

DOORS ROUGH OPENING CHART

230, 239, 245, 249, 300, 310, 350, 370

- Door width + 2" = R.O.W. (1 x wood buck)
- Door height + 1 1/2" = R.O.H. (1 x wood buck)

* We recommend installing all doors in bed of nonshrink, waterproof cement at sill, 1/2" thick.

*Impact 230, 239, 245, 249 with sidelite(s) widths plus 3/4" per mull for overall unit width.

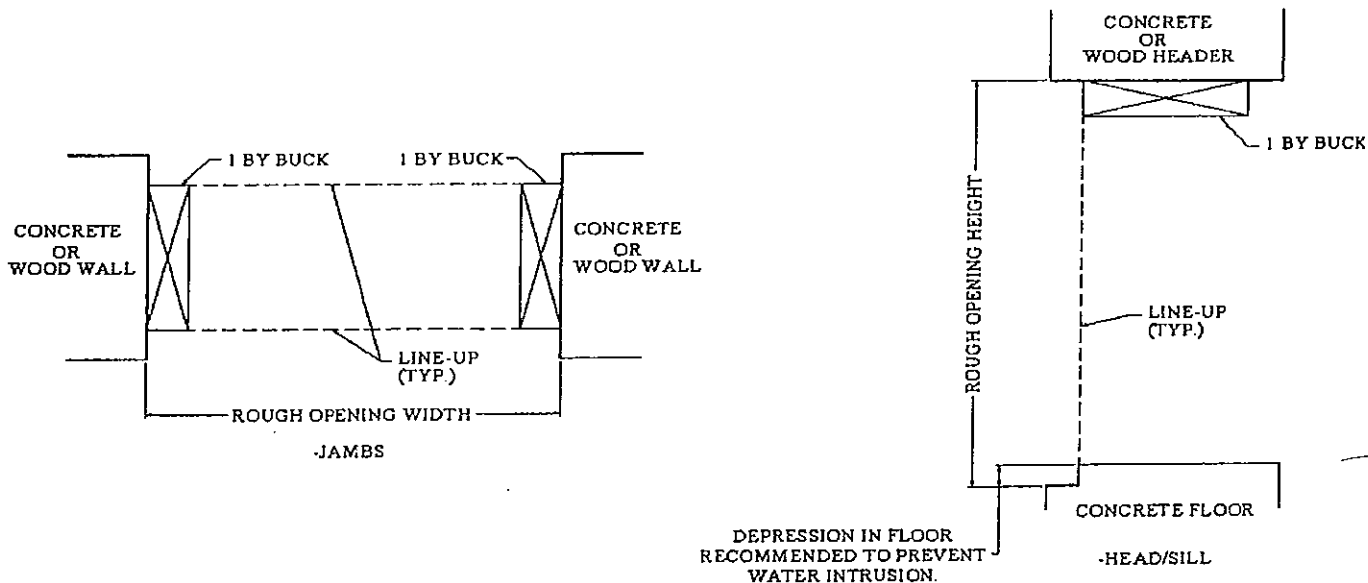
*Non-impact 230-230,245,249 with sidelites. Add Door & sidelite(s) widths minus 1/4" per sidelite for overall unit width

R.O.W. = Rough Opening width

R.O.H. = Rough opening height

ROUGH OPENINGS

- DOORS



WINDOW ROUGH OPENING CHART

WINDOWS

1 7/8 PW, 3 3/8 PW, 910, 810, 805, 605, 515, GOPI

- Window width + 1" = R.O.W. (1 x wood buck)
- Window Height + 1" = R.O.H. (1 x wood buck)
- Window height + 0" = R.O.H. (Precast sill)

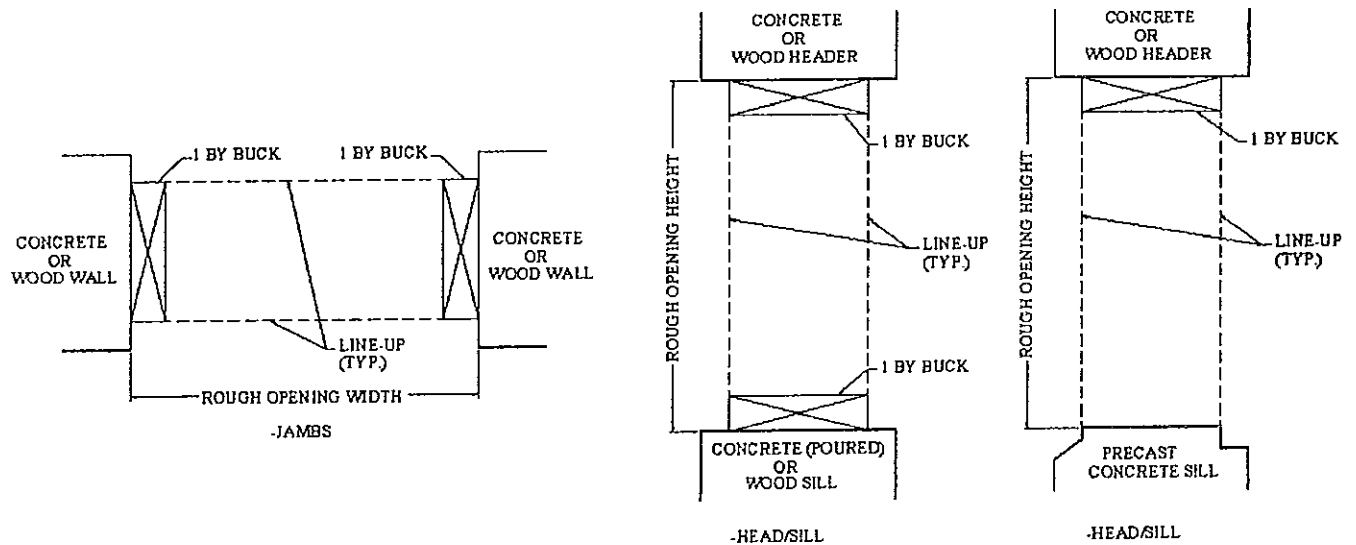
* Multiple window opening – add window + 1/8 per mull.

R.O.W. = Rough opening width

R.O.H. = Rough opening height

ROUGH OPENINGS

- WINDOWS





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INSTALLATION INSTRUCTIONS

FOR

SWING DOORS

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Note: Always wear proper safety equipment when installing our products.

Always read the entire installation instructions prior to starting installation.

FLORIDA'S BEST INSTALLATION INSTRUCTIONS

Model 230/239/245/249 SWING OUT FRENCH DOOR

PREPARING DOOR OPENING:

A. Check floor and header (top of door opening) for straightness. Determine by extending tape measure from header to floor and measure. Measure both ends as well as the middle of the opening. Repeat the same steps above for checking the width of the opening.

B. Correct evenness if necessary. Opening must accommodate the width and height of the doorframe. A $\frac{3}{4}$ " minimum depression (interior floor $\frac{3}{4}$ " higher than the exterior floor) in floor is suggested to prevent water intrusion.

(Note: Your dealer/salesperson has complete information regarding proper swing door made for the dimensions of your door opening.)

HARDWARE KIT CONTENTS:

- A. (4) STRIKE PLATES
- B. (5) #10 x 5/8 FH SMSCREWS-UNDER CUT
- C. (2) DUST PLUGS
- D. (10) #6 x 3/8 FHSM SCREWS SS
- E. (19) $\frac{3}{4}$ " PLASTIC HOLE PLUGS

PREPARING THE DOOR FRAME/SIDELITES FOR INSTALLATION

1. Stand door at the vertical position. Then lean door at a slight angle so that the door panels will not swing open freely. With hinges facing exterior side of opening, remove shipping protection. Make sure aluminum colored sill/threshold is at bottom. (References to "left" and "right" sides are made from outside looking in)
2. Swing active panel open, block bottom of panel to prevent door from falling over. Remove screws from hinges so that the hinges remain connected to frame. Take panel(s) out and store in a secure place until the end of installation. **Caution:** Hinge Screws are made of stainless steel, and strip easily. Use care when removing/replacing screws. Repeat same steps with inactive panel. **Note:** Skip steps "4" through "6" if side lites are not used.
3. **NON-IMPACT:** Position side lite(s) so that the jamb with the open channel can slide over the jamb of the doorframe. Position side lite so installation holes are on the interior side. Apply a bead of good grade silicone in the center of the side lite channel jamb. Slide side lite channel jamb over doorjamb. Repeat above if there are two side lites in the opening. No screws are needed at this connection.
4. **IMPACT:** Fasten 2" x 4" aluminum angles to H-mull with 2- #14 x 1 $\frac{1}{4}$ " PHS Screws SS per angle clip thru the two inch leg of the angle into the mull. Extend aluminum angles 1/8" passed ends of H- mull (this will let door frame fit between clips). Slide side lite(s) into H-mull on opposite of angle clips. Fasten H-mull to side lite with # 14 x 1 $\frac{1}{4}$ " PHPSMScerws SS every 18" inches on center thru H-mull into side lite jamb. Make sure installation holes of side lite are on the interior side. Slide doorframe into H-mull(s) with angle clips overlapping top and bottom of doorframe. Fasten door frame to H-mull with #14 x 1 $\frac{1}{4}$ " PHPSMScews SS thru pre-punched installation holes

5. Apply a continuous bead of wet non-shrink, water proof grout (4000 PSI preferable) approximately ½" deep at sill of opening. Pack underside of sill cavity solid with the same grout. Move assembled unit into opening, carefully supporting doorframe and side lite(s) so not to bend. Set sill of frame on top of bead of grout then swing top of frame into opening.
6. Do not step on sill until after cement dries. (Shim as needed using horseshoe plastic shims to prevent bow in sill. Tool ¼" deep groove into cement at exterior of sill for perimeter caulk. Clean off excess grout while grout is still wet.
7. Fasten one anchor thru frame head pre-punched installation hole next to frame jamb into header. Check frame head and sill with level. Fasten second anchor into frame head on opposite end of doorframe. Adjust frame head up or down until level. Next fasten an anchor thru bottom installation hole of doorjamb or side lite frame jamb (depending on if you are using a sidelite(s) or not). Check with level so that jamb is level in and out. Then check that jamb is level left to right. Repeat this step on opposite side.
8. Reinstall inactive door panel into frame. Make sure that hinge screws are centered into holes in hinge leaf, that hinge screws heads are flush with hinge leaf and hinge screws are tight. Swing panel into frame. Check that panel swings without rubbing on frame head or sill. Adjust frame up or down until panel swings freely. Check that panel closes against frame head and sill evenly. Adjust frame jamb in or out until panel hits frame head and sill at the same time when closed. Repeat the same steps on the active panel. Swing active panel until almost closed. Look to see if gap between active and inactive panels is the same distance at top and bottom. Adjust frame jamb left or right until gap is even.
9. Fasten the balance of anchors in frame jambs of doorframe and sidelite(s). Make sure that head of side lites is even with doorframe head. Insert plastic hole plugs into installation holes and holes on back side of hinge stiles. **Caution:** Do not over tight anchors to prevent jambs of bowing. (Shim as needed, not to exceed ¼") Bowing jambs inward will cause door to rub; outward will cause excessive gap between doors.
10. Fasten the balance anchors in frame head and sill. **Caution:** Do not over tight anchors to prevent head of bowing. (Shim as needed, not to exceed ¼") Bowing head and sill inward will cause doors to rub head or sill; outward will cause flush bolts not to penetrate properly. Check that flush bolts operate freely and there is no more than 3/16" gap between panel and frame head /sill. Adjust frame as needed. **Impact doors only:** The angle clips for the H-mulls must be anchored by inserting fasteners thru head /sill and angle clips into opening header /floor. Installation holes must be field drilled. Drill one hole ¾" from edge of head/sill and the second 1" on center from the first. Access holes must be field drilled in frame head for anchors to seat against top of tubular frame head. For size, quantity, and spacing required of installation anchors, **Reference** Miami-Dade/Florida Product Approval and/ or job specific engineering. TMWD is not liable for any misinterpretations. Consult your engineer or building official for further information.
11. Use sealant to seal corners inside and out of frame jamb to sill connection. Seal all screw and anchor to prevent any water penetration. The proper way to seal anchors is to fill installation hole with good quality sealant then insert anchor(s). Install lock sets of your choice. (Lock handle and dead bolt not included). In applications of field water testing it may be necessary to seal lock handle, deadbolt and flush bolts with good quality silicone during installation.

NOTE: Series 230/245/249 is prepared with 2- 2 1/8" holes punched with a 2 3/8" backset and 8 ½" on center between the two 2 1/8" holes. Some manufacturer strikes will not work with door due to tamper proof astragal design. Strike plates included in the attached hardware kit.

13. Install strike plates on inactive panel in the two 1" x 2" rectangular holes on the edge of the panel with the #6 x 3/8" FHSM SCREW SS. Depending on the type of used, it maybe necessary to stack two strike plates on top of each other for locking handle strike to work properly.
 - a. Place self-adhesive dust plugs at top and bottom of inactive door panels, between the two door panels. This will cover up any slight gaps at top & bottom of doors.
 - b. When door is installed correctly, the gap between the frame and door panels should be even on all four sides. Door panels should not sag in middle. Gap between doors when opened should be equal from top to bottom. Active panel should close flat against inactive panels when closed. If any of the above is not correct, the installation is not done correctly. Doorjambs will need to be moved in or out to adjust flatness. Doorjamb will need to be moved up or down to adjust uneven gaps. Once the door operates properly, perimeter caulk interior and exterior.
 - c. In the event that the door will not operate properly after following these instructions, it is the installer's responsibility to formally report the problem to the factory customer service representative within 24 hours.



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INSTALLATION INSTRUCTIONS

FOR

SLIDING DOORS

Note: Always read entire installation instructions prior to starting installation.
Always use proper safety equipment when installing our products.

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FLORIDA'S BEST INSTALLATION INSTRUCTIONS MODEL 310/319/350/370 SLIDING GLASS DOOR

PREPARING DOOR OPENING

A. Check floor and header (top of door opening) for straightness. Determine by extending tape measure from header to floor and measure. Measure both ends as well as the middle of the opening. Repeat the same steps above for checking the width of the opening

B. Correct opening if necessary. Opening must accommodate width and height of doorframe. A 3/4" minimum depression (interior floor 3/4" higher than exterior floor) in floor is suggested to prevent water intrusion.

(Note: Your dealer/salesperson has complete information regarding proper patio door model for the dimension of your door opening)

Hardware kit contents:

- A. (12) #14 X 1 1/4 PPHSMS (350/370)
- A1. (20) #10 x 1 Tex screws (310/319)
- B. (4) ALUMINUM KEEPERS
- C. (8). #10X1/2" TH SMS
- D. (2) RUBBER BUMPERS
- E. (4) DUST PLUG PADS
- F. (4) #10X11/2" TEK SCREW
- G. (12) #8X5/8" TEK SCREW
- H. (2) ALUM. TOP CLIPS
- I. (2) ALUM. BOTTOM CLIPS
- J. (10) #8X3/4 SS SMS PHP

DOOR FRAME ASSEMBLY/INSTALLATION

IMPORTANT:

- A. Assemble frame as shown above and install from exterior of building, facing in toward door opening. References to "left" and "right" sides are made from outside looking in.
 - B. Assemble frame completely before installing.
1. Lay frame jambs on ground at approximate width of the door opening so that so that the larger of the two types of weather-stripping is facing down. (The larger of the two stripping is to be on the outside of the building). Make sure to check that the small holes in frame jamb are 34 1/2" from the bottom (sill) of the jamb. These holes are for the keepers (door strikes) to be installed later.
 2. Place sill at bottom of the jambs. Lay sill on patio or work surface so that sill rise is facing down.

NOTE: The sill is notched at each end for proper drainage, when installed; sill riser will be on interior side of opening.

3. Match pre-drilled holes of the sill with the screw receptacle channels on outside of jambs (looking at jamb from end view) Insert #8 x 3/4" screw (two per corner) through the bottom of the sill and attach to jambs. Seal screw heads, jamb/sill connection and sill riser to jamb with quality grade silicone.
4. Make sure aluminum end dam plates are sealed thoroughly with no voids in sealant.
5. Place frame head at top of the jambs. Match pre-drilled holes of the head with the screw receptacle channel on outside of jambs. Insert #8 x 3/4" screws (two per corner) through the bottom of the sill and attach to jambs.
6. Lift the full assembled frame and place it in the door opening. Jambs should fit flush against sides of the door opening. Do not install at this point.
7. With frame in position, note any areas of unevenness at top, bottom or sides of the door opening that may require further correction.
8. Remove frame from opening. Lay a continuous bed of non-shrink, waterproof construction grout at sill of opening (about 3/4" thick, 5" deep and the length of opening). NOTE GROUT IS A WATERPROOFING MEASURE AND MUST BE CONTINOUS (WITHOUT VOIDS) FROM WALL TO WALL. Place frame into opening, inserting sill on top of grout first, then slightly pressing down into grout. Next swing top of frame into opening.
9. Insert one 1/4" fastener (with a minimum of 1 1/2" penetration into the wall) at top of right hand frame jamb. Shim as needed (not to exceed 1/4"). Place level on frame head and check for level. Hold frame head level and insert one 1/4" fastener on top of left hand frame jamb. Shim as needed.

10. Place level on left jamb and check for plumb, in and out. Check for plumb left to right. Hold jamb plumb and insert one ¼" fastener at bottom of left jamb. Shim as needed. Repeat above with right jamb.
11. Place straight edge on sill (about 12" shorter than length of width of frame) and check for level and bowing. Adjust as needed.
12. Tool a ¼ deep groove in grout on exterior of sill. This is for a caulk joint to be applied after concrete is fully cured. Clean up excess grout off sill, weep holes and around interior/exterior of sill. Do not insert ¼" fasteners into sill until grout is fully cured.
13. Use straight edge to check frame head for bow and level. Insert balance of ¼" fasteners into frame head, checking that the same distance is maintained between frame head and sill prior to inserting each fastener. Using a tape measure or a pole cut to the appropriate size may do this. Shim as needed, not to exceed ¼" Refer to Product Approval/Engineering to insure proper amount, type and penetration of fasteners are used. Make sure not to over tighten fasteners because this will cause the channel on the frame head to pinch inward causing friction when sliding door panels.
14. Insert the balance of fasteners into frame jambs, checking for bow and plumb after each fastener is inserted. Shim as needed (do not to exceed ¼"). Refer to Product Approval / Engineering to insure proper amount, type and penetration of fasteners are used.
15. Perimeter caulk all four sides of frame to exterior wall prior to stucco being applied to walls, using good quality caulking (urethane or 100% silicone preferred). Consult with a waterproofing specialist for proper application.
16. Seal all exposed installation fasteners.

INSTALLING DOOR PANELS

1. To determine top of door panels, look for smaller height horizontal rail at top and taller height horizontal rail at bottom. At the bottom of the operable (moving) panel, turn wheel adjustment screw (screw in middle of stile with washer around shaft) counterclockwise until wheel is full retracted. Repeat at both ends of all operable panels.
2. Install panel(s) on interior rails first with hooks on interlocking stiles facing towards the exterior. Refer to product for location of dust plugs and apply at this time. Second install panel(s) on the next rail with hooks of mating interlocking stile facing to the interior. In the case of three or more panel(s) repeat the second step. Refer to product data to determine panel configuration. Panels are not reversible. Do not remove locking hardware. Lift panels into position so that the top of the panel fits into the channel of the frame head. Lower panel so that the bottom of the panel fits into the channel of the frame sill, centered on top of the roller rails on the sill.
3. Adjust wheels on operable panels so that panel lock stile is level with frame jamb or female lock stile. Adjust wheels on operable panels so that meeting rails on operable and fixed panels are level with each other. Always adjust operable panels as far down as possible without causing door to rub the track. Weather-stripping on bottom rails of door panels must seal against vertical rails on frame sill (track).
4. Install latch keepers, using 2-# 10 x ½" oval head SMS pass thru latch keepers elongated holes into predrilled holes in frame jamb. Some panel configurations, using a female lock stile, require field drilling pilot holes for latch keepers. Adjust latch keepers up or down to align with lock holes in lock stile. Proper alignment dictates smooth operation of locks. In some cases, where frame jamb is bowed or wheels are not adjusted properly, you may need to shim out latch keepers with small washers to obtain smooth operation of lock.
5. Keep operable panel(s) locked. Locate stile on fixed panel that goes into frame jamb. Scribe a line with a pencil on the middle of the fixed stile at 3/8" minimum from the edge. This line is to check if fixed panels are fully penetrating into frame jamb. If frame jamb is bowed or if there is debris in track to frame jamb corner, the fixed panel will not penetrate fully. Seal with 100% silicone caulk between bottom rail of fixed panel and frame sill (track) at bottom of meeting rail and interlock. Set bottom panel clip into sealant. Drill pilot holes through bottom panel clip pre-drilled holes into fixed panel.
6. Fill holes with 100% silicone sealant and insert screws thru panel clips into fixed panel. Insure that fixed panel is fully penetrating frame jamb and operable panel is locked. Drill thru pre-drilled hole in fixed panel clip, thru frame sill and into grout and opening sill. Fill hole with 100% silicone caulk and insert screw. Refer to Product Approval/Engineering to insure proper amount, type and penetration of fasteners.

(NOTE: Bottom fixed panel clip has a groove cut into it to straddle on top of rail on frame sill.)

7. Place top fixed panel clip against top of fixed panel meeting rail and frame head. Drill pilot hole thru pre-drilled

Hole (s) in panel clip into fixed panel interlocking stile. Fill with silicone and insert screws. Drill pilot holes through pre-drilled holes in panel clip and into frame head, wood buck and opening header. Fill holes with silicone and insert screws.

8. Refer to Product Approval/Engineering to insure proper amount, type and penetration of fastener and screws
(NOTE: Top fixed panel clip does not have groove cut into clip)

9. Install self-adhesive woodpile pads by peeling off backing film and sticking to frame sill underneath operable panel meeting rail. Be sure that frame sill is free of oils or other debris that could keep pad from properly sticking. Refer to Product Approval for proper placement of pads.
10. Seal fixed panel to frame jamb and frame sill on exterior with 100% silicone. Do not seal weep holes in bottom corners of frame.
11. On 370 Series only, TM-110, 9 1/2" long top panel clips must be installed above all operable panels above interlocking stiles and operable female stiles. Move all panels into place and lock door. Mark with pencil in channel of frame head the center of operable interlocking stiles and center of operable female stiles if applicable. Move panels out of your way and place clip centered on pencil mark. Insert #10 x 1 s.s. Screws thru pre-drilled holes (in clip) into frame head. Refer to Product Approval for proper location, page 2 of 6 and 6 of 6.
11. Some heavy reinforcing packages require field installation (drilling and tapping) of security pin. Please refer to Product Approval/Engineering. 370 pocket door configurations require a two part wall interlock(s) and wall angle bracket(s). When installing pocket doors it is best to adjust panels, install keepers and lock door prior to installing wall interlock/angle bracket (a.k.a. hook strip). Refer to page 2 of 6 on the product approval for attachment instructions.
12. When using head receptors field drilling and tapping is required for #14 x 1 PHPSMS that connect head receptor to frame head. Refer to Product Approval/Engineering for correct application and location. Silicone seal is required between frame head and head receptor as shown on Product Approval. Check frame head for straightness prior to inserting screws.
13. Install handle on locking panel by removing top screw on lock on locking panel. Do not remove both screws on handle at the same time. With the same screw you just removed, pass it thru hole on mounting bracket of wood handle and into top hole of lock on locking handle. Tighten screw until snug – do not over tighten – this will cause the lock not to work with ease during operation. Repeat for bottom screw. Install panel bumpers using #10 x 1 1/2 Tex screws. Fasten to frame jamb on XX, XO, OX, XXX, OXX, and XXO configurations, fasten to male lock stile on OXO configuration and fasten to male and female lock stile on OXXO, XX/XX, OXXXXO configurations.
14. Install door screen(s), turn wheel adjustment screw(s) counterclockwise, located at top and bottom of screen door. Gently tap wheel adjustment screws into hole after loosening. This will retract wheel into screen horizontal rails and allow screen door to pass over vertical rails in frame sill. Lift screen up into frame head, then down on to frame sill. Adjust bottom wheel adjustment screw(s) until screen door bottom weather stripping is making contact with the vertical rails on frame sill, screen door is plumb with frame jamb and level with sill. Tighten wheel adjustment screws on top of screen door until wheel makes contact with frame head. Roll screen door back and forth over the entire length of the frame to check that wheels on top do not impede smooth operation. If installing a multi-screen door configuration, repeat steps above.
15. Remove all tapes, labels and packing material from door prior to completion of installation. Notify your local dealer, salesperson or customer service representative immediately if there are any shortages, defects, discrepancies or life safety issues with the product you are installing.



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INSTALLATION INSTRUCTIONS

FOR

WINDOWS

Note: Always read entire installation instructions prior to starting installation.
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FLORIDA'S BEST Installation Instructions Models 178/338/515/605/910/805

PREPARING WINDOW OPENING:

- A. Check sill and header (top and bottom of window opening) for straightness. Determine straightness by placing level on header and sill. Next check both sides of the opening for straightness in the same manner as above.
- B. Correct if necessary. Opening must accommodate window of determined height and width. Typically the exterior, tip-to-tip size of the window should be one inch smaller than the rough opening and the interior tip-to-tip size of the window should be no more than ½ of an inch smaller than the buck-to-buck size of the opening. (**NOTE:** Your dealer has complete information regarding proper window model for the dimension of your window opening).
- C. Inspect the opening for any cracks or voids in wall substrate, correct as necessary. Also insure that bucks are continuous around opening, plumb, level, square and bucks are sealed to wall with good quality calking. Check with your local building department for correct type of buck to use.

WINDOW INSTALLATION:

- A. Apply a continuous bead of good quality calk on interior of window flange on frame head, sill and jamb(s). Place window into opening from exterior side of building and rest window on sill.
- B. Starting from the top pre-punched installation hole of either side of frame head, insert one anchor. Make sure that window flange is tight against buck. Check sill of window frame with level. Adjust anchor up or down until windowsill is perfectly level. Do not lift window up by tightening anchor (use a pry bar). Next insert an anchor in window frame head on opposite side, holding window tight against buck. Recheck sill with level. Pull sill tight against buck and insert an anchor into bottom installation hold in frame jamb. Check window jamb with level for straightness in and out of opening. Insert an anchor into opposite bottom installation hole of jamb. Check with level for straightness of frame jamb left to right of opening. Adjust as needed. **Caution:** Do not over tighten anchors into window frame, this will cause window to operate improperly or frame to bow. Fasten the remainder of anchors in both jambs and then the head and sill. Seal all anchors that are underneath of sash, on side of sash or could be exposed to moisture. The proper way to seal an anchor is to fill to installation hole with a good quality sealant prior to inserting the anchor into the wall.
- C. Always use reduced/flat head anchors wherever installation holes are dimpled/countersunk. Shim as necessary (1/4" maximum shim thickness). Fasten anchors snugly to the frame with a minimum penetration of 1 ¼" into wall substrate. Always shim between frame and buck at all anchor locations
- D. Prior to installing stucco or siding apply good quality calking to exterior of window to wall substrate. Inspect around interior of window perimeter for any daylight. Fill any voids with calking. Always check window for proper operation before completing installation. If locks do not work with ease or sash does not open and close properly, adjustments may need to be done to the installation. It is important to never to leave a window until it is operating properly. Slight adjustments may need to be made to the locks or counter balances. If the window cannot be adjusted properly at time of installation, it is the installer's responsibility to formally report the problem to the factory customer service representative within 24 hours. Please refer to product approval/data information for product specific installation details.

TOOLS AND MATERIALS:

- A. Tape measure
- B. Step ladder
- C. Pressure treated 1" x 3" or 1" x 4" buck strips
- D. Caulking (recommend a quality one part Urethane)
- E. Caulk gun
- F. Level
- G. Electric drill
- H. ¼" anchors (check product approval correct type of anchor)
- I. Horseshoe plastic shims
- J. Pry bar