



Metal-Plastic (uPVC) Entry Door System

Installation and Hardware Manual

Single-Slab Entry Doors with Optional Sidelites and Transoms

1. Product Overview and Specifications

This manual covers installation and hardware setup for the VDOM metal-plastic (uPVC) entry door system: a multi-chambered, steel-reinforced PVC frame and sash, supplied pre-hung with a factory-installed multi-point locking mechanism and adjustable hinges. The system is available as a single door, or as a single door with one or two fixed sidelites and an optional transom above the unit.

Specification	Value
Door Slab thickness	2 3/4" (70 mm)
Frame thickness	2 3/4" (70 mm)
Sidelite glazing (If Included)	Tempered, double-glazed insulating unit, 1" (25 mm) thick
Hinge type	3-way adjustable (vertical, horizontal, compression)
Lock type	Multi-point mortise mechanism, Euro-profile cylinder



Figure 1. Metal-plastic entry door with sidelites — reference specifications.

2. Tools Required

- Tape measure
- Builder's level (spirit level)
- Hammer
- Impact screwdriver / drill
- Perforator (for masonry openings)
- Hand screwdrivers (flat and Phillips)
- Caulking / foam gun
- Utility knife
- Wooden shims and wedges
- Safety glasses and gloves

3. Package Contents

- Pre-hung door frame with sash (leaf) installed on adjustable hinges
- Multi-point mortise lock mechanism, factory-installed in the sash
- Strike plates and hook/bolt keeps, factory-installed on the frame
- Euro-profile cylinder, 5 keys
- Interior and exterior handle set with connecting spindle and mounting screws
- Mounting plates (installation brackets) — 8 pcs, with 16 fastening screws
- Sidelite frame(s) with tempered, double-glazed unit (If Included)
- Transom frame and H-shape connecting profile (If Included)
- Installation wedges

! NOTE

Screw cover caps (finish trim caps for anchor, hinge, and handle fasteners) are not included in this kit. Order matching finish caps separately if a fully concealed-fastener appearance is required. See Section 11, Finishing Notes.

4. Rough Opening and Sizing Reference

Door dimensions are described in three different ways during ordering and installation. Confirming which figure is being used at each stage prevents the most common framing error on this product line.

Nominal size

The commercial size used to order the door, for example 36" x 80". This is a catalog reference and does not describe any single physical dimension of the finished unit.

Unit size (with frame)

The actual manufactured size of the complete door unit, including the outer frame. A 36" x 80" nominal door has a 38" x 82" unit size.

Clear (finished) opening

The usable walk-through width remaining once the frame is installed. Because of the depth of the multi-chamber frame profile on both jambs, the clear opening is narrower than either the nominal or unit size. On a 36" x 80" nominal / 38" x 82" unit size door, the finished clear opening is approximately 32" wide.

Recommended Rough Opening

The rough opening should be sized to the unit size plus 1/2" on each side and 1/2" on the top. This gives a 1" total clearance in width and height, which is the standard working gap for shimming and leveling. The opening may be up to 1" larger per side if wall conditions require it, but do not exceed this without verifying that the frame anchors and foam seal can bridge the gap.

Nominal Size	Unit Size (as shipped)	Recommended Rough Opening	Clear Opening Width
36" x 80"	38" x 82"	38 1/2" x 82 1/2" (unit + 1/2" per side)	~32"
32" x 80"	34" x 82"	34 1/2" x 82 1/2" (unit + 1/2" per side)	~28"
30" x 80"	32" x 82"	32 1/2" x 82 1/2" (unit + 1/2" per side)	~26"

! IMPORTANT

Sidelites and transoms add to the overall unit width and height but do not add to the operable clear opening width, since they are fixed, non-operable panels. Always verify the clear opening figure against project code requirements (egress, accessibility) before ordering. The nominal size shown in the catalog is not the clear opening.

5. Handing and Direction of Opening

Before installation, confirm the handing and swing direction of the door match the rough opening and the project requirements. Handing is determined by the position of the hinges as viewed from the outside (exterior side). The door can be supplied in four configurations as shown below.

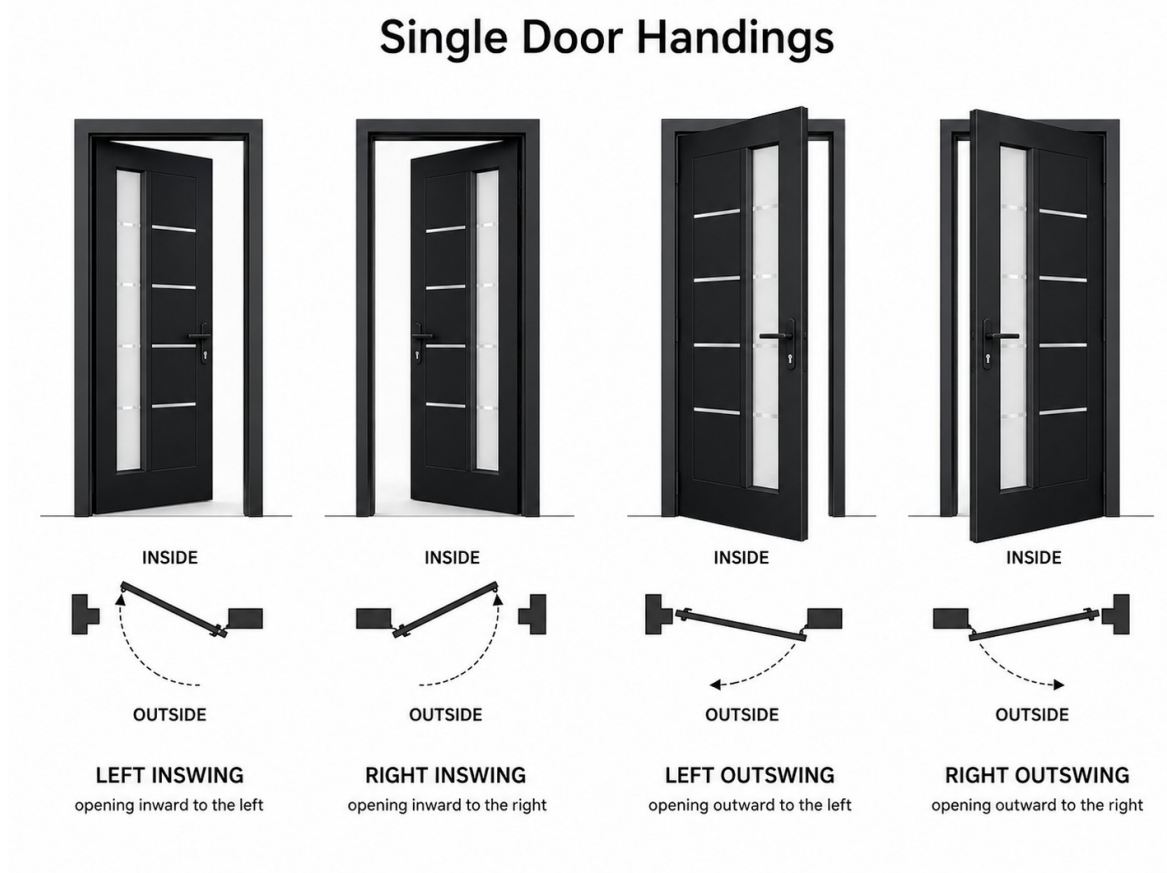


Figure 2. Single door handing reference — Left Inswing, Right Inswing, Left Outswing, Right Outswing.

Using a tape measure, verify the doorway size in several locations, at both width and height. The recommended rough opening around the full perimeter should be approximately 1/2" larger than the unit size on each side and at the head (see Section 4).

! ATTENTION

Do not remove or dismantle the old door until you have confirmed the new door is the correct unit size and handing for the opening.

6. Installation of the Door Frame

6.1 Preparing the Opening

Carefully remove packaging, foam, plastic, and cardboard, and check the door Slab and frame for completeness. Remove the transport profile before starting installation. If replacing an existing door, do not dismantle it until the new unit has been confirmed correct for size and handing (Section 5).

Clean all surfaces of the doorway of dust, dirt, and oil stains, and in winter conditions, of snow, ice, or hoarfrost, heating the surface first if needed. Repair defective areas with waterproof compounds; streaks or damage deeper than 0.4" (10 mm) are not permitted on the doorway surface. Degrease any oil-contaminated surfaces.

6.2 Frame Fixing Methods

During mounting, follow the building codes, standards, and recommendations adopted in your local jurisdiction. The frame can be secured using one of the following methods, selected according to wall type and installation conditions:

- **Through-frame fixing** — the frame is secured directly to the wall using anchors or dowels.
- **Extended anchors** — used for deeper installations or when fastening through continued insulation.
- **Bottom anchor plates** — metal plates fixed to the lower frame and secured to the floor or wall when through-frame fixing is not possible.
- **Mounting plates (installation brackets)** — galvanized steel brackets clipped into the outer groove of the frame profile and screwed into the rough opening surround. Included in the package — see Section 6.2a.

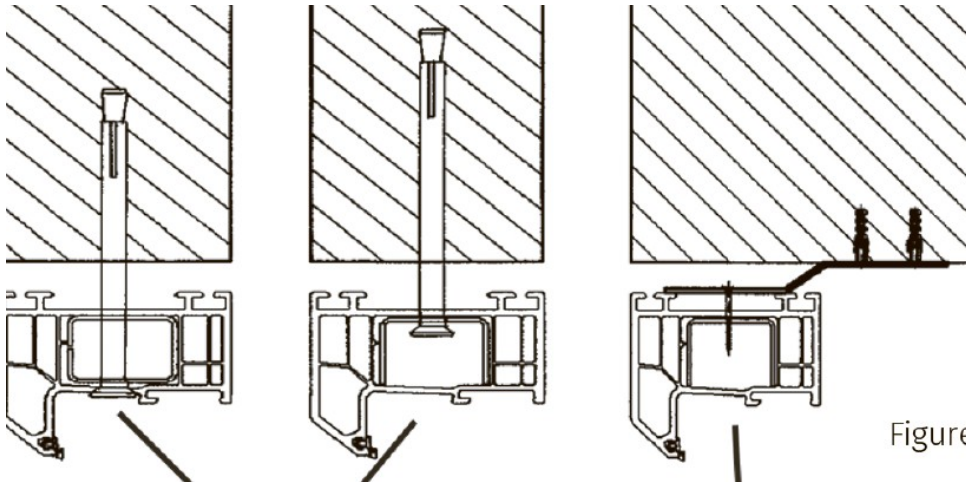


Figure 3. Frame fixing methods — dowel fixing (left, center) and bottom anchor plates (right).

6.2a Mounting Plates — Installation Procedure

The kit includes 8 galvanized steel mounting plates and 16 fastening screws. Mounting plates are the preferred fastening method for installations where drilling through the PVC frame profile is not desired, or where the wall finish (tile, cladding) prevents through-frame access. They can also be used in combination with through-frame anchors for added rigidity.



Figure 4. Galvanized steel mounting plates — 8 pcs included.

1. Clip each mounting plate into the perimeter groove on the outer face of the door frame profile. The plate tab hooks into the groove and locks against the frame wall.
2. Position the plates at the following locations as a minimum: two per jamb (one near the top hinge and one near the lower hinge zone), one at the head center, and one at the sill or threshold. Use additional plates at the lock-side jamb near the strike area and at mullion / sidelite frame joints.
3. Once the frame is set level and plumb in the opening (Section 6.5), drive the 2 supplied fastening screws through the slotted holes of each mounting plate into the rough opening surround. Use the slotted holes for fine adjustment, then tighten fully.
4. For sidelite frames (if included): apply the same procedure — clip a mounting plate into the outer groove of each sidelite frame at the top and bottom, and fasten into the opening surround. This prevents the sidelite from shifting or bowing after sealing.

! NOTE

Mounting plates are compatible with wood-stud, steel-stud, masonry block, and poured concrete openings when used with the appropriate fastener type for the substrate (wood screw for stud, masonry anchor for CMU/concrete). The 16 screws supplied are intended for wood-stud or wood-buck openings. For masonry substrates, substitute the supplied screws with masonry anchors of equivalent diameter.

6.3 Fastening Pitch

To prevent deformation of the door frame, maintain the following distances between fastening points: for doors made of PVC profiles, fasten with a pitch of no more than 27.5" (700 mm). The distance from the axis of the horizontal impost to the nearest fastening point should be approximately 5.6" (150 mm), or 9.8" (250 mm) for colored PVC profiles.

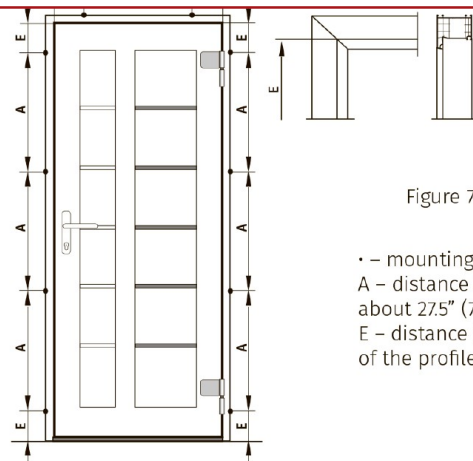


Figure 7

• – mounting points.
 A – distance between mountings
 about 27.5" (700 mm).
 E – distance from the inner corner
 of the profile about 5.6" (150 mm).

Figure 5. Fastening pitch — A: distance between mounting points, ~27.5" (700 mm); E: distance from the inner corner, ~5.6" (150 mm).

For exterior doors, additional fastening is required at the lock strike area and hinges due to higher dynamic loads during closing, in addition to the pressure-resistant load-bearing support block. For installations positioned in front of the wall's load-bearing structure, fastening points must also be provided at the locations of the support blocks.

6.4 Load-Bearing Support Blocks and Spacers

Load-bearing spacers must be made of a material that can withstand the loads acting on the door and transfer them to the wall structure. Load-bearing blocks are placed at the corners of the frame (under the pivot points) and in the area of the mullions and vertical imposts. Support blocks must be located 5.9"-7.9" (150-200 mm) from the inner corner line of the frame, must be at least 3.9" (100 mm) long, and must be wider than the support profile but narrower than the thickness of the door frame, so as not to interfere with the uninterrupted insulation process.

Auxiliary wedges used during installation must be removed once the frame is mechanically secured to the walls. The use of nails to attach the frame to the wall is prohibited.

6.5 Setting, Leveling, and Anchoring the Frame

Install the frame in the doorway on backing materials (wedges, bars), keeping approximately the same clearance between the frame and the doorway on both sides. Wedges are preferably installed between the frame and the wall above and below the fastening points, so as not to deform the middle part of the frame.

Align the door frame with a builder's level from the hinge side: apply to the inner wide shelf of the frame (A) for vertical; to the front trim of the frame (B) for inclination; to the threshold (C) for horizontal.

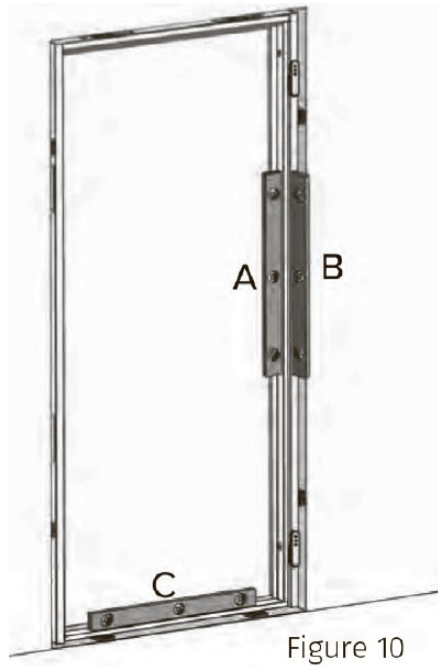


Figure 6. Alignment check — vertical (A), inclination (B), horizontal at threshold (C).

Drill a $\varnothing 3/8"$ (10 mm), 4.7"-5" (120-130 mm) deep hole through the upper mounting hole on the hinge side of the frame. Lubricate the anchor surface with cement-sand or adhesive mortar before installation. Install the anchor with a hammer and impact screwdriver; do not tighten fully yet. Repeat for the lower hinge-side anchor, then drive and fully tighten all remaining anchors once the frame is confirmed plumb and square.

! NOTE

If anchor installation through the frame is not practical, remote installation brackets may be used. These are less rigid than direct anchoring and should only be used where through-frame access is not available.

6.6 Installing the Door Slab and Adjusting Clearances

Install the door Slab and align the locking part of the frame along the contact line. Check that the clearance between the top of the Slab and the top frame profile is uniform; if not, adjust by placing wooden linings under the threshold on the side of the smaller clearance. Drill through the remaining anchor points, fasten without fully tightening, then close the door, verify alignment, and tighten all anchors. Fill the mounting clearance with low-expansion mounting foam. After installation, remove the protective film from the profile.

! BEFORE FIRST OPENING

Do not operate, open, or close the door until the cylinder and handle set are installed (Section 8.2 and 8.3). Operating the multi-point lock mechanism without the handle and cylinder in place can rack the internal gearing and hook bolts out of position and jam the mechanism.

7. Installing Transoms (If Included)

When the door unit is ordered with a transom above the frame, the transom sash is joined to the head of the door frame with an H-shape plastic connecting profile before the double-glazed unit is installed into the transom.

7.1 Drainage Holes

! CRITICAL

Drainage (weep) holes in the sidelite/transom must be positioned at the bottom of the sidelite/transom frame, on the exterior side. Never seal, caulk, foam over, or otherwise obstruct these openings. They allow condensation and any moisture that reaches the glazing rebate to drain back outward; blocking them will trap water in the frame chambers.

7.2 H-Shape Connector Fastening Method

The connecting profile is inserted between the head of the door frame and the sash of the transom before the two members are joined. The connector must be aligned with the frame before it is tightened.

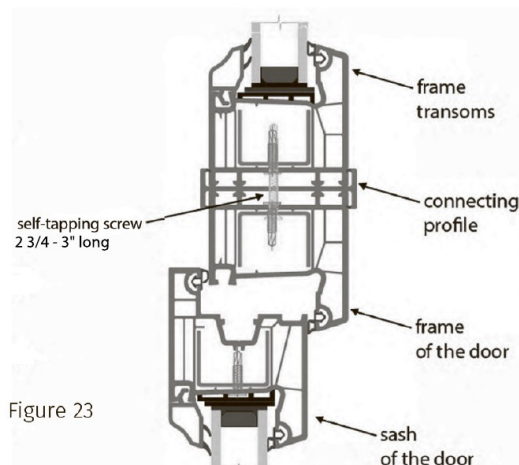


Figure 7. H-shape connecting profile joining the door frame to the transom sash.

- Drill a hole through the metal reinforcement in the frame and the door frame head where they meet the connector.
- Drive a self-tapping screw, 2 3/4"-3" (70-76 mm) long, through the frame, through the H-shape connector, and into the transom, locking all three members together.
- Position the first screw 4.7"-5.9" (120-150 mm) from the inside corner.
- Space subsequent screws 11.8"-15.7" (300-400 mm) apart along the connector width.

7.3 Alternative Method: Fastening Through the Transom Frame

Where access for the connector screw is restricted, remove the sealed double-glazed unit from the transom sash first. With the glass out, drive the fasteners through the transom's own frame member from the opposite side into the connector and door frame head. Reinstall the glazing unit afterward with fresh setting blocks and sealant once the connector is fully secured.

7.4 Sealing and Final Assembly

- Apply sealant or sealing tape to the frame joints before joining the members.
- Check the operability of the door before final sealing.
- Insert the double-glazed unit into the transom only after the connector is fully tightened.
- Seal the full perimeter with low-expansion foam or sealant, keeping the exterior weep holes clear.

7.5 Canopy Requirement

! IMPORTANT — CANOPY ABOVE THE DOOR

A protective canopy (overhang, awning, or rain drip cap) must be installed above the door unit wherever the door is exposed to direct precipitation. PVC door systems are engineered to resist weather intrusion when properly sealed, but prolonged direct exposure of the head frame and transom to standing water or ice buildup accelerates joint seal degradation and can force water past the glazing tape and into the wall cavity. The canopy should project at least 12" (300 mm) beyond the face of the door and cover the full width of the unit including any sidelites.

8. Hardware Installation

8.1 Multi-Point Lock Mechanism

The multi-point mortise lock is factory-installed in the door sash. It consists of a main latch bolt and multiple deadbolt extensions (hooks or pins) that engage into keeper plates on the frame side, which are also factory-installed. The multi-point configuration provides increased weather-sealing performance by drawing the sash evenly against the frame compression seal.

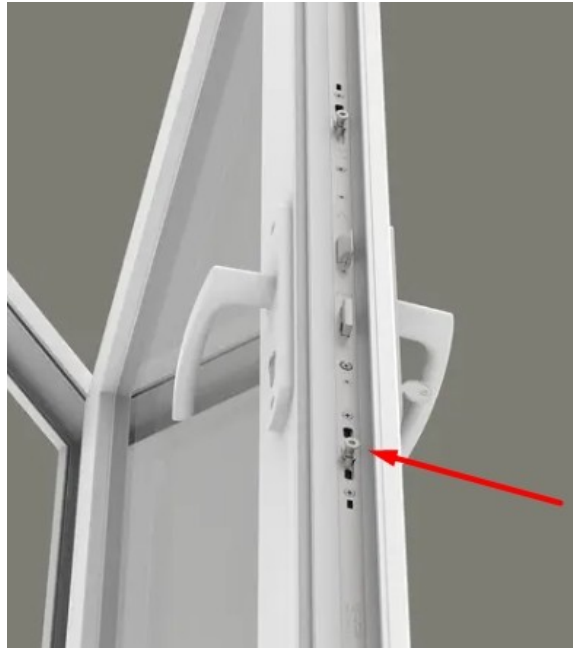


Figure 8. Multi-point mortise lock mechanism.



Figure 9. Multi-point strip engagement zone on the sash edge.

8.2 Installing the Euro-Profile Cylinder

The Euro-profile cylinder locks the multi-point mechanism from the exterior. The cylinder is threaded through the sash from the exterior face and secured by a single set screw through the edge of the sash into the cylinder cam clamp.

5. Confirm the cylinder is a key-and-knob (K+T) type: key on the exterior side, thumbturn on the interior.

6. Insert the cylinder into the cam slot in the mortise lock body from the exterior side with the cam pointing toward the interior.
7. Align the cylinder fastening hole with the lock body clamp hole.
8. Tighten the cylinder set screw with a hand screwdriver only. Do not overtighten.



Figure 10. Euro-profile key-and-knob cylinder — key side (exterior) and thumbturn (interior).

8.3 Installing the Handle Set

The door uses a European-pattern lever handle with a two-bolt long backplate. The square spindle connecting the interior and exterior levers transfers handle rotation to the latch bolt retractor.



Figure 11. Handle assembly — spindle, backplate, lever, and mounting screws.

9. Insert the square spindle of the handle set into the hub opening in the lock case from the interior side.
10. Mount the interior handle onto the spindle close to the door Slab face.
11. Trim (shorten) the spindle bolts if needed to match the sash thickness.
12. Position the exterior handle over the spindle and align both backplates.
13. Tighten both handle backplates through the mounting holes in the Slab using the tightening screws supplied.
14. Fit the plug caps over all visible screw heads.

! NOTE

Screw cover caps are not included in the standard kit. Order finish-matched cover caps for the handle backplate screws, hinge screw heads, and frame anchor heads if a fully concealed-fastener finish is required.

9. Hinge Adjustment

The door is equipped with 3-way adjustable hinges that allow the sash position to be corrected in the field without removing the door from the frame. All adjustments can be made with the door installed, using standard screwdrivers.



Figure 12. Three-axis hinge adjustment: vertical (left), horizontal (center), compression (right).



Figure 13. 3-way adjustable hinge.

Adjustment Type	Range	How to Adjust
Vertical (up/down)	+0.16" / -0.12" (+4 mm / -3 mm)	Loosen top and bottom hinge eccentric screws; raise or lower the sash, then retighten.
Horizontal (in/out of frame plane)	+0.39" / -0.20" (+10 mm / -5 mm)	Loosen the hinge side adjustment screw; move the sash in or out, then retighten.
Compression (sash depth vs. frame face)	+0.10" / -0.10" (+2.5 mm / -2.5 mm)	Turn the cam screw on the hinge body clockwise to push the sash deeper into the frame seal.

To correct diagonal racking (one corner higher on one side), adjust the top and bottom hinges in opposite vertical directions in small equal increments until the gap at the top of the sash is uniform from hinge side to lock side. Adjust one hinge at a time and check after each half-turn.

10. Available Add-Ons

10.1 Trims and Casing

Interior and exterior trim profiles are available to cover the gap between the door frame and the rough opening finish. Trims clip into the outer groove of the PVC frame profile or are secured with a continuous bead of MS-polymer or polyurethane adhesive along the full contact length. Do not use spot dabs — continuous contact is required to prevent the trim from bowing. Finish nails may be used as supplementary fasteners on uneven surfaces.

! NOTE

Trim and casing profiles are ordered separately and are not included in the standard package.

10.2 Frame Extensions (Jamb Extenders)

Frame extensions are available to accommodate walls thicker than the standard frame depth. Rip the extension to the required wall thickness by trimming the flat face only

10.3 VDOM Smart Lock

The VDOM Smart Lock is the only lock actuator certified for use with this door system. It is specifically engineered to work with the factory-installed multi-point mechanism and Euro-profile cylinder mortise on VDOM doors. The actuator replaces the thumbturn (interior knob).

! COMPATIBILITY NOTE

Only the VDOM Smart Lock is recommended for this door system. Third-party smart lock actuators are not tested for compatibility with the VDOM multi-point mechanism and cannot be recommended. Installation of an incompatible actuator may interfere with the multi-point bolt travel, void the door warranty, or compromise weather seal performance. Contact VDOM for the smart lock option for your door configuration.

11. Finishing Notes

- Screw cover caps for all exposed fastener heads (handle backplate, hinge screws, frame anchor heads) must be ordered separately. Caps are not included in the standard kit.
- After foam cures, trim flush with the frame face and cover with sealant or trim profile.
- Remove the protective transport film from all PVC profile surfaces immediately after installation. Film left on profiles in direct sunlight will bond to the surface and cause permanent discoloration.
- Check all sash-to-frame clearances after the first 2-4 weeks of operation and re-adjust the hinges if settling has occurred.

12. Maintenance and Care

The following routine maintenance schedule will ensure long service life and reliable performance of the door system.

12.1 Lubrication (every 6-12 months)

- Apply a thin film of silicone-based grease or dry PTFE lubricant to all hinge pivot points, the lock latch and bolt travel faces, and the multi-point mechanism rod guides.
- Do not use petroleum-based or WD-40-type penetrating oils on PVC hardware — they degrade the rubber seals and plastic components over time.

12.2 Cleaning

- Clean PVC frame and sash profiles with warm water and mild detergent.
- Avoid abrasive pads, solvent-based cleaners, acetone, bleach, or any product displaying the hazard symbols shown below. These will permanently damage powder-coated and PVC surfaces.

12.3 Seal Inspection

- Inspect the perimeter compression seal annually for cracks, gaps, or permanent compression set.
- Replacement seal profiles are available by door size. Replace the full perimeter seal as a single piece; do not patch-repair sections.

13. Troubleshooting

Symptom	Likely Cause	Corrective Action
Sash drags on the frame on the lock side when closing	Vertical hinge misalignment	Adjust vertical hinge to raise the lock-side corner (Section 9).
Uneven gap at top of sash	Frame not plumb, or diagonal hinge deflection	Re-check frame plumb. Adjust top and bottom hinges in opposite vertical directions.
Handle is stiff or hard to turn to the locked position	Locking strip too tight, or sash pressing too hard against frame	Loosen hinge compression. Adjust locking strip eccentric to reduce clamping force.
Draft or cold air at sash perimeter	Compression seal not engaged uniformly	Increase hinge compression (Section 9). Check seal for damage or gaps.
Multi-point mechanism will not engage / handle jams	Sash out of plane; hook bolts not aligned with keeps	Check all three hinge adjustments. Ensure cylinder is installed and engaged.
Lock cylinder hard to turn with key	Set screw overtightened, or cylinder misaligned with cam	Loosen and re-seat the cylinder. Re-tighten set screw with hand screwdriver only.
Transom leaking water at bottom	Drainage holes blocked or transom bottom seal damaged	Clear all drainage holes. Replace bottom seal if damaged.
Sidelite shows condensation between glass panes	Insulating unit seal failure (fogging)	Sealed unit requires replacement. Contact VDOM at sales@vdom.us .