RM069A-R3
RM070A-R3
RM080A-R3

BLACK BOX®

Wallmount Frame User's Manual

Quick-release pins swing the rack open from left to right to simplify installing and maintaining your equipment.

Customer Support Information

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Preface

This manual is provided to prevent service personnel from committing an act that results in the risk of fire, electric shock, or injury to persons. Only trained service personnel should receive, unpack, and assemble the Wallmount Frame. In addition, only trained service personnel should install equipment in the rack.

Safety Symbols Used in This Manual

This manual provides general safety guidelines to be observed during installation, operation, and maintenance of the Wallmount Frame.

WARNING: Failure to follow directions in the warning could result in injury to persons or loss of life.

CAUTION: Failure to follow directions in the caution could result in damage to equipment or storage data.

Safety Considerations

WARNING: Improper handling and use of the Wallmount Frame could result in equipment damage, serious injury, or possible death.

Only trained service personnel should be used to remove the Wallmount Frame from the carton. Also be sure you have a sufficient number of service personnel. Do not attempt to move racks by yourself.

Only UL® Listed ITE (Information Technology Equipment) units should be installed in the Wallmount Frame.

Be sure to read and follow all individual manufacturer equipment manuals for safety and installation instructions.

Proper spacing is required when installing electrical equipment to avoid electrical shock.

Maintain minimum spacing between the accessories and components and the Wallmount Frame for safe operation of the equipment when installed in accordance with the National Electric Code ANSI/NFPA 70-1999.

The ambient temperature operating range for the Wallmount Frame and accessories is +50 to +95° F (+10 to +35° C). The non-operating temperature is -4 to +140° F (-20 to +60° C).

1. Specifications

1.1 Dimensions

Table 1-1 lists dimensions for the Wallmount Frames.

Table 1-1. Wallmount Frame dimensions specifications.

Part Number	#of RUs	Height	Width	Depth
RM069A-R3	19	36.8" (93.5 cm)	20.6"W (52.3 cm)	18"D (45.7 cm)
RM070A-R3	12	24.5"H (62.2 cm)	20.6"W (52.3 cm)	18"D (45.7 cm)
RM080A-R3	26	48.8"H (124 cm)	20.6"W (52.3 cm)	18"D (45.7 cm)

NOTE: All models' frames are 4" (10.2 cm) deep with mounting front and rear.

1.2 General

Certifications: UL® listed and UL 60950-1

Finish: Black powder coat

Hole Spacing: Complies with EIA-310-D (0.625-6.25-0.500)

Hole Tapping: 12-24 front and rear

Load Capacity: 100 lb. (45.4 kg)

Material:
RM069A-R3–RM070A-R3: 14-gauge steel;
RM080A-R3: 12-gauge steel

Mounting: Mounts to most wall types with 5⁄16" hardware (not included)

Rack-Space Capacity:
RM069A-R3: 19U;
RM070A-R3: 12U;
RM080A-R3: 26U

NOTE: 1U = 1.75" or 44.4 mm vertical.

Temperature Tolerance:
Operating: +50 to +95° F (+10 to +35° C);
Non-operating: -4 to +140° F (-20 to +60° C)

Weight Capacity: 100 lb. (45.4 kg)

Shipping Weight:
RM069A-R3: 44 lb. (20 kg);
RM070A-R3: 34 lb. (15.4 kg);
RM080A-R3: 54 lb. (24.5 kg)

2. Introduction

The Wallmount Frame makes the tedious task of installing and maintaining your site wiring a little easier. Because it has unique spring-loaded hinges and release pins, you can easily unlatch and swing open the front part of the rack frame to mount, dismount, and cable devices. What's more, the rack is simple to assemble. We offer three models: The RM069A-R3 is 19U high; the RM070A-R3 is 12U high; and the RM080A-R3 is 26U high.

Some of the Wallmount Frame's other useful features:

- Can open to the left or right.
- 18" (45.7 cm) deep to accommodate even large devices.
- Made of 14- or 12-gauge steel to support up to 100 lb. (45.4 kg).
- Holes tapped 12-24 front and rear.
- Hole spacing complies with EIA-310-D.
- Wide keyhole spacing and 16" stud-mounting centers so that one person can wallmount the rack.
- 0.25 x 1" cutouts for cable management

You should have received the following components with your Wallmount Frame. Refer to Figure 2-1 on the

next page as you identify where each part goes.

Item 1: (2) Braces (one each for the top and bottom)

Item 2: (1) Swing-frame assembly

Item 3: (2) Side brace assemblies

Item 4: (1) Rear brace panel

Item 5: (4) #10-32 self-locking nylon acorn nuts

Item 6: (8) #10-32 x ¼" Phillips panhead screws

Item 7: (50) #12-24 x ½"" Phillips panhead screws (used to mount equipment to the rack)

Item 8: (2) ¼"-20 x ¾" Phillips 82° flathead screws with nylon locking pellets

Item 9: (2) nylon spacers

Item 10: This manual

Item 11: Grounding kit (includes [2] barrel ground lugs, (1) ¼"-20 x ⅝" Phillips head screw with external tooth washer, [2] ¼"-20 keps nuts with external tooth washers, and [3] jumper wires)

You will also need a ⅜" nut driver, a Phillips screwdriver, and four lag screws to assemble the Wallmount Frame.

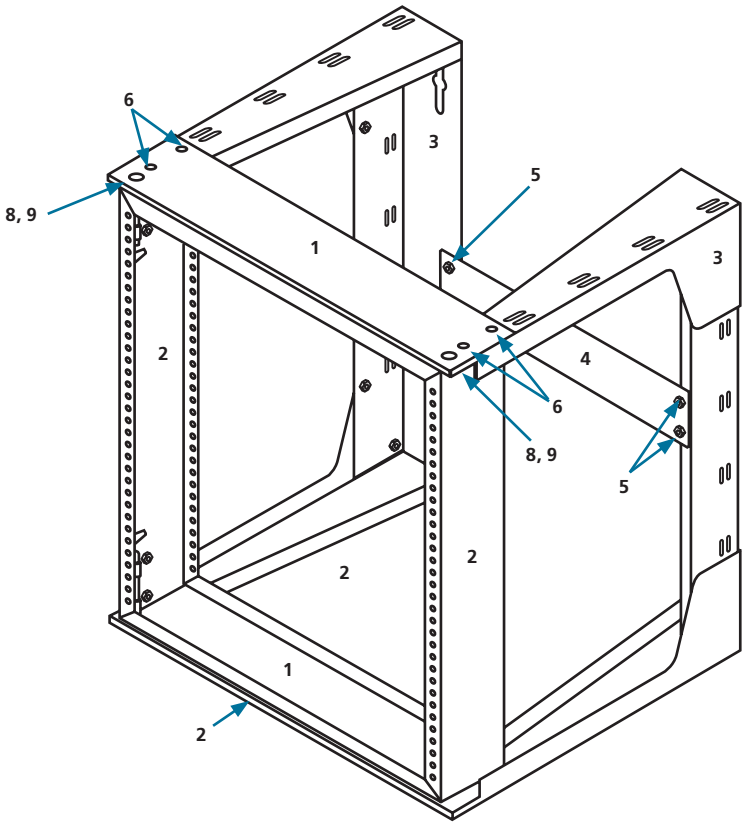

Figure 2-1. Construction of the Wallmount Frame.

3. Installation

3.1 Part 1: Attaching the Braces

1. Place the rear brace onto the four threaded studs on the two side brace assemblies. Secure it with all four of the included #10-32 self-locking nylon acorn nuts. Tighten the nuts with a 3⁄8" nut driver.
2. Attach the top and bottom braces to the side brace assemblies with all eight included #10-32 x 1⁄4" Phillips pan-head screws. (These screw directly into the captive receptacles in the side brace assemblies.) The large formed edges of the top and bottom braces mount toward the rear of the rack and the inside of its wallmount frame.

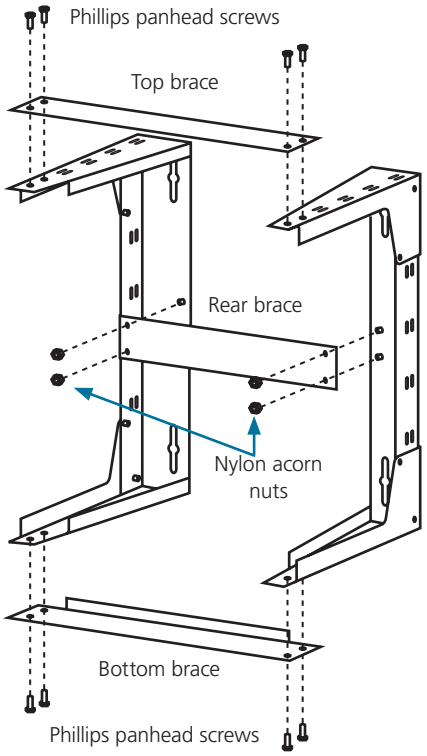

Figure 3-1. Attaching the braces.

Loading Equipment

WARNING: Only install equipment after the Wallmount Frame has been properly secured and mounted to the wall.

Maximum Load Capacity

The rated or maximum load capacity for the each Wallmount Frame is 50 pounds. To maintain uniform distribution of the mechanical load in the Wallmount Frame, load the heaviest equipment first at the bottom and the lighter units at the top.

3.2 Part 2: Orienting the Wallmount Frame

The Wallmount Frame can be hinged on either side with the retractable locking pins. Don't attach the swing frame yet, though. Just decide which side you want it to open on, and orient the wallmount frame so that the locking pins (a) are on that side and (b) will be close to the front of the rack when you install the frame. Once you attach the frame in Part 3, you'll be able to open it by retracting both the top and bottom pins and pulling it open as you would a door.

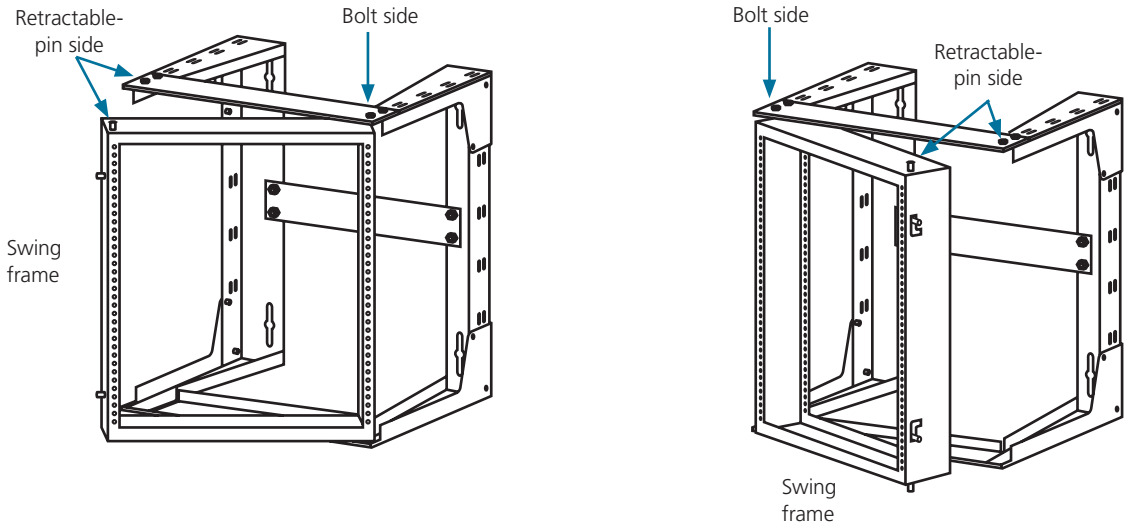

Figure 3-2. Orienting the Wallmount Frame so that it will open on the left or on the right.

3.3 Part 3: Wallmounting and Final Assembly

Wood Studded Wall

Once the location on the wall has been determined, inspect the wall surface. The wall must be flat and square in the horizontal and vertical plane to ensure the Wallmount Frame closes correctly. If the wall is not flat and square, you might need to use shims. Wood studded wall mounting instructions apply to a 2" x 4" wood stud wall with ¾" plywood.

The recommended mounting hardware for a wood studded wall is (4) ⅜"-2" long lag bolts and (4) 1" O.D. flat washers.

Masonry Wall Surface

For a masonry wall surface, the installer must provide the appropriate hardware.

1. Mount the rack's rear assembly to the wall with four lag screws (not included). (This should be done by experienced technicians only!)
2. Retract both locking pins on the wallmount frame. (These pins can be locked out for ease of assembly by retracting the outside pin handle and rotating the pin into the provided slot.)
3. Place the wallmount frame in position between the top and bottom braces. Align the lower locking pin and release it into the corresponding hole in the bottom brace. Align the upper locking pin and release it into the corresponding hole in the top brace.
4. Place one of the included ¼"-20 x ¾" Phillips screws up through the holes in the bottom brace and the bottom of the wallmount frame, on the opposite side from the locking pins. Place one of the included nylon spacers over this screw's exposed threads, inside the wallmount frame.
5. Place the other included 1/4-20 x 3/4" Phillips screw down through the matching holes in the top brace and the top of the wallmount frame. Place the other included nylon spacer over this screw's exposed threads.
6. Close the wallmount frame. Tighten both screws by screwing them into the nuts in the wallmount frame.

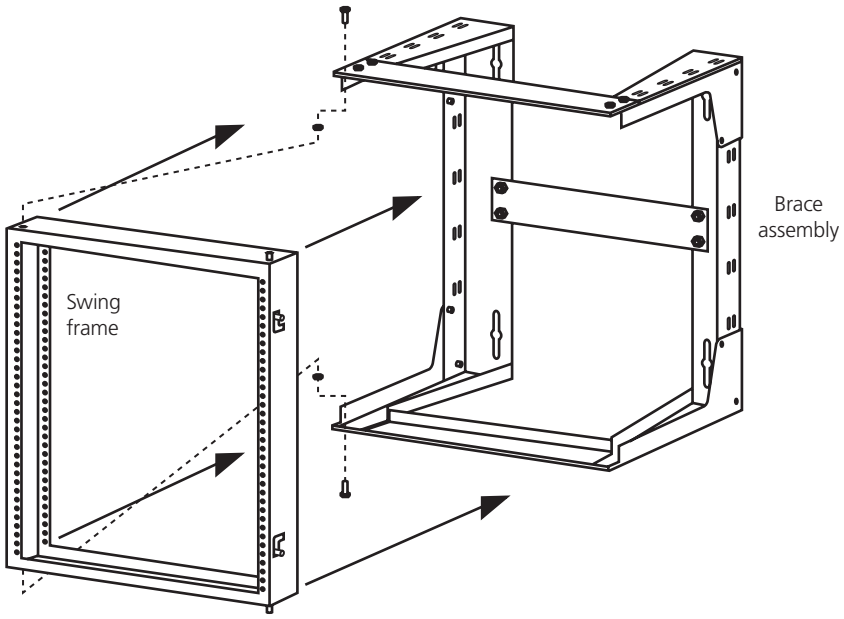

Figure 3-3. Final assembly (shown with Wallmount Frame oriented so locking pins are on right).

4. Troubleshooting

4.1 Contacting Black Box

The Wallmount Frame should be repaired by personnel trained by Blck Box, or returned to Black Box for repair or replacement.

If you have any problems with your Wallmount Frame, contact Black Box Technical Support at 724-746-5500 or info@blackbox.com.

Before you do, make a record of the history of the problem. We will be able to provide more efficient and accurate assistance if you have a complete description, including:

- the nature and duration of the problem;
- when the problem occurs;
- the components involved in the problem;
- any particular application that, when used, appears to create the problem or make it worse; and
- the results of any testing you've already done.

4.2 Shipping and Packaging

If you need to transport or ship your Wallmount Frame:

- Package it carefully. We recommend that you use the original container.
- Before you ship the Wallmount Frame back to Black Box for repair or return, contact us to get a Return Authorization (RA) number.

4.3 Protective Grounding

Protective grounding lugs and grounding studs are provided along with grounding jumper wires that electrically bond the swing mount frame doors to the rest of the Wallmount Frame.

WARNING: To avoid injury to persons or loss of life, ground each Wallmount Frame individually to the dedicated branch circuit ground.

Connecting Main Protective Grounding Stud to the Dedicated Branch Circuit Ground

Connect the dedicated branch circuit ground conductor to the main protective grounding lug located inside the bottom front of the side brace using a listed ring or closed loop terminal.

Connecting Main Protective Grounding Stud to the Protective Bonding Conductors

Connect the swing frame to the main protective grounding lug located inside at the bottom of the side brace using a listed ring or closed-loop terminal and 1/4-20 x 5/8 Phillips pan-head screw with external tooth lock washer and (2) keps nuts with external tooth washers.

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