Table of Contents

I. Care and Maintenance

Operational Warning: Fleetwood products operate smoothly and special care should be taken by the owner to make sure users are not injured. Door is to be operated within the glass side of the handle (Figure 1).

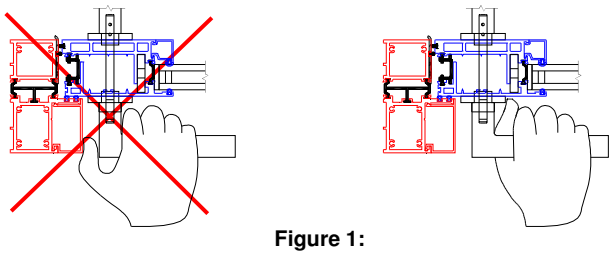


Figure 1:
Incorrect vs. Correct Door Handle Operation

This product is factory finished. Please handle with extreme care. Protect all exposed surfaces from contact with caustics, corrosives, solvents, abrasions, impacts, wet packing material etc. **FAILURE TO DO SO WILL NULLIFY THE WARRANTY.** Before **ANY CLEANING**, review the Care & Maintenance Instructions (go to www.fleetwoodusa.com for more information). **Contact the local dealer with any questions or concerns.** Fleetwood strongly recommends that all products be cleaned after installation and totally protected from construction debris and equipment.

II. Tools / Materials, Sealant Requirements, & Anchor Instructions

Tools Required: Tape measure, Level, Shims, Screws, Screw Gun, #2 Phillips Bit, #3 Phillips Screw Driver, Power Drill, Sealant, Caulk Gun, Backer Rod, Utility Knife, Rubber/Plastic Mallet, Pliers, Wax.

Sealant Requirements

- The sealant referred to within this document for seals associated with the assembly of the product should conform to **AAMA 800**. It may be a sealant recommended and approved by the sealant manufacturer that is compatible with the framing, finish, and surrounding materials.
- All sealant bead sizes must conform to the sealant manufacturers' size requirements.
- The Owner / General Contractor is responsible for identifying the need for any additional sealant to be applied by others. Such sealant shall be elastomeric material, with the framing, finish and surrounding materials.

Load / Anchor Instructions

- Live or Dead Loads can affect product functionality, loads shall be designed to withstand the most critical effects of load factors and load combinations as required by building code.
- Fleetwood requires maximum vertical deflection of the header not to exceed Span/720 or 1/8"
- Structural engineer to determine anchor quantity and spacing for design load requirements.
- Proper isolating material must be between dissimilar surfaces (i.e. block/concrete & aluminum).

III. Assembly and Installation

General: The key to any window or door installation is preparation. This extends from storage of the product to the final installation and to all points in between. Careful planning and attention to detail can help ensure proper installation.

Note: Add tube wax lubricant to the ends of all fasteners to reduce the drive torque required for installation, apply a small amount of tube wax to the head of the fasteners to assist with installation.

It is essential that each Fleetwood product be assembled and glazed in accordance with AAMA standards and factory instructions. It is the installer's responsibility to ensure that each Fleetwood product is assembled, glazed and installed and completely sealed to ensure that the

product is leak-free and operates correctly**. Installation of Fleetwood products must be in accordance with the standards set forth in ASTM E 2112**. If there are any questions regarding the installation of a Fleetwood product contact the factory customer service department.

Fleetwood has provided this product with recommended field glazed weather-stripping. If the provided weather-stripping does not ensure an optimum fit of glass to frame the Fleetwood Authorized Dealer should contact Customer Service for an expedited NO CHARGE shipment of replacement weather-stripping.

IV. Frame Opening Verification and Sillpan[1] Installation

Note: Sillpan Substitution- If the factory provided pan is not desired, the product warranty will remain intact if the substitute panning system emulates the essential design of the factory pan.

1. Opening Verification

- If sill option chosen is Arche-Duct, see Appendix F for instructions.
- Check the measurements of the opening and verify that the door will fit into the opening. Measure all four sides of the opening to make sure it is 1/2" larger than the doors in width and 1/4" in height.
- Verify the opening is plumb and level.
- Remove the door(s) from the packaging and lay it in front of the opening. Check width and height dimensions.
- Remove key from temporary location on lock jamb (outside).

2. Pre-Fit and Leveling

- Place sillpan into the opening and determine any leveling that must be done prior to installation (Figure 2).
- Shim as necessary to stabilize the entire depth and length of the sillpan. No unsupported width of more than 8” is allowed. Shim to be load bearing, non-porous, non-absorbent and inorganic.
- If more that 1/8” shim height is required, it is recommended to use a self-leveling “Rock Hard” (or equal) to achieve level and stable surface.

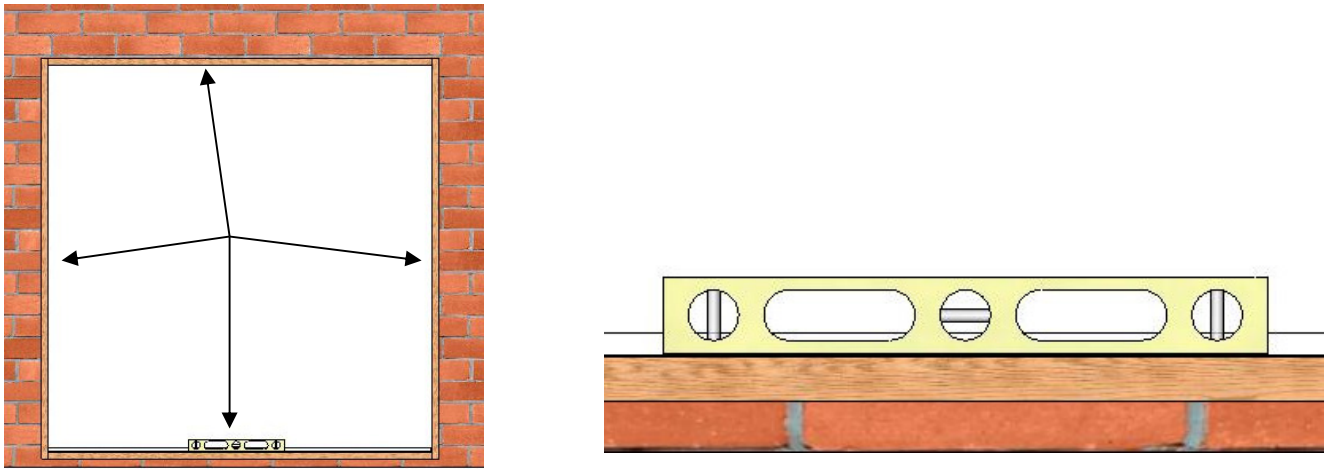


Figure 2:
Use level to determine if the opening is plumb and level

[1] Sillpan Refers to a factory provided aluminum pan (or equivalent).

3. Flash the Opening

- Once the opening has been confirmed, flashing of the opening is required prior to Frame installation. Paper and/or liquid flashing methods are acceptable (see AAMA 711/714 for material requirements).
- Check local Building codes for any additional flashing requirements.

Paper Flashing

- At each Jamb the flashing paper should be cut at least 3” past the weep-screed or diado flashing and at least 6” above the head of the door. The flashing must wrap around the jamb and at least 3” back into the opening.
- At the Head run the flashing paper long enough to extend at least 3” past the jamb flashing and wrap around the Header at least 3” into the opening.

Liquid Flashing

- Follow the liquid flashing manufacturer instructions.

4. Sillpan Installation (Skip if 1/2” Sill)

- Apply bituminous paint to raw masonry or concrete at the sill to eliminate electrolytic and chemical reactions. It is recommended a PVC liner be placed to ensure separation of the metal frame with the substrate. In balcony situations flash the sill with aluminum or galvanized brake metal (Sillpan is provided).
- In balcony situations flash the sill with aluminum or galvanized break metal (Sillpan is provided).
- Apply sealant in all corners and seams of the sillpan (Figure 3).
- With bottom side of sillpan up, apply a 3/8” bead of compatible sealant 1/2" in from interior leg. Sealant bead to run across the bottom as well as up each vertical leg of the sillpan. Also apply sealant beads near the sides and across the front (Figure 4).
- Secure the sillpan to the floor with glue. Position sillpan as necessary to allow for proper installation of frame assembly (Figure 5).

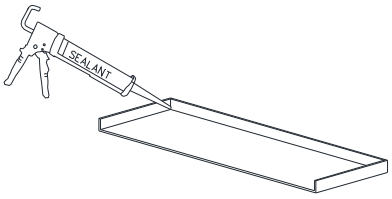


Figure 3:
Seal corners and seams

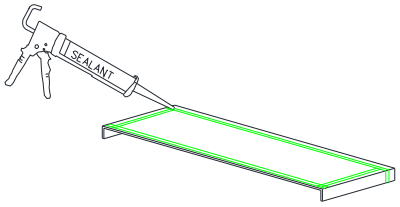


Figure 4:
Seal underside of Sillpan

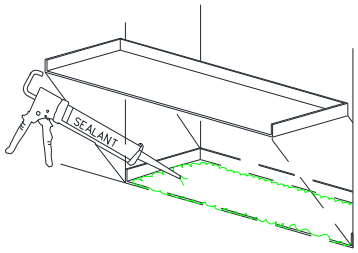


Figure 5:
Set pan in full bed of sealant

Note: Multiple piece sillpans are required on products with net frame widths greater than 14 feet (168 inches) and corner units.

- If the sillpan is more than one piece, butt up to each other and glue to the floor.
- Cut a piece of adhesive backed waterproof material to fit the joint as specified in Figure 6, A=¼". Select waterproofing material that is compatible for your application. Waterproofing material must have an adhesive backing and be capable of withstanding the temperature ranges for your region (Figure 18).
- Apply sealant to all interior and exterior seams.

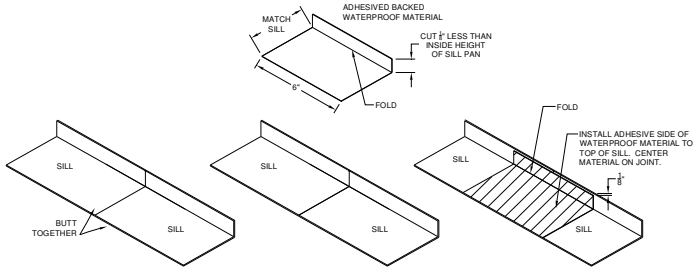


Figure 6:
Joining Sillpans with adhesive backed material

V. Frame Installation

Note: Glass from transom and sidelight should be removed before continuing. Glass to be re-installed after frame installation.

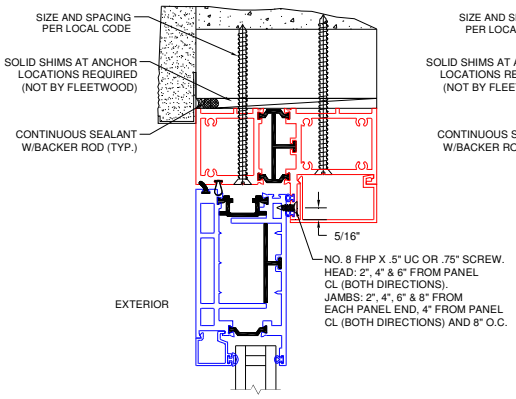
Knock Down (KD) Frame: See Appendix D.

Nail-fin and Block Frames

1. Seal frame and vent joints completely with compatible sealant. Apply a heavy bead of sealant to the interior side of the mounting flange (nail-on) where the door frame jamb and sill join. Sealant must cover the entire joint (from the flange to the inside leg of the door) and extend 1-1/2" up the jamb and along the sill.
2. Apply compatible sealant in 1" spots along the underside of the sill (do not apply sealant along the front edge of the sill, this will prevent proper weepage from occurring) and the screw holes in the sill (if required).
3. For Nail-fin frames immediately prior to installing the frame, apply a continuous 1/2" bead of compatible sealant to the backside (interior) of the mounting flange (nail-fin) at the jambs and head.
4. Insert the door into the opening and set the sill in a full bed of sealant. Cross-measure and adjust as necessary to achieve a plumb square and level condition, as well as an even reveal around the framed opening. Shim with non-porous, non-absorbent, inorganic shims where needed. Seal all fastener heads with compatible sealant. Only drill holes through Sill as required for design load.
5. Anchor Location, Sealant and Wall Conditions (Figure 7)
   Frame installation anchors furnished by installer, not by Fleetwood. Stainless steel screws are recommended. Fleetwood recommends countersinking all frame anchors.
   a. Secure the jamb to the trimmer with the screws
   b. Seal all fastener heads during installation with sealant.
   c. If required for design pressure, fasten head, jambs, and sill with screws according to test reports. To complete the installation, apply backer rod and a complete bed of sealant to the entire exterior and interior joint between the frame and the building structure. Tool the sealant to eliminate bubbles, voids and / or breaks and ensure a completely watertight seal.
6. The installer is responsible for the integrity of all framing joints after installation and must therefore ***water*** test all joints to guarantee a completely sealed product. Apply joint sealer and/or sealant necessary to ensure watertight joints. Retest as necessary.

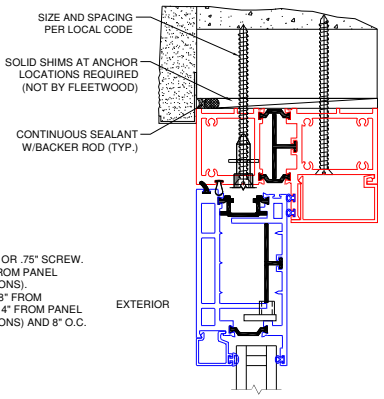
- Fleetwood recommends all frame anchors be countersunk.
- For sillpan products: Apply a continuous bead of sealant along the back leg and side legs (between sill and sillpan

TYPICAL BLOCK FRAME INSTALLATION



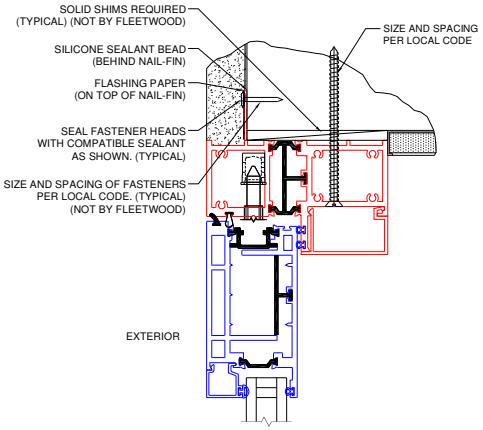
A: WIDE STILE FIXED HEAD

TYPICAL BLOCK FRAME INSTALLATION

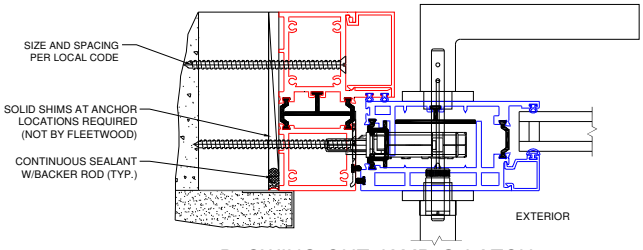


B: SWING-OUT HEAD

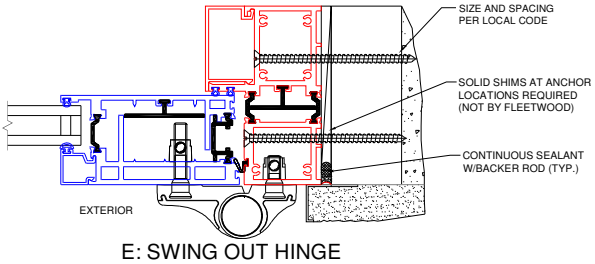
TYPICAL NAIL-FIN FRAME INSTALLATION



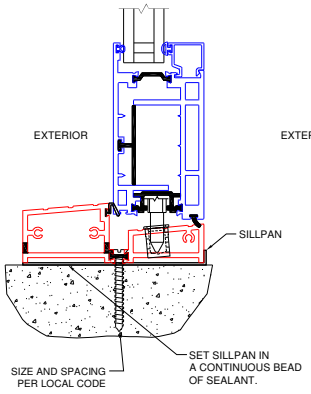
C: SWING-OUT HEAD



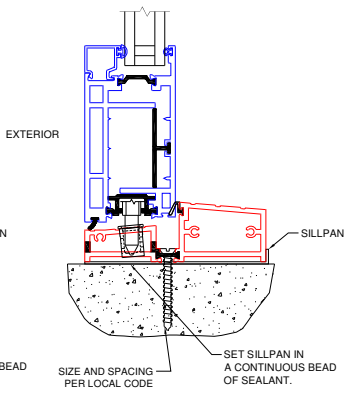
D: SWING-OUT JAMB @ LATCH



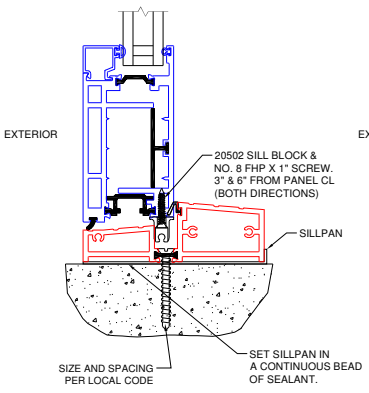
E: SWING OUT HINGE



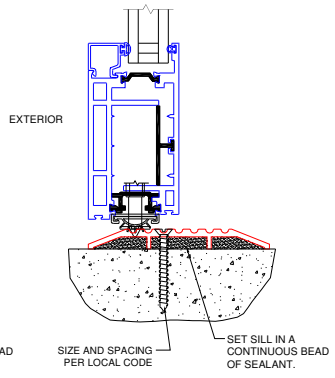
F: SWING-IN SILL



G: SWING-OUT SILL



H: WIDE STILE FIXED



J: SWING-OUT 1/2" SILL

Sill anchoring (if required)

Figure 7:
Anchor Location and Sealant Installation

VI. Glazing and Panel Mounting Instruction.

Note: If a door closer is desired on this product Fleetwood recommends the LCN 4040XP Door Closer. If an outswing door was purchased an additional back-up plate (from LCN) will be required.

1. Remove precut glass stops from the frame, making sure to note the location from which each has been removed. Each stop is hand cut for a specific location of the frame and must be returned to the same location after glazing process.
2. Fixed- Wide Stile:
   - Fasten inner panel to outer frame with # 8 FHP fasteners provided, (Figure 7A, 7H).
   - Apply a 3" bead of compatible sealant from each corner on inner flange of panel frame.
   - Install glass setting blocks (total 6 pcs per panel) at ¼ points into each jamb, head and sill for all four corners (Figure 8). To properly support insulated glass panes, stagger the setting blocks.
   - Install glass to panel frame then install glass stops (Figure 8).
3. Fixed- Narrow Stile:
   - Apply a 3" bead of compatible sealant from each corner on inner flange of panel frame. For Inside glazed please see Alternate Glazing Procedure.
   - Install glass setting blocks (total 6 pcs per panel) at ¼ points into each jamb, head and sill for all four corners (Figure 8). To properly support insulated glass panes, stagger the setting blocks.
   - Install glass to panel frame then install glass stops (Figure 8).

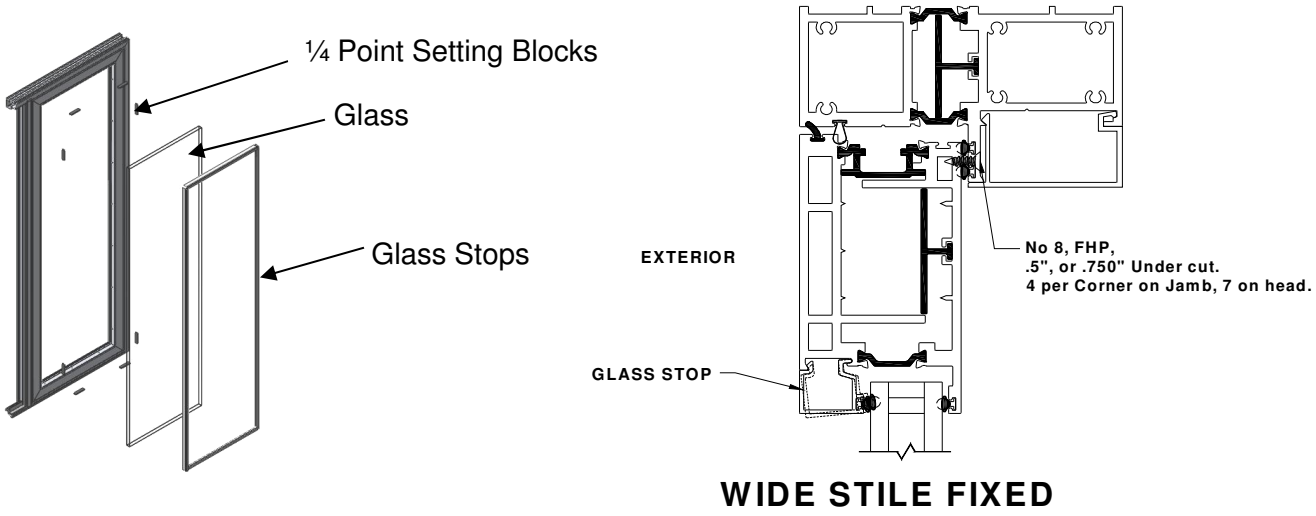


Figure 8:
Panel Glazing Illustration
(Wide Stile Frame Shown)

4. Door- Install panel(s)
   - Apply a 3” bead of compatible sealant from each corner on inner flange of panel frame.
   - Install glass setting blocks (total 4 pcs per panel) at ¼ points into jamb, head and sill for hinged lower corner and opposite upper corner (Figure 9).
   - Stagger setting blocks accordingly to support glass lites.
   - Install glass to inner frame then install glass stops (Figure 15).
   - Install the door panels to outer frame.
   - When TDL bars exist and additional protection from water is needed, apply a cap bead of sealant to horizontal TDL bars.
   - For Hardware Adjustment, see Appendix A page 10.
   - For Panel Squaring, see Appendix B page 11.

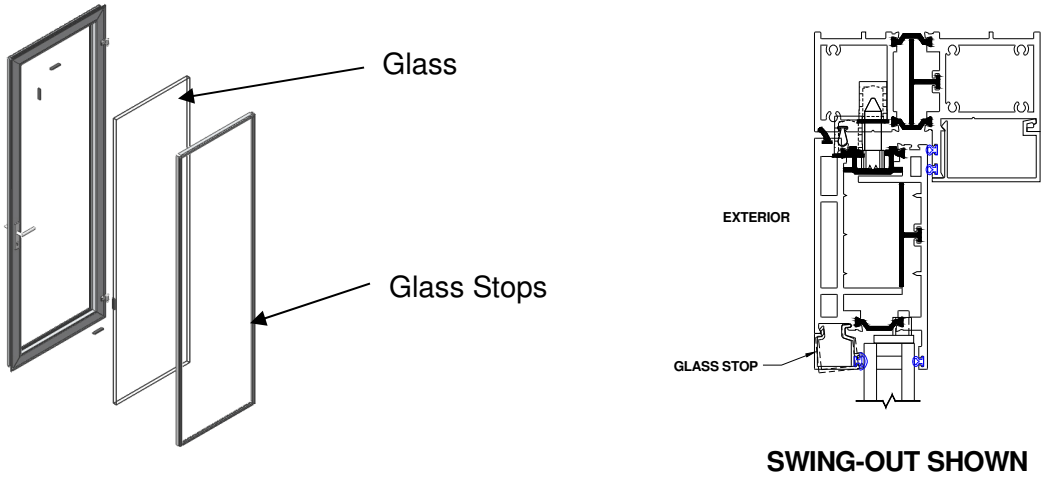


Figure 9:
Panel Glazing Illustration

Alternate Glazing Procedure

Note: Applies to inside glazed or outside glazed products, where additional water sealant is required.

1. Before glazing, apply a continuous bead of sealant to the fixed leg of the frame (Figure 10).
2. After glazing, apply a continuous bead of sealant to the fixed frame leg and glass.

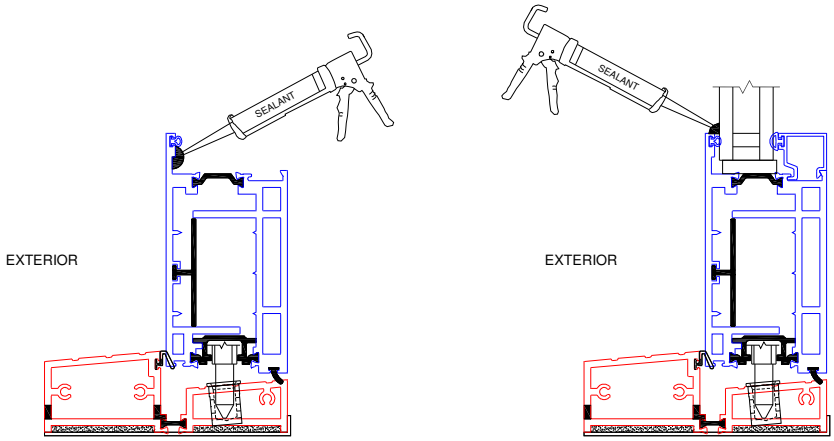


Figure 10:
Inside Glazing Illustration

VII. Flashing after Installation

The flashing paper referred to in this document is Moistop or other code compliant flashing material that conforms to **Federal Specification UU-B-790a, Type 1, Grade A, Style 4**. The strips of flashing paper are to be no less than 9 inches wide (or wider as required by local codes). Flashing paper must be applied with galvanized nails or corrosion resistant staples. Flashing paper shall be applied in a weatherboard fashion around the full perimeter of the framed opening.

1. Once satisfied that the frame is water tight, and immediately prior to application of the flashing paper at the head and jambs, apply a continuous bead of sealant to the exposed mounting flange (nail-fin) at the top (head) and sides (jambs) of the installed frame. Also, apply sealant at corners of the frame, the full length of the seams where the nail fin flashing is mounted.
2. At each jamb, embed the flashing paper into the sealant onto mounting flange and fasten into place. The flashing paper should be cut sufficiently long enough to extend at least 3 in. past the weep-screed or diado flashing and at least 6 inches above the head of the window (Figure 11).
3. Finally, at the head, embed the flashing into the sealant on the mounting flange and fasten into place. The flashing paper should be cut sufficiently long enough to extend past the flashing paper at each jamb by at least 3 in (Figure 12).
4. Weather resistant building paper should be applied in a weatherboard fashion to complete the installation (Figure 13).

Note: Where weather resistant building paper, insulating board, or other materials by other trades may constitute the primary weather barrier behind the exterior wall finish (i.e. stucco, masonry, siding, etc.), the owner / General Contractor are responsible to ensure that the weather barrier is continuous by effectively sealing the material to the window frame.

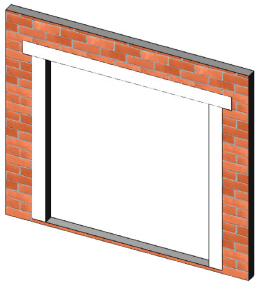


Figure 11:
Jamb flashing

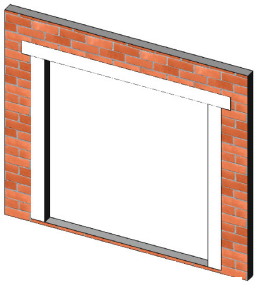


Figure 12:
Head Flashing

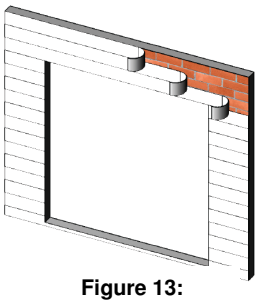


Figure 13:
Building Flashing

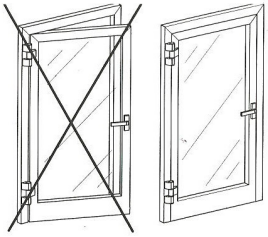
Appendix A: Hardware Adjustment

Required Tools: 6mm Hex-L Key, 3mm Hex Key

Hinge / Panel Adjustment

1. Remove top and bottom caps from each pivot hinge.
2. To avoid damaging the hinge while performing Lateral adjustments, remove the hinge cover from the panel side hinge (accessible with the door in the open position), close the door and then loosen the set screw from the hinge.
3. It is recommended that lateral and height adjustments be performed with the door in the closed position so that you can immediately see the effects.
4. Adjust the door as instructed below (Figure A1).
5. Replace all set screws, covers, and caps upon completion of door adjustment.

Note: If hinge replacement is necessary, back up plates (inside frame) have been permanently attached. Hinges can be removed and remounted.



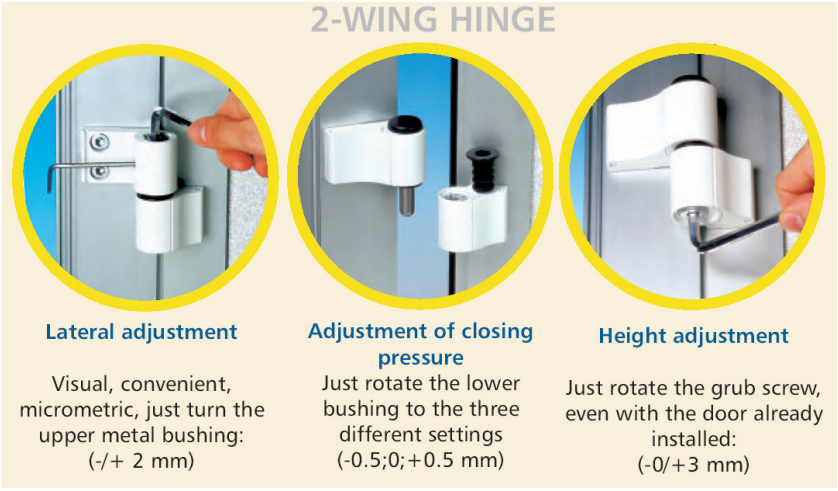


Figure A1:
Hinge Adjustment

Handle Removal and Installation

1. Using a 3mm Hex Key, completely remove the set screw on the underside of the handle (Figure A2).
2. With an even pressure pull the handle away from the escutcheon plate.
3. Once handle is removed replace the set screw into the handle to prevent loss.
4. To reinstall handle repeat steps 1-3 in reverse order.

Note: Ensure the spindle is centered (to the exterior/interior) before re-attaching the handles.

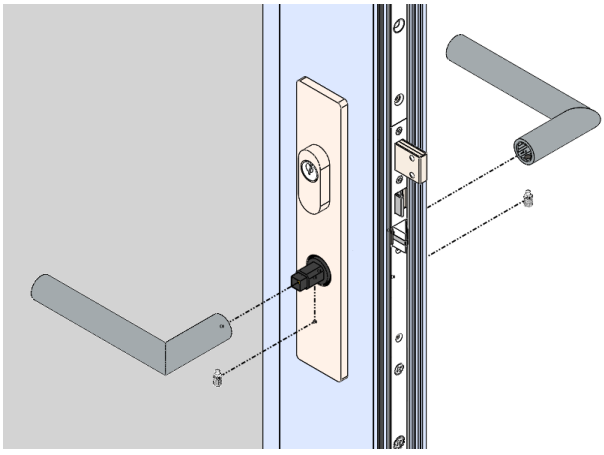


Figure A2:
Handle Removal

Appendix A Cont: Hardware Adjustment

Shootbolt Adjustment

Required Tools: Grinding Tool, Saw Horses (optional, if door is removed), Marker, Ruler / Tape measure.

Note: This step is to be performed after Hinge / Panel Adjustment has been performed.

1. With the door in the closed position, activate the top and bottom shootbolt (as much as possible). Note the locations where the bolt is interfering with the cup.
2. (Optional) Remove the door from the frame by lifting upwards, recommended 2 people. Lay door panel on saw horses.
3. Activate the shoot bolt, mark a line approximately 3/4” from the bottom of the bolt.
4. Grind the bolt down in 1/16” increments to reduce the increased friction that is experienced when activating the locking points of the panel.
5. Do not grind more than 1/2 the diameter of the bolt (Figure A3).

Figure A3:
Finished Adjusted Shoot Bolt

Appendix B: Panel Squaring Instructions

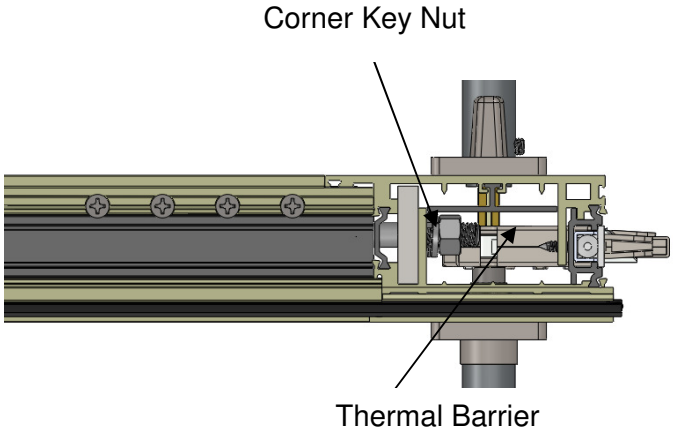


Figure B1:
Corner Key Nut Detail

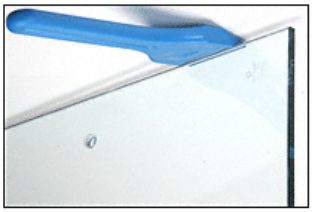


Figure B2:
Plate Glass Lifter

Required Tools: 9/16” wrench, pliers, tape measure, shim, plate glass lifting tool.

1. If panel hits the sill due to the weight of glass/panel:
   a. Make sure the frame is squared before any adjustment to panel.
   b. Adjust the hinges to bring the upper corner toward the hinge jamb, and the lower corner away from the hinge jamb. See “Appendix A: Hardware adjustment”.
   c. If the problem is solved, stop here.
   d. Lay panel on table and check distance of both diagonals. If they are not the same, the panel is not square.
   e. Remove thermal barrier (T shape bar)
   f. Loosen nuts at 4 corners (2 turns), use plate glass lifting tool and add additional shim(s) to the top of the panel opposite of the hinge, between the glass and vent top rail.
   g. Check diagonal distances, gap of panel to frame.
   h. Tighten corner key nuts, insert thermal barrier back.

2. If panel hits the head:
   a. Make adjustment while panel is hanging on the frame.
   b. Adjust the hinges to bring the upper corner toward the hinge jamb, the lower corner away from the hinge jamb.
   c. If the problem is solved, stop here.
   d. Remove silicon/ foam at the end (top) of vertical stile.
   e. Loosen nuts at 2 top corners (2 turns), use plate glass lifting tool and remove/replace with thinner shims to the top of the panel opposite of the hinge, between the glass and vent top rail.
   f. Check diagonal distances, gap of panel to frame.
   g. Tighten corner key nuts, insert thermal barrier back.

Appendix C: Stucco Surround Application (Optional)

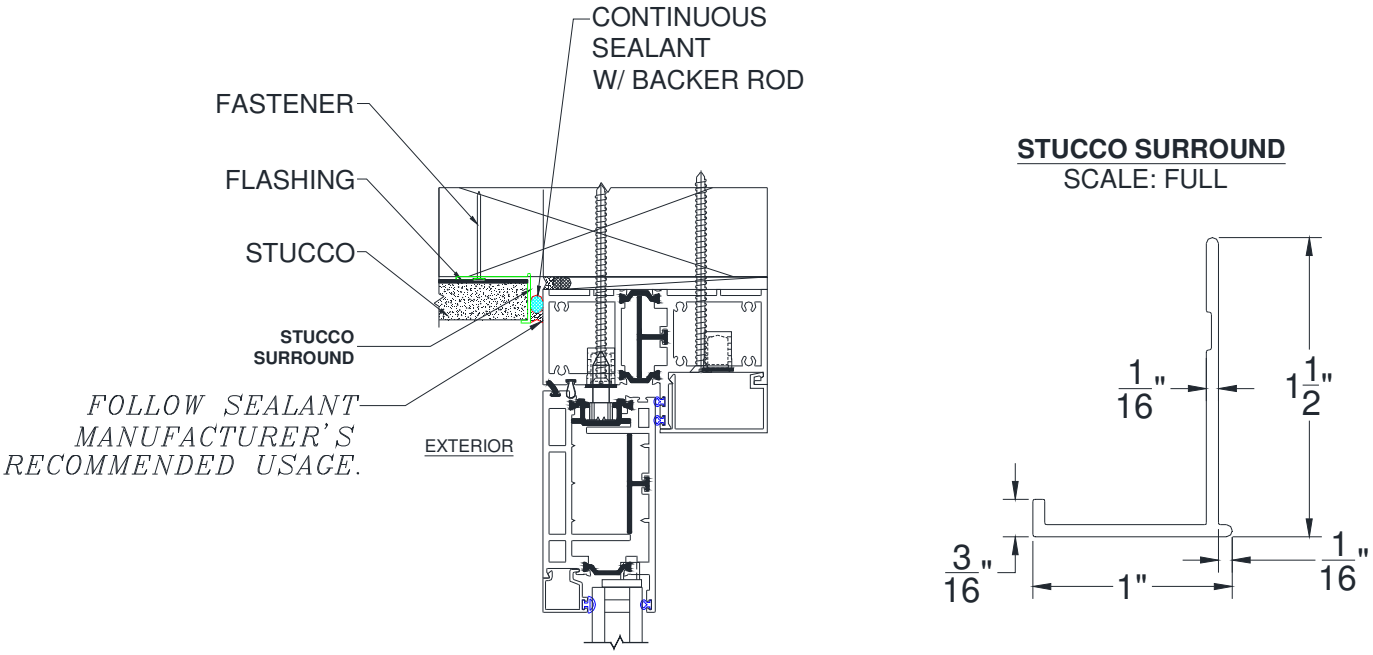


Figure C1:
Stucco Surround Detail and Extrusion

Appendix D: Knock Down Frame (Optional)

Figure D1:
KD Frame Assembly

Appendix E: Wide Stile Fixed Panel Fastener Locations (Optional)

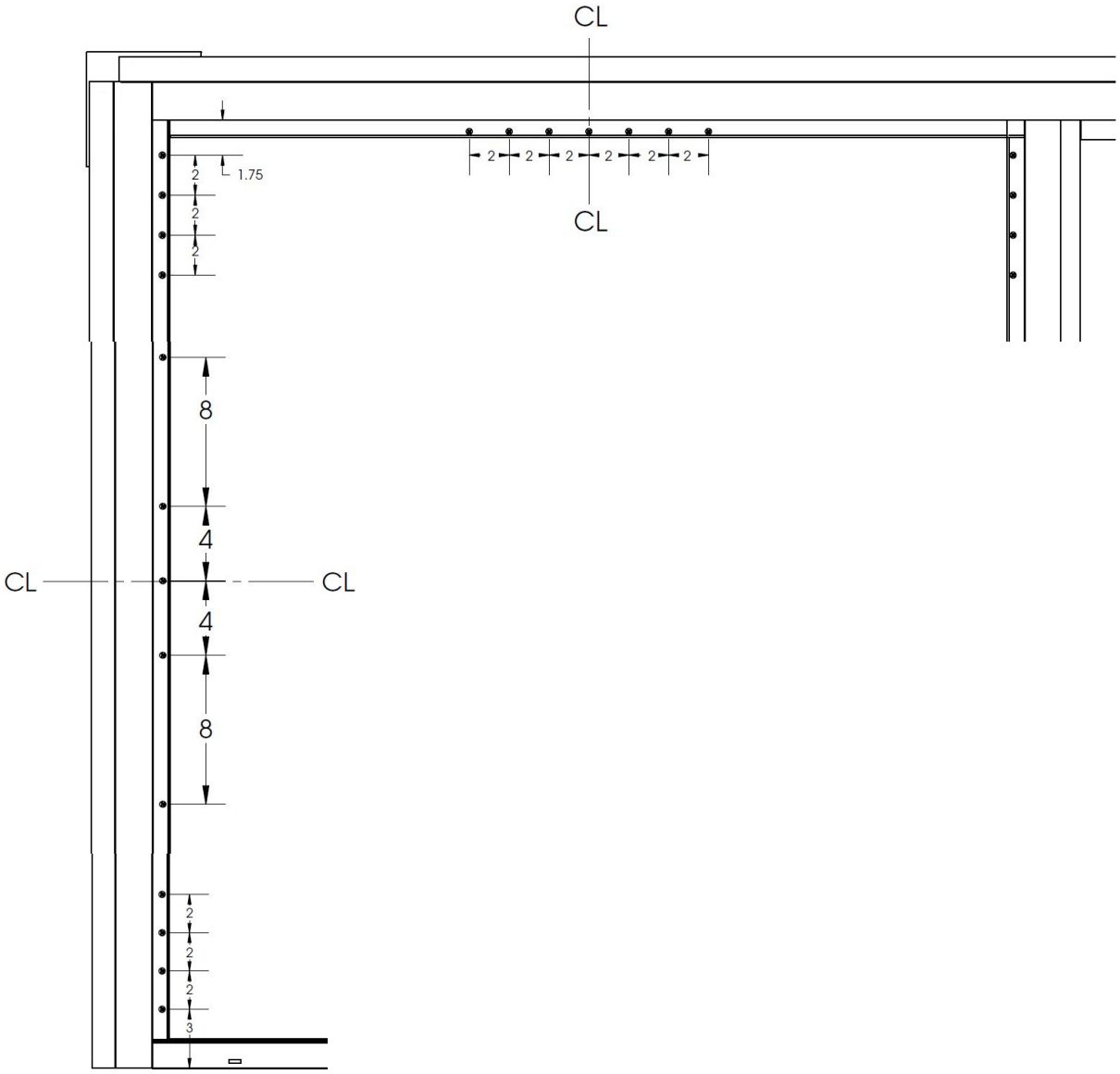


Figure E1:
Fastener Locations

Appendix F: Sill Option-Arche-Duct

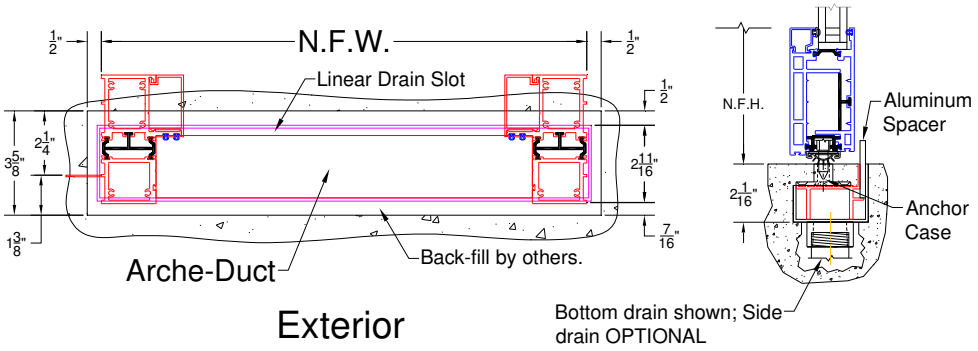
Flooring Material: The sill for this product was designed to incorporate the finished flooring as a key component to the bottom rail sealing and the linear slot drain. The material chosen to surround the extruded sill should be such that water will not damage it.

Linear Slot drain: The sill comes with an aluminum spacer to ensure the linear slot drain spacing is correct. This spacer is to be removed after the flooring is installed.

Note: Do not leave the Arche-Duct system exposed for more than 3 months. Prolonged exposure will damage the powder coated finish.

1. The Arche-Duct sill option requires a flooring block out (Figure F1). If Arche-Duct tabs are present add 1-1/2" to exterior / interior block out. These tabs are for fastening the drainage system to the substrate.
2. After panel installation, if shoot bolts are present, align strike with shoot bolts (Figure F1/F2), mark location, drill holes using #25 drill bit, fasten in place with 1 inch #10 screws provided.
3. Back-fill Arche-Duct system after panel and glazing installation / adjustments are performed.

OUTSWING



INSWING

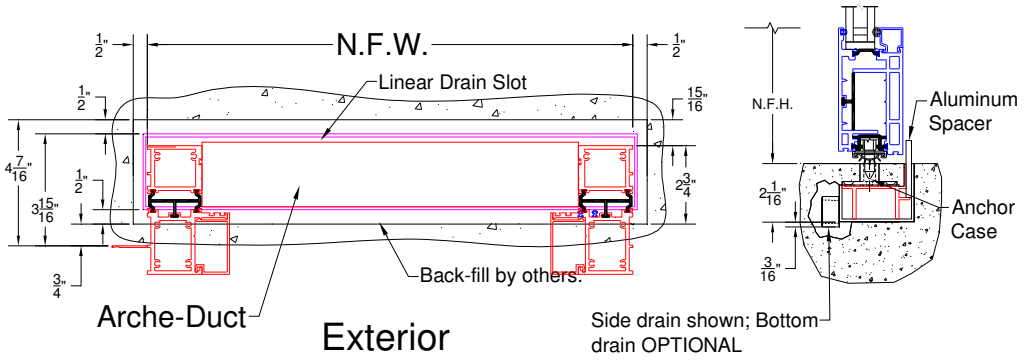


Figure F1:
Arche-Duct Block Out

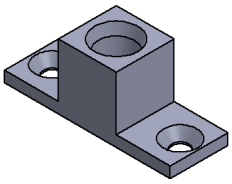


Figure F2:
Shoot Bolt Strike

Appendix G: Electronic Latch Information

General

Factory Supplied Functions & Features:

- Automated locking when door closes (3 second delay)
  - (Automated locking can be disabled – located on Control Module)
- Mechanical anti-panic egress (egress is assured with or without power).
  - 360-degree profile cylinder standard.
- Magnet contact to sense open/closed position.
- Handed Locks (LH or RH) and must be ordered according to Hinge Location (LH or RH).
- Control module to manage in/output functions preprogrammed for 2 modes.
  - Mode 1: (UNLOCKED) latch, deadbolt, and multipoint's stay in the unlocked position (preferred for high traffic situations e.g. parties).
  - Mode 2: (AUTO-LOCK) all points of contact lock when the door shuts.
  - For additional modes, refer to Multitronic Installation Instructions shipped with product.
- Spring loaded contact to transfer power from frame to sash.

Hardware locations:

- 3-pt lock with motor driven automation (lock stile)
- Control Module to manage input/output functions (room-side face of hinged jamb)
- Spring-loaded Contact to transfer power from frame to panel (hinged jamb/stile)
- Magnet Contact to sense closed position (lock jamb)
- Strikes (lock jamb)
- Radio Key (remote fob)

Technical

Additional Items Required (NOT PROVIDED BY FLEETWOOD):

- Certified electrician
- Power supply: 12V DC / 3A min required. See below for reference.
- User Interface: Entry access system e.g. keypad, biometric or other. The selected device must make a closed contact at the input terminals of the control module for <= 1 sec. to initiate the unlocking sequence.
- Wi-fi or smartphone control must be accommodated via the entry access system. See below for references.

References:

Power Supply

Product
Siemens: 6EP13232BA00 SITOP PSU100S 12V/14A, 120/230 VAC

Entry Access System

Supplier	Web	Phone
Siedle USA	https://idorss.com/brand/sss-siedle/	800-874-3353
Holovision	http://eholovision.com	714-434-6904

Appendix G cont: Electronic Latch Information

Wiring Diagram

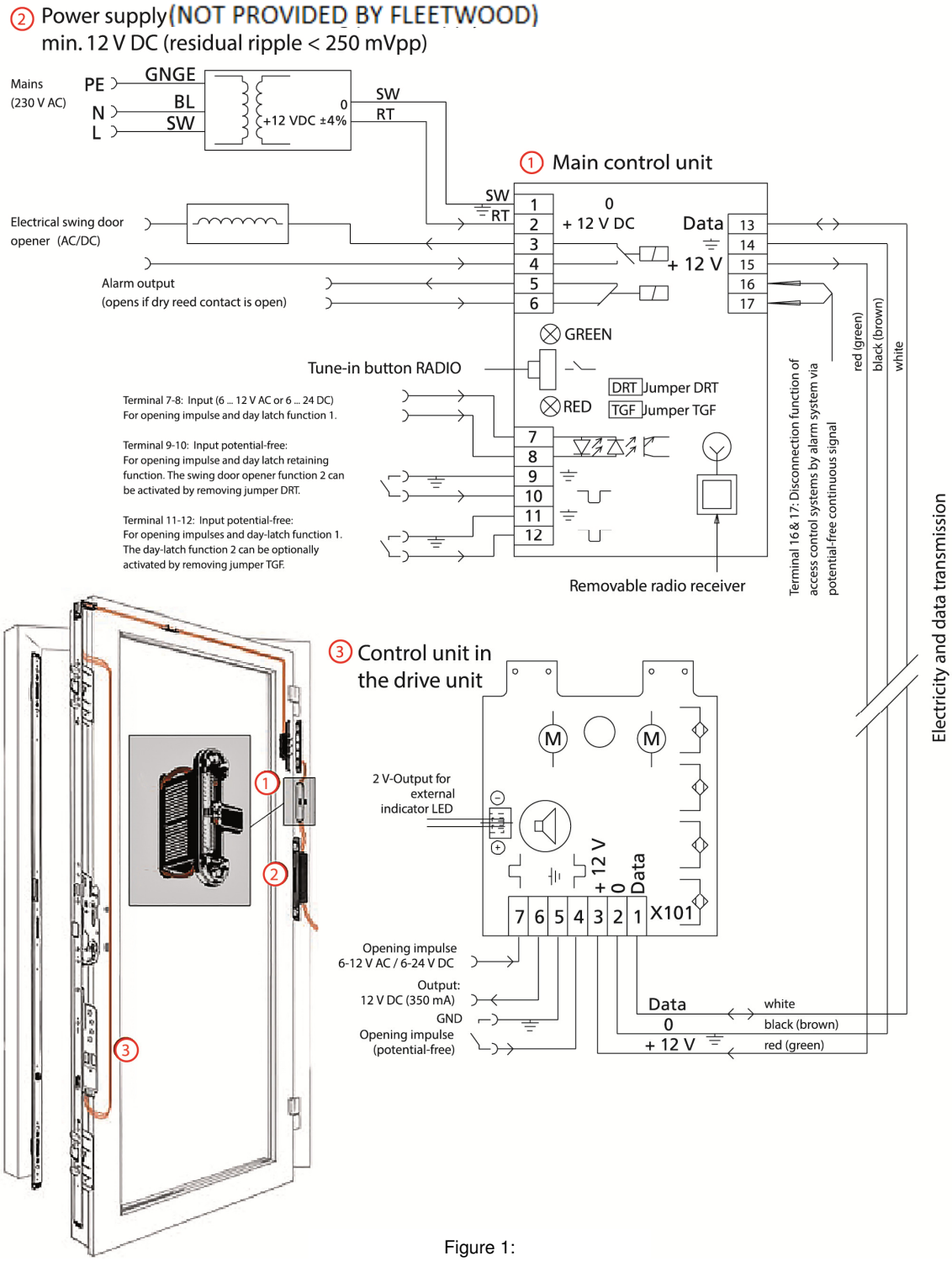


Figure 1:
3900-T Electronic Door Wiring Layout
(Illustration Purposes Only)