walls, Storefronts and Curtain Walls | Storefront System | Oldcastle Glass (Vistawall Products) | Series 3000 Thermal Multiplane | Arcadia, Kawneer |
| | Operable Windows: Horizontal Slider | Building Envelope | Signature Series, 4" Horizontal Slider | Arcadia, Kawneer |
| | Aluminum Storefront Doors | Oldcastle Building Envelope | #500 Wide Style Doors | |
| | Aluminum Flush Panel Doors | Special - Lite, Inc. | SL-16 | |
| Translucent Wall and Roof Assemblies | Translucent Wall and Roof Assemblies | Kalwall Corporation | | |
| Skylights | Fixed Skylights | Velux | Model No. Skylight FCM | Sunoptics, CPI Daylighting |



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| DIVISION 9 | | | | |
| Metal Framing (Non-structural) | Stud | Dietrich Metal Framing | | |
| | Header Assembly | Brandy | Pro X Header | |
| | Galvanized Repair Paint | ZRC Worldwide | ZRC Zero VOC Water Based Galvanizing Compound | |
| Gypsum Board and Sheathing Substrates | Interior Walls | Georgia Pacific | ToughRock Fireguard Type X | USG, National Gypsum |
| | Interior Face of Exterior Walls | Georgia Pacific | Dens Armour Plus Fireguard Type X, High Performance Interior Panel | USG, National Gypsum |
| | Damp Locations (Non-tile Veneer Conditions) | Georgia Pacific | Dens Armour Plus Fireguard Type X, High Performance Interior Panel | USG, National Gypsum |
| | Thin Veneer Wall and Ceiling Sheathing (Non-shower Locations) | Georgia Pacific | Dens Shield Fireguard Type X Tile Backer | USG, National Gypsum |
| | Roof Underlayment | Georgia Pacific | Dens Deck Prime Type X Exterior Sheathing | |
| | Accessories | USG | DUR-A-BEAD Corner Bead | |
| | Accessories | USG | Sheetrock Brand (Tape On Trim) | |
| | Accessories | USG | Sheetrock Brand | |
| | Accessories | USG | Sheetrock Brand (No. 200) | |
| | Accessories | USG | Sheetrock Brand (No. 093) | |
| | Joint Treatment | USG | Sheetrock - Plus Three Compound Joint Tape - Heavy | |
| | Joint Treatment | Georgia Pacific | Dens Armour Plus ToughRock Fiberglass Mesh Tape | |
| | Joint Treatment Compound | USG | Setting Compound (as recommended) - Level 5 Finish | |
| | Joint Treatment | Georgia Pacific | Dens Shield Tile Backer Board ToughRock Fiberglass Mesh Tape | |
| | Joint Treatment Compound | USG | Setting Compound | |
| | Joint Treatment Substrate and Tape Product - Exterior Walls | Georgia Pacific | Dens Glass/Dens Deck Prime Tough Rock Fiberglass Mesh Tape | |
| | Joint Treatment Compound - Exterior Walls | Pecora Corporation | AC-20 Acrylix Latex Sealant | |
| | Textured Walls - Sealer/Primer | USG | First Coat, Sheetrock Brand | |
| | Textured Walls - Texture | USG | Red Bag Wall Texture | |
| | Smooth Wall/Level 5 - Skim Coat | USG | Plus Three | |
| Smooth Wall/Level 5 - Sealer/Primer Coat | USG | First Coat, Sheetrock Brand | | |
| Portland Cement Plaster Assembly | Metal Lath | Structa Wire Corporation | 17 Ga. X 1-1/2" SF CR TT (Twin Track) | |
| | Corner Bead | Amico | X-2 (Outside corner) | |
| | Soffit Drop | Stockton Products | #5 Drip, NFD | |
| | Control Joints | Amico | Griplock "J" | |
| | Casing Bead | Amico | X-66 | |
| | Expansion Joints | Amico | 2-Piece Expansion Joint (#40 Type) | |
| | Window/Door Head Drip | Stockton Products | WTP - 1" (x Dim) - 4" Flange (y Dim) | |
| | Base of Wall Drip | Stockton Products | J-Bead w/ 1/4" Dia. Weep Holes | |



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| | Cement Plaster Mix - Lime Substitute | Gibco | RPF | |
| | Admixtures - Enhancing Emulsion | BASF | ACRYL 60 | |
| | Wall Penetration Boot/Collar Flashing | Quickflash Weatherproofing Products, Inc. | P Series (Pipe and conduit penetration) E Series (Electrical boxes) | |
| Tile | Waterproof Membrane & Crack Protection Assembly | Laticrete | 9235 Liquid, 9235 Fabric | |
| | Mortar: Thin Set | Laticrete | 254 Platinum | |
| | Grout: Cementitious | Laticrete | PermaColor Select | |
| | Sealer: Wall Grout Sealer | Miracle Sealants & Abrasives Co. | 511 Impregnator | |
| | Cleaner: Surface | Miracle Sealants & Abrasives Co. | Mira Clean #1 | |
| | Trim | Schluter | Jolly | |
| Acoustical Ceiling Tile and Suspension System | Acoustical Tiles | Armstrong | Dune - 1775HRC | |
| | Acoustical Tiles | Armstrong | Kitchen Zone - 673 | |
| | Suspension Grid Systems - Main TEE | Armstrong | 7501HRC | |
| | Suspension Grid Systems - Cross TEE | Armstrong | XL7520HRC XL7540HRC XL7580HRC | |
| | Suspension Grid System Wall Angle | Armstrong | 7880HRC | |
| | Suspension Grid System Seismic Joint Clips | Armstrong | Berc2 SJMBR09 | |
| | Suspension Grid Systems - Main TEE | Armstrong | 7301HRC | |
| | Suspension Grid Systems - Cross TEE | Armstrong | XL8320HRC XL8340HRC XL8380HRC | |
| Lag Screws "I" | I-Lag | 750 SD 150 SD | | |
| Resilient Base and Accessories | Resilient Base | Burke Flooring | Burke Base Rubber Wall Base, Type TS | |
| | Flooring Transition | Burke Flooring | | |
| | Adhesives and Fillers | Burke Flooring | | |
| | Sealant | Burke Flooring | Colored | |
| | Vinyl Track Extenders | Burke Flooring | 975 | |
| Resilient Athletic Flooring | Resilient Flooring | Tarkette Sports | Omnisports | |
| Epoxy Floor Coating | Epoxy Based Seamless Flooring System | Dur-A-Flex, Inc. | Dur-A-Quartz | |
| Polyurethane Flooring System | Cementitious Urethane Concrete Coating | Dur-A-Flex, Inc. | Poly-Crete MDB | |
| Carpet Tile | Carpet Tile | Tandus | Centiva | |
| | | Patcraft | Don't Run | |
| Resilient Sheet Flooring | Resilient Sheet Flooring | Forbo Marmoleum | Real | |
| Resilient Tile Flooring | Luxury Vinyl Tile | Shaw Contract | Grain 0364V | |
| Vinyl Wall Covering | Vinyl Wall Covering | DesignTex | Vincent | Koroseal |
| | | DesignTex | Custom Mural | Koroseal |
| Tackable Wall Covering | Tackable Composite Wall Covering | Forbo | Bulletin Board | |



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| Acoustic Wall Panels | Acoustic Wall Panels | Kirei | EchoPanel | |
| Painting and Coatings | Polyurethane System Primer - Aluminum | Sherwin Williams | Procryl Acrylic Universal Primer B66W00-310 | Benjamin Moore, PPG |
| | Polyurethane System Finish | Sherwin Williams | High Solids Polyurethane B65 - 100 Series, B65-625 | Benjamin Moore, PPG |
| | Polyurethane System Hardener | Sherwin Williams | B65-V625 | Benjamin Moore, PPG |
| | Polyurethane System Primer - Galvanized Steel/Ferrous | Sherwin Williams | Procryl Univesral Primer B66W00-310 | Benjamin Moore, PPG |
| | Polyurthean System Primer - Ferrous | Sherwin Williams | Water Based Macropoxy 646 Primer | Benjamin Moore, PPG |
| | Exterior Wood Stain | Sherwin Williams | Woodscapes Poly S/T A15T15 | Benjamin Moore, PPG |
| | Exterior Wood Solid Color Paint - Latex Satin Finish - Primer | Sherwin Williams | Exterior Latexwood Primer B42W8041 | Benjamin Moore, PPG |
| | Exterior Wood Solid Color Paint - Latex Satin Finish - Finish | Sherwin Williams | A-100 Latex Satin A82 Series | Benjamin Moore, PPG |
| | Polyurthen System Primer - Galvanized Steel/Ferrous | Sherwin Williams | Pro Industrial Pro-Cryl Universal Primer B66W00-310 | Benjamin Moore, PPG |
| | Polyurthen System Finish - Galvanized Steel/Ferrous | Sherwin Williams | High Solids Polyurethane 100 Series B65W00625 | Benjamin Moore, PPG |
| | Polyurthen System Hardener - Galvanized Steel/Ferrous | Sherwin Williams | Primer: B58v620 Finish: B65v625 | Benjamin Moore, PPG |
| | Polyurethan System Primer - Ferrous | Sherwin Williams | Macropoxy 646 - 100 Fast Cure Epoxy Primer B58W00620 | Benjamin Moore, PPG |
| | Interior Wood - Painted Flame Retardant | Flame Control Coatings, LLC | 10-10A | |
| | Interior Wood Paint - Primer | Sherwin Williams | Premium Wall and Wood Primer B28W8111 | Benjamin Moore, PPG |
| | Interior Wood Paint - Semi-Gloss | Sherwin Williams | Promar 200 S/G Zero B31-2600 | Benjamin Moore, PPG |
| | Interior Wood Paint - Egg-Shell | Sherwin Williams | Promar 200 Egg Shell Zero B20-2600 | Benjamin Moore, PPG |
| | Interior Wood Clear Finish | Sherwin Williams | Wood Classic Ploy A67F1 | Benjamin Moore, PPG |
| | Interior Wood Stained Urethane System | Sherwin Williams | Miniwax 250 Stain | Benjamin Moore, PPG |
| | Interior Wood Stained Urethane System | Sherwin Williams | Wood Classic Poly A67F1 | Benjamin Moore, PPG |
| | Interior Drywall Primer | Sherwin Williams | Promar 200 Interior Latex Primer B28W08200 | Benjamin Moore, PPG |
| | Interior Drywall Paint - Egg-Shell/Flat | Sherwin Williams | Promar 200 Zero VOC B30W02651 | Benjamin Moore, PPG |
| | Interior Drywall Paint - Gloss | Sherwin Williams | Promar 200 Gloss B21W00251 | Benjamin Moore, PPG |
| | Interior Pipe Identification | Sherwin Williams | Hydro Gloss H20 Based Urethane B65W181 | Benjamin Moore, PPG |
| Interior Galvanized Repair Paint | ZRC Worldwide | ZRC Zero VOC Water Based Galvanizing Compound | | |
| Anti-Slip Paint/Coating | Wooster Products | Epoxy WP-70 | | |
| Elastomeric Coatings | Elastomeric Finish | Dryvit | Weatherlastic Adobe - DS 418 | |
| | Metal Accessory Paint | Dryvit | Demandit | |
| | Roof Coatings | Western Colloid, Apoc | | |
| | Building Coatings | Sherwin Williams | Sherlastic, Conflex | |
| | Wall Penetration Boot/Collar Flashing | Quickflash Weatherproofing Products, Inc. | P Series (Pipe and conduit penetration) E Series (Electrical boxes) | |



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| DIVISION 10 | | | | |
| Visual Display Boards | Markerboard | Claridge | Writing Surface LCS ³ | |
| Signage | Signage | Advance Corporation, Braille Tac Division | | |
| | Fire Extinguisher Signage | Seton | Model 39429 | |
| Dimensional Letter Signage | Dimensional Letters | Western Sign Company, Inc. | | |
| Toilet Accessories | Washroom/Shower Accessories | Bobrick | | |
| | Grab Bars | Bobrick | | |
| | Mirror | Bobrick | B-165 | |
| | Electric Hand Dryer | Workd Dryer | SLIMdri. Aluminum, brushed chrome | |
| Solid Plastic Toilet and Shower Compartments | Solid Plastic Toilet and Shower Compartments | ASI Global Partitions | Solid Plastic (HDPE) | |
| Metal Lockers | Metal Lockers | Penco | Guardian Defiant | Lyon, Republic Storage |
| Emergency Access Cabinets | Rapid Entry Access Vaults | Knox Company | Knox-Vault 3275 | |
| | Key Switches | Knox Company | Model 3502 | |
| Fire Extinguisher and Fire Extinguisher Cabinets | Fire Extinguisher (Cabinet) | Potter - Roemer | 3006 x 5" Diameter x 16" Tall | |
| | Fire Extinguisher (Wall Bracket) | Potter - Roemer | 3410 x 7" Diameter x 24" Tall | |
| | Fire Extinguisher (Wall Bracket) | Potter - Roemer | Model 3352 | |
| | Fire Extinguisher Cabinet | Potter - Roemer | Alta 7062-DV | |
| | Fire Extinguisher Wall Bracket | Potter - Roemer | Model 3904 | |
| Flagpoles | Flagpoles | Pole-Tech | PT306B Commercial Groundset Flagpole | |
| DIVISION 11 | | | | |
| Audio Visual Equipment | Automatic Projection Screen | Da-Lite | Tensioned Contour Electrol | |
| | Speakers | Electra-Voice | ZX3 | |
| | Mobile Equipment Rack Cart | Da-Lite | 21U | |
| Recreational Play Structures | Kindergarten Play Structure | Game Time | PowerScape Plus PowerScape | All About Play, Little Tykes |
| | Grade School Play Structure | Game Time | IONiX PowerScape | All About Play, Little Tykes |
| Athletic Equipment | Basketball Assembly | Porter Athletic Company | Backboard: 00267-698 Goal & Net: 00202-H00 Upright Padding: 00069-000 | |
| | | | Center-strut Ceiling Hung Side Folding Front Braced (90955000) | |
| | Volleyball | Porter Athletic Company | 01971 Powr-Rib II | |
| | Wall Protection Pads | Porter Athletic Company | OSB Board with Bonded Foam and Vinyl Covering | |
| | Tetherball Post & Ball Assembly | Porter Athletic Company | Posts: 00763-00 Ground Sleeve: 00402-000 Ball: 00763-100 | |
| | Handball Wall Assembly | L.A. Steelcraft | Ball Wall | |
| | Maps | World Maps Online | UM-US | |
| Maps | World Maps Online | UM-WORLD | | |



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| DIVISION 12 | | | | |
| Window Shades | Windows | Lutron | Sivoia Manual | |
| | Light-Filtering Fabric | Sheer Shade | Fiberglass Basketweave II | |
| | Single Roller Shade Assembly | Lutron | Roller 100 LFF - Darkening | |
| DIVISION 14 | | | | |
| Conveying Equipment | Vertical Platform Wheelchair Lift | Garaventa | Genesis Opal | or equivalent |
| DIVISION 21 | | | | |
| Fire Sprinkler | Fire Sprinkler Materials | | | |
| DIVISION 22 | | | | |
| Plumbing | Gate Valves | Hammond | Hammond IB641 | |
| | Gate Valves | Hammond | Hammond IR-1138 | |
| | Gate Valves | Mueller | Mueller Series 2360 | |
| | Ball Valves | Nibco | Nibco T585-70 | |
| | Ball Valves | Nibco | Nibco F-515-CS-F-66-FS | |
| | Ball Valves | Nibco | Nibco T-595-Y | |
| | Swing Check Valves | Stockham | Stockham B-321 | |
| | Silent Check Valves | Nibco | Nibco Model T-480 | |
| | Calibrated Balance Valves | Bell & Gossett Circuit Setter Plus | | |
| | Building Gas Shut-Off Valve | Jomar | Jomar 175-LWN | |
| | Building Gas Shut-Off Valve | ReSun | ReSun D-126 | |
| | Gas Shut-Off Valve Above Grade | Milwaukee | Milwaukee BB2-100 | |
| | Seismic Gas Shut-Off Valve | Little Firefighter Corporation | NAGV, VAGV, AGV | |
| | Strainers for Potable Water | Watts | Watts LF777SI | |
| | Strainers for Potable Water | Watts | Watts 77F-DI-125 | |
| | Valve Boxes | Christy | Christy No. G5 Traffic Valve Box | |
| | Valve Boxes | Christy | Christy No. F22 | |
| | Valve Boxes | Brooks | Brooks No. 3-TL | |
| | Gauges | Marsh | Marsh "Series J" | |
| | Gauges/Thermostats | | Pete's Plug II | |
| | Thermometers | Marsh | 5" Diameter Bimetal Dial | |
| | Access Doors | Milcor | Style K | |
| | Access Doors | Milcor | Style DW | |
| Access Doors | Milcor | Style M | | |
| Access Doors | Milcor | Style "Fire Rated" | | |
| Expansion Loops | Metraflex Inc. | | | |
| Flexible Joints/Pipe Guides | Metraflex Inc. | Metraflex Metrasphere | | |
| Flexible Joints | Barco | Barco Ductile Iron | | |



LODI USD DESIGN SPECIFICATION GUIDELINES

Edit Date: 12-14-2017

| SECTION | ITEM | MANUFACTURER | MODEL | NOTES |
|--------------------------------|----------------------------------|-----------------------------------|--|--|
| Plumbing Fixtures | Water Closet Wall Mounted | Kohler or American Standard | Kingston 1.28 No. K4325 | With manual Sloan flush valves |
| | Flush Valve | Sloan or Zurn | Royal Optima 111-1.28 ES-S | |
| | Flush Valve | Sloan or Zurn | Royal 142-1.28 | |
| | Urinal Wall Mounted | Kohler or American Standard | Bardon 1/8 GPF No. K-4904-ET | With manual Sloan flush valves |
| | Flush Valve | Sloan or Zurn | Royal 186 ES-S HEU 0.125 GPF | |
| | Lavatory | Kohler or American Standard | Kingston No. K-2005 | |
| | Faucet/Valve | Chicago | 116.121.AB.1 Sensor Faucet | |
| | Faucet/Valve | Chicago | 037-ETZ-0031 SHADCF Model LF880F | |
| | Faucet/Valve | Sloan | ETF-600 Sensor Faucet | |
| | Sink | Just Mfg. or Elkay | Model DRKADQ3119-65-BP | |
| | Faucet/Valve | Chicago | ECAST Model 350 Gooseneck | |
| | Faucet/Valve | Haws | 5054LF Bubbler | |
| | Sink | Just Mfg or Elkay | Model LRADQ2219-65-BP | |
| | Faucet/Valve | Chicago | ECAST Model 50-317 Gooseneck | |
| | Sink | Just Mfg. or Elkay | Model LRADQ33-19-60 | |
| | Faucet/Valve | Chicago | ECAST Model 1100-317 | |
| | Solids Interceptor | Zurn | 8715-2" | |
| | Service Sink | Kohler or American Standard | TNC-24-SH-SSC | |
| | Faucet/Valve | Chicago | Model 897-CP | |
| | Drinking Fountain | Haws or Elkay | 1117L Dual Height, Wall Mount | Hi/Lo with bottle filler on chilled models |
| | Refrigerator Ice Maker | Guy Gray | Model SSIB2AB | |
| | Hose Bibb | Acorn or Woodford | Model 8121CR | |
| Hose Bibb | Acorn or Woodford | Model 8126CR | | |
| Hose Bibb | Acorn or Woodford | 5609QT | | |
| Hose Bibb | Acorn or Woodford | Model 8121CP | | |
| Wall Hydrant | Acorn or Woodford | M8104-E500 | Freeze-less for exterior installations | |
| Wall Hydrant | Acorn or Woodford | Model 5509 | Freeze-less for exterior installations | |
| Plumbing Piping Systems | Drain and Waste Pipe Above Grade | AB & I | | |
| | Joints Above Grade | ANACO-Husky | | |
| | Drain and Waste Pipe Below Grade | AB & I | | |
| | Joints Below Grade | ANACO-Husky | SD 4000 | |
| | Joints Below Grade | Ty-Seal | Neoprene Gaskets | |
| | Grease Waste and Vent | AB&I | | |
| | Gas Pipe Flexible Connection | Metraflex Inc. | | |
| | Water Service Piping | J.M. Eagle | | |
| | Gas Piping Underground | Performance Pipe | "DriscoPlex" 6500 PE 2708 | |
| | Gas Piping Aboveground | Bonney | Bonney "Weldolet" Allied Pipe Fittings | |
| | Water Hammer Arrestors | PPP or MIFAB | Series 75000 | |
| | Water Filters | Cuno Incorporated | Aqua Pure Model AP510 | |
| | Hose Bibs | Acorn Engineering Co. or Woodford | | Freezeless for exterior and roof installations |
| | Hose Station | Leonard | THS-25-VB-CW | |
| Gas Pressure Regulating Valves | Elster | Model 1213B | | |



LODI USD DESIGN SPECIFICATION GUIDELINES

Edit Date: 12-14-2017

| SECTION | ITEM | MANUFACTURER | MODEL | NOTES |
|-------------------------|---|---|--|-------|
| | Gas Pressure Regulating Valves | Elster | Model 1813C | |
| | Gas Pressure Regulating Valves | Elster | Models 1813, 1813B | |
| | Relieve Valves | Cash (A.W.) Valve Manufacturing Corporation | | |
| | Trap Primer | MiFab, Inc. or PPP | | |
| | Thermostatic Water Temperature Control Valve | Bradley Corporation | | |
| | Cleanouts | Zurn | ZN-1400-KC | |
| | Cleanouts | Zurn | ZN-1400-X-DX | |
| | Cleanouts | Zurn | Z-1440A | |
| | Cleanouts | Zurn | Z-1441/Z-1443 | |
| | Cleanouts | Zurn | Z-1449-BP | |
| | Cleanouts | Zurn | Z-1400-HD-KC | |
| | Floor Drains | Zurn | | |
| | Floor Sinks | Zurn | | |
| | Roof Drains and Overflow Drains | Zurn | | |
| | Hopper Drains | Zurn | | |
| Plumbing Equipment | Concrete Grease Interceptor | Jensen or Pro Cast | | |
| | Commercial Electric Water Heaters | Bradford White Coporation | | |
| | Instantaneous Electric Water Heaters | Eemax or Chronomite Laboratories, Inc. | | |
| | Gas Fired Water Heaters | Bradford White Corporation | | |
| | Expansion Tanks | Zurn/Wilkins or Amtrol, Inc. | | |
| | In-Line Domestic Hot Water Recirculation Pumps | Grundfos Pumps Corporation | | |
| | Deionizer | Culligan | Model SS-50 Mixed Bed Deionized Water System | |
| DIVISION 23 | | | | |
| HVAC | Motor Starters | Allen Bradley | Square D Style K Style DW Style M Style "Fire Rated" | |
| | Access Doors | Milcor | | |
| HVAC Equipment | Phase Protection | Sym Com | Model 201 A | |
| | Air Conditioning Unit | Lennox | | |
| | Coil Guard | Micrometl | | |
| | Modulating Power Exhaust Economizer | Micrometl | | |
| | Split System AC Unit | Fujitsu or Lennox | | |
| | Variable Refrigerant Flow | Fujitsu or Lennox | | |
| | Variable Refrigerant Flow: Heat Pump Unit | Fujitsu or Lennox | | |
| | Variable Refrigerant Flow: Branch Circuit Controls | Fujitsu or Lennox | | |
| | Variable Refrigerant Flow: Energy Recovery Ventilator | Lossnay | LGH-F1200RX5 | |
| | Exhaust Fan | Greenheck Fan Corporation | | |
| Transfer Fan | Greenheck Fan Corporation | | | |
| Relief and Intake Vents | Lauren Cook Company | | | |



LODI USD DESIGN SPECIFICATION GUIDELINES

Edit Date: 12-14-2017

| SECTION | ITEM | MANUFACTURER | MODEL | NOTES |
|-------------------|---|-------------------------|---|---------------|
| | Air Filters | Tridem | | No exceptions |
| | Ceiling Fan | Big Ass Fans | Essence Series | |
| | Exhaust/Intake/Relief Hood | Greenheck Fan | WRH | |
| | Backdraft Dampers | Ruskin | CBD2 | |
| | Single Damper Blades: Self-locking Regulators | Ventlock | Ventlock 641 | |
| | Single Damper Blades: End Bearings | Ventlock | Ventlock 607 | |
| | Multiple Blade Dampers | Ruskin | CD35 | |
| | High Velocity Dampers | Ruskin | CD50 | |
| | External Insulated Duct: Self-locking Regulators | Ventlock | Ventlock 644 | |
| | Fire Dampers | Ruskin | DIBD20 DIBD230 | |
| | Fire Dampers: High Pressure/Velocity | Ruskin | FD60 | |
| | Fire Dampers: Ceiling Installation | Ruskin | CFD 2/3/4/5 CFD7 | |
| | Fire Dampers: Round Combination Smoke Fire | Ruskin | FSDR25 FSD60 | |
| | Fire Dampers: 3-Hour Combination Smoke Fire | Ruskin | FSD60-3 | |
| | Fire Dampers: Wall Type Combination Smoke Fire | Ruskin | FSD35 FSD60FA | |
| | Fire Dampers: Ceiling Type Combination Smoke Fire | Ruskin | FSD36C | |
| | Fusible Links | Ruskin | Ruskin 165F/350F Ruskin EFL Ruskin MCP2 | |
| | Actuators | Bolemo | | |
| | Ductwork | Ductmate | | |
| | Ductwork: Duct Sealing | Design Polymerics | DP1010 | |
| | Ductwork: Duct Sealing | Foster | Foster 30-36 Adhesives | |
| | Ductwork: Rectangular Duct Turning Vanes | SMC Duct/E-Z | E-Z Rail II | |
| | Ductwork: Rectangular Internally Insulated Duct Fabrication | Johns Manville | Duct Liner PM | |
| | Ductwork: Round Internally Insulated Duct and Fittings | McGill AirFlow, LLC. | Acousti-k27 | |
| | Duct Access Doors | NCA Manufacturing, Inc. | AD-RD-87 | |
| | Flexible Air Ducts | C.A. Schroeder, Inc. | Cal Flex 2PMJ | |
| DIVISION 25 | | | | |
| Facility Controls | Automation Facility Controls | Pelican or Allerton DDC | | |



LODI USD DESIGN SPECIFICATION GUIDELINES

Edit Date: 12-14-2017

| SECTION | ITEM | MANUFACTURER | MODEL | NOTES |
|----------------------------------|---|--|--|-------|
| DIVISION 26 | | | | |
| Building Wire and Cable | Building Wire | America Insulated Wire Corp. | | |
| | Metal-Clad Armored Cable | American Cable Systems | | |
| | Flexible Cords and Cables | Carol Cable Company | | |
| | Wiring Connectors and Terminations | Ideal | | |
| Grounding and Bonding | Ground Rods | Weaver | | |
| | Ground Wells | Oldcastle Precast | | |
| | Ground Bushings | O-Z/Gedney | | |
| Boxes | Outlet and Junction Boxes | Spring City Electrical Manufacturing Co. | | |
| | Cast Boxes | Appleton Electric Co. | | |
| | Floor Boxes | Legrand | | |
| | Pull Boxes | Circle AW Products | | |
| Cable Trays | Ladder-Type Cable Tray | Chatsworth Products, Inc. | | |
| Hangers and Supports | Concrete Fasteners | Hilti | Kwik Bolt | |
| | Concrete Inserts and Construction Channel | Unistrut Corp. | | |
| | Conduit Straps | O-Z/Gedney | | |
| Conduit | Metal Conduit | Allied Tube and Conduit Co. | | |
| | Fittings | Appleton Electric Co. | | |
| Underground Ducts and Structures | Underground Precast Concrete Utility Structures | Christy Concrete Products | | |
| | Conduit, Ducts and Fittings | Prime Conduit | | |
| Signal Systems Raceway | "J" Hook Hanger | Unistrut Corp. | | |
| Electrical Identification | Conduit and Wire Markers | Thomas and Betts Corp. | | |
| | Inscription Tape | Kroy | | |
| Network Lighting Control System | Network Lighting Control System | nLight/SensorSwitch | | |
| Dry Type Transformers | Dry Type Transformers | Square D | | |
| Switchboards | Switchboards | Square D | | |
| Panelboards | Panelboards | Square D | | |
| Cabinets and Enclosures | Hoffman Engineering Co. | | | |
| Wiring Devices | Switches, Receptacles and Coverplates | Pass & Seymour | #20AC Series #5362 Series #2091-S Series | |
| | Occupancy Sensor Switches | WattStopper | | |
| | Floor Mounted Service Boxes | Legrand | #880C Series | |
| Overcurrent Protective Devices | Fuses | Bussmann Division, Cooper Industries | | |
| | Circuit Breakers | Square D | | |
| Disconnect Switches | Disconnect Switches | Square D | | |
| Motor Controls | Manual Motor Starters | Square D | | |
| Surge Protective Devices | Surge Protective Devices | Current Technology | | |
| Exterior Lighting | LED Area Light | Gardco | P21-A1-1-5W-80LA-WW-UNIV | |
| | LED Area Light - Backlight Controlled Optics | Gardco | P21-A1-1-BLC-80LA-WW-UNIV | |
| | Pedestrian Scale LED Area Light | Gardco | SFP-T3-5W-55LA-WW-UNIV-AR | |



LODI USD DESIGN SPECIFICATION GUIDELINES

Edit Date: 12-14-2017

| SECTION | ITEM | MANUFACTURER | MODEL | NOTES |
|-----------------------------------|---|--------------------------------|---|-------|
| Interior Lighting | 4' Linear, Adjustable High Intensity LED Grazing Fixture | Color Kinetics | eW Graze Mix Powercore 523-000080-45 | |
| | Solar Powered Rechargeable LED Light - Motion Sensor Activated | Cooper Lighting | MSLED | |
| | LEDs | General Electric | | |
| | LED Drivers | Osram Sylvania | | |
| | Emergency Batter Pack | Bodine | | |
| | 2'x4' Architectural Recessed LED Troffer | Lithonia | 2FSL4-48L-EZ1-LP835-N100 | |
| | 2'x2' Architectural Recessed LED Troffer | Lithonia | 2FSL2-33L-EZ1-LP835-N100 | |
| | Suspended Indirect/Direct Linear LED Fixture | Fluxerx | VU1-S-A-D-35-A-LNEGTH-S-D-M-3-(A ***) | |
| | Recessed Linear LED Fixture | Finelite | HP4-WW-R-K-8'-SO-3500K-277V-SC-SF | |
| | Nominal 4' Long Surface Mounted Compact Linear LED Fixture | Philips | Fluxstream LF-4-FR-31-35-U-LAG + SVCC60-UNV | |
| | Nominal 4' Long Surface Mounted Compact Linear LED Fixture - with Batter Pack | Philips | Fluxstream LF-4-FR-31-35-U-LAG-EM + SVCC60-UNV | |
| | Nominal 4' Long Surface Mounted Compact Linear LED Fixture - Increased Lumen Output and 0-10V Dimming | Philips | Fluxstream LF-4-10-41-35-U-DZT | |
| | Nominal 6" Square Slim Surface mounted LED Fixture | Philips | Slim Surface S6S830K10 | |
| | 2'x4' Recessed LED Troffer | Metalux | 2GRLD1-6400-A125-UNV-L835-CD-1 | |
| | Suspended LED Area Light | Cree | CXBW16-CL16 + CXB-A-JP-H-40K-8-UL-10V + SC-5 | |
| LED Exit Sign | Eventlite | TLP-G-2U-W | | |
| LED Downlight | Gotham | EVO-SQ-35-15-6AR-LSS-MVOLT-EZ1 | | |
| Exterior LED Wall Sconce | WAC | WP-LED127-30-GH | | |
| DIVISION 27 | | | | |
| Telecommunication Cabling Systems | Equipment Racks and Cable Runways | Middle Atlantic | | |
| | Bonding Strap | Panduit | | |
| | Bonding Connectors and lugs | Panduit | | |
| | Backbone Fiber Optic Cable | General Cable | | |
| | Backbone Twisted Pair Cable | General Cable | | |
| | Backbone Twister Pair Terminations | General Cable | | |
| | Horizontal Twisted Pair and Modular Patch Cord Cable | Panduit | | |
| | Horizontal Twisted Pair and Modular Patch Cord Terminations | Panduit | | |
| Audio Visual System | Projectors | Epson | | |
| | Interactive Flat Screen TV | Promethean Boards | | |
| Assistive Listening System | Assistive Listening System | Williams Sound | | |
| Campus Communication System | Bogen or Rauland | | | |
| Clock Systems | Clock System | Rauland | | |



LODI USD DESIGN SPECIFICATION GUIDELINES

Edit Date: 12-14-2017

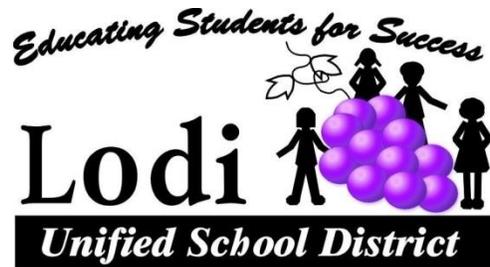
| SECTION | ITEM | MANUFACTURER | MODEL | NOTES |
|---|--------------------------------------|--|------------------------------|---|
| DIVISION 28 | | | | |
| Access Control Security Camera System Security Alarm Monitoring System Fire Alarm System | Accugardian | | | Entry Management Pelican/Novar |
| | Milestone Software | | | |
| | Security Alarm Monitoring System | Alamo Intrusion Alarm | | Confirm with District's Facilities Dept. on each site |
| | Manual Pull Stations | Edwards | | |
| | Heat Detectors | Edwards | Addressable Model | |
| | Photoelectric Smoke Detectors | Edwards | | |
| | Duct Smoke Detectors | Edwards | | |
| Notification Device: Speaker | System Sensor Wall Speaker | Model SPV | | |
| Notification Device: Strobe, Strobe/Speaker | Gentex Corp | | | |
| Notification Devices: Remot Power Supply for Strobe Circuits | Edwards | | | |
| DIVISION 31 | | | | |
| Earthwork | Decomposed Granite Solidifier | PolyPavement | | |
| Termite Control | Termiticides | BASF or Wilco | Termidor SC | |
| Vegetation Control | Soil Herbicide | Roundup Promax | | |
| DIVISION 32 | | | | |
| Asphalt Concrete Paving | Soil Sterilizer | Ciba Ceigy | Pramatol 25-E | |
| | Seal Coat Select Fillers and Fibers | Western Colloid Products | Park-Top No. 302 | |
| | Pavement Epoxy | K-Lite | Ktepx-590 | |
| | Crack Filler | QPR | CAR08 | |
| | Crack Filler | Conoco, Inc. | Docal 1100 Viscolastic | |
| | Crack Filler | Topeka | Hot Mix | |
| Concrete Paving | Anchoring Cement | Por-Rok | | |
| | Integral Color | Davis Color | Mix Ready (Pre-bagged) | |
| Tactile Warning Surfacing | Modular Paver Tiles (Cast-in-place) | Access Tile | Cast In Place Replaceable | |
| | Fasteners (Surface mount) | Access Tile | | |
| Synthetic Resilient Surfacing | Synthetic Resilient Surfacing | Robertson Recreational Surfaces | TotTurf Aliphatic | |
| Unit Masonry Retaining Walls | Modular Concrete Retaining Wall | Basalite | Keystone, Standard | |
| | Construction Adhesive | Basalite | Keystone Kapseal | |
| Site Furnishings | Bicycle Lockers - Class 1 | Creative Pipe, Inc. | CS1-C Common Wall | |
| | Bicycle Racks - Class III | Ribbon Rack, Inc. | RB 09 and RB 07 | |
| | Skateboard - Vertical Dock | Park a Bike | Skatedock, SM-10 | |
| | Wheel Stops | West Coast Rubber, Ground Rubber Solutions | Ground Rubber Wheel Stop | |
| | Skate Deterrents | Barret Robinson | Skate Stoppers, FA-FR FA 135 | |
| Chain Link Fences | Swinging Gates | BFC | | Door King accessories |
| | Single Man Gate: Exit Device | Von Duprin | Series 22 Exit Device (22NL) | |
| | Single Man Gate: Closer | Lockey | TB600 Hydraulic Gate Closer | |
| | Electric Gate Operators and Controls | LiftMaster | Elite CSW24VDC | |



LODI USD DESIGN SPECIFICATION GUIDELINES

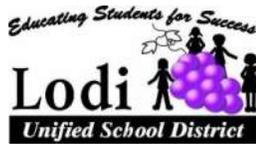
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| | SECTION | ITEM | MANUFACTURER | MODEL | NOTES |
|--|-------------------------|-------------------------------------|-----------------------|-------------------------------|-----------------------|
| | Decorative Metal Fences | General Fence | Monumental Iron Works | Imperial Fence - Style B | Door King accessories |
| | | Double/Single Man Gate: Exit Device | Von Duprin | Series 22 Exit Device (22NL) | |
| | | Double/Single Man Gate: Closer | Lockey | TB600 Hydraulic Gate Closer | |
| | | Gate Operators | Lift Master | Elite CSW24VDC | |
| | Landscape Irrigation | Irrigation | Rainbird or Hunter | | |
| | Landscape Planting | Tree Staking Material | Arthur Enterprises | Tie-It Super Tree Ties | |
| | | Filter Fabric | Fabriscape Inc. | Landscape Filter/drain Fabric | |
| | | Mulch | Weyerhaeuser Company | Siva-Fiber | |
| | | Root Barrier | NDS | EP series | |
| | | Weed Control | Ubjohn | Enide | |
| | | Fungicide | Cibe-Geigy | Subdue | |
| | | Binders | AZ-TAC Products, Inc. | AM-TAC | |



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Lodi, California 94513
(209) 953-8111

Door Hardware
Specification Guidelines
December 14, 2017



SPECIFICATION GUIDELINE
Manufacturers and Products

DOOR HARDWARE
SPECIFICATION GUIDELINES

The purpose of this booklet is to support the school districts building guidelines for door hardware. The school district maintains the following hardware and is currently stocking replacement parts. The products listed in this booklet are pursuant to Public Contract Code Section 3400. The following products are designated by brand name in order to match other products in use on a particular improvement, either completed or in the course of completion. **Products shown are Basis of Design, substitutions subject to District's approval.**

It is the intent of this booklet to provide guidelines for the architect's specification section 087100, for product groups and the hardware schedule. It remains the architect's responsibility to coordinate these products to meet the applicable building codes, life safety codes, and Accessible requirements.

Section 087100 Door Hardware preamble must specify the following:

Door and Frame Prep

Before hardware installation, verify that all doors and frames are properly prepared to receive the specified hardware. Hollow metal frames shall be prepared for ANSI strike plates per A115.1-2 (4-7/8" high), hinge preps will be mortised and reinforced with a minimum of 8-gauge reinforcement material for closer installation. Hollow metal doors shall be properly prepared and reinforced with a minimum or 16-gauge material for either mortised or cylindrical locks as specified. It is preferred that all hollow metal doors receiving door closers have 12-gauge reinforcement. If this is not possible, the use of sex bolts is mandatory. Wood doors shall be factory prepared to receive the scheduled hardware.

Hardware installation

The manufacturer's representative for the locking devices and closing devices must inspect and approve, in writing, the installation of their products. Hardware installed incorrectly must be reported to the architect prior to the architect's final punch list.



SPECIFICATION GUIDELINE
Manufacturers and Products

DOOR HARDWARE

| Description | Manufacturer | Model Series | Finish |
|--------------------------------|--------------|---|---|
| <u>Hanging Device</u> | | | |
| Continuous Hinge | Ives | 224HD (At All Locations) | CL |
| <u>Securing Devices</u> | | | |
| Lock Set | Schlage | <u>Cylindrical Locks</u> ND Series x Rhodes: ND10S Passage Lock ND40S Privacy Lock L9485x06AxL283-722 Faculty Restroom Lock (Faculty – single compartment toilet) ND91PD Office Lock ND50PD Classroom Security Lock: At Elementary Schools ND95PD Classroom Security Lock: At Middle and High Schools | 626 |
| Exit Device | Von Duprin | CD-AX-99NLx910NL Ives "Vandal Resistant Trim Pull" CD-AX-99NLx910NL Ives "Trim Pull" x AX-99DTx910DT "Pull" x SNB x KR4954 Mullion x 154 (at pairs) AX-99L-2-F-996L (F-rated single doors) AX-99L-2-F-996L x AX99EO-F x KR9954 Mullion x 154 (F pairs) | US26D US26D US26D US26D |
| | | <ul style="list-style-type: none"> All mullions to have a set of #154 stabilizers | |
| Padlock | Schlage | KS43D2200 (Padlock) | Brass |
| Key System | Schlage | LUSD to verify Schlage Primus Patented Keyway | |
| Coordinator | Ives | COR x FL x MB (Storage & Utility rooms) <ul style="list-style-type: none"> Use coordinator only where required by fire code | USP |
| Flush Bolts | Ives | FB31P (Automatic) (metal doors) (Storage & Utility rooms) FB41P (Automatic) (wood doors) (Storage & Utility rooms) FB51P (Manual) (metal doors) (Storage & Utility rooms) FB61P (Manual) (wood doors) (Storage rooms) | US26D US26D US26D US26D |
| <u>Closing Device</u> | | | |
| Closer | LCN | 4040 "Super Smoothie RW/PA/TB" <ul style="list-style-type: none"> Furnished and installed all door closers with thru bolts All door frames to be reinforced for soffit shoe | 689 |
| <u>Stop and Holders</u> | | | |
| Stop Holders | Ives | WS45 (Automatic Holders & Stops) FS43 (Automatic Door Stops & Holders) FS436/R435 (Interior Floor Stop) FS18S (Security Floor Stops) WS401/WS402 (Wall Stops) | US26D US26D US26D Black US26D |



SPECIFICATION GUIDELINE
Manufacturers and Products

| DOOR HARDWARE | | | |
|---|---------------------|---------------------|---------------|
| Description | Manufacturer | Model Series | Finish |
| <u>Protective Plates and Trim</u> | | | |
| Kick Plate | Ives | 8400 Series | US26D |
| Mop Plate | Ives | 8400 Series | US26D |
| Push/Pull Plates | Ives | 8200/8300 Series | US26D |
| Latch Protector | Ives | LG12 | US32D |
| Door Silencer | Ives | SR64 | Gray |
| <u>Accessories</u> | | | |
| Threshold | ZERO | 654A | Alum |
| | | 655A | Alum |
| | | 623A | Alum |
| <p>• Threshold Notes - Architect to coordinate with project conditions. Set thresholds in a full bed of butyl-rubber or polyisobutylene mastic sealant complying with requirements in Division 7 “Thermal and Moisture Protection”. Use 1/4-inch fasteners, red-head flat-head sleeve anchors (SS/FHSL).</p> | | | |
| Auto Door Bot. | ZERO | 360AA | Clear |
| Door Sweep | ZERO | 328AA | Clear |
| Weather stripping | ZERO | 488S-Bk | Black |
| | | 8780N | |
| Meeting Stiles | ZERO | 328AA | Clear |
| | | 44STST | Alum |
| Head & Jamb | ZERO | 328AA | Clear |
| | | 326AA | Clear |
| | | 429A | Alum |
| | | 142A | Alum |

Pemco is an acceptable alternate for Thresholds and Weather Stripping Products

End of Specification



224HD Full Mortise Aluminum Geared Continuous Hinge

- Handing required when modified
- Door Edge Protector
- 48" Maximum Door Width
- 1/16" Door Inset
- Beveled or Square Edge Doors

For Doors Weighing up to 450 pounds without reinforcing, 600 pounds with reinforcing

Standard lengths 83", 85", 95", 120"

Standard Mounting Hardware

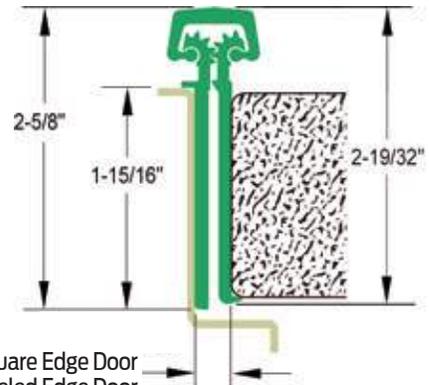
12-24 X 3/4" Steel Self Drilling, Self Tapping Screws

Optional WD - Wood Screws or SEC - Security Fasteners Available

Finishes

Clear (CL), Dark Bronze (DB)

Custom Anodizing and Painting are available, consult factory.



5/16" Clearance for Square Edge Door
1/32" Clearance For Beveled Edge Door

Electrical Cutouts

Ives Aluminum Geared Continuous Hinges are available with factory modified cutouts to accommodate most electrical frame to door requirements. Special templates are required.

When ordering indicate the following:

1. Opening size.
2. Handing. LH, RH, RHR or LHR.
3. Manufacturer and model number of the electrical product being used. Example; Von Duprin EPT2

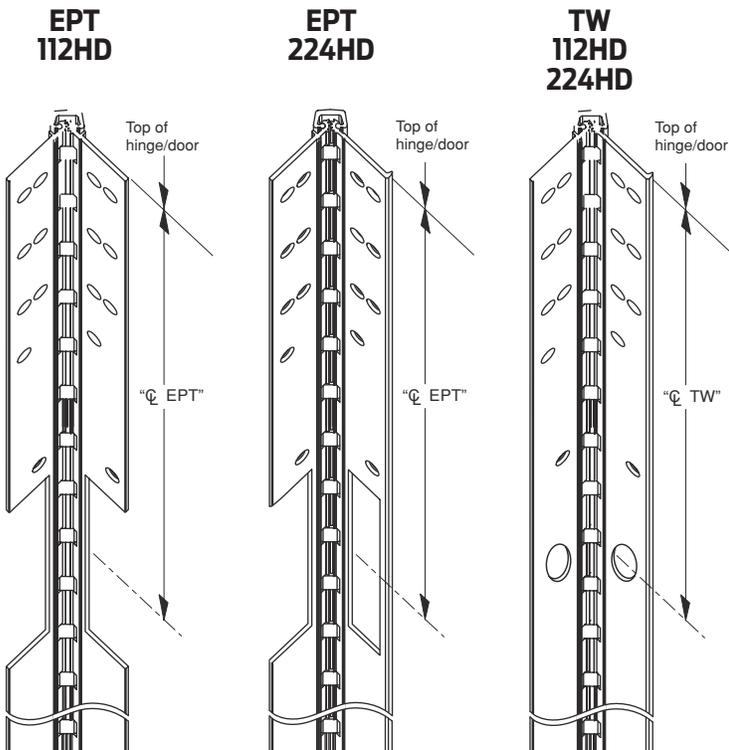
Because clearances may vary between door and frame manufacturer, and locations can be influenced by the door hardware it is always recommend contacting Ives Customer Technical for specific template information.

For your general information below are standard locations for Von Duprin EPT2 or EPT10, and monitor switch.

From Top Edge of Door to Center Line of Cut-Out

| Standard Length | 112HD EPT | 224HD EPT | 112HD/224HD TW |
|-----------------|-----------|-----------|----------------|
| 83" | 30" | 30" | 41-1/2" |
| 85" | 32" | 32" | 42-1/2" |
| 95" | 42" | 42" | 57-3/4" |
| 120" | 67" | 67" | 81-25/32" |

TWP option centered in hinge.



Note: See ordering guide in price book for proper placement.



112HD Full Mortise Aluminum Geared Continuous Hinge

- Non Handed
- Flush Mounted, No Inset
- 48" Maximum Door Width
- Beveled or Square Edge Doors

For Doors Weighing up to 450 pounds without reinforcing,
600 pounds with reinforcing

Standard lengths 83", 85", 95", 120"

Standard Mounting Hardware

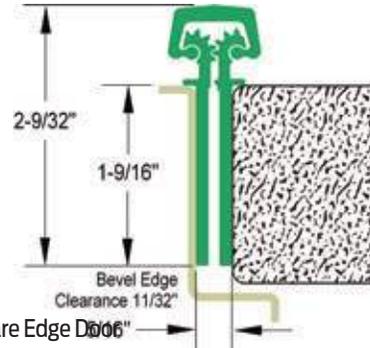
12-24 X 3/4" Steel Self Drilling, Self Tapping Screws

Optional WD - Wood Screws or SEC - Security Fasteners Available

Finishes

Clear (CL), Dark Bronze (DB)

Custom Anodizing and Painting are available, consult factory.



5/16" Clearance for Square Edge Door
1/32" Clearance For Beveled Edge Door



157XY Full Surface, Center Pivot Aluminum Geared Continuous Hinge

- Non Handed
- Narrow Frame
- 1/16" Door Inset
- 48" Maximum Door Width
- Beveled or Square Edge Doors
- A patented easy-to-install, heavy duty, full surface continuous hinge
- Lateral and vertical adjustability while the door is still hanging

For Doors Weighing up to 550 pounds

Standard lengths 83", 95", 119"

Standard Mounting Hardware

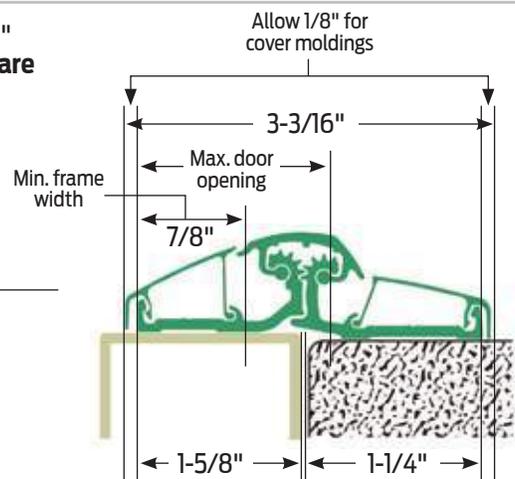
12-24 X 1/2" Steel Self Drilling and Tapping Screws,

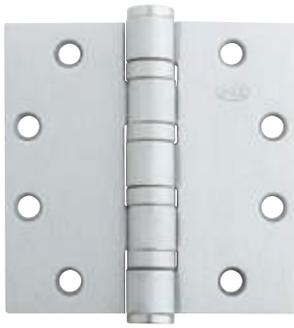
Optional Wood Screws and Security Fasteners Available

Custom Paint Finish Available

Finishes

Clear (CL), Dark Bronze (DB)





Meets ANSI/BHMA A156.1
A8111 – Steel
A5111 – Stainless Steel
A2111 – Brass

5BB1HW

5 Knuckle, Ball Bearing, Heavy Weight Full Mortise Hinge

- For heavy weight doors
- High frequency usage
- 4 ball bearing
- Packed with wood and metal screws

Options

- NRP, Non-Removable Pin
- SH, Security Stud
- HT, Hospital Tip
- RC, Round Corners - 1/4" or 5/8" Radius
- SEC, Security Fastners - Pin-in-Socket

Dimensions

| Size (Inches) | Size (mm) | Gauge | Size (Inches) | Size (mm) | Gauge |
|---------------|-----------|-------|---------------|-----------|-------|
| 4.5 x 4 | 114 x 102 | 0.180 | 5 x 4.5 | 127 x 114 | 0.190 |
| 4.5 x 4.5 | 114 x 114 | 0.180 | 5 x 5 | 127 x 127 | 0.190 |



Meets ANSI/BHMA A156.1
A8111 – Steel

5BB1WT

5 Knuckle, Ball Bearing, Wide Throw Full Mortise Hinge

- For medium weight doors
- Medium frequency usage
- 2 ball bearing
- Packed with wood and metal screws

Options

- NRP, Non-Removable Pin
- SH, Security Stud
- HT, Hospital Tip
- RC, Round Corners - 1/4" or 5/8" Radius
- SEC, Security Fastners - Pin-in-Socket

Dimensions

| Size (Inches) | Size (mm) | Gauge |
|---------------|-----------|-------|
| 4.5 x 5 | 114 x 127 | 0.134 |
| 4.5 x 6 | 114 x 152 | 0.134 |
| 5 x 6 | 127 x 152 | 0.146 |
| 5 x 7 | 127 x 178 | 0.146 |
| 5 x 8 | 127 x 203 | 0.146 |

Finishes *brass*

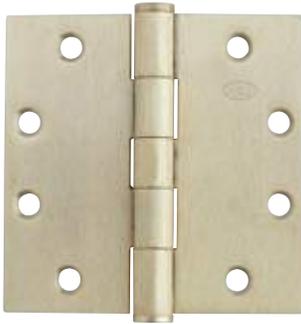
| Ives Finish | US3 | US4 | US10 | US10B | US10A | US11 | US15 | US26 | US26D |
|-------------|-----|-----|------|-------|-------|------|------|------|-------|
| BHMA | 605 | 606 | 612 | 613 | 614 | 616 | 619 | 625 | 626 |

Finishes *steel*

| Ives Finish | USP | US3 | US4 | US10 | US10B | US10A | US11 | US15 | US26 | US26D |
|-------------|-----|-----|-----|------|-------|-------|------|------|------|-------|
| BHMA | 600 | 632 | 633 | 639 | 640 | 641 | 643 | 646 | 651 | 652 |

Finishes *stainless steel*

| Ives Finish | US32 | US32D |
|-------------|------|-------|
| BHMA | 629 | 630 |



Meets ANSI/BHMA A156.1
A8133 – Steel
A5133 – Stainless Steel
A2133 – Brass

5PB1 5 Knuckle, Plain Bearing Full Mortise Hinge

- For standard weight doors
- Low frequency usage
- Packed with wood and metal screws

Not for use with a door closer.

Options

- NRP, Non-Removable Pin
- SH, Security Stud
- HT, Hospital Tip
- RC, Round Corners - 1/4" or 5/8" Radius
- SEC, Security Fasteners - Pin-in-Socket

Dimensions

| Size (Inches) | Size (mm) | Gauge |
|---------------|-----------|-------|
| 3.5 x 3.5 | 89 x 89 | 0.123 |
| 4 x 4 | 102 x 102 | 0.134 |
| 4.5 x 4 | 114 x 102 | 0.134 |
| 4.5 x 4.5 | 114 x 114 | 0.134 |
| 5 x 4.5 | 127 x 114 | 0.134 |



Meets ANSI/BHMA A156.1
A8112 – Steel
A5112 – Stainless Steel
A2112 – Brass

5BB1 5 Knuckle, Ball Bearing Full Mortise Hinge

- For standard weight doors
- Medium frequency usage
- 2 ball bearing
- Packed with wood and metal screws

Options

- NRP, Non-Removable Pin
- SH, Security Stud
- HT, Hospital Tip
- RC, Round Corners - 1/4" or 5/8" Radius
- SEC, Security Fasteners - Pin-in-Socket

Dimensions

| Size (Inches) | Size (mm) | Gauge | Size (Inches) | Size (mm) | Gauge |
|---------------|-----------|-------|---------------|-----------|-------|
| 3.5 x 3.5 | 80 x 102 | 0.130 | 5 x 4.5 | 127 x 114 | 0.146 |
| 4 x 4 | 102 x 102 | 0.130 | 5 x 5 | 127 x 127 | 0.146 |
| 4.5 x 4 | 114 x 102 | 0.134 | | | |
| 4.5 x 4.5 | 114 x 114 | 0.134 | | | |

Finishes *brass*

| Ives Finish | US3 | US4 | US10 | US10B | US10A | US11 | US15 | US26 | US26D |
|-------------|-----|-----|------|-------|-------|------|------|------|-------|
| BHMA | 605 | 606 | 612 | 613 | 614 | 616 | 619 | 625 | 626 |

Finishes *steel*

| Ives Finish | USP | US3 | US4 | US10 | US10B | US10A | US11 | US15 | US26 | US26D |
|-------------|-----|-----|-----|------|-------|-------|------|------|------|-------|
| BHMA | 600 | 632 | 633 | 639 | 640 | 641 | 643 | 646 | 651 | 652 |

Finishes *stainless steel*

| Ives Finish | US32 | US32D |
|-------------|------|-------|
| BHMA | 629 | 630 |



ND Series

Grade 1 cylindrical lock

Overview

The ND Series has long been one of Schlage's best selling mechanical locks for good reason - it's tough, durable and fits a wide variety of applications.

Now we've made our trusted ND Series lock even better by making it easier to install. We've added these enhancements because we know that a lock installed correctly the first time will last longer and perform better. And the longer the lock lasts, the lower the cost of ownership over the life of the lock.

We've also beefed up our warranty to provide 10 years of coverage. The result: greater peace of mind that every door is safe and secured with a lock built to last.

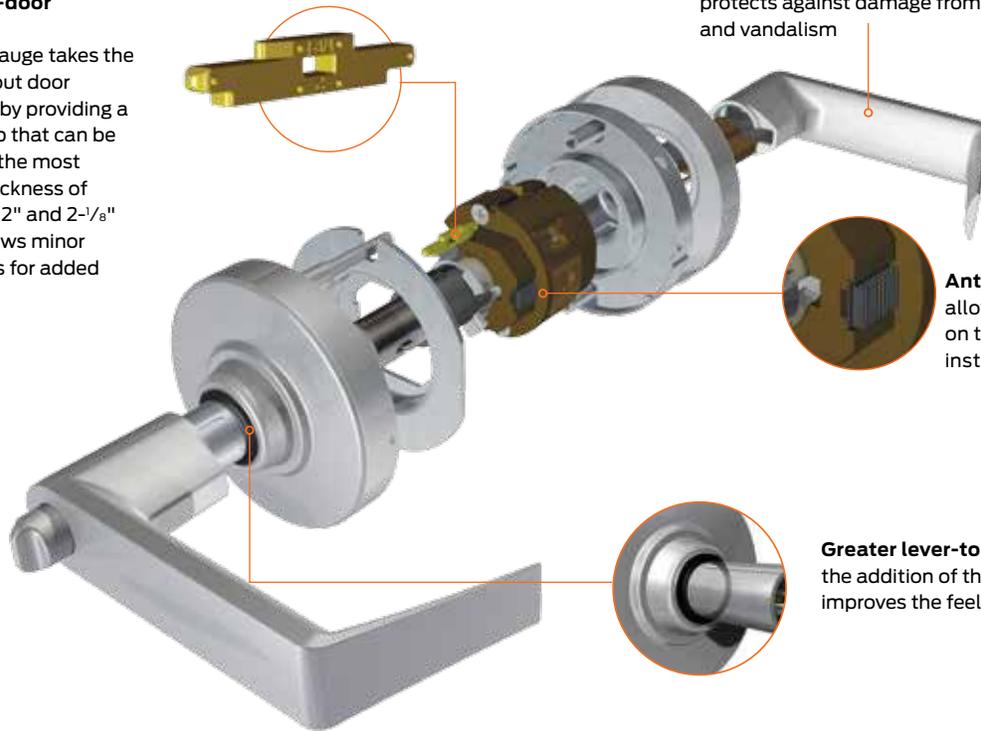


A simpler, smarter ND Series lock

Built-in durability exceeds ANSI/BHMA grade 1 cycle test requirements

Chassis-to-door alignment

the yellow gauge takes the guesswork out door adjustment by providing a positive stop that can be adjusted to the most common thickness of 1-5/8", 1-3/4", 2" and 2-1/8" and still allows minor adjustments for added equipment



Optional Vandlgard® lever

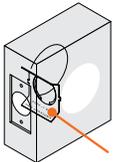
protects against damage from excessive force and vandalism

Anti-rotation plate retention
allows the plate to be "snapped" on to the chassis making installation easier

Greater lever-to-spindle engagement
the addition of the soft durometer spacer improves the feel of the lever during actuation



ND Series continuous improvements



Reinforcement

Door reinforcement

Prevents the collapse of hollow metal doors when locksets are tightly mounted. The unit works with 1 3/8" and 1 3/4" thick doors.



New lever removal tool

The ergonomic design is bigger, stronger and works for both the ND and L series locks. Sold separately.



Chassis slide

In 2010, we redesigned the slide in order to increase the locks overall durability and improve component alignment.



Locking lug and key cam

In 2009 we improved the locking lug and keycam by making them stronger and more resistant to damage.

About Allegion

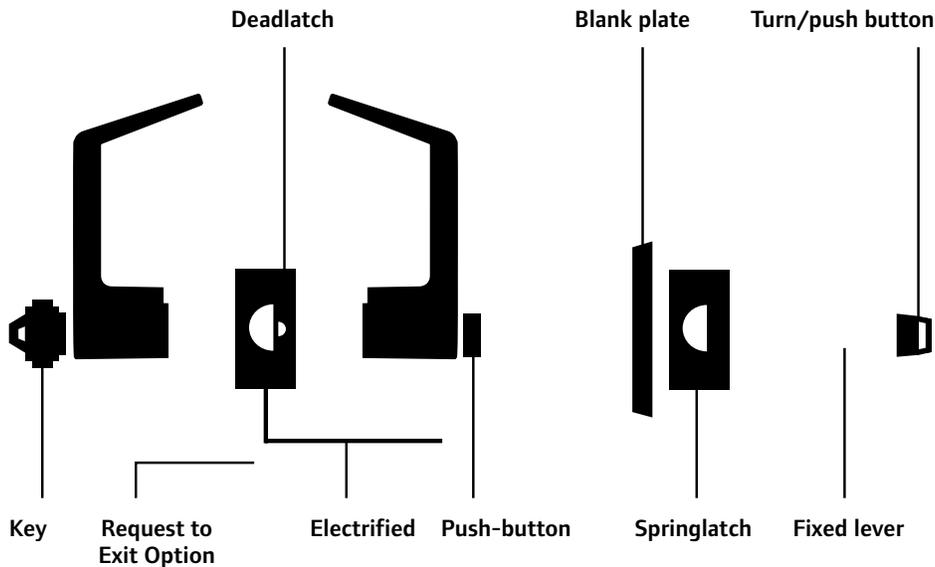
Allegion (NYSE: ALLE) creates peace of mind by pioneering safety and security. As a \$2 billion provider of security solutions for homes and businesses, Allegion employs more than 8,000 people and sells products in more than 120 countries across the world. Allegion comprises 27 global brands, including strategic brands CISA®, Interflex®, LCN®, Schlage® and Von Duprin®. For more, visit www.allegion.com

aptiQ ■ LCN ■ SCHLAGE ■ STEELCRAFT ■ VON DUPRIN



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allegion.com

Lock Functions | ANSI A156.2 Series 4000 Grade 1



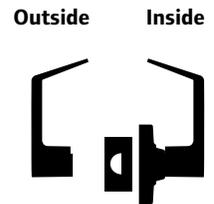
Non-Keyed Locks

SCHLAGE ANSI

ND10S **F75**

Passage Latch

- Both levers always unlocked.

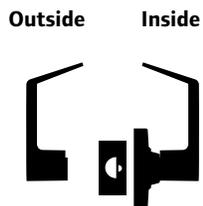


SCHLAGE ANSI

ND12D **F89**

Exit Lock

- Outside lever always fixed.
- Inside lever always unlocked.

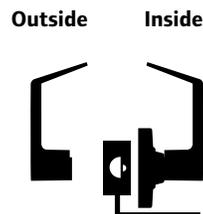


SCHLAGE ANSI

ND12DEL -

Electrically Locked (Fail Safe)

- Outside lever continuously locked electrically.
- Unlocked by switch or power failure.
- Auxiliary latch deadlocks latchbolt when door is closed.
- Inside lever always free for immediate exit.

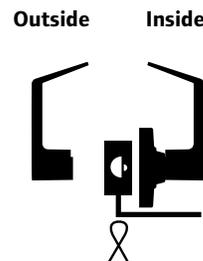


SCHLAGE ANSI

ND12DEU -

Electrically Unlocked (Fail Secure)

- Outside lever continuously locked until unlocked by electric current.
- Auxiliary latch deadlocks latchbolt when door is closed.
- Inside lever is always free for immediate exit.

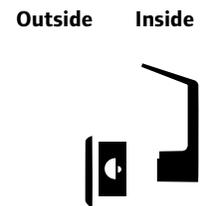


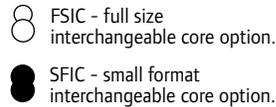
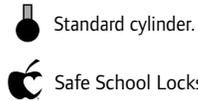
SCHLAGE ANSI

ND25D -

Exit Lock

- Blank plate outside.
- Inside lever always unlocked.





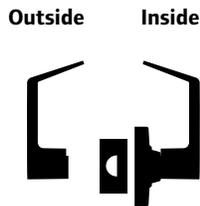
† **Caution:**
Double cylinder locks are a life safety hazard in times of emergency and their use is not recommended. Installation should be in accordance with existing codes only.

Keyed Locks

SCHLAGE ANSI
ND40S F76

Bath/Bedroom Privacy Lock

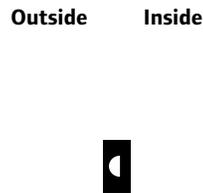
- Push-button locking.
- Can be opened from outside with a small screwdriver.
- Turn inside lever or close door to release button.



SCHLAGE ANSI
ND44S -

Hospital Privacy Lock

- Push-button locking.
- Unlocked from outside by turning emergency turn-button.
- Turn inside lever or close door to release button.



SCHLAGE ANSI
ND170

Single Dummy Trim

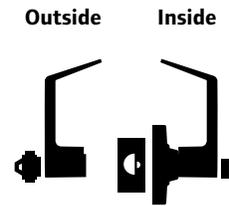
- Dummy trim for one side of door.
- Used for door pull or as matching inactive trim.

Outside/Inside

SCHLAGE ANSI
ND50PD F82

Entrance/Office Lock

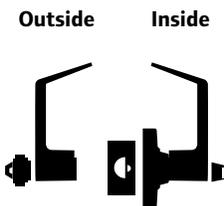
- Push-button locking.
- Push-button locks outside lever until it is unlocked with key or by turning inside lever.



SCHLAGE ANSI
ND53PD F109

Entrance Lock

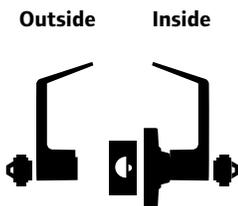
- Turn/push-button locking: Pushing and turning the button locks the outside lever, requiring use of a key until the button is manually unlocked.
- Push-button locking: Pushing button locks outside lever until unlocked by key or by turning the inside lever.



SCHLAGE ANSI
ND60PD F88

Vestibule Lock

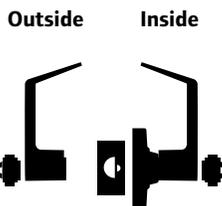
- Latch retracted by key from outside when the outside lever is unlocked by key in inside lever.
- Inside lever is always unlocked.



SCHLAGE ANSI
ND66PD F91

Store Lock†

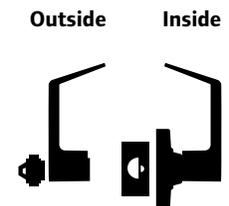
- Key in either lever locks or unlocks both levers.



SCHLAGE ANSI
ND70PD F84

Classroom Lock

- Outside lever locked and unlocked by key.
- Inside lever always unlocked.



Lock Functions | ANSI A156.2 Series 4000 Grade 1

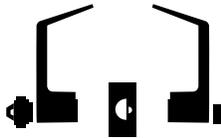
Keyed Locks (continued)

SCHLAGE ANSI
ND73PD F90

Corridor Lock

- Locked or unlocked by key from outside.
- Push-button locking from inside.
- Turn inside lever or close door to release button.
- When outside lever is locked by key it can only be unlocked by key.
- Inside lever is always unlocked.

Outside Inside

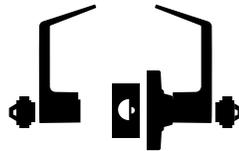


SCHLAGE ANSI
ND75PD -

Classroom Security Lock

- Key in either lever locks or unlocks outside lever.
- Inside lever is always unlocked.

Outside Inside

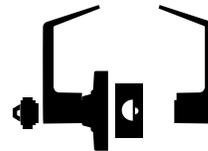


SCHLAGE ANSI
ND80PD F86

Storeroom Lock

- Outside lever is fixed.
- Entrance by key only.
- Inside lever always unlocked.

Outside Inside

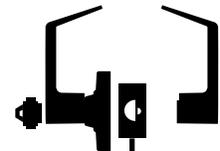


SCHLAGE ANSI
ND80PDEL -

Electrically Locked (Fail Safe)

- Outside lever continuously locked electrically.
- Unlocked by key outside or by switch or power failure.
- Auxiliary latch deadlocks latchbolt when door is closed.
- Inside lever always free for immediate exit.

Outside Inside

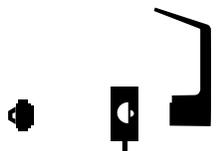


SCHLAGE ANSI
ND80PDEU -

Electrically Unlocked (Fail Secure)

- Outside lever continuously locked until unlocked by key or electric current.
- Auxiliary latch deadlocks latchbolt when door is closed.
- Inside lever always free for immediate exit.

Outside Inside

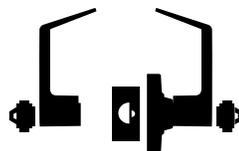


SCHLAGE ANSI
ND82PD F87

Institution Lock†

- Both levers are fixed.
- Entrance by key in either lever.

Outside Inside

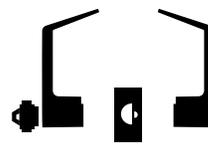


SCHLAGE ANSI
ND85PD -

Faculty Restroom Lock

- Outside lever is fixed.
- Entrance by key only.
- Push-button in inside lever activates visual occupancy indicator, allowing only emergency master key to operate.
- Turn inside lever or close door to release visual occupancy indicator.
- Rotation of inside spinner-button provides lock-out feature by keeping indicator thrown.

Outside Inside



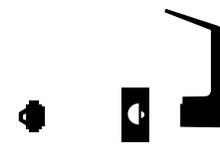
Vandlgard Functions

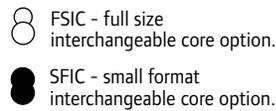
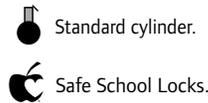
SCHLAGE ANSI
ND91PD F82

Entrance/Office Lock

- Push-button locking.
- Push-button disengages outside lever until locked with key or by turning inside lever.
- Vandlgard is designed to disengage outside spindle from latch when locked.

Outside Inside



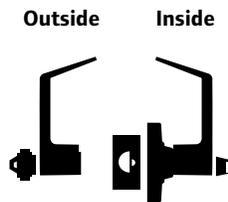


† Caution: Double cylinder locks are a life safety hazard in times of emergency and their use is not recommended. Installation should be in accordance with existing codes only.

SCHLAGE ANSI
ND92PD F109

Entrance Lock

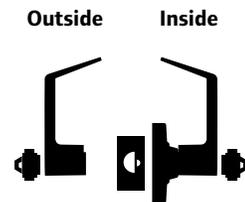
- Turn/push-button locking: Pushing and turning button disengages outside lever, requiring using of key until button is manually unlocked.
- Push-button locking: Pushing button disengages outside lever until unlocked by key or by turning inside lever.
- Vandlgard is designed to disengage outside spindle from latch when locked.



SCHLAGE ANSI
ND93PD F88

Vestibule Lock

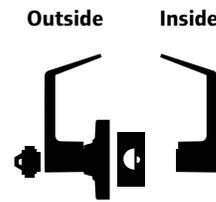
- Latch retracted by key from outside when outside lever is disengaged by key in inside lever.
- Inside lever is always unlocked.
- Vandlgard is designed to disengage outside spindle from latch when locked.



SCHLAGE ANSI
ND94PD F84

Classroom Lock

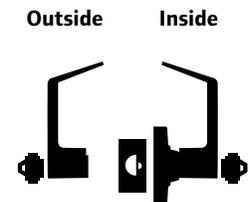
- Outside lever disengaged and unlocked by key.
- Inside lever always unlocked.
- Vandlgard is designed to disengage outside spindle from latch when locked.



SCHLAGE ANSI
ND95PD -

Classroom Security Lock

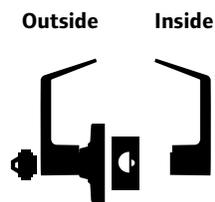
- Key in either lever locks or unlocks outside lever.
- Inside lever is always unlocked.



SCHLAGE ANSI
ND96PD F86

Storeroom Lock

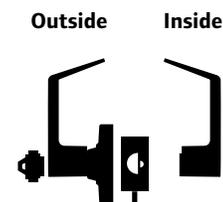
- Outside lever always disengaged.
- Entrance by key only.
- Inside lever is always unlocked.
- Vandlgard is designed to disengage outside spindle from latch when locked.



SCHLAGE ANSI
ND96PDEL -

Electrically Locked (Fail Safe)

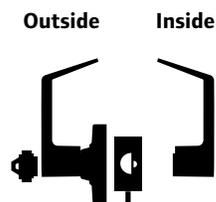
- Outside lever continuously disengaged electrically.
- Unlocked by key outside or by switch or power failure.
- Auxiliary latch deadlocks latchbolt when door is closed.
- Inside lever always free for immediate exit.
- Vandlgard is designed to disengage outside spindle from latch when locked.



SCHLAGE ANSI
ND96PDEU -

Electrically Unlocked (Fail Secure)

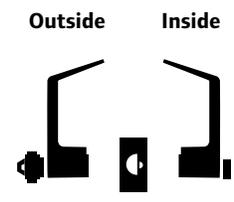
- Outside lever continuously disengaged until unlocked by key or electric current.
- Auxiliary latch deadlocks latchbolt when door is closed.
- Inside lever always free for immediate exit.
- Vandlgard is designed to disengage outside spindle from latch when locked.



SCHLAGE ANSI
ND97PD F90

Corridor Lock

- Locked or unlocked by key from outside.
- Push-button locking from inside.
- Turning inside lever or closing door releases button.
- When outside lever is locked by key it can only be unlocked by key.
- Inside lever is always unlocked.
- Vandlgard is designed to disengage outside spindle from latch when locked.



Specifications

Handing:

All ND-Series lever locksets are non-handed.

Door Thickness:

1⁵/₈" to 2¹/₈" (41mm–54mm) standard including Vandlgard® functions. 1³/₄" – 2" for function D85. See accessories (Page 21) for spacers required for 1³/₈" doors.

Backset:

2³/₄" (70 mm) standard. 2³/₈", 3³/₄" and 5" (60 mm, 95 mm, 127 mm) optional.

Faceplate:

Brass, bronze or stainless steel. 1¹/₈" x 2¹/₄" (29 mm x 57mm) square corner, beveled.

Lock Chassis:

Zinc plated for corrosion resistance.

Latch Bolt:

Steel, 1/2" (12mm) throw, deadlocking on keyed and exterior functions. 3/4" (19 mm) throw anti-friction latch available for pairs of fire doors.

Exposed Trim:

Levers: Pressure cast zinc, plated to match finish symbols.
Roses: Brass, bronze or zinc.

Strike:

ANSI curved lip strike 1¹/₄" x 4⁷/₈" x 1³/₁₆" lip to center standard. Optional strikes, lip lengths and ANSI strike box available. See page 21.

Cylinder & Keys:

6-pin Everest C123 keyway standard with two patented nickel silver keys per lock.

Keying Options:

Interchangeable core and Primus high security cylinders.
Master keying, grand master keying and construction keying.

Warranty:

Seven-year limited for all functions including Vandlgard.

Certifications

ANSI:

Meets or exceeds A156.2 Series 4000, Grade 1 strength and operational requirements. Meets A117.1 Accessibility Code.

Federal:

Meets FF-H-106C Series 161.

California State Reference Code:

(Formerly Title 19, California State Fire Marshal Standard)

All levers with less than 1/2" (64mm) returns comply; Schlage levers return to within 1/2" of door face.

MEA Certification:

All electrified locking (fail-safe, unlocked by switch or power failures) functions accepted for use in New York City by the City of New York, Department of Buildings (MEA 24-04-E).

All levers with less than 1/2" (64mm) returns comply with California Fire Safety Codes.

Florida Building Commission:

3/4" and 1/2" throw latch approved for Hurricane Resistance with Miami-Dade County, Florida.

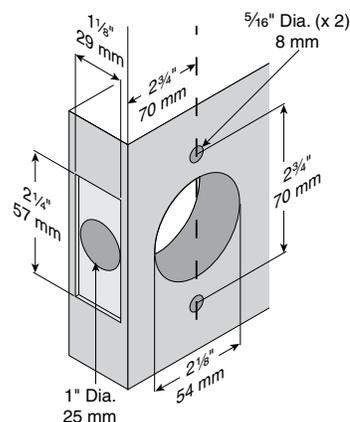
UL / cUL:

All locks listed for A label single doors, 4' x 8'.
Letter F and UL symbol.

ADA Compliant:

Schlage Lock Company offers a wide selection of locks designed to meet the Americans With Disabilities Act.

Door Preparation





SCHLAGE

L Series

Commercial mortise locks

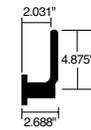
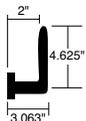
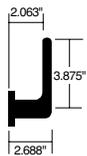


The Standard Collection

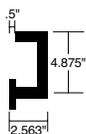
Built on our tradition of raising industry standards.

Like the M Collection, these lever designs suite with exit devices and locks from our trusted Schlage and Von Duprin brands. And, they are built to the same exacting standards.

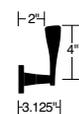
Our Standard Collection levers offer a more traditional style that is appropriate for use in a number of commercial applications.



Longitude



Merano



Omega



| Finish options | | | | | | | | | | | |
|------------------|--------------|-------------|---------------|--------------|-------------------|--------------|---------------|--------------|------------------------|-----------------------|-------------|
| Color | Bright brass | Satin brass | Antique brass | Satin bronze | Oil rubbed Bronze | Satin nickel | Bright chrome | Satin chrome | Bright stainless steel | Satin stainless steel | Aged bronze |
| ANSI/BHMA number | 605 | 606 | 609 | 612 | 613 | 619 | 625 | 626/626AM | 629 | 630/630AM | 643 |
| US number | US3 | US4 | US5 | US10 | US10B | US15 | US26 | US26D | US32 | US32D | US11 |

AM = Antimicrobial.
See pricebook for additional trim and finish availability. 33A, 95 & 99 devices not available in 619 & 630 finishes.

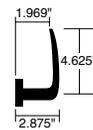
05
♿



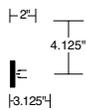
06
♿



07
♿



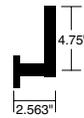
Accent
♿



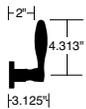
Asti
♿



Latitude
♿



St Annes
♿



To learn more about suiting of Schlage and Von Duprin products with our decorative or standard levers contact your security consultant or visit allegion.com/us.

Escutcheons and roses

Choose from three types of escutcheon and two rose sizes to add tough, durable performance to your lockset.

Escutcheons



L Full face

Specify by adding 'L' after lever design.

Material: Cold-forged brass, bronze or stainless steel

Finishes: 605, 606, 609, 612, 613, 619, 625, 626, 629, 630, 643e

Size: 8" x 1 3/4" x 7/16"
(203 mm x 44 mm x 11 mm)



L Concealed

Specify by adding 'C' suffix to function and by adding 'L' after lever design.

Material: Cold-forged brass, bronze or stainless steel

Finishes: 605, 606, 609, 612, 613, 619, 625, 626, 629, 630, 643e

Size: 8" x 1 3/4" x 7/16"
(203 mm x 44 mm x 11 mm)



N Escutcheon

Specify by adding 'N' after lever design.

Material: Heavy wrought reinforced brass, bronze or stainless steel

Finishes: 605, 606, 609, 612, 613, 619, 625, 626, 629, 630, 643e

Size: 8" x 2 9/16" x 7/16"
(203 mm x 65 mm x 11 mm)



Roses



A Wrought rose

2 1/8" (54 mm) diameter
Available for use on L Series knob and lever designs. Specify by adding 'A' after lever design

Finishes: 605, 606, 609, 612, 613, 619, 625, 626, 629, 630, 643e



B Wrought rose

2 9/16" (65 mm) diameter
Available for use on L Series knob and lever designs. Specify by adding 'B' after lever design.

Finishes: 605, 606, 609, 612, 613, 619, 625, 626, 629, 630, 643e



C Wrought rose

2 5/8" (66 mm) diameter
Available for use on L Series knob and lever designs. Specify by adding 'C' after lever design.

Finishes: 605, 606, 609, 619, 625, 626, 629, 630, 643e

Thumbturns

Choose from three variations of thumbturn locks that help you meet the demands of specialized commercial projects.



Hotel occupancy indicator 09-611

For lock function L9486P, this unit can be used with A or B roses. Requires a 1 3/8" (35 mm) cylinder for 1 3/4" (44 mm) doors. Specify finish when ordering separately.



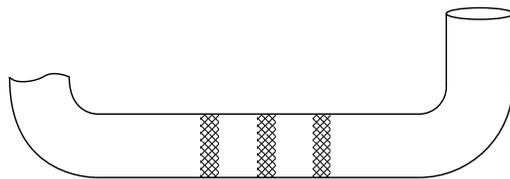
Optional EZ turn L583-363

Available for rose and escutcheon trim. Disability turn (ADA) option to standard thumbturn. Can be used with thumbturn-function L Series lock except L9463 and L463. Specify lock per L583-363 when ordering.



Coin turn

For lock function L9044 and L9444 with rose trim. Specify 09-509 and finish per L283-124 when ordering.



03 Lever shown

Products featuring a knurled surface will be indicated by adding the prefix "8" to the lever number. For example, L9050P 803A/03A.

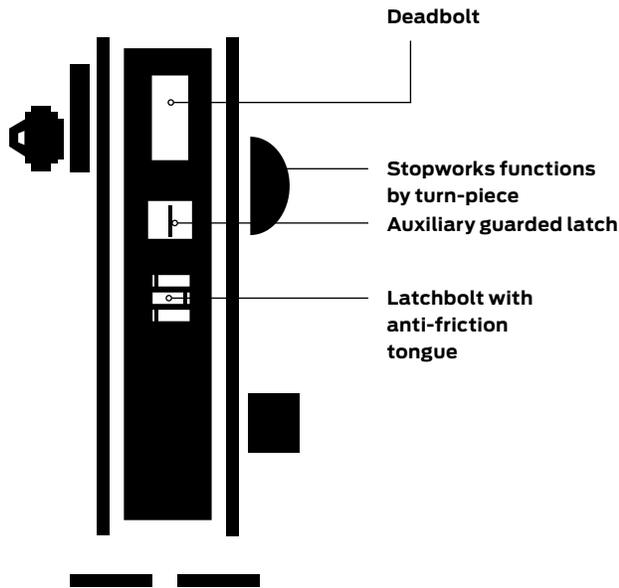
Tactile warning (knurling)

Schlage L Series commercial levers feature knurling only on the outside lever unless otherwise specified.

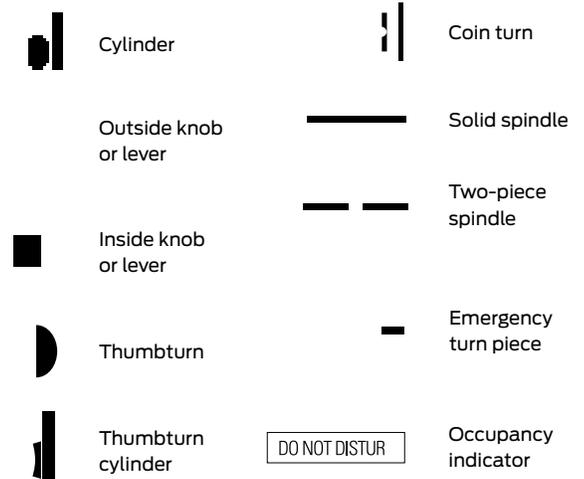
This feature is available on the following lever models:
01, 02, 03, 05, 06, 07, 12, 17, 18, 41, 42 and 93.

Lock functions

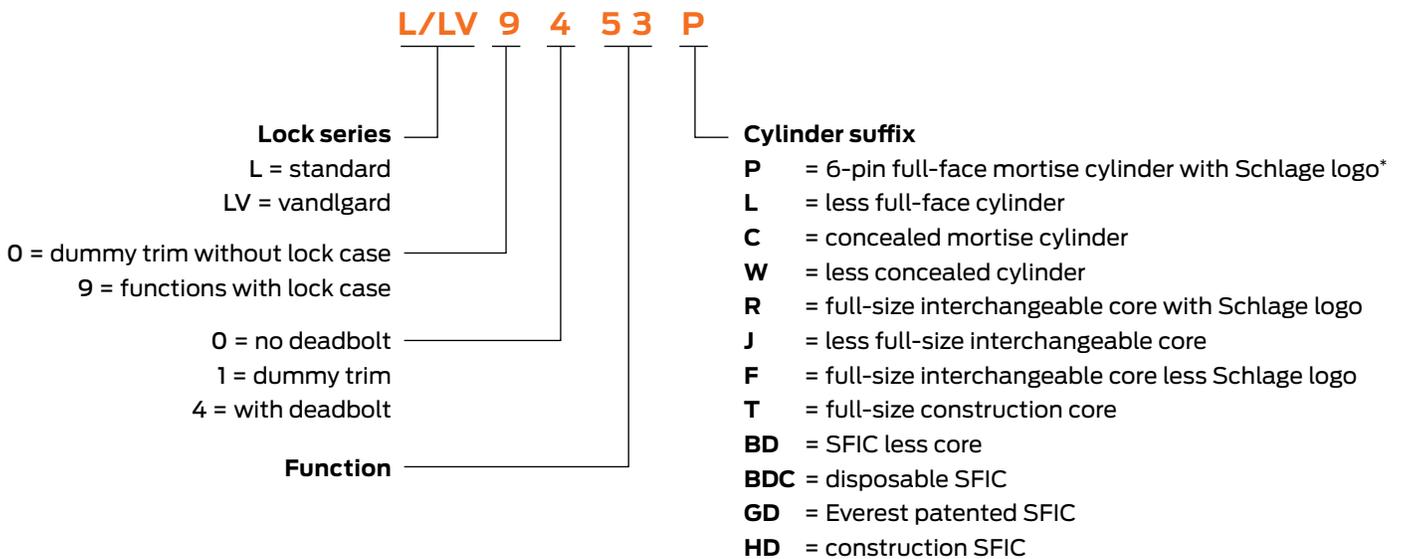
Lock components



Symbol key



Product identification guide

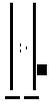


SFIC = Small Format (Best® style) Interchangeable Core
 To order less Schlage logo, specify lock
 "with K510-612 faceplate."

LV = Vandlgard® function allows exterior lever to rotate freely down while remaining securely locked.

Lock functions

ANSI A156.13, Series 1000



Schlage ANSI
L9010 F01

Passage latch

Latchbolt retracted by knob/lever from either side at all times. Inside lever is always free for immediate egress.



L9040 F22
LV9040

Bath/bedroom privacy lock

Latchbolt retracted by knob/lever from either side unless outside is locked by inside thumbturn. Turning inside knob/lever or closing door unlocks outside knob/lever. To unlock from outside remove emergency button, insert emergency thumbturn (furnished) in access hole and rotate. Inside lever is always free for immediate egress.



L9044
LV9044

Privacy with coin turn outside

Latchbolt retracted by knob/lever from either side unless outside is locked by inside thumbturn or outside coin turn. Operating inside knob/lever, closing door, rotating inside thumbturn or rotating outside coin turn unlocks outside knob/lever. Specify per L283-056 for Torx® screws. Available with rose trim only. (Previously XL11-868)



L9440 F19
LV9440

Privacy with deadbolt

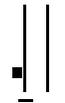
Latchbolt retracted by knob/lever from either side. Deadbolt thrown or retracted by inside thumbturn. Throwing deadbolt locks outside knob/lever. Rotating inside knob/lever simultaneously retracts deadbolt and latchbolt, and unlocks outside knob/lever. To unlock from outside remove emergency button, insert emergency thumbturn in access hole and rotate. Inside liner is always free for immediate egress. (Previously XL11-761.)



Schlage ANSI
L9444
LV9444

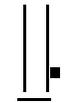
Privacy with deadbolt and coin turn outside

Latchbolt retracted by knob/lever from either side. Deadbolt thrown or retracted by inside thumbturn or outside coin turn. Throwing deadbolt locks outside knob/lever. Rotating inside knob/lever simultaneously retracts deadbolt and latchbolt, and unlocks outside knob/lever. Rotating outside coin turn retracts deadbolt and unlocks outside knob/lever. Specify per L283-056 for Torx screws. Available with rose trim only. Inside lever is always free for immediate egress. (Previously XL11-868)



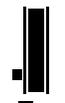
L0170
Half dummy trim

Knob/lever on one side fixed by mounting bar.



L0172
Full dummy trim

Knob/lever on both sides fixed by mounting bar.



L9175
Half dummy trim with lock case

Fixed knob/lever on one side inoperable. Includes lock case and armored front. Options same as L9176 below.



L9176
Full dummy trim with lock case*

Fixed knob/lever on both sides. Includes lock case and blank armor front. May be ordered with optional XL11-743 armored front with cutout to receive deadbolt.

*In a double-door application where the dummy will be used as the strike order 10-091 Armored Front Strike separately.

Lock functions

Single cylinder non-deadbolt functions



Schlage ANSI
L9050 **F04**
LV9050

Office and inner entry lock

Latchbolt retracted by knob/lever from either side unless outside is made inoperative by key outside or by turning inside thumbturn. When outside is locked, latchbolt is retracted by key outside or by knob/lever inside. Outside knob/lever remains locked until thumbturn is returned to vertical or unlocked by key. Auxiliary latch deadlocks latchbolt when door is closed. Inside liner is always free for immediate egress.



L9056
LV9056

L9050 with automatic unlocking

Latchbolt retracted by knob/lever from either side unless outside is made inoperative by key outside or by rotating inside thumbturn. Outside knob/lever unlocked by key outside, thumbturn or closing door. Rotating inside knob/lever simultaneously retracts latchbolt and unlocks outside knob/lever. Auxiliary latch deadlocks latchbolt when door is closed. Inside lever is always free for immediate egress.



L9070 **F05**
LV9070

Classroom lock

Latchbolt retracted by knob/lever from either side unless outside is locked by key. Unlocked from outside by key. Inside knob/lever always free for immediate exit. Auxiliary latch deadlocks latchbolt when door is closed. Inside lever is always free for immediate egress.



L9076 **F06**
LV9076

Classroom holdback lock

Latchbolt retracted by knob/lever from either side unless outside is locked by key. When locked, latchbolt retracted by key outside or knob/lever inside. Auxiliary latch deadlocks latchbolt when door is closed. Depress inside knob/lever and turn key 360° for holdback feature. Inside lever is always free for immediate egress.



L9080 **F07**
LV9080

Storeroom lock

Latchbolt retracted by key outside or by knob/lever inside. Outside knob/lever is always inoperative. Auxiliary latch deadlocks latchbolt when door is closed. Inside lever is always free for immediate egress.



Schlage ANSI
L9080EL
LV9080EL

Electrically locked (fail safe)

Outside knob/lever continuously locked by 24V AC or DC. Latchbolt retracted by key outside or by knob/lever inside. Switch or power failure allows outside knob/lever to retract latchbolt. Auxiliary latch deadlocks latchbolt when door is closed. Inside knob/lever always free for immediate exit. Inside lever is always free for immediate egress.



L9080EU
LV9080EU

Electrically unlocked (fail secure)

Outside knob/lever unlocked by 24V AC or DC. Latchbolt retracted by key outside or knob/lever inside. Auxiliary latch deadlocks latchbolt when door is closed. Inside lever is always free for immediate egress.



L9080EL-RX / LV9080EL-RX
L9080EU-RX / LV9080EU-RX

Request to exit (RX) electrified lock

Same as L9080EL and L9080EU functions. In addition, a micro-switch positioned inside the lock case monitors the retractor crank, and is actuated when rotation of the inside or outside knob/levers rotates the retractor hub. The switch signals the use of that opening to security systems, allowing a non-disruptive means of immediate egress. Specify per L283-263 with L functions, specify L283-239 with LV functions. Inside lever is always free for immediate egress.

Lock functions

Single cylinder deadbolt functions



Schlage ANSI
L9453 F20
LV9453
Entrance lock

Latchbolt retracted by knob/lever from either side unless outside is locked by 20° rotation of thumbturn. Deadbolt thrown or retracted by 90° rotation of thumbturn. When locked, key outside or knob/lever inside retracts deadbolt and latchbolt simultaneously. Outside knob/lever remains locked until thumbturn is restored to vertical position. Throwing deadbolt automatically locks outside knob/lever. Auxiliary latch deadlocks latchbolt when door is closed. Inside lever is always free for immediate egress.



L9456 F13
LV9456
Corridor lock

Latchbolt retracted by knob/lever from either side. Deadbolt thrown or retracted by key outside or inside thumbturn. Throwing deadbolt locks outside knob/lever. Turning inside knob/lever simultaneously retracts deadbolt and latchbolt and unlocks outside knob/lever. Inside lever is always free for immediate egress.



L9465
Closet/storeroom lock

Latchbolt retracted by knob/lever from either side. Deadbolt thrown or retracted by key outside.



L9473 F21
Dormitory/bedroom lock

Latchbolt retracted by knob/lever from either side. Deadbolt thrown or retracted by key outside or thumbturn inside.



L9480 F21
LV9480
Storeroom lock with deadbolt

Latchbolt retracted by key outside or by lever or knob inside. Outside knob/lever always fixed. Deadbolt thrown or retracted by key outside or thumbturn inside. Turning inside knob/lever simultaneously retracts both deadbolt and latchbolt. Auxiliary latch deadlocks latchbolt when door is closed. Inside lever is always free for immediate egress. (Previously XL11-591)



L9485 x XL11-557
Prison function lock

Latch retracted by key outside or knob inside. Outside knob always free spinning. Deadbolt only thrown or retracted by guard's key. Inside knob becomes fixed when deadbolt is thrown. Prisoner's key only retracts latchbolt. Furnished standard with tamper-resistant Torx screws. Specify per XL11-557.



Schlage ANSI
L9485 F20
LV9485
Faculty/hotel/restroom lock

Latchbolt retracted by key outside or by knob/lever inside. Outside knob/lever always fixed. Deadbolt thrown or retracted by inside thumbturn. When deadbolt is thrown all keys become inoperative except emergency or display keys. Turning inside knob/lever retracts both deadbolt and latchbolt simultaneously. Auxiliary latch deadlocks latchbolt when door is closed. Inside lever is always free for immediate egress.



L9486 F15
LV9486
Faculty/hotel/restroom lock
“do not disturb” indicator

Latchbolt retracted by key outside or by knob/lever inside. Outside knob/lever always fixed. Deadbolt thrown or retracted by inside thumbturn. When deadbolt is thrown “do not disturb” plate is displayed. All keys become inoperative except emergency or display keys. Turning inside knob/lever retracts both deadbolt and latchbolt simultaneously. Auxiliary latch deadlocks latchbolt when door is closed. Inside lever is always free for immediate egress.



L9486 x L583-375 F15
LV9486 x L583-375
L9486 with “occupied” indicator

Latchbolt retracted by key outside or by knob/lever inside. Outside knob/lever always fixed. Deadbolt thrown or retracted by inside thumbturn. When deadbolt is thrown “Occupied” plate is displayed and all keys become inoperative except emergency keys. Turning inside knob/lever simultaneously retracts both deadbolt and latchbolt. Auxiliary latch deadlocks latchbolt when door is closed. Inside lever is always free for immediate egress. (Previously XL11-580)



L9496
Privacy with “occupied” indicator

Knob/lever retracts latchbolt from either side. Deadbolt thrown or retracted by key outside (retraction by key required in the event of an emergency) or inside thumbturn. Throwing deadbolt locks outside knob/lever and displays “Occupied” plate. Rotating inside knob/lever simultaneously retracts both deadbolt and latchbolt, and unlocks outside knob/lever. Inside lever is always free for immediate egress. (Previously XL11-885)

* In a double-door application where the dummy will be used as the strike order 10-091 Armored front strike separately.

Lock functions

Double cylinder non-deadbolt functions



Schlage ANSI
L9060 F09
LV9060

Apartment entrance lock

Latchbolt retracted by knob/lever from either side unless outside is locked by key from inside. When locked, latchbolt retracted by key outside or knob/lever inside. Auxiliary latch deadlocks latchbolt when door is closed. Inside lever is always free for immediate egress.



L9071
LV9071

Classroom security lock

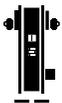
Latchbolt retracted by knob/lever from either side unless outside is locked by key from either side. When locked, latchbolt retracted by key outside or knob/lever inside. Auxiliary latch deadlocks latchbolt when door is locked. Inside lever is always free for immediate egress.



L9077
LV9077

Classroom security holdback lock

Latchbolt retracted by knob/lever from either side unless outside is locked by key from either side. When locked, latchbolt retracted by key outside or knob/lever inside. Auxiliary latch deadlocks latchbolt when door is locked. Depress inside knob/lever and turn key 360° for holdback feature. Inside lever is always free for immediate egress.



L9082 F30
LV9082

Institution lock

Latchbolt retracted by key from either side. Knob/lever on both sides always inoperative. Auxiliary latch deadlocks latchbolt when door is closed.



L9082EL
LV9082EU

L9082 electrically locked or electrically unlocked both sides*

EL: Outside and inside knob or lever continually locked electrically. Latchbolt retracted by key either side. Switch or power failure allows outside and inside knob/lever to retract latchbolt. Auxiliary latch deadlocks latchbolt when door is closed. EU: Outside and inside knob/lever unlocked electrically. Latchbolt retracted by key either side. Switch or power failure keeps inside and outside knob/lever locked. Auxiliary latch deadlocks latchbolt when door is closed. (Previously XL11-452)

Lock functions

Double cylinder deadbolt functions



Schlage ANSI
L9457
LV9457

Classroom security lock with deadbolt

Latchbolt retracted by knob/lever from either side. Deadbolt thrown or retracted by key from either side. Throwing deadbolt locks outside knob/lever. Turning inside knob/lever simultaneously retracts deadbolt and latchbolt, and unlocks outside knob/lever. Inside lever is always free for immediate egress.



L9466 **F14**

Store/utility room lock with deadbolt*

Latchbolt retracted by knob/lever from either side. Deadbolt thrown or retracted by key from either side.



L9482 x XL11-943
LV9482 x XL11-943

Institution lock with deadbolt*

Latchbolt retracted by key from either side. Knob/lever on both sides always inoperative. Deadbolt thrown or retracted by key either side. Auxiliary latch deadlocks latchbolt when door is closed. Specify per XL11-543.

In a double-door application where the dummy will be used as the strike order 10-091 Armored front strike separately.

*Caution: Double cylinder locks on residences and any door in any structure which is used for egress are a life safety hazard in times of emergency and their use is not recommended. Installation should be in accordance with existing codes only.

Specifications

Handing:

L9000 Series lock bodies are field-reversible without disassembly. L400 Series locks are non-handed.

Door thickness:

1³/₄" (44 mm) standard. 1³/₈" (35 mm) to 2¹/₂" (64 mm) optional. Over 2¹/₂" (64 mm) door ranges vary by function. No escutcheon available for 1³/₄" (44 mm) doors standard. 2" to 2³/₈" (51 mm to 60 mm) optional. Specify door thickness if other than 1³/₄".

Backset:

2³/₄" (70 mm) only.

Armored front:

L9000 Series: 1¹/₄" x 8" x 7⁷/₃₂" (32 mm x 203 mm x 6 mm) standard. 1¹/₁₆" x 8" x 1⁷/₃₂" (27 mm x 203 mm x 6 mm) optional.
L400 Series: 4⁷/₁₆" x 3⁵/₈" x 1" (113 mm x 92 mm x 25 mm)

Case size:

L9000 Series: 4⁷/₁₆" x 6¹/₁₆" x 1" (113 mm x 154 mm x 25 mm)
L400 Series: 4⁷/₁₆" x 3⁵/₈" x 1" (113 mm x 92 mm x 25 mm)

Spacing:

Knob or lever to cylinder, 3⁷/₈" (98mm); knob or lever to thumbturn hub, 2¹¹/₁₆" (68mm).

Bolts:

1" (25mm) throw stainless steel deadbolt and 3³/₄" (19mm) throw stainless steel latch with anti-friction tongue.

Exposed trim:

Knobs: #41 and #42 heavy-duty wrought brass, bronze or stainless steel knobs match D Series knobs.

Levers: Forged brass or bronze and cast stainless steel. Designs available to match D Series levers.

93 Lever design: Extruded brass, bronze or stainless steel.

Mediterranean designs: Forged-brass lever and rose.

Escutcheons: L escutcheons are cold-forged brass or bronze and stainless steel. N escutcheons are heavy wrought reinforced brass, bronze and stainless steel.

Trim combinations: Available with knob both sides, lever both sides, or knob and lever with rose or escutcheon both sides.

Strike:

L9000 Series: ANSI curved lip strike 1¹/₄" x 4⁷/₈" (32 mm x 124 mm) x 1³/₁₆" (30 mm) lip to center with dust box standard. L400 Series: 1¹/₈" x 3⁵/₈" (29 mm x 92 mm) with dust box.

Cylinder & keys:

6-pin Everest C123 keyway cylinder with two patented keys standard.

Keying options:

Interchangeable core and Primus high security cylinders. Master keying, grand master keying and construction keying.

Certifications

ANSI:

L9000: ANSI A156.13 Series 1000, Grade 1 Operational and Security, UL Listed for 3-hour fire door (except L9076 and L9007). With interchangeable core cylinders: Grade 2 Security. With concealed shell cylinder: A156.13 Grade 1 Operational and Security. ANSI/ASTM F476-76 Grade 40, UL Listed. L400: ANSI A156.5 Grade 1.

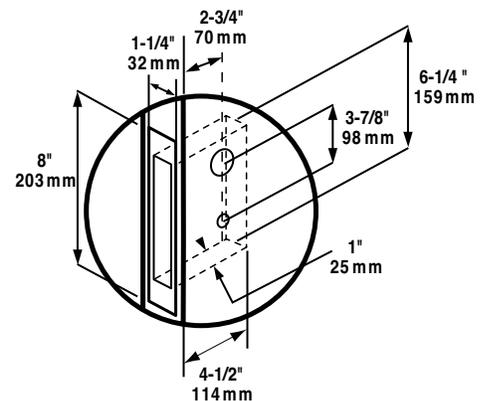
California State Reference Code:

(Formerly Title 19, California State Fire Marshal Standard) All levers with returns comply; levers return to within 1/2" of door face.

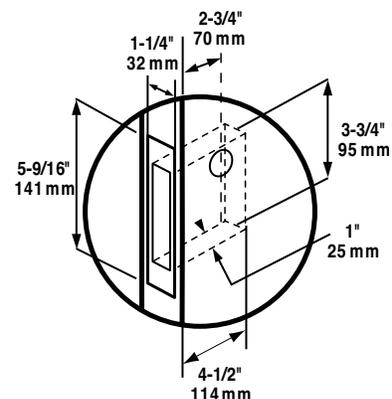
UL / cUL:

All locks listed for A label single doors, 4' by 10'. Letter F and UL symbol on latch front indicate listing. Electrified functions are UL19X Listed for single-point locking applications. UL437 Listed locking cylinder optional: specify Primus 20-500 Series cylinder.

Door preparation for L9000 Series



Door preparation for L400 Series



98/99 Rim exit device -



The 299 Strike ships standard, optional strikes available

98 and 99 Rim exit devices for all types of single and double doors with mullion, UL listed for panic exit hardware. Devices are ANSI A156.3 – 2008 Grade 1. The 98 device has a smooth mechanism case and the 99 device has a grooved case. The rim device is non-handed except when the following device options are used: SD (special dogging), -2 (double cylinder) or SS (signal switch). See Opposite page for available outside trim and device functions. Covers stock hollow metal doors with 86 or 161 cutouts on single doors (may cover cutouts on pairs – consult template).

Hex key dogging comes standard on 98/99 Rim exit devices



Finishes – US3, US3A, US4, US4A, US10, US26, US26D, US26D-AM Antimicrobial, US28, 313, 315 & 643E. US15 and US32D available with 98 Series only.

Specifications

| | | |
|---------------------------------------|---|---|
| Device functions | Device ships EO/DT/NL. Field selectable. For TP, K or L remove NL drive screw from device. | |
| Device lengths | 3' | 2'4" to 3' (711mm to 914 mm) Door size |
| | 4' | 2'10" to 4' (864 mm to 1219 mm) Door size |
| Device centerline from finished floor | 39 ¹³ / ₁₆ " (1011 mm) 39 ¹¹ / ₁₆ " (1008 mm) with mullion | |
| Center case dimensions | 8" x 2 ³ / ₄ " x 2 ³ / ₈ " (203mm x 70mm x 60mm) | |
| Mechanism case dimensions | 2 ¹ / ₄ " x 2 ¹ / ₄ " (57mm x 57mm) | |
| Projection | Pushbar neutral – 3 ¹³ / ₁₆ " (97 mm) Pushbar depressed – 3 ¹ / ₁₆ " (78 mm) | |
| Latch bolt | Deadlocking, ³ / ₄ " (19mm) throw | |
| Fasteners & sex bolts (SNB) | Includes screw pack for 1 ³ / ₄ " (44mm) and 2 ¹ / ₄ " (57mm) thick metal or wood doors. Optional 425 SNB available, see page 9 for quantities. | |
| Electric options | LX | Latchbolt monitor switch |
| | RX | Pushpad monitor switch |
| | RX2 | Double pushpad monitor switch |
| | E | Electric locking & unlocking trim |
| | EL | Electric latch retraction |
| | QEL | Quiet electric latch retraction |
| | SS | Signal switch |
| | CX | Chexit delayed exit |
| | ALK | Alarm exit kit |
| | WP-RX | Waterproof request to exit |
| | CON | Allegion Connect |
| Mechanical options | -2 | Double cylinder |
| | AX | Accessible device |
| | GBK | Glass bead kit |
| | PN | Pneumatic latch retraction |
| | XP | Extra protection |
| | SNB | Sex bolts |
| | SEC | Security screws |
| Dogging feature | Hex key dogging standard | |
| Dogging options | CD | Cylinder dogging |
| | SD | Special center case dogging |
| | LD | Less dogging |
| | DI | Dogging indicator |
| | CI | Cylinder dogging indicator |
| Strikes | 299 – Dull black | |

XP
Extra protection

- 90° latch-to-strike contact
- Force resistance of 2,000+ lbs.

CD
Cylinder dogging

- Replaces hex key dogging
- Requires 1 1/4" mortise cylinder with inverted cam

QEL
Quiet electric latch retraction

- Bolt retraction via switch
- Converts exit door to push-pull operation

RX
Pushpad monitor switch

- Signals use of an opening
- SPDT switch to monitor pushpad

CX
Chexit delayed exit

- Meets NFPA 101 requirements
- Self-contained controls, locking, alarm

AX
Accessible device

- UL certified to meet new 5 lb. maximum operating force requirement
- Exceeds ANSI/BHMA requirements

EL
Electric latch retraction

- Enables remote unlatching
- Alternative to manual dogging

ALK
Alarm exit kit

- Unauthorized opening triggers 85-decibel horn
- Set in armed or disarmed mode by key

PN
Pneumatic latch retraction

- For areas where electrical devices banned
- Special linkage for mechanical or pneumatic dogging

CON
Allegion Connectors

- Common connectors to connect various door hardware all the way to the power supply

98/99 Rim exit device -

Standard trim

| | | | | |
|--|--|--|--|---|
| | <p>EO</p>  <p>No outside trim Exit only</p> | <p>DT</p>  <p>Dummy trim Pull when dogged</p> | <p>NL</p>  <p>Night latch Key retracts latchbolt</p> | <p>NL-OP</p>  <p>Night latch Key retracts latchbolt optional pull required</p> |
| Product description | 98EO 99EO | 98DT 99DT | 98NL 99NL | 98NL-OP 99NL-OP |
| Trim description | — | 990DT | 990NL-R/V | 110NL-MD 110NL-WD |
| Escutcheon plate size | — | 3" x 14 ¹³ / ₁₆ " x 3 ³ / ₃₂ " (76x360x2mm) | 3" x 14 ¹³ / ₁₆ " x 3 ³ / ₃₂ " (76x360x2mm) | — |
| Pull center to center | — | 5 ¹ / ₂ " (140mm) | 5 ¹ / ₂ " (140mm) | — |
| Projection | — | 2" (51mm) | 2" (51mm) | — |
| ANSI function | 01 | 02 | 03 | 03 |
| Cylinder type | — | — | Rim | Rim |
| Handing | — | — | — | — |
| Optional trim | x990EO x996EO | x996K-DT x996L-DT x696DT x697DT | x996K-NL x996L-NL x696NL x697NL | |
| Optional #425 SNB quantity for device | 6 | 2 | 2 | 6 |

| | | | | |
|--|--|--|---|---|
| | <p>L</p>  <p>Lever Key locks & unlocks</p> | <p>L-NL</p>  <p>Lever - night latch Key retracts latchbolt</p> | <p>L-BE</p>  <p>Lever - blank escutcheon Always operable (no cylinder)</p> | <p>L-DT</p>  <p>Lever dummy trim pull when dogged</p> |
| Product description | 98L 99L | 98L-NL 99L-NL | 98L-BE 99L-BE | 98L-DT 99L-DT |
| Trim description | 996L-R/V* | 996L-NL-R/V | 996L-BE-R/V* | 996L-DT |
| Escutcheon plate size | 2 ³ / ₄ " x 10 ³ / ₄ " x 2 ⁷ / ₃₂ " (70x273x21mm) | 2 ³ / ₄ " x 10 ³ / ₄ " x 2 ⁷ / ₃₂ " (70x273x21mm) | 2 ³ / ₄ " x 10 ³ / ₄ " x 2 ⁷ / ₃₂ " (70x273x21mm) | 2 ³ / ₄ " x 10 ³ / ₄ " x 2 ⁷ / ₃₂ " (70x273x21mm) |
| Pull center to center | — | — | — | — |
| Projection | 2 ⁷ / ₈ " (73mm) | 2 ⁷ / ₈ " (73mm) | 2 ⁷ / ₈ " (73mm) | 2 ⁷ / ₈ " (73mm) |
| ANSI function | 08 | 03 | 14 | 02 |
| Cylinder type | Rim | Rim | — | — |
| Handing | Handed/Reversible | Handed/Reversible | Handed/Reversible | Handed/Reversible |
| Optional #425 SNB quantity for device | 2 | 2 | 2 | 2 |

* Electrified lever operation available

Notes

98-F/99-F Rim exit device



The 299F Strike ships standard, optional strikes available



499F Strike with 9854/9954 mullion

98-F and 99-F Rim fire exit devices for all types of single doors up to 4' x 10' (1219mm x 3048mm) or 8' x 10' (2438mm x 3048mm) double doors with 9954 or 9854 mullion, UL listed for fire exit hardware. See page 76 for detailed information on UL listed fire exit hardware label and door opening size information. Devices are ANSI A156.3 – 2008 Grade 1. The 98-F device has a smooth mechanism case and the 99-F device has a grooved case. The rim device is non-handed except when the following device options are used: -2 (double cylinder) or SS (signal switch). See opposite page for available outside trim and device functions.

Finishes – US3, US3A, US4, US4A, US10, US26, US26D, US26D-AM Antimicrobial, US28, 313, 315 & 643E. US15 and US32D available with 98 Series only.

Specifications

| | | |
|--|---|---|
| Device functions | Device ships EO/DT/NL. Field selectable. For TP, K or L remove NL drive screw from device. | |
| Device lengths | 3' | 2'4" to 3' (711mm to 914 mm) Door size |
| | 4' | 2'10" to 4' (864 mm to 1219 mm) Door size |
| Device centerline from finished floor | 39 ¹³ / ₁₆ " (1011 mm) 39 ¹¹ / ₁₆ " (1008 mm) with mullion | |
| Center case dimensions | 8" x 2 ³ / ₄ " x 2 ³ / ₈ " (203mm x 70mm x 60mm) | |
| Mechanism case dimensions | 2 ¹ / ₄ " x 2 ¹ / ₄ " (57mm x 57mm) | |
| Projection | Pushbar neutral – 3 ¹³ / ₁₆ " (97 mm) Pushbar depressed – 3 ¹ / ₁₆ " (78 mm) | |
| Latch bolt | Deadlocking, ³ / ₄ " (19mm) throw | |
| Fasteners & sex bolts (SNB) | Includes screw pack for 1 ³ / ₄ " (44mm) and 2 ¹ / ₄ " (57mm) thick metal or wood doors. Optional 425 SNB available for metal doors. 425 & 825 SNB required on wood doors without SLM blocking. See page 11 for quantities. | |
| Electric options | LX | Latchbolt monitor switch |
| | RX | Pushpad monitor switch |
| | RX2 | Double pushpad monitor switch |
| | E | Electric locking & unlocking trim |
| | EL | Electric latch retraction |
| | QEL | Quiet electric latch retraction |
| | SS | Signal switch |
| | CX | Chexit delayed exit |
| | ALK | Alarm exit kit |
| | WP-RX | Waterproof request to exit |
| | CON | Allegion Connect |
| Mechanical options | -2 | Double cylinder |
| | AX | Accessible device |
| | GBK | Glass bead kit |
| | PN | Pneumatic latch retraction |
| | XP | Extra protection |
| | SNB | Sex bolts |
| | SEC | Security screws |
| | SLM | Special Laminated Material Blocking |
| Dogging option | No mechanical dogging. EL and QEL option available | |
| Strikes | 299F – Dull black, 499F with mullions | |

XP
Extra protection

- 90° latch-to-strike contact
- Force resistance of 2,000+ lbs.

RX
Pushpad monitor switch

- Signals use of an opening
- SPDT switch to monitor pushpad

EL
Electric latch retraction

- Enables remote unlatching
- Alternative to manual dogging

ALK
Alarm exit kit

- Unauthorized opening triggers 85-decibel horn
- Set in armed or disarmed mode by key

QEL
Quiet electric latch retraction

- Bolt retraction via switch
- Converts exit door to push-pull operation

CX
Chexit delayed exit

- Meets NFPA 101 requirements
- Self-contained controls, alarm

AX
Accessible device

- UL certified to meet new 5 lb. maximum operating force requirement
- Exceeds ANSI/BHMA requirements

SG
Safety glow

- Shows exit door location in darkness or smoke
- Developed to meet MEA standards

PN
Pneumatic latch retraction

- For areas where electrical devices banned
- Special linkage for mechanical or pneumatic dogging

CON
Allegion Connectors

- Common connectors to connect various door hardware all the way to the power supply

Standard trim

| | EO | DT  | NL  | NL-OP  |
|---|-------------------------------------|--|--|---|
| | No outside trim Exit only | Dummy trim Pull when dogged (not recommended for fire device) | Night latch Key retracts latchbolt | Night latch Key retracts latchbolt optional pull required |
| Product description | 98EO-F 99EO-F | 98DT-F 99DT-F | 98NL-F 99NL-F | 98NL-OP-F 99NL-OP-F |
| Trim description | — | 990DT | 990NL-R/V | 110NL-MD 110NL-WD |
| Escutcheon plate size | — | 3" x 14 ¹³ / ₁₆ " x 3 ³ / ₃₂ " (76x360x2mm) | 3" x 14 ¹³ / ₁₆ " x 3 ³ / ₃₂ " (76x360x2mm) | — |
| Pull center to center | — | 5 ¹ / ₂ " (140mm) | 5 ¹ / ₂ " (140mm) | — |
| Projection | — | 2" (51mm) | 2" (51mm) | — |
| ANSI function | 01 | 02 | 03 | 03 |
| Cylinder type | — | — | Rim | Rim |
| Handing | — | — | — | — |
| Optional trim | x990EO x996EO | x996K-DT x996L-DT x696DT x697DT | x996K-NL x996L-NL x696NL x697NL | |
| #425 SNB optional - HMD req. WD w/o SLM pkg. | 2 | 2 | 2 | 2 |
| #825 SNB req. WD w/o SLM pkg. | 2 (if using trim) | 2 | 2 | 2 |
| #425 SNB req. w/ 499F | 2 | 2 | 2 | 2 |

| | L  | L-NL  | L-BE  | L-DT  |
|---|--|--|--|--|
| | Lever Key locks & unlocks | Lever – night latch Key retracts latchbolt | Lever – blank escutcheon Always operable (no cylinder) | Lever dummy trim pull when dogged (not recommended for fire device) |
| Product description | 98L-F 99L-F | 98L-NL-F 99L-NL-F | 98L-BE-F 99L-BE-F | 98L-DT-F 99L-DT-F |
| Trim description | 996L-R/V* | 996L-NL-R/V | 996L-BE-R/V* | 996L-DT |
| Escutcheon plate size | 2 ³ / ₄ " x 10 ³ / ₄ " x 2 ⁷ / ₃₂ " (70x273x21mm) | 2 ³ / ₄ " x 10 ³ / ₄ " x 2 ⁷ / ₃₂ " (70x273x21mm) | 2 ³ / ₄ " x 10 ³ / ₄ " x 2 ⁷ / ₃₂ " (70x273x21mm) | 2 ³ / ₄ " x 10 ³ / ₄ " x 2 ⁷ / ₃₂ " (70x273x21mm) |
| Pull center to center | — | — | — | — |
| Projection | 2 ⁷ / ₈ " (73mm) |
| ANSI function | 08 | 03 | 14 | 02 |
| Cylinder type | Rim | Rim | — | — |
| Handing | Handed/Reversible | Handed/Reversible | Handed/Reversible | Handed/Reversible |
| #425 SNB optional - HMD req. WD w/o SLM pkg. | 2 | 2 | 2 | 2 |
| #825 SNB req. WD w/o SLM pkg. | 2 (if using trim) | 2 | 2 | 2 |
| #425 SNB req. w/ 499F | 2 | 2 | 2 | 2 |

* Electrified lever operation available

98/99 Dogging options

CDSI/HDSI dogging indicators



Indicator provides an at-a-glance verification of the status of the door from inside of the room. Visible "LOCKED" and "UNLOCKED" indicators show whether the device is undogged or dogged. This feature can be used with Hex key (HDSI) or Cylinder dogging (CDSI) options

on various device types – rim, mortise and vertical systems.

- Modular conversion kits allow you to quickly and easily upgrade your existing devices
- Available for 98/99 & 33A/35A Series panic devices

To order, specify:

- Use prefix, CDSI or HDSI, example CDSI99L

CD Cylinder dogging



Cylinder dogging is available on all 98/99™ Panic exit devices to replace the standard hex key dogging. Unit requires a standard 1¹/₄" (32mm) mortise cylinder with an inverted straight cam (Schlage Cam B502-191 reference).

To order, specify:

- Use prefix, CD, example CD99L

CDK Cylinder dogging kit*

For field conversion, a cylinder dogging conversion kit is available.

To order, specify: 99CDK or 98CDK, specify finish.

*Cannot be added to fire exit hardware.

HDK Hex key dogging kit*



For field conversion, a hex key dogging conversion kit is available.

To order, specify: 99HDK or 98HDK, specify finish.

*Cannot be added to fire exit hardware.

LD Less dogging

Less dogging is available in all 98/99™ Panic exit devices to remove the dogging option.

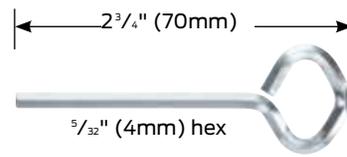
To order, specify: Use prefix LD, example LD99L

Dog keys

Dog key (old style)



Dog key (standard)



-2SI Double cylinder with security indicator



The Von Duprin Classroom Security Indicator provides an at-a-glance verification of the locked/unlocked status of the door from inside of the room. This option can be ordered as a new product or as a retrofit conversion kit to an existing 98/99 device. Indicator in Unlocked state presents a 1/2" x 1/2" metal flag (white background with black icon) at top of device head. Indicator in Locked state has no flag present.

To order, specify:

1. Suffix-2SI with device/trim number, example 99L-2SI.
2. Handing required, LHR or RHR.

SD Special center case dogging



Special cylinder dogging in the center case is available for Chexit, EL, QEL, ALK panic devices to allow for mechanical push/pull operation. With this option, the latchbolt is held retracted and pushbar is still operable. Specify handing—RHR or LHR.

SD requires 1³/₄" (32mm) mortise cylinder with an inverted straight cam. (Schlage cam reference B502-191.)

Note: Available on Rim and Vertical Rod Panic Exit Devices only.

To order, specify:

- Use prefix SD, example SD99L and Handing
- Not for 98/9975 Devices

Double cylinder



Double cylinder features an inside key cylinder which locks or unlocks the outside trim and an outside key cylinder which retracts the latch bolt only (Night latch function). Available on rim or mortise lock device.

Rim requires two rim type cylinders. Mortise device requires 1 rim cylinder and 1 mortise cylinder 1¹/₄" with a straight cam. (Schlage cam reference B502-191.)

Available functions are thumbpiece, knob or lever.

To order, specify:

1. Suffix-2 with device/trim number, example 99TP-2.
2. Handing required, LHR or RHR.

98/99 Mechanical options

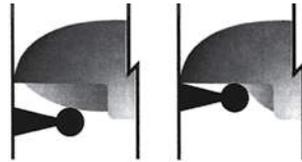
AX Accessible device

The AX device is a UL certified exit device designed to meet the progressive requirements of the California Building Code for accessible openings. This device meets the 5 lbs of operating force requirement called for in chapter 11B-309.4. The AX device also exceeds ANSI/BHMA requirements. Available devices include: AX98/99, AX98/99-F, AX98/9949LBL, AX98/9949-F LBL, AX98/9949-F LBLAFL. Additionally, all AX devices will be shipped with a new UL label clearly stating "Meets California building Code (2013) Sec. 11B-309.4" and an "AX" identifier label on device center case. See images below for reference.



XP Extra performance

For increased security the XP98/99 Rim exit device has a static load force resistance of more than 2,000 pounds, twice that of standard rim exit devices. The two-piece latch bolt forms a 90° latch-to-strike contact. The "smart" latch changes shape when subjected to external forces. This design enables the exit door to withstand an external attack and remain secure. Additionally, the patented latch bolt design provides a greater, longer-lasting latch bolt to strike contact which is not easily affected by the twisting motion of a weakened frame, resulting in an opening that will remain strong.



With a door loaded to 250 pounds, XP98/99 requires less than 40 pounds of pressure to open, 25% less than the safety code requires.

XP98/99 is available for panic or fire exit hardware applications. Dimensions, finishes and trim options are equal to the standard 98/99 series rim exit device.

Note: The 909 strike is to be used for all applications. The exception occurs with the use of fire rated double door applications, in this instance the 954 strike is required.

WS Surface vertical rod one-point and three-point exit devices

WS Multi-point exit devices for tornado application devices WS98/9927 (one-point) and WS98/9957 (three-point) surface vertical rod exit devices are designed, tested and certified to comply with the Federal Emergency Management Agency's publication FEMA 361- Design and Construction Guidance for Community Safe Rooms.

UL Listing – panic hardware UL 305; and fire exit hardware UL 10C: WS98/9927:

3 hour pairs of doors double egress, 90 minutes swinging same direction, 8'0" x 8'0" BHMA Grade 1, ANSI A156.3-2001

WS98/9957:

3 hours single doors, 4'0" x 8'0" BHMA Grade 1, ANSI A156.3-2001

Windstorm ratings:

WS98/9927:

Miami-Dade County/FBC compliance to TAS 201, TAS 202, TAS 203; design load rating +150/-150 PSF (245 MPH wind zone); Enhanced Hurricane Protection (EHPA) ASTM E1996, ANSI/ICC 500 (245 MPH wind zone).

UL-FEMA 361 certified 8'0" x 8'0" pairs, swinging same direction and 4'0" x 8'0" single non-fire rated flush hollow metal. UL-ANSI/ICC 500 certified for F5 tornado applications.

WS98/9957:

UL-FEMA 361 certified 4'0" x 8'0" single flush hollow metal (fire-rated and panic). UL-ANSI/ICC 500 certified for F5 tornado applications.

These devices are listed with Steelcraft Paladin™ PW-Series doors for tornados, and Steelcraft H-Series doors hurricane applications.

To order, specify: WS prefix, example WS9927-F

LBR Less bottom rod, panic and fire rated

LBR option is available, using a spring loaded auxiliary latch bolt installed in the lower door edge. When exposed to heat the auxiliary latch bolt releases, keeping the doors in alignment and closed during a fire. UL listed 3 hours on hollow metal doors double egress, 90 minute swinging same direction, and 20 minutes wood doors (consult wood door manufacturer). Fits door stiles as narrow as 3 5/8".

LBR devices must be ordered in pairs or must be used in conjunction with an approved automatic or constant latching flush bolt.

PL Pullman latch

When PL is specified the standard latches are replaced with pullman style latches. Pullman latches are always extended and are most commonly used in conjunction with electric strikes and LBR-less bottom rod application. Not available with Fire rated devices.

Not recommended where security is of the utmost importance since latches do not deadlock.

98/99 Device options & accessories

Mullions

Removable steel mullions provide single door performance in double door openings with rim devices. Mullions are easily removed by loosening bottom set screw and removing top fitting cover. The top mullion fitting is attached to the frame and is concealed by the fitting cover.

Steel mullions are 2" (51mm) wide and 3" (76mm) deep, with a wall thickness of $\frac{1}{8}$ " (3mm).

Mullions are shipped with mounting screws and prepared for strikes. Strikes are not included except where indicated.

Steel mullions are available in SP28 and SP313 finishes. Consult factory for other powder coat finish options.

KR – Keyed removable steel mullions make removal faster and easier by a single operation of the mortise cylinder. Once mullion is removed, large equipment or furniture can freely pass through the opening. The unit will self lock when re-installed, without the use of the cylinder key. Uses a $1\frac{1}{4}$ " mortise cylinder with a straight cam (Schlage cam reference B502-191). Cylinders are sold separately. Prefix mullion model with "KR".

Removable aluminum mullions are $1\frac{1}{8}$ " (27mm) wide on face closest to the door and $2\frac{3}{8}$ " (60mm) at the widest point. The depth is $3\frac{1}{8}$ " (79mm) with a wall thickness of $\frac{1}{8}$ " (3mm).

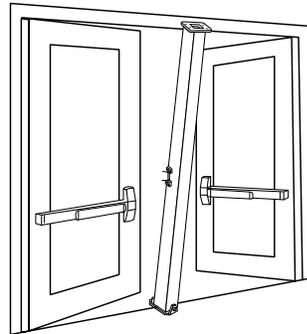
Aluminum mullions are available in US4, US10, US28, 313 and 315 finishes. Consult factory for other powder coat finish options. Aluminum mullion are not available keyed removable.

Stock hollow metal applications for devices mounted to cover ANSI 161 cutouts are higher than the standard mullion strike location. Consult the factory for special strike preparation or order a blank mullion. See below.

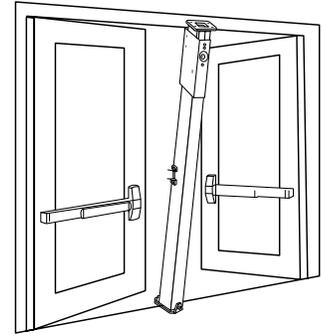
Blank mullions are furnished without strike preparation. They are used to mount devices at a strike height different from the standard mullion preparation.

To order, specify:

1. For keyed Removable option on steel mullions, prefix model number with "KR"
2. Model number
3. Height of opening
4. Finish
5. Handing if required
6. Centerline deviation (refer to device template for standard centerline)
7. Strikes, when required, should be ordered with device



Removable mullions



Keyed removable steel mullions

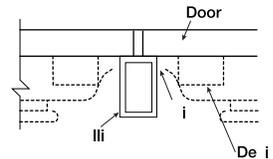
Steel mullions

1654 Prepared for two 1606 strikes. If 1606 strikes are not specified on the order, two per mullion will be added. Additional charges apply.

4954 Prepared for 264 or 299 strikes. For use with all Von Duprin Panic rim devices.



9954 Prepared for and must be used with two 268 strikes (88-F device), or two 499F (22-F, 98-F, 99F devices). UL fire labeled mullion for up to 3 hour opening using Von Duprin fire exit rim devices. This mullion is not easily removed due to special fittings.



98-F and 99-F devices are rated up to 10'0" (3048 mm).

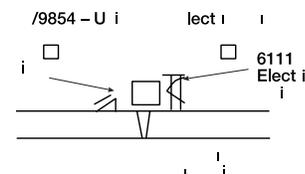
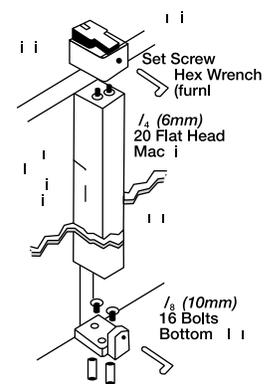
Note: If 268 or 499F strikes are not specified on the order, two per mullion will be added. Additional charges apply.

4754 Prepared for two 4263 monitor strikes.

4854 Prepared for one 299 and one 6111 electric strike. Indicate handing for electric strike.



9854 Prepared for one 268 or 499F strike and one 6111 electric strike. Indicate handing for electric strike. UL fire labelled mullion for up to 3 hour openings up to 8' x 8' (2438mm x 2438mm) using Von Duprin fire exit rim devices



Cabinet lock functions

Conventional cylinder



Cabinet door lock - CL100PB

Rekeyable: Easily rekeyed via patented set-screw cylinder removal mechanism
 Certifications: ANSI A156.11, Grade 2
 Body: Die cast zinc
 Bolt: Brass, 1⁵/₁₆" projection
 Door thickness: 7/8" to 1³/₈"
 Barrel diameter: 1¹/₈"
 Cylinder: Everest 29 S123 keyway standard, Available in Primus XP, Everest 29, Everest and Classic keyways
 Keying: KD, KA or MK
 Finishes: 605, 626

Not available without cylinder



Drawer lock - CL200PB

Rekeyable: Easily rekeyed via patented set-screw cylinder removal mechanism
 Certifications: ANSI A156.11, Grade 2
 Body: Die cast zinc
 Bolt: Steel, 3/4" throw
 Door thickness: 7/8" to 1³/₈"
 Barrel diameter: 1¹/₈"
 Cylinder: Everest 29 S123 keyway standard, Available in Primus XP, Everest 29, Everest and Classic keyways
 Stock keying: KD, KA or MK
 Finishes: 605, 626

Not available without cylinder

Finishes

Bright brass 605



Satin chrome 626



Full size interchangeable core (FSIC)



Cabinet door lock - CL777R

Rekeyable: Easily rekeyed via patented set-screw cylinder mechanism
 Certifications: ANSI A156.11, Grade 1
 Body: Die cast zinc
 Bolt: Brass, 1⁵/₁₆" projection
 Barrel length: 17/16"
 Barrel diameter: 1¹/₈"
 Cylinder: Everest 29 S123 keyway standard, Available in Primus XP, Everest 29, Everest and Classic keyways
 Keying: KA, KD, MK or construction core
 Finishes: 605, 626

Not available without cylinder



Drawer lock - CL888R

Rekeyable: Easily rekeyed via patented set-screw cylinder mechanism
 Certifications: ANSI 156.11, Grade 2
 Body: Die cast zinc
 Bolt: Brass, 7/8" projection
 Door thickness: 7/8" to 1³/₈"
 Barrel diameter: 1¹/₈"
 Cylinder: Everest 29 S123 keyway standard, Available in Primus XP, Everest 29, Everest and Classic keyways
 Keying: KA, KD, MK or construction core
 Finishes: 605, 626

Not available without cylinder



Cam lock - CL920R

Body: Die cast zinc
 Body diameter: 1¹/₈"
 Mounting cutout: 1⁵/₃₂"
 Max material thickness: 1¹/₈"
 Min material thickness: 0.08"
 Across flats: 7/8"
 Cylinder: Everest 29 S123 keyway standard, Available in Primus XP, Everest 29, Everest and Classic keyways
 Keying: KA, KD, MK or construction core
 Finishes: 605, 626

Not available without cylinder



Ratchet lock - CL929R

Body: Die cast zinc
 Body diameter: 1¹/₈"
 Max door material thickness: 1/4"
 Cylinder: Everest 29 S123 keyway standard, Available in Primus XP, Everest 29, Everest and Classic keyways
 Keying: KA, KD, MK or construction core
 Finishes: 626

Not available without cylinder

Brass padlocks

- Meet or exceed ASTM standards for standard steel shackle, shackle cutting and corrosion resistance
- Solid brass body resists corrosion for all-weather performance
- Molybdenum hardened steel shackle offers greater cut resistance
- Double deadbolt locking mechanism provides extra security
- Patented interchangeable shackle design allows for easy disassembly
- Standard cylinder features include:
 - Schlage conventional key-in-knob (KNK) cylinder
 - 6-pin solid brass cylinder (pinned 5) offers increased pick resistance
 - Two nickel silver cut Schlage keys



43 Series

23 Series

| Part # | Body size | | | Shackle dimension | | | Shackle dimension (metric) | | | Cylinder type | Case pack | Master pack |
|---|-----------------------------------|----------------------------------|-------|-------------------|--------|------|----------------------------|-------|-------|---------------|-----------|-------------|
| | Width | Height | Depth | A | B | C | A | B | C | | | |
| Keyed different | | | | | | | | | | | | |
| KS23D2300 | 1 ²⁵ / ₃₂ " | 2 ³ / ₁₆ " | 7/8" | 5/16" | 1 1/2" | 3/4" | 8 mm | 38 mm | 19 mm | KNK | 6 | 24 |
| KS23F2300 | 1 ²⁵ / ₃₂ " | 2 ³ / ₁₆ " | 7/8" | 5/16" | 2" | 3/4" | 8 mm | 51 mm | 19 mm | KNK | 6 | 24 |
| KS43D2300 | 1 ¹⁵ / ₁₆ " | 2 ³ / ₁₆ " | 7/8" | 3/8" | 1 1/2" | 3/4" | 9.5 mm | 38 mm | 19 mm | KNK | 6 | 24 |
| KS43F2300 | 1 ¹⁵ / ₁₆ " | 2 ³ / ₁₆ " | 7/8" | 3/8" | 2" | 3/4" | 9.5 mm | 51 mm | 19 mm | KNK | 6 | 24 |
| Less cylinder - KNK | | | | | | | | | | | | |
| KS23D2200 | 1 ²⁵ / ₃₂ " | 2 ³ / ₁₆ " | 7/8" | 1/4" | 2" | 3/4" | 6.4 mm | 51 mm | 19 mm | KNK | 6 | 24 |
| KS23F2200 | 1 ²⁵ / ₃₂ " | 2 ³ / ₁₆ " | 7/8" | 5/16" | 3/4" | 3/4" | 8 mm | 19 mm | 19 mm | KNK | 6 | 24 |
| KS43D2200 | 1 ²⁵ / ₃₂ " | 2 ³ / ₁₆ " | 7/8" | 1/4" | 2" | 3/4" | 6.4 mm | 51 mm | 19 mm | KNK | 6 | 24 |
| KS43F2200 | 1 ²⁵ / ₃₂ " | 2 ³ / ₁₆ " | 7/8" | 5/16" | 3/4" | 3/4" | 8 mm | 19 mm | 19 mm | KNK | 6 | 24 |
| Less cylinder - FSIC¹ | | | | | | | | | | | | |
| KS43D3200 | 1 ¹⁵ / ₁₆ " | 2 ³ / ₁₆ " | 7/8" | 3/8" | 1 1/2" | 3/4" | 9.5 mm | 38 mm | 19 mm | KNK | 6 | 24 |
| KS43F3200 | 1 ¹⁵ / ₁₆ " | 2 ³ / ₁₆ " | 7/8" | 3/8" | 2" | 3/4" | 9.5 mm | 51 mm | 19 mm | KNK | 6 | 24 |

Note: 1) Less cylinder padlocks ship without a cylinder. Driver and all other internal padlock parts are included.



Meets ANSI/BHMA A156.3, Type 21A.
UL Listed for installation on labeled frame.

COR Series Bar Coordinators

- The COR Series Coordinators are designed for use on pairs of doors when one door needs to close before the other.
- All COR units function easily. The active door lever, located nearest to the active stop, holds the active door open until the trigger mechanism is released by the closing of the inactive leaf.
- All COR units may not function correctly with swingclear hinges.
- All COR units are equipped with an adjustable override feature which allows the active door to close under extreme pressure.
- All COR units are compatible with Flush Bolts.
- The COR Series is available in five sizes for variable door opening widths.
- The COR Series does not cover the entire length of the stop, so a FL filler bar can be provided to maintain architecturally clean lines.
- COR Series Coordinator Channels and FL fillers are made of aluminum.
- Optional Filler Bars: FL20 - 20", FL32 - 32" and FL44 - 44", available to maintain clean line.
- Optional Mounting Brackets available: MB1, MB2, MB1F, MB2F, MB3F, MB1V, MB2V, and MB3V for other stop applied hardware.

For Openings Where Doors Are Same Size

| Coordinator Number | Length of Channel | For Opening Widths | Common Applications |
|--------------------|-------------------|--------------------|---------------------|
| COR32 | 32" | 34" - 52" | Pair of 2'0" Doors |
| COR42 | 42" | 52" - 72" | Pair of 2'6" Doors |
| COR52 | 52" | 62" - 92" | Pair of 3'0" Doors |
| COR60 | 60" | 70" - 108" | Pair of 3'6" Doors |
| COR72 | 72" | 84" - 132" | Pair of 4'0" Doors |

For Openings Where Doors Are Unequal Size

The coordinator length should equal the active door width plus approximately 1/2 the inactive door width. The coordinator must be 6" longer than the active door width and shorter than the overall frame opening between stops.

Finishes

| Ives Finish | US28 | US26D | 315AN |
|-------------|------|-------|-------|
| BHMA | 628 | 713 | 711 |



FL Series Filler Bars

- The FL Filler Bars are available in three sizes for variable frame openings.
- FL Filler Bars are made of aluminum
- FL Filler Bars are field sized to frame opening.

Filler Bar Number

| Filler Bar Number | Length | Dimensions |
|-------------------|--------|---------------------------|
| FL20 | 20" | 1-5/8" W x 5/8" D x 20" L |
| FL32 | 32" | 1-5/8" W x 5/8" D x 32" L |
| FL44 | 44" | 1-5/8" W x 5/8" D x 44" L |

Finishes

| Ives Finish | US28 | US26D | 315AN |
|-------------|------|-------|-------|
| BHMA | 628 | 713 | 711 |

MB1 and MB2



Mounting Brackets

- Allows stop mounted hardware to be properly installed without damaging the COR coordinator, such as a parallel arm closer or a non-fire-rated surface vertical rod strike.
- Stop mounted hardware will need to be lowered to compensate for the height of the coordinator and mounting bracket.
- MB mounting brackets are made of aluminum

| Product | Jamb Depth | Stop Width | Dimensions |
|---------|-------------|--------------|----------------------------|
| MB1 | 4-3/4" Min. | Over 2-1/2" | 4" W x 3" D x 15/16" T |
| MB2 | 4-3/4" Min. | Up to 2-1/2" | 4" W x 3-1/4" D x 1-5/8" T |

Finishes

| Ives Finish | USP | SP28 | SPBLK |
|-------------|-----|------|-------|
| BHMA | 600 | 689 | 622 |

MB1F, MB2F and MB3F MB1V, MB2V and MB3V



MB1V

MB2V



MB3V

Fire Rated Mounting Brackets

- Allows for fire-rated stop mounted hardware to be properly installed without damaging the COR Coordinators, such as fire-rated surface vertical rod exit device strikes.
- Latch will need to be lowered to compensate for the height of the coordinator and mounting bracket.
- MB-V are designed for Von Duprin 8827-F soffit latch.
- Mounting brackets are made of steel.

| Product | Jamb Depth | Stop Width | Dimensions |
|---------|------------|-----------------|------------------------|
| MB1F | 5" | 1-1/2" - 2-1/4" | 4" W x 3" D x 1-5/8" T |
| MB1V | 5" | 1-1/2" - 2-1/4" | 4" W x 3" D x 1-5/8" T |
| MB2F | 5-7/8" | 2-3/8" - 3-1/4" | 4" W x 4" D x 1-5/8" T |
| MB2V | 5-7/8" | 2-3/8" - 3-1/4" | 4" W x 4" D x 1-5/8" T |
| MB3F | 6-7/8" | Over 3-3/8" | 4" W x 3-1/2" D x 1" T |
| MB3V | 6-7/8" | Over 3-3/8" | 4" W x 3-1/2" D x 1" T |

Finishes

| Ives Finish | USP | SP28 | SPBLK |
|-------------|-----|------|-------|
| BHMA | 600 | 689 | 622 |

A Hinges & Pivots

B Pulls & Plates

C2 Flush Bolts & Coordinators

D Latches, Catches & Bolts

E Stops

F Exterior Hardware

G Miscellaneous Hardware



Meets ANSI A156.3 Type 25.
UL Listed 3 Hour Fire Doors 8'0" x 10'0"



Meets ANSI A156.3 Type 25.
UL Listed 3 Hour Fire Doors 8'0" x 8'0"

FB31P Top and Bottom Bolts (Pair)

- Fully Automatic—inactive door is latched, bolts are extended when active door closes, door is unlatched, bolts retract when active door is opened.
- Low Actuation Forces—Top Bolt Has No Spring Tension.
- Fits standard ANSI A115.4 Door Frame Preparations.
- Non-handed.
- Bolt throw is 3/4" with a 7/8" vertical adjustment.
- Bolt backset is 3/4"
- Standard Rod Length is 12", which is measured from the center of the flush bolt body to the bolt tip. Optional rod lengths available for top bolt only on non-fire rated openings—18", 24", 36" and 48."

DP1 or DP2 optional dust proof strike available, see page C11.

FB31T Top Bolt Only FB31B Bottom Bolt Only

FB32 Top Bolt with Auxiliary Fire Latch

- FB32 Model with Auxiliary Fire Latch eliminates the bottom bolt and is UL Listed for Fire Doors.

FB33 Top Bolt with Auxiliary Fire Latch and Retrofit Plate

- FB33 Model with Auxiliary Fire Latch eliminates the bottom bolt and includes a retrofit plate to cover existing bottom bolt prep. UL Listed for Fire Doors.

Dimensions

Body Size: 1" Wide x 6-3/4" Long x 2" Deep

Guide Size: 1" Wide x 1-27/32" Long x 27/32" High x 3/32" Thick

Strike Size: 15/16" Wide x 2-1/4" Long x 1/16" Thick

Rub Plate Size: 1-1/4" Wide x 1-11/16" Long x 3/64" Thick

Auxiliary Fire Latch Size: 1" Wide x 1-3/4" Long x 3-1/4" Deep

Retrofit Plate Size: 1" Wide x 6-3/4" Long x 3/32" Thick

Finishes

| Ives Number | US3 | US4 | US10 | US10B | US32 | US32D |
|-------------|-----|-----|------|-------|------|-------|
| BHMA | 605 | 606 | 612 | 613 | 629 | 630 |



Top Bolt

Bottom Bolt

Meets ANSI A156.3 Type 25.

UL Listed 90 Minute Fire Doors 8'0" x 8'0"

FB41P Top and Bottom Bolts (Pair)

- Fully Automatic—inactive door is latched, bolts are extended when active door closes, door is unlatched bolts retract when active door is opened.
- Low Actuation Forces—Top Bolt Has No Spring Tension.
- Non-handed.
- Bolt throw is 3/4" with a 7/8" vertical adjustment.
- Bolt backset is 3/4"

DP1 or DP2 optional dust proof strike available, see page C11.

FB41T Top Bolt Only
FB41B Bottom Bolt Only

FB42 Top Bolt with Auxiliary Fire Latch

- FB42 Model with Auxiliary Fire Latch eliminates the bottom bolt and is UL Listed for Fire Doors.



Top Bolt

Auxiliary Fire Latch

Meets ANSI A156.3 Type 25.

UL Listed 20 Minute Fire Doors 8'0" x 8'0"

Dimensions

Body Size: 1" Wide x 8-1/2" Long x 2" Deep

Guide Size: 1" Wide x 6" Long x 1/8" Thick

Strike Size: 15/16" Wide x 2-1/4" Long x 1/16" Thick

Rub Plate Size: 1-1/4" Wide x 1-11/16" Long x 3/64" Thick

Auxiliary Fire Latch Size: 1" Wide x 1-3/4" Long x 3-1/4" Deep

Finishes

| Ives Number | US3 | US4 | US10 | US10B | US32 | US32D |
|-------------|-----|-----|------|-------|------|-------|
| BHMA | 605 | 606 | 612 | 613 | 629 | 630 |

A
Hinges & Pivots

B
Pulls & Plates

C3
Flush Bolts & Coordinators

D
Latches, Catches & Bolts

E
Stops

F
Exterior Hardware

G
Miscellaneous Hardware



Meets ANSI A156.3 Type 27.
UL Listed 3 Hour Fire Doors 8'0" x 10'0"

FB51P Top and Bottom Bolts (Pair)

- Constant Latching—inactive door remains latched until the active door is opened, releasing the automatic bottom bolt and then the top bolt can be manually released. Inactive door will relatch automatically when closed.
- Low Actuation Forces.
- Fits standard ANSI A115.4 Door and Frame Preparations.
- Non-handed.
- 3/4" bolt throw with a 7/8" vertical adjustment.
- 3/4" backset
- Standard Rod Length is 12", which is measured from the center of the flush bolt body to the bolt tip. Optional rod lengths available for top bolt only on non-fire rated openings—18", 24", 36" and 48".

DP1 or DP2 optional dust proof strike available, see page C11.

FB51T Top Bolt Only

FB52 Top Bolt with Auxiliary Fire Latch

- FB52 Model with Auxiliary Fire Latch eliminates the bottom bolt and is UL Listed for Fire Doors.

FB53 Top Bolt with Auxiliary Fire Latch & Retrofit Plate

- FB53 Model with Auxiliary Fire Latch eliminates the bottom bolt and includes a retrofit plate to cover existing bottom bolt prep. UL Listed for Fire Doors.



Meets ANSI A156.3 Type 27.
UL Listed 3 Hour Fire Doors 8'0" x 10'0"

Dimensions

Body Size: 1" Wide x 6-3/4" Long x 2" Deep

Guide Size: 1" Wide x 1-27/32" Long x 11/16" High x 3/32" Thick

Strike Size: 15/16" Wide x 2-1/4" Long x 1/16" Thick

Rub Plate Size: 1-1/4" Wide x 1-11/16" Long x 3/64" Thick

Auxiliary Fire Latch Size: 1" Wide x 1-3/4" Long x 3-1/4" Deep

Retrofit Plate Size: 1" Wide x 6-3/4" Long x 3/32" Thick

Finishes

| Ives Number | US3 | US4 | US10 | US10B | US32 | US32D |
|-------------|-----|-----|------|-------|------|-------|
| BHMA | 605 | 606 | 612 | 613 | 629 | 630 |



Meets ANSI A156.3 Type 27.
UL Listed 90 Minute Fire Doors 8'0" x 8'0"

FB61P Top and Bottom Bolts (Pair)

- Constant Latching—inactive door remains latched until the active door is opened, releasing the automatic bottom bolt and then the top bolt can be manually released. Inactive door will relatch automatically when door closes.
- Low Actuation Forces.
- Non-handed.
- Bolt throw is 3/4" with a 7/8" vertical adjustment.
- Bolt backset is 3/4"

DP1 or DP2 optional dust proof strike available, see page C11.

FB61T Top Bolt Only

FB62 Top Bolt with Auxiliary Fire Latch

- FB62 Model with Auxiliary Fire Latch eliminates the bottom bolt and is UL Listed for Fire Doors..



Meets ANSI A156.3 Type 27.
UL Listed 20 Minute Fire Doors 8'0" x 8'0"

Dimensions

Body Size: 1" Wide x 8-1/2" Long x 2" Deep

Guide Size: 1" Wide x 6" Long x 1/8" Thick

Strike Size: 15/16" Wide x 2-1/4" Long x 1/16" Thick

Rub Plate Size: 1-1/4" Wide x 1-11/16" Long x 3/64" Thick

Auxiliary Fire Latch Size: 1" Wide x 1-3/4" Long x 3-1/4" Deep

Finishes

| Ives Number | US3 | US4 | US10 | US10B | US32 | US32D |
|-------------|-----|-----|------|-------|------|-------|
| BHMA | 605 | 606 | 612 | 613 | 629 | 630 |

A Hinges & Pivots

B Pulls & Plates

C5 Flush Bolts & Coordinators

D Latches, Catches & Bolts

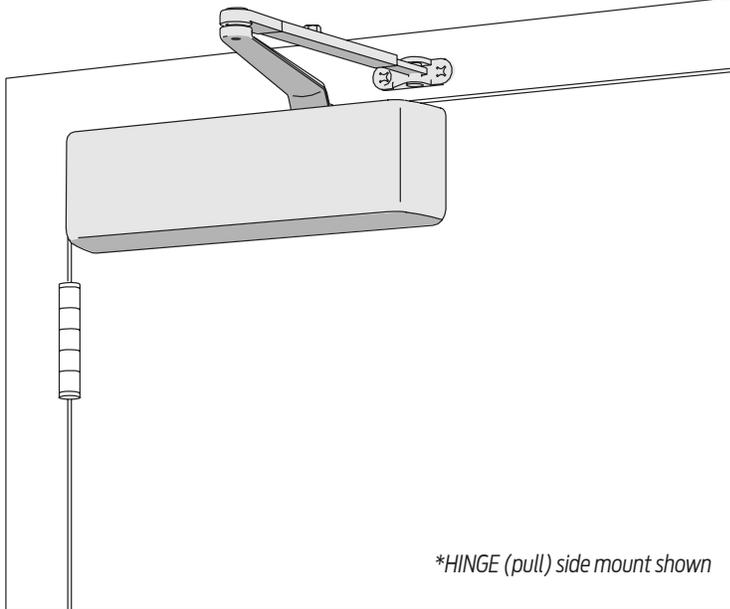
E Stops

F Exterior Hardware

G Miscellaneous Hardware

4040XP SERIES

CLOSER MOUNTS
***HINGE (PULL) SIDE**
TOP JAMB (PUSH SIDE)
PARALLEL ARM (PUSH SIDE)



*HINGE (pull) side mount shown

The 4040XP is LCN's most durable and flexible heavy duty closer designed for institutional and other demanding high traffic applications.

- Cast Iron
- Forged Steel Arm
- Double Heat Treated Steel Pinion
- All Weather Fluid
- Non-Handed
- LCN Patented Green Dial
- Peel-n-Stick Templates for Fast and Accurate Installation
- UL & cUL Listed
- 3/4" Journal Diameter Pinion
- Full Compliment Bearing

- Standard 4040XP Series closer shipped with regular arm, standard plastic cover, and self reaming and tapping screws.
- Non-sized cylinder is adjustable for interior doors to 5'0" and exterior doors to 4'0".
- Closer mounts hinge side, top jamb, and parallel arm on either right or left swinging doors.
- Closers to meet ADA requirements.
- Standard or optional custom powder coat finish.
- Optional plated finish on cover, arm, and fasteners.
- Optional SRI primer for installations in corrosive conditions. (Available with powder coat finishes only.)
- UL and cUL listed for self-closing doors without hold-open.
- Tested and certified under ANSI Standard A156.4, grade one.



| MOUNTING | | | | FINISH | | COVER | | CYLINDER | | | | **ARM FUNCTION | | | | | | | | |
|-------------------|-----------------|-----------------|-----------|-------------|--------|---------|-------|------------|-----------|---------------|-------------------|----------------|------------------|-------------------|-----------|--------------|----------|------------|--------------|---------------|
| HINGE (PULL) SIDE | TOP JAMB (PULL) | TOP JAMB (PUSH) | STOP FACE | POWDER COAT | PLATED | PLASTIC | METAL | NON-HANDED | NON-SIZED | ACCESSIBILITY | DELAYED ACTION*** | AVB*** | REGULAR (DOUBLE) | STANDARD (SINGLE) | HOLD-OPEN | FUSIBLE LINK | EDA/MEDA | CUSH/HCUSH | SCUSH/SHCUSH | DOUBLE EGRESS |
| ● | ○ | ● | ○ | ● | ● | ● | ● | ● | ○ | ○ | ○ | ○ | 120° | ○ | 120° | ○ | 180° | 110° | 110° | ○ |

● AVAILABLE
 ○ NOT AVAILABLE

♿ Closer available with less than 5.0 lbs. opening force on 36" door.
 ** Maximum opening/hold-open point with standard template.
 *** Advanced Variable Backcheck.
 **** Delayed Action Closer incorporates standard 4041 Delay Cylinder.

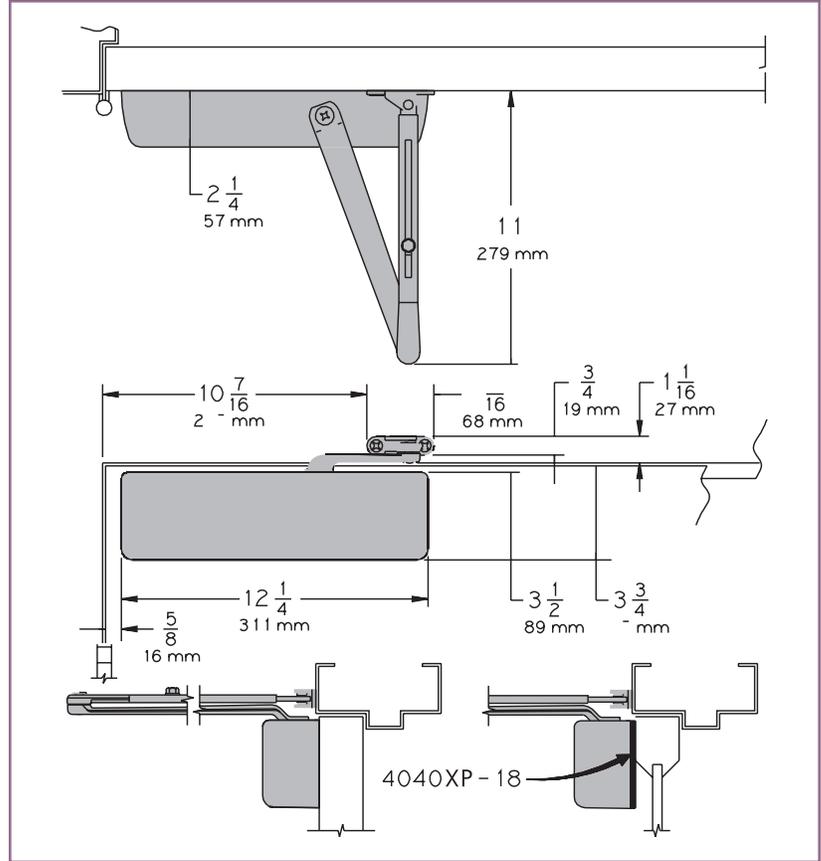
4040XP SERIES

HINGE (PULL) SIDE MOUNTING

MAXIMUM OPENING

Templating allows up to 120°.

Hold-open points 90° up to 120° with hold-open arm.



- **Butt Hinges** should not exceed 5" (127 mm) in width.
- **Auxiliary Stop** is recommended at hold-open point or where a door cannot swing beyond 120°.
- **Reveal** should not exceed 3/4" (19 mm) for regular arm or hold-open arm.
- **Top Rail** less than 3-3/4" (95 mm) requires PLATE, 4040XP-18. Plate requires 2" (51 mm) minimum.
- **Clearance** of 2-3/8" (60 mm) behind door required for 90° installation.
- ***Delayed Action** incorporates standard 4041 cylinder, without XP cylinder. Delays closing from 120° to 70°. Delay time adjustable up to approximately 1 minute.

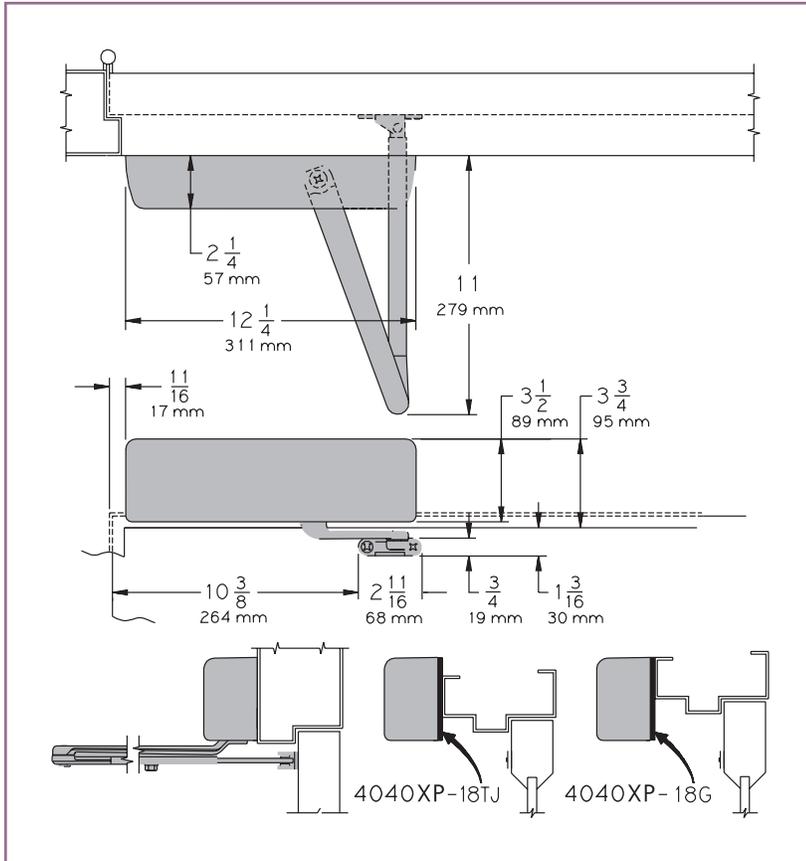
Options

- 4041 Delayed action cylinder*.
- Hold-open arm.
- Metal cover.

Special Templates

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

4040XP SERIES



TOP JAMB (PUSH SIDE) MOUNTING

MAXIMUM OPENING

Templating allows up to 120°.

Hold-open points 85° up to 120° with hold-open arm.

- **Butt Hinges** should not exceed 5" (127 mm) in width.
- **Auxiliary Stop** is recommended at hold-open point or where a door cannot swing beyond 120°.
- **Reveal** of 2-9/16" (65 mm) allows 120° opening for REGULAR ARM or standard Hold-open ARM. 4-13/16" (122 mm) allows up to 120° opening with LONG ARM where standard rod and shoe is replaced with optional LONG ROD AND SHOE 4040XP-79LR. Use H-LONG ARM with LONG HEAD AND TUBE, 4040XP-78HL for hold-open. 8" (203 mm) allows up to 120° opening with EXTRA LONG ARM where standard rod and shoe is replaced with optional EXTRA LONG ROD AND SHOE, 4040XP-79ELR.
- **Top Rail** requires 1-1/4" (32 mm) minimum.
2-1/4" (57 mm) minimum with closer on PLATE, 4040XP-18TJ.
3" (76 mm) minimum with closer on PLATE, 4040XP-18G.
- **Head Frame** less than 3-1/2" (89 mm) requires PLATE, 4040XP-18TJ. With flush ceiling, use PLATE, 4040XP-18G. Either plate requires 1-3/4" (44 mm) minimum.
- ***Delayed Action** Incorporates standard 4041 cylinder, without XP cylinder. Delays closing from 120° to 70°. Delay time adjustable up to approximately 1 minute.

Options

- 4041 Delayed action cylinder*
- Hold-open arm.
- Metal cover.

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

4040XP SERIES

MOUNTING DETAILS

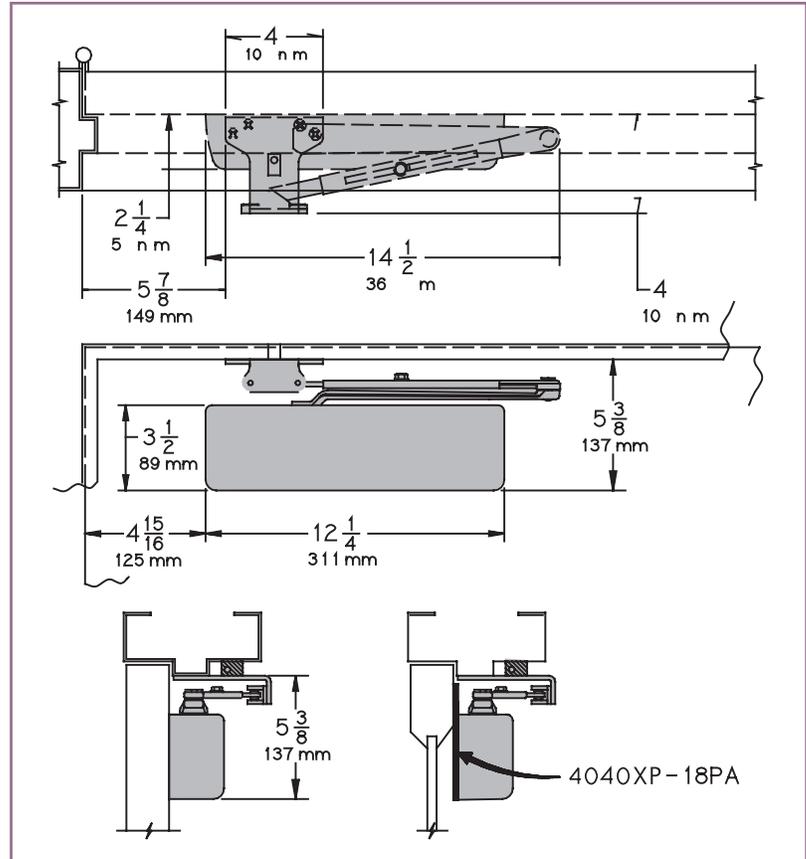
PARALLEL ARM (PUSH SIDE) MOUNTING

Optional mounting requires PA SHOE, 4040XP-62PA for regular or HOLD-OPEN arms. Add prefix "P" to closer description (eg. P4040XP). P4040XP closer includes 4040XP-201 FIFTH HOLE SPACER to support PA SHOE.

MAXIMUM OPENING

180° opening/hold-open points with all except CUSH arms.

110° opening/hold-open with CUSH arms.



Options

- 4041 Delayed action cylinder*
- Hold-open, EDA, HEDA, CUSH, HCUSH, SPRING CUSH or SPRING HCUSH arm.
- Metal cover.

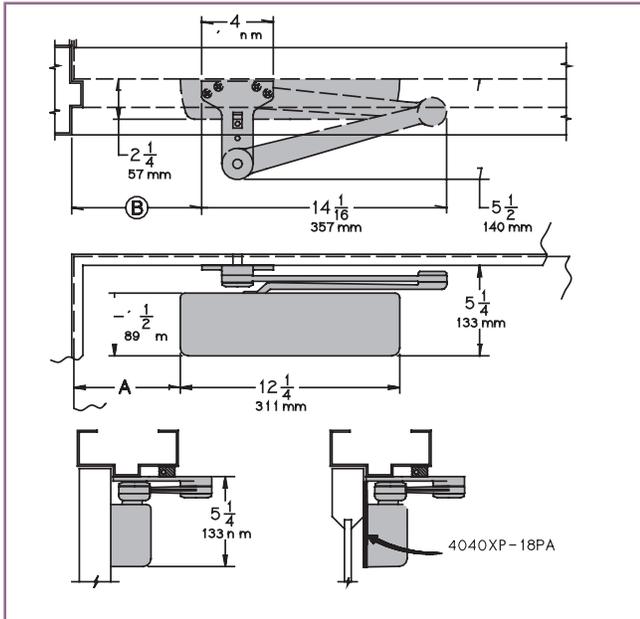
Special Templates

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

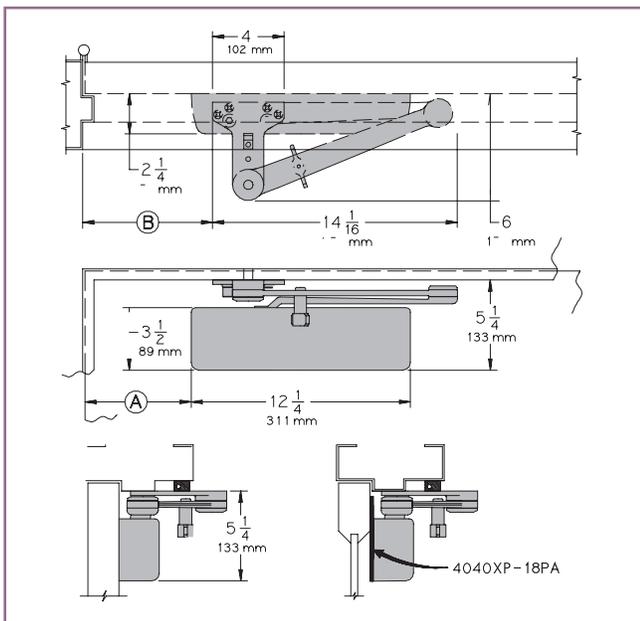
- **Butt Hinges** should not exceed 5" (127 mm) in width.
- **Auxiliary Stop** is recommended at hold-open point, where the door cannot swing 180°, or where CUSH-N-STOP arm is not used.
- **Clearance** for 4040XP-62PA shoe is 4" (102 mm) from door face. EDA shoe projects 5-1/2" (140 mm) from door face. CUSH shoe projects 6" (152 mm) from door face.
- **Top Rail** less than 5-3/8" (137 mm) measured from the stop requires PLATE, 4040XP-18PA. Plate requires 2" (51 mm) minimum from the stop.
- **Head Frame** flush or rabbeted requires PA SHOE ADAPTER, 4040XP-419.
- **Stop Width** minimum 1" (25 mm). CUSH arm requires minimum 1-1/2" (38 mm).
- **Blade Stop** clearance requires 1/2" (13mm) BLADE STOP SPACER, 4040XP-61.
- ***Delayed Action** Incorporates standard 4041 cylinder, without XP cylinder. Delays closing from 120° to 70°. Delay time adjustable up to approximately 1 minute.

4040XP SERIES

4040XP SERIES EDA MOUNT



4040XP SERIES CUSH MOUNT



Mounting details are the same as 4040XP Series REGULAR or HOLD-OPEN except as listed below. 4040XP Series closers ordered with EDA or CUSH arms include 4040XP-201 FIFTH HOLE SPACER to support the shoe.

MAXIMUM OPENING

EDA arm can be templated for points at: 110°;

(A) = 6-3/8" (162 mm)

(B) = 7-3/4" (197 mm)

or 180°.

(A) = 2-7/8" (73 mm)

(B) = 4-1/4" (108 mm)

Hold-open points up to maximum opening with HEDA arm.

CUSH arms can be templated for opening/hold-open point at: 85°;

(A) = 7-15/16" (202 mm)

(B) = 9-1/8" (232 mm)

90°;

(A) = 7-3/16" (183 mm)

(B) = 8-1/2" (216 mm)

100°;

(A) = 6-1/16" (154 mm)

(B) = 7-1/4" (184 mm)

or 110°.

(A) = 5-1/16" (129 mm)

(B) = 6-3/8" (162 mm)

Spring Cush dead stop points are approximately 5° more than templated stop point. Hold open at templated stop points.

- **Clearance** for 4040XP-62EDA is 5-1/2" (140 mm) from door face. 6" (152 mm) for CUSH.
- **Head Frame** flush or rabbeted requires CUSH FLUSH PANEL ADAPTER, 4040XP-419.
- **CUSH ARM** requires SHOE SUPPORT, 4040XP-30 for fifth screw anchorage for narrow frames.
- ***Delayed Action** Incorporates standard 4041 cylinder, without XP cylinder. Delays closing from maximum opening to ; 115° with 180° template, 95° with 110° template, 85° with 100° template, 75° with 90° template. Delay time adjustable up to approximately 1 minute.

4040XP SERIES

CYLINDERS

CYLINDER, 4040XP-3071

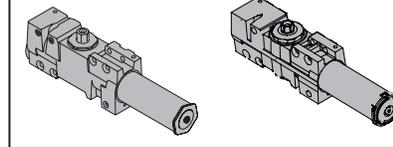
Heavy duty, non-handed cast iron cylinder assembly.

CYLINDER, 4041-3071 DEL

Cylinder used for delayed action options.

4041-3071 DEL

4040XP-3071



COVERS

COVER, 4040XP-72

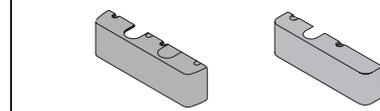
Standard, non-handed plastic cover.

METAL COVER, 4040XP-72MC

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

72

72MC



ARMS

REGULAR ARM, 4040XP-3077

Non-handed arm mounts pull side or top jamb with shallow reveal. P4041 closer includes PA SHOE, 4040XP-62PA required for parallel arm mounting.

PA SHOE, 4040XP-62PA

Required for parallel arm mounting.

LONG ARM, 4040XP-3077L

Optional non-handed arm includes LONG ROD AND SHOE, 4040XP-79LR for top jamb mount.

EXTRA LONG ARM, 4040XP-3077ELR

Optional non-handed arm includes EXTRA LONG ROD AND SHOE, 4040XP-79ELR for top jamb mount with deep reveal.

HOLD-OPEN ARM, 4040XP-3049

Optional, non-handed arm mounts pull side or top jamb with shallow reveal, hold-open adjustable shoe. 4040XP closer includes 4040XP-62PA shoe required for parallel arm mounting.

LONG HOLD-OPEN ARM, 4040XP-3049L

Optional non-handed arm includes LONG HEAD AND TUBE, 4040XP-3048L for top jamb mount.

EXTRA DUTY ARM, 4040XP-3077EDA

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

HOLD-OPEN EXTRA DUTY ARM, 4040XP-3049EDA

Handed parallel arm features forged, solid steel main and forearm for potentially abusive installations. Hold-open function is adjusted at the shoe.

EXTRA DUTY ARM WITH 62G, 4040XP-3077EDA/62G

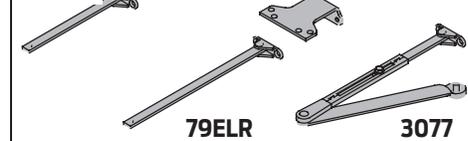
Non-handed parallel arm features forged, solid steel main and forearm for potentially abusive installations. 62G shoe provides additional blade stop clearance.

HOLD-OPEN EXTRA DUTY ARM WITH 62G, 4040XP-3049EDA/62G

Handed parallel arm features forged, solid steel main and forearm for potentially abusive installations. 62G shoe provides additional blade stop clearance. Hold-open function is adjusted at the shoe.

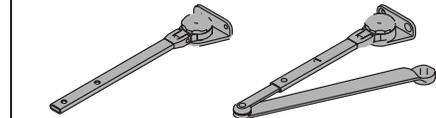
79LR

62PA



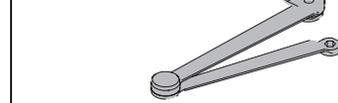
3048L

3049



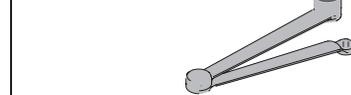
3049EDA

3077EDA



3049EDA/62G

3077EDA/62G

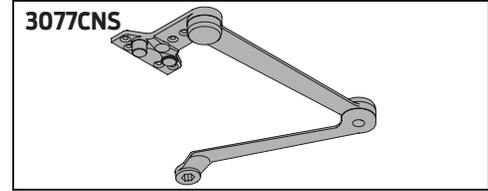


4040XP SERIES

ARMS CONT.

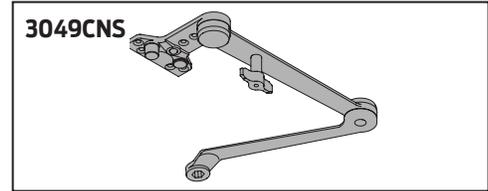
CUSH-N-STOP® ARM, 4040XP-3077CNS

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



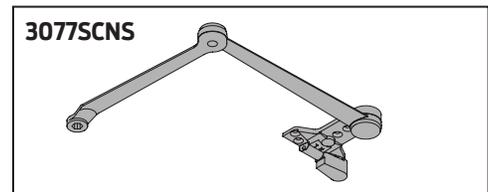
HCUSH ARM, 4040XP-3049CNS

Provides hold-open function with templated stop/hold-open points. Handle controls hold-open function.



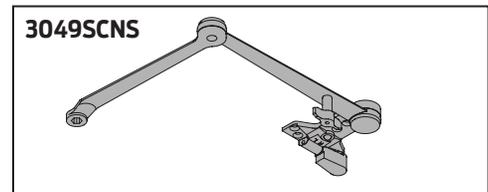
SPRING CUSH ARM, 4040XP-3077SCNS

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 HCUSH ARM, 4040XP-3049SCNS

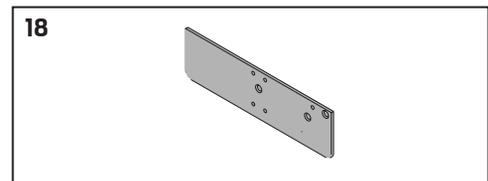
Optional, non-handed parallel arm for abusive applications features solid forged steel main arm and forearm with spring loaded stop in the soffit shoe. Handle controls hold-open function.



INSTALLATION ACCESSORIES

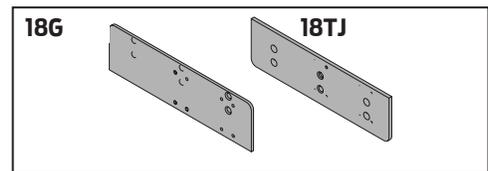
PLATE, 4040XP-18

Required for hinge side mount where top rail is less than 3-3/4" (95 mm). Plate requires minimum 2" (51 mm) minimum top rail.



PLATE, 4040XP-18G

Locates top jamb mounted closer flush with top of head frame face in flush ceiling condition. Plate requires 1-3/4" (44 mm) minimum head frame.

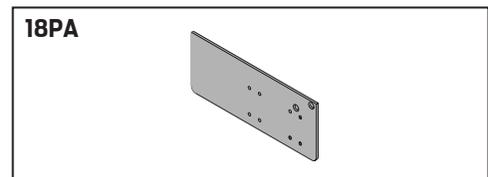


PLATE, 4040XP-18TJ

Centers top jamb mounted closer vertically on head frame where face is less than 3-1/2" (89 mm). Plate requires 1-3/4" (44 mm) minimum head frame.

PLATE, 4040XP-18PA

Required for parallel arm mounting where top rail is less than 5-1/2" (140 mm), measured from the stop. Plate requires 2" (51 mm) minimum top rail.



4040XP SERIES

INSTALLATION ACCESSORIES CONT.

CUSH SHOE SUPPORT, 4040XP-30

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

BLADE STOP SPACER, 4040XP-61

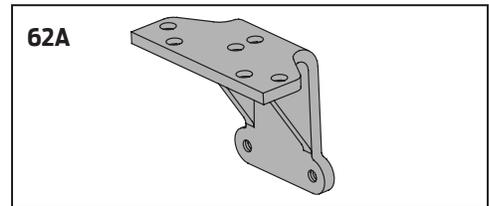
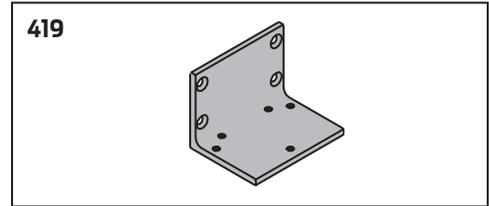
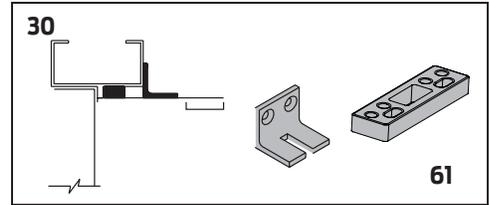
Required to lower parallel arm shoe to clear 1/2" (13 mm) blade stop.

PA FLUSH PANEL ADAPTER, 4040XP-419

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

AUXILIARY SHOE, 4040XP-62A

Requires a top rail of 7" (178 mm). Optional shoe replaces -62PA for parallel arm mounting of regular arm with overhead holder/stop.



4040XP SERIES

TABLE OF SIZES

4040XP cylinders are adjustable from size 1 through size 6 and is shipped set to size 3.
Closing power of 4040XP Series closers may be adjusted 50%.

EXTERIOR (and VESTIBULE) DOOR WIDTH

| | 24" 610mm | 30" 762mm | 36" 914mm | 42" 1067mm | 48" 1219mm |
|---------|--------------|--------------|--------------|---------------|---------------|
| *4040XP | size 3 | size 4 | size 5 | size 6 | |

Minimum Door Width

INTERIOR DOOR WIDTH

| | 24" 610mm | 34" 864mm | 38" 965mm | 48" 1219mm | 54" 1372mm | 60" 1524mm |
|---------|--------------|--------------|--------------|---------------|---------------|---------------|
| *4040XP | size 2 | size 3 | size 4 | size 5 | size 6 | |

Minimum Door Width

→ Indicates recommended range of door width for closer size.

* Adjustable Size 1 thru 6.

REDUCED OPENING FORCE 4040XP SERIES 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.

|  | DOOR WIDTH | 36" | 42" | 48" |
|---|------------|--------|--------|--------|
| | 8.5* lbs. | 4040XP | 4040XP | 4040XP |
| | 5.0* lbs. | 4040XP | 4040XP | 4040XP |

* Maximum opening force.

HOW-TO-ORDER 4040XP SERIES CLOSERS

1. SELECT FINISH

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

Closer will be shipped with:

- STANDARD CLIP-ON COVER
- SPECIFY ARM WHEN ORDERING
- SELF-REAMING and TAPPING SCREWS,
unless options listed below are selected.

CLOSER OPTIONS

CYLINDER

- Delayed Action (4041 DEL)

COVER

- Metal (specify right or left hand) (MC)

FINISH

- Custom Powder Coat (RAL) _____
(handed metal cover required)
- Plated Finish, US _____
(handed metal cover required)
- SRI primer (use with powder coat finishes only)

ARM

- Regular (REG)
- Regular w/62PA (Rw/PA)
- Regular w/62A (R/62A)
- Long (LONG)
- Extra Long (XLONG)
- Hold-Open (H)
- Hold-Open w/62PA (Hw/PA)
- Long Hold-Open (HLONG)
- Extra Duty Arm (EDA)
- Extra Duty Arm with 62G (EDA/62G)
- Hold Open Extra Duty Arm (HEDA) (Handed)
- Hold Open Extra Duty Arm with 62(HEDA/62G)(Handed)
- Cush-N-Stop (CUSH)
- HCush-N-Stop (HCUSH)
- Spring Cush (SCUSH)
- Spring HCush (SHCUSH)

OPTIONAL SCREW PACKS

- TB* w/Self-Reaming and 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, 4040XP-18
- Plate, 4040XP-18TJ
- Plate, 4040XP-18G
- Plate, 4040XP-18PA
- CUSH Shoe Support, 4040XP-30
- Blade Stop Spacer, 4040XP-61
- Auxiliary Shoe, 4040XP-62A
- PA Flush Panel Adapter, 4040XP-419

SPECIAL TEMPLATE

- ST- _____

PHONE 877-671-7011
FAX 800-248-1460
www.allegion.com/us
2/14

Digital Control Suite

Provides exceptionally precise control of a large range of built-in functions combined with superior durability and performance. Visual indications and digital readouts of all control function settings and activity make adjustments easy, fast and accurate.

Dual Independent Program Memories

Each unit is pre-programmed to factory default settings. The installer can adjust the unit to meet the job site requirements. These field settings are locked into the computer's memory. Any subsequent field adjustments replace the original field adjustments. The factory settings are always retained in memory and can be recalled to replace the field settings in just seconds, restoring the unit to its original programming.

On-Board Diagnostics

Sophisticated built-in diagnostics program monitors the system microprocessor, power supplies, drive systems, actuators and safety circuits. Reduces the time required to make sure the installation is complete and correct.

On-Board Power Supply

Provides 24V AC output or 24V DC output with rectifier to power card readers, manual actuators and other peripherals.

Plug and Play Sensors

Motion sensors and safety sensors feature a "plug and play" concept allowing fast and accurate wiring connections in only seconds.

Electronic Circuit Protection

High voltage (primary AC input) is protected by replaceable fuse. Low voltage (secondary AC output) is protected by self-resetting fuses.

Visual Function Indicators

LED Display allows direct observation of these inputs while in visual function indicator mode:

- Key switch- set to Auto, OFF or HOLD
- Activate
- DMSS approach
- DMSS safety
- Bodyguard
- Power Boost Disable

Programming Mode

Allows tailoring the following functions to meet specific site conditions

- Opening Speed
- Backcheck Speed
- Backcheck Position
- Hold Open Delay
- Latch Position
- Auto Reverse - Closing
- Electric Lock Delay
- Power Boost
- Push 'N' Go
- Alternate Action
- Safety Slow/Stop
- Slow Down Disable

Push 'N Go

Allows pedestrians to walk up to the door and push it open as if it were a manual door. After the door is manually opened approximately 5 degrees, the Push 'N Go feature takes over and continues to open the door – slowly and automatically to the full open position. With Push 'N Go, the door will stay fully open from one to 30 seconds, depending on the time delay chosen.

Auto Reverse

A safety feature that reverses the direction of the door when it comes into contact with an object during either opening or closing.

Safety Slow/Stops Function

Once the door starts opening, any person or object entering the swing area will cause the door to go into a safety slow speed. This function can be set to allow for a short stop once a person or object is sensed.

Power Boost

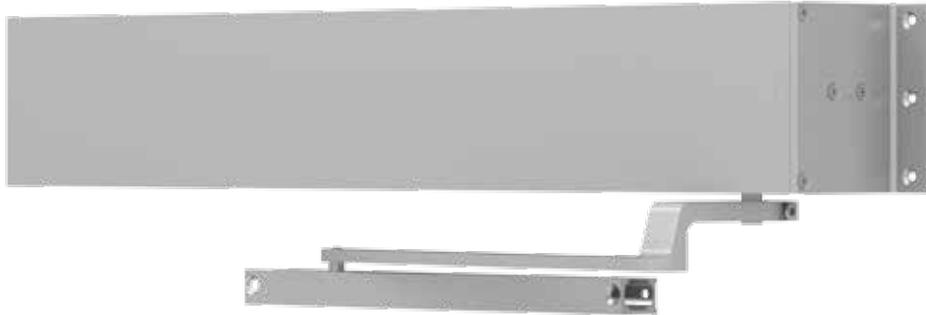
Adds an additional latching force to ensure secure latching in severe wind or stack conditions. Power Boost is also ideal for overcoming slowing obstacles such as electric strikes. Provides approximately 25 lbs. of total closing force.

Microprocessor

Control unit allows for quiet efficiency in operation. Combined with the all electromechanical unit, it eliminates unnecessary wear and prolongs the life of the unit.

Electric Lock Delay

Causes a 1 second delay between activate signal and door opening to allow time for most electric locks to disengage before operator opens door.

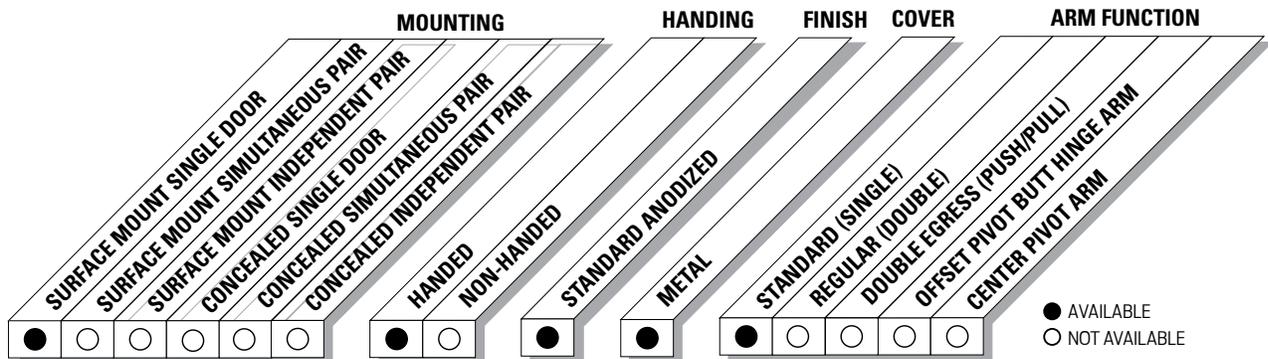


The 9530 SENIOR SWING by LCN is an ADA door operator that is a two-in-one swing door operator. SENIOR SWING operators when activated, opens doors automatically for wheelchair access, yet allows for manual operation for regular pedestrian traffic.

| | | | |
|-----------------------|--|---|---|
| Certifications | Grade 1 - ANSI A156.19, UL325/228, UL1998, ADA, 100 Hour Salt Spray, Meets BAA - Buy American Act | Fasteners | Machine screw pack |
| Fluid | All Weather Fluid | Mounting | Single door, surface mount, offset pivot. butt hinge, pull side |
| Handing | Handed | Arms | Standard arm (3077T) |
| Door Width | <ul style="list-style-type: none"> ■ Minimum 33" - 48" ■ Single door - width per leaf 33" minimum, 48" maximum | Finishes/Colors/ Powder Coat | <ul style="list-style-type: none"> ■ Anodized Aluminum ■ Anodized Dark Bronze |
| Warranty | 2 years | | |

**Special
Templates**

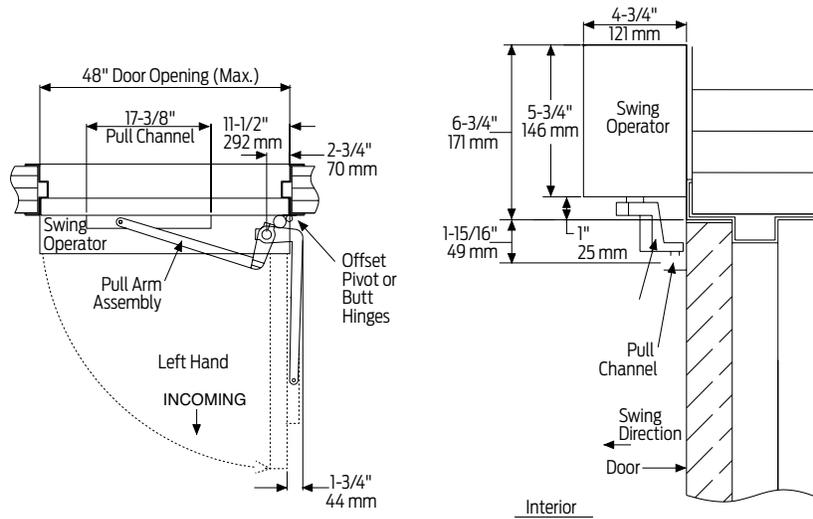
Customized installation templates or products may be available to solve unusual applications. Contact LCN Product Support for assistance.



9530 Series Senior Swing

Mounting details

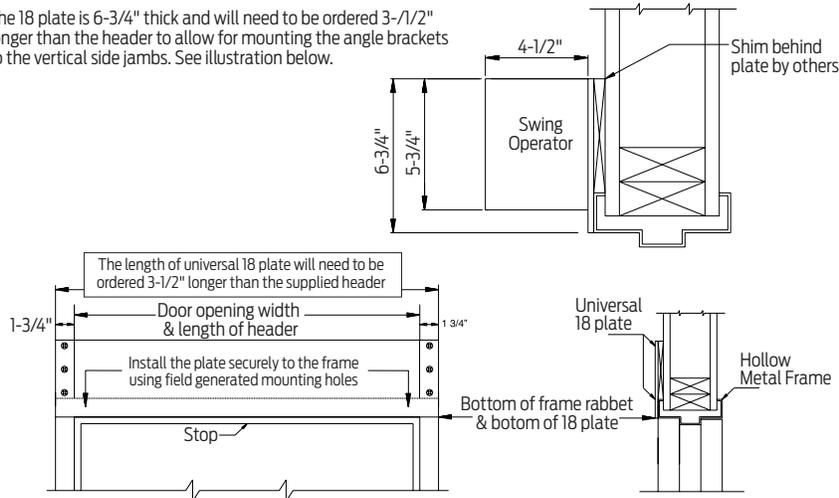
Top Jamb Single Door Mounting



Offset pivot/butt hinge, center pivot, pull

NOTE: Cannot be used with swing clear hinges, pocket pivots or balanced doors.

The 18 plate is 6-3/4" thick and will need to be ordered 3-1/2" longer than the header to allow for mounting the angle brackets to the vertical side jambs. See illustration below.



Hollow metal frame Suggested Installation.

| | |
|---------------------------------|---|
| Butt Hinges | Should not exceed 5" (127 mm) in width |
| Reveal | Should not exceed 4" (102 mm) |
| Head Frame | Minimum 1-3/4" (44 mm). Face frame 6-3/4" (171 mm) total operator clearance |
| Top Rail | Minimum 2-3/4" (70 mm) |
| Opening and Closing Time | <ul style="list-style-type: none"> Variable by adjustments to the electronic control box Maximum hold open time adjustable up to approximately 32 seconds |
| System Diagram | See "AUTOMATIC OPERATORS" section page 51 for typical system wiring and page 53 for electrical data |
| Maximum Opening | Template allows 90 degree power opening and 90 degree manual opening |

Notes:

- Push N' Go permits non-switch activation with a power boost providing additional latching force
- Electromechanical unit with microprocessor control
- Digital keypad for easy setup
- 36" header length is standard. Specify 33" - 48" max
- Double door header available up to 98", specify other length 49" - 98" max
- Consult factory regarding this option
- Adjustable hold open period of 2 - 32 seconds in automatic or manual mode
- Actuators available separately, see pages 115-131

Motor Gearbox



**9530-3454
Motor Gearbox**

- Senior swing
- Handed
- Driving mechanism for operator
- Provides maximum 15 lbs opening force

Mount Brackets



**9530-275
Mounting Bracket**

- Motor gearbox mounting bracket for 2-3/4" offset pivot or butt hinge installations
- Front bracket



**9530-3018
Rear Mounting Bracket**

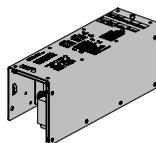
- Motor gearbox mounting bracket
- Rear bracket



**9530-334-1
Angled Bracket**

- Mounting bracket for surface applications (includes 2 mounting brackets)

Control Box



**9530-3462
Control Box**

- Electronic controlling device for Senior Swing

Headers



**9530-3572HL
Header**

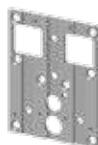
- Standard
- Single door, single operator
- Specify length 33" to 48" maximum



**9530-3572DD
Header**

- Standard
- Double door, single operator
- Specify length 49" to 98" maximum

End Caps



**9530-334
Header End Caps**

- With openings for wiring



**9530-334-2
End Dress Plate**

- Metal finish end cap

Arms



9530-3077PLCM
Standard Arm Assembly

- Handed
- Track roller included (includes 3038, 3077T, 3034 & 73)



9530-3077T
Standard Arm

- Handed
- Track roller not included

Tracks



9530-3038
Track

- Non-handed
- Includes 3034 & 73



9530-73
Track End Cap

- Black plastic end caps



9530-3034
Roller

- Quiet low friction roller assembly

Installation Assembly



9530-11A
Spindle Plate

- Hides bottom of motor gearbox
- Completes header box
- Cutout allows for motor gearbox shaft
- For 2-3/4" offset pivot or butt hinge installations



9530-12
Filler

- Plate blank
- Completes length of header box (specify Length)



9530-18
Mounting Plate

- Optional mounting plate for standard hollow metal door frames
- Specify length 36-1/2" to 101-1/2" maximum, when angle brackets
- Specify length 33" to 98" maximum when using end dress plates

NOTE: The length of a universal 18 plate will need to be ordered 3-1/2" longer than the supplied header when using angle brackets

How-to-order 9530 Series closers

Specify hand

- RH
- LH

Specify header/length

- HL__ (Specify length 33" to 48")
- DD__ (Specify length 49" to 98")

Specify finish

- Standard Anodized Finish _____
Aluminum or Dark Bronze

Operator will be shipped with:

- Standard motor gearbox
 - Standard control box
 - Header (at specified length, 36" standard)
 - Standard arm (3077T)
 - 2-3/4" pivot point
 - Standard track w/track roller
 - Machine screw pack
- unless options listed below are selected

Operator options

Mounting plate

- Plate, ___ (Specify Length 33" to 101-1/2")

Table of sizes



→ Indicates recommended range of door width for operator.

*NOTE: For all Senior Swing Series.
Single Door - Width per leaf 33" minimum, 48" maximum.*

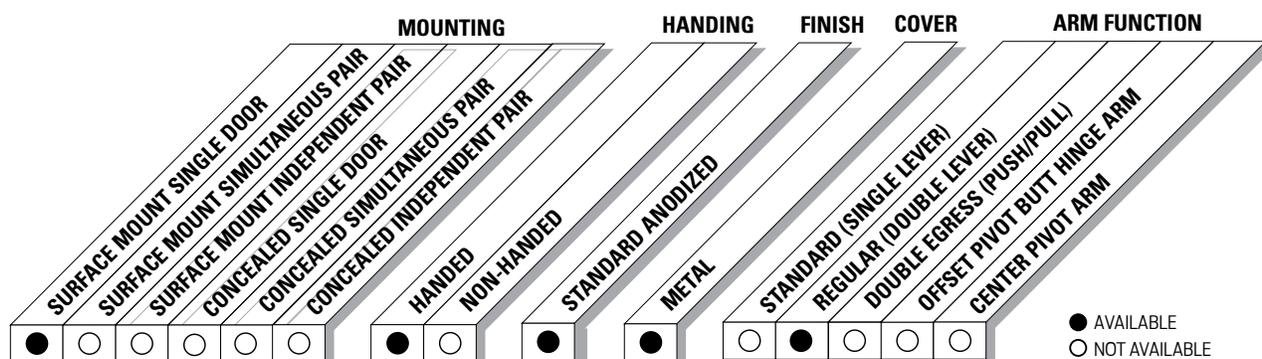


The 9540 SENIOR SWING by LCN is an ADA door operator that is a two-in-one swing door operator. SENIOR SWING operators when activated, opens doors automatically for wheelchair access, yet allows for manual operation for regular pedestrian traffic.

| | | | |
|-----------------------|---|---|---|
| Certifications | Grade 1 - ANSI A156.19, UL325/228, UL1998, ADA, 100 Hour Salt Spray, Meets BAA - Buy American Act | Fasteners | Machine screw pack |
| Fluid | All Weather Fluid | Mounting | Single door, surface mount, offset pivot, butt hinge (Pull Side) |
| Handing | Handed | Arms | Regular Arm (3077) |
| Door Width | <ul style="list-style-type: none"> ■ Minimum door width 33" - 48" ■ Single door - width per leaf 33" minimum, 48" maximum | Finishes/Colors/ Powder Coat | <ul style="list-style-type: none"> ■ Anodized Aluminum ■ Anodized Dark Bronze |
| Warranty | 2 years | | |

**Special
Templates**

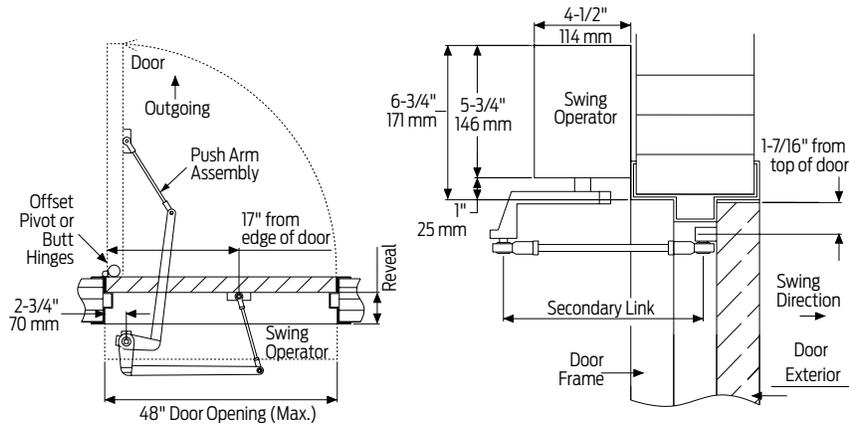
Customized installation templates or products may be available to solve unusual applications. Contact LCN Product Support for assistance.



9540 Series Senior Swing

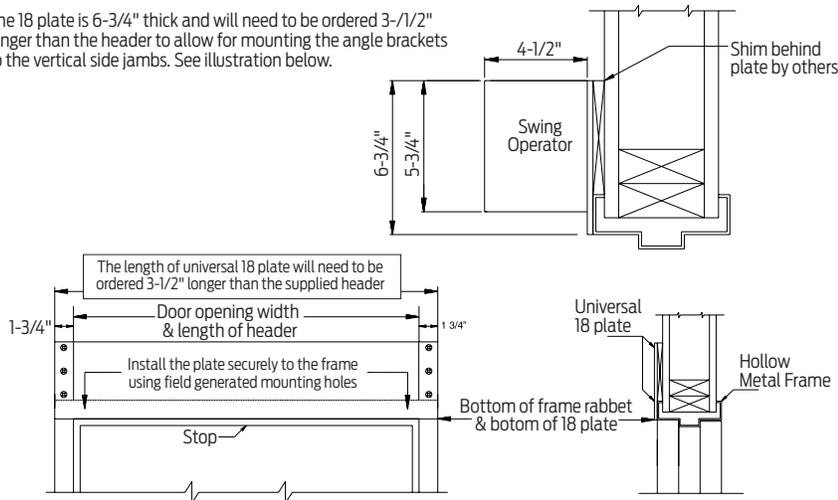
Mounting details

Top Jamb Single Door Mounting



Offset pivot/butt hinge, center pivot, push
Consult factory for all balance door installations.

The 18 plate is 6-3/4" thick and will need to be ordered 3-1/2" longer than the header to allow for mounting the angle brackets to the vertical side jambs. See illustration below.



Hollow metal frame
Suggested Installation.

| | |
|---------------------------------|---|
| Butt Hinges | Should not exceed 5" (127 mm) in width |
| Reveal | push installations should not exceed 10" (254 mm) for REGULAR ARM and 20" (508 mm) for LONG ARM |
| Head Frame | Minimum 1-3/4" (44 mm). Face frame 6-3/4" (171 mm) total operator clearance |
| Top Rail | Minimum 2-3/4" (70 mm) |
| Opening and Closing Time | <ul style="list-style-type: none"> ■ Variable by adjustments to the electronic control box ■ Maximum hold open time adjustable up to approximately 32 seconds |
| System Diagram | See "AUTOMATIC OPERATORS" section page 51 for typical system wiring and page 53 for electrical data |
| Maximum Opening | Template allows 90 degree power opening and 90 degree manual opening |

Notes:

- Push N' Go permits non-switch activation with a power boost providing additional latching force
- Electromechanical unit with microprocessor control
- Digital keypad for easy setup
- 36" header length is standard. Specify 33" - 48" max
- Double door header available up to 98", specify other length 49" - 98" max
- Adjustable hold open period of 2 - 32 seconds in automatic or manual mode
- Actuators available separately, see pages 115-131

Motor Gearbox



**9540-3454
Motor Gearbox**

- Senior swing
- Handed
- Driving mechanism for operator
- Provides maximum 15 lbs opening force

Mount Brackets



**9540-275
Mounting Bracket**

- Motor gearbox mounting bracket for 2-3/4" offset pivot or butt hinge installations
- Front bracket



**9540-3018
Rear Mounting Bracket**

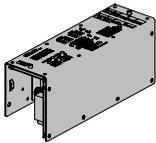
- Motor gearbox mounting bracket
- Rear bracket



**9540-334-1
Angled Bracket**

- Mounting bracket for surface applications (includes 2 mounting brackets)

Control Box



**9540-3462
Control Box**

- Electronic controlling device for Senior Swing

Headers



**9540-3572HL
Header**

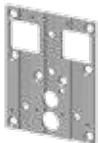
- Single door, single operator
- Specify length 33" to 48" maximum
- Standard



**9540-3572DD
Header**

- Double door, single operator
- Specify length 49" to 98" maximum
- Standard

End Caps



**9540-334
Header End Caps**

- With openings for wiring



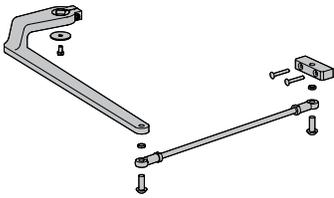
**9540-334-2
End Dress Plate**

- Metal finish end cap

9540 Series Senior Swing

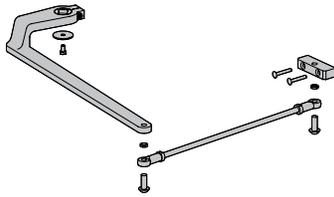
Accessories

Arms



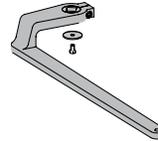
9540-3077 Regular Arm Assembly

- Handed
- Includes 77 main arm assembly and 79 linkage assembly



9540-3077L Regular Long Arm Assembly

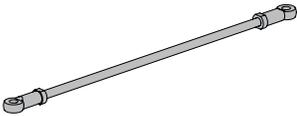
- Handed
- Includes 77 main arm assembly and 79LR linkage assembly



9540-77 Main Arm

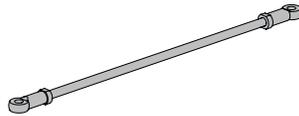
- Handed
- Attaches to motor gearbox

Tracks



9540-79 Linkage Assembly - 15"

- Threaded rod attaches to door
- Extends from main arm



9540-79LR Linkage Assembly - 32"

- Threaded long rod attaches to door
- Extends from main arm.
- Used for reveal 10" to 20"

Installation Accessories



9540-11A Spindle Plate

- Hides bottom of motor gearbox
- Completes header box
- Cutout allows for motor gearbox shaft
- For 2-3/4" offset pivot or butt hinge installations



9540-12 Filler Plate Blank

- Completes length of header box (specify length)



9540-18 Mounting Plate

- For standard hollow metal door frames
- Specify length 55-1/2" to 101-1/2" maximum when using angle brackets
- Specify length 52" to 98" maximum when using dress plates
- Optional

NOTE: The length of a universal 18 plate will need to be ordered 3-1/2" longer than the supplied header when using angle brackets.

How-to-order 9540 Series closers

Specify hand

- RH
- LH

Specify header/length

- HL__ (Specify length 33" to 48")
- DD__ (Specify length 49" to 98")

Specify finish

- Standard Anodized Finish _____
Aluminum or Dark Bronze

Operator will be shipped with:

- Standard motor gearbox
- Standard control box
- Header (at specified length, 36" standard)
- Regular arm (3077)
- 2-3/4" pivot point
- Machine screw pack
unless options listed below are selected.

Operator options

Mounting plate

- Plate, __ (Specify Length 33" to 101-1/2")

Arm

- Long Arm (3077L)

Table of sizes



→ Indicates recommended range of door width for operator.

*NOTE: For all Senior Swing Series.
Single Door - Width per leaf 33" minimum, 48" maximum.*

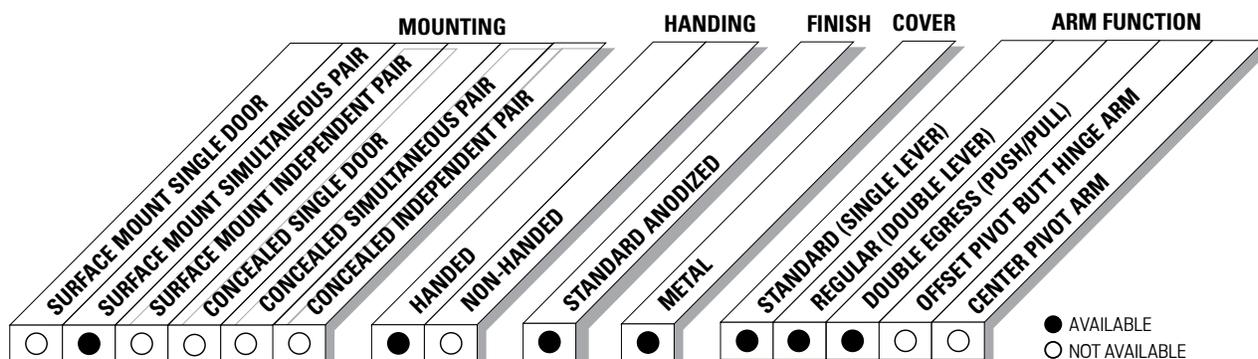


The 9550 SENIOR SWING by LCN is an ADA door operator that is a two-in-one swing door operator. SENIOR SWING operators when activated, opens doors automatically for wheelchair access, yet allows for manual operation for regular pedestrian traffic.

| | | | |
|-----------------------|---|---|---|
| Certifications | Grade 1 - ANSI A156.19, UL325/228, UL1998, ADA, 100 Hour Salt Spray, Meets BAA - Buy American Act | Fasteners | Machine screw pack |
| Handing | Handed | Mounting | Simultaneous pair, surface mount, pull side, push side, double egress |
| Door Width | <ul style="list-style-type: none"> ■ Minimum combined door width 52" - 98" (push) ■ Minimum combined door width 60" - 98" (pull; double egress) ■ Simultaneous pair - width per leaf 30" minimum - 48" maximum | Arms | <ul style="list-style-type: none"> ■ 2 Regular Arms (push) ■ 2 Standard Arms (pull) ■ 1 Regular and 1 Standard (double egress) |
| Warranty | 2 years | Finishes/Colors/ Powder Coat | <ul style="list-style-type: none"> ■ Anodized Aluminum ■ Anodized Dark Bronze |

**Special
Templates**

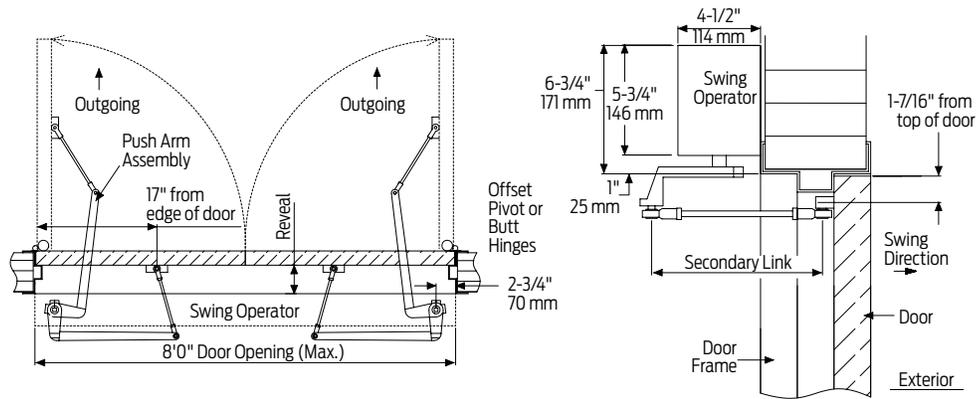
Customized installation templates or products may be available to solve unusual applications. Contact LCN Product Support for assistance.



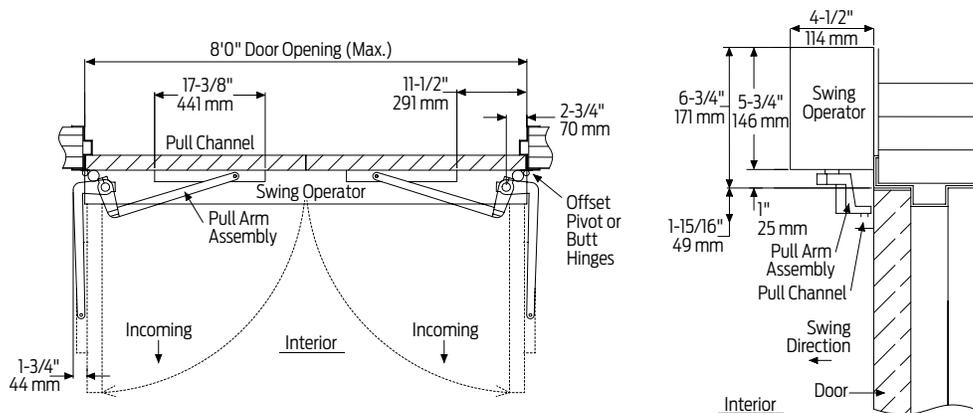
9550 Series Senior Swing

Mounting details

Top Jamb Simultaneous Pair Mounting



Offset pivot/butt hinge, center pivot, push
Consult factory for all balanced door installations.

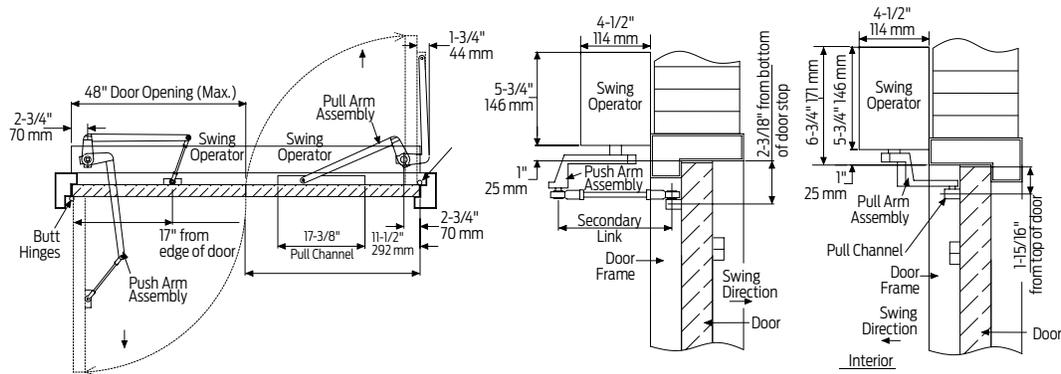


Offset pivot/ butt hinge, center pivot, pull
NOTE: Cannot be used with swing clear hinges, pocket pivots or balanced doors.

| | |
|---------------------------------|--|
| Butt Hinges | Should not exceed 5" (127 mm) in width |
| Reveal for push | Should not exceed 10" (254 mm) for REGULAR ARM and 20" (508 mm) for LONG ARM |
| Reveal for pull | Should not exceed 4" (102 mm) |
| Reveal | Double egress installations should not exceed 4" (102 mm) |
| Head Frame | <ul style="list-style-type: none"> Minimum 1-3/4" (44 mm) Face frame 6-3/4" (171 mm) total operator clearance |
| Top Rail | Minimum 2-3/4" (70 mm) |
| Opening and Closing Time | <ul style="list-style-type: none"> Variable by adjustments to the electronic control box Maximum hold open time adjustable up to approximately 32 seconds. |
| Door Stop | Required for each door panel |
| System Diagram | See "AUTOMATIC OPERATORS" section page 51 for typical system wiring and page 53 for electrical data |
| Maximum Opening | Template allows 90 degree power opening and 90 degree manual opening |

Notes:

- Push N' Go permits non-switch activation with a power boost providing additional latching force
- Electromechanical unit with microprocessor control
- Digital keypad for easy setup
- 72" header length is standard. Specify other length 52" - 98" (push), specify other length 60" - 98" (pull; double egress). Consult factory regarding this option
- Adjustable hold open period of 2 - 32 seconds in automatic or manual mode
- Actuators available separately, see pages 115-131

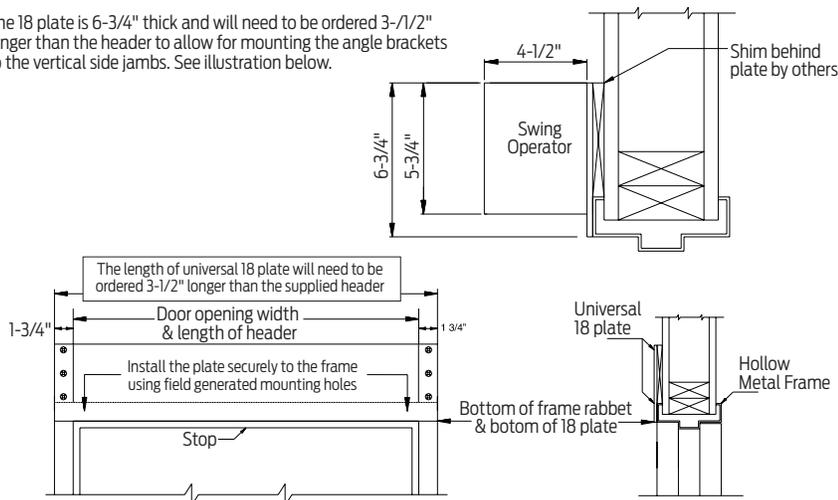


RH double egress

Double egress applications with safety sensors require LCN 9560 series.

NOTE: Cannot be used with swing clear hinges, pocket pivots or balanced door.

The 18 plate is 6-3/4" thick and will need to be ordered 3-1/2" longer than the header to allow for mounting the angle brackets to the vertical side jambs. See illustration below.



Hollow metal frame
Suggested Installation.

| | |
|---------------------------------|--|
| Butt Hinges | Should not exceed 5" (127 mm) in width |
| Reveal for push | Should not exceed 10" (254 mm) for REGULAR ARM and 20" (508 mm) for LONG ARM |
| Reveal for pull | Should not exceed 4" (102 mm) |
| Reveal | Double egress installations should not exceed 4" (102 mm) |
| Head Frame | <ul style="list-style-type: none"> Minimum 1-3/4" (44 mm) Face frame 6-3/4" (171 mm) total operator clearance |
| Top Rail | Minimum 2-3/4" (70 mm) |
| Opening and Closing Time | <ul style="list-style-type: none"> Variable by adjustments to the electronic control box Maximum hold open time adjustable up to approximately 32 seconds. |
| Door Stop | Required for each door panel |
| System Diagram | See "AUTOMATIC OPERATORS" section page 51 for typical system wiring and page 53 for electrical data |
| Maximum Opening | Template allows 90 degree power opening and 90 degree manual opening |

Notes:

- Push N' Go permits non-switch activation with a power boost providing additional latching force
- Electromechanical unit with microprocessor control
- Digital keypad for easy setup
- 72" header length is standard. Specify other length 52" - 98" (push), specify other length 60" - 98" (pull; double egress). Consult factory regarding this option
- Adjustable hold open period of 2 - 32 seconds in automatic or manual mode
- Actuators available separately, see pages 115-131

9550 Series Senior Swing

Accessories

Motor Gearbox



9550-3454
Motor Gearbox

- Senior swing
- Handed
- Driving mechanism for operator
- Provides maximum 15 lbs opening force

Mount Brackets



9550-275
Mounting Bracket

- Motor gearbox mounting bracket for 2-3/4" offset pivot or butt hinge installations
- Front bracket



9550-3018
Rear Mounting Bracket

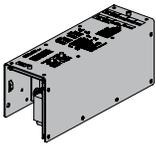
- Motor gearbox mounting bracket



9550-334-1
Angled Bracket

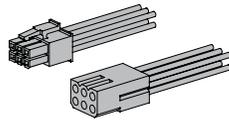
- Mounting bracket for surface applications (includes 2 mounting brackets)

Control Box



9550-3462
Control Box

- Electronic controlling device for Senior Swing



9550-982
Companion Cable

- Cable that allows one control box to run two motor gear boxes
- For use with Senior Swing

Header



9550-3572HL
Header

- Pair door, two operators
- Specify other length 52" to 98" (Push)
- Specify other length 60" to 98" (Pull; Double Egress)
- Standard

End Caps



9550-334
Header End Caps

- With openings for wiring



9550-334-2
End Dress Plate

- Metal finish end cap

Tracks



**9550-3038
Track**

- Non-handed
- Standard



**9550-73
Track End Cap**

- Black plastic end caps



**9550-3034
Roller**

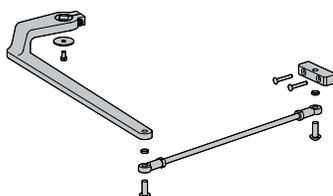
- Quiet low friction roller assembly

Arms



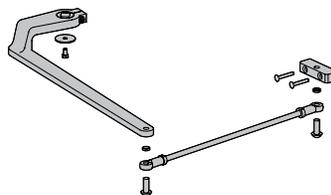
**9550-3077Plcm
Standard Arm Assembly**

- Handed
- Includes 3077 regular arm assembly, 3038 track, and 3034 track roller



**9550-3077
Regular Arm Assembly**

- Handed
- Includes 77 main arm assembly and 79 linkage assembly



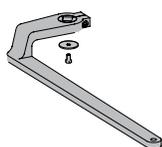
**9550-3077L
Regular Long Arm Assembly**

- Handed
- Includes 77 main arm assembly and 79LR linkage assembly



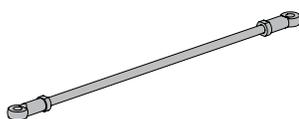
**9550-3077T
Standard Arm**

- Handed
- Track roller not included



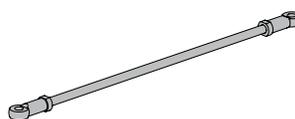
**9550-77
Main Arm**

- Handed
- Attaches to motor gearbox



**9550-79
Linkage Assembly**

- 15"
- Threaded rod attaches to door
- Extends from main arm



**9550-79LR
Linkage Assembly**

- 32"
- Threaded long rod attaches to door
- Extends from main arm
- Used for reveal 10" to 20"

Installation Assembly



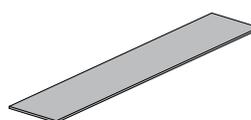
**9550-11A
Spindle Plate**

- Hides bottom of motor gearbox
- Completes header box
- Cutout allows for motor gearbox shaft
- For 2-3/4" offset pivot or butt hinge installations



**9550-12
Filler Plate**

- Blank
- Completes length of header box
- Specify length



**9550-18
Mounting Plate**

- Optional mounting plate for standard hollow metal door frames
- Specify length 68-1/2" to 101-1/2" maximum when using angle brackets
- Specify length 65" to 98" maximum when using dress plates.

NOTE: The length of a universal 18 plate will need to be ordered 3-1/2" longer than the supplied header when using angle brackets.

How-to-order 9550 Series closers

Specify hand

- RH
- LH

Specify header/length

- HL_ (Specify length 52" to 98") regular or long arm
- HL_ (Specify length 60" to 98") for standard or DE arm

Specify finish

- Standard Anodized Finish _____
Aluminum or Dark Bronze

Operator will be shipped with:

- Standard motor gearbox (SF) (2 ea)
 - Standard control box (SC)
 - Metal cover (at specified length 72" standard)
 - Regular arm (2 ea)
 - 2-3/4" pivot point
 - Machine screw pack
- unless options listed below are selected

Operator options

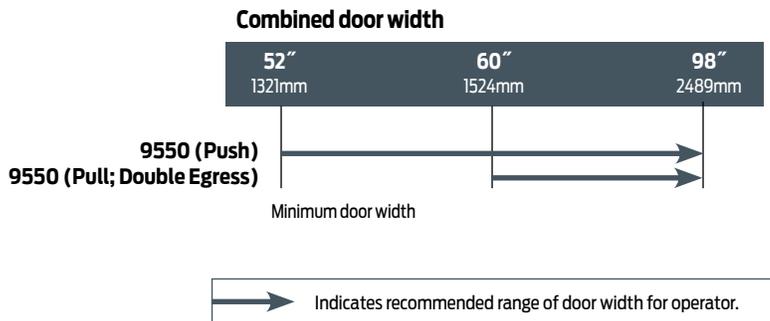
Mounting plate

- Plate, ___ (Specify Length 52" to 101-1/2")

Arm

- Standard Arm (2 ea) w/Standard Track (2 ea)
- Double Egress includes Standard Arm w/Track (1 ea) & Regular Arm (1 ea)
- Long Arm (3077L)

Table of sizes



NOTE: For all Senior Swing Series.

Simultaneous Pair – Width per leaf 26" minimum (push) 30" minimum (pull) to 48" maximum.

8310 Series

Auto Operator
Actuators &
Accessories

36" x 6" Full Length
Actuators

Automatic Operator Actuators & Accessories



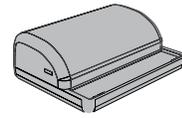
8310-836T Full Length Actuator (FLA)

- Hardwired low voltage actuator with stainless steel touch plate with 36" x 6" activation surface
- Blue handicap symbol conforms with most accessibility codes
- Added "PUSH TO OPEN" lettering for enhanced identification
- Designed to meet California building codes and increase accessibility for wheelchair bound entrants
- Can easily be mounted to any flat surface or a bollard post



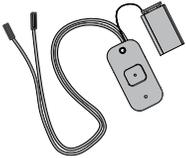
8310-836TW Flush Length Actuator (FLA)

- Same as the 8310-836T with a built in wireless transmitter and 3v battery
- Use in conjunction with 8310-865 Receiver (not included)



8310-865 Receiver

- Wireless, 1 Channel, w/Sequencing Feature
- Used in conjunction w/ Wireless Actuators & Transmitter(s)



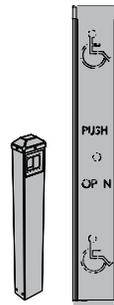
8310-844 Transmitter

- Wireless, 1 Channel, 9v Battery included.
- Used to convert standard actuators to wireless
- Requires 8310-865 Receiver
- Recommended for exterior application with 8310-836T
- Used with the 866FLA bollard post



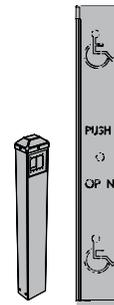
8310-866FLA FLA Bollard Post

- A powder coated steel 42" x 4" x 6": Bollard Post, mounting base pre prepped for the 8310-836T
- Includes 8310-866 CAP, 2 mounting screws & spacer for installation



8310-3836T FLA Bollard Mount Kit

- 36" x 6" Actuator with 8310-866FLA Bollard for wired applications



8310-3836TW FLA Bollard Mount Kit

- 36" x 6" Actuator with 8310-866FLA Bollard and 8310-844 wireless Transmitter
- Transmitter requires 8310-865 Receiver (not included)





Meets ANSI/BHMA 156.16, L11291 for brass and L31291 for aluminum.

WS40 Automatic Wall Holder

- Constructed of sturdy cast brass, or aluminum.
- Holder is mounted on wall and strike is mounted on door.
- Roller on holder rides up seats itself on strike, with a heavy duty bumper pad deadening the sound and shock.
- Universal screw pack accommodates all types wall construction.

Dimensions

| | |
|----------------------------|------------------------|
| Base Height: 2" | Strike Height: 2-1/16" |
| Base Width: 2-1/2" | Strike Width: 3/4" |
| Base Projection: 2-1/4" | Strike Projection: 2" |
| Engaged Projection: 3-1/2" | |

Finishes *brass*

| | | | | | | |
|-------------|-----|-----|------|-------|------|-------|
| Ives Number | US3 | US4 | US10 | US10B | US26 | US26D |
| BHMA | 605 | 606 | 612 | 613 | 625 | 626 |

Finishes *aluminum*

| | |
|-------------|------|
| Ives Number | US28 |
| BHMA | 628 |



WS45
Meets ANSI/BHMA 156.16, L11291 for brass and L31291 for aluminum.

WS45 WS45X Automatic Wall Holder

- Constructed of cast brass, bronze or aluminum.
- Spring loaded roller rides up the face of the strike, seating itself on the strike, holding the door firmly in the open position.
- A heavy rubber pad cushions the shock and absorbs the sound.
- With unit mounted on door and the strike on wall, vertical adjustment is available on body.
- The strike is adjustable 45 degrees left or right, both adjustments easily accomplished at time of installation or at a later date.

WS45 strike is furnished with wood screws for drywall mounting.

WS45X strike is furnished with a threaded stud and expansion shield for masonry type mounting.

Dimensions

| | |
|-----------------------------|-------------------------|
| Base Height: 3-11/16" | Strike Diameter: 2-3/8" |
| Base Width: 3" | Strike Projection: 3" |
| Base Projection: 2" | |
| Engaged Projection: 3-7/16" | |

Finishes *brass*

| | | | | | | |
|-------------|-----|-----|------|-------|------|-------|
| Ives Number | US3 | US4 | US10 | US10B | US26 | US26D |
| BHMA | 605 | 606 | 612 | 613 | 625 | 626 |

Finishes *aluminum*

| | |
|-------------|------|
| Ives Number | US28 |
| BHMA | 628 |



Meets ANSI/BHMA 156.16, L11241.

FS9 Floor Stop & Semi-Automatic Holder

- Semi-automatic floor-mounted holders accommodates with door to floor clearance of 1-1/2" or less.
- Cast from heavy-duty brass.
- Activate holder by flipping the engagement tongue forward. When door is opened, the hook (mounted on door) engages the tongue. To release, push firmly on door to disengage tongue.
- Universal screw pack accommodates all types of floor and door construction.

Dimensions

Overall Height: 3-1/2
 Base Dimensions: 2" wide x 3-1/2" long

Finishes

| Ives Number | US3 | US4 | US10 | US10B | US26 | US26D |
|-------------|-----|-----|------|-------|------|-------|
| BHMA | 605 | 606 | 612 | 613 | 625 | 626 |



Meets ANSI/BHMA 156.16, L11301

FS40 Floor Stop & Automatic Holder
FS41
FS42
FS43

- Automatic door holders ideal for heavy-traffic situations that require a simple, fool-proof, Hold-Open device.
- Forged from brass.
- Unit is activated automatically when door is opened. A firm pull on door releases the mechanism.
- Strikes accommodate different door to floor clearances.
- Model numbers are determined by strike/door-to-floor clearances.
- Holder position on door is adjustable.
- Universal screw pack allows for installation in all types of door construction.

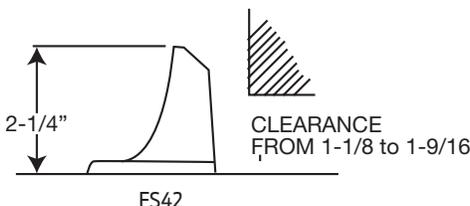
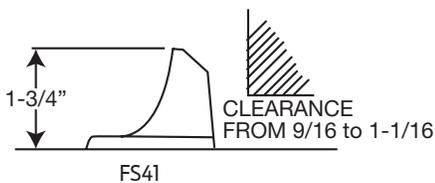
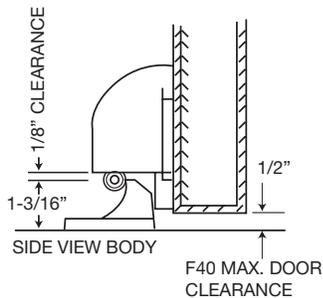
Dimensions

| Door to Floor Clearance: | FS40 | 1/2" or less |
|--------------------------|------|-------------------|
| | FS41 | 9/16" to 1-1/16" |
| | FS42 | 1-1/8" to 1-9/16" |
| | FS43 | 1-5/8" to 2-1/16" |

Holder Dimensions: 3" Wide x 3-11/16" High

Finishes brass

| Ives Number | US3 | US4 | US10 | US10B | US26 | US26D |
|-------------|-----|-----|------|------------------------------------|------|-------|
| BHMA | 605 | 606 | 612 | 613 </td <td>625</td> <td>626</td> | 625 | 626 |





FS436
Meets ANSI/BHMA 156.16, L12141 for brass or bronze and L32141 for aluminum.



FS438
Meets ANSI/BHMA 156.16, L12141 for brass or bronze and L32141 for aluminum.

FS436 Dome Stop
FS438 Dome Stop

- FS436 for doors without threshold.
 - FS438 for doors with threshold or undercut doors.
 - Heavy-Duty Cast Dome Stops constructed of brass, bronze or aluminum.
 - Packed with wood screw and plastic anchor.
- Replaceable gray, non-marring rubber bumper.

Dimensions

FS436

Overall Height: 1"
Base Height: 3/16"
Base Diameter: 1-3/4" x 2" Oval

FS438

Overall Height: 1-3/8"
Base Height: 9/16"
Base Diameter: 1-3/4" x 2" Oval

Finishes *brass*

| Ives Number | US3 | US4 | US5 | US10 | US10B | US15 | US26 | US26D | B716 |
|-------------|-----|-----|-----|------|-------|------|------|-------|------|
| BHMA | 605 | 606 | 609 | 612 | 613 | 619 | 625 | 626 | |

Finishes *aluminum*

| Ives Number | US28 |
|-------------|------|
| BHMA | 628 |

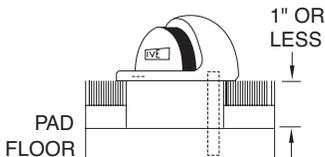
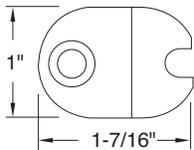


R435 Riser for FS436 Dome Stop
R437 Riser for FS438 Dome Stop

- Extruded aluminum, mill finish.
- R435 for conversion of FS436 Dome Stop to carpet installation.
- R437 For conversion of FS438 Dome Stop to carpet installation.
- Packed with wood screws, lead shield and stud. Specify Tampin (TPN) if required.

Dimensions

Available in 1/4", 3/8", 1/2", 5/8", 3/4" and 1" height.





**FS18S
FS18L Floor Stops**

- Security Door Stops designed for use in high vandalism areas.
- Molded from black flame resistant, resilient material around a heavy-duty stud.
- Once grouted in concrete, leaves no exposed fasteners to be tampered with or removed.
- Ideal for jail or security cell areas where floor mounted stops are required.
- FS18L also ideal for concrete wall applications.

Dimensions

FS18S Height: 1-1/2" FS18L Height: 3-1/2"
 FS18S Diameter: 2" FS18L Diameter: 2"
 FS18S Stud Length: 2-1/2" FS18L Stud Length: 2-1/2"

FS434 Floor Stop

- Burnished wrought steel.
- For undercut doors up to 1-1/2".
- Packed with screws and plastic anchors.
- Replaceable soft, resilient gray rubber.



Dimensions

Overall Height: 2-5/8"
 Base Size: 1-1/2" W x 2-3/4" L

Finishes

| | |
|-------------|-----|
| Ives Number | USC |
| BHMA | 604 |

430 Floor Door Stop

- Burnished wrought steel.
- For undercut doors up to 1-1/2".
- Packed with screws and plastic anchors.
- Replaceable soft, resilient gray rubber.



Dimensions

Overall Height: 1-5/16"
 Base Diameter: 1-1/4"

Finishes brass

| | | | | | | | |
|-------------|-----|-----|-----|------|-----|-----|------|
| Ives Number | B3 | B4 | B5 | B10B | B15 | B26 | B26D |
| BHMA | 605 | 606 | 609 | 613 | 619 | 625 | 626 |

Finishes aluminum

| | | | | |
|-------------|-----|----|-----|-----|
| Ives Number | A3* | A5 | A14 | A92 |
| BHMA | 666 | | 669 | 673 |

* only available in Slim-Pak of 25



WS401CCV & WS402CCV
Meets ANSI/BHMA 156.16 L12251 for brass

WS401CVX & WS402CVX
Meets ANSI/BHMA 156.16 L12101 for brass

WS401CVX Wall Bumpers
WS401CCV
WS402CVX
WS402CCV

- Constructed in heavy-duty cast brass.
- Special retainer cup makes rubber tamper resistant.

WS401CVX (401) – convex rubber bumper, packed with wood screw and plastic anchor.

WS401CCV (401-1/2) – concave rubber bumper which avoids damage to locks with projecting buttons, packed with wood screw and plastic anchor.

WS402CVX (402) – convex rubber bumper packed with screw and drywall anchor.

WS402CCV (402-1/2) – concave rubber bumper which avoids damage to locks with projecting buttons and is packed with screw and drywall anchor.

Dimensions

Base Diameter: 2-1/2"

Base Thickness: 3/8"

Overall Projection: 1"

Finishes

| Ives Number | US3 | US4 | US10 | US10B | US15 | US26 | US26D |
|-------------|-----|-----|------|-------|------|------|-------|
| BHMA | 605 | 606 | 612 | 613 | 619 | 625 | 626 |



WS404CVX Wall Bumpers

- Compact size.
- Constructed in cast brass.
- Totally concealed mounting discourages vandalism or tampering.
- Unit furnished with grey convex rubber bumper.
- Packed with sheet metal screw, rawl plug and brad.

Dimensions

Base Diameter: 1"

Overall Projection: 17/32"

Finishes

| Ives Number | US3 | US4 | US5 | US10 | US10B | US15 | US26 | US26D |
|-------------|-----|-----|-----|------|-------|------|------|-------|
| BHMA | 605 | 606 | 609 | 612 | 613 | 619 | 625 | 626 |

8400 Series Protection Plates

- Door protection plates are available in .050" thick brass, stainless steel or aluminum; and 1/8" thick high impact polyethylene in clear or black.
- Bevel edge options; specify B4E for all four edges.
- Mounting screw pack furnished standard, 16 screws per pack. Optional screw packs are available for TEK or TORK screw heads. Refer to the following chart for ordering.
- Specify NMH for no mounting holes. (Not available on 8402)
- Specify NMH-A for no mounting holes with adhesive. (Not available on 8402)
- Specify CS for counter sunk mounting holes.
- Specify ERS prepped with extra row of screws.

Kickplate Gasket Tape Tape is recommended when using a brass plate on a metal door to reduce tarnishing from electrolytic oxidation. One tape pack will cover an the perimeters of a 8" x 34" kickplate. Order 8401 Gasket Tape.



8400 Protection Plate 8402 (UL)* Protection Plate

*UL mark appears in upper right corner. Factory supplied screws must be used.

Number of screw packs required by plate size (specify TEK Screws or TORK screws).

| | 22"-25" | 26"-33" | 34"-41" | 42"-48" |
|---------|---------|---------|---------|---------|
| 4"-8" | 1 | 1 | 1 | 1 |
| 9"-16" | 1 | 1 | 1 | 1 |
| 17"-24" | 1 | 1 | 1 | 2 |
| 25"-32" | 1 | 1 | 2 | 2 |
| 33"-40" | 1 | 2 | 2 | 2 |
| 41"-48" | 2 | 2 | 2 | 2 |

Finishes brass 24" x 48" max. size

| US Number | US3 | US4 | US10 | US10B | US15 | US26 | US26D |
|-----------|-----|-----|------|-------|------|------|-------|
| BHMA | 605 | 606 | 612 | 613 | 619 | 625 | 626 |

Finishes stainless steel

| US Number | US32 | US32D |
|-----------|------|-------|
| BHMA | 629 | 630 |

Finishes aluminum

| US Number | US28 |
|-----------|------|
| BHMA | 628 |

Finishes plastic

| |
|-----------------|
| Clear and Black |
|-----------------|

Residential Grade Kickplates available Carded only, finishes PA28, PA3, PA619, PA716, B3, B505, B619, B716

8400 Series Protection Plates

- Door protection plates are available in .050" thick brass, stainless steel or aluminum; and 1/8" thick high impact polyethylene in clear or black.
- Bevel edge options; specify B4E for all four edges.
- Mounting screw pack furnished standard, 16 screws per pack. Optional screw packs are available for TEK or TORK screw heads. Refer to the following chart for ordering.
- Specify NMH for no mounting holes. (Not available on 8402)
- Specify NMH-A for no mounting holes with adhesive. (Not available on 8402)
- Specify CS for counter sunk mounting holes.
- Specify ERS prepped with extra row of screws.

Kickplate Gasket Tape Tape is recommended when using a brass plate on a metal door to reduce tarnishing from electrolytic oxidation. One tape pack will cover an the perimeters of a 8" x 34" kickplate. Order 8401 Gasket Tape.



8400 Protection Plate 8402 (UL)* Protection Plate

*UL mark appears in upper right corner. Factory supplied screws must be used.

Number of screw packs required by plate size (specify TEK Screws or TORK screws).

| | 22"-25" | 26"-33" | 34"-41" | 42"-48" |
|---------|---------|---------|---------|---------|
| 4"-8" | 1 | 1 | 1 | 1 |
| 9"-16" | 1 | 1 | 1 | 1 |
| 17"-24" | 1 | 1 | 1 | 2 |
| 25"-32" | 1 | 1 | 2 | 2 |
| 33"-40" | 1 | 2 | 2 | 2 |
| 41"-48" | 2 | 2 | 2 | 2 |

Finishes brass 24" x 48" max. size

| US Number | US3 | US4 | US10 | US10B | US15 | US26 | US26D |
|-----------|-----|-----|------|-------|------|------|-------|
| BHMA | 605 | 606 | 612 | 613 | 619 | 625 | 626 |

Finishes stainless steel

| US Number | US32 | US32D |
|-----------|------|-------|
| BHMA | 629 | 630 |

Finishes aluminum

| US Number | US28 |
|-----------|------|
| BHMA | 628 |

Finishes plastic

| |
|-----------------|
| Clear and Black |
|-----------------|

Residential Grade Kickplates available Carded only, finishes PA28, PA3, PA619, PA716, B3, B505, B619, B716



8200 Push Plate
8300 Pull Plate, Prep for Pull (less pull)

Available Sizes

- 3" x 12"
- 3.5" x 15"
- 4" x 16"
- 6" x 16"
- 8" x 16"

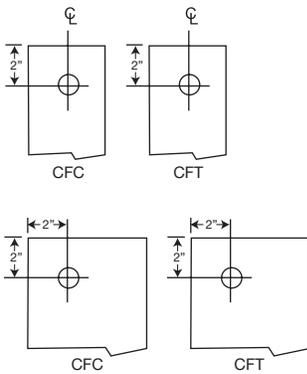
Special sizes are available. Consult factory.

Plates Cut for Cylinder or Thumbturns

Plates are available with cutout for cylinder or thumbturn; standard cutout is 2" from top and centered on plates up to 4" wide. For plates wider than 4" cutout is located 2" from outer edge, specify LH or RH. When pull location interferes with standard cutout location a detail drawing should be furnished with the order.

Standard cutout is 1-1/4" for cylinder and 3/8" for thumbturn.

Specify CFC for cutout for cylinder or CFT for cutout for thumbturn.



Finishes brass

| US Number | US3 | US4 | US10 | US10B | US15 | US26 | US26D* |
|-----------|-----|-----|------|-------|------|------|--------|
| BHMA | 605 | 606 | 612 | 613 | 619 | 625 | 626 |

Finishes stainless steel

| | |
|-----------|--------|
| US Number | US32D* |
| BHMA | 630 |

Finishes aluminum

| | |
|-----------|------|
| US Number | US28 |
| BHMA | 628 |

** Available with Antimicrobial Coating, use suffix AM*



3/4"
ROUND



8302 Pull plate

Available mounting – Standard, F, G, H-I-L, or J see pages B15 and B16
 Pulls have new heavy duty 5/16-18" mounting.

| | |
|-------------------|------------------|
| 8300 Plate | 8102 Pull |
| 3-1/2" x 15" | 6" centers |
| 4" x 16" | 8" centers |
| 6" x 16" | 10" centers |

Finishes brass

| | | | | | | |
|-----------|-----|-----|------|-------|------|--------|
| US Number | US3 | US4 | US10 | US10B | US26 | US26D* |
| BHMA | 605 | 606 | 612 | 613 | 625 | 626 |

Finishes stainless steel

| | |
|-----------|--------|
| US Number | US32D* |
| BHMA | 630 |

Finishes aluminum

| | |
|-----------|------|
| US Number | US28 |
| BHMA | 628 |

* Available with Antimicrobial Coating, use suffix AM



1"
ROUND



8303 Pull plate

Available mounting – Standard, F, G, H-I-L, or J see pages B15 and B16
 Pulls have new heavy duty 3/8-16" mounting.

| | |
|-------------------|------------------|
| 8300 Plate | 8103 Pull |
| 3-1/2" x 15" | 8" centers |
| 4" x 16" | 10" centers |
| 6" x 16" | 7" centers |

Finishes brass

| | | | | | | |
|-----------|-----|-----|------|-------|------|--------|
| US Number | US3 | US4 | US10 | US10B | US26 | US26D* |
| BHMA | 605 | 606 | 612 | 613 | 625 | 626 |

Finishes stainless steel

| | |
|-----------|--------|
| US Number | US32D* |
| BHMA | 630 |

Finishes aluminum

| | |
|-----------|------|
| US Number | US28 |
| BHMA | 628 |

* Available with Antimicrobial Coating, use suffix AM



1"
FLATTED
1/2 ROUND



8305 Pull plate

Available mounting – Standard or F see page B15
 Pulls have 1/4 - 20" mounting

| | |
|-------------------|------------------|
| 8300 Plate | 8105 Pull |
| 3-1/2" x 15" | 6" centers |
| 4" x 16" | 8" centers |
| 6" x 16" | 10" centers |

Finishes brass

| | | | | | | |
|-----------|-----|-----|------|-------|------|-------|
| US Number | US3 | US4 | US10 | US10B | US26 | US26D |
| BHMA | 605 | 606 | 612 | 613 | 625 | 626 |

Finishes stainless steel

| | |
|-----------|-------|
| US Number | US32D |
| BHMA | 630 |

Finishes aluminum

| | |
|-----------|------|
| US Number | US28 |
| BHMA | 628 |

* Available with Antimicrobial Coating, use suffix AM

A
Hinges & Pivots

B8
Pulls & Plates

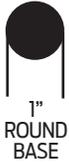
C
Flush Bolts & Coordinators

D
Latches, Catches & Bolts

E
Stops

F
Exterior Hardware

G
Miscellaneous Hardware



8311 Pull plate

Available mounting – Standard or F see page B15
Pulls have 1/4-20" mounting.

8300 Plate
3-1/2" x 15"
4" x 16"
6" x 16"

8111-5 Pull
5-1/8" centers

Finishes brass

| US Number | US3 | US4 | US10 | US10B | US26 | US26D* |
|-----------|-----|-----|------|-------|------|--------|
| BHMA | 605 | 606 | 612 | 613 | 625 | 626 |

Finishes stainless steel

| US Number | US32D* |
|-----------|--------|
| BHMA | 630 |

Finishes aluminum

| US Number | US28 |
|-----------|------|
| BHMA | 628 |

* Available with Antimicrobial Coating, use suffix AM

9100 Series Push Bar and Pull Combinations

- Available in brass, stainless steel or aluminum.
- Standard fasteners furnished for 1-3/4" thick doors. Specify door thick if other than standard.
- Special lengths are available, contact customer service.

See page B17 for special mounting requirements.

Caution – the length of the pushbar should not interfere with the door jamb or cause a pinch point.

9100HD Push Bar

Available mounting – NO or NS see page B17
with heavy duty 3/8-16" mounting



| Product No. | Projection | Clearance | Center to Center | Overall Length |
|-------------|------------|-----------|------------------|----------------|
| 9100-28 | 2-1/2" | 1-1/2" | 28" | 29" |
| 9100-33 | 2-1/2" | 1-1/2" | 33" | 34" |

Special lengths available, consult factory

Finishes brass

| US Number | US3 | US4 | US10 | US10B | US15 | US26 | US26D* |
|-----------|-----|-----|------|-------|------|------|--------|
| BHMA | 605 | 606 | 612 | 613 | 619 | 625 | 626 |

Finishes stainless steel

| US Number | US32 | US32D* |
|-----------|------|--------|
| BHMA | 629 | 630 |

* Available with Antimicrobial Coating, use suffix AM



LG11 Lock Guard

- Designed for use on aluminum doors with latch-type locks or doors equipped with electric strikes.
- Unit is Handed - Specify left or right hand when ordering.
- No exposed fasteners on face of unit.
- Unique design provides maximum security, virtually eliminating the opening between door and frame at latch point.
- Available in 13 Gauge Stainless Steel or 12 Gauge Steel.

Dimensions

2-1/2" Wide x 9-1/2" High
 Stud center to center: 8-1/2"

Finishes

| Ives Number | US32D | SP313 |
|-------------|-------|-------|
| BHMA | 630 | 695 |



LG12 Lock Guard

- Narrow design unit for use on rose or escutcheon 3-1/2" or less.
- For use with Type 86 Mortise and Type 161 Cylinder Locks (ANSI 156.13 Series 1000 and ANSI 156.2 Series 4000).
- No exposed fasteners on face of unit.
- Unique design provides maximum security, virtually eliminating the opening between door and frame at the latch point.
- Available in 13 Gauge Stainless Steel or 12 Gauge Steel

Dimensions

1-1/2" Wide x 9-1/2" High
 Stud center to center: 8-1/2"

Finishes

| Ives Number | USP | US32D |
|-------------|-----|-------|
| BHMA | 600 | 630 |

A
Hinges & Pivots

B
Pulls & Plates

C
Flush Bolts & Coordinators

D
Latches, Catches & Bolts

E
Stops

F3
Exterior Hardware

G
Miscellaneous Hardware



Meets ANSI/BHMA 156.16, L03011.

SR64 Door Silencer

- For use on metal frames featuring pneumatic design that, once installed, forms an air pocket to absorb shock and reduce noise of door closing.
- Tamper-proof once installed on the frame.
- Proper installation also eliminates door rattle and provides constant tension for door latches or locks.

Packed in bags of 100.
 Grey Available in bulk pack of 2500.
 Each bag has an installation tool included.

Dimensions

Diameter: 1/2"
 Thickness: 1/8"

Finishes

GRY, TAN



Meets ANSI/BHMA 156.16, L03021

SR65 Door Silencer

- For use on wood frames, also feature pneumatic design to cushion shock and absorb noise.
- To prevent removal, a small brad should be driven into stop strip and through stem of silencer, as shown in the detail.

Packed in bags of 100.

Dimensions

Height: 3/4"
 Diameter: 3/8"
 Thickness: 1/8"

Finishes

GRY



SR66 Door Silencer

- Self Adhesive Rubber Silencers.
- Economical installation requires no drilling of frames.

Packed two sheets of 50 (100 minimum).

Dimensions

Diameter: 1/2"
 Thickness: 1/8"

Finishes

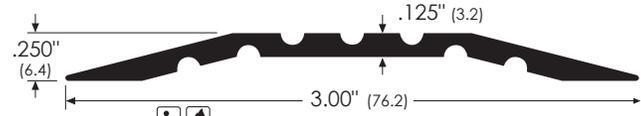
BRN, GRY, WHT

Utility Thresholds



Note: A = Aluminum B = Bronze
 D = Dark Bronze Anodized STST = Stainless Steel
 Thresholds can be ordered with E (Epoxy Abrasive), EL (Epoxy Abrasive Photoluminescent) or V3 (Full Body Strength) options.

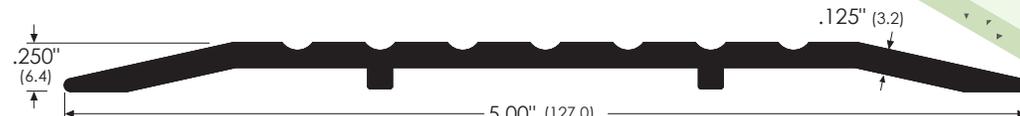
Thresholds



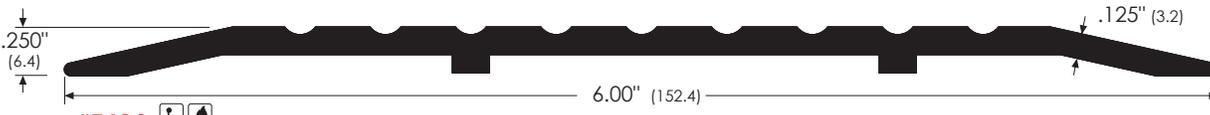
#63A
#64A 2.5" wide (not shown)



#544A



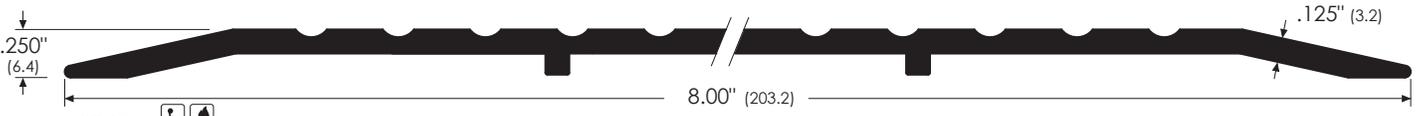
#545A #545B #545D



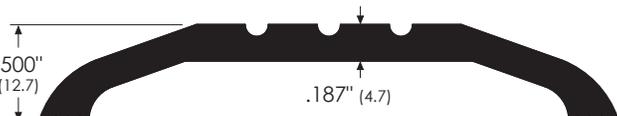
#546A



#547A



#548A



#653A



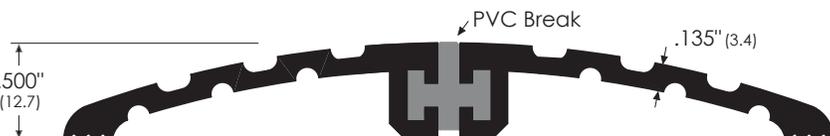
#654A #654B



#164STST "E" abrasive surface is suggested for public access area

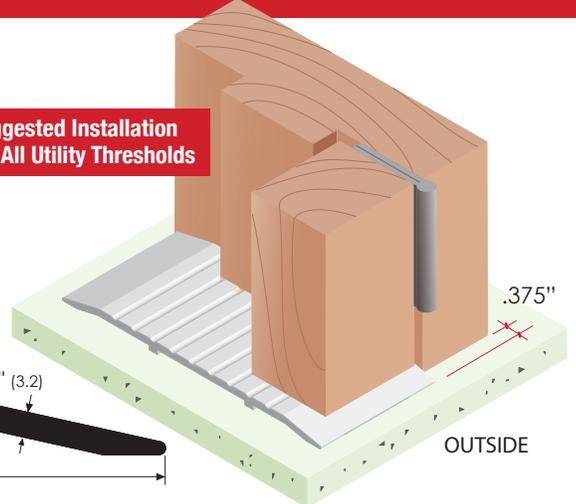


#164A #164B



#624A Thermal Break

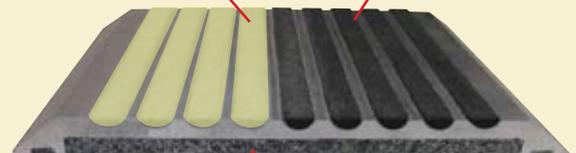
Suggested Installation For All Utility Thresholds



OPTIONS:

■ Non-Slip Epoxy Abrasive. Thresholds can be ordered with non-slip epoxy abrasive particles bonded into the grooves. The tread provides a coefficient of friction of 1.02 dry and 0.98 wet to comply with ADA, OSHA and most local building code requirements. To order, add -E or -EL after the item number. Example : #657A-E or #657A-EL

EL - Epoxy Abrasive Photoluminescent **E - Epoxy Abrasive**



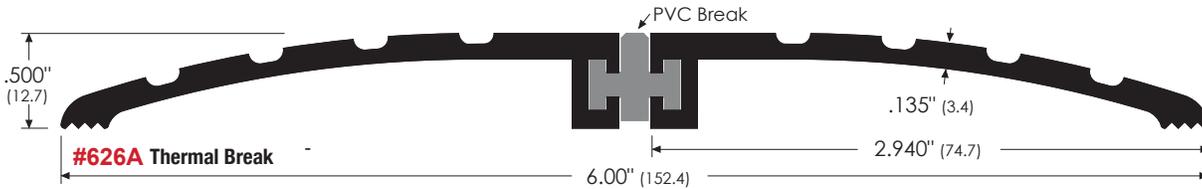
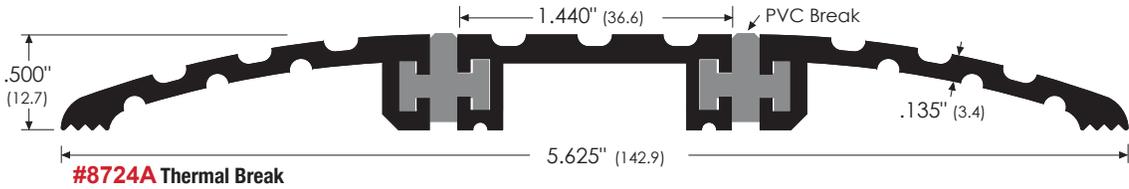
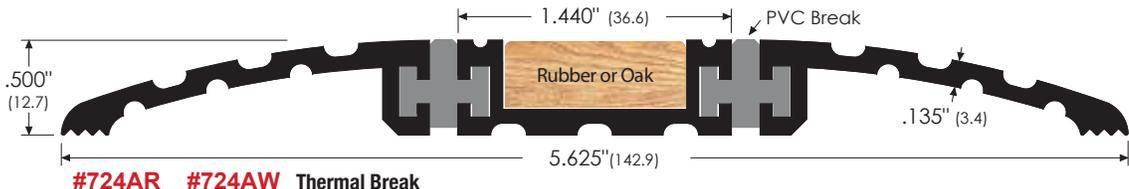
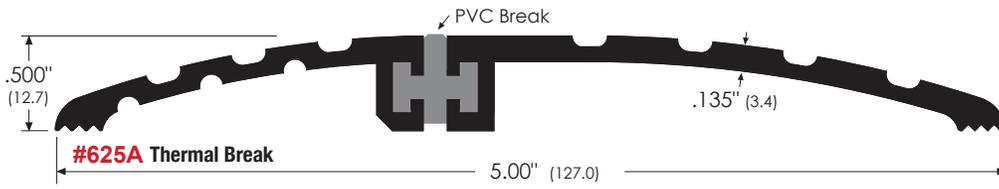
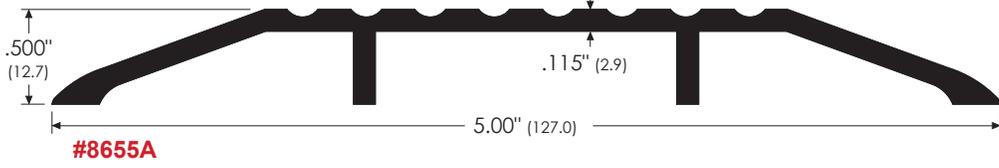
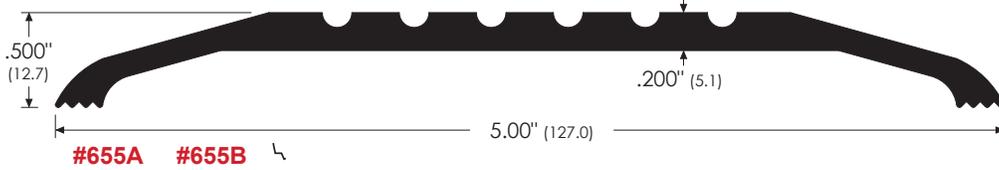
V3 - Full Body Strength

■ Full Body Strength. An aluminum composite filler containing aluminum oxide and silicone carbide. Ideal applications include heavy commercial traffic in supply rooms, manufacturing buildings, schools, cafeterias, automobile dealers, hospitals, industrial facilities. To order, add -V3 after the item number. Example: #657A-V3

Utility Thresholds



Note: A = Aluminum B = Bronze
R = Rubber W = Oak
Thresholds can be ordered with E (Epoxy Abrasive), EL (Epoxy Abrasive Photoluminescent) or V3 (Full Body Strength) options.



#655A-V3 Full Body Strength

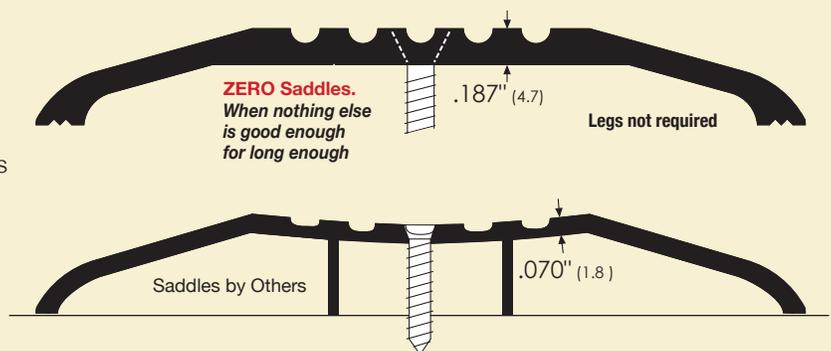


V3 (Full Body Strength option)

Thresholds

Which would you rather walk on or install?

Both pass the ANSI standard load test, but the ZERO threshold also passes the test of time and weight. The heavier-gauge material in our thresholds allows you to drill and screw right through and into concrete. Lighter-gauge thresholds can buckle and often loosen because screws cannot be tightened fully. Be sure you get the best....specify the heavier gauge when you need thresholds.

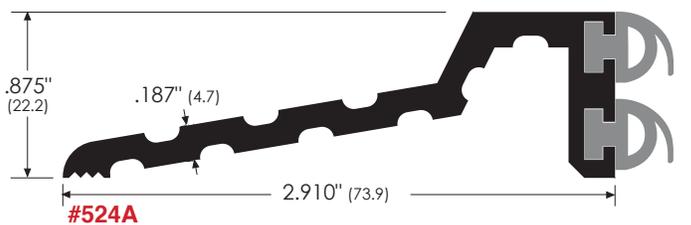
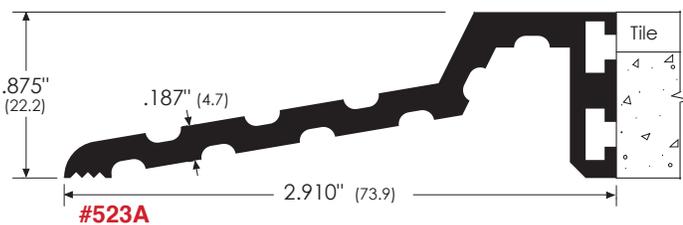
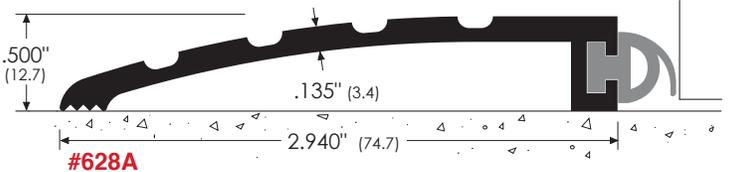
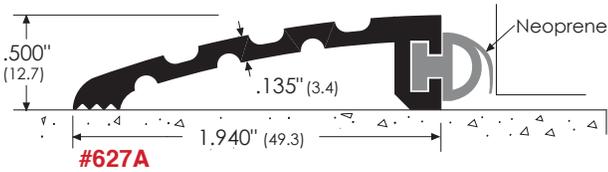
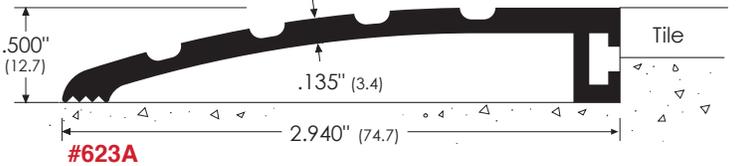
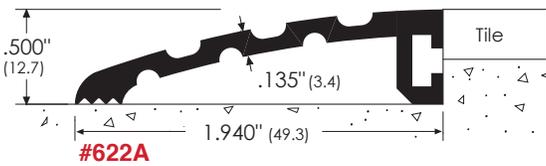
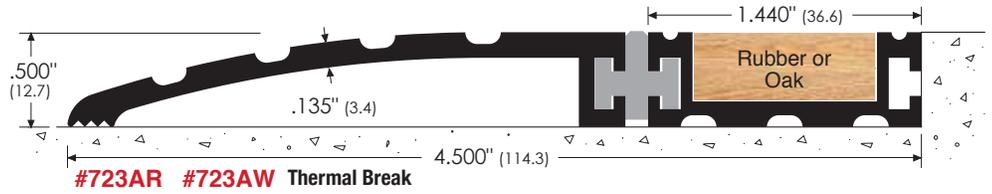
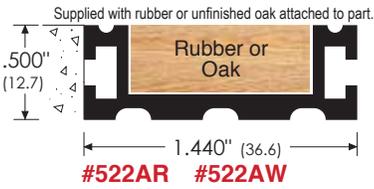
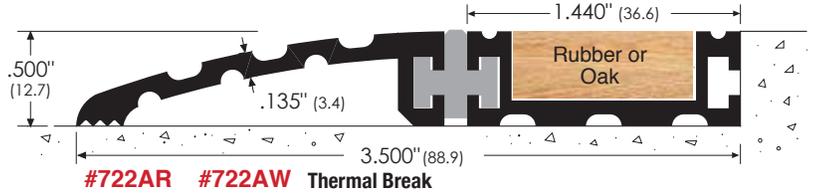
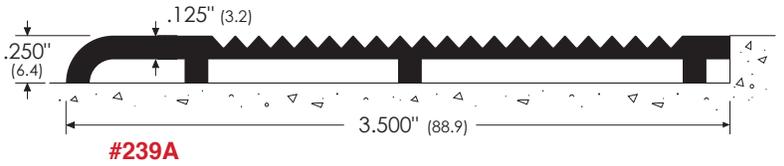
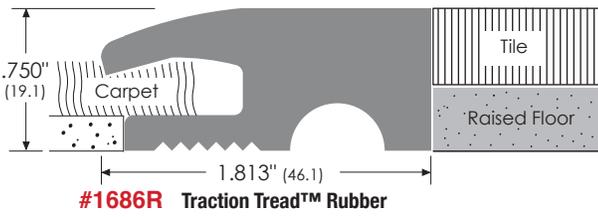
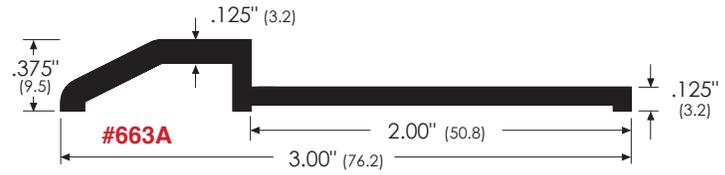
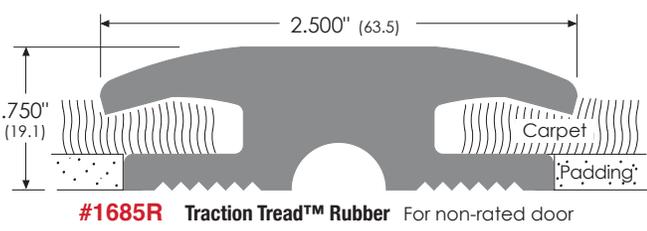
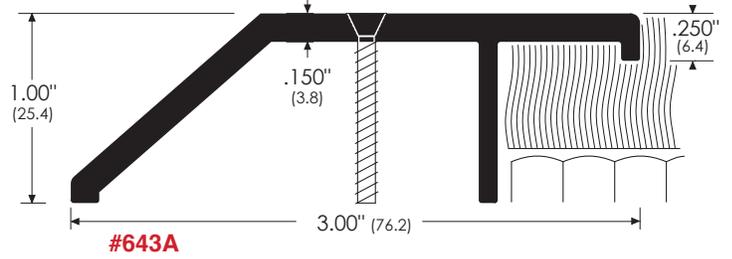
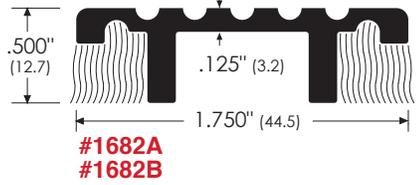
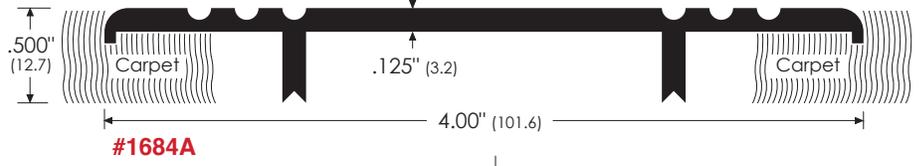
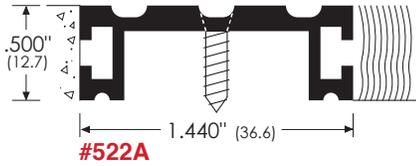


Carpet Divider and Thermal Break Threshold



Note: A = Aluminum B = Bronze
R = Rubber W = Oak
Thresholds can be ordered with E (Epoxy Abrasive), EL (Epoxy Abrasive Photoluminescent) or V3 (Full Body Strength) options.

Thresholds

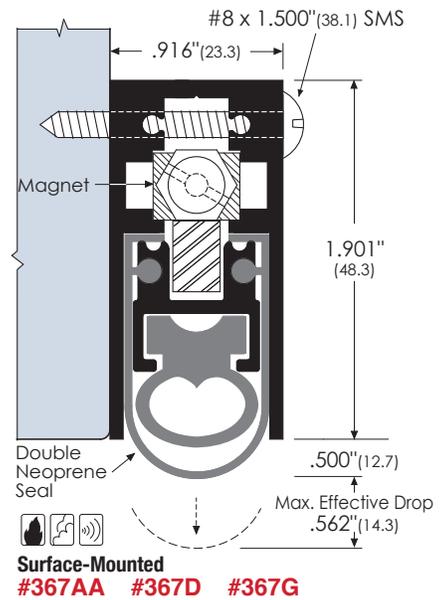
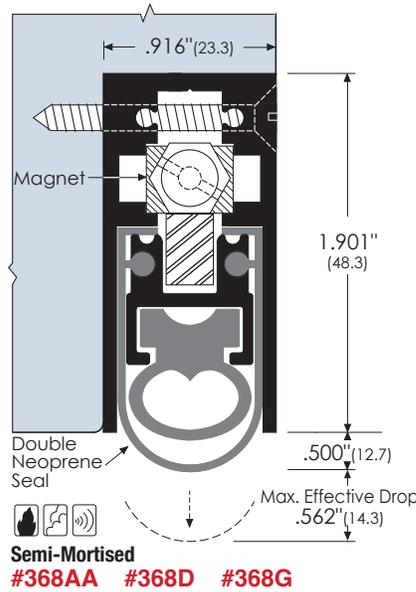
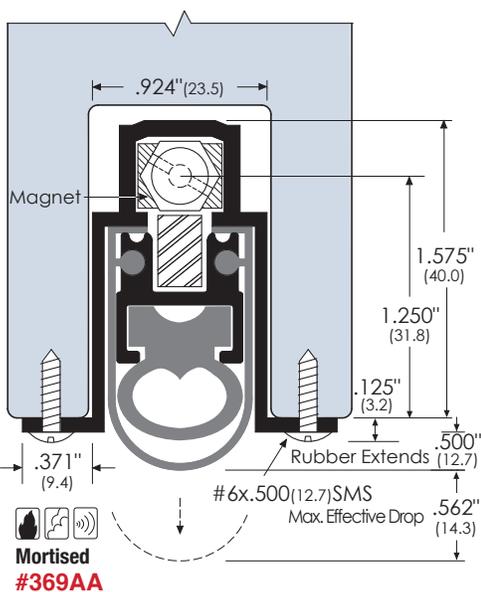
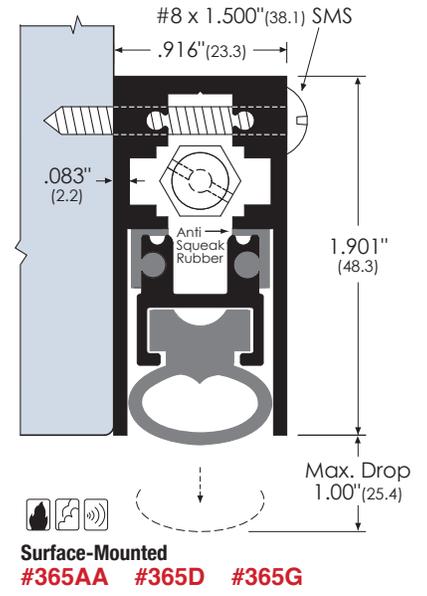
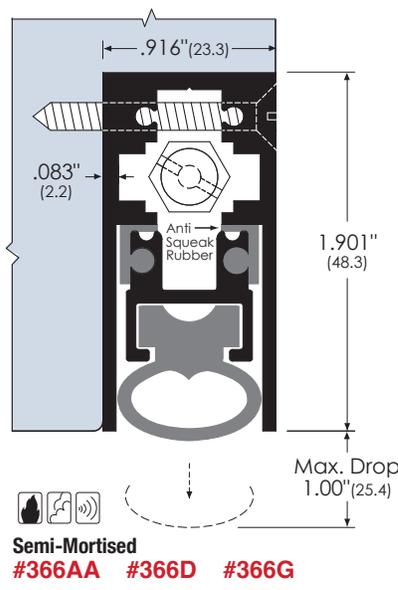
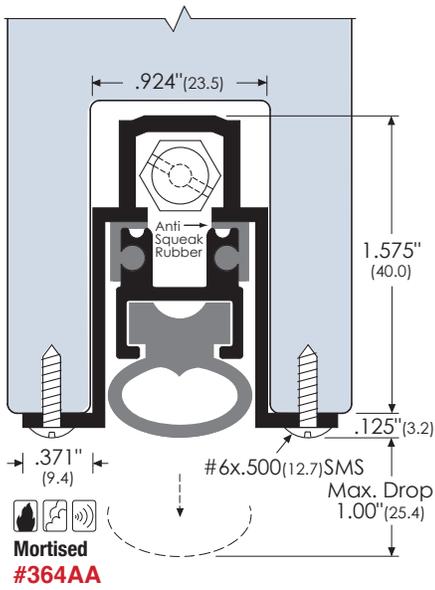
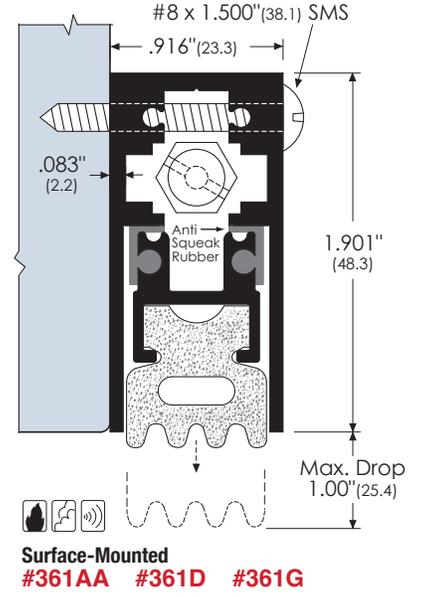
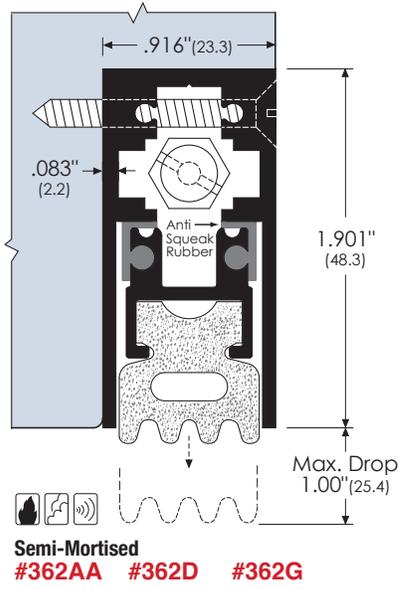
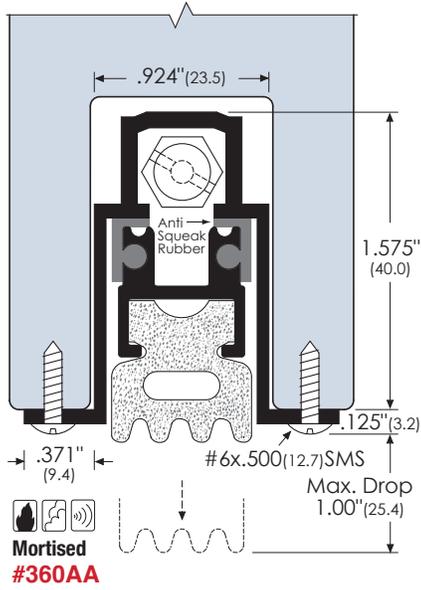


Sill Protection Automatic Door Bottoms - Heavy Duty



Note: A = Aluminum
AA = Clear Anodized
D = Dark Bronze Anodized
G = Gold Anodized

Door Bottoms



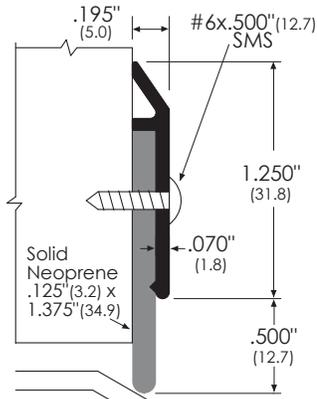
Sill Protection Sweeps



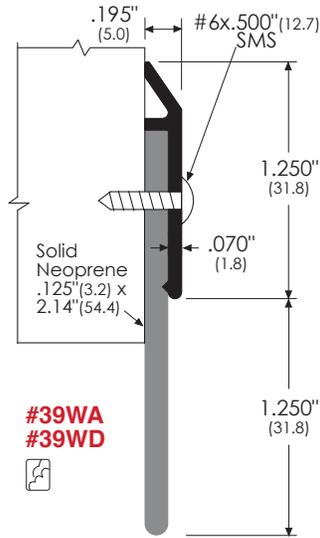
Note: A = Aluminum
AA = Clear Anodized
B = Bronze

D = Dark Bronze Anodized
G = Gold Anodized
PVC = Polyvinyl, clear

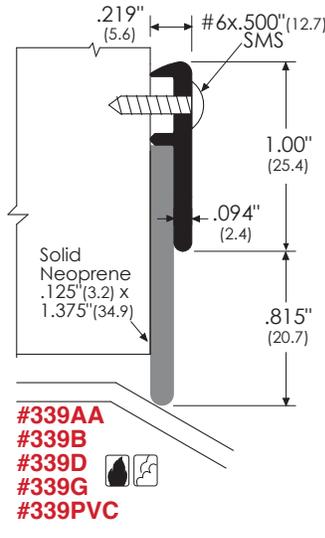
Door Sweeps



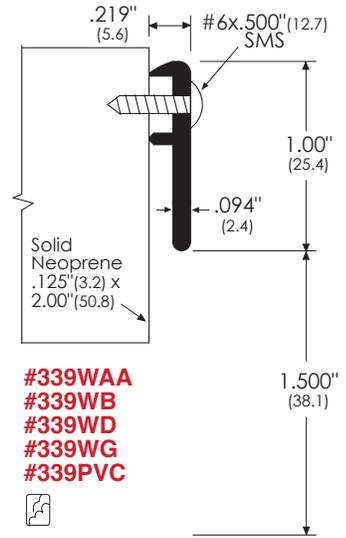
#39A
#39D



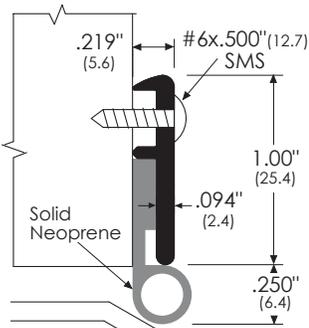
#39WA
#39WD



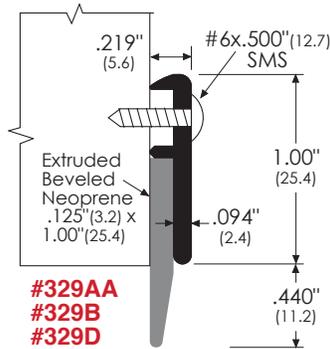
#339AA
#339B
#339D
#339G
#339PVC



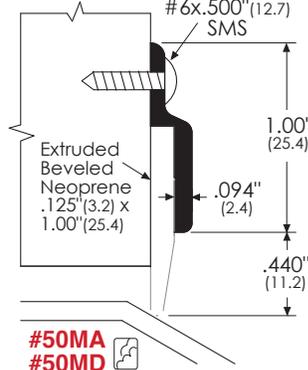
#339WAA
#339WB
#339WD
#339WG
#339PVC



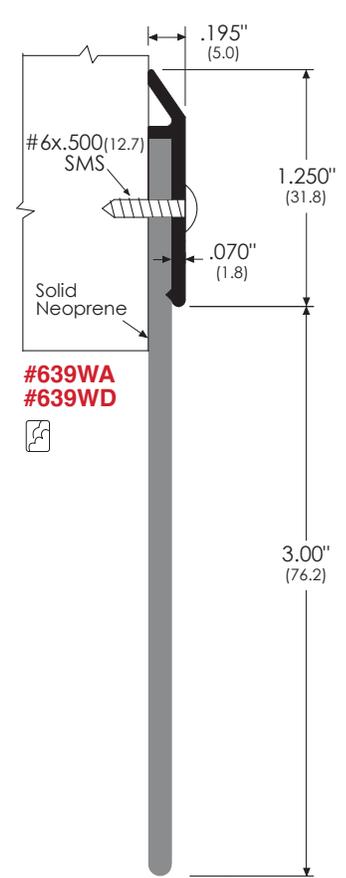
#328AA
#328B
#328D
#328G
#328PVC



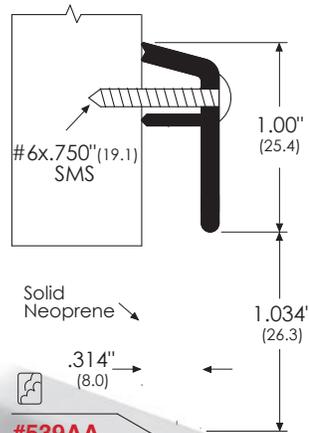
#329AA
#329B
#329D
#329G
#329PVC



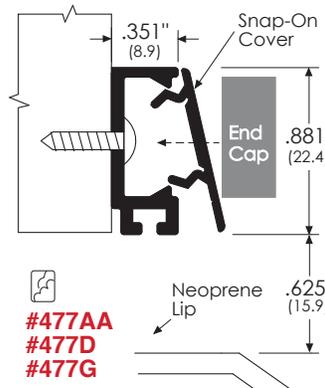
#50MA
#50MD



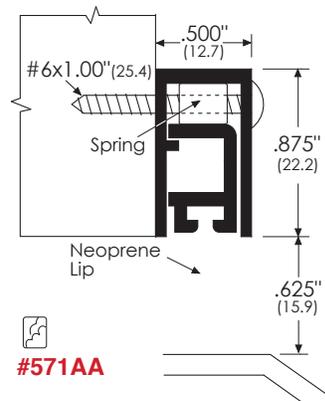
#639WA
#639WD



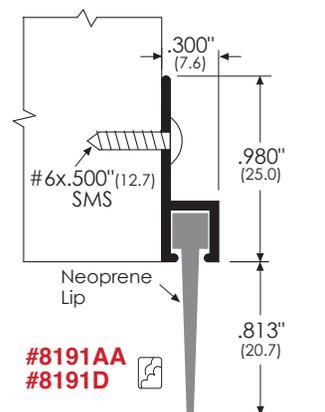
#539AA
#539D



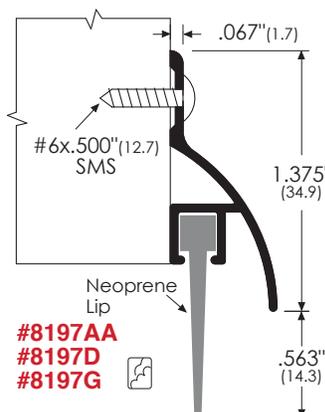
#477AA
#477D
#477G



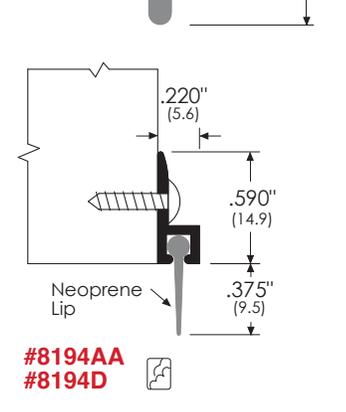
#571AA



#8191AA
#8191D



#8197AA
#8197D
#8197G



#8194AA
#8194D

Self-Adhesive Weatherstripping

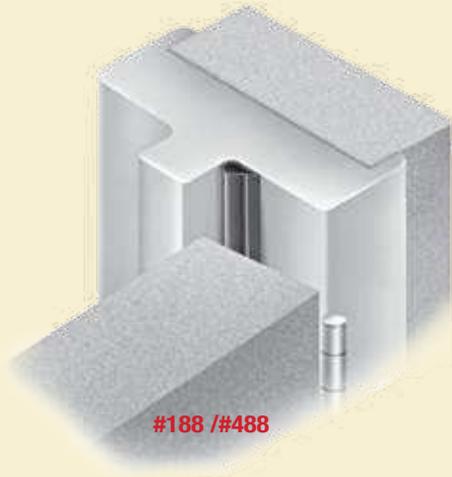


Note:

N = Neoprene
 S-Bk = Silicone, Black
 S-Wh = Silicone, White
 PSA* is equipped with 3M self-adhesive tape
 All products are available with ZAG feature (Anti-Ligature)

S-Br = Silicone, Brown
 S-Cl = Silicone, Clear
 S-Gy = Silicone, Grey

FS= Intumet™ Rubber
 Y-Bk = Polyvinyl, Black
 BIO = Antibacterial Gasketing, White



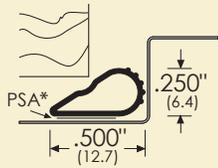
#188 / #488



#8144

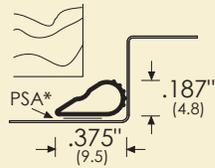


#8042



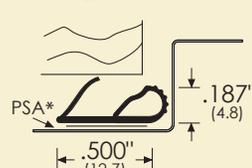
#188S-Bk #188S-Wh
 #188S-Br #188FS
 #188S-Cl #188BIO
 #188S-Gy

ZERO Compress-O-Matic®

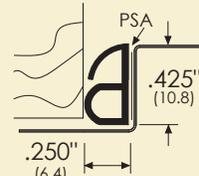


#488S-Bk #488S-Wh
 #488S-Br #488FS
 #488S-Cl #488BIO
 #488S-Gy

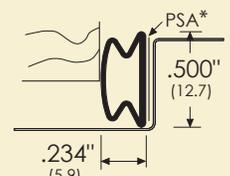
ZERO Mini-Matic®



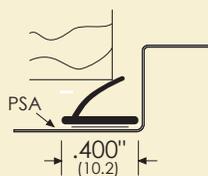
#8145S-Bk
 ZERO Compress-O-Matic®



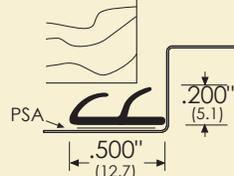
#824N



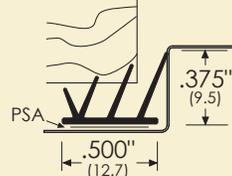
#8216S-Bk



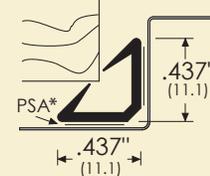
#117S-Bk



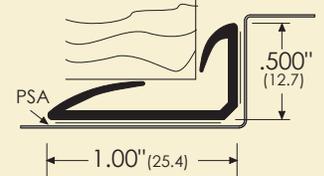
#8042S-Bk



#8150S-Bk



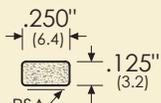
#8144S-Bk
 #8144S-Wh
 #8144 FS



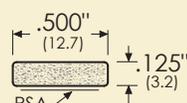
#8160Y-Bk

Door Seals

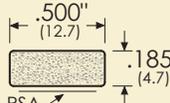
Closed Cell Sponge Neoprene



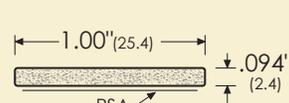
#8172N



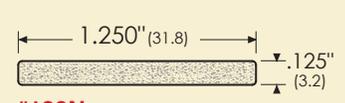
#8770N



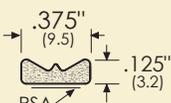
#312N



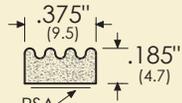
#8780N



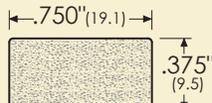
#139N



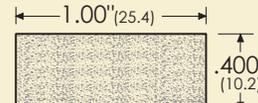
#826N



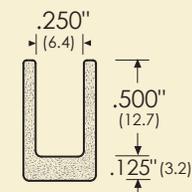
#926N



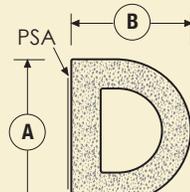
#318N



#3708N



#2070N



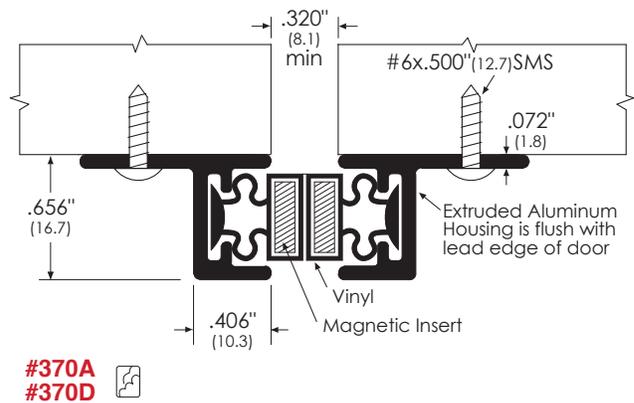
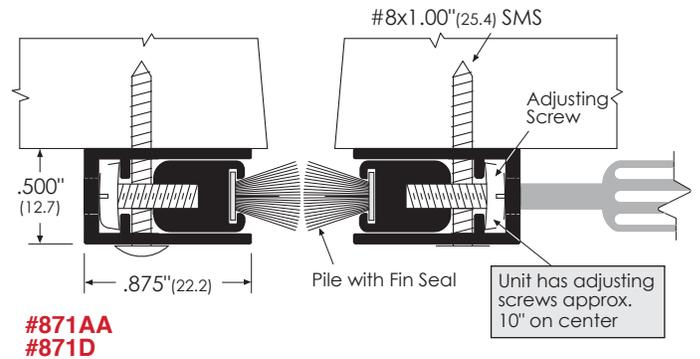
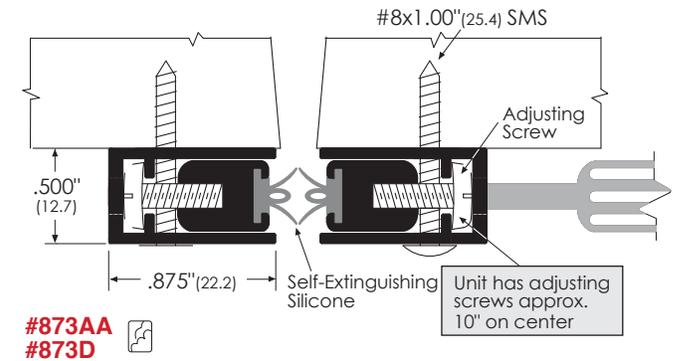
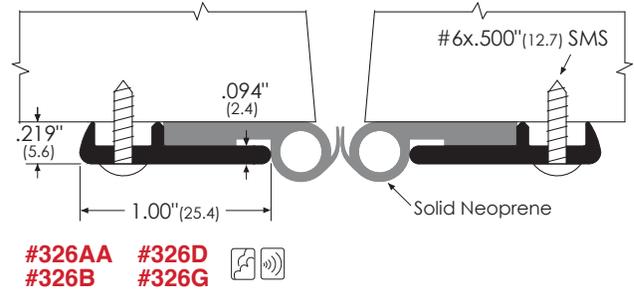
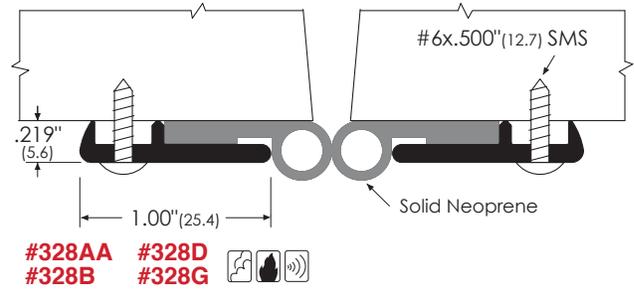
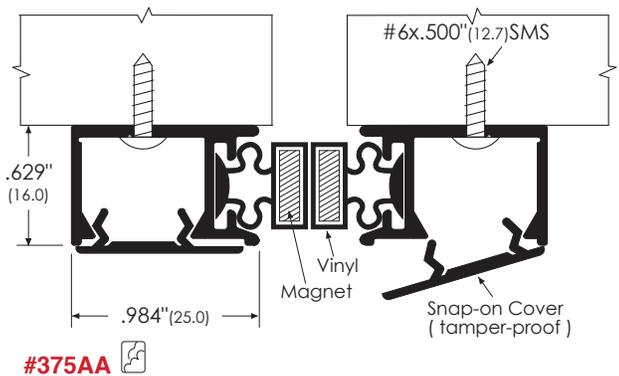
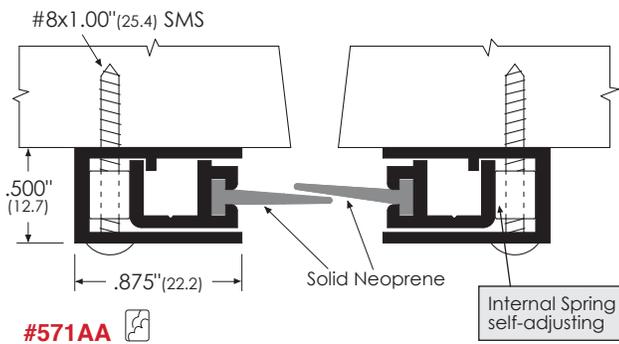
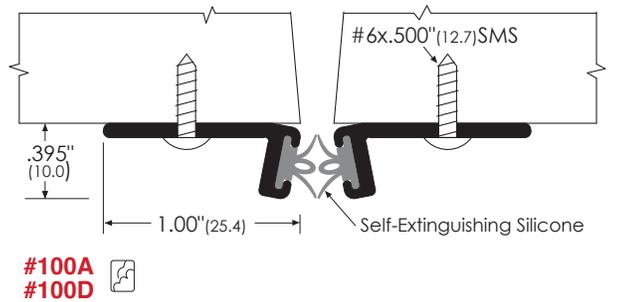
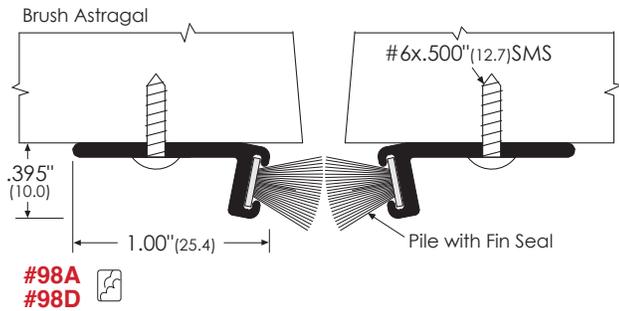
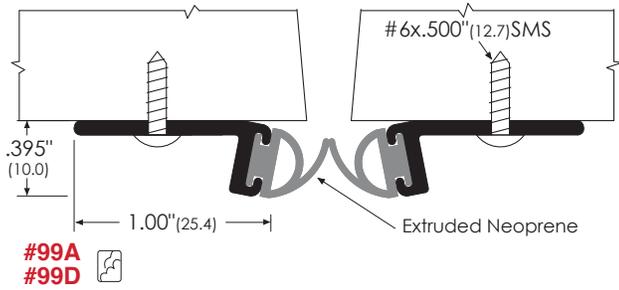
| Part# | A | B |
|-------|---------------|--------------|
| #810 | .625" (15.9) | .625" (15.9) |
| #811 | .750" (19.1) | .625" (15.9) |
| #812 | 1.00" (25.4) | .500" (12.7) |
| #813 | 1.250" (31.8) | .625" (15.9) |



Meeting Stiles - Both Doors Active



Note: A = Aluminum
 B = Bronze
 G = Gold Anodized
 AA = Clear Anodized
 D = Dr. Bronze Anodized



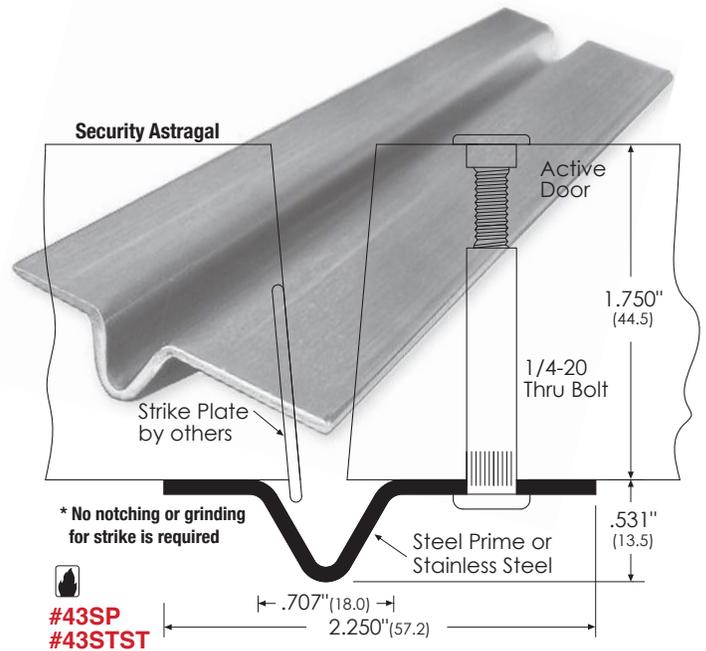
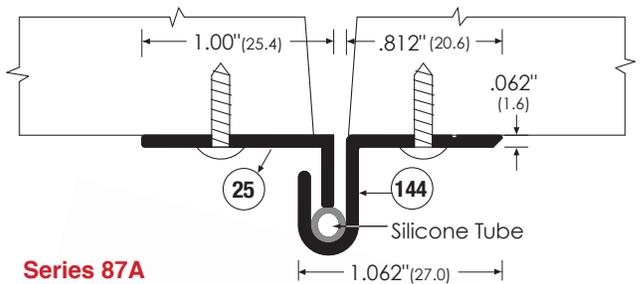
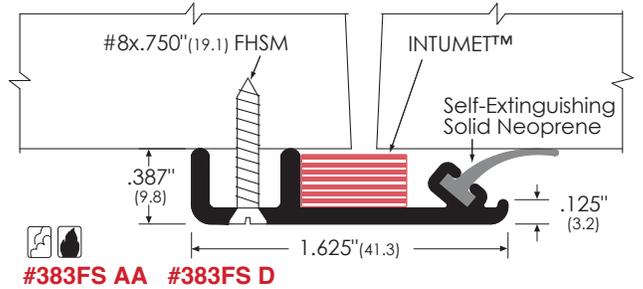
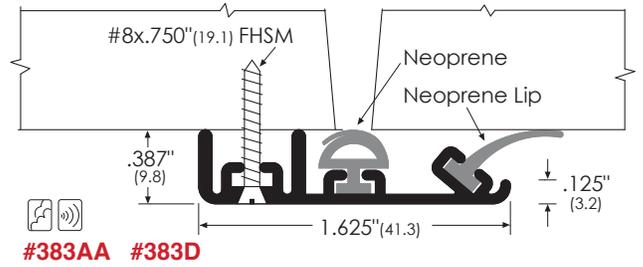
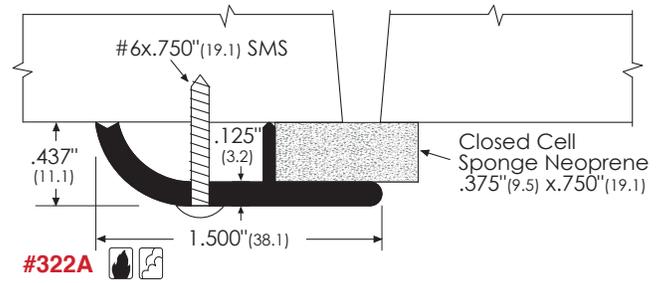
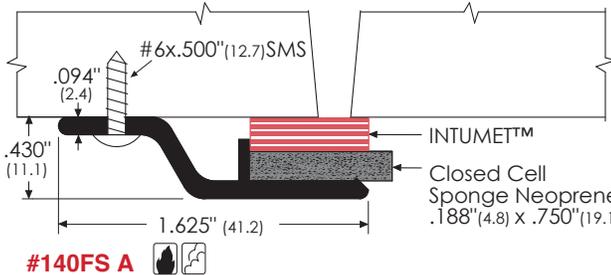
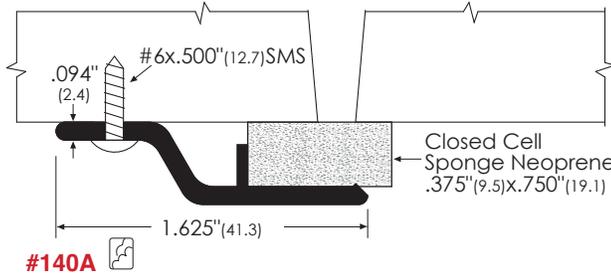
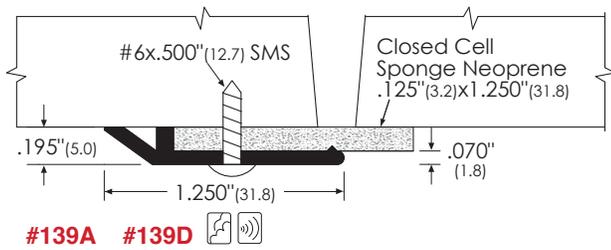
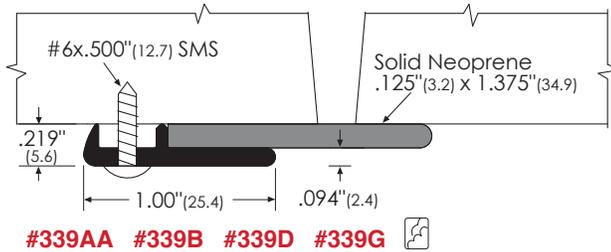
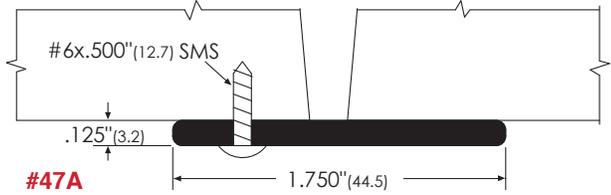
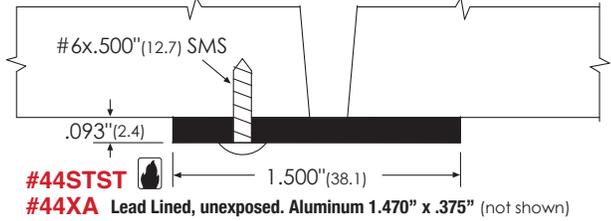
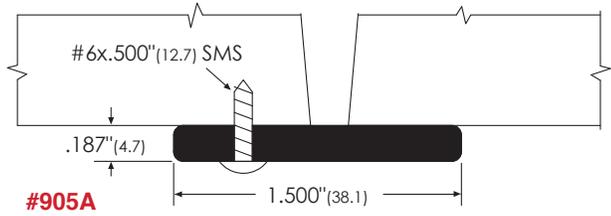
Meeting Stiles

Meeting Stiles - One Door Active



Note: A = Aluminum
 B = Bronze
 G = Gold Anodized
 SP = Steel Prime
 AA = Clear Anodized
 D = Dark Bronze Anodized
 STST = Stainless Steel
 FS = INTUMET™ Rubber

Meeting Stiles

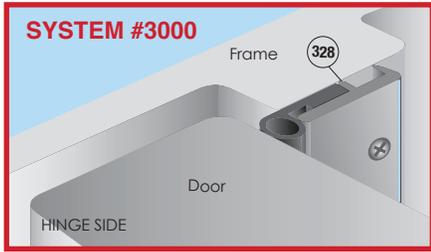


Head and Jamb Protection

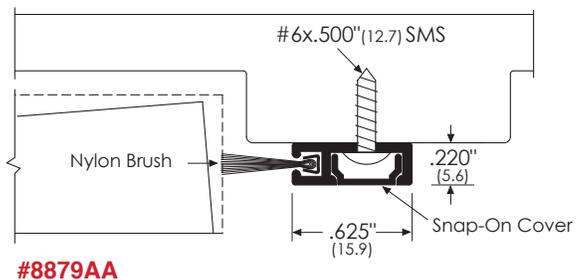
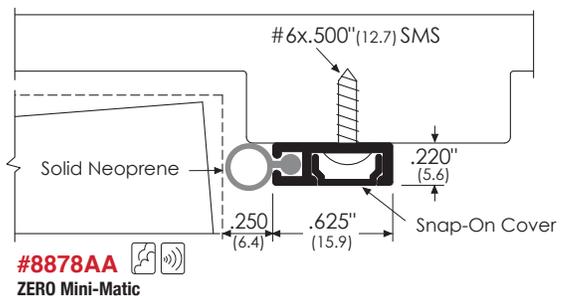
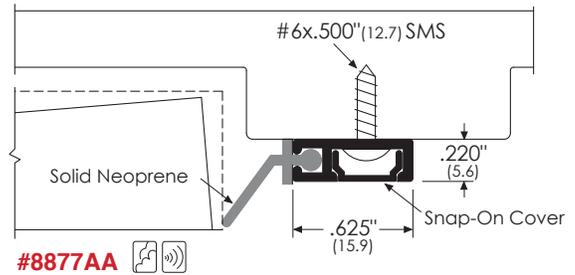
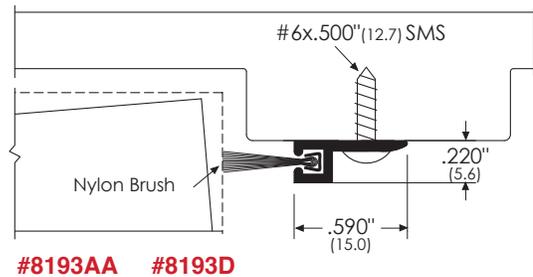
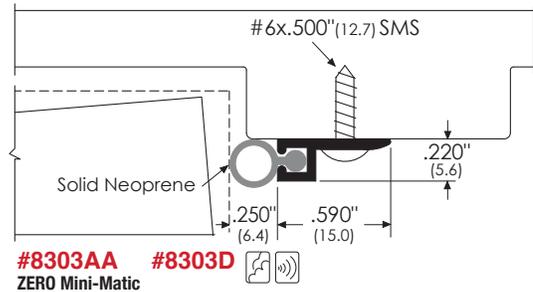
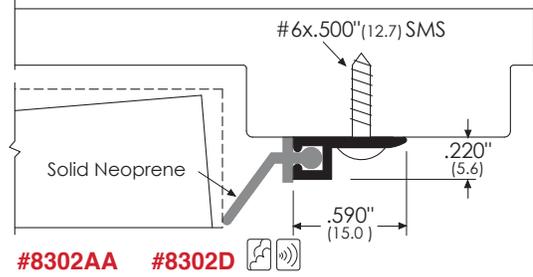
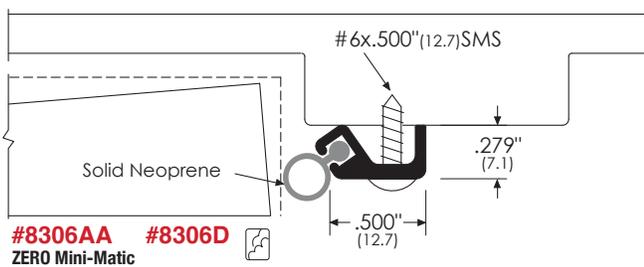
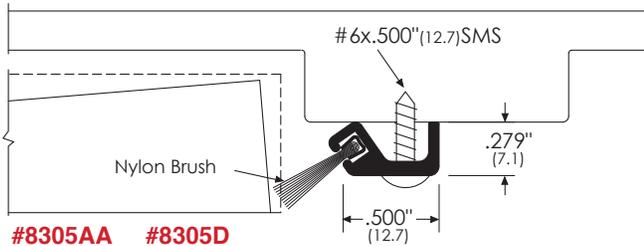
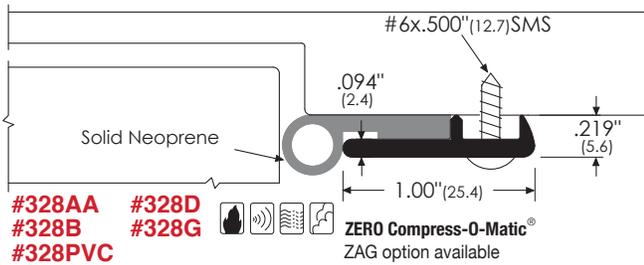
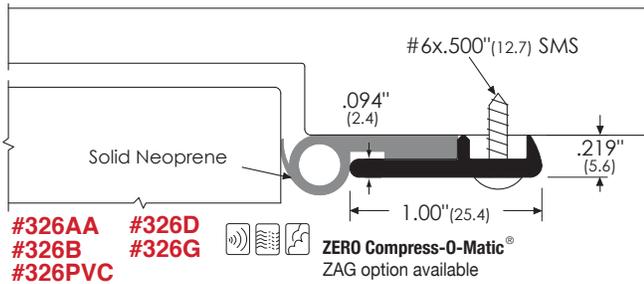


Note: A = Aluminum
 B = Bronze
 G = Gold Anodized
 ZAG = Ligature-Resistant gasketing

AA = Clear Anodized
 D = Dark Bronze Anodized
 PVC = Polyvinyl, clear



System #3000 consists of:
 #328 (hinge side)
 #326 (head & lock sides)



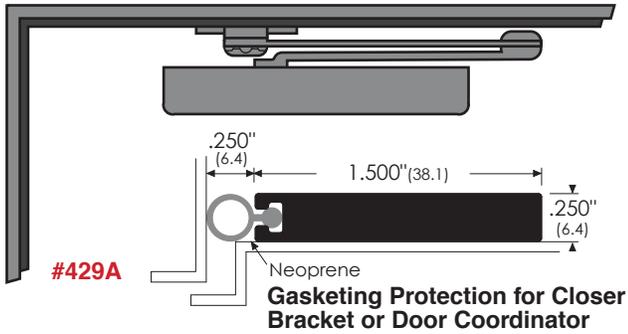
Head & Jamb



Head and Jamb Protection

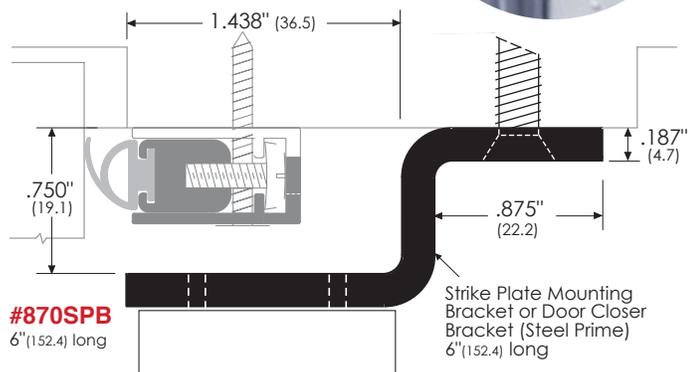
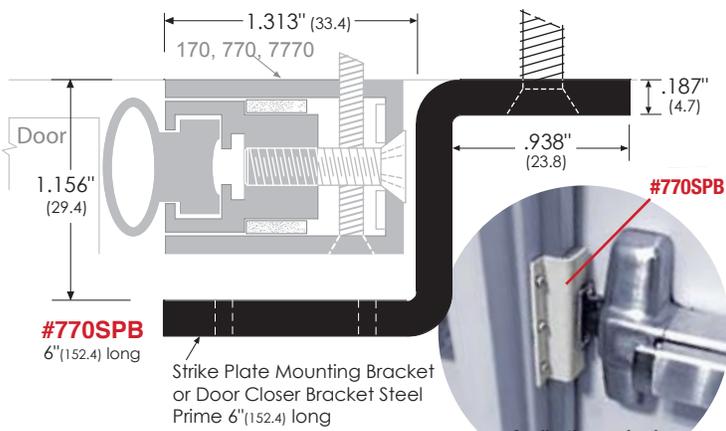
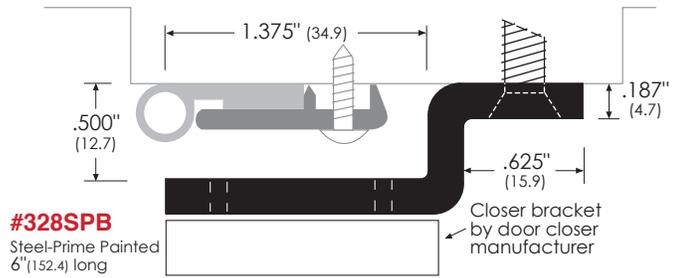


Note: A = Aluminum
D = Dark Bronze Anodized
SP = Steel Primed
B = Bronze
G = Gold Anodized



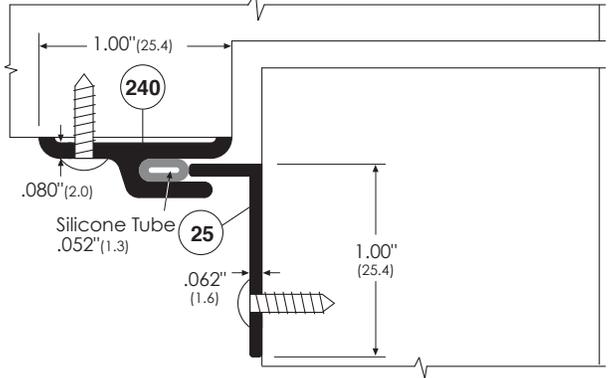
STRIKE PLATE MOUNTING BRACKETS

(Custom sizes available upon request)



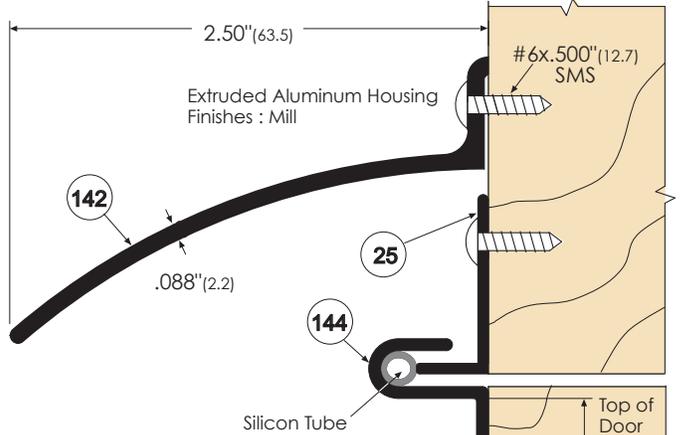
Series 42A Head and Lock-side Jamb

Security seal—when installed with tamper-proof fasteners (#7272ST).

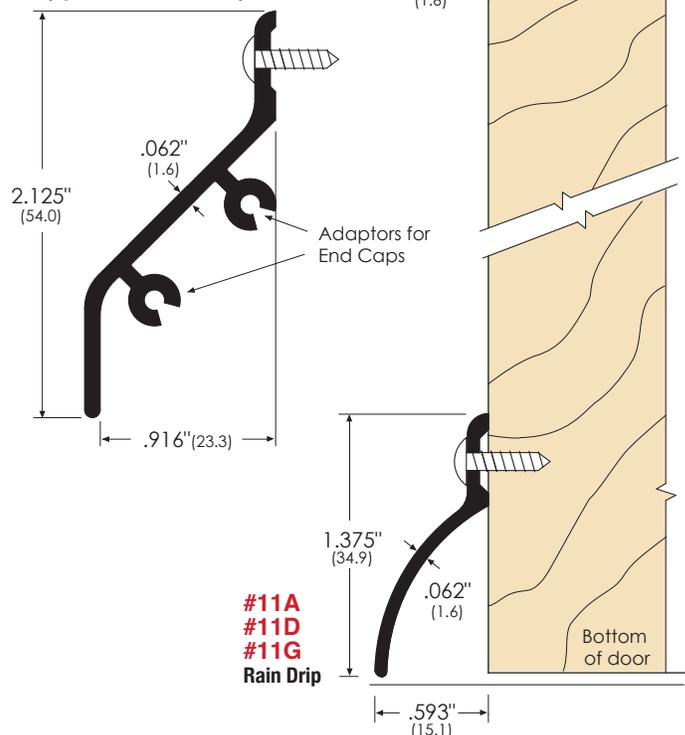


INTERLOCKING WATER SHED For Outswinging Doors

Series 148



#141A (Option for #142 or #11)



Specialty Head & Jamb



650 Series

Keyswitches



Overview

Schlage 650 Series keyswitches utilize an innovative magnetic spring design which allows installers to configure both clockwise and counterclockwise key turn direction as well as momentary or maintained action in seconds. Single gang and narrow stiles are available with numerous options which include heavy-duty plate, weather resistant cover (single gang size only), 2 LED lights – green/red, anti-tamper switch and Schlage Everest cylinder. In addition to the standard (626) satin chrome finish, there are five additional architectural finishes to choose from.

Features and benefits

- Easy to install and maintain
- Single gang and narrow stile offer ultimate flexibility
- Multiple options

Specifications

Innovative magnetic spring technology allows installers to configure models in seconds

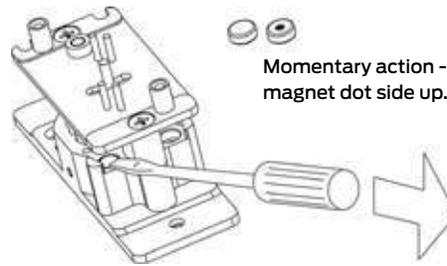
Standard keyswitch

- 5 amp@250 VAC
- Dual voltage
- SPDT contacts

ATS switch closes when cover is on 0.025A@28VDC

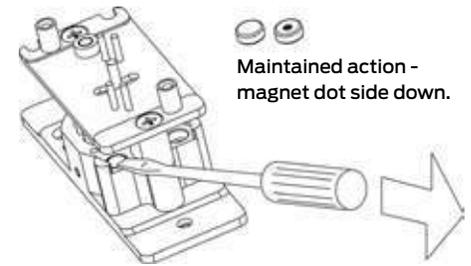
LED indicator lights operate at 12/24 VDC 0.025A@28VDC

Momentary action



Momentary action - magnet dot side up.

Maintained action



Maintained action - magnet dot side down.

Ordering information

- **653-04** - SPDT maintained single direction
- **653-05** - SPDT momentary single direction
- **653-14** - DPDT maintained single direction
- **653-15** - DPDT momentary single direction
- **653-1414** - (2) DPDT maintained bi-direction
- **653-1415** - DPDT maintained x DPDT momentary
- **653-1515** - (2) DPDT momentary bi-direction
- **653-041** - SPDT maintained x key remove one position
- **653-0404** - (2) SPDT maintained bi-direction
- **653-0405** - SPDT maintained x SPDT momentary
- **653-141** - DPDT maintained x key remove one position
- **653-0505** - (2) SPDT momentary bi-direction

Options

- **L2** - 2 LEDs green and red, dual voltage
- **NS** - Narrow stile - stainless steel plate (1 3/4" x 4 1/2")
- **ATS** - Anti-tamper switch
- **HDP** - Heavy-duty plate 1/4" thick cast zinc (standard 626 satin chrome finish with anti-tamper plugs)
- **WP** - Weather-resistant cover fits 1 1/8" cylinder only (not available with NS and L2 options)
- **CYL** - 1 1/4" Schlage Everest® mortise cylinder and 1/8" spacer ring (keyed different)
- **CYL-KA** - 1 1/4" Schlage Everest mortise cylinder and 1/8" spacer ring (keyed alike)

Finish

- **SF-626** - Satin chrome (standard)
- **SF-605** - Bright brass
- **SF-612** - Satin bronze
- **SF-613** - Oil satin bronze
- **SF-625** - Bright chrome
- **SF-2** - Black powder coat

Note: 650 Series keyswitches operate with either a 1 1/8", 1 1/4", 1 3/8", or 1 1/2" cylinder having a straight type cam.

- 1 1/8" mortise cylinder fits direct in key switch - no blocking ring required.
- 1 1/4" cylinders require a 1/8" blocking/spacer ring, Schlage part number 36-079-012 or equivalent (included with the CYL and CYL-KA options).
- 1 3/8" mortise cylinder housing for SFIC cores - requires 1/4" blocking ring Schlage part number 36-079-025 or equivalent.
- 1 1/2" mortise cylinder housing for FSIC cores - requires 3/8" blocking ring Schlage part number 36-079-037 or equivalent.

All cylinders, except 1 1/4" as CYL or CYL-KA options, must be ordered separately.

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Telecommunications Specifications and
Installation Standards
Edited: 12-14-2017



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Part 1 – General

1.01 Introduction

The following specifications are intended to assist in the development of a telecommunications system for accommodating present and future technologies within the Lodi Unified School District. They provide a set of instructions and materials needed to install a telecommunications system within parameters set by industry standards. The requirements for the structured cabling systems within the facilities are continued in this document.

1.02 Work Included

- Contractor shall design and provide all materials in order to install a complete and functional data/telecommunications and cable television infrastructure.
- Only ONE Contractor shall be responsible for providing a complete and functional infrastructure, including necessary components and documentation.
- Documentation will include MS Visio drawings showing room drop locations, cable runs, and conduit pathways. Data, voice, and coax cables are all part of the same infrastructure and shall all be installed, terminated, labeled, and documented by only one contractor (no exceptions).

1.03 Contractor Qualifications

- Must be a Panduit Certified Installer and have an Anixter account in good standing.
- Must possess a valid C-7 California State contractor's license. This license must have been issued 2 years prior to the date of the bid. No other license classification is acceptable.
- Must be able to prove to the satisfaction of LUSD that they have significant experience in the installation of fiber optic systems.
 - Proper installation of fiber optic cable
 - Fiber termination
 - Interconnecting equipment
 - Test procedures with appropriate documentation.
- Must prove employees have been trained in the proper handling and cleanup of small quantities of lead paint. Contractor must contact Technology Services, prior to any work starting for an updated list of sites that require drilling work to be handled by a dedicated asbestos vendor. In the event Contractor encounters asbestos, stop work and notify district.
- Must be in trade of installing telecommunication systems, continuously, for a period of at least 3 years prior to the date of this bid.
- Must submit at least one project reference for each of the three years prior to the date of this bid.



- Must provide a minimum of 3 references supporting a claim of experience for a similar project within 2 years prior to this bid. These project references shall contain the starting and ending contract price, the project foreman or superintendent's name, and the name, address, and telephone number of a project contact.
- Must also provide a list of key installation personnel, their hire dates and a resume of their experience. Key installation personnel shall include at least one foreman and two journey level installers or technicians. By submitting the names of these personnel, contractor is committing them to the execution of the project outlined in this specification.

1.04 Requirements

Drawings and General Provisions of the contract, including General and Supplementary Conditions and Division 1 Specifications Sections shall apply to work specified, in this Section.

Rules and Regulations

All work and materials shall be in full accordance with the latest rules and regulations of the following:

- EIA/TIA Standards
- BICSI Standards
- NEC Standards
- Title 24 (California Code of Regulation)
- All Local Codes
- LUSD Standards
- NFPA Standards
- ADA Requirements
- Safety, Health and Environmental Standards

Permits, Fees, and Inspections

Contractor shall be responsible for all fees and permits required to any governmental agency having jurisdiction over the work of this section. Contractor shall arrange inspections required by any local ordinances during construction. Upon completion of the work, satisfactory evidence shall be furnished to LUSD to show that all work has been installed in accordance with the code(s).

Examination of Site

Contractor shall be held to have visited the site and been satisfied with the conditions under which the work is to be performed. Contractor shall check existing conditions that may affect the work. If the contractor retains services of other firms, those firms shall investigate existing systems and determine labor and other materials required to add devices or modify systems. No allowance shall subsequently be made on the contractor's behalf, for any extra expense resulting from a failure or neglect to discover conditions affecting the work.



Cleaning and Cleanup

All work areas shall be cleaned to remove all dust, dirt, grease, paint, or other marks. All electrical equipment shall be left in a clean condition inside and out, satisfactory to LUSD. Buildings and premises will be kept free from accumulated waste materials, rubbish and debris resulting from work. Upon completion of work: tools, appliances, surplus and waste materials, rubbish and/or debris will be removed and/or legally disposed of offsite.

Interruption of Services

- The underground route may run through areas of existing underground irrigation, signal, power, gas, water and sewer.
- Contractor must take precautions to avoid damaging/killing the root systems of existing trees. Contractor shall hand-dig as necessary to prevent disruption to existing systems, and make all repairs as required if damage occurred, at no additional cost to LUSD.
- LUSD will make every effort to assist contractor in locating existing underground routes. However, contractor will be required to pothole and inspect as needed. Contractor is responsible for USA surveys (Underground Service Alert).
- Power and signal services to existing buildings and related circuits are to remain in operation and shall not be interrupted, except by specific written approval from LUSD.
- If it is deemed necessary to shutdown circuits for the installation of new work, such shutdowns shall be scheduled with LUSD who may at its choosing, have a representative present during shutdown. Shutdowns shall be scheduled "after hours" or on weekends when an interruption would not cause a disturbance to school activities. Any accidental interruption of service to circuits or equipment as a result of work performed by the contractor shall be restored immediately in a manner acceptable to LUSD, at the contractor's expense.

Cooperation and Coordination

Contractor shall be solely responsible for instituting and maintaining safe working conditions for the project area under construction. Noise, dust, and other nuisance control measures will be implemented as effectively as possible. Work will be executed at a time when the space required by this installation is accessible. Adequate barrier and trench covers will be provided, and no equipment will be left unattended, ensuring the safety of students and staff.

Inspection

Contractor shall cooperate with the LUSD Designer/Inspector and provide assistance at all times for inspection of the work performed under this contract. Work that will be contained behind or under access covers, ground covering, or similar impediments shall be left exposed until inspected by LUSD. Contractor shall remove covers, operate devices, or perform any reasonable work that, in the opinion of LUSD, will be necessary to determine the quality and adequacy of the work.



Manufacturers Direction

Contractor shall follow manufacturer's directions that cover points not included in the drawings or specifications.

Workmanship

Contractor shall take all precautions necessary to protect existing structures. Structures or items to remain that are damaged during the course of work, shall be repaired or replaced by the contractor. Good workmanship shall be evident by the proper installation of all materials and equipment. Equipment shall be level, plumb and true with the structure and other equipment. All materials shall be firmly secured in place, adequately supported and permanent.

Contractor's Supervision

Contractor shall personally, or through an authorized and competent representative, constantly supervise the work from its commencement to its completion and acceptance. Contractor shall have the same foreman and workers on the job from its commencement to its completion, as much as possible. LUSD shall be notified of any personnel changes and supplied with the proper documents for any new personnel (I.e. lead certificates). All non-LUSD personnel shall be identified either by an ID tag or uniform with a company logo when on school grounds.

Scheduling of Work

Due to its nature, this work will have to proceed with a definite sequence of operations to minimize outages and continue facilities to all areas. The site will remain in operation during the work, and the contractor shall make every effort to maintain required services.

Guarantees

- Acceptance of the contract for this work includes this guarantee: Contractor guarantees that he has performed the work in accordance with the contract documents. Contractor also agrees to replace or repair, as new, any defective work, materials, or parts which appears within 4 years of final payment. LUSD will make the final determination of whether any defects are the responsibility of the contractor to replace or repair.
- Warranties, guarantees and certificates shall be provided for equipment and materials furnished and installed, as of the date of final payment and be delivered to LUSD. A set of "As Built" Visio drawings and test results for all installed cabling shall be provided to LUSD, before the project will be considered complete.
- Panduit Pan-Net Performance Guarantee - Contractor shall provide a 25 year application performance warranty for all Panduit Pan-Net copper cable and connectivity products. The system must be installed to meet all TIA/EIA commercial building wiring standards and installed per appropriate Panduit instruction sheets. If any Panduit product fails to perform as stated above, Panduit will provide new components at no charge.

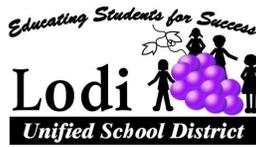


1.05 Submittals and Substitutions

LUSD has evaluated and approved all the approved items listed in the LUSD Parts List. Substitutions to this list are possible but must be approved before a bid is accepted. Substitutions must be submitted to LUSD 10 working days before a bid is due and will either be approved or rejected 5 working days before a bid is due. The substitution documentation shall include the comparative specification listing for the approved product and the proposed product, including a complete listing of the characteristics of the equipment in the specification.

Within 10 working days after the date of the award of the contract, contractor shall submit to 3 copies of a complete submission to LUSD for review. The submission shall consist of 5 major sections, with each section separated with index tabs:

1. Section 1 shall be the Index, which will include the project title, address, name of the firm submitting the proposal and name of the architect. Each page in the submission shall be numbered chronologically and summarized in the index.
2. Section 2 shall include a copy of the contractor's valid C-7 California State Contractor's License, documentation outlined in Section 1.02 and a list of instrumentation to be used for system testing.
3. Section 3 shall contain the pre-approved substitution submittal and the written approval from LUSD. If no substitutions are planned, it will be noted in this section as well.
4. Section 4 shall contain samples of proposed cable markers and labeling.
5. Section 5 shall contain a complete and detailed satellite cable count, workstation count, bill-of-materials and Visio drawing showing proposed work ("As Planned"). Any contractor failing to include all of the required information shall be deemed non-responsive and may be disqualified, at the discretion of LUSD.



PART 2 – Products and Procedures

2.01 Approved LUSD Parts List

An approved parts list is detailed in “Enclosure C” of this document. Preferred education pricing provided for this list is available through Anixter Inc. (1-800-ANIXTER, reference Lodi Unified).

All products must be selected from the “LUSD Parts List,” unless substitutions have been approved by LUSD.

2.02 Labeling

- Shall follow the “LUSD Labeling Format” specified in Enclosure B, with the exception of workstation cables (i.e. patch cords).
- Shall never be hand-written.
- Shall be machine printed on clear or opaque tape, stenciled onto adhesive labels, or type written onto adhesive labels.
- Shall have font that is at least 1/8” in height, block characters, and legible.
- Shall have text that is of a color contrasting with the label so that it may be easily read. If labeling tape is utilized, the font color shall contrast with the background.
- Patch panels shall exhibit workstation numbers, in a sequential order, for all workstations served by the MDF or IDF.
- Shall be completed before testing commences. Labeling discrepancies found during inspection will void all test results.

2.03 Copper Backbone Cable

Description: The backbone cabling used to connect all IDF’s to the MDF, used for voice/data.

- Shall be Category 5e and installation must be in compliance with all EIA/TIA standards.
- The number of available wire pairs to each IDF must account for a minimum of 2 pairs per classroom. A minimum of 25 pairs of cable shall be used to any building encompassing an office. Each pathway, upon the population of cable, shall have enough wire pairs to accommodate all existing and future IDF’s in that pathway’s route.
- Cable must be rated for the environment that it will be installed in, such as plenum, riser or outdoor rated.
- Only Cat 5e 110 punch blocks will be allowed for terminations. Backbone pairs shall be terminated at the top left of the blocks installed in the IDF.
- Each copper backbone cable shall be machine labeled and printed EIA/TIA 606 Section 8 compliant at each end with its respective IDF number/letter. All binder groups shall be tied off with their respective identifying ribbon at every breakout point.



2.04 Wi-Fi Cable

Description: Cabling between Wi-Fi jacks and IDF/MDF's.

- Shall be blue Category 6A - 802.3bt Type 4 and installation must be in compliance with all EIA/TIA standards.
- Each blue cable shall be terminated at both ends with white Panduit Cat 6A RJ45 jacks.
- Panduit Executive style faceplate shall be used at access point location.
- Wireless access points shall be in every classroom, common areas, and exterior for full campus coverage.

2.05 Workstation Cable

Description: Cabling between workstations and IDF/MDF's.

- Installation must be in compliance with all EIA/TIA standards.
- Each standard classroom must have a minimum of two workstations:
 - One workstation (the teacher's) consists of 2 purple Cat 6A cables and 1 grey Cat 6A cable.
 - The second workstation (the student's) consists of 4 purple Cat 6A cables.
 - Each purple cable shall be terminated at both ends with a beige Panduit Cat 6A RJ45 jacks.
 - Each gray cable shall be terminated, with slack loop at IDF/MDF location with a Cat 6A black RJ45 for VOIP and 110 punch block for non-VOIP. District will identify where to use VOIP and where to non-VOIP. Workstation terminates with a black Panduit, Cat 6A RJ45 jack.
- Panduit LDP series or Panduit T-70 series (both Cat 6A compliant) raceway shall be used on interior walls where raceway is required for station drops. Panduit T -70 shall be used for computer labs and have access points every 5 feet (an access point shall consist of one duplex outlet 110 VAC receptacle and two beige Cat 6A data jacks).
- Copper station cabling may run outside of conduits and above T-Bar suspended ceilings when available. Cables installed in this fashion must follow these guidelines:
 - Run horizontally in bundles and tie down neatly without the use of zip-ties.
 - Be well clear of any light fixtures or other electrical appliances that may affect data transmissions.
 - Have their own support system, such as J-Hooks or a cable tray
 - Cable tray shall be a minimum of 12"x4" wire mesh and UL listed.
 - Cannot be supported by other items in the ceiling such as conduit, ducts and ceiling grids.



2.06 Fiber Inner Duct

Description: Ducting specifically manufactured to enclose and protect fiber optic cable.

- Must be used for all fiber installations, with exceptions where conduits are too small to run inner duct.
- LUSD will be notified, in writing, that conduits might be too small to run inner duct. LUSD must approve, in writing, any fiber run not in inner duct.

2.07 Fiber Distribution

Description: The backbone cabling used to connect all IDF's to the MDF.

- Only 50 um-multimode fiber (OM4) shall be used and installation must comply with all EIA/TIA standards.
- Singlmode fiber (OS2) shall be used as needed due to distances.
- Only 62.5/125 um-multimode fiber shall be used for fire alarm applications
- A minimum of 12-strand fiber shall be used from the IDF's to the MDF.
- Each fiber cable shall homerun from the IDF's to the MDF without the use of interconnects.
- Each pathway, upon the population of fiber, shall have enough fibers to accommodate all existing and future IDF's in that pathway route, and also be accompanied by a coax cable.
- SC style connectors shall be used for all fiber termination.
- All fiber strands shall be terminated and labeled at both ends with its respective IDF identifier.
- All fiber interconnect devices shall be labeled with their respective IDF identifier.
- At each location where the fiber cable is exposed to human intrusion, it shall be marked with warning tags. These tags shall be yellow or orange in color, and shall contain the warning: "CAUTION FIBER OPTIC CABLE." The text shall be black, block characters and at least 3/16" high. A warning tag shall be permanently affixed to each exposed cable or bundle of cables.

2.08 Main Distribution Facility (MDF)

Description: A location within a building or complex of buildings, where the entire telecommunications system originates. EIA/TIA-569 standards refer to the room housing the MDF as the "Equipment Room."

- Must be in compliance with all EIA/TIA standards.
- Must have fire treated ¾" plywood on all walls.
- Must have (1) 4-post rack and (2) 2-post racks in secured dedicated rooms
- Cabinets must have a dedicated power outlet mounted inside.



- Cabinet shall be load tested with no less than 200 pounds and up to rated shear strength.
- Ladder racking must be mounted on the perimeter of all walls and above cabinets.
- A Panduit wire manager must be mounted in-between every patch panel (must use one wire management panel for every patch panel).
- A 3-foot slack loop shall be required at MDF for all cables.
- MDF room sizing:
 - High School – 15'x10'
 - Middle School – 10'x8'
 - Elementary School – 9'x8'

2.09 Intermediate Distribution Facility (IDF)

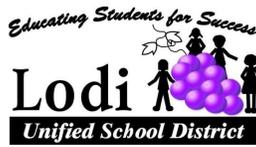
Description: A location in a building that interconnects and manages the telecommunications wiring between the MDF and workstation devices.

- Must be in compliance with all EIA/TIA standards.
- Must have fire treated $\frac{3}{4}$ " plywood on all walls.
- Cabinets must have a dedicated power outlet mounted inside.
- Must have (2) lockable 90" tall, 19-inch / 40 RU, front and rear swing cabinets in unsecured locations.
- Must have (2) 2-post racks in secured dedicated rooms.
- Cabinet shall be load tested with no less than 200 pounds and up to rated shear strength.
- Ladder racking must be mounted on the perimeter of all walls and above cabinets.
- Cabinets must adhere to ADA requirements. See Enclosure G
- A Panduit wire manager must be mounted in-between every patch panel (must use one wire management panel for every patch panel).
- A 3-foot slack loop shall be required at IDF for all cables.

2.10 Backboard

Description: Generally, refers to the plywood sheeting lining the walls of telecommunications facilities. Backboard may also refer to the entire wall-mounted assembly including wire management, wiring blocks, and equipment cabinets.

- Must have fire treated $\frac{3}{4}$ " plywood on all walls.
- Dimensions shall be no larger than the cabinet/IDF when installed in a classroom.
- Shall be fastened to two separate wall studs with 4 lag bolts.
- Shall be no thinner than $\frac{5}{8}$."



2.11 Grounding and Bonding

Description: Generally, refers to the grounding and bonding requirements for telecommunications rooms, including data cabinets, racks, and ladder racking systems. Strictly adhere to all Building Industry Consulting Service International (BICSI), Telecommunications Industry Association (TIA) recommended installation, best practices, codes, and standards when installing the grounding and telecommunications bonding infrastructure.

- Telecommunications Main Grounding Busbar (TMGB) shall be located in the MDF: busbar placed in convenient and accessible location and bonded by means of bonding conductor for telecommunications to building service equipment (power) ground.
 - Telecommunications Main Grounding Busbar (TMGB) shall be constructed of .25" (6.4 mm) thick solid copper bar. The busbar shall be 4" (100 mm) high and 20" (510 mm) long and shall have 30 attachment points (two rows of 15 each) for two-hole grounding lugs. The hole pattern for attaching grounding lugs shall meet the requirements of ANSI-J-STD – 607-A and shall accept 27 lugs with 5/8" (15.8 mm) hole centers and 3 lugs with 1" (25.4 mm) hole centers. The busbar shall include wall-mount stand-off brackets, assembly screws and insulators creating a 4" (100 mm) standoff from the wall. The busbar shall be UL Listed as grounding and bonding equipment.
- Telecommunications Grounding Busbar (TGB) shall be located in the IDF: interface to building telecommunications grounding system generally located in telecommunications room. Common point of connection for telecommunications system and equipment bonding to ground, and located in telecommunications room or equipment room.
 - Telecommunications Grounding Busbar (TGB) shall be constructed of .25" (6.4 mm) thick solid copper bar. The busbar shall be 2" (50 mm) high and 12" (300 mm) long and shall have 9 attachment points (one row) for two-hole grounding lugs. The hole pattern for attaching grounding lugs shall meet the requirements of ANSI-J-STD – 607-A and shall accept 6 lugs with 5/8" (15.8 mm) hole centers and 3 lugs with 1" (25.4 mm) hole centers. The busbar shall include wall-mount stand-off brackets, assembly screws and insulators creating a 4" (100 mm) standoff from the wall. The busbar shall be UL Listed as grounding and bonding equipment.



2.12 Testing and Documentation

Testing: Contractor shall test each fiber strand and each pair of twisted pair copper cable after labeling is 100% complete. LUSD reserves the right to have a representative present during testing.

- **Fiber Optics Cable:** Each strand shall undergo bi-directional testing for signal attenuation losses.
 - Test Equipment:
 - Multi-mode: Fluke DSP 4000 for equivalent.
 - Single-mode: Laser Precision TD2000 OTDR with appropriate modules, or equivalent.
 - Tests:
 - Multi-mode: Bi-directional signal attenuation at 850 and 1300 nm.
 - Single-mode: Bi-directional signal attenuation at 1310 and 1550 nm.
 - Test Criteria:
 - Signal loss less than the link loss budget as determined by the tables below.

| | |
|-------------------------|-----------------------------|
| SC Connector Pair | 0.5dB |
| Multi-Mode Cable | |
| Wavelength (nm) | Maximum Attenuation (dB/km) |
| 850 | 3.5 |
| 1300 | 1.5 |

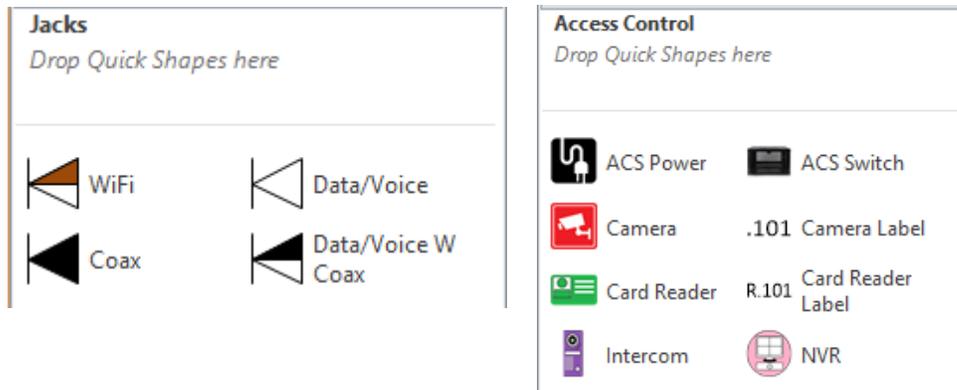
Example: A link with 3 connectors and a total length of 500m should have a maximum attenuation of 3.25dB at 850nm and 2.25dB at 1300nm

| | |
|--------------------------|-----------------------------|
| SC Connector Pair | 0.5dB |
| Single-Mode Cable | |
| Wavelength (nm) | Maximum Attenuation (dB/km) |
| 850 | 1.0 |
| 1300 | 1.0 |

- **Workstation Cable:** Each workstation cable shall be tested from the Jack Panel to the data outlet after labeling is completed.
 - Test Equipment: Fluke DSP-4000 or equivalent.
 - Tests: Conform to EIA/TIA Standards for Category 6A.
 - Test Criteria: Tested to Category 6A for permanent link compliance.
- **Wi-Fi Cable:** Each Wi-Fi cable shall be tested from the Jack Panel to the data outlet after labeling is completed.
 - Test Equipment: Fluke DSP-4000 or equivalent.
 - Tests: Conform to EIA/TIA Standards for Category 6A and 802.3bt Type 4.
 - Test Criteria: Tested to Category 6A for permanent link compliance.

Documentation: Contractor shall provide documentation to include test results and Visio “As-Built” drawings in both soft and hard copy format.

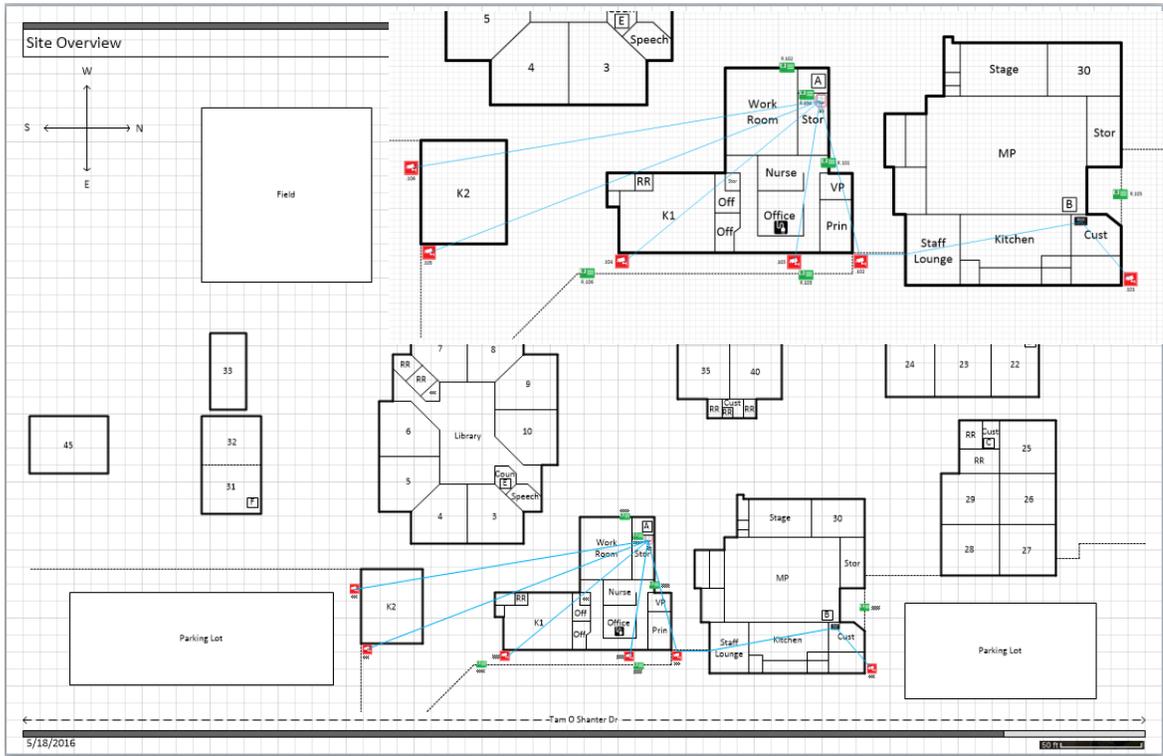
- **Fiber Test Results:** Shall be entered onto the attached form "Fiber Test Results."
 - Only original signed copies will be acceptable.
 - Hand written results are not acceptable.
 - Copies of test results are not acceptable.
 - Test results shall be in PDF format.
- **Workstation/Wi-Fi Test Results:** Shall be provided in the form of printouts from the test equipment, as well as computer file copies on CD including the software needed to read the results.
 - Only original signed copies will be acceptable.
 - Hand written results are not acceptable.
 - Copies of test results are not acceptable.
 - Test results shall be in PDF format.
- **As-Built Drawings:** Contractor shall produce drawings while adhering to the following guidelines:
 - Always use icons from the Visio stencils provided by LUSD. Not all available icons are shown below.



- Depiction of backbone cable routing.
- Locations of access points, card readers, distribution cabinets, intercoms, jacks, NVRs, security cameras and workstations.
 - Active components between an end point and NVR/switch, must be documented (power injectors, switches/repeaters, hubs, etc.).
 - Access Control components must have power sources identified.
 - Jacks must be accompanied by a jack label.
 - Nodes must be accompanied by an IP address.

- Submit before final inspection for punch list. Incorrect Visio drawings are punch list items and are to be corrected before re-inspection.
- Additional copies corresponding to the appropriate IDF/MDF, shall be posted in the MDF's and IDF's.

Sample of LUSD Visio drawing



Sample of LUSD Visio Backbone

2.13 Acceptance

Acceptance of the Data Communications System, by LUSD, shall be based on the results of testing, functionality, and the receipt of documentation.

- With regard to testing, all fiber segments and workstation data cables must meet the testing criteria established in Section 2.12 above.
- With regard to functionality, contractor must demonstrate to LUSD that Gigabit Ethernet data signals can be successfully transmitted bi-directionally, from the MDF/IDF to and from a number of individual data outlets.
 - No more than 5% of the data jacks will be tested.
 - If any locations fail, an additional 5% will be tested until no more links fail.
- With regard to documentation, all required documentation shall be submitted to LUSD



PART 3 – Execution

3.01 Division of Work

Contractor shall design and install the data communications system as described in the preceding documentation. Installation shall result in a functional system. The scope of work shall include:

- All necessary conduit and raceway with a Visio drawing showing proposed cable routes, existing conduit to be used, new conduit being installed, equipment racks and approximate drop location. (Note: The EIA/TIA specifies at least 2 drops per workstation location, back to the IDF/MDF).
- Necessary trenching, backfill, replacement of landscape material, repair of damage to utilities or structures, replacement of asphalt and base, and replacement or repair to concrete work resulting from conduit or raceway installation.
- Provide and install all equipment.
- Test and document system upon completion. Copies of all other forms and enclosures shall be included.
- Supply and install all necessary materials resulting in a safe, complete and functional system. The scope of work shall be reviewed by no less than 1 person for completeness from the following departments: Facilities & Planning, Maintenance & Operations.

PART 4 – Conduit

4.01 Underground

- Contractor will use PVC schedule 40 underground, with rigid 90-degree elbows and tracer tape placed 6” to 12” over the top of the PVC portions. Elbows shall have a radius of at least 10 times the diameter of the conduit used.
- See NEC for appropriate depths and pull box sizes.
- Should be next to existing underground where possible.
- All new underground conduits shall be (2) 4” plus (1) 4” spare, PVC to support data/voice/intercom/PA. All new underground conduits shall be 2” PVC to support fire alarm.
- Areas near tree roots and other underground utilities will need to be hand dug. LUSD will identify those areas. Pull boxes are to have traffic lid covers (that say Data). The bottom will be grooved with drains installed. LUSD will provide diagrams upon request.

4.02 Aboveground

- All roof penetrations shall be approved by LUSD, before actual penetration is made.
- All exterior conduit that is accessible shall be in rigid conduit.
- A pull rope will be installed in all new and existing conduits used, including underground and interior conduit.



- Firewall penetrations will extend through the wall a minimum of 12 inches.
 - Shall be sealed around the outside with firecaulk.
 - Shall be sealed around the inside with firecaulk duct seal (the depth shall be 50% diameter of the conduit).
 - No innerduct shall be installed in a firewall penetration.
- Conduit size to be determined by EIA/TIA Standards leaving room for future expansion.
- EMT conduit shall be used in the following interior areas:
 - Gyms.
 - Multi-Purpose rooms.
 - Industrial Arts buildings.
- LB's shall not be used in new and existing conduit for data applications.
- Data/Voice conduits shall service LUSD's voice and managed IP network only.

4.03 Portable Classrooms

- All conduits to be installed on the exterior of a portable will be approved by LUSD personnel before installation.
- The center beam of a portable shall not be penetrated.

PART 5 – Concrete

- ALL concrete and asphalt repair shall be included in the scope of work and will be replaced from joint to joint (no patching, except when done temporarily for safety).
- Soft patch may not be used as a permanent patch for asphalt or concrete.

PART 6 – Change Orders

ALL change orders shall be routed to the department originating the project. Departments are typically Facilities & Planning and Technology Services and will be approved or disapproved on a case by case basis.

Approved change order form will be added to the scope of work and completed as a part of the contract.

PART 7 – Departure from Specifications

During unusual or unique situations, a departure from specifications (DFS) may be granted for specific locations and/or equipment. Approval is granted or denied in writing by Technology Services. See section 1.05 for materials substitutions.

The contractor will keep all forms on file until the warranty on the installation expires.



PART 8 – Asbestos and Lead Containing Paint Waiver

Asbestos work must be performed by M&O approved certified remediation company. Contractor must contact LUSD’s Maintenance and Operations (M&O) department for a current list of Asbestos Hazard Emergency Response Act (AHERA) sites, requiring work to be performed by a remediation company.

All District sites will be considered to be a lead containing paint facility unless the area of work has been sampled and determined to be otherwise. All work including but not limited to cutting and/or hole drilling will be performed by a lead awareness trained individual that is also trained in HW collection and disposal activities. Otherwise the contractor must employ the services of an environmental company approved by M&O and certified to perform these duties. All environmental activity will be reported to the Maintenance & Operation Structural Supervisor at (209) 331-7193 prior to the commencement of work.

PART 9 – Access Control & Video Safety

9.01 Introduction

In addition to LUSD Infrastructure Wiring Specifications, the following guidelines apply to access control card readers, security cameras, and other access devices installed within LUSD.

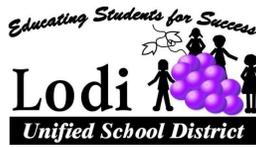
A site walk must also be performed with a Technology Services staff member before work begins.

9.02 JAESC/Transportation/Warehouse Specific Guidelines

- Access control devices and security cameras will be:
 - Connected directly on the LUSD network.
 - Operations, VLAN 99.
 - Powered by LUSD POE switches.
- All access control nodes should be fed from the MDF, when the run is within EIA/TIA specifications.
- NVR will be housed in the Data Center and rack mounted.

9.03 School Site Specific Guidelines

- Access control card readers and other access devices will be:
 - Connected directly on the LUSD network.
 - Operations, VLAN 99.
 - Powered by LUSD POE switches.
- Security cameras will be placed on their own private network.



- The installation location of the NVR is to be coordinated with Technology Services. Ideally, the NVR will be installed in the MDF where security and environmental conditions are monitored.
 - NVR's are to have two NICs
 - One placed on the private network
 - The other on LUSD's Operations network.
- A maximum of 1 external (public network) viewing license/user, will be allowed for each site.

9.04 District Wide Guidelines

- Network Video Recorder (NVR), GateKeeper, and other full OS devices (Windows/Mac), will have the LUSD's Anti-Virus and LanRev agents installed on the systems. In addition, the device name and description are setup according to LUSD specifications.
- All power supplies shall be housed in a cabinet or communications closet.
- All cable runs shall be terminated at a jack, not a modular plug.
- No faceplate needed in ceiling jacks and utilize yellow patch cables.
- Contractor shall receive approval from LUSD before sharing any cabling pathways with existing LUSD infrastructure.
- Yellow Cat 6A cable shall be used for infrastructure cabling runs, terminated into yellow Panduit jacks.
- 19" Patch Panel required for all cabinets (both existing or new cabinets).
- Repeaters/switches used where a 90 meter run is exceeded, are to be located 5 feet from an existing MDF/IDF.
- All jacks shall be labeled in accordance with LUSD specifications.
- Technology Services Network Operations Center (NOC) shall be contacted before anything is patched into LUSD's network. The NOC will be able to verify connectivity and ensure there are no other issues.
 - NOC can be reached at: (209)331-8911.

9.05 Documentation Guidelines

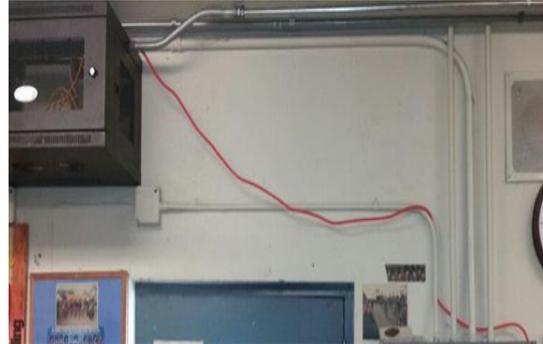
- Please see section 2.12 for cable testing and Visio drawing guidelines

9.06 Power

All cabinets will have a dedicated circuit/breaker and power sources must be mounted per NEC requirements.

During the initial walk with Technology Services, power sources will be identified. If power source is not available, Technology Services will work with M&O to coordinate the installation of power source.

Powering cabinets with extension cords is not permissible.



Temporary Power

If active components are not operating off a dedicated power outlet/source, then it needs to be noted on the drawing with building/location. All active components mounted in a cabinet must have a dedicated power outlet within the cabinet. Do not affix raceway to walls for temporary power/extension cords.

9.07 Miscellaneous

- All wires must be labeled w/ wire-wrap style labels within 3 inches of the jacks.
- Jacks should be labeled and tested at both ends of each smallest segment according to Specifications. This type of passive cross connect is no longer allowed.
- As of July 1st, 2016, single gang boxes are not permitted in IDFs.
- This photo depicts what **not** to use anymore.
 - Jacks are now placed in a 24 port patch panel
 - Panduit part #CP24BLY



PART 10 – A/V Projectors

10.01 Mounting Guidelines

- For new construction, DSA approved drawings on following pages must be observed by both architect and installer.
- DSA standards must be followed
- Any non-standard mounts must be approved by F&P.
- All mounts must be tagged with contractor's name and date of installation. See DSA approved mounting documentation.
- HDMI cables mounted in raceway must be able to pass a clean digital signal, with an allowance for a standard quality user patch cable to span 35 feet.
 - For example: If the user connects a 35-foot cable to the user interface/wall plate and the length of the infrastructure cable between the wall plate and the projector is 10 feet, then the total length of digital transmission is 45 feet; therefore, the installer must demonstrate that the infrastructure cable can deliver a clear picture while being extended with a 35-foot HDMI male-to-male patch cable. Sound must also be demonstrated through jacks in faceplates.
- User connection interface/wall plate will contain, one VGA, one HDMI, and one 1/8 stereo audio jack. Active faceplates will be used for VGA/HDMI connection.
- User connection interface/wall plate will contain one VGA, one HDMI, and one 1/8 stereo audio jack. Active faceplates will be used for VGA connection.
- Power will be installed high on the wall within two feet of the projector.

10.02 Short Throw Projectors

- Mounted to a plate/backboard that spans two studs.
- Secured to wall studs with 4 lag bolts.
- Head clearance from bottom of projector must be a minimum of 78 inches from floor.
- All CAT6A network connections, AV connections, and power shall be installed behind the short throw wall mount bracket.
- The use of short throw projectors shall be determined per project, and with District approval.

10.03 Ceiling Mount Projectors

- For T-Bar Ceiling: Two drop ceiling T-bar rods must be attached to opposite corners of the T-bar projector mount panels.
- For Hard Lid Ceiling: Mount must be bolted to cross-members(or ceiling joist) with no less than two bolts and some additional mounting brackets.
- All CAT6A network connections, AV connections, and power shall be installed above the ceiling mount bracket.
- The use of ceiling mount projectors shall be determined per project, and with District approval.



10.04 Promethean Boards

- 75" wall mounted Promethean Boards shall be installed in all classrooms
- Promethean Boards shall have adjustable mounts when used in Kindergarten through 6th grade classrooms.
- HMDI cabling shall be from Promethean Board to the teaching station with a CAT6A connection. An additional HMDI connections shall be installed directly below the board with a CAT6A connection.

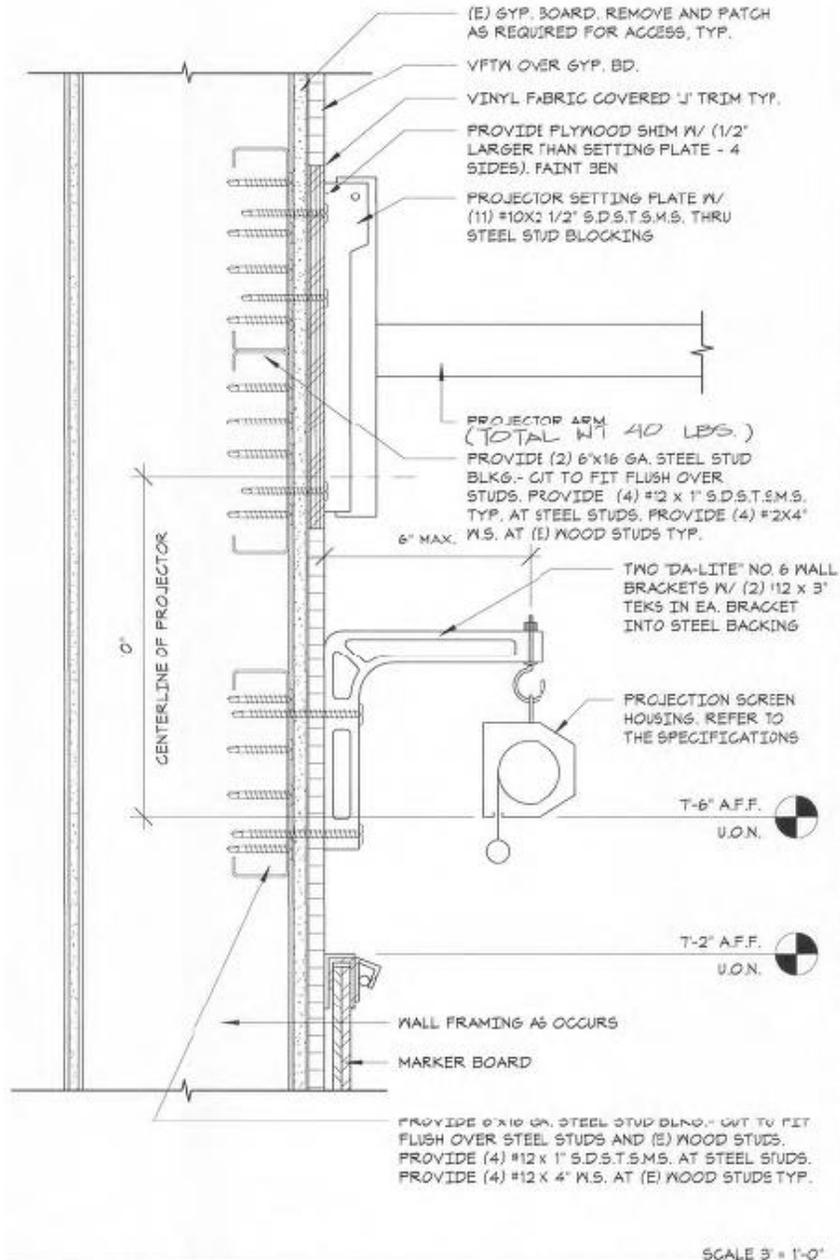
10.05 Multipurpose Rooms/Gyms

- Large assembly areas shall receive electric large format projection screens and lamp less ceiling mounted projectors. Refer to current District standards for current manufacture and model number.
- Large assembly areas shall have a dedicated AV cabinet to facilitate local presentations and house wireless microphones and AV amplifiers.
- Large assembly areas shall have separate sound systems.
- AV wall controls shall be based on Extron Electronics and control all AV in the space, with the capability to integrate lighting and shades.
- Sizing of screens, throw distance of projector, and locations shall be engineered by AV Contractor and approved by the District.

10.06 DSA Mounting Documentation

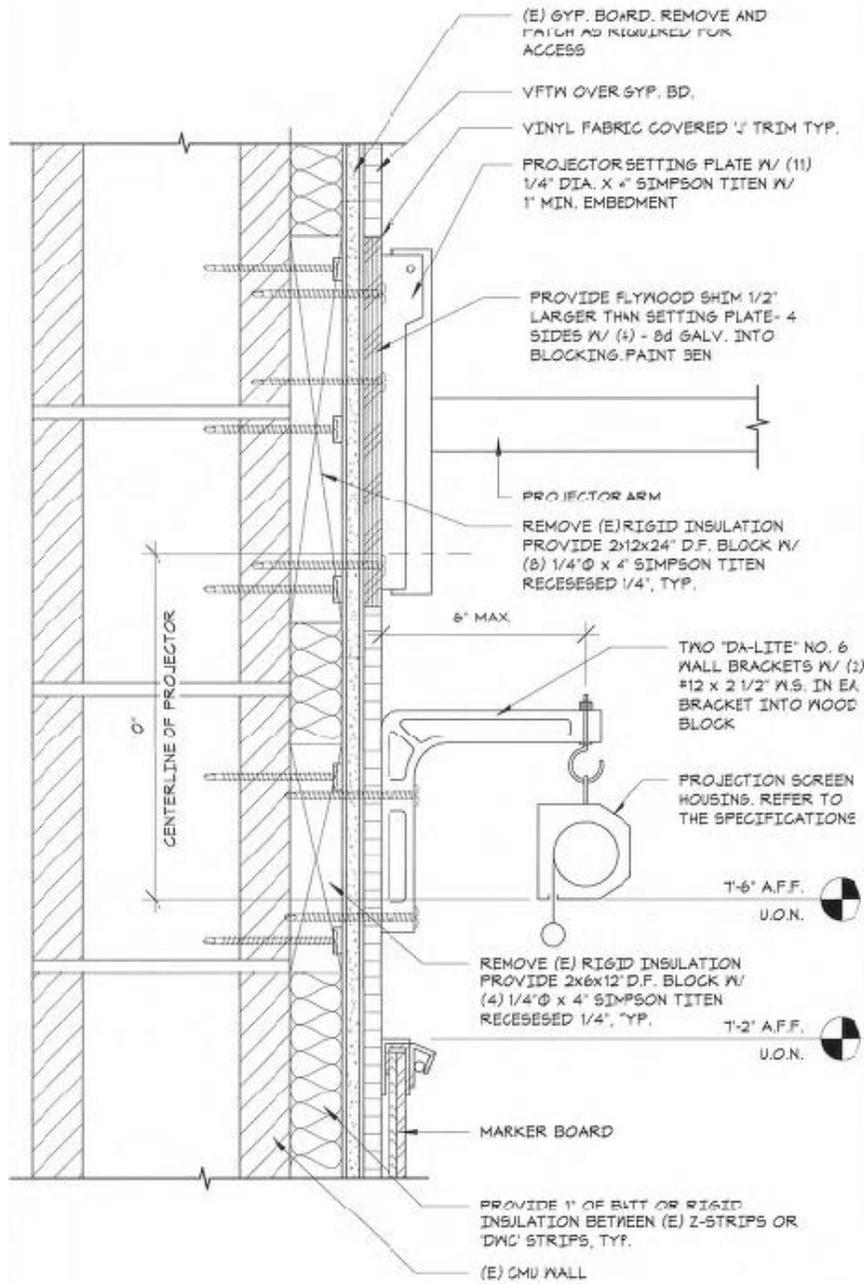
Projector Anchor – Wood/Metal Studs (Sample)

- Electric screens shall be used, where applicable.



16 PROJECTOR ANCHOR - WOOD/METAL STUDS
 FILENAME: 11_52_16_dwg

Projector Anchor – CMU (Sample)



SCALE 3" = 1'-0"

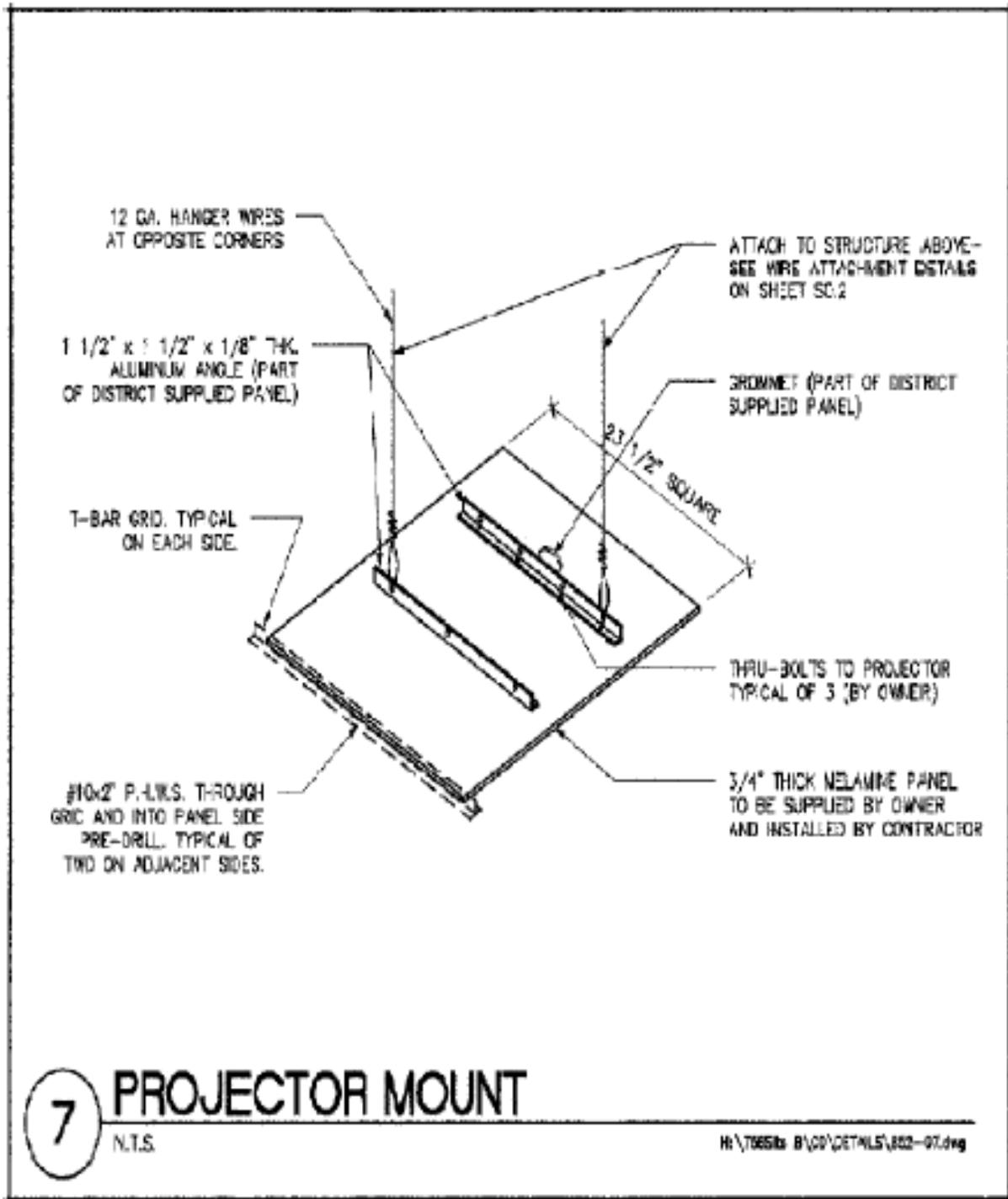
13

PROJECTOR ANCHOR - CMU

FILENAME: 11_52_11_dwg

Projector Mount (Sample)

Panel must have two drop ceiling suspension wires.





PART 11 – Intrusion Alarm

11.01 System

- The system is based on Ademco panels, keypads, and devices
- No door contacts

11.02 Telco Interconnect

- Shall be clearly identified by the CSID noted on the keypad for each COM panel.
- Each new COM panel shall have a dedicated Measured Business Line.
- 3-pair 66 block style biscuit-blocks are preferred at point of termination for COM panel phone lines (No RJ31X's).
- LUSD will only test Measured Business Line to 66 block style biscuit-block.

11.03 Wiring

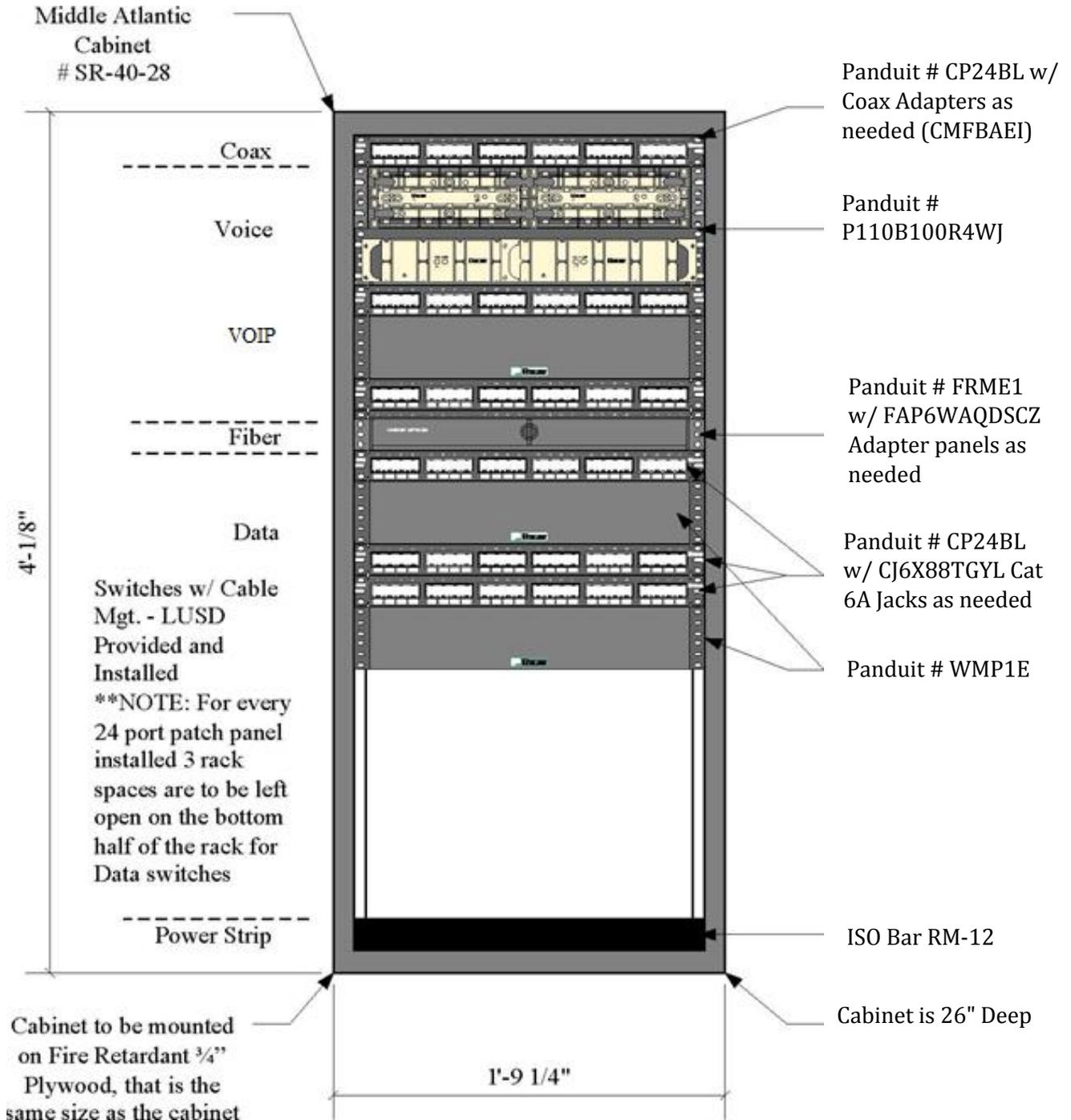
- Shall be supported by D rings, Velcro, or J hooks.
- Pathways should not be shared with data cabling.
- When overriding existing voice or data cables in a box or conduit, Technology Services must be contacted and give approval to do so.

PART 12 – Enclosures

- A. LUSD IDF Layout
- B. LUSD Labeling Format
- C. LUSD Parts List
- D. LUSD Telecommunications Jack Legend

Enclosure A - LUSD IDF Layout

The Intended layout of ALL 19-inch racks and/or patch panels need to be verified and approved by the LUSD wiring inspector of the I.S. Department before any racks, jacks, or patch panels are mounted.





Enclosure B – LUSD Labeling Format

The LUSD labeling format is a 4-part identifier that indicates the campus, type of jack, IDF location, room, and jack. Below is a key to determine the jack information and name new locations.

WW-XX-YY-ZZ

| CAMPUS AND VOICE OR DATA | MDF OR IDF DESIGNATION | ROOM # OR ABBREVIATION | JACK # (TWO DIGITS) |
|---|---------------------------|--|---|
| Data = Even # (Purple) | MDF = A | West Admin Office = WA | 01 (1 st Jack in Room) |
| Voice = Odd # (Grey) | IDF-B = B | East Admin Office = EA | 02 (2 nd Jack in Room) |
| Video = C (Coax) | IDF-C = C | Library = Lib | 03 (3 rd Jack in Room) |
| Card Readers = CR | etc. | 15 = 15 | etc. |
| Camera = VS | | M2 = M2 | Starts in corner of room and counts clockwise. |
| NVR = NVR | | etc. | New jacks increase from last jack. |
| See Next Page for Voice and Data numbers for each campus. | | Determined by Campus Architect or IT Staff. | |

VOICE EXAMPLE: The first voice jack in room M1 = "09-G-M1-01"

DATA EXAMPLE: The first data jack in room M2 = "10-G-M2-01"

DATA EXAMPLE: The first data jack in room E1 = "10-F-E1-01"

VOICE EXAMPLE: The first voice jack in room E1 = "09-F-E1-01"

DATA EXAMPLE: The first data jack in the West Admin Office = "10-A-WA-01"

CARD READER EXAMPLE: IDF Alpha ID + "CR" + IP address node # = DCR101

VIDEO SURVEILLANCE CAMERA EXAMPLE: IDF Alpha ID + "VS" + IP address node # = BVS101

NVR SECURITY EXAMPLE: IDF Alpha ID + "NVR" + IP address node # = ANVR101

*Dashes do not need to be included. However, the jack number must be two numeric characters
Example: "10GM201" instead of "10GM21"

MDF/IDF'S & WORKSTATIONS ALL JACKS ARE TO BE IDENTIFIED WITH THE APPROPRIATE NUMBERING SCHEME.

All numbers must be legibly written on the jacks (or 110 punch panels, etc.) with a black permanent marker and then labeled.



Enclosure B Continued – LUSD Labeling Format

| Site Location | Site Numbers | |
|--------------------------------------|--------------|-------|
| | Data | Voice |
| Nutrition Services Operations Center | 3 | 4 |
| Bear Creek High | 6 | 5 |
| Lodi High | 8 | 7 |
| Tokay High | 10 | 9 |
| M&O | 12 | 11 |
| Julia Morgan | 14 | 13 |
| Liberty High | 16 | 15 |
| Plaza Robles High | 18 | 17 |
| Delta Sierra | 20 | 19 |
| Lodi Middle | 22 | 21 |
| Millswood | 24 | 23 |
| Woodbridge | 26 | 25 |
| Morada | 28 | 27 |
| Beckman | 30 | 29 |
| Clairmont | 32 | 31 |
| Creekside | 36 | 35 |
| Davis | 38 | 37 |
| Henderson | 40 | 39 |
| Heritage | 42 | 41 |
| Houston | 44 | 43 |
| John Muir | 46 | 45 |
| Lakewood | 48 | 47 |
| Larson | 86 | 85 |
| Lawrence | 50 | 49 |
| Live Oak | 52 | 51 |
| Lockeford | 54 | 53 |
| Lois Borchardt | 56 | 55 |
| Nichols | 58 | 57 |
| Oakwood | 60 | 59 |
| Parklane | 62 | 61 |
| Reese | 64 | 63 |
| Sutherland | 66 | 65 |
| Tokay Colony (Turner Academy) | 68 | 67 |
| Turner School | 70 | 69 |
| Victor | 72 | 71 |
| Vinewood | 74 | 73 |
| Wagner Holt | 76 | 75 |
| Washington | 78 | 77 |
| Christa McAuliffe | 80 | 79 |
| Westwood | 82 | 81 |
| Heritage Int. | 84 | 83 |
| Children's Center | 86 | 85 |
| Transportation | 88 | 87 |
| Warehouse | 90 | 89 |
| Lincoln Tech | 92 | 91 |
| Mosher | 94 | 93 |
| Elkhorn | 96 | 95 |
| Serna | 98 | 97 |
| Silva | 100 | 99 |
| Podesta | 134 | 133 |



Enclosure C – Approved LUSD Parts List

| CABINET and GROUNDING | | | |
|-----------------------|-------------|---|----------|
| Manufacturer | Part Number | Description | Location |
| Middle Atlantic | SR-40-28 | 40 space, black, 90" tall swinging cabinet | MDF/IDF |
| Middle Atlantic | Lace-44LP | Vertical Lacing Bar | MDF/IDF |
| Middle Atlantic | QFAN | Accessory Quiet fan for cabinet | MDF/IDF |
| Panduit | RGW-100-1Y | Paint piercing grounding washer kit | MDF/IDF |
| Panduit | RGS134-1Y | Rack Grounding Strip Kit | MDF/IDF |
| Panduit | RGEJ624PHY | Equipment Jumper Grounding Kit, 24" jumpers | MDF/IDF |

| FIBER PRODUCTS | | | |
|----------------|---------------|--|----------|
| Manufacturer | Part Number | Description | Location |
| Panduit | FRME4 | Holds up to 12 FAP or FMP adapter panels | MDF |
| Panduit | FREM3 | Holds up to 9 FAP or FMP adapter panels | MDF |
| Panduit | FREM2U | Holds up to 6 FAP or FMP adapter panels | MDF |
| Panduit | FRME1U | Holds up to 3 FAP or FMP adapter panels | IDF |
| Panduit | FAP3WAQDSC | OM4 SC FAP loaded with 3 SC duplex coupler | MDF/IDF |
| General Cable | BL0061PNU | OM4 6F 50um MM TB OFNP | Backbone |
| General Cable | AP0061PNU | OS2 6F SM TB OFNP | Backbone |
| General Cable | BL0061PNU | OM4 6F 50um MM TB OFNP | Backbone |
| General Cable | BL0061ANU.BK | OM4 6F 50um MM TB OFNP I/O | Backbone |
| General Cable | AP0061ANU.BK | OS2 6F SM TB OFNP I/O | Backbone |
| General Cable | BL0064M1A-DWB | OM4 6F 50um MM LT SINGLE JKT | Backbone |
| General Cagle | AQ0064M1A-DWB | OS2 6F SM LT SINGLE JKT | Backbone |

| WIRE MANAGMENT | | | |
|----------------|-------------|---|----------|
| Manufacturer | Part Number | Description | Location |
| Panduit | WMP1E (NM2) | Wire Management to be mounted between every 24-port patch panel | MDF/IDF |
| Panduit | WMPSE (NM1) | Wire Management to be mounted between every switch like component | MDF/IDF |

Enclosure C Continued – Approved LUSD Parts List

| TWISTED PAIR PRODUCTS | | | |
|-----------------------|---------------------|---|-----------------------|
| Manufacturer | Part Number | Description | Location |
| Panduit | CP24BL | 24 Port Mini-Com patch panel | MDF/IDF |
| Panduit | CP48BLY | 48 Port Mini-Com patch panel (Metal panel) | MDF/IDF/WS |
| Panduit | CPPL24WBLY | 24 Port Mini-Com modular patch panel (Plastic) | MDF/IDF/WS |
| Panduit | FP6X88MTG | TX6A™ Category 6A UTP Field-Term RJ45 Plug | MDF/IDF/WS |
| Panduit | CJ6X88TGIG | GRAY CAT6A MOD JACK (for Server Locations) | MDF/IDF |
| Panduit | CJ6X88TGYL | Yellow 6A Mini-Com Jack (Access Control) | Access Control System |
| Panduit | CJ6X88TGWH | White 6A Min-com Jack (user Station) | WS |
| Panduit | CJ6X88TGBU | Blue Cat 6A Mini Com Jack (for VoIP) | MDF/IDF/WS |
| Panduit | CJ6X88TGGR | Green Cat 6A Mini Com Jack (for Intercom) | MDF/IDF/WS |
| Panduit | CJ6X88TGEI | Electric Ivory Cat 6A Mini Com Jack | WS |
| Panduit | UTP6XXYL | Non- Shielded Yellow 6A Patch Cord, XX is length | MDF/IDF/WS |
| Panduit | UTP28X*YL | Cat.6A, 28AWG, Yellow, * = length: 1,3,5,7,19,14 feet | MDF/IDF/WS |
| Panduit | P110B100R4WJ | 19" Rack Mount Panel w 2 100pr 110 punch-down blocks and jumper troughs | MDF/IDF |
| Panduit | P110CB4-X | 4pr 110 Connecting Clips 10pk | MDF/IDF |
| Panduit | P110CB5-X | 5pr 110 Connecting Clips 10pk | MDF/IDF |
| General Cable | 7133825 | Purple CAT 6A CMR (for Data at workstations) | Horizontal |
| General Cable | 7133819 | Blue CAT 6A CMR (for Server drops, closets) – Wi-Fi | Horizontal |
| General Cable | 7131823 | Green CAT 6A CMP (for Intercom drops, closets) | Horizontal |
| General Cable | 7131823 | Green CAT 6A CMP (for Server drops, closets) | Horizontal |
| General Cable | 7133767 (7133803) | Gray CAT 6 CMR 4 Pair wire (for Voice) | Horizontal |
| Commscope | CM-00424SMX-CF6A-02 | SystiMax, Black CAT 6A OSP (Voice and Data) | Horizontal |
| General Cable | 2131550E | Cat.5e, 25 pair CMP, White | MDF/IDF |
| General Cable | 2133269E | Cat.5e, 25 pair CMP, Gray | MDF/IDF |
| Superior Essex | 04-097-31 | CAT 5 25 Pair OSP | MDF/IDF |

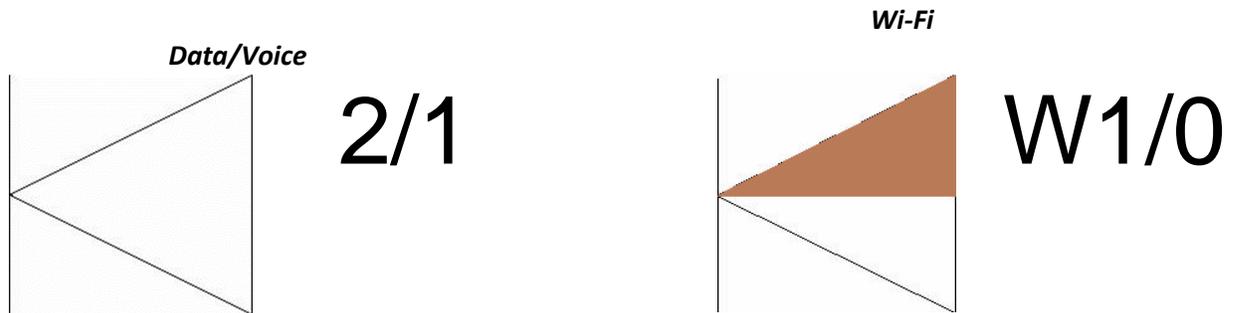
Enclosure C Continued – Approved LUSD Parts List



| COAX PRODUCTS | | | |
|----------------------|--------------------|---|-----------------|
| Manufacturer | Part Number | Description | Location |
| Belden | 6139B8 | RG-11 Coax Dou-foil w/100% Shielding Plenum | Backbone |
| Belden | 1523A | RG-11 Coax Dou-foil w/100% Shielding Non-Plenum | Backbone |
| Belden | 1525A | RG-11 Coax Dou-foil w/100% Shielding OSP | Backbone |

| RACEWAY PRODUCTS | | | |
|-------------------------|--------------------|---|-----------------|
| Manufacturer | Part Number | Description | Location |
| Panduit | LD-5 | Raceway for Data/Wi-Fi/Access Control System | Wi-Fi/ACS |
| Panduit | LDP-10 | Raceway for Data/Voice/Coax | WorkStation |
| Panduit | T-70 | Raceway for Comp. Lab That will accept communications and power | WorkStation |
| Panduit | CMBEI-X | Mini-Com Blank Ivory | WorkStation |
| Panduit | CFPSE4EI | Executive Faceplate Sloped | WorkStation |
| Panduit | JBX3510EI-A | Single gang Junction box | WorkStation |

Enclosure D - LUSD Telecommunications Jack Legend



This example has “2” for two data and “1” for one voice.

Data only would be d/0 with “d” as the number of data jacks.

Voice only would be 0/v with “v” as the number of voice jacks.

Category 6A cabling/jacks are indicated by a “W” preceding the number (or jack count)

| Jack Color Code | |
|-----------------|-------------------------|
| White - Wi-Fi | Electric Ivory - Data |
| Black - Voice | Yellow - Access Control |
| Blue - VOIP | Green - Intercom |



Enclosure E – Data/Camera System Install Inspection Check List - Sample

Data/Camera System Install Inspection Check List

| | Yes | No | N/A or Undetermined |
|---|--------------------------|--------------------------|--------------------------|
| 1. Does the work done match the scope of work? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Notes: | | | |
| 2. Does the Visio match what was installed? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Notes: | | | |
| 3. Are all of the test results completed? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Notes: | | | |
| 4. Cabinet | | | |
| a. Is it mounted to the backboard and firmly affixed? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Does the cabinet block anything and open? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Is there dedicated 115 VAC? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Are the cables bundled neatly and labeled in the back? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Are all of the parts used in the Lodi USD specifications? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f. Is everything labeled in front to Lodi USD specifications? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Notes: | | | |
| 5. Wiring | | | |
| a. Spot check the wire in the ceiling – is it supported every 4' to 8' per EIA/TIA? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. No black tape is to be used. Is there any black tape? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. No zip ties are to be used. Are there any zip ties? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Is the pipe/raceway not overfilled per EIA/TIA? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Was slack-loop provided? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Notes: | | | |
| 6. Stations | | | |
| a. Is each device labeled and have a wraparound label on the wire as per EIA/TIA? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Is each device mounted with approved hardware? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Notes: | | | |



Enclosure E – Data/Camera System Install Inspection Check List – Sample Continued

| | Yes | No | N/A or Undetermined |
|--|--------------------------|--------------------------|--------------------------|
| 7. Pipe/Raceway | | | |
| a. Is all raceway Panduit? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Are all pipe runs rigid when below 8' or on the roof as per Lodi USD specifications? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Does the firewall have 3' on each side of the wall as per building code? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. No set screw fitting shall be used. Is there any set screw fitting? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Whenever pulling into a pipe/raceway, a pull string is required per Lodi USD specifications. Is there a string? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Notes: | | | |
| 8. Penetrations | | | |
| a. Do penetrations to an outside wall have a nipple and is it sealed with silicon on both the outside and inside? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Were the penetrations approved by the Lead and Asbestos Manager? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Notes: | | | |
| 9. Does the Site Administrator approve and are they happy? | | | |
| Notes: | | | |
| Additional Notes: | | | |



Enclosure F – Projector System Install Inspection Check List - Sample

Projector System Installation Inspection Check List

| | | | |
|---|--|------------------------------|-----------------------------|
| 1. Does the work done match the scope of work? | | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Notes: | | | |
| 2. Does the Visio match what was installed? | | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Notes: | | | |
| 3. Are all of the test results completed? | | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Notes: | | | |
| 4. SmartBoard | | | |
| a. Is existing whiteboard re-mounted correctly w/ white block style trim butted against end-cuts? | | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Notes: | | | |
| 5. Projector | | | |
| a. Is it mounted to the backboard and firmly affixed (back-board reaches studs)? | | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| b. Is it ceiling mounted in an approved manner (2 T-bar rods per mount)? | | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| c. Is there dedicated 115 VAC? | | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| d. Are the cables bundled neatly in the raceway? | | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| e. Are all of the parts used in the Lodi USD specifications? | | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| f. Is everything labeled in front to Lodi USD specifications? | | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Notes: | | | |
| 6. Wiring (if it is run in the ceiling) | | | |
| a. Spot check the wire in the ceiling – is it supported every 4' to 8' per EIA/TIA? | | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| b. No black tape is to be used. Is there any black tape? | | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| c. No zip ties are to be used. Are there any zip ties? | | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| d. Is the pipe/raceway not overfilled per EIA/TIA? | | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| e. Was slack-loop provided? | | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Notes: | | | |

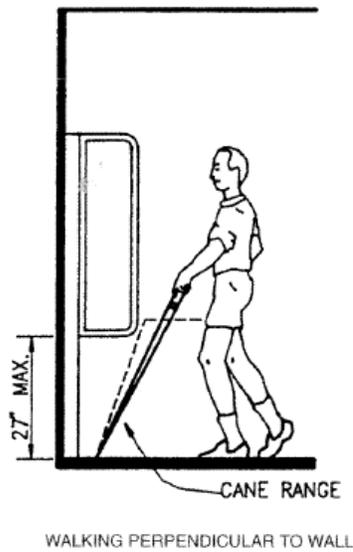
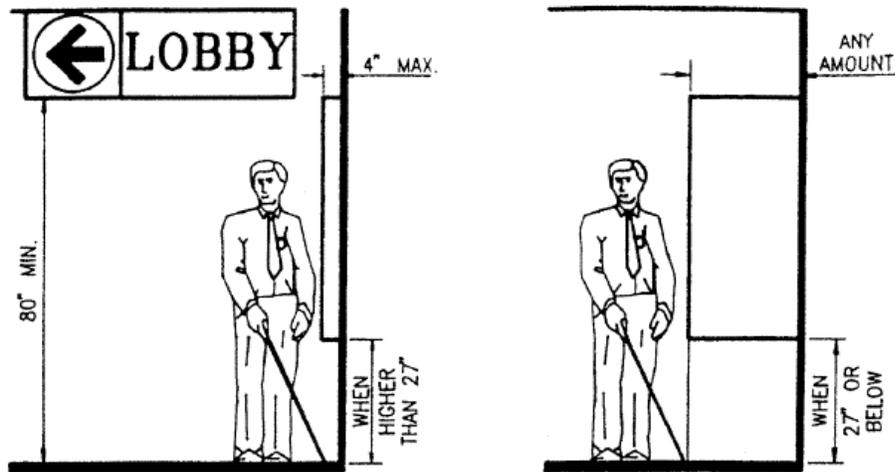


Enclosure F – Projector System Install Inspection Check List – Sample Continued

| | | |
|--|------------------------------|--|
| 7. Stations (if Cat5/6 wire and applicable) | | |
| a. Is each device labeled and have a wraparound label on the wire as per EIA/TIA? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| b. Is each device mounted with approved hardware? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Notes: | | |
| 8. Pipe/Raceway (if applicable) | | |
| a. Is all raceway Panduit? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| b. Are all pipe runs rigid when below 8' or on the roof as per Lodi USD specifications? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| c. Does the firewall have 3' of pipe on each side of the wall as per building code? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| d. No set screw fitting shall be used. Is there any set screw fitting? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| e. Whenever pulling into a pipe/raceway, a pull string is required per Lodi USD specifications. Is there a string? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Notes: | | |
| 9. Penetrations (if applicable) | | |
| a. Do penetrations to an outside wall have a nipple and is it sealed with silicon on both the outside and inside? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| b. Were the penetrations approved by the Lead and Asbestos Manager? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Notes: | | |
| 10. Does the Site Administrator approve and are they happy? | | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Notes: | | |
| Additional Notes: | | |
| | | |

Inspected by: _____ Print Name: _____ Date: _____

Enclosure G – Accessible Requirements for Cabinet Mounting (Images below for reference only)



THESE DIAGRAMS ILLUSTRATE THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND ARE INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION.

FIGURE 11B-7A—PROTRUDING OBJECTS