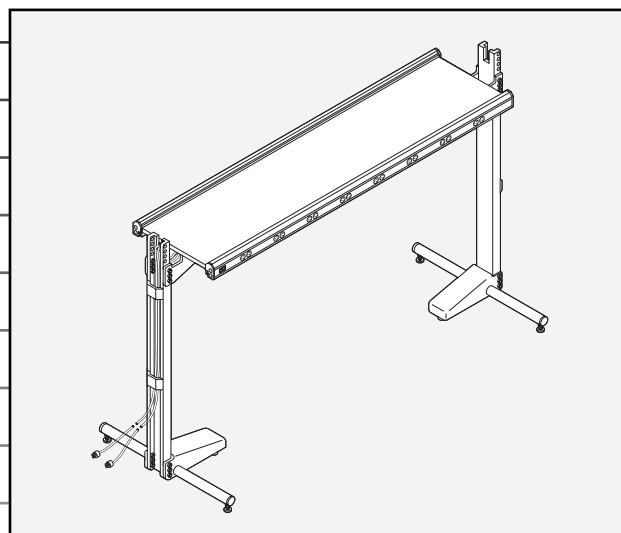


ATS Overhead Table Shelf System



INSTRUCTION
MANUAL

 Newport

ATS Overhead Table Shelf System Instruction Manual

Warranty

Newport Corporation warrants this product to be free of defects in material and workmanship for a period of one year from the date of shipment. If found to be defective during the warranty period, the product will either be repaired or replaced at Newport's option.

To exercise this warranty, write or call your local Newport representative or contact Newport headquarters in Irvine, California. You will be given prompt assistance and return instructions.

Repaired or replaced products are warranted for the balance of the original warranty period or 90 days, whichever is longer.

This warranty does not apply to defects resulting from modifications or improper use of the system or its component parts.

This warranty is in lieu of all other warranties, expressed or implied, including any implied warranty of merchantability or fitness for a particular use. Newport Corporation shall not be liable for any indirect, special, or consequential damages.

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Irvine, California, U.S.A.

Part No. 16951 Rev. G

Table of Contents

Warranty	ii
Table of Contents	iii
List of Figures	iv
Specifications	iv
Section 1 — General Information	
1.1 Introduction	1
1.2 Getting Started	1
1.3 Unpacking and Inspection	1
1.4 Safety Considerations	1
1.5 Warranty Information	3
1.6 Options and Accessories	3
Section 2 — Assembly	
2.1 Prepare for Assembly	4
2.2 Assemble the System	4
2.3 Verify Assembly	7
Section 3 — Operation	
3.1 Principles of Operation	8
3.2 Loading Considerations	8
3.2.1 Mechanical Loading	8
3.2.2 Electrical Loading	9
3.3 Maintenance	9
3.3.1 Cleaning	9
3.3.2 Spare Parts	9
Section 4 — Troubleshooting	
4.1 Mechanical Stability	10
4.1.1 Shelf System is Unstable (“Rocks” on Floor)	10
4.1.2 System Shelf “Sags” From Load	10
4.2 Electrical Failures	10
Section 5 — Factory Service	
5.1 Obtaining Factory Service	11
5.2 Service Form	13

List of Figures

Figure	Title	Page
1.1	ATS Shelf System	2
2.1	Install Square Nuts	4
2.2	Install Shelf Brackets	5
2.3	Assemble Vertical and Base Supports	6
3.1	System Stability	8

Specifications

Load Capacity:	200 lbs. (90 Kgs) centered 300 lbs. (135 Kgs) distributed
Shelf Sizes:*	ATS-6: 6 ft × 22.6 in (183 × 57.5 cm) ATS-8: 8 ft × 22.6 in (244 × 57.5 cm) ATS-10: 10 ft × 22.6 in (305 × 57.5 cm)
System Weight:	225 lbs. (102 Kgs) — ATS-10
System Height:	66.0 in (167.6 cm) Adjustable: 60.6–66.0 in (153.9–167.6 cm)
System Width:	Shelf: 26.0 in (66.0 cm) Base Supports: 36 in (91.4 cm)
Length:	Shelf Length + 6.0 in (15.2 cm)
Power Outlets:	24 (12 per side), switched Maximum Load — 15 amps max per outlet, total 15 amps max per side

*For other sizes contact your Newport Representative

Section 1

General Information

1.1 Introduction

The Newport Overhead Table Shelf System provides a convenient off-the-table platform for mounting and storage of power supplies, controllers, and instruments when working with any of the Newport Table Systems. The shelf also allows wires and cables to be routed away from critical set-ups on the table surface.

Outlets are provided (12 per side) for easy connection of instruments to a common AC power source. Each set of 12 outlets is equipped with its own lighted power switch.

An optional shelf may be suspended from the main shelf to support small accessories. The Cable Management System (optional) may be used to suspend equipment cables over the table top without interfering with the setup.

The Overhead Shelf System includes slots and a supply of ¼-20 and M6 square nuts for attaching additional shelves and other accessories below the main unit.

1.2 Getting Started

Please read this instruction manual thoroughly before assembling the ATS Shelf system. The components have been partially assembled at the factory and require only final assembly.

1.3 Unpacking and Inspection

The components of the Newport ATS Shelf Systems are packed in individual, labeled boxes. Be sure the number of boxes you received is equal to the total number listed on the label (for example, if a box is labeled 1 of 4, there should be 4 boxes).

Use the diagram in Figure 1.1 to locate and identify each component as you remove it from the box. Carefully inspect all components for shipping damage. Report any shipping damage immediately to Newport and the shipping company.

1.4 Safety Considerations

The following terms are used in this manual that relate to your safety.

Warning is used to indicate dangers that could result in personal injury.

Caution is used to indicate situations that may result in damage to components of the Newport Table System.

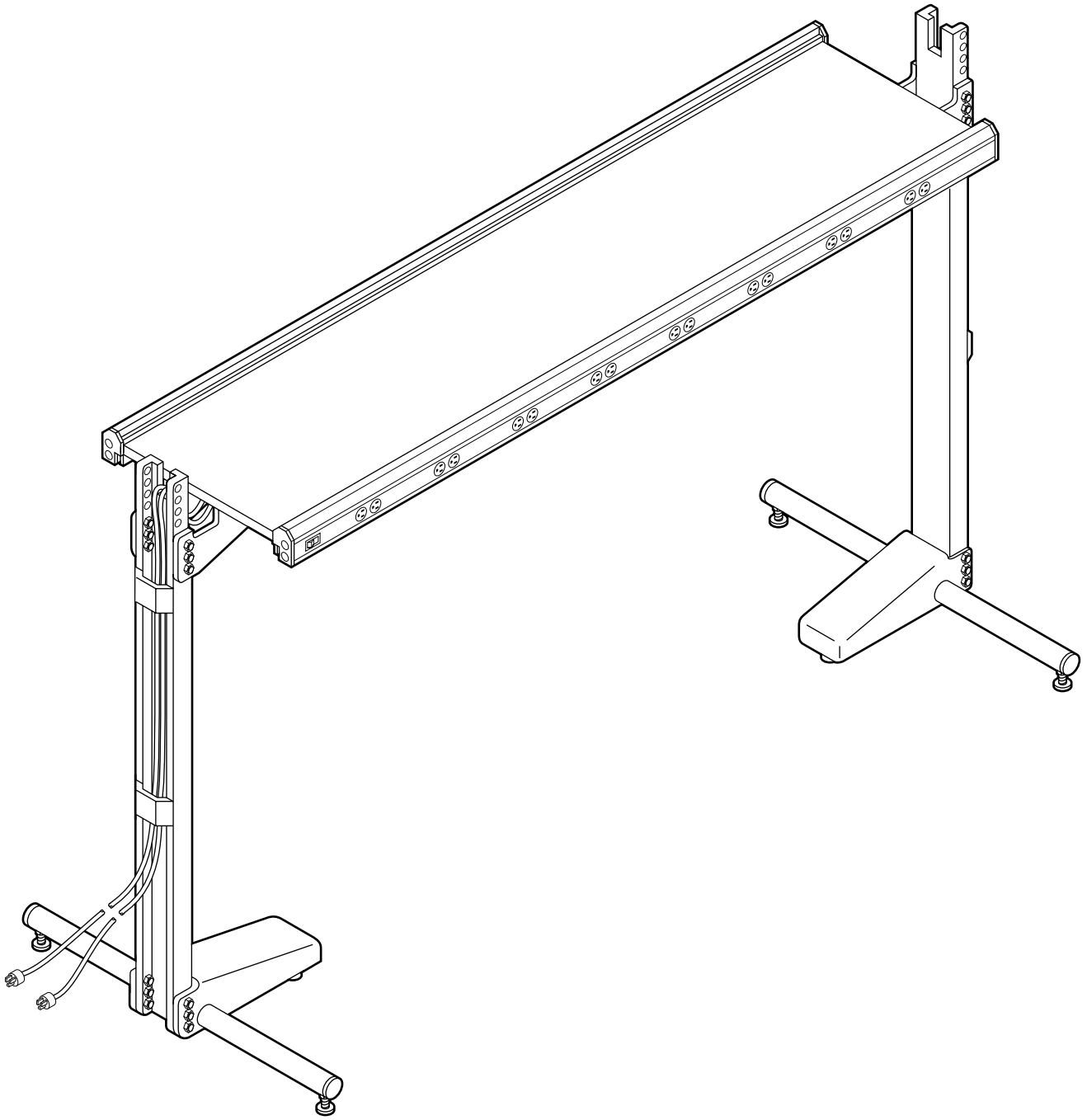


Figure 1.1 — ATS Shelf System

Warning

The ATS Shelf System is a metallic electrical conductor. To prevent the possibility of electrical shock, be sure that all equipment is properly insulated and grounded before placing it on the shelf system.

Your ATS Shelf System is equipped with an approved three-wire, grounded power cord. The power cords must be connected to a three-wire, grounded outlet. Do not disable the ground by removing the ground pin. Doing so will void your warranty and could result in personal injury from electrical shock.

1.5 Warranty Information

Warranty information may be found on the page preceding the Table of Contents in this manual. Should it become necessary to exercise the warranty, contact your Newport representative to determine the proper course of action. Newport Corporation maintains offices throughout the United States and other locations worldwide. Refer to the back cover of this manual for the addresses and telephone numbers of these offices.

1.6 Options and Accessories

Your Shelf System may include one or more of the following Accessories.

Accessories	Model No.
Hanging Shelf	ATS-HS-xx

Section 2

Assembly

2.1 Prepare For Assembly

The Newport ATS Shelf System is assembled in the inverted position and placed upright afterward. Before you begin, place a sheet of cardboard or foam on the floor where you will be assembling the system. To prevent damage to the ends of the shelf and the electrical outlets, be sure the sheet is larger than the shelf.

2.2 Assemble the System

Use the following procedure to assemble your Newport ATS System.

- A. Remove the shelf from the packing carton and place it on the floor with protective sheeting underneath. Orient the shelf so that the exposed slots face upward toward you.
- B. As shown in Figure 2.1, slide the twelve (12) M6 or ¼-20 square nuts into the upper track of the shelf. The M6 nuts should be used only if you have accessories with M6 metric screws.

Distribute the nuts as required for your intended use. For example, if you plan to install an optional hanging shelf, install at least 2 ¼-20 nuts in each of the two ATS nut tracks.

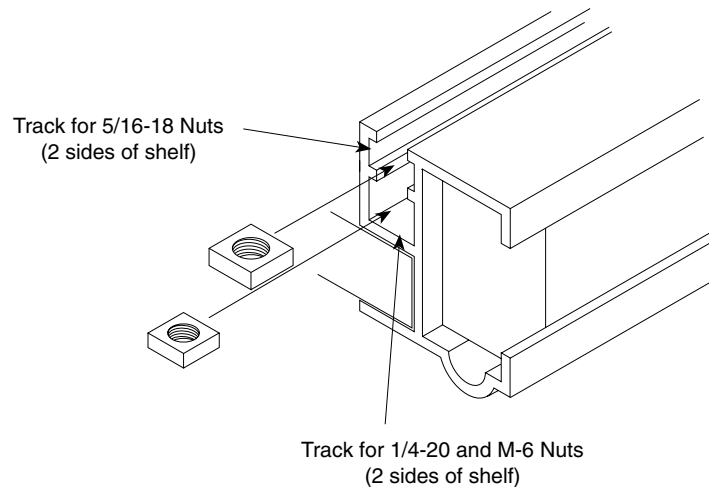


Figure 2.1 — Install Square Nuts

- C. Install a 5/16 washer on each of eight 5/16-18 × 3/4 bolts. Insert the bolts through the mounting holes of the two shelf brackets as shown in Figure 2.2. Place a 5/16-18 square nut on each bolt and turn the nut one full turn.
- D. Orient the two shelf brackets as shown in Figure 2.2 and slide the square nuts into the channel. Slide the brackets in until they stop against the center shelf support rail [NOTE: This rail is not present on systems with a length of 6 feet (or 2 meters) or less]. Tighten all bolts finger-tight.

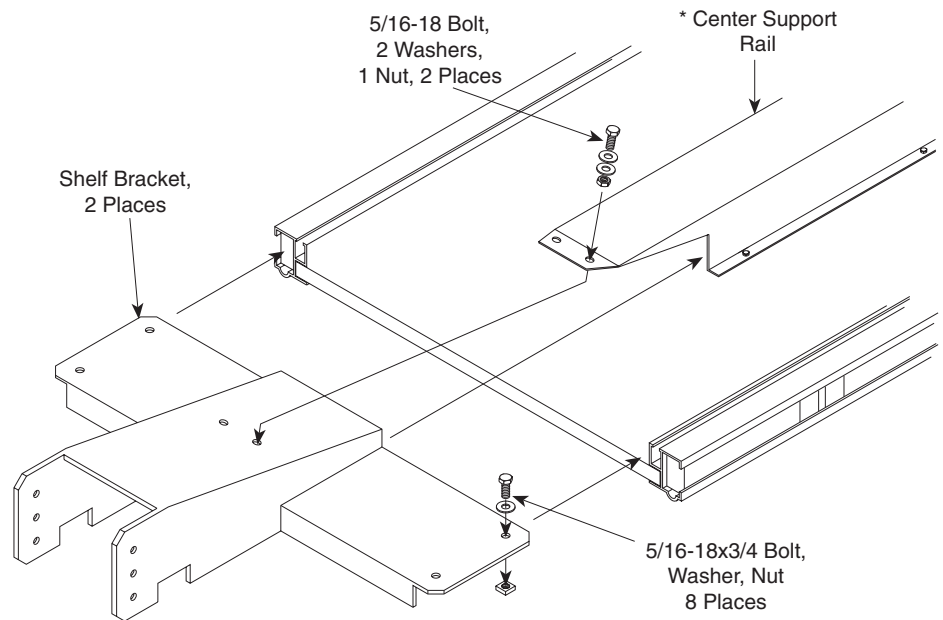


Figure 2.2 — Install Shelf Brackets

- E. On systems longer than 6 feet (or 2 meters), fasten each bracket to the center support rail with two $\frac{5}{16}$ -18 \times $\frac{3}{4}$ bolts, two $\frac{5}{16}$ nuts, and four washers.
- F. Figure 2.3 details assembly of the vertical and base supports to the shelf and brackets. To complete the assembly, proceed as follows:
 1. Orient the left vertical support with the open side facing away from the shelf and align the mounting holes with those in the shelf bracket.
 2. Fasten the vertical support to the bracket with six $\frac{5}{16}$ -18 \times $\frac{7}{8}$ bolts and $\frac{5}{16}$ nuts. Be sure to place a washer under each bolt head and each nut.
 3. Use a square to ensure the supports are perpendicular to the shelf before tightening all six bolts.
 4. Repeat Steps 1 through 3 to fasten the right hand vertical support.

* NOTE: Center support rail is not used on systems with a length of 6 feet (or 2 meters) or less.

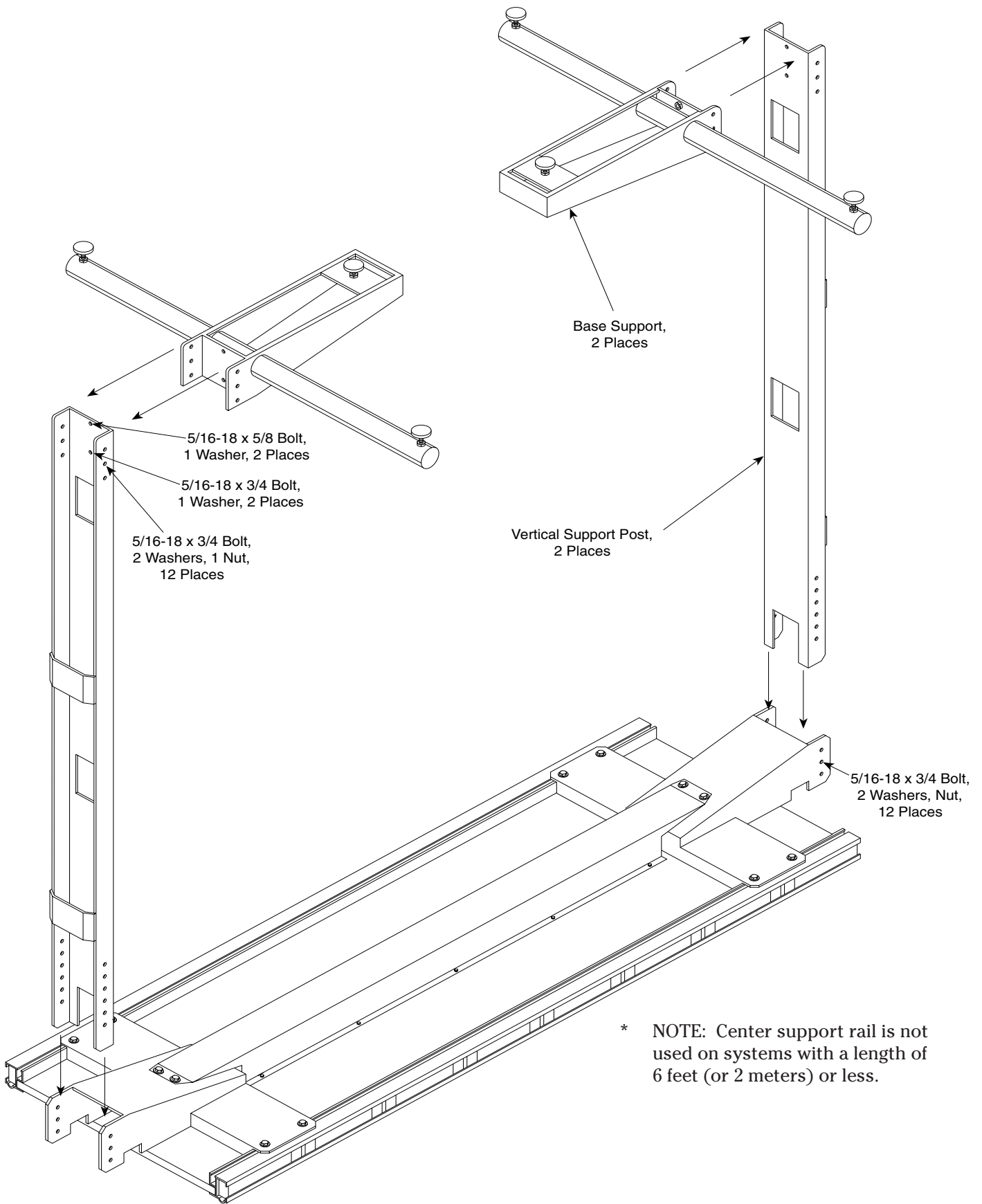


Figure 2.3 — Assembling Vertical and Base Supports

-
- G. Fasten the base supports to the ends of the vertical supports as follows:
1. Use six $\frac{5}{16}$ -18 \times $\frac{7}{8}$ bolts and $\frac{5}{16}$ nuts to secure the base to the vertical support using the holes on each side of the support. Place a washer under each bolt head and nut.
 2. Use four $\frac{5}{16}$ -18 \times $\frac{5}{8}$ bolts and nuts to fasten each base at the inside center.
- NOTE: If you are installing a 6' shelf, you may have to install one base as described and install the second base after the shelf is in position over the table.
- H. Check all bolts to be sure they are secure. Carefully lift the assembled shelf and place it in an upright position.

Warning

The assembled shelf system weighs more than 180 lbs. (82 Kgs). To prevent serious personal injury, be sure to use proper lifting procedures when turning the shelf upright.

- I. Move the shelf system into position over the table. If the shelf is 6' in length, you will have to install the second base support, as described in Step G, after the shelf is in place over the table.
- J. Insert the two AC power cords from the outlet strips into the channel formed by one of the shelf brackets and vertical supports. These cords may be plugged into any grounded AC wall outlet which provides 110 VAC at 15 Amps.

Warning

The AC power cords supplied with the ATSSystem have a grounded, three-wire plug to prevent injury from electrical shock. Do not defeat this feature by removing the round pin. Doing so could result in hazardous electric shock.

2.3

Verify Assembly

Before using your Newport ATS Shelf System, carefully check that all supports are perpendicular to the shelf and to the floor. Next, be sure all bolts are tight.

Section 3

Operation

3.1 Principles of Operation

The Newport ATS Shelf System provides a convenient support and storage shelf for measurement equipment and power supplies that should be located off of the optical table. The two power strips provide a ready source of AC power for equipment located on the shelf as well as on the table.

3.2 Loading Considerations

When using the Newport ATS System, the following items should be considered.

3.2.1 Mechanical Loading

All equipment placed on the shelf must be arranged so that the Center of Gravity (CG) remains fairly low. Loading equipment on the shelf so that the CG is raised significantly may cause the shelf to become unstable. If this occurs, the shelf may tip over, resulting in personal injury and damage to any equipment on the shelf.

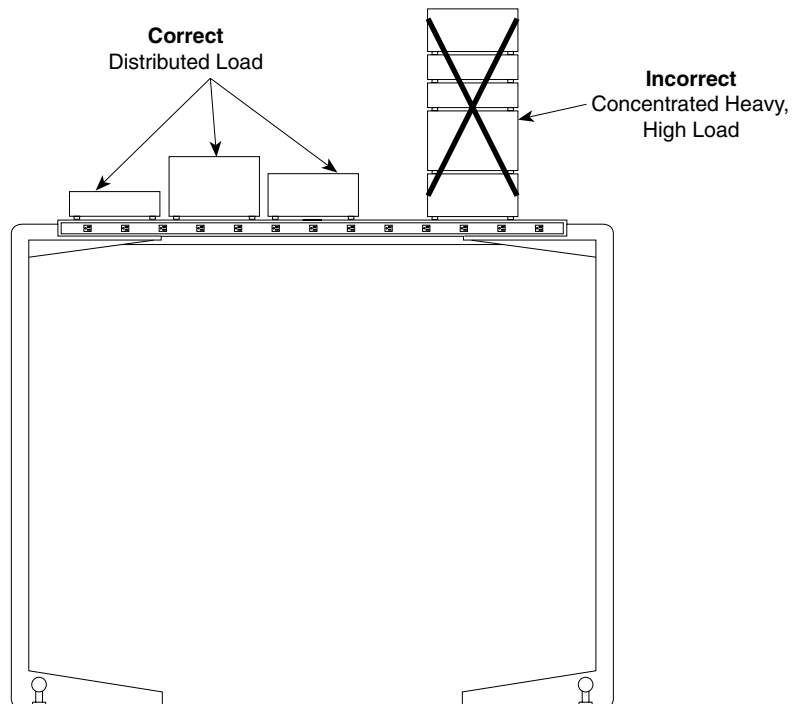


Figure 3.1 — Correct Shelf Loading

3.2.2 Electrical Loading

The switches, and hence each power strip, on the Newport ATS are rated at 15 amps total. For most uses, this is more than adequate.

Some equipment, such as motors and power supplies, have an initial surge current that exceeds the nominal operating current. This surge current may cause failure of the ATS power switch if it is used to control several devices where the total surge current substantially exceeds the 15 amp rating of the switch.

For this reason, we recommend that each device be controlled by its own power switch. Use the ATS power switch only to control power before and after powering the equipment.

3.3

Maintenance

Newport ATS Shelf System require little maintenance. No periodic maintenance is required.

3.3.1 Cleaning

Newport ATS Systems are made of painted steel, aluminum and plastic. They may be cleaned by applying non-abrasive liquid household cleaner to a rag and wiping the surface dry. Avoid abrasive cleaners as they may scratch the surface.

Be sure to disconnect the ATS power cords before cleaning around the AC power strips.

3.3.2 Spare Parts

The following spare parts may be ordered for replacement on your Newport ATS Shelf System.

Part Name	Part No.
Power Strip	18414-XX
Shelf Bracket	16916-01
Vertical Support	16919-01
Base Support	16920-01
Shelf (Specify Length)	16921-01 6 ft
	16921-02 8 ft
	16921-03 10 ft
	16921-04 12 ft
	16921-05 14 ft
	16921-06 4 ft
	16921-07 5 ft
	16921-08 2 m
$\frac{5}{16}$ -18 square nut (8)	16950-01
$\frac{1}{4}$ -20 square nut (12)	16950-02
M6 square nut (12)	16950-03
$\frac{5}{16}$ washer (68)	3941GH-0937-063
$\frac{5}{16}$ hex nut (28)	3301-AD-026
$\frac{5}{16}$ -18 \times $\frac{5}{8}$ bolt (2)	3751-AD-245
$\frac{5}{16}$ -18 \times $\frac{3}{4}$ bolt (38)	3751-AD-246

Section 4

Trouble Shooting

4.1 Mechanical Stability

4.1.1 Shelf System is Unstable (“Rocks”) on Floor

An unstable system may result from either an uneven floor or the system was not assembled properly. Check the following items:

- A. If the floor is uneven, adjust the individual leveling feet on the base support bars to stabilize the system.
- B. Use a Carpenter’s Square to check that all vertical supports are true (perpendicular) to the horizontal surfaces (i.e., the base supports and shelf). If any part is not true, loosen the bolts and adjust as required. Be sure to tighten all bolts after correcting the problem.

4.1.2 System Shelf “Sags” From Load

The shelf has a maximum load capacity of 200 lbs (90 Kgs) centered and 300 lbs (135 Kgs) distributed.

4.2 Electrical Failures

If equipment plugged in to the ATS Shelf power strips fails to function, use the following procedure to locate and correct the problem:

- A. Be sure the ATS power switch is turned ON. This rocker switch will be illuminated when in the ON position.
- B. Check to be sure the correct power cord from the ATS is connected to an AC wall outlet. Each power strip has its own power cord. Both should be connected to a wall outlet.
- C. Verify that the wall outlet is supplying power. Connect the equipment directly to the outlet. If it still fails do the following:
 1. Check the fuse or circuit breaker for the outlet to be sure it is not blown. Replace or reset if required.
 2. Check the equipment’s fuse. If it is blown, replace and try the equipment again.
- D. If the ATS power strip has failed, contact Newport Applications Engineering at (714) 863-3144 between 7:30 and 5:00 Pacific time.

Section 5

Factory Service

5.1 Obtaining Service

To obtain information concerning factory service, contact Newport Corporation or your Newport representative. Please have the following information available.

1. Model number.
2. Purchase order number.
3. Complete description of the problem.

If components are to be returned to Newport Corporation, you will be given a Return Number, which you should reference in your shipping documents.

Please fill out the service form located on the next page, and have the information ready when contacting Newport Corporation. Include the completed service form with any parts or components that are returned.



Name _____

RETURN AUTHORIZATION # _____

Company _____

(Please obtain prior to return of item)

Address _____

Country _____

Date _____

P.O. Number _____

Phone Number _____

Item(s) Being Returned:

Model # _____

Serial # _____

Description _____

Reason for return of goods (please list any specific problems) _____

Please Describe the Problem:

_____ (Attach additional sheets as necessary)

Where is the Equipment Installed?

(factory, controlled laboratory, out-of-doors, etc.) _____

Maximum Air Pressure available? _____ Regulated? _____

Any additional information. (If special modifications have been made by the user, please describe below).



Notes:

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