

Small Office/Home Office (SOHO) Cabinets

Low-profile, 11U high cabinets hold networking equipment, servers, and phone equipment.

Fit under most desktops in the home and office.
Cabinets are shipped fully assembled.



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Preface

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 Small Office/Home Office (SOHO) Cabinet. In addition, only trained service personnel should install equipment in enclosures.

Safety Symbols Used in this Manual

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



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 SOHO Cabinet could result in equipment damage, serious injury, or possible death.

Only trained service personnel should be used to remove the enclosure from the pallet. Also, be sure you have a sufficient number of service personnel. Do not attempt to move enclosures by yourself.

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

The SOHO Cabinet was not evaluated as a fire enclosure.

Proper spacing is required when installing electrical equipment to avoid electrical shock. Maintain minimum spacing between the accessories and components and the computer enclosure assembly 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 SOHO enclosure 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

Size: RM140A-R3, RM140A-M-R3: 24.75"H (25.81"H w/casters) x 24"W x 24"D (62.86 [65.55 cm w/casters] x 61 x 61 cm);
RM145A-R3, RM145A-M-R3: 24.75"H (25.81"H w/casters) x 24" x 36"D (62.86 [65.55 cm w/casters] x 61 x 91 cm)

Base Opening: RM140A-R3, RM140A-M-R3: 11.81"W x 18.87"D (29.99 x 47.92 cm);
RM145A-R3, RM145A-M-R3: 11.81"W x 30.87"D (29.99 x 78.41 cm)

Cable Opening: 7"W x 1"H (17.8 x 2.5 cm)

Construction: Body: 16-gauge steel;
Doors: 16-gauge steel and PLEXIGLAS® (RM140A-R3, RM145A-R3) or mesh (RM140A-M-R3, RM145A-M-R3)
Rails: 12-gauge steel

Door Width: 20.55" (52.19 cm)

Door Height: 19.84" (50.39 cm)

Exterior Depth: RM140A-R3, RM140A-M-R3: 24.02" (61 cm);
RM145A-R3, RM145A-M-R3: 36" (91.4 cm)

Exterior Depth with Hinges: RM140A-R3, RM140A-M-R3: 25.5" (64.8 cm);
RM145A-R3, RM145A-M-R3: 37.5" (95.3 cm)

Exterior Height: 24.8" (63 cm)

Exterior Height with Casters: 25.91" (65.81 cm)

Finish: Black powder coat

Grounding: Studs located on the doors and side panels

Interior Depth (Door to Door): RM140A-R3, RM140A-M-R3: 22.4" (56.9 cm);
RM145A-R3, RM145A-M-R3: 34.5" (87.6 cm)

Interior Height (Base to Top): 22.25" (56.52 cm)

Interior Width (Side Wall to Side Wall): 23.8" (60.5 cm)

PLEXIGLAS Thickness: RM140A-R3, RM145A-R3: 0.2" (0.51 cm)

Distance to Front and Rear Door at Maximum Rail Depth: 0.625" (1.58 cm)

Rack Units: 11U

Rail Type: Square (M6)

Maximum Rail Depth with Fan Installed: RM140A-R3, RM140A-M-R3: 19" (48.2 cm);
RM145A-R3, RM145A-M-R3: 30" (76.2 cm)

Minimum/Maximum Rail Depth: RM140A-R3, RM140A-M-R3: 2.8"–21.125" (7.1–53.6 cm);
RM145A-R3, RM145A-M-R3: 6.8"–33.25" (17.3–84.5 cm)

Weight Capacity: 500 lb. (227.3 kg)

Weight: RM140A-R3, RM140A-M-R3: 88 lb. (40 kg);
RM145A-R3, RM145A-M-R3: 101 lb. (45.9 kg)

Chapter 1: Specifications

Small Office/Home Office (SOHO) Cabinets arrive fully assembled and fit neatly on the floor under a desk. Their dimensions are shown in Figures 1-1 and 1-2.

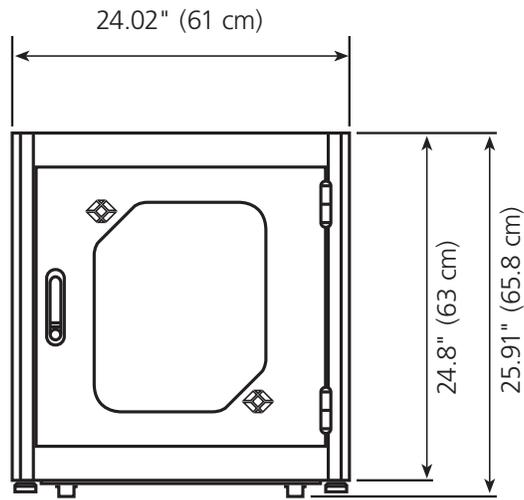


Figure 1-1. Front view of cabinet.

RM140A-R3, RM140A-M-R3: 24.02" (61 cm)
RM145A-R3, RM145A-M-R3: 36" (91.44 cm)

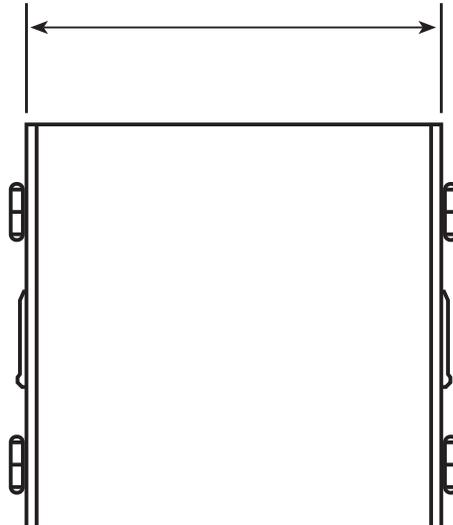


Figure 1-2. Side view of cabinet.

To adjust the rails, use a $\frac{7}{16}$ -mm socket as shown in Figure 1-3.

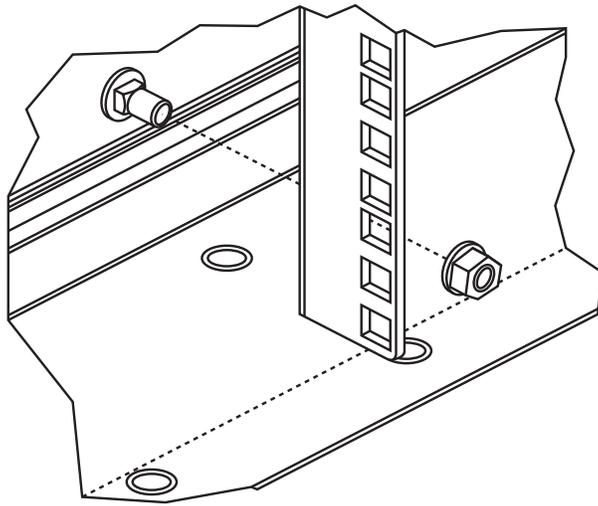


Figure 1-3. Adjusting the rails.

Chapter 2: Overview

2. Overview

2.1 Introduction

Small Office/Home Office (SOHO) Cabinets are designed to hold networking equipment, servers, and phone equipment. The low-profile cabinets fit under most desks in the home and office.

These cabinets feature 11U of mounting space, factory-installed casters, leveling legs, locking front and rear doors, mounting locations for two 4" (10.2-cm) fans on the rear door, and cable access in the lower rear panel beneath the door.

2.2 Features

- Welded steel frame
- Square hole (M6), 11U mounting rails
- Reversible, locking front and rear doors
- Clear PLEXIGLAS front door or mesh front door
- Rear door provides mounting locations for two 4" (10.2-cm) fans (see Table 2-1)
- Cable access below the rear door
- Solid top and sides
- Open base
- Fits under most desktops
- Leveling legs and casters included
- Ships fully assembled

2.3 What's Included

Your package should include the following items. If anything is missing or damaged, contact Black Box Technical Support at 724-746-5500 or info@blackbox.com.

- Fully assembled Small Office/Home Office (SOHO) Cabinet
- (4) non-locking, swiveling casters (installed)
- (4) leveling legs (installed)
- (30) M6 cage nuts
- (30) M6 screws
- (2) pairs of keys
- This user's manual

2.4 Optional Accessories

2.4.1 Fan Panel

Table 2-1. Fan specifications.

Product Code	Number of Fans	CFM	dB
RM4002	2	106	33

2.4.2 Bottom Plates

Table 2-2. Bottom plate descriptions and specifications.

Product Code	Description
RM140ABGK-R3	Mounts in the bottom of the RM140A-R3 and RM140A-M-R3 to close the bottom while still allowing cable access. Includes (1) base plate with cable grommet and (4) $\frac{3}{8}$ " x 10-32 self-tapping panhead screws.
Specifications:	<p>Construction: 16-gauge steel</p> <p>Finish: Black powder coat</p> <p>Size: Unit: 19.69"H x 13.78"W x 0.10"D (50 x 35 x 0.25 cm)</p> <p>Weight: Shipping: 5.8 lb. (2.6 kg)</p>
RM145ABGK-R3	Mounts in the bottom of the RM145A-R3 and RM145A-M-R3 to close the bottom while still allowing cable access. Includes (1) base plate with two cable management grommet brushes and (4) $\frac{3}{8}$ " x 10-32 self-tapping panhead screws.
Specifications:	<p>Construction: 16-gauge steel</p> <p>Finish: Black powder coat</p> <p>Size: Unit: 32.48"H x 13.87"W x 0.10"D (82.49 x 35.23 x 0.25 cm)</p> <p>Weight: Shipping: 8.5 lb. (3.8 kg)</p>

2.4.3 Shelves

Table 2-3. Shelves that work with RM140A-R3, RM140A-M-R3, RM145A-R3, and RM145A-M-R3.

Product Code	Description
RM399-R2	22.25" (56.52 cm) deep fixed, vented shelf with 150-lb. (68-kg) weight capacity

Table 2-4. Shelves that work with RM145A-R3 and RM145A-M-R3 only.

Product Code	Description
RM047	23.6"–35.4" (60–90 cm) deep tool-less, vented, telescoping shelf, 150-lb. (68-kg) weight capacity
RM403-R2	27.25" (69.22 cm) deep fixed, vented shelf, 150-lb. (68-kg) weight capacity
RM410-R2	30" (76.2 cm) deep fixed, vented shelf, 150-lb. (68-kg) weight capacity
RMS1924S	24" (61 cm) deep sliding, vented shelf, 50-lb. (22.7-kg) weight capacity
RMT411	29" (73.7 cm) deep sliding, vented shelf, 125-lb. (56.8-kg) weight capacity
RM4003A	Filter panel
RM4004A	Blanking panel

NOTE: All Black Box two-point mounting shelves will also fit RM140A-R3, RM140A-M-R3, RM145A-R3, and RM145A-M-R3.

Chapter 3: Installation

3. Installation

3.1 Receiving, Unpacking, and Removing the SOHO Cabinet from the Pallet

Inspect for damage and report any before receiving. For what's included in the package, refer to Section 2.3.

Unpack the enclosure by carefully removing the corrugated carton and corners. Avoid damaging the enclosure when removing packaging.



WARNING: Only trained service personnel should be used to remove the enclosure from the pallet. Also, be sure you have a sufficient number of service personnel. Do not attempt to move enclosures by yourself.



WARNING: Be careful when moving enclosures before installation. Sudden stops and starts, excessive force, obstructed routes, and uneven floor surfaces may cause the enclosure to topple over.

3.2 Loading Equipment



WARNING: Only install equipment after the SOHO cabinet has been properly secured. Do not move the SOHO cabinet while loaded.

Once in place at the desired/intended location, deploy the leveling feet for maximum stability.

Rated or maximum load capacity for the SOHO Cabinet is 500 pounds.

To maintain a uniform distribution of the mechanical load in the SOHO Cabinet, load the heaviest modules, equipment first, at the bottom of the SOHO Cabinet and load the lighter units at the top.

3.3 Power

When using power distribution units (PDUs), each PDU should be connected to a committed branch circuit that is rated for the continuous load of all the equipment connected.

When not using a PDU, each piece of equipment should be connected to a dedicated branch circuit.

3.4 Protective Grounding

Protective grounding studs are provided along with grounding jumper wires that electrically bond the enclosure doors to the enclosure chassis.



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

3.4.1 Connecting Main Protective Grounding Stud to the Dedicated Branch Circuit Ground

Connect the dedicated branch circuit ground connector to the main protective grounding stud located inside at the bottom rear of the enclosure chassis using a listed ring or closed-loop terminal.

3.4.2 Connecting Main Protective Grounding Stud to the Protective Bonding Conductors

Connect the rear doors to the main protective grounding studs inside at the bottom and top rear of the enclosure chassis using a listed ring or closed-loop terminal. Connect the front door to the grounding stud inside at the bottom front of the enclosure chassis using a listed ring or closed-loop terminal.

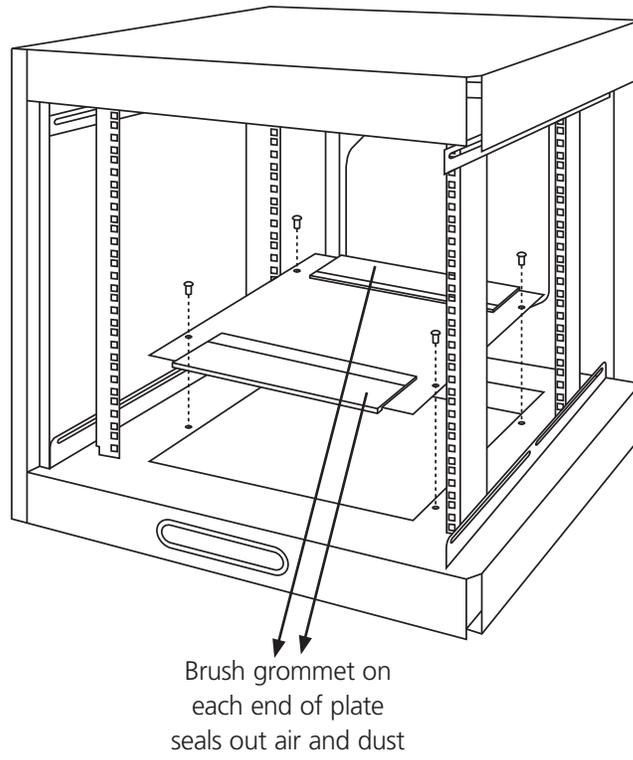


Figure 3-1. Brush grommets on plate.

4. Operation

4.1 Leveling the Cabinet

SOHO cabinets are shipped with both casters and leveling glides for your convenience. You can lower the leveling legs by turning the leveling glide to the proper height using a $\frac{3}{4}$ " open-ended wrench.

4.2 Removing the Doors

The front and rear locking doors are removable. To remove a door, open the door beyond 90 degrees. Then grasp the door with both hands and carefully lift upward. When the door is free of the hinge pins, pull the door away from the enclosure. To attach the door, align all the hinges and slowly slide the door down until seated.

5. Service

The SOHO Cabinet should be repaired by personnel trained by Black Box, or returned to Black Box for repair or replacement. Contact Black Box Technical Support at 724-746-5500 or info@blackbox.com.

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RM140A-R3, rev. 5