



# ICU1200

Manual bi-directional swing door  
with bi-fold function

## Installation and Maintenance Manual

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dormakaba 

# ICU1200 series Manual Doors

## Installation and Maintenance

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# 1 Pre-install Preparation

## 1.1 Tools Required

The following tools are needed for the complete installation. Those tools noted with 'driver' are beneficial to have with a power driver (cordless drill with torque clutch is the best).

- ☒ 9/16" open end wrench or socket wrench
- ☒ 7/16" open end wrench and socket driver
- ☒ 5/16" socket driver (power required)
- ☒ 1/8" hex key and driver
- ☒ 5/32" hex key and driver
- ☒ 1/16" hex key (for lock cylinder change)
- ☒ Razor knife or box cutter
- ☒ Small soft face mallet
- ☒ Hammer drill or other tools for drilling floor
- ☒ Ø1-3/8" masonry drill (depending on floor)
- ☒ Tools for floor anchors
- ☒ Glass cups for curved glass

The following consumables will be needed for installation.

- ☒ Por-Rok or similar flowable quick setting non-shrink anchoring cement
- ☒ 1/2" X 1/8" single side adhesive glazing foam tape
- ☒ Spray glue (optional)
- ☒ Tapcon or other appropriate floor anchors (1/4" max. diameter)
- ☒ Aluminum or plastic shims (as needed)
- ☒ Silicone or other non-hardening exterior grade calk
- ☒ Backer rod (as needed)

## 1.2 Unpacking

Whenever boxes or crates are unpacked, be careful not to damage or lose components. Do not cut through tape where it may scratch the items inside the carton.

Depending on the size and shipping requirements, your door may have the canopy packed in two halves. The speed control will be attached to the speed control soffit and packed separately from the rest of the canopy in the crate with the shaft (with hangers attached). This crate will also contain the bases, covers, small parts kit (including pivot bearing and speed control oil)

## 1.3 Canopy Assembly

If the canopy was shipped in two halves, they should be re-assembled before beginning the rest of the installation process. If your canopy arrived as one piece, this assembly process will not be needed. The assembly of the canopy can be completed on-site or prepped before installation begins. This assembly process should be completed with the canopy (fascia edge) resting on a flat surface or the soffit resting on a pair of long parallel saw horses.

1. Position and attach the speed control brackets using 1/4-20 X 5/8" low head socket cap screws (LHSCS) and 1/4" lock washers as shown.

2. Assemble the two center soffit halves onto one of the canopy halves using six (6) of the self drilling hex washer head screws provided. Make sure that the space between the two center sections is 25.0" (size of the speed control soffit), the bottom surface of the soffits align, and that the outer edge of the soffit center half is slipped inside of the slot in the fascia extrusion.
3. Connect the fascias of the two canopy halves together using the connection straps and center post brackets as shown. Take care to align the center post brackets to the holes in the soffit center halves.
4. Connect the other canopy half to the center soffit halves and speed control brackets using self drilling and low head screws similar to the other half.
5. Assemble the cover support beams on the top of the fascia. This structure simply sits in place until screwed into when the covers are installed. Take care to position the cover clips into the proper locations.
6. The covers may be attached now, but can also be completed after the posts are attached to the canopy. It is recommended that if the canopy is to be transported assembled, the cover should be installed prior to transport. The self-drilling screws that are used may be more difficult to install with the canopy in its final location.
  - Install the center piece of the cover using self drilling hex washer head screws into the straight edges, and pan head screws into the clips on each end.
  - Position the cover halves, and start the pan head screws into the clips around the curved edges. The straight edges can now be secured with the self drilling hex washer head screws similar to the center section.

## 1.4 Wing Glazing

1. Unpack wings and locate push bars and glazing blocks.
2. Lay the wing on saw horses with the push bar side up. Install the push bar using the plastic end caps with roll pins and socket flat head cap screws. Take care to press the roll pins first into the push bar, then into the stile of the wing. Tightening the screw will pull the end cap into position.
3. Flip the wing over, and remove the top glass stops.
4. Install the glass and block in place with included rubber glazing blocks.
5. Make sure that there are glazing blocks in front of each of the 3 glass jacks.
6. Tighten the glass jacks until the glass is firmly in place, and the glazing blocks at each jack are compressed slightly.

## 2 Enclosure Assembly and Installation

1. Lay the template in the rough opening and mark locations for the enclosure base brackets and center point.
  - Make sure to properly center the template and check for the size of the opening.
  - The minimum width of the opening should be the same as the outside diameter of the canopy. The minimum height should be 3/8" taller than the overall height of the door (DoorHeight + CanopyHeight).
2. Drill holes in floor to prep for base installation. If necessary, base floor brackets may be attached to the floor at this time, but do not tighten them fully.
3. Support the assembled canopy above the floor outside of the rough opening.

4. Remove outer glass stops from posts, and tape inner glass stops in place taking care to align to the top of the post.
5. Attach the base brackets to the posts using ¼-20 X 5/8" LHSCS.
6. Attach the posts to the canopy using ¼-20 X 5/8" LHSCS.
7. If the base floor brackets have not been attached to the floor, loosely attach them to the interior bases using ¼-20 flat head screws and square nuts (2 brackets per base). If the base floor brackets are already attached to the floor, load 2 square nuts into each nut track on each base (to attach the brackets later).
8. Attach the interior bases to the posts using ¼-20 flat head screws and square nuts.
9. Move the door into position.
10. Shim bases at base brackets to ensure the base of the door is level. If floor is to be finished after installation, add extra shimming for any floor surface adjustments.
11. Adjust locations of posts to ensure equal distances across center of door and proper alignment to the adjacent work.
12. Adjust base post brackets to eliminate misalignment and gaps at posts.
13. Tighten all floor anchors and base floor brackets.
14. Adjust and anchor canopy location shimming fascia to adjacent work as needed.
15. Fill overhead speed control with oil as shown and close cover.
16. Install overhead speed control into canopy using 6 10-24 color matched screws.
17. Check location of center of speed control using a plumb-bob to the center point marked on the floor. Adjust canopy or base locations if needed to achieve alignment.

### 3 Pivot Bearing Installation

1. Cut hole to receive the bearing. Ø5-5/16" X 2" Deep
  - Bearing hole location should be aligned to center point marked on floor from template.
2. Set bearing in hole taking care to set the top of the bearing 1" above finished floor surface.
  - Bearing height should be checked by measuring the distance from the bottom of the canopy to the top of the bearing, not by trusting the floor surface.
  - Bearing location should be checked with a plumb-bob to the center of the square hole in the speed control.
  - Bearing must sit level in both directions.
3. Pour Por-Rok (or similar) into hole around bearing per mfr's instructions.

### 4 Bent Glass installation

1. Place 1/8" x 1/2" foam glazing tape on interior glass stops and top of base.
2. Install and cut to length the top glazing gasket to top of bent glass. Spray glue on the inside of this gasket will make this easier.
3. Set the glass on the top shelf of the interior base and stand into place.
4. Adjust the top gasket if necessary, then lift the glass (using glass cups) and block the bottom near base floor brackets.
5. Snap on exterior base cover by pressing against glass about ¼" above floor then slide down to lock in place.
6. Adjust and block sides of glass to prevent movement (minimum of right side of curved glass from exterior).
7. Snap on exterior glass stops. Repeat for all 4 pieces of bent glass.

## 5 Completing Installation

### 5.1 Shaft Installation

Before installing shaft, check that the bearing is cured solid. Also, clean floor around bearing of any spilled anchoring cement, etc.

1. Install top and bottom sweeps on hangers (top is rubber and felt, bottom is rubber only) as shown using 8-32 dark bronze flat head screws.
2. Remove top hangers from disc by loosening the bolt (not the double nuts).
3. Remove the top screw from the job tag, swing the tag out of the way, and replace top screw.
4. Loosen the ¼-20 X 1" set screw behind the job tag (it should stick out about 3/8"). This will allow the top plug to slide up and down freely. Apply oil or grease to this plug if it does not move freely.
5. Stand the shaft on the pivot bearing taking care to align the slot in the shaft to the pin in the pivot bearing.
6. Rotate shaft as needed to align then lift the top plug into the square hole in the speed control.
7. Tighten the ¼-20 set screw that holds the pin in the up position. If the pin is not all the way up, the set screw will not tighten flush with the shaft. It may be necessary to slip the pin 1/16" down from the top position to obtain proper alignment of the set screw.
8. Once the set screw is tightened flush to the shaft, replace the job tag to cover it.
9. Install the top hangers, and tighten the bolt to tension the detent spring.

### 5.2 Wing Installation

Installing wings should be planned so that the shaft job tag will be to the interior side, and the two locking wings will have the locks facing each other. The typical installation is to have the locks on the interior of the building; therefore the shaft job tag should be between the two lock wings.

1. Check that all of the top hangers have low head screws installed at the bottom center corner as shown.
2. Install the wing on the hangers by setting the bottom hanger pocket onto the bottom hanger then align the top hanger into its pocket.
3. Slide the wing toward the center shaft all the way until the wing's screw holes align to the hanger's tapped hole.
4. Install color matched ¼-20 button head screws (or pan head) into both sides of wing at top and bottom hangers (4 per wing).

### 5.3 Floor Strikes

The final step should be installation of the floor strikes. This may need to be performed after any finishing to the floor is complete since the strikes are visible. This should be coordinated with the flooring contractor.

1. Move the door to it's fully closed position (all weather sweeps in contact with posts).
2. Mark floor with locations for strikes by transferring from the lock pins to the floor.
3. Rotate door out of the way, and drill Ø1-3/8" X 2" Deep for floor strikes.
4. Anchor floor strikes using Por-Rok (or similar) or epoxy setting top surface flush to finished floor.

Lock cylinders can be re-keyed or changed entirely by removing the glass stop adjacent to the lock itself and loosening the set screw to the cylinder with a 1/16" hex key.

## 6 Cover Installation and Calking

- After the door is fully installed and after other trades have completed necessary work in the canopy, the covers should be re-attached, and calked in place.
- The bases and covers should be calked to the floor taking care to hide any shims.
- The center posts and canopy should be calked to adjacent work.
- The adjacent header over the door should be calked to the covers.

## 7 Maintenance

### 7.1 *Pivot Bearing*

The pivot bearing has a grease fitting. Bearing should be greased semiannually or as needed to maintain proper operation.

### 7.2 *Speed Control*

Speed control should be checked for proper operation semiannually to ensure compliance with ANSI / BHMA 156.27 speed restrictions. The speed control should be filled with 24 oz. of synthetic gear oil as supplied with the door. Over filling can cause restriction to the movement of the door.

### 7.3 *Cleaning*

Wash with clean water and mild non-abrasive detergent or cleaning solution. Avoid strong acids or alkalis as they may attack the aluminum and cause corrosion.

