Assembly Manual for Mier Product’s indoor, NEMA 1, fan-ventilated, 12RU BW-RackBox and BW-RackCart

**Enclosure Parts List:**

- Two (s) Side Panels
- Two (2) Door Panels
- One (1) Top Panel
- One (1) Bottom Panel
- Two (2) 12RU Rack-Rails

**Enclosure Hardware Parts List:**

- Two (2) Cam Locks, one for each door (front and back)
- One (1) Set of two E-001 Keys
- Twenty-Eight (28) 1/4-20 x 1/2” Machine Screws
- Twenty-Eight (28) 1/4-20 Nuts
**BW-RackBOX ONLY additional hardware:**

- Four (4) 1/4-20 x 1” Machine Screws  
  ![J1](image)
- Four (4) 1/4-20 Nuts  
  ![I](image)
- Four (4) Rubber Bumpers  
  ![J2](image)

**BW-RackCART ONLY additional hardware:**

- Four (4) Twin-Wheel Locking Casters  
  ![K](image)

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**Fan Assembly Parts List:**

- One (1) Fan  
  ![L](image)
- Two (2) Fan Filters  
  ![M1, M2](image)
- One (1) Fan Cord  
  ![N](image)
  
  *Note: if ordering the optional thermostat, you will be need second fan-cord*
- One (1) Fan Cord Strain Relief  
  ![O](image)
- Two (2) 8-32 x 3” Machine Screws  
  ![P](image)
- Two (2) 8-32 Flange Nuts  
  ![Q](image)
Assembly Instructions

**Step 1:**
If you have a BW-RackBOX, set aside the four (4) 1/4-20 x 1” screws, four (4) 1/4-20 nuts, and four (4) Rubber Bumpers (Parts J1, I, and J2)

If you have a BW-RackCART set aside the four (4) Twin-Wheel Locking Casters (Part K)

Now install the four (4) Rubber Bumpers with the four (4) 1/4-20 x 1” screws and four (4) 1/4-20 nuts, OR the four (4) Twin-Wheel Locking Casters into the Bottom Panel of the enclosure (Part D) as shown here:

- (4) 1/4-20 x 1” screws, (4) nuts and (4) Rubber Bumpers - Parts J1, I & J2
- OR
- (4) Twin-Wheel Locking Casters - Part K

**Step 2:**
Now place this unit flat on your work surface, Bumper or Caster side down.

Using ten (10) of the 1/4-20 x 1/2” screws, five per side, and ten (10) of the 1/4-20 nuts, five per side, attach the two (2) Side Panels (Parts A1 & A2) to the Bottom Panel (Part D) as shown below. NOTE: the openings to the louvers should FACE DOWNWARD on both sides after installation, so the edge with three slots will face one way on one side, and the opposite way on the other side.
Assembly Instructions

**Step 3:**
With the Side Panels (Parts A1 & A2) firmly attached to the Bottom Panel (Part D), you will now attach the Top Panel (Part C) to the Side Panels (Parts A1 & A2) using ten (10) of the 1/4-20 x 1/2” screws, five per side, and ten (10) of the 1/4-20 nuts, five per side just as you attached the sides to the bottom.

*NOTE: Some installers choose to install the fan (step 5) prior to step 3, others prefer to install the fan to the assembled enclosure as illustrated in these instructions. The unit will assemble properly either way.*

**Step 4:**
After the Top Panel (Part C), Bottom Panel (Part D), and Side Panels (Parts A1 & A2) are all firmly attached, attach the two (2) 12RU Rack Rails (Parts E1 & E2) to the front of the two (2) Side Panels (Parts A1 & A2) using eight (8) of the 1/4-20 x 1/2” screws, four per side, and eight (8) of the 1/4-20 nuts, four per side as shown in the Front View illustration below.

*NOTE: You may choose to use the front sets of vertical holes on the Side Panels if your rack-equipment needs more depth, or you may choose the deeper set of vertical holes on the Side Panels if your rack-equipment has features such as handles sticking out in front. See Side View illustration below.*
Assembly Instructions

**Step 5:**

Once all of the sides and rack-rails have been installed, it is time to mount the fan. First, you must choose which way you would want to mount the fan. If you need to maximize your space inside the enclosure, mount it on the top outside of the enclosure as shown in photo 1. If you want to set something on top of the enclosure, or hide the fan out of the way, mount it on the underside of the top as shown if photo 2.

1. **IF mounting externally**, feed the Fan Cord (Part N) through the double-D hole in the Top Panel using the Plastic Strain Relief ((Part O), and connect the Fan Cord to the terminals on the Fan (Part L). Be sure to leave enough slack in the cord to prevent the cord from pulling loose from the fan.

2. **IF mounting internally**, install the Fan Cord’s Plastic Strain Relief (Part O) into the double-D hole in the Top Panel to fill that hole.

   Assembly the Fan (Part L) and the Filters (Part M1 & M2) to the large fan opening, putting the Fan on the OUTSIDE or INSIDE of the enclosure (see photo 1 and photo 2 above), using the two (2) 8-32x3” screws (Part P) and two (2) 8-32 flange nuts (Part Q).

   **NOTE:** Make sure to install the Filters with the wider-weave openings facing outwards so you will have quick access to the filters for periodic cleaning. If you install the tighter-weave openings facing outward, you will have to unscrew the entire set of filters and fan to get to the filters.

   **NOTE:** If you want to increase air-flow, you may remove one or both of the filters, but you still need to include the filter guards in the assembly in order to protect fingers and falling objects from the fan blades.

   **NOTE:** Notice the air-flow arrow on the side of the fan. THE FAN AIRFLOW SHOULD BE FLOWING OUT OF THE ENCLOSURE.

3. The Fan (Part L) may now be plugged into 115VAC for continuous duty

4. Clean or replace Fan Filters a minimum of every six months. Do so more often in dust/pollen/debris/ridden areas.

**Note:** IF choosing to install an optional Mier Products’ BW-THERMFC Fan-Thermostat, you will need a second fan-cord that will need to be modified for proper connection. Follow this diagram...
Assembly Instructions

**Step 6:**
To install the Door Panels (Parts B1 & B2) onto the Side Panels (Parts A1 & A2), slide the Hinge-Tabs of the Door Panels into the corresponding Hinge-Slots on the Side Panels, and allow them to drop down as shown here:

![Diagram of Assembly Instructions Step 6](image)

**Step 7:**
To install the Cam-Locks (Part F) into the Door Panels (Parts B1 & B2):
1. Place the Double-D shaped lock into the Double-D shaped hole on the Door Panel so that the key hole is vertical as shown in photo 3.
2. Slide the Cam Lock Bracket over the Double-D shaped cylinder of the Cam Lock, tightly against the INSIDE of the Door Panel, as shown in photo 4.
3. To lock the door closed, you will turn the key 1/4-turn, clockwise, and the bolt will slide into the Bolt Slot on the Side Panel, as shown in photo 5. To unlock you will turn the key 1/4-turn counter-clockwise.

![Photo 3](image)

![Photo 4](image)

![Photo 5](image)