



# **INSTALLATION MANUAL: FOUR-FOLD DOORS**

**1451 South Elm Eugene Street  
PO Box 36526  
Greensboro, NC 27416**

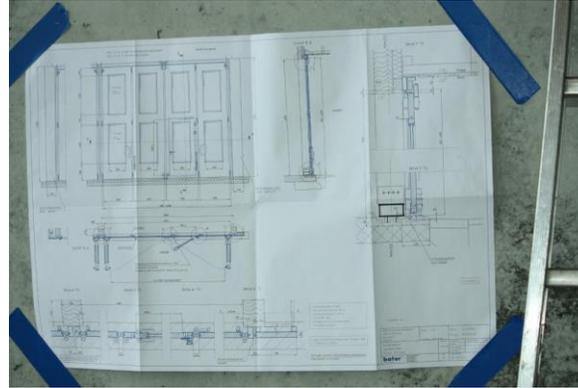
**National Service Hot-Line:  
888.510.BATOR (2286)  
[www.batorus.com](http://www.batorus.com)**

### 1. Preparation

Place the enclosed drawing close to the opening, where the door is going to be mounted. This measure allows all involved parties to get an overview and detail information of the situation.

Subsequently all measures must be verified and compared with the drawing. Then, the lead must be confirmed (maybe the frame must be shifted in order to guarantee a perfect vertical installation).

The vehicle with all tools should be positioned with the necessary safe distance as close as possible to the door to guarantee an efficient installation process.



### 2. Material Check

Upper track, lower tracks (if required) and columns are to be verified (quantity, length etc.) and should be laid out by position as shown in the right picture.

For the protection of the coating, all material should always be laid out on ladders.

Attach the white seal tape on the upper track and the both columns as shown in the picture (the seal tape seals is located between structure and door frame)



### 3. Installation of Upper Track

For the next step the upper track must be prepared for installation with a suitable lifting device. (e.g. fork lift, scissor lift, etc.). The upper track will be fixed with wooden wedge and bar clamps in the foreseen position.

The upper track gets lifted with hoist gears or fork lift in the final position

With the help of surveyors optical the upper track is fitted into level plain position.

To reach that, the finished floor will be leveled and the highest point (on the floor) will be defined as the reference point.

Attention: finished floor = top edge of lower track (interior or exterior)

Now clip a metal tape measure in the upper track (C-profile) and define the measure of the height of the c-profile.

On both sides of the upper track use bar clamps and a piece of wood (for protection of the surface) to fix it in leveled position.



### 4. Installation of Columns

The prepared columns will need to be fixed on the left and right side of the upper track with 2 screws each.

Depending on the surface (timber, steel, bricks etc.) the corresponding screws need to be used.

Control of the upper track: the upper track needs to remain perfectly horizontal. Sagging is not acceptable.

At that stage, the upper track should now be screwed on the building's surface every 500mm (or appx. 1-1/2 ft.) in the foreseen holes.

The topmost screw of each column must be mounted. The other screws will be bolted at a later stage in the installation process.



### 5. Lower Track

The lower track (if any) can now be set on the foreseen supports.



### 6. Preparation for Installation of Elements

Each door element is marked with a letter (from "A" to "D"); by a four-fold door 2+2 are the elements, which are getting hinged in the columns, marked with "A" and "D".

At installation of multiple doors, each door gets a commission number and a door position number. A paper stick identifies each door number and the element position.

The element "A" and "D" are prepared for installation. Each of the door element needs to be laid on two or better three wooden beams to avoid damage on the surface; in addition, the belt can be easier mounted (see at the very right side of the picture)



### 7. Preparation of Hinges (pins)

Now, the hinges at the columns need to be prepared by adding the pin and a thrust bearing.

Attention: The thrust bearing need to be installed that way, that the enclosed side is above the other side to avoid water entering the thrust bearing.

Attention: the pins of the upper hinges will be fully mounted, while the pins of the lower hinges need to be installed offset. With the help of the screw they will be kept in this (not permanent) position.

In case door elements will be fitted without a lifting device, BATOR recommend the upper pin to install provisional about 1 inch to avoid injuries of the hinges and pins.

The lower pins will be turned up after the element is fully installed.

When shifting the pins to the final position it has to be verified that the fixing bolt is fully penetrating the puncture of the pin. Counter nut must be set tight with necessary care.



### 8. Installation of Element A & D

The first two elements ("A" and "D") are now lifted and hinged. BATOR recommends using a small crane.

Special attention needs to be given to the lifting device to avoid damages (scratches, bending etc.) during this process.

With the crane the element will be lifted in the center with the help of a belt.

The element will be hinged carefully first at the upper pin, then subsequently at the lower hinge.

The pin of the lower hinge can now be pushed into the final position (rubber hammer) and fixed in the final position.



### 9. Setting Element B & C

After successful installation of the first two elements the center two elements need to be installed according the drawing.

First, the thrust bearings and pins will be installed and fixed at the upper hinges of element "A" and "D".

Similar as mentioned under paragraph 8, the two center elements will be lifted and installed. Attention: only the upper part will be hinged.

Immediately after the hinging of the upper part, the lower pin needs to be installed to guarantee that both elements are well connected.

The thrust bearing will be positioned before the pin connects the two elements.

At this point, the lower ping can be fixed and bolted as shown before.



### 10. A – Rubber Profile

A so-called “A”-Rubber profile (shape of an “A”) will be installed on top of the center elements in the foreseen C-profile. This rubber profile avoids the the elements are smashing to eachother (“A” and “B” and “C” and “D”) during the opening process.



### 11. Installation of Center Chariots

Now, it is time to slide-in the two chariots for the left and right side of the door. The chariots can be slid from the side into the upper track. Some force is required for this operation :

left chariot = Hinge right, chariot body left

right chariot = Hinge left, chariot body right

The chariot pin will be set. The pin connects the chariot with door element "B" or "C"..

Carefully the pins will be hammered (rubber hammer only!). Attention: Careful work avoids damages such as scratches and bumps in the panel.

The pins will be fixed at the side of the chariot and tightened with the corresponding spanner.



### 12. Installation of Lower Rollers

The lower rollers need to be sprayed a little with oil before installation. In case of a later repair job it can be replaced easily.

Insert the pins from top and secure it with the corresponding two (2) screws. This process needs to be repeated for the second roller.



### 13. Fixing the Columns

After the door is mounted properly, the columns need to be fixed by bolts. The final position need to be checked before the columns can be fixed. The lower edge of the center door elements "B" and "C" have to be in line. In case this is not the case it has to be adjusted by slight shift of the columns (with the help of a goutweed). Now, the columns can be screwed to the structure.

The picture right shows the correct installation (see red line).



### 14. Fixing the Lower Track

The lower track need to be leveled by using iron pieces, which will be welded to the armoring iron (if available). The identic distance to each of the door elements must be given.

The bar lock receiver (see picture right) needs to be positioned at the foreseen plate and welded. Therefore mark the position of the lock case drill out and screw it.



### 15. Lower Rubber Seal

The lower rubber seal needs to be cut to the final length.

### 16. Door Holder

The door holder can now be mounted as shown in the photo right on element "B" and "C".

The height needs to be defined on-site. The door holder is showing a 30° angle to the door element when flipped to the finished floor.



### 17. Wicket (Man's Door) Option

The lock is inserted in the wicket door and fixed by the corresponding screw.



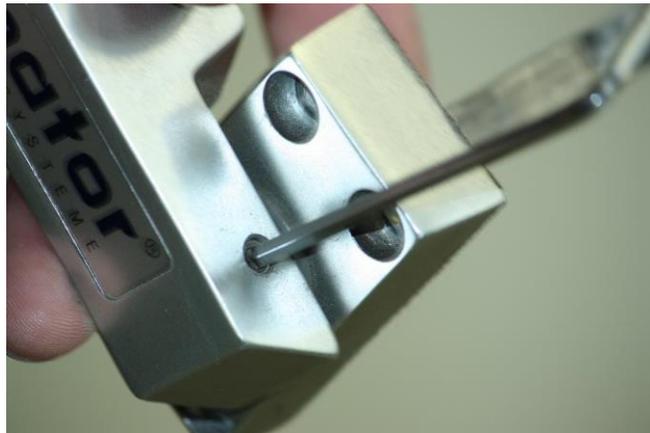
### 18. Installation of Door Handles

Now the door handle needs to be assembled and screwed. The installation of the door lock according to the separate description.

Angle the wicket door: release door hinges, slightly re-lease the screws. Level out the wicket door to the frame, fixing with screws.

After wicket door is in perfect position, drill hinge plate with wicket door fix it by hammering the pin into the wicket door to avoid future shifting

Control of night lock. Maybe the frame of the wicket door has to be rasped a bit for perfect fit.



### 19. Lubrication of Nipples (Hinges)

The lubricant nipples need to be screwed in and fixed at each upper part of a hinge. All hinges need now to be greased with the help of a grease press.

### 20. Identification Plate

The provided identification plate needs to be stacked to the door frame for future reference.

### 21. Handover Door

The handover of the door to the client, architect or owner must be performed with a completion certificate. Any deficits of the door need to be noted and signed by both parties.

### 22. Clean-up of Construction Site

Congratulations! The door is installed. The construction site needs to be cleaned, trash such as pallets etc. needs to be removed to leave a good impression.

#### **NATIONAL HOTLINE:**

Any questions, concerns, or further clarification? Please contact BATOR's national service hot-line at:

**888.510.BATOR (2286)**  
**[www.batorus.com](http://www.batorus.com)**

