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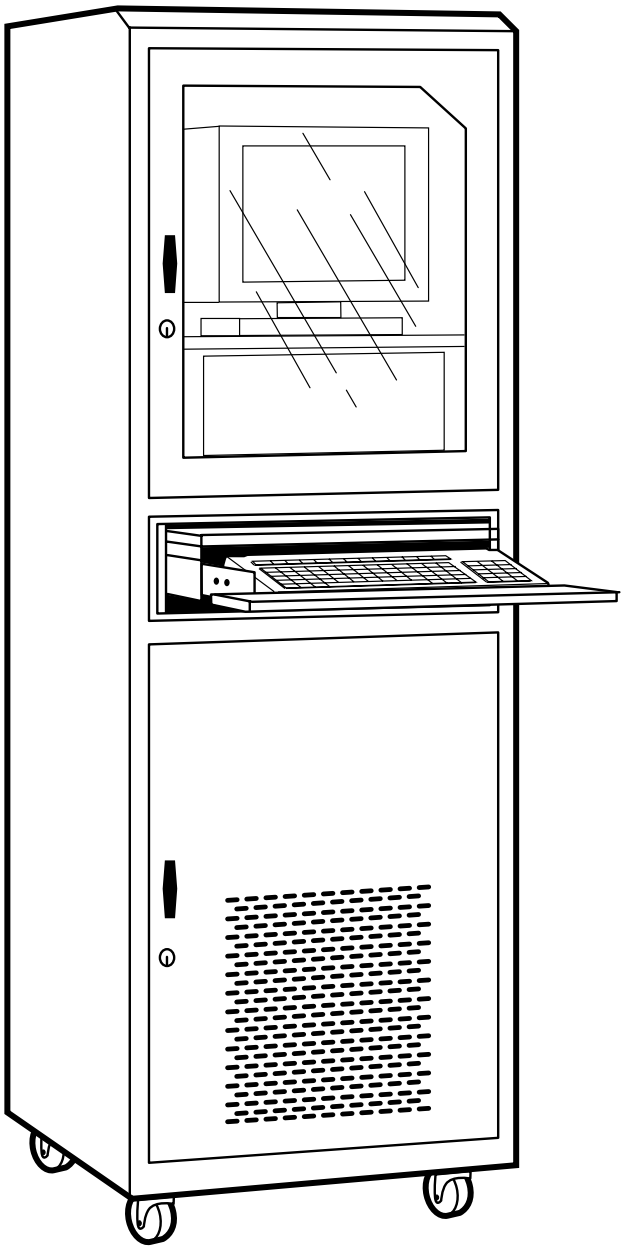
BLACK BOX®
NETWORK SERVICES

FEBRUARY 2000
RM470A
RM471
RM475
RM476

# ServShield

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**CONTENTS**

1. Specifications . . . . . 2

2. Introduction . . . . . 4
2.1 Description . . . . . 4
2.2 Options . . . . . 4

3. Installation . . . . . 5
3.1 Leveling the Cabinet . . . . . 5
3.2 Removing the Doors. . . . . 5
3.3 Removing the Side Panels . . . . . 5
3.4 Power Strip Mounting . . . . . 5
3.5 Fan Assembly. . . . . 6
3.6 Door Filter Replacement . . . . . 6
3.7 Mounting Rails . . . . . 7

# 1. Specifications

**Frame**—12-AWG side panels

**Color**—Black

**Size**—72"H x 26"W x 26"D (182.9 x 66 x 66 cm)

**Weight**—300 lb. (136.1 kg)

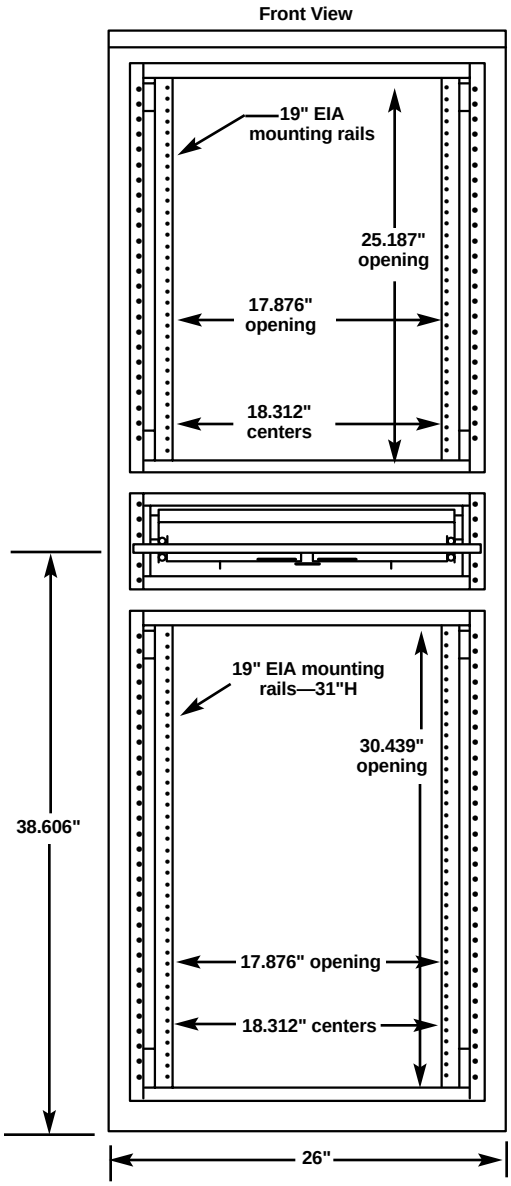


**Figure 1-1. Front Dimensions.**

## NOTE

**The front door has been removed for clarity.**

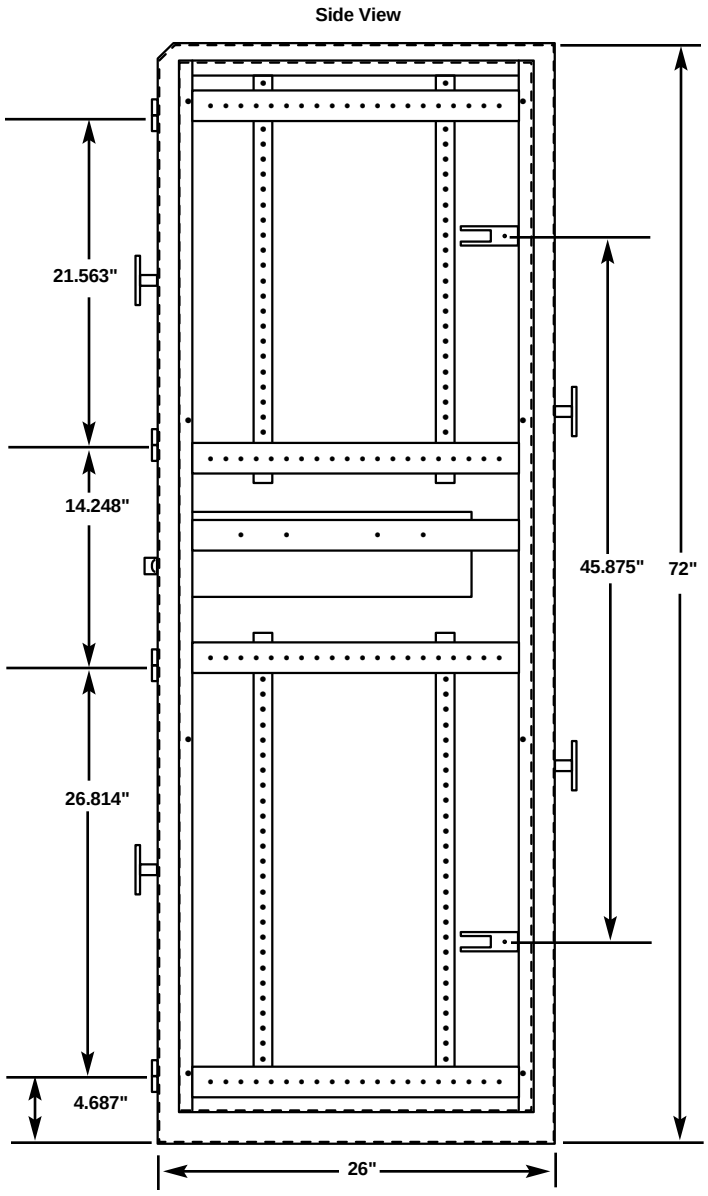


**Figure 1-2. Side Dimensions.**

## NOTE

**The side panel has been removed for clarity.**

# 2. Introduction

## 2.1 Description

The ServShield protects your computer hardware in manufacturing environments and other industrial areas subject to harsh conditions.

The cabinet is constructed of 16-gauge steel and it holds 600 lb. (272 kg)of equipment. The cabinet is preassembled, so it's easy to set up and use. Cabinet components include: upper, clear Plexiglas® door; isolated steel middle keyboard drawer; steel perforated lower front door with dust filter; steel rear door furnished with fan assembly and dust filters; solid pair of side panels, removable from the inside; two 1.5" (3.8-cm) diameter cable-access provisions on the top and bottom of the enclosure; one vented stationary shelf for mounting the monitor (200-lb. [90.8-kg] weight capacity); rubber feet and leveling glides. All doors have compression latches and locks. Cabinet dimensions are 72"H x 26"W x 26"D (182.9 x 66 x 66 cm).

The top Plexiglas door and the middle keyboard door are keyed alike. The bottom front door and the rear door are also keyed alike; however, they're different from the top Plexglas door and the keyboard door.

## 2.2 Options

You may also need the following options:

- 19" (48.3 cm) Sliding, Adjustable Tower Shelf (RM471)—At 19" (48.3 cm) high and 22" (55.9 cm) deep, this shelf holds network hardware weighing up to 110 lb. (49.9 kg).
- Rear fan filter (RM475)
- Front door filter (RM476)

# 3. Installation

## 3.1 Leveling the Cabinet

The ServShield cabinets are shipped with both casters and leveling glides for your convenience. Two casters have brakes that you can activate by turning the brake level located on the side of the wheel. You can lower the leveling legs by turning the leveling glide to the proper height using a ¾" open-ended wrench.

## 3.2 Removing the Doors

The top and bottom front doors and the rear door 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 of the hinges (two on the front doors and three on the rear door) and slowly slide the door down until seated.

## 3.3 Removing the Side Panels

The side panels are secured to the enclosure frame with eight #10-32 Phillips head screws per side panel. To remove the side panels, remove the eight #10-32 screws from the inside of the cabinet. The side panel should separate enough to pull it away from the frame. If it doesn't, lightly push from the inside of the cabinet to separate it from the frame. Reverse the process to re-install the side panel.

## 3.4 Power Strip Mounting

Mounting brackets are located in the left and right rear corners of the enclosure for mounting a vertical power strip. The slots on the rear of the power strip will slide onto the brackets. Once seated against the screw head in the bracket, bend one of the bracket's fingers to secure the power strip to the frame (see **Figure 3-1**).

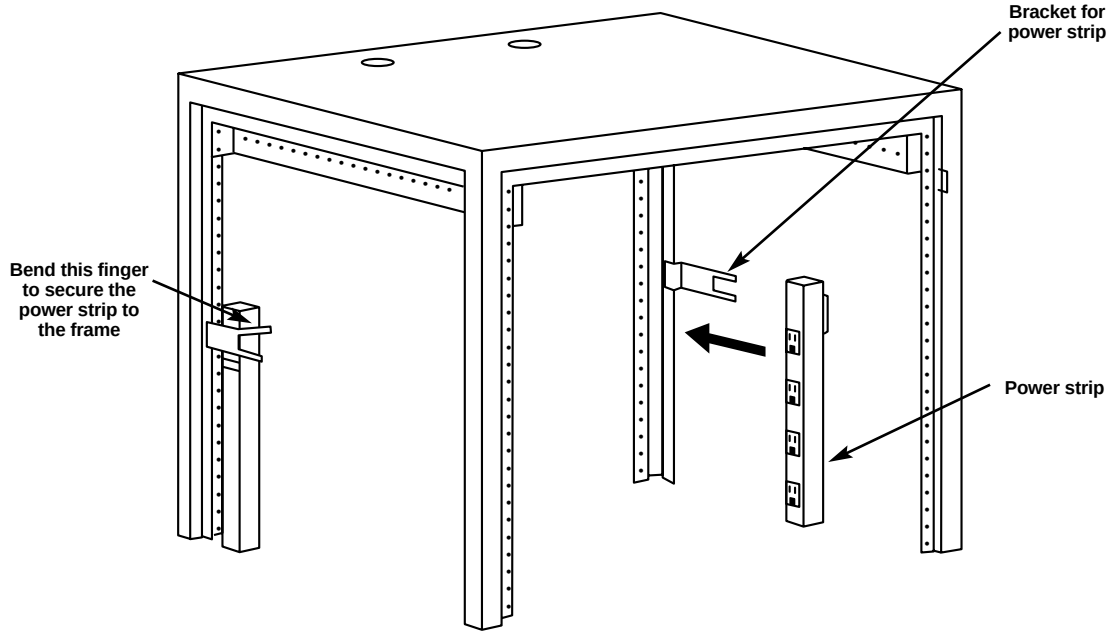


**Figure 3-1. Mounting the Power Strip.**

## 3.5 Fan Assembly

The fan assembly is already installed in the rear door. The part number for the rear fan filter is RM475. If you need to replace a filter, follow these steps:

1. Replace one filter at a time. The twelve screws, which hold the filters in place, are the only thing holding the fan assembly on. If you replace one filter at a time, you won't have to remove the fan assembly.
2. Remove the fan filter cover—it snaps off.
3. Remove the four #8-32 x ¾" screws holding the filter on the door.
4. Replace the filter, using the same four #8-32 x ¾" screws.
5. Replace the fan filter cover.
6. Repeat steps 2 through 5 for the remaining two filters.

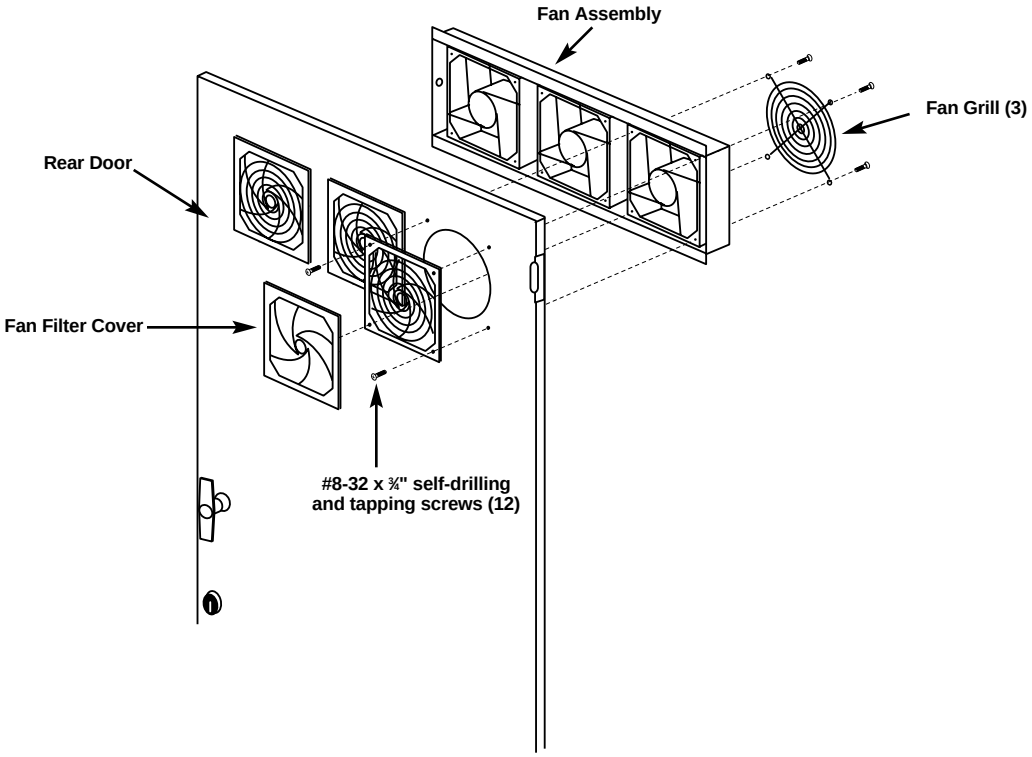


**Figure 3-2. Replacing a Fan Filter.**

## 3.6 Replacing the Door Filter

You can easily remove the filter on the front door to clean or replace it. The part number for the front door filter is RM476. To remove the filter, remove the two wing nuts on the top of the filter, swing the filter bracket down and remove the filter.

The life of the filter depends on the environment the ServShield is installed in. You can vacuum the filters or wash them in warm water with mild detergent. We recommend vacuuming the filter to keep it in peak condition. If you choose to wash the filter, do so only once and replace it with a new filter when it gets dirty again.

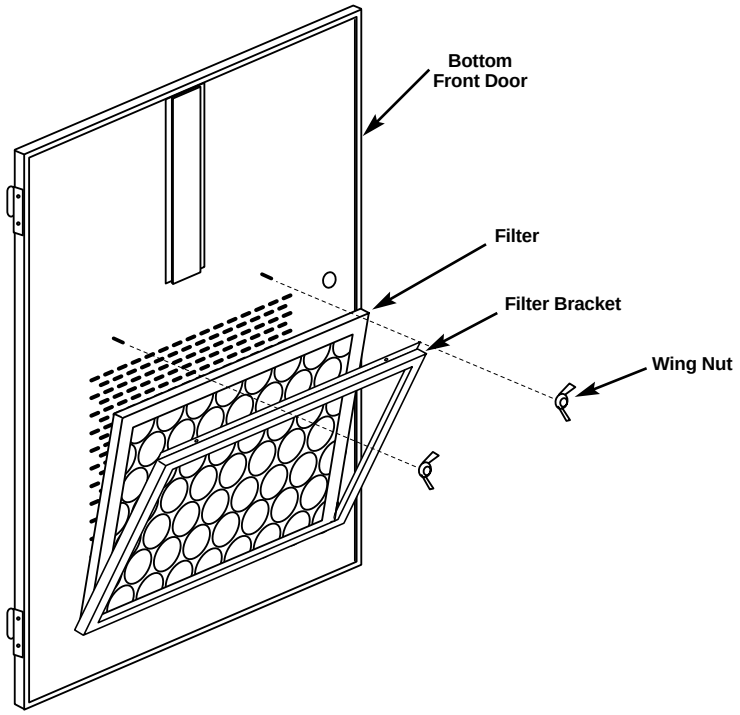


**Figure 3-3. Replacing the Door Filter.**

## 3.7 Mounting Rails

Two pairs of vertical mounting rails (zinc-plated, 12-gauge steel) are in the top and bottom of the ServShield enclosure. The upper rails have 14U (24.5") of rack mounting space and the bottom rails have 17U (29.75") of rack mounting space. The rails are tapped with #10-32 threads. The rails adjust front to rear in 1" (2.54-cm) increments.

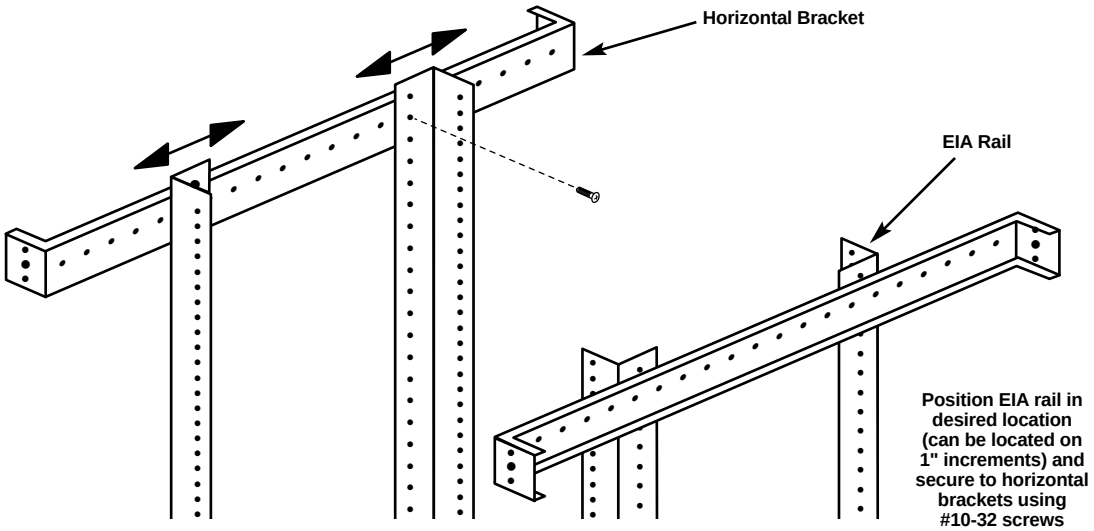


**Figure 3-4. Mounting Rails.**