



HoseRack

HOSE RACK and HANDLING SYSTEM Assembly Instructions HRA200 Portable HRA300 Stationary



HRA230 Shown

FIRE RESEARCH CORPORATION

www.fireresearch.com

26 Southern Blvd., Nesconset, NY 11767

TEL 631.724.8888 FAX 631.360.9727 TOLL FREE 1.800.645.0074

CONTENTS

Table of Contents

CONTENTS..... 2

INTRODUCTION 3

 Overview..... 3

 Features..... 3

 Specifications..... 3

ASSEMBLY INSTRUCTIONS..... 4

 Pre-Assembly..... 4

 Tools Required..... 4

 Assemble Shelf..... 6

 Assemble Portable Rack Leg Braces..... 8

 Install Shelf Assembly..... 10

 Install Stationary Rack Wall Bracket and Base..... 12

 Install Hose Winder..... 14

 Attach Caster..... 14

 Install Caps..... 14

List of Tables

Table 1. Hardware, Parts, and Assemblies..... 4

Table 2. Recommended Shelf Hieghts..... 10

List of Figures

Figure 1. Hose Rack..... 5

Figure 2. Shelf Assemblies..... 7

Figure 3. Portable Rack Leg and Column..... 9

Figure 4. Shelf Installation..... 11

Figure 5. Stationary Rack Wall Bracket and Base..... 13

Figure 6. Hose Winder, Caster, and Caps..... 15

INTRODUCTION

Overview

The FRC Hose Storage and Handling System eliminates most of the drudgery of handling and stowing fire hose. This Hose Rack is available as a stationary or portable system in two or three shelf configurations.

The stationary rack is bolted to the floor and wall for stability. It takes up approximately 15 square feet of floor space (6 feet long by 2.5 feet wide).

The portable rack is equipped with four heavy duty casters, two with brakes, and is completely mobile even when fully loaded. It is 6 feet long by 3 feet wide. Measured to the top of the column a three shelf unit is a little over 6.5 feet high and a two shelf unit just over 4 feet high.

The shelf heights are adjustable and each shelf can hold 450 feet of 5-inch hose (or 900 feet of 2.5-inch) in 50 foot lengths. Sliding bookend style stops keep coiled hose upright, even if there is only one rolled hose on the shelf. The hose winder assembly mounts on either side of the hose rack at any desired height. Slip the hose coupling into the handle and wind any hose into a clean tight coil. It has a detachable handle for easy hose removal.

HRA220	Portable 2 Shelf
HRA230	Portable 3 Shelf
HRA320	Stationary 2 Shelf
HRA330	Stationary 3 Shelf

Features

- Adjustable Shelves
- Accommodates Any Size Hose
- Hand Cranked Hose Winder
- Sliding Bookend Style Hose Holder
- Portable or Stationary

Specifications

- 6 Feet Long
- Extruded Aluminum Frame
- Stainless Steel Hardware
- Four Heavy Duty Casters, Two w/Brakes (Portable Only)

ASSEMBLY INSTRUCTIONS

Pre-Assembly

Before assembling the Hose Rack, verify that all loose hardware, parts, and assemblies are on hand. Refer to the column in Table 1 that reflects the rack configuration to be assembled. (Some hardware, parts, or assemblies may be installed prior to shipping.)

Tools Required

5/64 and 3/16 Inch Hex Key

1/2, 9/16, and 3/4 Inch Wrench

Table 1. Hardware, Parts, and Assemblies

Description	2-Shelf Portable	3-Shelf Portable	2-Shelf Stationary	3-Shelf Stationary
Column	2	2	2	2
Column Length (in feet)	3.5	6	4.2	6.7
Leg	2	2	N/A	N/A
Leg Length (in feet)	3	3	N/A	N/A
Inside Leg Brace	2	2	N/A	N/A
Outside Leg Brace	2	2	N/A	N/A
Wall Braclet	N/A	N/A	2	2
Base	N/A	N/A	2	2
Arms	2	4	4	6
Rails	4	6	4	6
Hose Holder	2	3	2	3
Hose Winder	1	1	1	1
Casters	2	2	N/A	N/A
Casters with Brakes	2	2	N/A	N/A
U-Bolts (3"W x 3 1/2"H)	8	8	N/A	N/A
Backing Block Assembly	22	26	14	18
Cap	6	6	2	2
Screw, Socket Cap, 1/4-20 x 3/4"	12	12	4	4
Nut, Flange, 5/16-18	44	52	28	36
Nut, Flange, 3/8-16	16	16	N/A	N/A
Screw, Hex Head, 3/8-16 x 1 1/2"	N/A	N/A	8	8
Washer, Lock, 3/8"	N/A	N/A	8	8
Washer, Flat, 3/8"	N/A	N/A	8	8
Screw, Hex Head, 1/2-13 x 1 3/4"	8	12	8	12

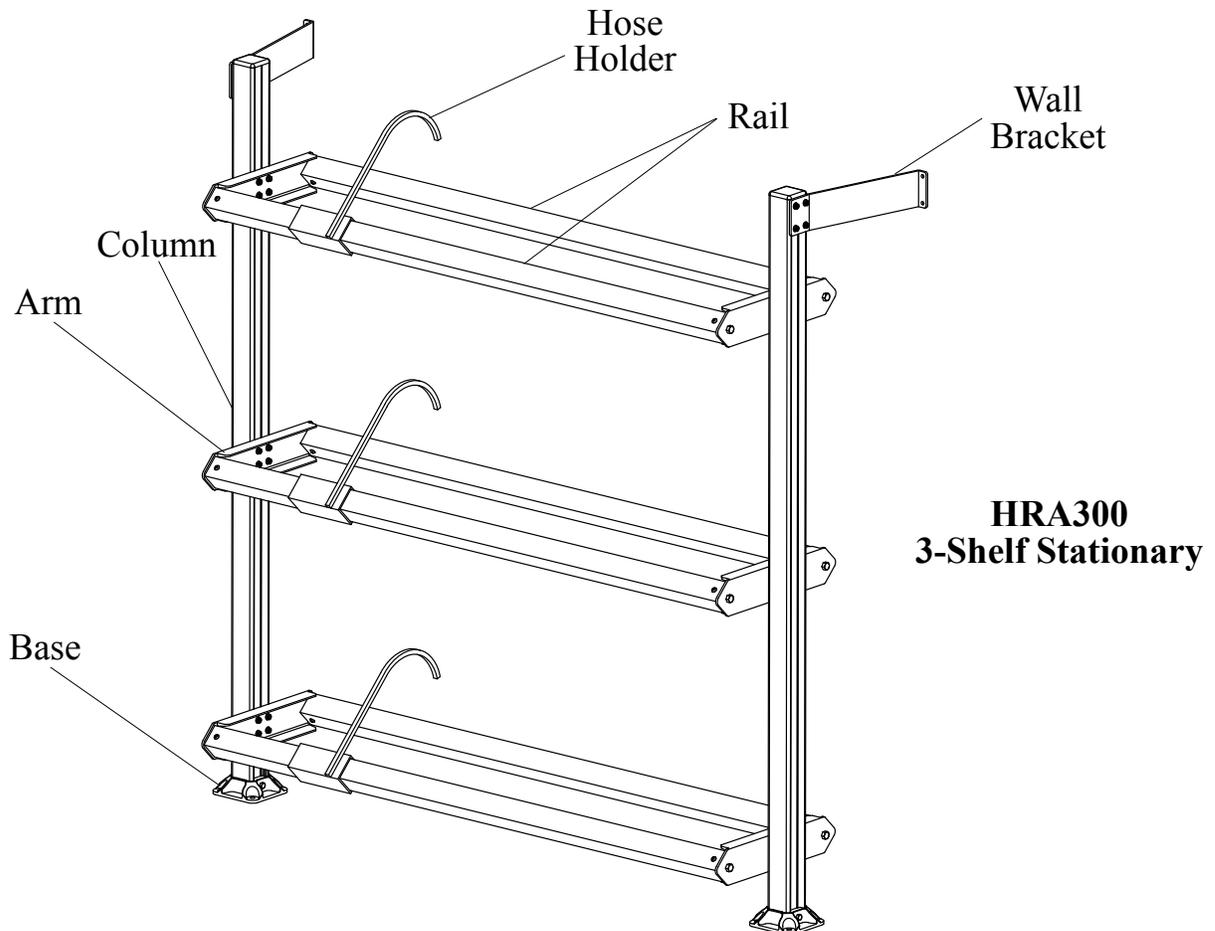
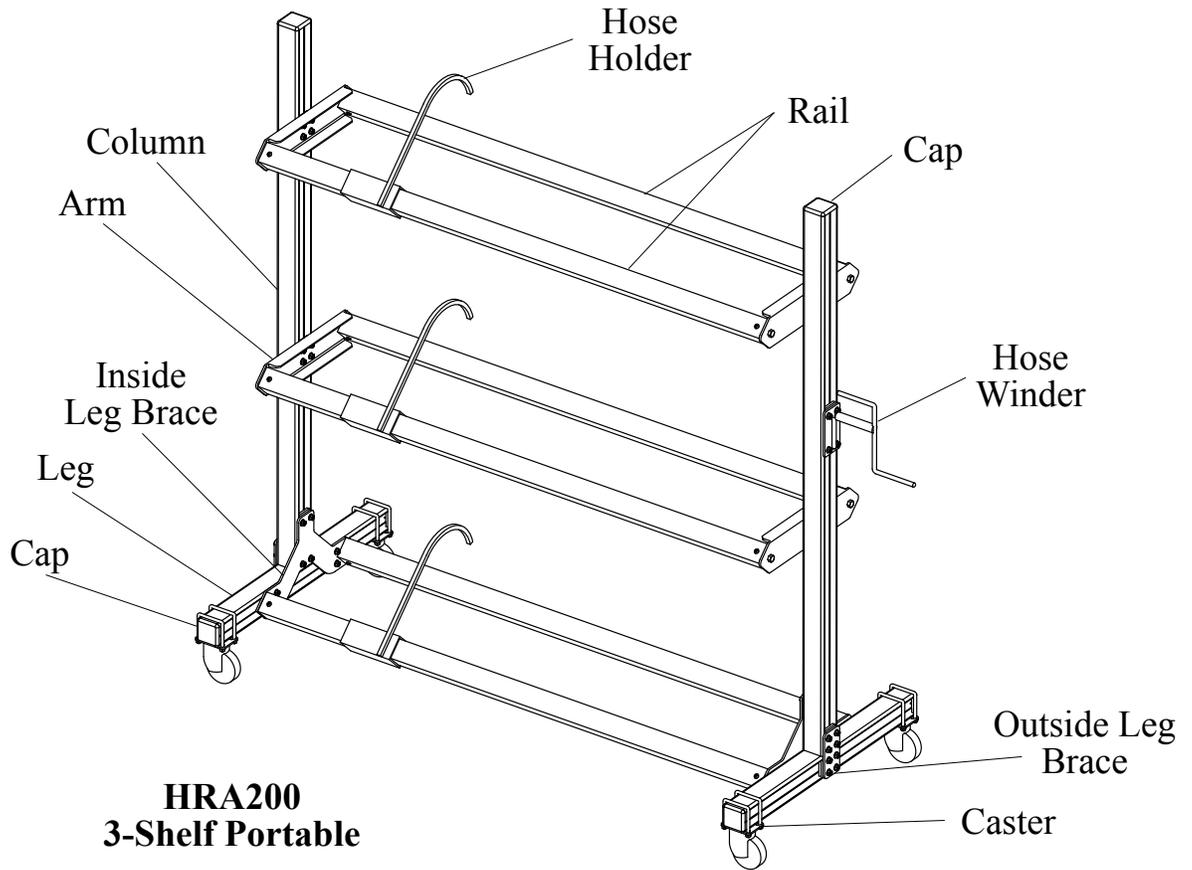


Figure 1. Hose Rack

Assemble Shelf

Each shelf assembly has two rails, one with a hose holder and one without.

Install Hose Holder

A hose holder is mounted on one rail per shelf. The hose holder needs to be installed on the rail before the shelf is assembled.

Note: There is threaded plug inside each end of the rail secured with two screws. The two screws holding the plug in one end have to be removed in order to slide the hose holder onto the rail.

1. Remove two plug screws at one end of rail.
2. Slide hose holder on rail.
3. Reinstall and tighten two plug screws.

Assemble Shelf

Each shelf assembly is built from two rails (one with a hose holder), two arms, and four hex head screws. For the bottom shelf on a portable rack the two arms are replaced by two inside leg braces.

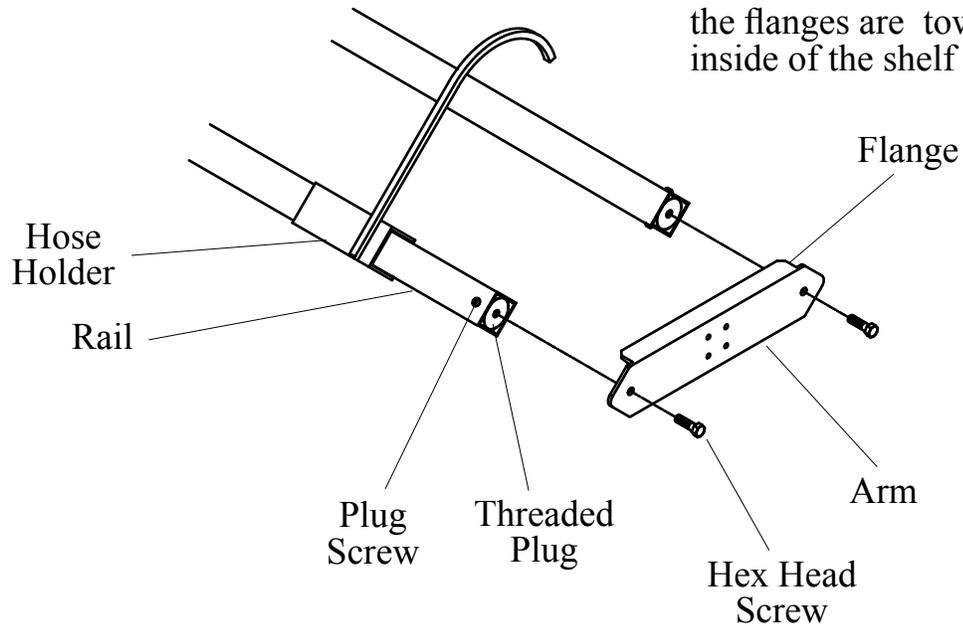
1. Connect rails to arms with 1/2-13 x 1 3/4" screws. Make sure that the arm flanges are toward the inside of the shelf assembly.
2. For the portable rack bottom shelf only, connect two rails to inside leg brace with 1/2-13 x 1 3/4" screws.

Note: It is important to the tighten the hex head screws that attach the rail to the portable rack inside leg brace. These screws will not be accessible when the shelf assembly is attached to the leg.

3. Rotate rails and hose holder to the correct position and tighten the hex head screws.

Note: The hose holder must be oriented so the curve is above the center of the shelf.

Note: Orient the arm so the flanges are toward the inside of the shelf assembly.



Note: The rail must be oriented to match the angle on the end of the arm or leg brace.

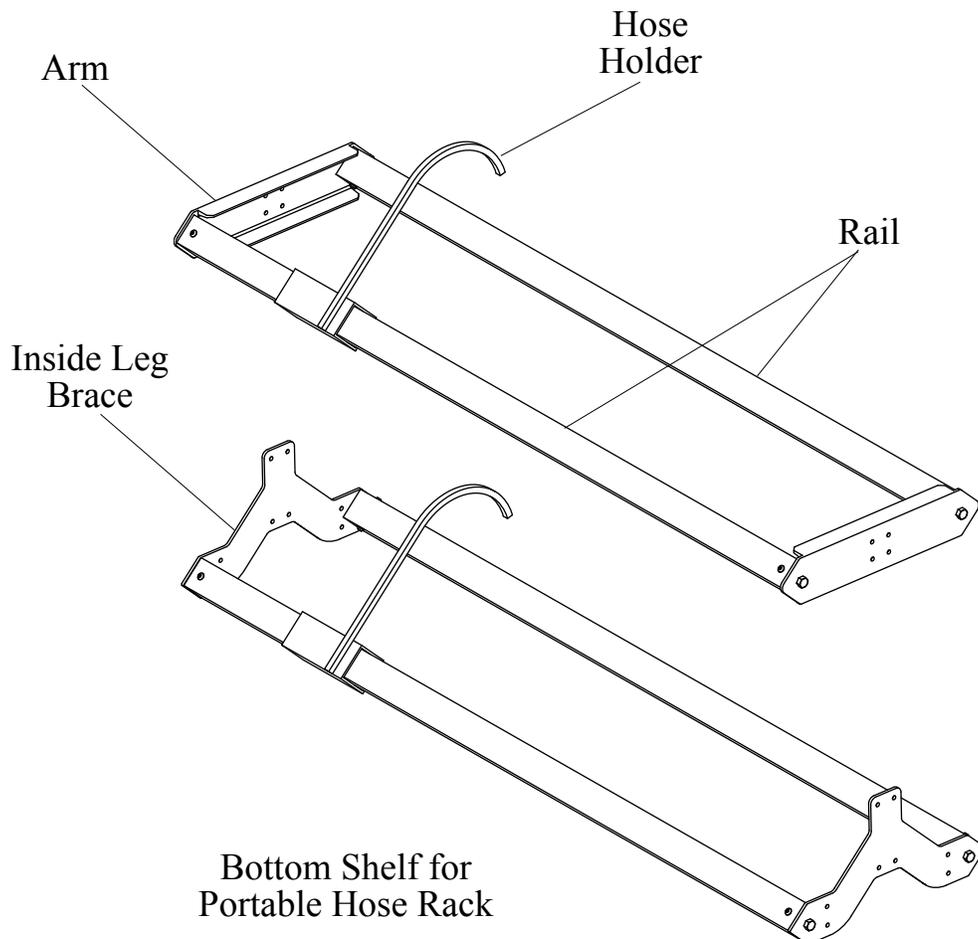


Figure 2. Shelf Assemblies

Assemble Portable Rack Leg Braces

There is a top and bottom to the column. Two tapped holes are at the top to install the screws for the cap. On the stationary rack there are two tapped holes in the bottom to install 3/8-16 screws for the base.

Install Outside Leg Brace

Note: The column must be centered on the on leg. Make sure the tapped holes for the cap set screws are at the top.

1. Measure and mark the center of the leg.
2. Slide two backing block assemblies into one side of leg.
3. Slide two backing block assemblies into one side of column.

Note: The hole pattern on the outside leg brace is not symmetrical. The four holes that line up with the column backing blocks are different than the holes that match the leg backing blocks.

4. Place column in position on leg, line up backing blocks and install outside leg brace onto the eight studs.
5. Secure outside leg brace with eight 5/16-18 nuts.

Install Inside Leg Brace and Bottom Shelf

Note: The shelf must be assembled prior to attaching the inside leg brace to the column and leg. It is important to the tighten the hex head screws that attach the rail to the inside leg brace. These screws will not be accessible when the shelf assembly is attached to the leg.

1. Slide two backing block assemblies into the inner side of leg.
2. Slide two backing block assemblies into the inner side of column.
3. Move backing blocks to positions that line up with holes in the inside leg brace.
4. Install inside leg brace onto eight studs and secure with eight 5/16-18 nuts.

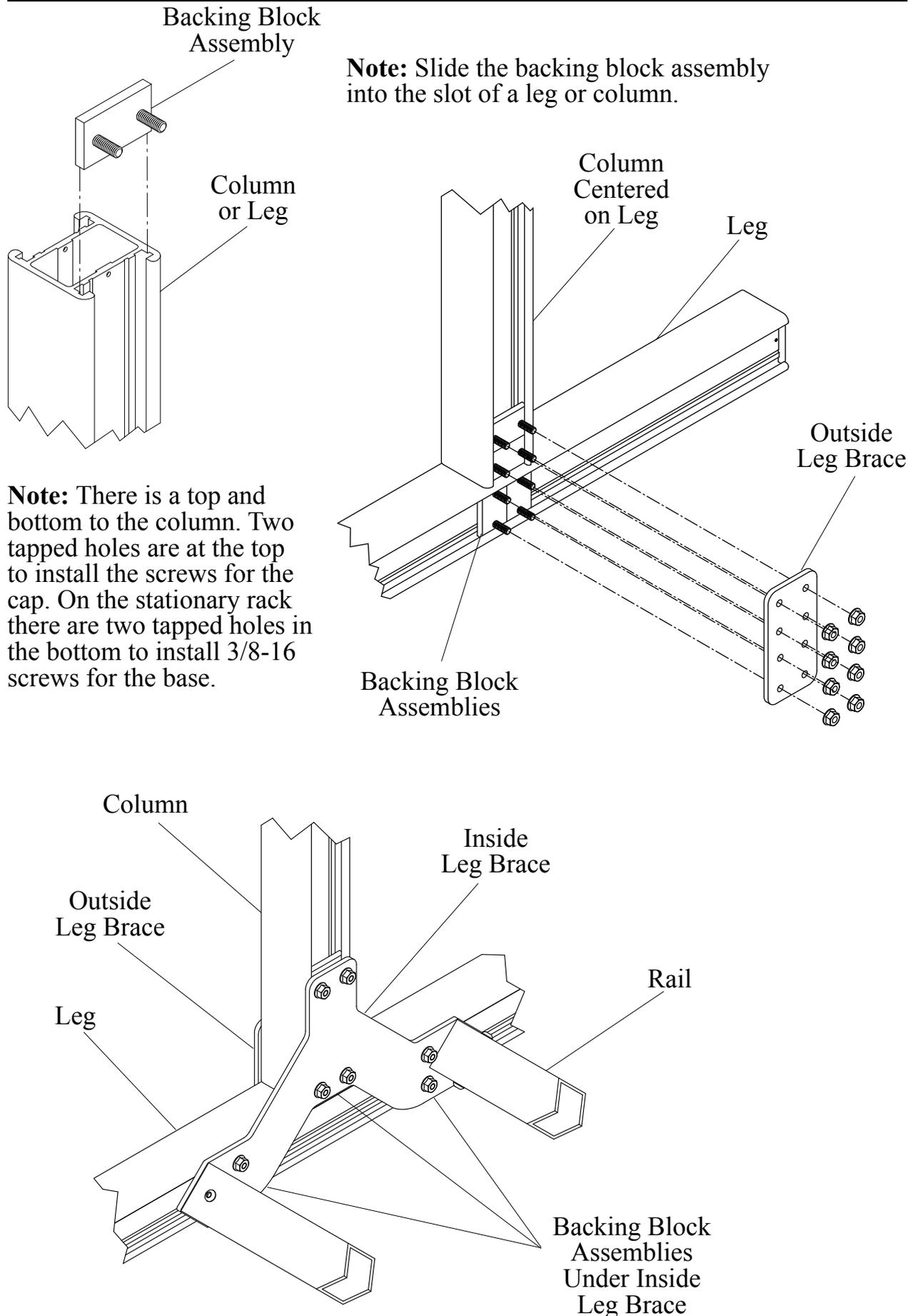


Figure 3. Portable Rack Leg and Column

Install Shelf Assembly

There is a top and bottom to the column. Two tapped holes are at the top to install the screws for the cap. On the stationary rack there are two tapped holes in the bottom to install 3/8-16 screws for the base.

Attach Shelf Assembly

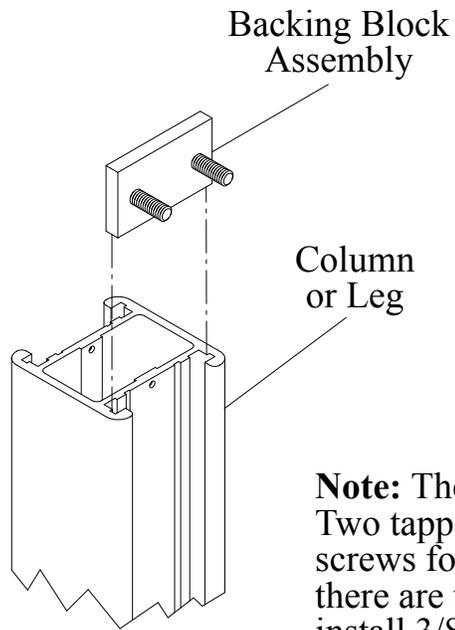
The shelf heights can be adjusted as required. Recommended standard heights are supplied in Table 2.

Note: Heights are measured from the bottom of the column to the bottom of the shelf assembly. Install lower shelf first and work up. Make sure the tapped holes for the cap set screws are at the top.

1. Measure and mark shelf location on both columns.
2. Slide two backing block assemblies into the inner side each column.
3. Place backing blocks in position and install shelf onto four studs in each column.
4. Secure shelf with eight 5/16-18 nuts.

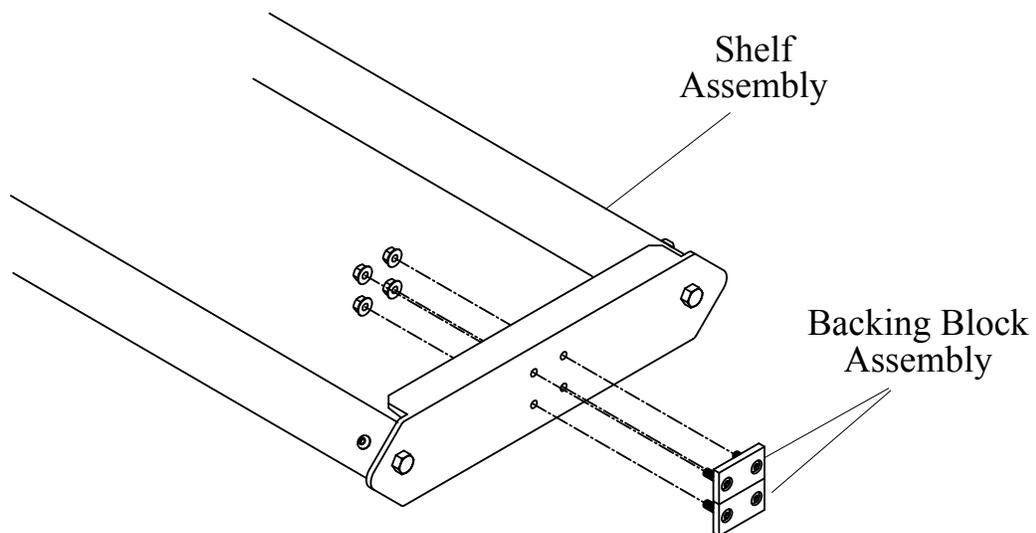
Table 2. Recommended Shelf Hieghts

	2-Shelf Portable	3-Shelf Portable	2-Shelf Stationary	3-Shelf Stationary
Measured from the bottom of the column to the bottom of the shelf (in inches).	N/A	56	N/A	65
	26	26	35	35
	on leg	on leg	5	5



Note: Slide the backing block assembly into the slot of a leg or column.

Note: There is a top and bottom to the column. Two tapped holes are at the top to install the screws for the cap. On the stationary rack there are two tapped holes in the bottom to install 3/8-16 screws for the base.



Slide two backing block assemblies into the slot of the column for each side of the shelf.

Figure 4. Shelf Installation

Install Stationary Rack Wall Bracket and Base

Note: Hardware to connect the hose rack to the wall and floor is not provided.

1. Set column into base.
2. Secure with two 3/8-16 x 1 1/2" screws with flat and lock washer.

Note: The wall bracket can be installed on the inner or outer side of the column.

3. Slide two backing block assemblies into the each column.
4. Place backing blocks in position and install wall bracket onto four studs in each column.
5. Install cap before tightening the wall bracket. (Refer to Install Cap.)
6. Slide wall bracket to top of column and secure with eight 5/16-18 nuts.

Note: The wall bracket can be installed on the inner or outer side of the column.

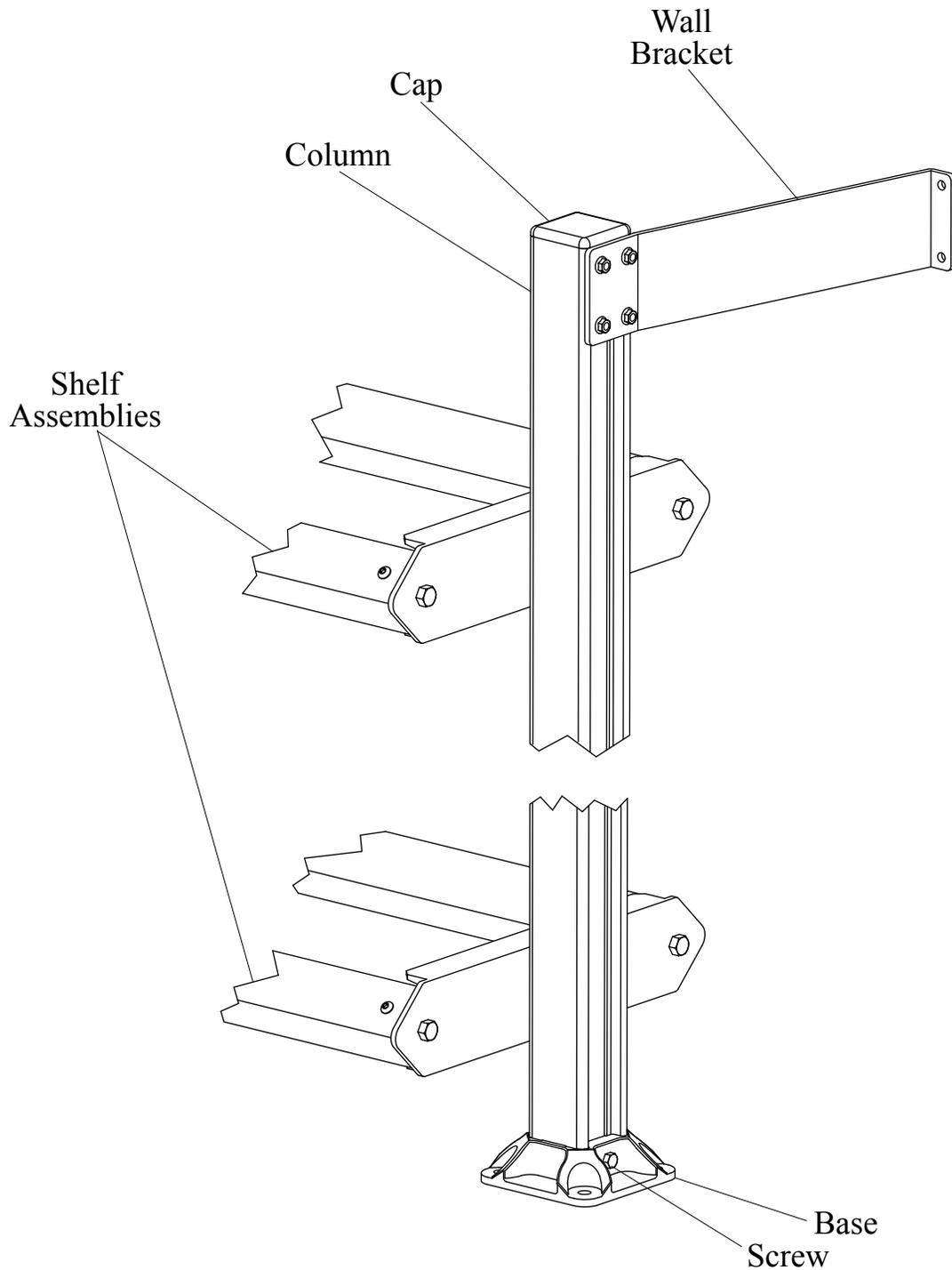


Figure 5. Stationary Rack Wall Bracket and Base

Install Hose Winder

The hose winder can be mounted on the left or right side. The height can be adjusted as required. Recommended mounting height measured from the ground is 40 inches.

Note: On portable racks the hose winder needs to be installed on the same side as the casters that have breaks.

1. Slide two backing block assemblies into the outer side of a column.
2. Place backing blocks in position and install hose winder onto four studs.
3. Secure hose winder with four 5/16-18 nuts.

Attach Caster

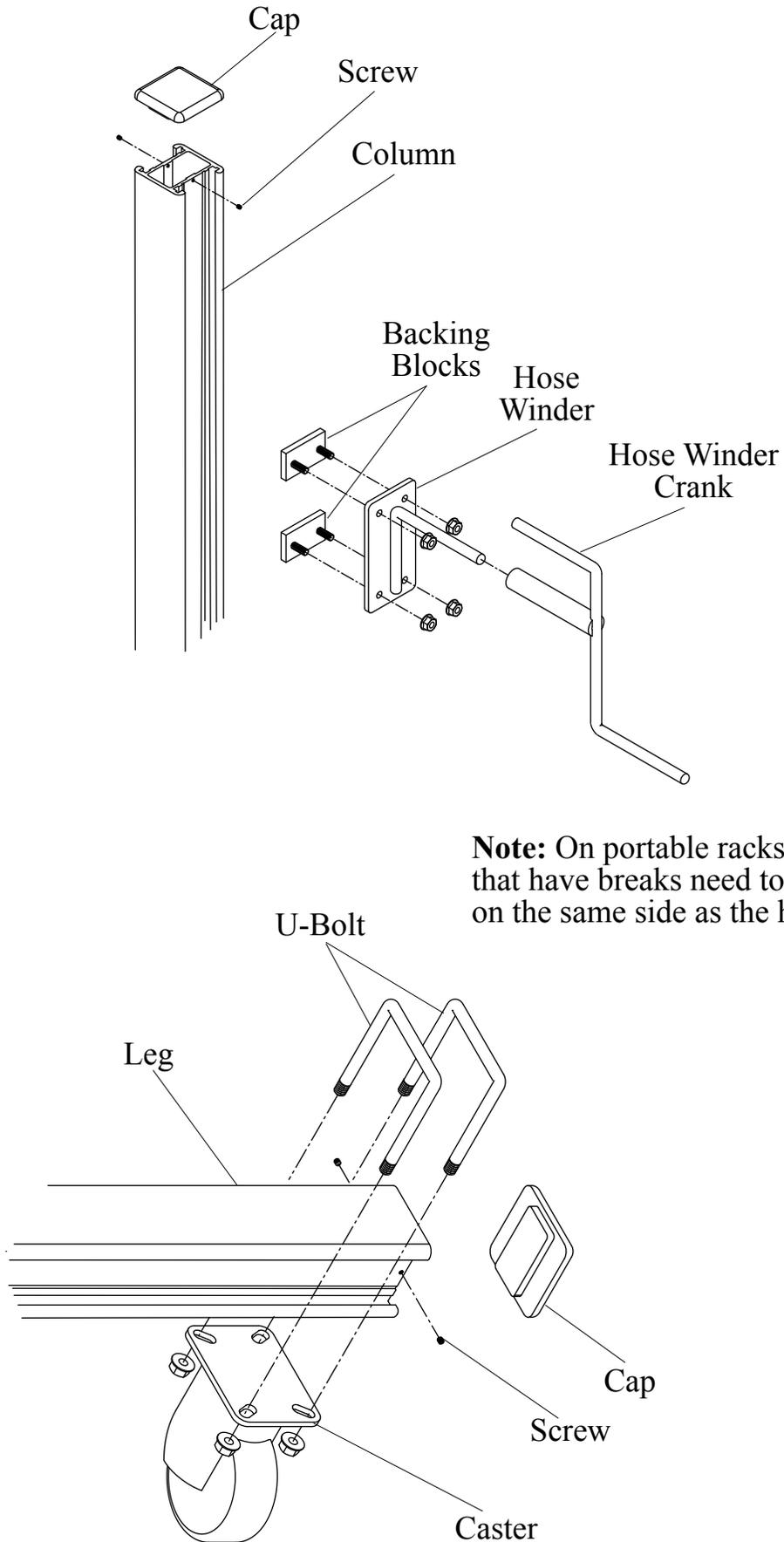
Note: On portable racks the casters that have breaks need to be installed on the same side as the hose winder.

1. Place caster at the each end of leg.
2. Secure caster with two U-bolts and four 3/8-16 nuts.

Install Caps

Note: There is a cap on the top of each column and the end of each leg.

1. Place cap in end of column/leg.
2. Secure with two 1/4-20 x 3/4" screws.

**Figure 6. Hose Winder, Caster, and Caps**