LAN LOCKER ADJUSTABLE SHELVES

* **Adjustable Shelves** are available for LAN LOCKER widths: 24", 30", 48", 60", and 72".

* When installing more than one Adjustable Shelf, it is recommended that you start by installing the lowest shelf and work upwards.

* If a Bottom Panel component is going to be installed into the LAN LOCKER, it should be installed *before* the Adjustable Shelves.

* Shelves are adjustable on 1" increments. The smallest incremental shelf spacing obtainable is 5". This will yield a 3.40" storage space between shelves.

* The underside of the Adjustable Shelf has pre-punched holes for mounting WRIGHT LINE Retactable Key-board numbers LA02-MM, LA08-MM, and LA09-MM.

IMPORTANT SAFETY INFORMATION

* The Adjustable Shelves are designed to support a maximum *evenly distributed* load of 750 lbs (341 Kg). *DO NOT EXCEED THIS CAPACITY LIMIT UNDER ANY CIRCUMSTANCES!*

* Every effort should be made to locate the heaviest shelf loads near bottom of the LAN LOCKER.

* The LAN LOCKER II framework has a maximum load capacity of 2500 lbs (1136 Kg). *DO NOT EXCEED THIS CAPACITY LIMIT UNDER ANY CIRCUMSTANCES!*

* Installation of the 48", 60", and 72" wide Adjustable Shelves requires two people. *DO NOT ATTEMPT THE INSTALLATION WITHOUT ASSISTANCE.*

Tools Required
     -Phillips head screwdriver
     -3/8" Nut driver (or ratchet wrench)
     -Plastic mallet
     -Measuring device

Adjustable Shelf

technical furniture
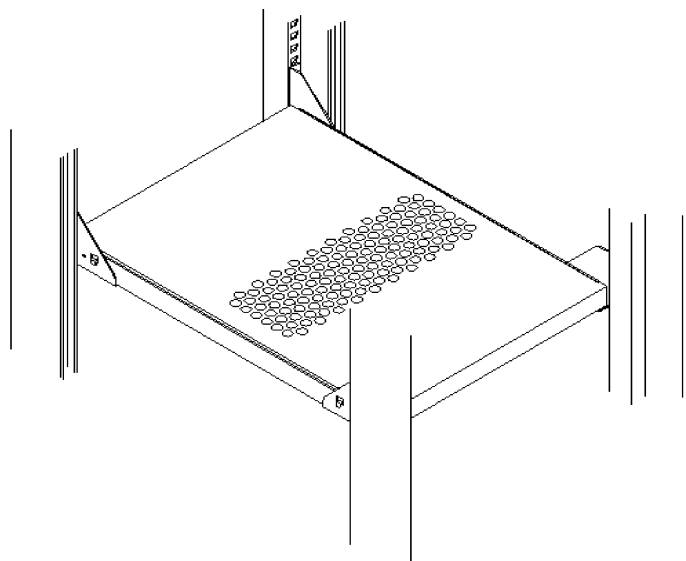
L A N   L o c k e r
A d j u s t a b l e   S h e l v e s
(c o n t .)

BRACKET INSTALLATION

1. Determine the location of the Adjustable Shelf.

2. Each Adjustable Shelf is supplied with four **Corner Brackets**, (2) style **"A"** and (2) style **"B"**. See **Figure 1**.

   Install one style "A" Bracket onto the right front corner Upright and one style "A" Bracket onto the left rear corner Upright. Now install one style "B" Bracket onto each of the remaining uprights. *Ensure that all of the Brackets are positioned at the same level.*

   Tap lightly on the top of each Bracket with a plastic mallet to firmly seat the Bracket hooks into the slots. See **Figure 2**.

3. Connect one **Shelf Support Rail** to each pair of Corner Brackets. The hooks on the Rail must engage the rectangular slots in the Brackets. See **Figure 3**.

4. Secure the Support Rails to the Corner Brackets by installing one #10-24 x 1/2" Phillips flat head self tapping screw into each Corner Bracket. See **Figure 3**.
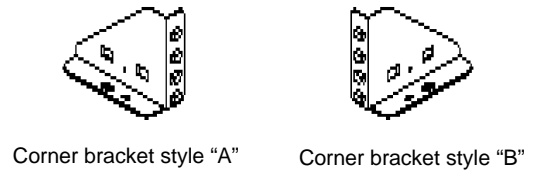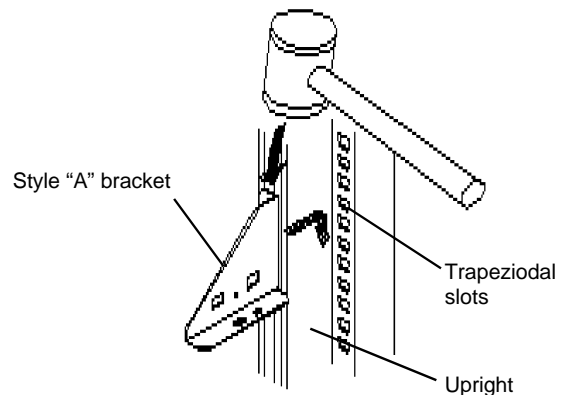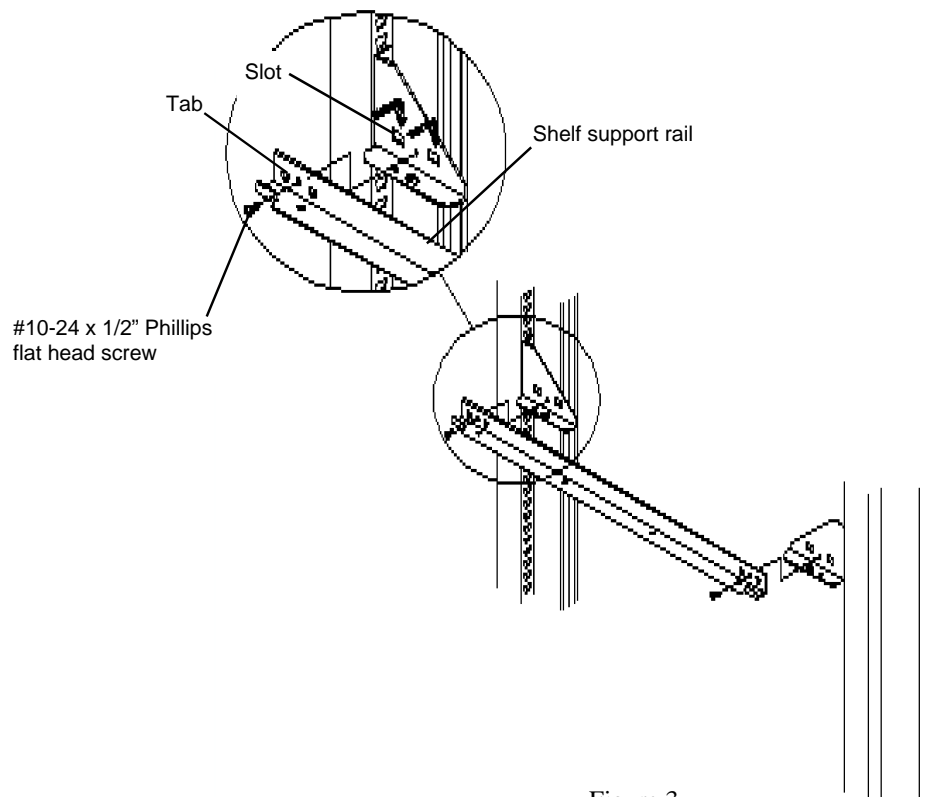
Corner bracket style "A"   Corner bracket style "B"

Figure 1

Style "A" bracket

Trapeziodal slots

Upright

Figure 2

Slot

Tab

Shelf support rail

#10-24 x 1/2" Phillips flat head screw

Figure 3

5. 48", 60", and 72" wide shelves require **Support Clips** (one for the 48" and 60" shelves and two for the 72" shelf) which hook onto the intermediate rear frame Uprights. 24" and 30" wide Adjustable Shelves do not require the Support Clips.

Hook the Rear Support Clip(s) onto the intermediate slotted Uprights so that the bottoms of the Clips are at the same height as the bottom of the Corner Brackets. See **Figure 4**.

SHELF INSTALLATION

NOTE: Installation of the 48", 60", and 72" wide shelves is a two person job. **Do not** attempt the installation without assistance.

The front and rear flanges of the Adjustable Shelves are not the same. The rear flange has pre-punched holes which accept **LA34-MM Cable Straps**. Install the Shelf with the holes toward the rear of the LAN LOCKER framework.

1. Position the rear flanges of the Adjustable Shelf onto the Shelf Support Rails. Lift up the front of the Shelf and slide it towards the back of the LAN LOCKER until it contacts the vertical tabs on the Support Rails. See **Figure 5**.

2. Lift the rear of the Shelf and slide it back until the Rear Shelf flange engages the Support Clips (where applicable) and the vertical tabs on the Support Rails. See **Figure 6**.

3. Secure the Shelf in position by installing four 1/4"-20 x 1/2" Hex head self tapping screws, one into each corner of the Shelf. See **Figure 7**.
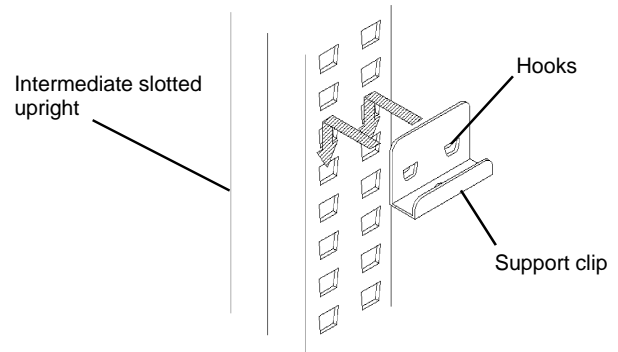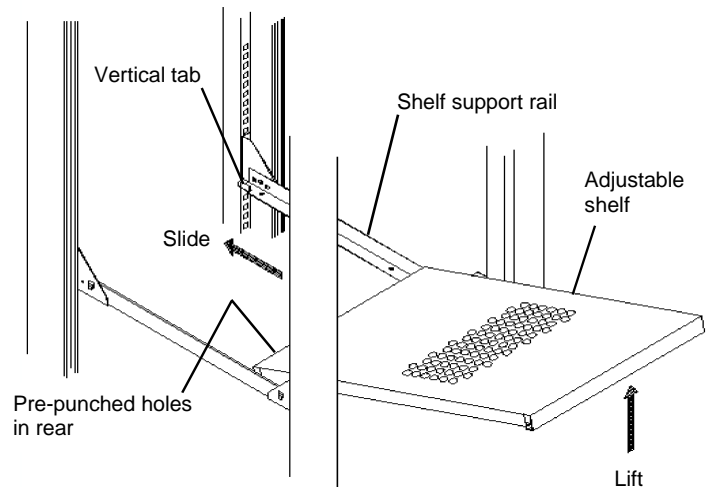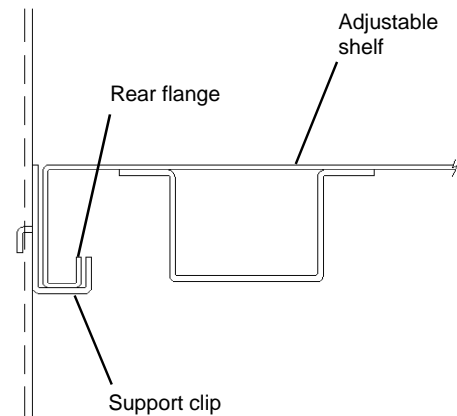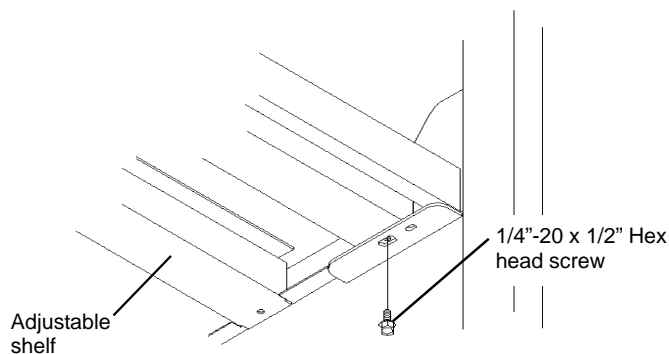
Intermediate slotted upright

Hooks

Support clip

Figure 4

Vertical tab

Shelf support rail

Slide

Adjustable shelf

Pre-punched holes in rear

Lift

Figure 5

Adjustable shelf

Rear flange

Support clip

Figure 6

1/4"-20 x 1/2" Hex head screw

Adjustable shelf

Figure 7

technical furniture

L A N   L o c k e r
A d j u s t a b l e   S h e l v e s
(c o n t .)

Parts List			
Part Number		Description	Qty.
1	3297X	Adjustable Shelf, 24" Wide	1
	3298X	Adjustable Shelf, 30" Wide	
	3299X	Adjustable Shelf, 48" Wide	
	3300X	Adjustable Shelf, 60" Wide	
	3301X	Adjustable Shelf, 72" Wide	
2	3293X	Corner Bracket, Style "A"	2
3	3294X	Corner Bracket, Style "B"	2
4	3295X	Shelf Support Rail	2
5	3296X	Rear Support Clip	0-2
6	82555	#10-24 x 1/2 Phillips Flat Head Screw	4
7	54348	1/4"-20 x 1/2" Hex Washer Head Screw	4
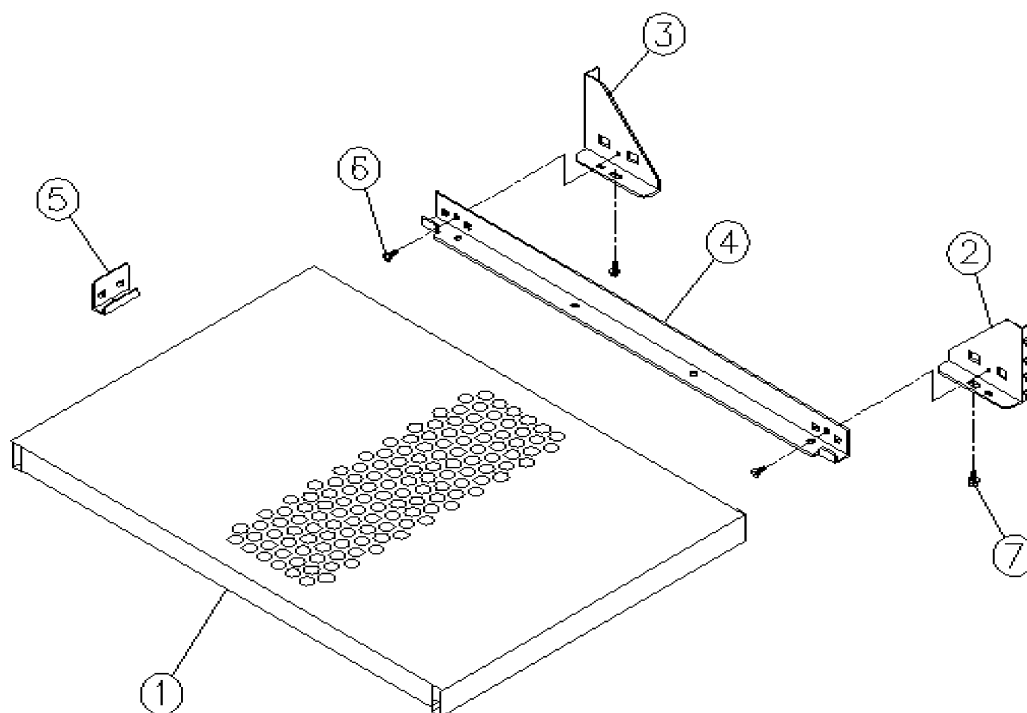
|	# LAN Locker
technical furniture	# Dual Tower Roll-Out

IMPORTANT SAFETY INFORMATION

* The **Dual Tower Roll-out Shelves** are designed to support a maximum *evenly distributed* load of 95 lbs (43 Kg). *DO NOT EXCEED THIS CAPACITY LIMIT UNDER ANY CIRCUMSTANCES!*

* Every effort should be made to locate the heaviest shelf loads near bottom of the LAN Locker II.

* The LAN LOCKER II framework has a maximum load capacity of 2500 lbs (1136 Kg). *DO NOT EXCEED THIS CAPACITY LIMIT UNDER ANY CIRCUMSTANCES!*

* *DO NOT* install more than two shelves per LAN Locker II unit.

* *DO NOT* install a shelf above 36"(914mm) as measured from the floor.

* Load the unit from the bottom level upward.

* The Dual Tower Roll-out Shelf has a safety interlock to prevent both Roll-outs from opening simultaneously. Periodically check your unit to ensure that the interlock is functioning properly. Contact your Wright Line Sales Representative if there is a problem.

Tools Required
  -Phillips head screwdriver
  -Plastic mallet
  -Measuring device
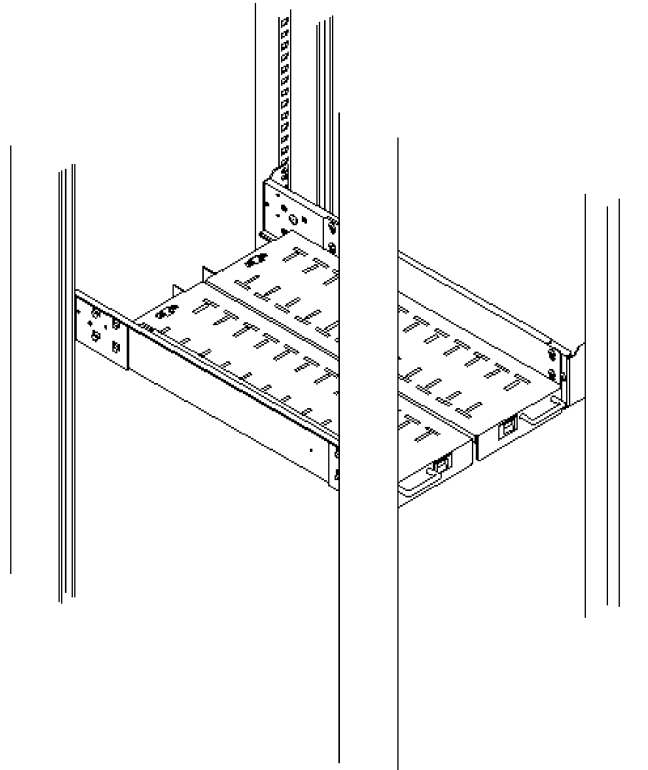
Dual Tower Roll-out Shelf

BRACKET INSTALLATION

1. Determine the location of the Shelf.

2. Each Dual Tower R/O Shelf is supplied with four corner **Brackets**, (2) left hand and (2) right hand. See **Figure 1**.

   Install one right hand Bracket onto the right front corner Upright and one right hand Bracket onto the left rear corner Upright. Now install one left hand Bracket onto each of the remaining uprights. *Ensure that all of the Brackets are positioned at the same level.*

   Tap lightly on the top of each Bracket with a plastic mallet to firmly seat the Bracket hooks into the slots. See **Figure 2**.

   Secure each Bracket with a #10-24 x 3/8" Phillips pan head screw. See **Figure 3**.

3. Connect one **Side Support** to each pair of corner Brackets. The hooks on the Rail must engage the rectangular slots in the Brackets. See **Figure 3**.

4. Secure the Side Supports to the rear corner Brackets by installing one #10-24 x 3/8" Phillips pan head thread forming screw into each corner Bracket. See **Figure 3**.

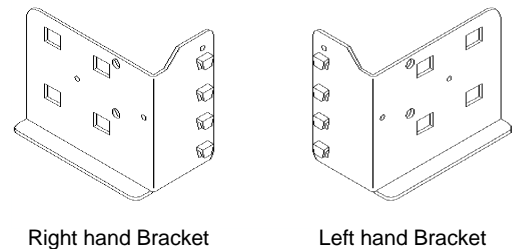   **DO NOT** install the #10-24 x 3/8" screws into the front brackets until after the R/O shelf is installed in step 7.
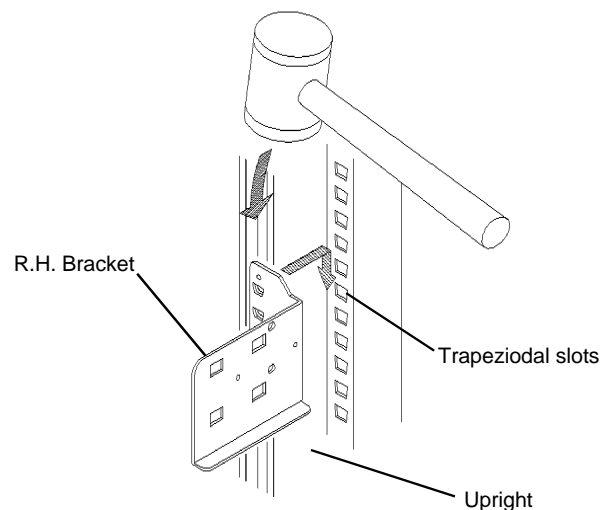
Right hand Bracket   Left hand Bracket

Figure 1

R.H. Bracket

Trapeziodal slots

Upright

Figure 2

Side support

#10-24 x 3/8" Phillips pan head thread forming screw

#10-24 x 3/8" Phillips pan head thread forming screw

Corner bracket

Figure 3

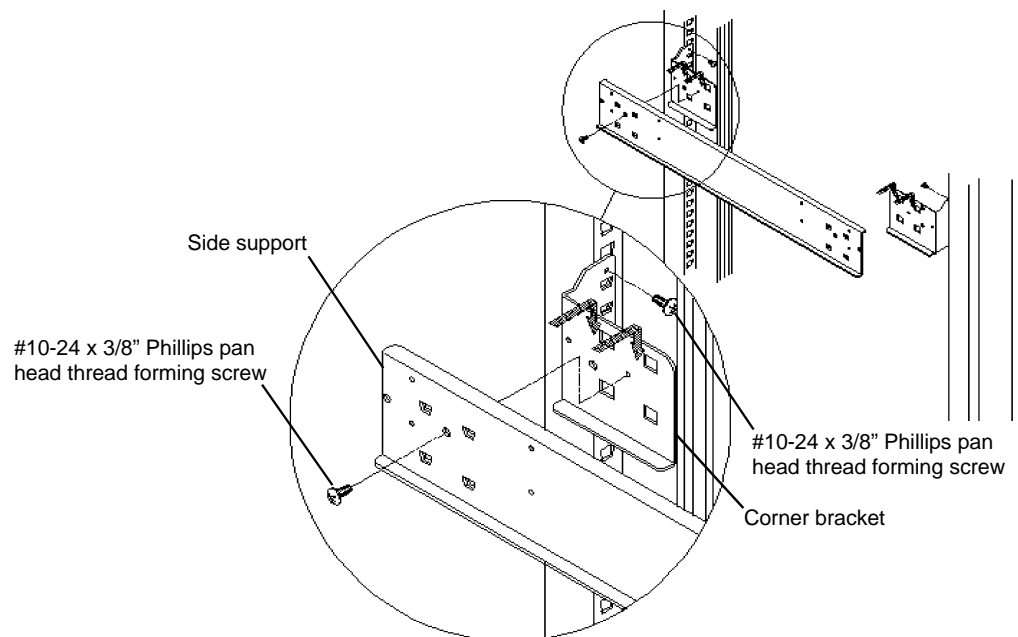| technical furniture | **L A N   L o c k e r** |
| | **D u a l   T o w e r   R o l l -** |
| | **O u t** |

5. With the handles toward the front, position the Shelf on the Side Supports and slide it towards the back of the LAN Locker II unit until the four keyhole shaped holes in the Roll-out Shelf side flanges align with the holes in the Side Supports. See **Figure 4a**.

6. Secure the Roll-out Shelf in position by installing eight #10-32 x 3/8" Phillips pan head thread forming screws, two into each corner of the shelf. Tighten securely. See **Figure 4b**.

7. Secure the Side Supports to the front corner Brackets by installing one #10-24 x 3/8" Phillips pan head thread forming screw into each Bracket. See **Figure 4b**.

8. Prior to loading the Roll-out Shelf, check to ensure that all fasteners are properly installed and aligned and tightened.
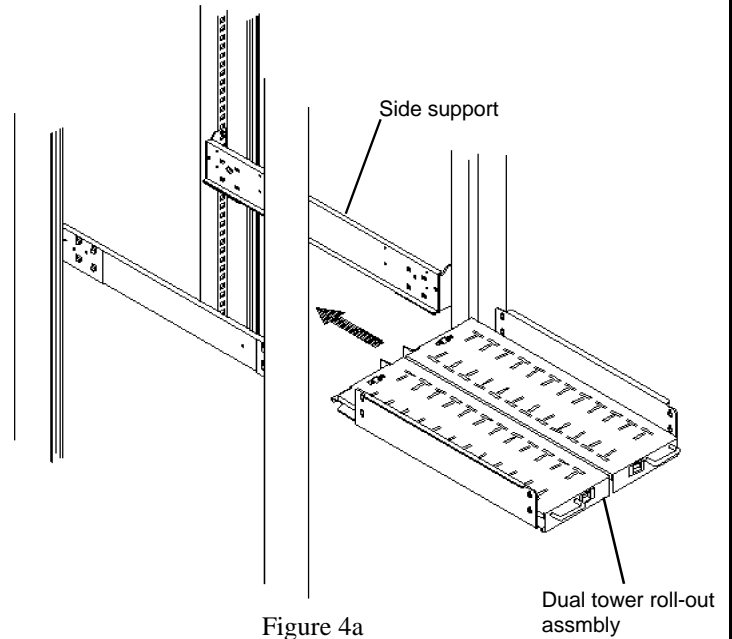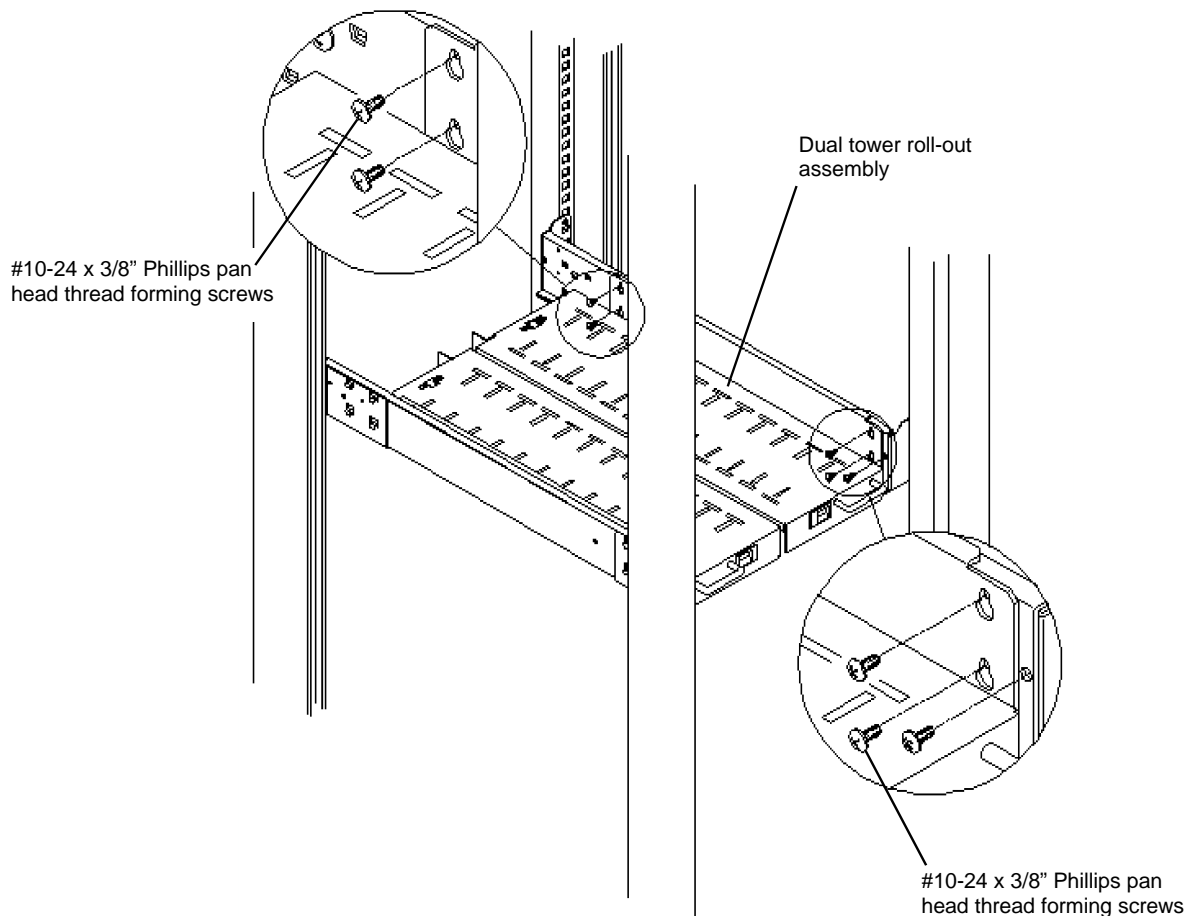
Side support

Dual tower roll-out assmbly

Figure 4a

Dual tower roll-out assembly

#10-24 x 3/8" Phillips pan head thread forming screws

#10-24 x 3/8" Phillips pan head thread forming screws

Figure 4b

technical furniture	**L A N L o c k e r**
	D u a l T o w e r R o l l -
	O u t

9. When the interlock mechanism is working properly, only one shelf can be pulled out at time. If it is not working properly, check to see if the Interlock Bracket is assembled and orientated correctly.

10. Install two **Cable Retractors** using four #10-32 x 1/2" Phillips pan head machine screws for each Retractor . See **Figure 5**.
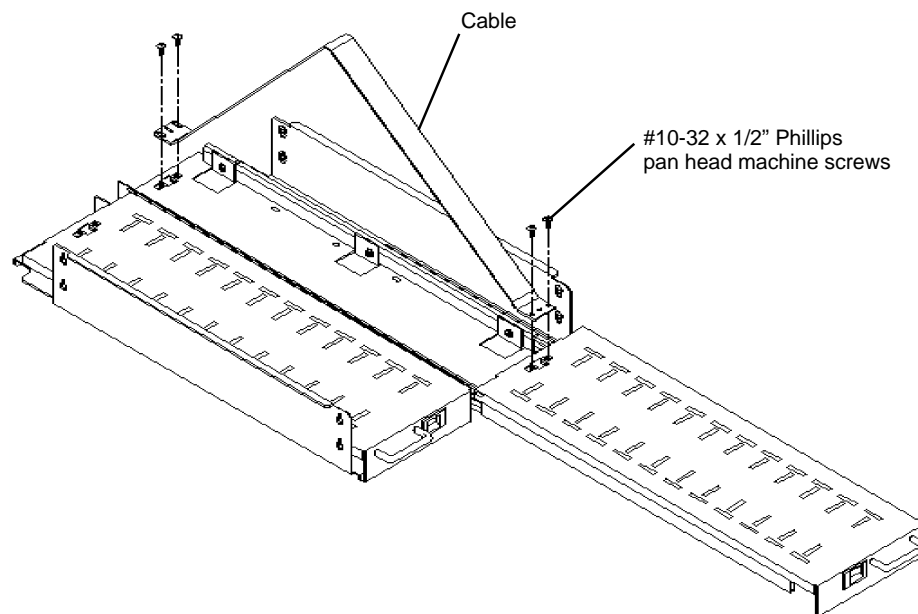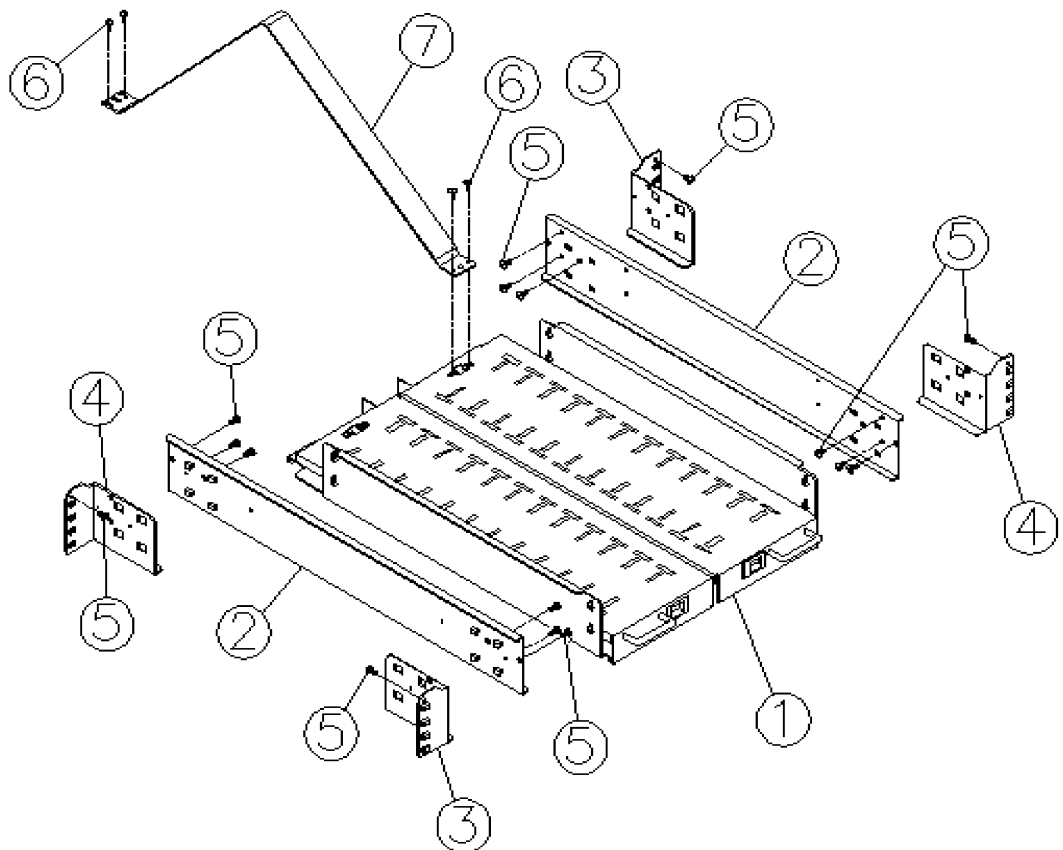
Cable

#10-32 x 1/2" Phillips
pan head machine screws

Figure 5

Parts List

	Part Number	Description	Qty.
1	7355X	19" Dual Tower Roll-Out Assembly	1
	7366X	24"" Dual Tower Roll-Out Assembly	
2	7279X	Side Support	2
3	7280X	L.H. Bracket, 19"	2
	7282X	L.H. Bracket, 23"	
4	7281X	R.H. Bracket, 19"	2
	7283X	R.H. Bracket, 23"	
5	66714	#10-24 x 3/8" Phillips Pan Head Thread Forming Screw	16
6	82031	#10-32 x 1/2" Phillips Pan Head Machine Screw	8
7	82677	Cable Retractor	2

LAN LOCKER RACK MOUNT RAIL KIT

* A **Rack Mount Rail Kit** consists of (4) **Vertical Rails** with front and side equipment mounting holes, (3) sets of **Horizontal Rails**, and **#10-32 Clip Nuts** and **Machine screws**.

* When installing more than one Adjustable Shelf, it is recommended that you start by installing the lowest shelf and work upwards.

* Both the front and rear Rails are adjustable front to back. The maximum distance between front and rear Rails is 28.50”(724mm).

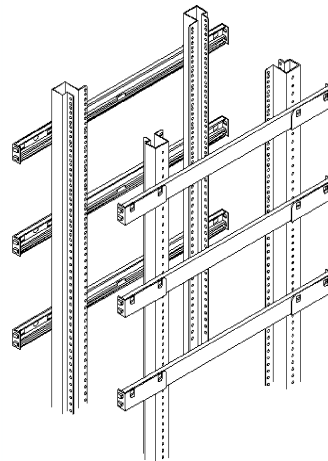### RACK MOUNT PANEL SPACE AND MAXIMUM LOADING

Item No.	Description	Panel Size	Maximum Loading
2CC5-MM	21”(541mm) Rail Kit-24” Rack Mount	21.0”(533mm)12U	1000#(454Kg)
3CC5-MM	35”(897mm) Rail Kit-24” Rack Mount	35.0”(889mm)20U	1000#(454Kg)
6CC5-MM	61”(1549mm) Rail Kit-24” Rack Mount	56.0”(1422mm)32U	1000#(454Kg)
7CC5-MM	72”(1829mm) Rail Kit-24” Rack Mount	66.5”(1689mm)38U	1000#(454Kg)
8CC5-MM	84”(2134mm) Rail Kit-24” Rack Mount	78.8”(2000mm)45U	1000#(454Kg)

IMPORTANT SAFETY INFORMATION

* *DO NOT* exceed a Roll-out Shelf load weight of 150 lbs (68Kg).

* Every effort should be made to locate the heaviest shelf loads near bottom of the LAN Locker.

* The LAN LOCKER framework has a maximum load capacity of 2500 lbs (1136 Kg). *DO NOT EXCEED THIS CAPACITY LIMIT UNDER ANY CIRCUMSTANCES!*

* *DO NOT* install more than two Roll-out Rack Mount shelves per LAN Locker unit.

* *DO NOT* install a shelf above 36”(914mm) as measured from the floor. All other shelves above this point **must be fixed shelves only**.

* Load the unit from the bottom level upward.

Tools Required
   -Phillips head screwdriver

Rack Mount Rail Kit

	L A N L o c k e r
technical furniture	**2 4 " R a c k M o u n t**
	R a i l K i t (c o n t .)

1. Install either two or three **Horizontal Rails**, depending on unit size, on each side of the unit. See **Figure 1**.

   Each Horizontal rail assembly is comprised of left hand and right hand **Brackets** and the Rail itself. The Brackets and the Rails have hooks which enable them to be hooked in place.

2. To locate the bottom Rail, install the left and right Brackets two slots up from the bottom of the unit. See **Figure 1**.

   Locate the top Rail two slots down from the top of the unit. This positioning is necessary to provide easy removal of the Side Frame Inner Panels if required.

   Install the third Rail in the approximate center of the unit.

   Repeat this procedure for the other side.

3. Ensure that the hooks on all Rail mounting Brackets are fully seated in the front and rear Slotted Standards.

   IMPORTANT: To lock the Rails in place, install a #10-24 x 3/8" Phillips head screw into each Bracket/ Rail assembly. See **Figure 2**.

4. Insert two rectangular **1/4"-20 Clamp Nuts** into the Slide Track on each Horizontal Rail by inserting it into the center slot in each Rail. See **Figure 3**.

   Slide one Clamp Nut to the front of the unit, and the second Clamp Nut toward the rear of the unit.
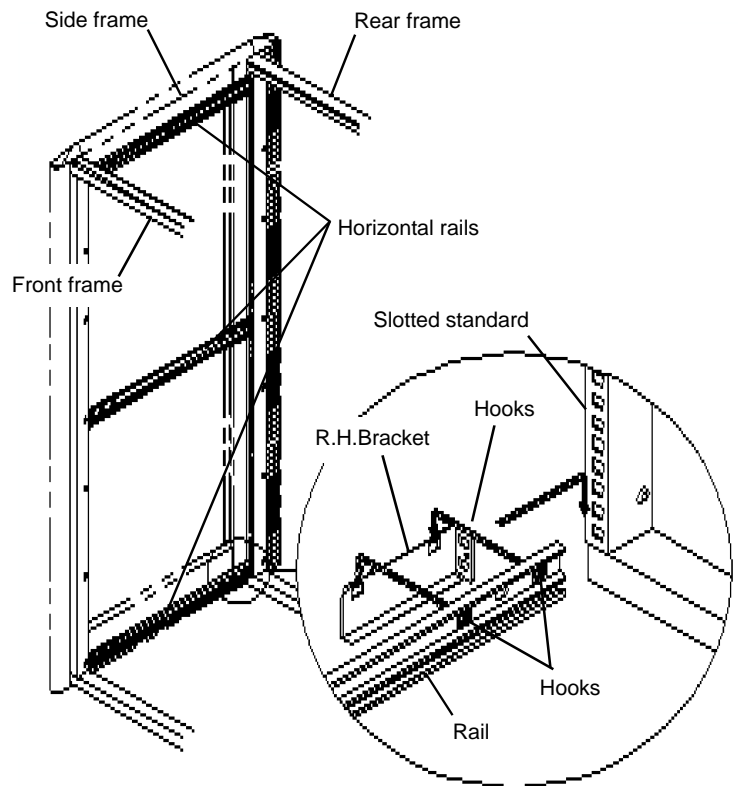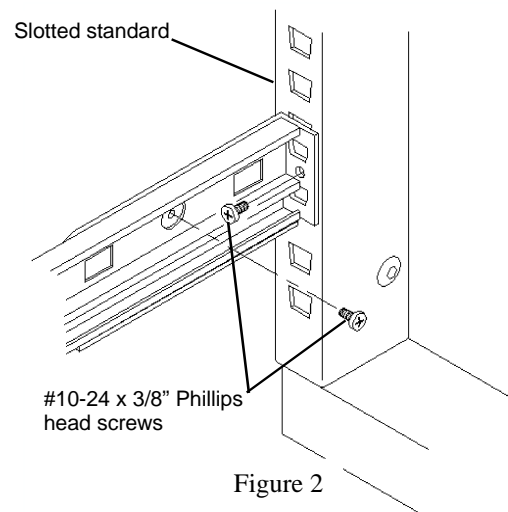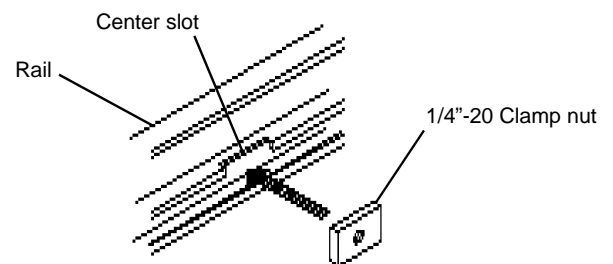
Figure 1

Figure 2

Figure 3

82968   T-52

4. Install the **Front Rails** by positioning them , one at a time, against the Horizontal Rails and all the way forward. See **Figure 4**.

Align the holes in the Rail, which are on 1"(25mm) centers, with the 1/4"-20 Clamp Nuts in the Horizontal Slide. Fasten the Vertical Rail to each Horizontal Rail using the 1/4"-20 x 1/2" Phillips head screws provided. See **Figure 4**.

Install the rear **Vertical Rails** following the same procedure.
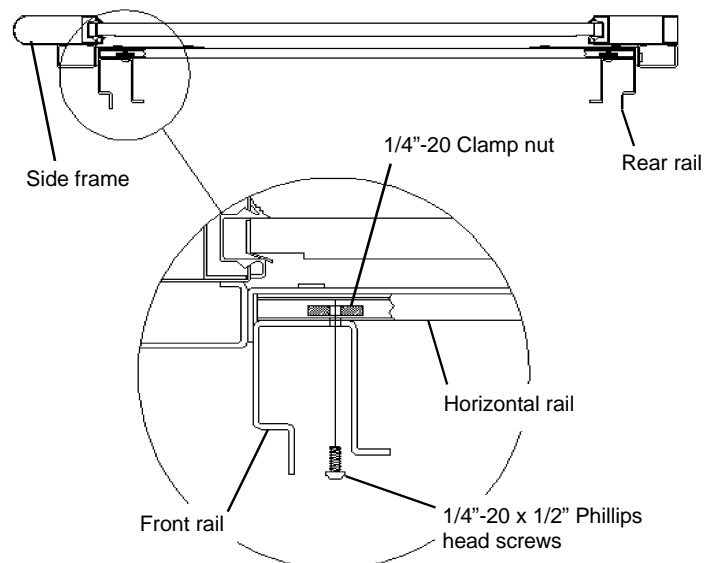

Figure 4

Parts List

	Part Number	Description	Qty.
1	3724X	21.3" Rail, 24" Rack Mount	4
	3725X	35.3" Rail, 24" Rack Mount	
	3642X	56.3" Rail, 24" Rack Mount	
	3643X	66.8" Rail, 24" Rack Mount	
	3644X	79.05" Rail, 24" Rack Mount	
2	3304X	Horizontal Slide	4-6
3	3302X	Rail Bracket, L.H.	4-6
4	3303X	Rail Bracket, R.H.	4-6
5	83105	1/4"-20 x 1/2" Phillips Pan Head Machine Screw	8-12
6	82088	1/4" Clamp Nut	8-12
7	66714	#10-24 x 3/8" Phillips Pan Head Thread Forming Screw	16-24

technical furniture	# L A N L o c k e r
	# R a c k M o u n t
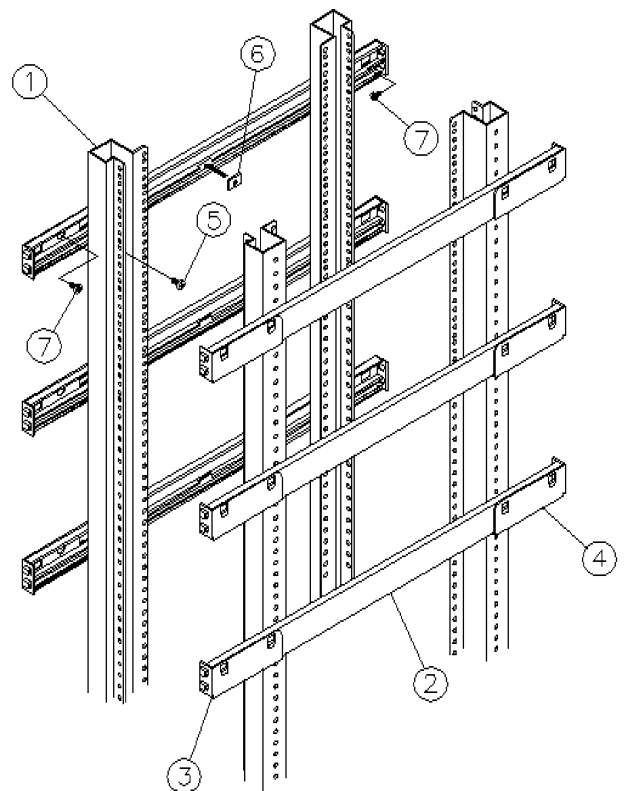
Tools Required
  -11/32" Combination wrench
  -3/8" Combination wrench
  -Flat blade screwdriver
  -Phillips head screwdriver
  -Tape measure

NOTE: These instructions cover installation of the **Stationary Shelf**, and **Roll-out Shelf**.
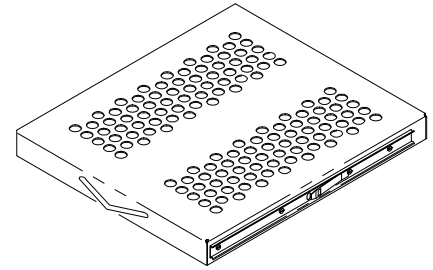
Rack Mount Roll-Out Shelf

CLIP NUT INSTALLATION

Clip Nuts (included with Rack Mount Rail upgrade kit) provide mounting points on 19" and 24" rack mount equipment rails.

Clip Nuts have a front or screw side. Consider which way it should face for ease of access to the screw head during component installation. See **Figure 1**.

To remove a Clip Nut from a rail, insert a flat blade screwdriver or knife under the tab on the front and pry up, freeing the retaining ring from the rail. See **Figure 1**.

1. Select the location at which the shelf or roll-out will be installed in the Rack Mount Module.

  NOTE: If the component is a roll-out and the weight load exceeds 75lbs. or more, use four screws in each of the brackets. See **Figure 4**. It will be necessary to select a four hole grouping that matches the bracket.The center two holes will be .50" apart. If less than 75 lbs., two screws are sufficient.

2. Snap one Clip Nut into the top hole at the selected position. For light loads, place the second Clip Nut four holes (1.75") below. Start #10-32 x 1/2" screws.

  Use a mounting bracket as a guide to match holes and attach corresponding Clip nuts. **Do not** start the screws.

3. Measure from the bottom of the Vertical Rail to the top Clip Nut. Assemble Clip Nuts onto the three other rails at the measured height.
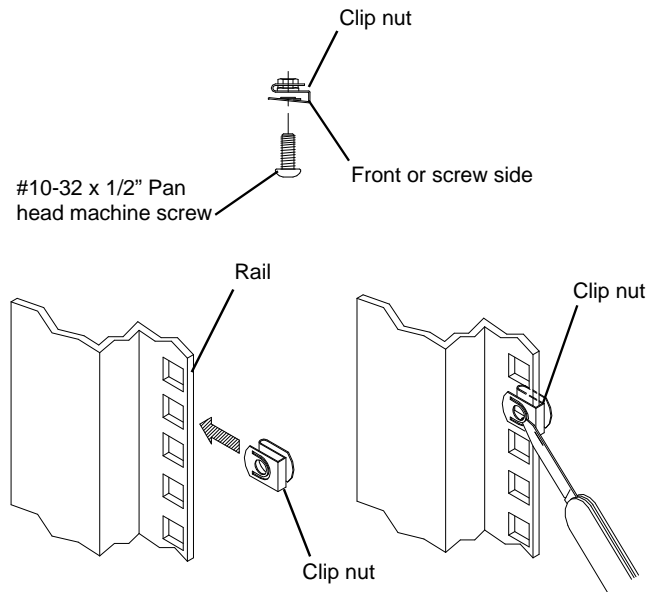
Clip nut

Front or screw side

#10-32 x 1/2" Pan head machine screw

Rail

Clip nut

Clip nut

Clip nut

Figure 1

technical furniture

L A N   L o c k e r
R a c k   M o u n t   S h e l v e s
(c o n t .)

ROLL-OUT SHELF INSTALLATION

NOTE: The **Roll-Out** is equipped with "**Lock Out Slides**" and a "**Front Disconnect**" chassis member for your convenience during assembly to the Rack Module.

1. Assemble the Slide sections onto the Rack Module rails. Slip the **Mounting Brackets** behind the screw head of the Clip Nut. See **Figure 4**.

2. Snug the Clip Nut screws enough to retain the Slide, but still allow it to move in and out. **Do not tighten**.

3. Tighten the **Rear Mounting Bracket** to the Slide screws now (not the Clip Nut screws).

4. Close the two sections of the assembled Slide.

   Slide the shelf with the disconnect members into the mounted section. See **Figure 5**.

   Push the shelf in until there is a click

   Now extend it to its full length.

   Push it in again until it is fully closed (the ends of the three slide sections are even). The last two inches may bind; just push. It should now slide in and out freely.

5. Now tighten the Clip Nut screws or leave them snug.

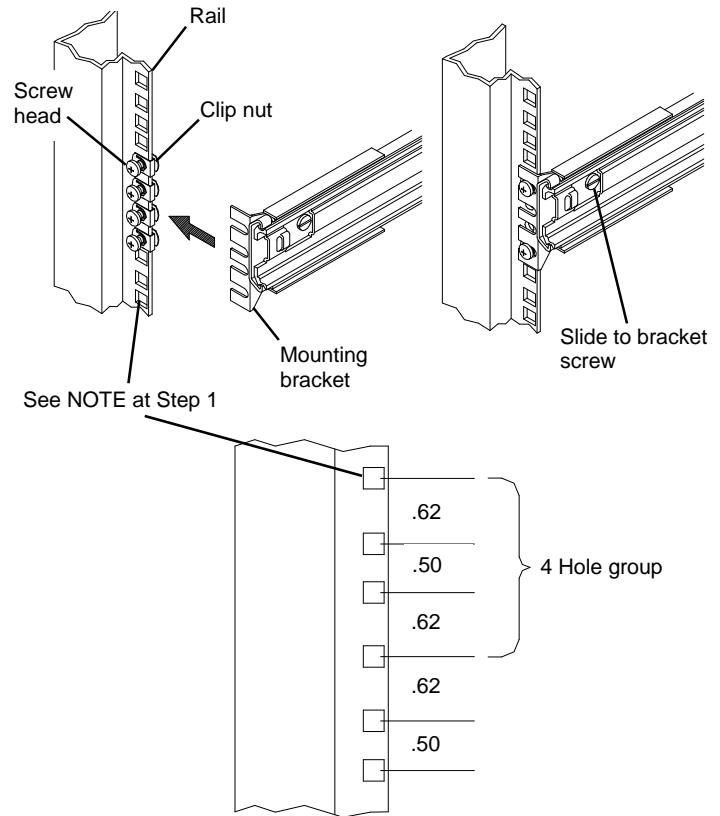6. To remove the shelf and chassis rail, refer to **Figure 6**.
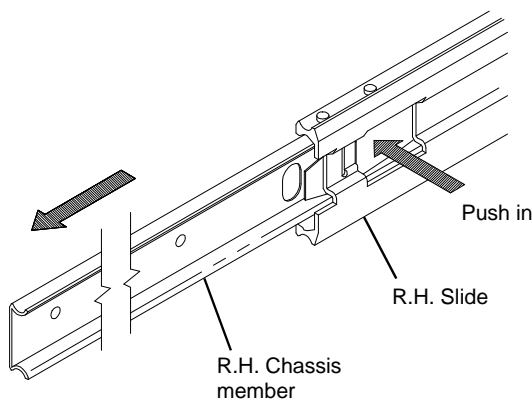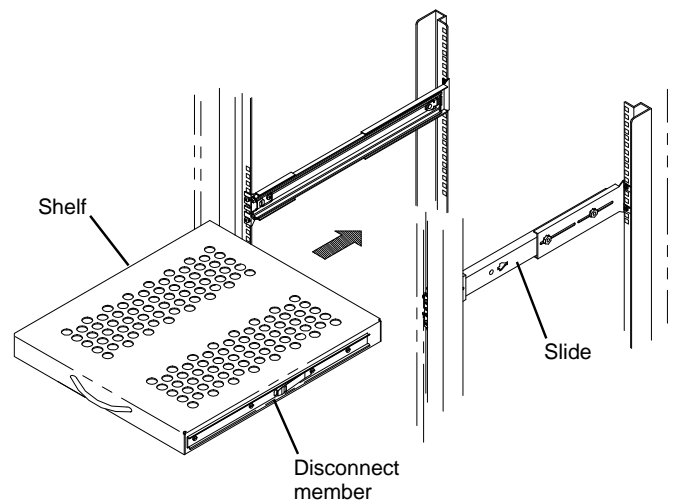

Figure 4

Figure 6

Figure 5

	L A N L o c k e r
technical furniture	**R a c k M o u n t S h e l v e s**
	(c o n t .)

STATIONARY SHELF INSTALLATION

1. The Front and rear **Shelf Brackets** are assembled in reverse for shipping purposes. Remove and re-assemble them as shown in **Figure 1**.

2. Position the **Stationary Shelf** with the four brackets on the correct side of the clip nuts See **Figure 2**.

3. Attach the front brackets to the rails and tighten.

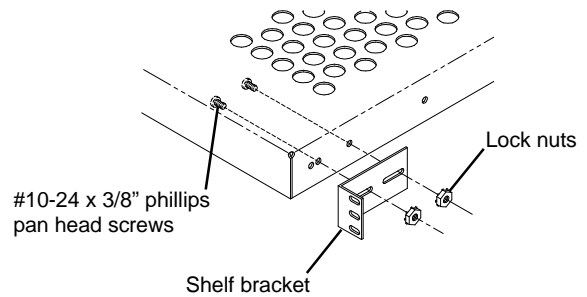4. Repeat for the rear brackets and tighten all screws.

Lock nuts

#10-24 x 3/8" phillips pan head screws

Shelf bracket

Figure 1

Rail

Clip nuts

Shelf

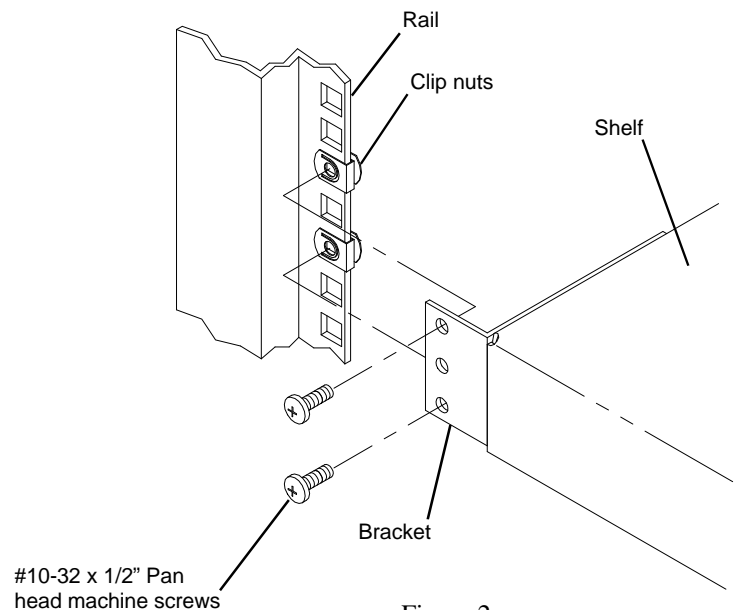#10-32 x 1/2" Pan head machine screws

Bracket

Figure 2

STATIONARY SHELF WITH KEYBOARD MOUNT (AVAILABLE ON 24" RACK MOUNT SHELF ONLY)

1. Assemble the **Keyboard Track** to the underside of the Shelf before installing the Shelf component to Rack Mount Rails. The Keyboard Track Mount is flush to the Shelf front. See **Figure 3**.

   The rear of the Shelf is indented to allow the Keyboard Platform Support mechanism to slide on the Track. It is necessary to use a bumper at that end as a stop.

   Refer to Keyboard assembly instructions to complete installation.

   NOTE: Only the LA08 can be installed on the 19" Rack Mount Shelf (LB22).

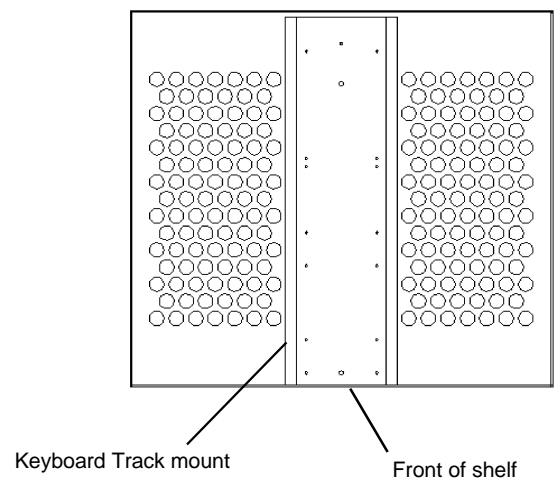2. Install the shelf as described in Steps 1 through 3 above.

Keyboard Track mount

Front of shelf

Figure 3
Underside of Shelf

Parts List

	Part Number	Description	Qty.
1	6984X	Shelf, L/L Standard Depth	1
	3542X	Shelf, L/L X-Deep	
2	82155	Slide, Quick Disconnect-18"	2
	82459	Slide, Quick Disconnect	
3	82156	Mounting Bracket, Rear	2
4	87614	Mounting Bracket, Front	2
5	18244	#8-32 Keps Hex Lockwasher Nut	16
6	82157	#8-32 x 3/8" Slotted Pan Head Machine Screw	16
7	81911	Handle	1

Parts List

	Part Number	Description	Qty.
8	81868	4mm x 6mm Phillips Fillister Dead Screw	2
9	18977	Lock Washer	2
10	82087	#10-32 Clip Nut	16
11	82031	#10-32 x 1/2" Pan Head Machine Screw	16
12	7061X	Rack Mount Shelf Bracket	4
13	18242	#10-24 Keps Hex Lockwasher Nut	8
14	66714	#10-24 x 3/8" Phillips Pan Head Thread Forming Screw	8
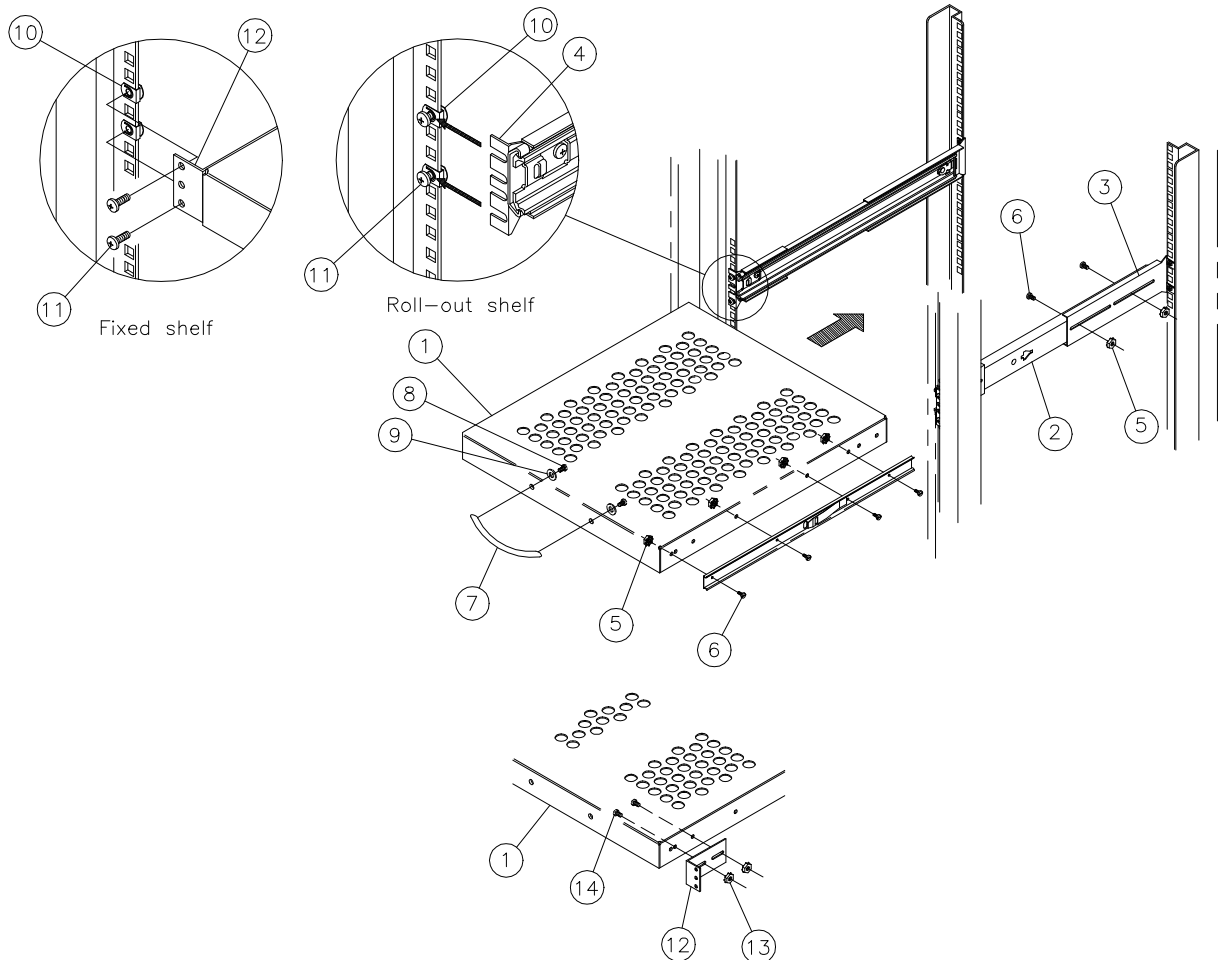
Fixed shelf

Roll—out shelf

LAN LOCKER RACK MOUNT RAIL KIT

* A **Rack Mount Rail Kit** consists of (4) **Vertical Rails** with front and side equipment mounting holes, (3) sets of **Horizontal Rails**, and **#10-32 Clip Nuts** and **Machine screws**, and **M6 Clip Nuts** and **Machine Screws** for **Compaq** installations.

* When installing more than one Adjustable Shelf, it is recommended that you start by installing the lowest shelf and work upwards.

* Both the front and rear Rails are adjustable front to back. The maximum distance between front and rear Rails is 29.44” (747mm).

RACK MOUNT PANEL SPACE AND MAXIMUM LOADING

Item No.	Description	Panel Size	Maximum Loading
2CB5-MM	21”(541mm) Rail Kit-19” Rack Mount	21.0”(533mm)12U	1000#(454Kg)
3CB5-MM	35”(897mm) Rail Kit-19” Rack Mount	35.0”(889mm)20U	1000#(454Kg)
6CB5-MM	61”(1549mm) Rail Kit-19” Rack Mount	56.0”(1422mm)32U	1000#(454Kg.)
7CB5-MM	72”(1829mm) Rail Kit-19” Rack Mount	66.5”(1689mm)38U	1000#(454Kg.)
8CB5-MM	84”(2134mm) Rail Kit-19” Rack Mount	78.8”(2000mm)45U	1000#(454Kg.)

IMPORTANT SAFETY INFORMATION

* *DO NOT* exceed a Roll-out Shelf load weight of 150 lbs (68Kg).

* Every effort should be made to locate the heaviest shelf loads near bottom of the LAN LOCKER.

* The LAN LOCKER framework has a maximum load capacity of 2500 lbs (1136 Kg). *DO NOT EXCEED THIS CAPACITY LIMIT UNDER ANY CIRCUMSTANCES!*

* *DO NOT* install more than two Roll-out Rack Mount shelves per LAN LOCKER unit.

* *DO NOT* install a shelf above 36”(914mm) as measured from the floor. All other shelves above this point **must be fixed shelves only**.

* Load the unit from the bottom level upward.

Tools Required
    -Phillips head screwdriver

Rack Mount Rail UpgradeKit

1. Install either two or three **Horizontal Rails**, depending on unit size, on each side of the unit. See **Figure 1**.

   Each Horizontal rail assembly is comprised of left hand and right hand **Brackets** and the Rail itself. The Brackets and the Rails have hooks which enable them to be hooked in place.

2. To locate the bottom Rail, install the left and right Brackets two slots up from the bottom of the unit. See **Figure 1**.

   Locate the top Rail two slots down from the top of the unit. This positioning is necessary to provide easy removal of the Side Frame Inner Panels if required.

   Install the third Rail in the approximate center of the unit.

   Repeat this procedure for the other side.

3. Ensure that the hooks on all Rail mounting Brackets are fully seated in the front and rear Slotted Standards.

   IMPORTANT: To lock the Rails in place, install a #10-24 x 3/8" Phillips head screw into each Bracket/ Rail assembly. See **Figure 2**.

4. Insert two rectangular **1/4”-20 Clamp Nuts** into the Slide Track on each Horizontal Rail by inserting it into the center slot in each Rail. See **Figure 3**.

   Slide one Clamp Nut to the front of the unit, and the second Clamp Nut toward the rear of the unit.
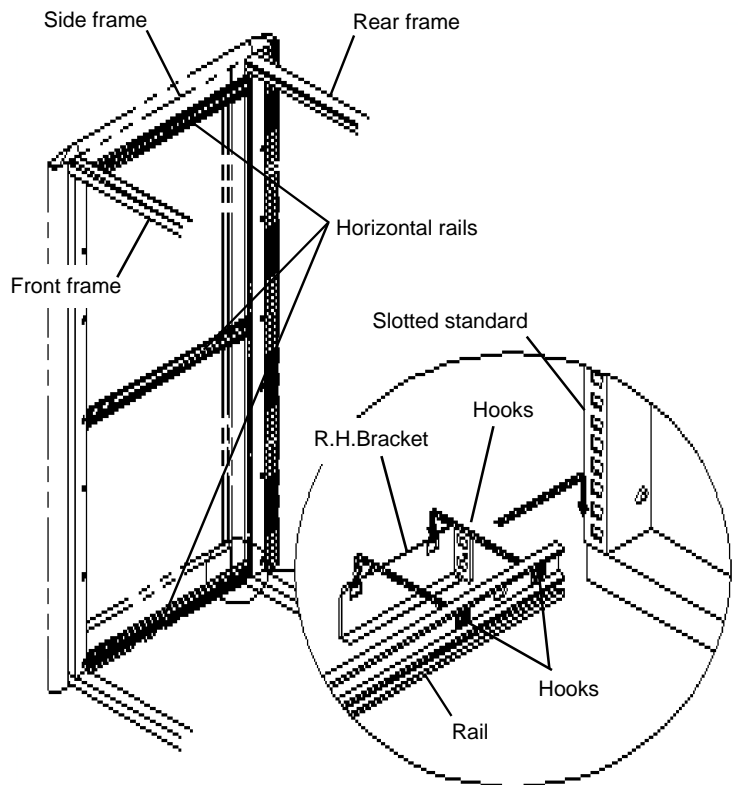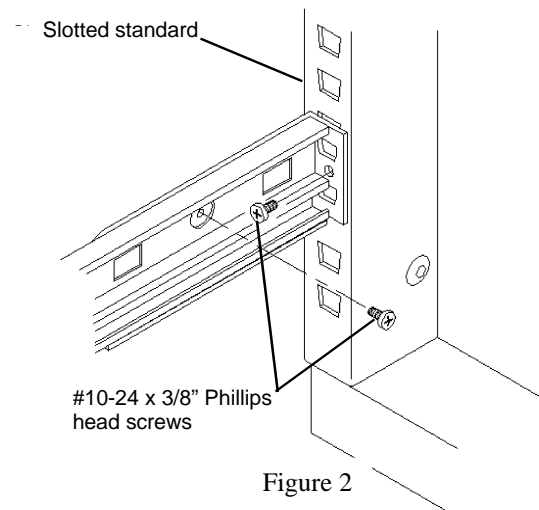
Side frame   Rear frame
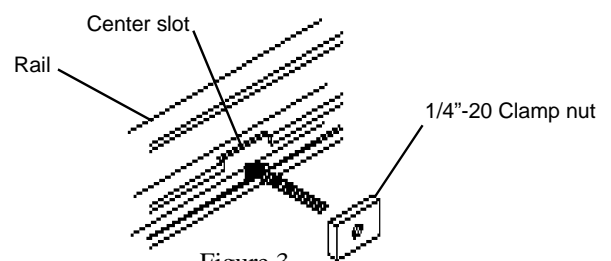Horizontal rails
Front frame
Slotted standard
Hooks
R.H.Bracket
Hooks
Rail

Figure 1

Slotted standard
#10-24 x 3/8” Phillips head screws

Figure 2

Center slot
Rail
1/4”-20 Clamp nut

Figure 3

5. Install the **Front Rails** by positioning them , one at a time, against the Horizontal Rails and all the way forward. See **Figure 4**.

   Align the holes in the Rail, which are on 1"(25mm) centers, with the 1/4"-20 Clamp Nuts in the Horizontal Slide. Fasten the Vertical Rail to each Horizontal Rail using the 1/4"-20 x 1/2" Phillips head screws provided. See **Figure 4**.

   Install the rear **Vertical Rails** following the same procedure.

   The recommended front-to-back vertical rail position is 29.19". This accomodates optional rack mount shelving and optional Compaq mounting brackets.

Side frame

Rear rail

1/4"-20 Clamp nut

Horizontal rail

1/4"-20 x 1/2" Phillips head screws

Front rail
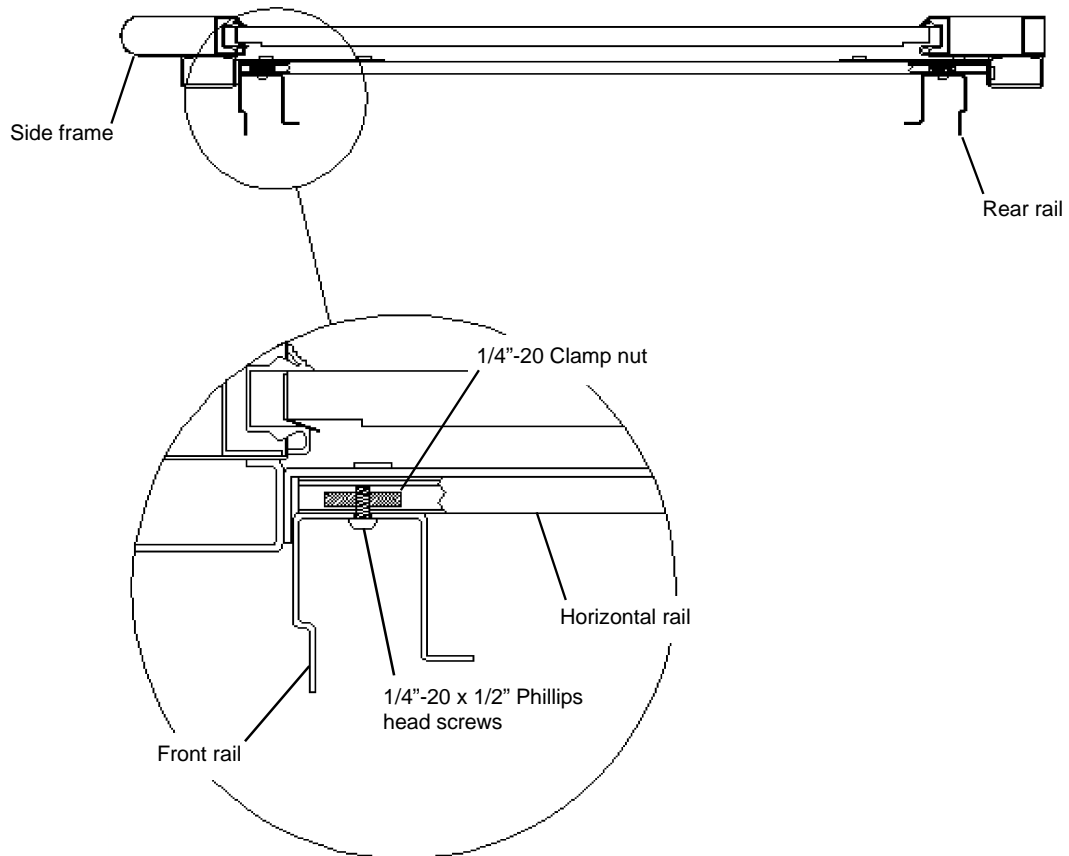
Figure 4

WHEN INSTALLING NON-COMPAQ EQUIPMENT

1. **"G" Nuts** have a front or screw side. Consider which way it should face for ease of access to the screw head during component installation. See **Figure 5**.

2. Snap a "G" Nut into a hole at the desired location on the Rail.

2. To remove a "G" Nut from a rail, insert a flat blade screwdriver or a knife under the tab on the front and pry up, freeing the retaining ring from the rail. See **Figure 5**.
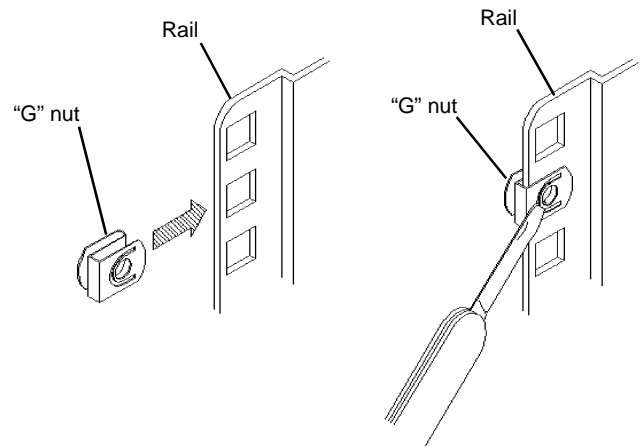
Figure 5

WHEN INSTALLING COMPAQ EQUIPMENT

1. Position the **M6 Square Nut** from behind the Rail (inside of cabinet) with the bottom hook engaged over the bottom edge of the square hole. See **Figure 6**.

2. Insert the **Installation Tool** into the square hole and capture the top hook of the Nut. See **Figure 7**.

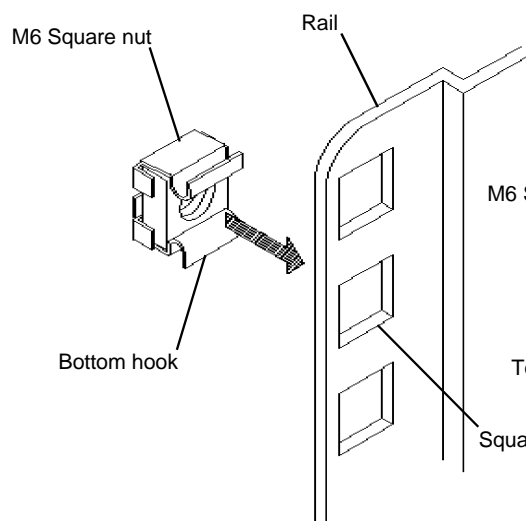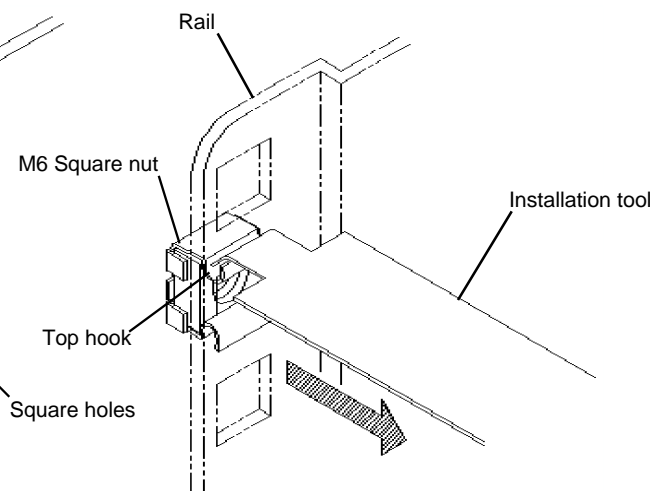3. Pull outward and upward snapping the nut into place. See **Figure 7**.

Figure 6

Figure 7

Parts List

|	Part Number	Description	Qty.
	6986X	21.3" Rail, 19" Rack Mount	
	6987X	35.3" Rail, 19" Rack Mount	
1	6988X	56.3" Rail, 19" Rack Mount	4
	6989X	66.8" Rail, 19" Rack Mount	
	6990X	79.05" Rail, 19" Rack Mount	
2	3304X	Horizontal Slide	4-6
3	3302X	Rail Bracket, L.H.	4-6
4	3303X	Rail Bracket, R.H.	4-6
5	83105	1/4"-20 x 1/2" Phillips Pan Head Machine Screw	8-12
6	82088	1/4" Clamp Nut	8-12
7	66714	#10-24 x 3/8" Phillips Pan Head Thread Forming Screw	16-24
8	85233	M6 Clip Nut *	
9	85315	Installation Tool	1

* Included with LLCCMR02 and LLCCMR25
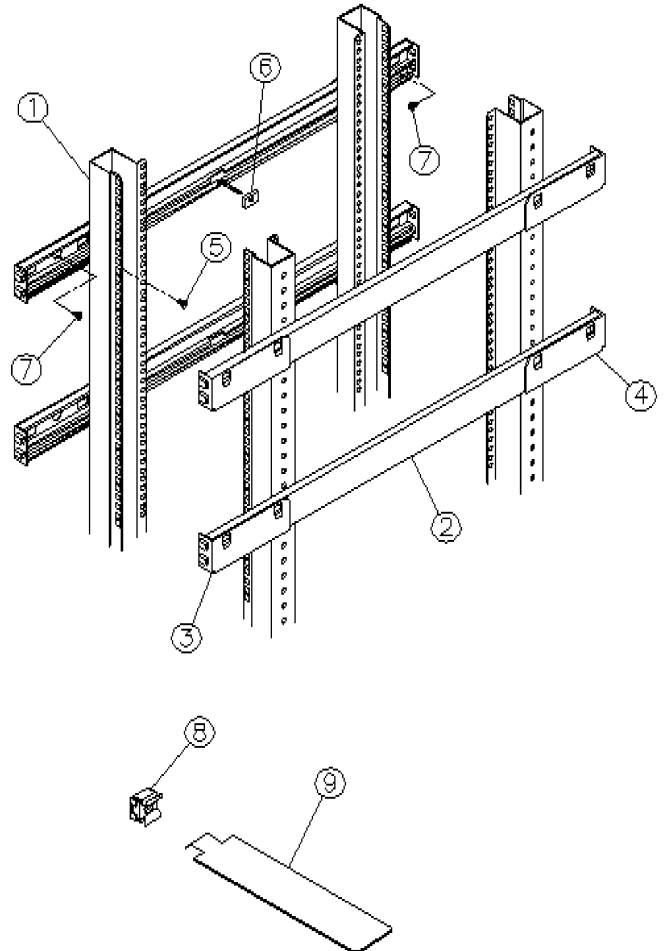
*Please read these instructions carefully and follow
the installation steps in sequence.*

Tools Required
   -Phillips head screwdriver
   -Torx screwdriver

PREPARING THE MOUNTING BRACKET AND SLIDE RAIL ASSEMBLIES

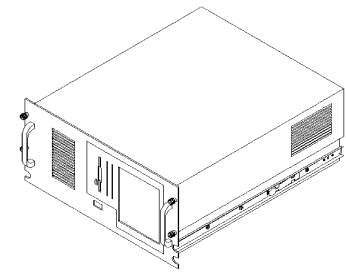**NOTE**: The **Compaq Mounting Brackets** (ordered
       separately) are used to attach the chassis **Slide
       Rail Assemblies** to the rack. Slide Rail assem-
       blies are included with the **Compaq Server** along
       with the hardware to install them. See **Figure 1**.

IMPORTANT: To make the installation of the Compaq
mounting brackets easier, attach the outer rails to the moun-
ting brackets before attaching the mounting brackets to the
rack.

1. Place the two-piece slide rail assemblies (outer
   rails and component rails) and fasteners on a flat
   surface along with the Compaq mounting brackets.
   See **Figure 1**.

2. Remove the component rail from the slide rail
   assembly by holding down the release latch and
   slipping the component rail out. See **Figure 2**.

   Each slide rail assembly consists of a fixed outer rail
   that will be screwed to the mounting brackets, an in-
   ner slide, and the component rail. The inner slide does
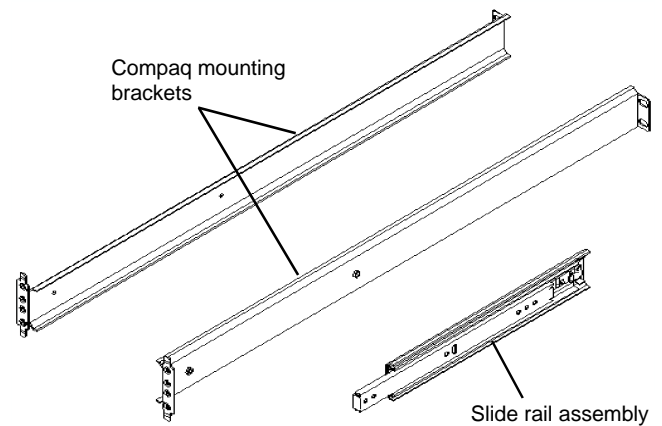   not detach. See **Figure 3**.

Compaq Server
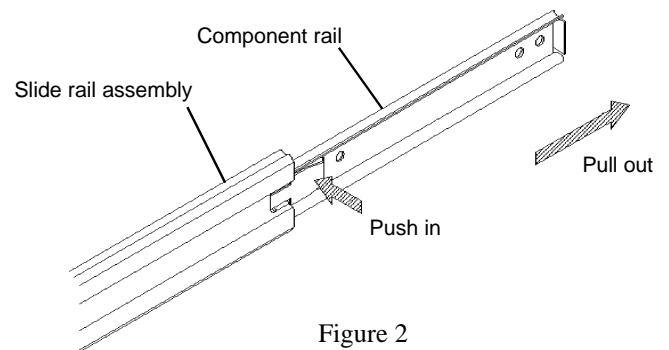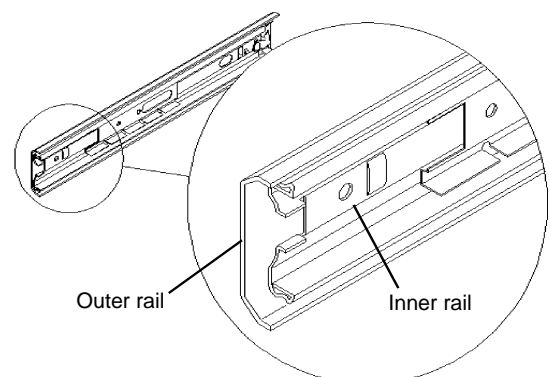
Compaq mounting
brackets

Slide rail assembly

Figure 1

Component rail

Slide rail assembly

Pull out

Push in

Figure 2

Outer rail

Inner rail

Figure 3

| | **L a n   L o c k e r** |
technical furniture	**C o m p a q S e r v e r**
	M o u n t i n g B r a c k e t s
	(c o n t .)

3. Place the outer rail inside the mounting bracket with the front of each piece oriented in the same direction. **NOTE**: The front of the mounting bracket has alignment tabs on its flange and and the front of the outer rail allows the inner slide to move forward. See **Figure 4a**.

4 Extend the inner slide from the front of the outer rail. With this piece extended, you should see one screw hole aligned in the mounting bracket and the and the outer rail. See **Figure 4a**.

   Fasten the outer rail to the mounting bracket with one #8-32 x 3/8" phillips head screw.

5. Adjust the inner slide to access the other screw hole through the slotted opening in the inner slide. Use one more #8-32 x 3/8" phillips head screw to fasten the outer rail to the mounting bracket. See **Figure 4b**.

6. Repeat steps 1 through 5 for the other set of slide rail assemblies and mountin brackets.

Mounting bracket

Tab

Outer rail

Figure 4a

Slide rail assembly

Inner slide

Figure 4b

#8-32 x 3/8" Phillips head screws
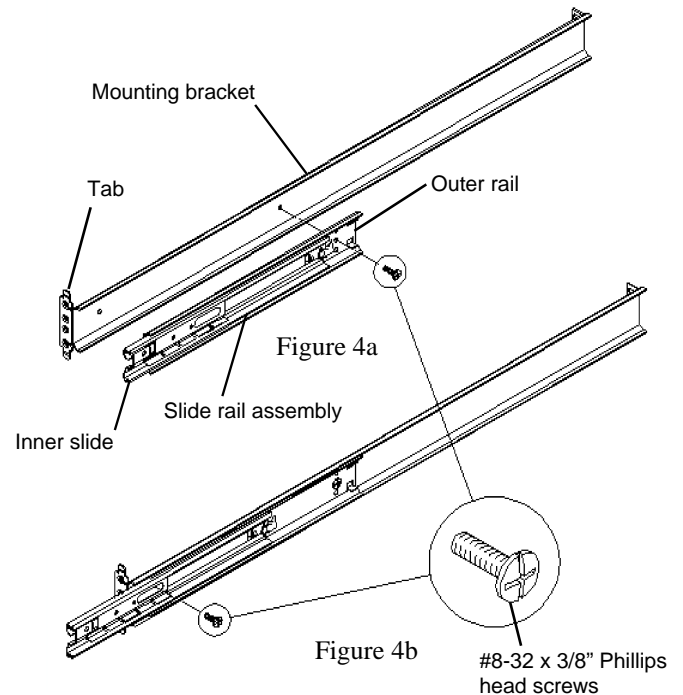
INSTALLING THE MOUNTING BRACKET SLIDE

1. Using the **template** provided with the Compaq server, measure carefully on the outside of the front and rear of the rack frame and pencil mark the attachment points for the server mounting brackets. Use the tabs on the template to suspend the template from the holes in the mounting rails. See **Figure 5**.

   IMPORTANT: The template is two-sided (front and back) and is printed with arrows that show where the screws will be inserted, both for the mounting brackets and for the thumb screws that will secure the server's face plate to the front of the rack.

2. At the same time you mark the position of the mounting bracket screws, mark the position in the front of the rack for the M6 square nuts that will hold the thumb screws.
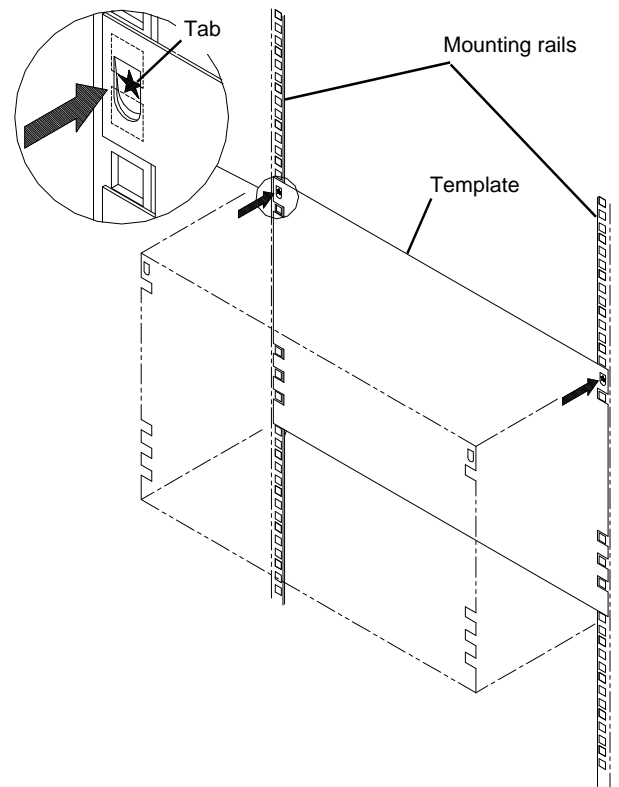
Tab

Mounting rails

Template

Figure 5

INSTALLING M6 SQUARE NUTS

After marking the positions for the fasteners in both the front and back of the rack, install **M6 square nuts** at the appropriate locations.

1. Position the M6 square nut from behind the Rail (inside of cabinet) with the bottom hook engaged over the bottom edge of the square hole. See **Figure 6**.

2. Insert the **installation tool** into the square hole and capture the top hook of the nut. See **Figure 7**.

3. Pull outward and upward snapping the nut into place. See **Figure 7**.
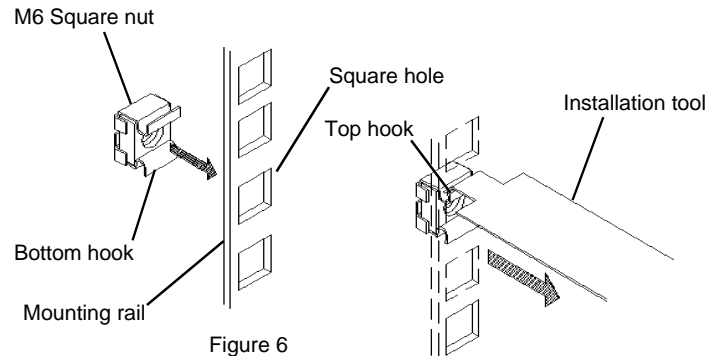
INSTALLING THE MOUNTING BRACKETS

1. Install a mounting bracket assembly to the front of the rack first, using two M6 x 1.00" phillips head screws. The tabs on the front of the mounting bracket help to align it with the front of the rack frame. (M6 square nuts are not used for the front attachment of the mounting bracket.) See **Figure 8**.

NOTE: Compaq Proliant 2500R servers only use one M6 x 1.00" screw on the front rail. If two screws are used, the server will not seat completely.

2. Carefully align the mounting bracket assembly with the rear of the rack frame.

3. Secure the rear flange of the mounting bracket assembly to the rear mounting rail of the rack frame with two M6 x 1.00" phillips head screws through the M6 square nuts. See **Figure 9**.

M6 Square nut

Square hole

Installation tool

Top hook

Bottom hook

Mounting rail

Figure 6

Figure 7

Front mounting rail

Mounting bracket assembly

M6 x 1.00" Phillips head screws

Figure 8

Rear mounting rail

Mounting bracket assembly

Mounting bracket assembly

M6 x 1.00" Phillips head screws

M6 Square nuts

Figure 9
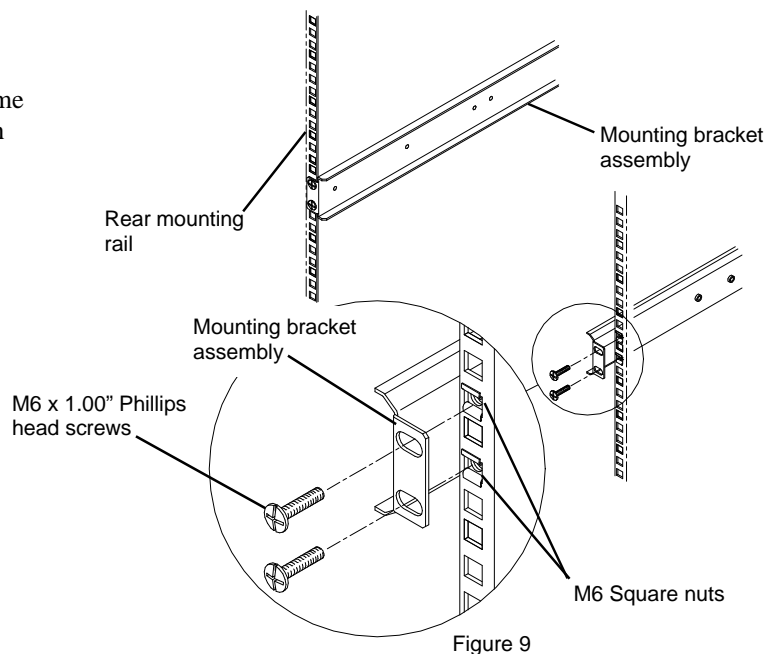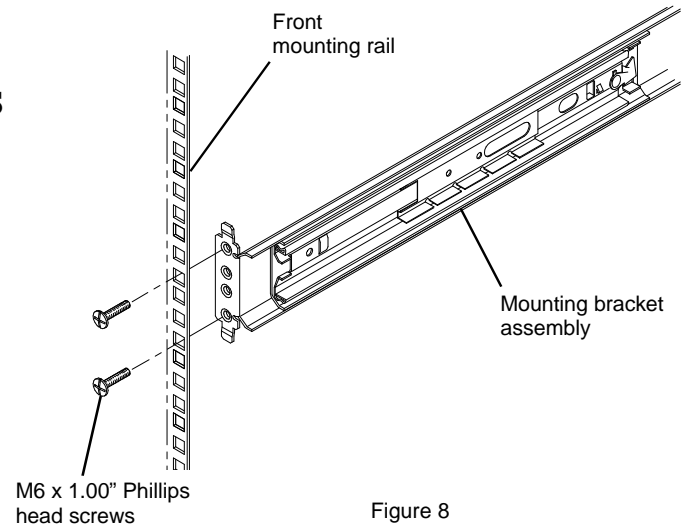
INSTALLING THE COMPONENT RAIL TO THE COMPAQ SERVER

1. Install a **Component Rail** to each side of the Compaq server with four #8-32 x 3/8" phillips head screws. Be sure that the tabs on the component rails are at the

INSTALLING THE CABLE MANAGEMENT ARM BRACKET

The **Cable Management Arm Bracket** (included with the server) fastens to the top rear of the Compaq server and provides a attachment point for the **Cable Management Arm** from the server to the rear mounting rail.

Attach the cable management arm bracket to the back of the server with four #6-32 x 1/4" slotted torx taptite screws. See **Figure 11**.

INSTALLING THE COMPAQ SERVER

1. Carefully align the Compaq server's component rails with the slide rail assemblies already mounted in the rack.

2. Depress the component rail release latch on both sides of the server and slide the server all the way into the rack. See **Figure 12**.

   WARNING: To avoid personal injury, care should be taken when pressing the component rail release latches and sliding the component into the rack. The side rails can pinch your fingertips.

NOTE: When pulling out the server, fully extend the server until the latches lock. To return the server to the rack, depress the latches and slide the server into the rack.
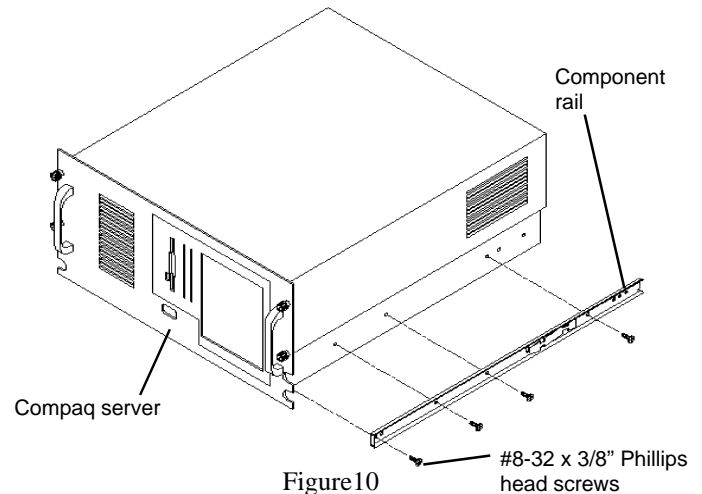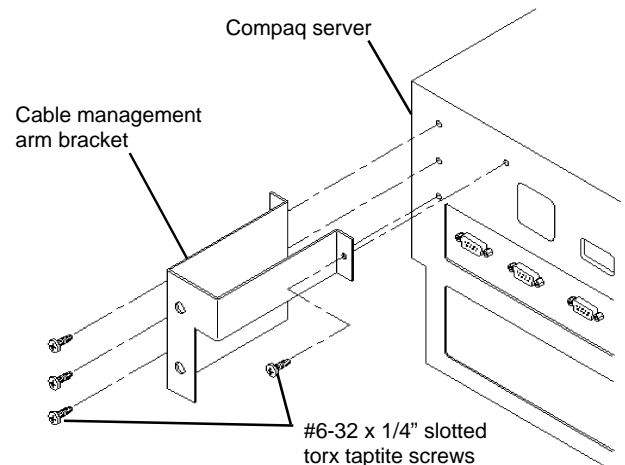
Component rail

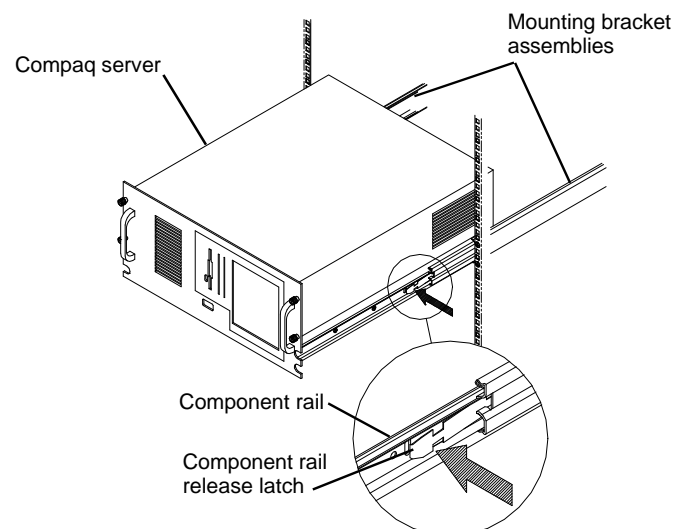Compaq server

Figure10

#8-32 x 3/8" Phillips head screws

Compaq server

Cable management arm bracket

#6-32 x 1/4" slotted torx taptite screws

Figure11

Mounting bracket assemblies

Compaq server

Component rail

Component rail release latch

Figure12

INSTALLING THE CABLE MANAGEMENT ARM

1. After you have installed the Compaq server, attach one end of the cable management arm (provided by Compaq) to the cable management arm bracket on the server using two M6 x 1.00" phillips head screws provided. See **Figure 13**.

2. Align the flange at the other end of the cable management arm on the outside of the rear mounting rail, in line with the **Screw Retaining Plate** positioned on the inside of the rear mounting rail.

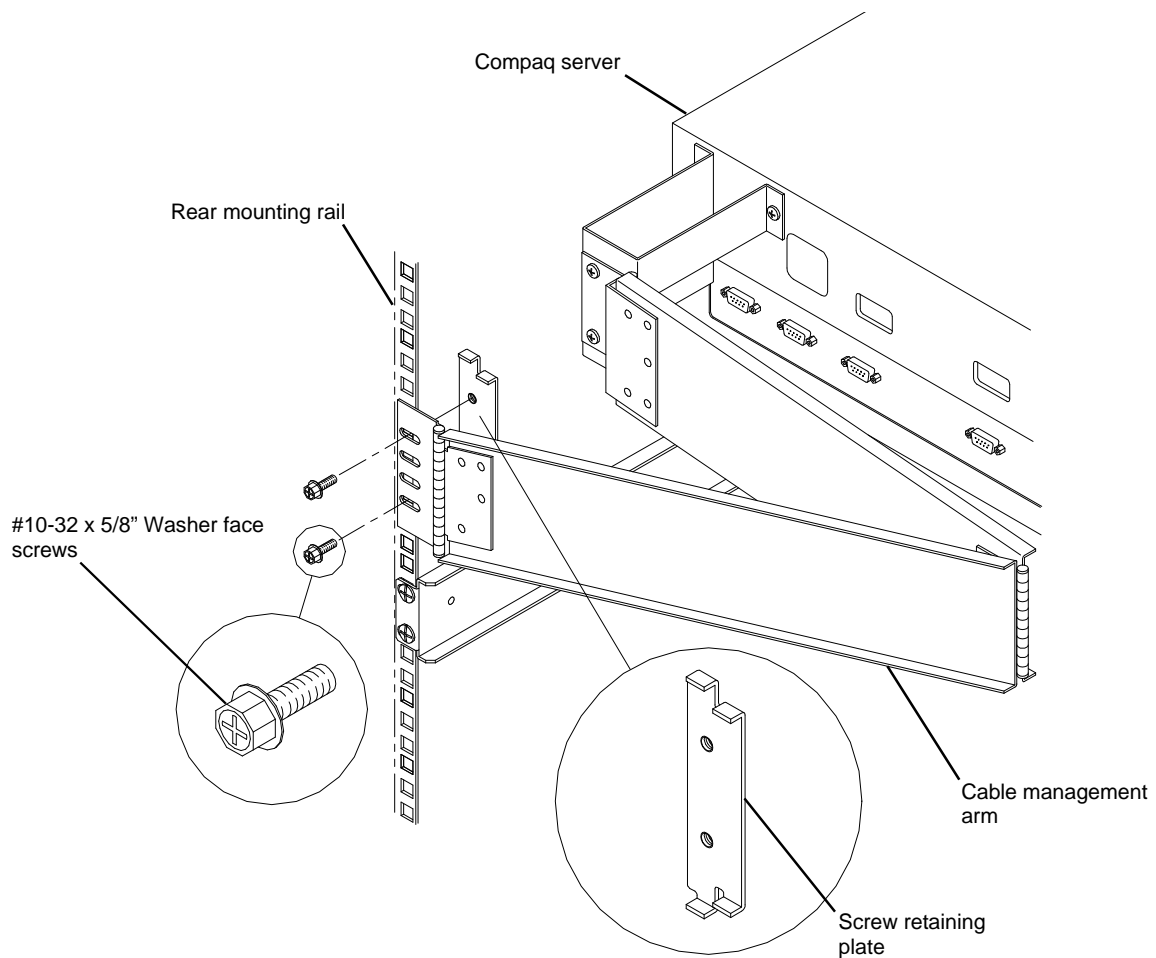3. Attach the arm to the rack with two #10-32 x 5/8" Washer face screws. See **Figure 14**.

Compaq server

Cable management arm bracket

M6 x 1.0-12L Phillips head screws

Cable management arm

Figure 13

Compaq server

Rear mounting rail

#10-32 x 5/8" Washer face screws

Cable management arm

Screw retaining plate
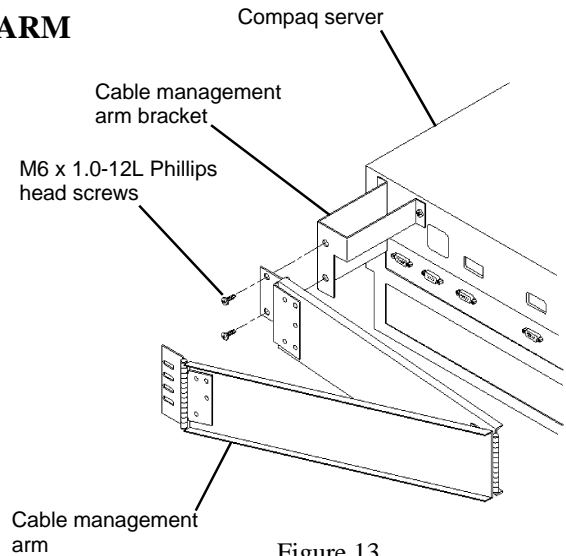
Figure 14

L a n   L o c k e r
C o m p a q   S e r v e r   M o u n t i n g   B r a c k e t s   (c o n t .)

Parts List

	Part Number	Description	Qty.
1	TECCMR02	Compaq Mounting	1
	TECCMR25	Brackets	Set
2		Slide Rail Assembly	
3		Cable Management Arm Bracket	
4		Screw Retaining Plate	
5	*	Cable Management Arm	**
6		M6 Square Nut	
7		#8-32 x 3/8" Phillips Head Screw	
8		M6 x 1.00" Screw	
9		#6-32 x 1/4" Slotted Torx Taptite screw	
10		#10-32 x 5/8" Washer Face Screw	

*Refer to Compaq for part numbers

**Refer to Compaq for quantity

technical furniture

L a n   L o c k e r
N E C   S e r v e r
M o u n t i n g   B r a c k e t s

Please read these instructions carefully and follow the installation steps in sequence.

Tools Required
-Phillips head screwdriver
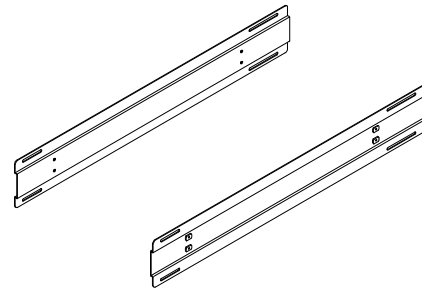-Flat blade screwdriver

CLIP NUT INSTALLATION

Clip Nuts have a front or screw side. Consider which way it should face for ease of access to the screw head during component installation. See **Figure 1**.

To remove a Clip Nut from a rail, insert a flat blade screwdriver or a knife under the tab on the front and pry up, freeing the retaining ring from the rail.

1. Select the location at which the **Server** will be located in the enclosure.

2. Snap a Clip Nut into a hole at the selected location on one of the Mounting Rails. See **Figure 1**.

2. Snap a second Clip Nut 6 holes up from the first.

3. Measure from the bottom of the Mounting Rail to the top of the bottom Clip Nut. Assemble the remaining Clip Nuts onto the other three rails at the measured height.

INSTALLING THE MOUNTING BRACKETS

1. With the front mounting rails positioned at their orginal location, adjust the rear mounting rails 28" from the front mounting rails.

2. Attach the Mounting Brackets to the Clip Nuts with the #10-32 x .50" Phillips pan head screws provided and tighten securely. See **Figure 2**. **IMPORTANT**: On the brackets, the end with the longer slots will be at the rear of the enclosure.
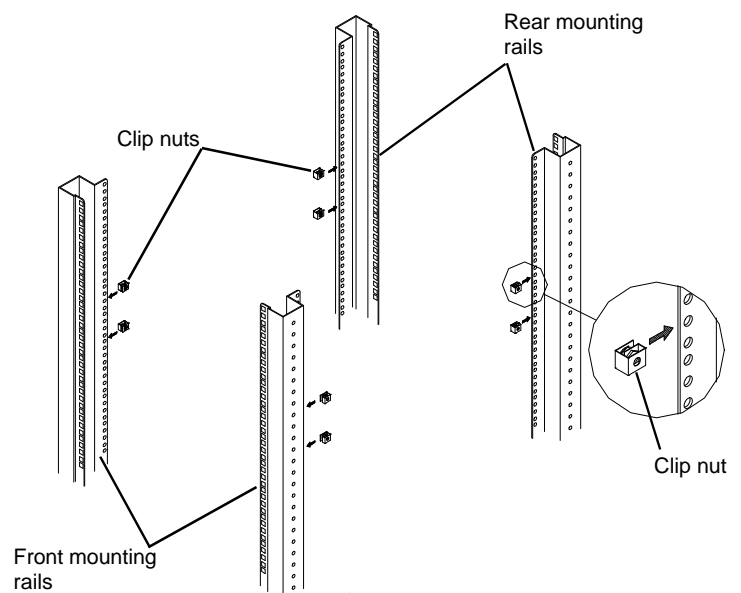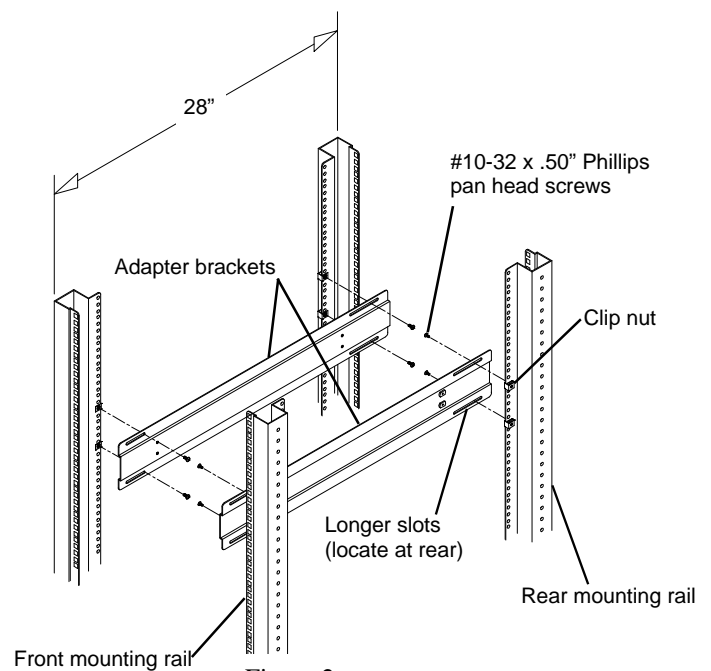
NEC Server Adapter Brackets

Rear mounting rails

Clip nuts

Front mounting rails

Clip nut

Figure 1

28"

#10-32 x .50" Phillips pan head screws

Adapter brackets

Clip nut

Longer slots (locate at rear)

Rear mounting rail

Front mounting rail

Figure 2

INSTALLING THE SUSPENSION ASSEMBLIES

1. Attach the **Suspension Assemblies** to the Adapter Brackets with the #10 screws as shown in **Figure 3**. **NOTE**: The inner set of slots on the assemblies are used.

Adapter bracket

#10 screws
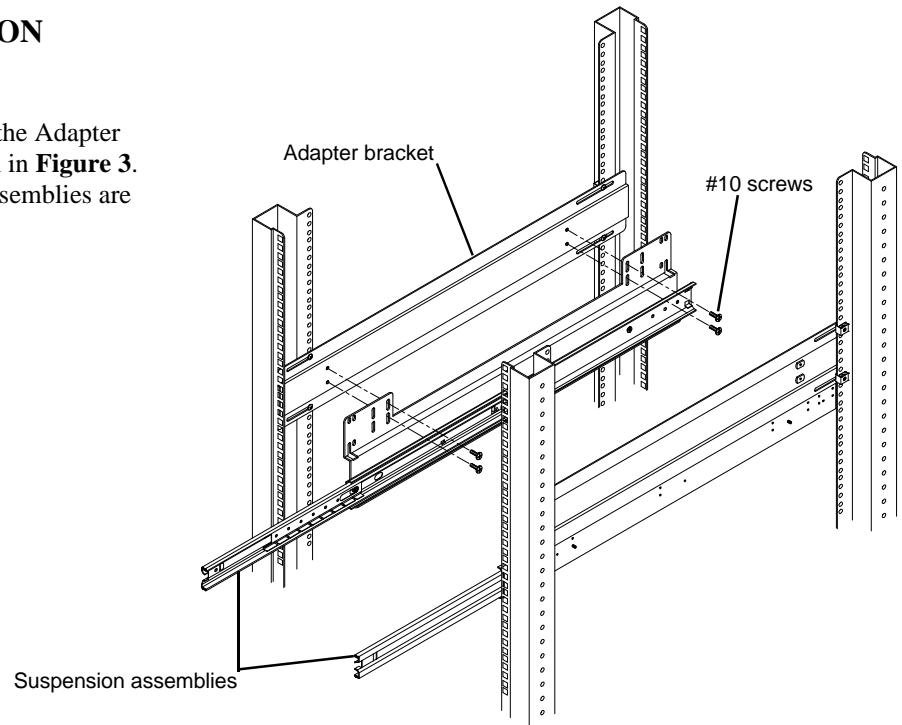
Suspension assemblies

Figure 3

INSTALLING THE SERVER

1. Carefully align the server's rails with the suspension assemblies already mounted in the enclosure.

2. Depress the rail release latch on both sides of the server and slide the server all the way into the enclosure. See **Figure 4**.

   WARNING: To avoid personal injury, care should be taken when pressing the rail release latches and sliding the component into the rack. The side rails can pinch your fingertips.

NOTE: When pulling out the server, fully extend the server until the latches lock. To return the server to the enclosure, depress the latches and slide the server into the enclosure.
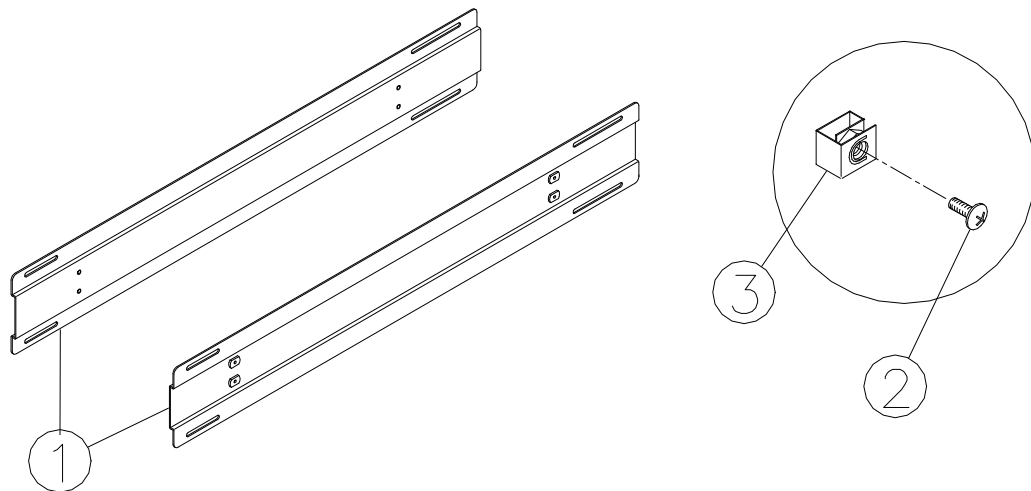
NEC Server

Rail

Release latch
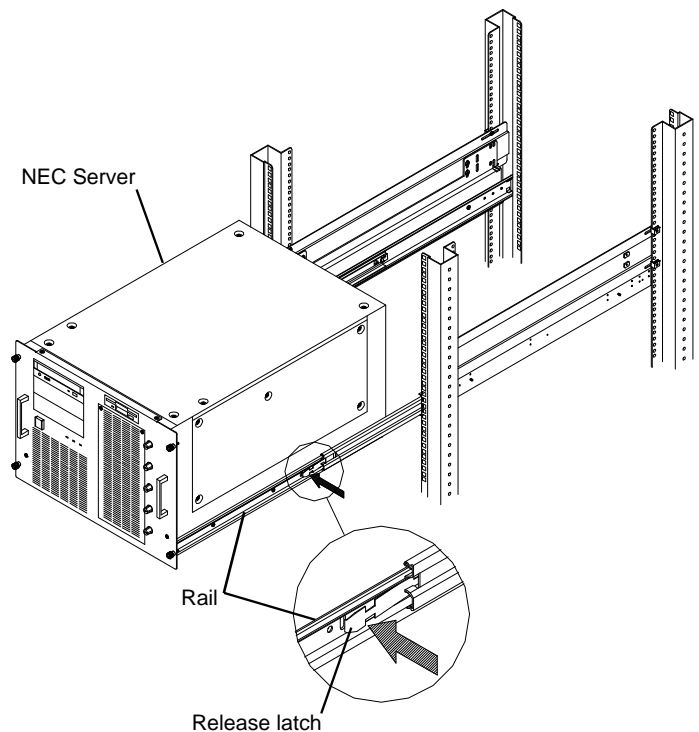
Figure

technical furniture

L a n   L o c k e r
N E C   S e r v e r
M o u n t i n g   B r a c k e t s
(c o n t .)

Parts List

	Part Number	Description	Qty.
1	7678X	Adapter Bracket	2
2	82031	#10-32 x .50" Phillips Pan Head Machine Screw	16
3	84397	#10-32 G-Nut	8

technical furniture	**L a n L o c k e r**
	A L R S e r v e r
	M o u n t i n g B r a c k e t s

Please read these instructions carefully and follow the installation steps in sequence.

Tools Required
- Phillips head screwdriver
- Flat blade screwdriver

CLIP NUT INSTALLATION

Clip Nuts have a front or screw side. Consider which way it should face for ease of access to the screw head during component installation. See **Figure 1**.

To remove a Clip Nut from a rail, insert a flat blade screwdriver or a knife under the tab on the front and pry up, freeing the retaining ring from the rail.

1. Select the location at which the **Server** will be located in the enclosure.

2. Snap a Clip Nut into a hole at the selected location on one of the Mounting Rails. See **Figure 1**.

2. Snap a second Clip Nut 6 holes up from the first.

3. Measure from the bottom of the Mounting Rail to the top of the bottom Clip Nut. Assemble the remaining Clip Nuts onto the other three rails at the measured height.

ALR SERVER BRACKET ASSEMBLY

1. Assemble the **Suspensions** to the **Adapter Brackets**. Extend the inner slide of a suspension from the front of the outer rail. With this part extended, you should see two holes in the outer rail that align with two holes in the bracket. Using two #8-32 x 3/8" Phillips head screws (provided by ALR), fasten the outer rail to the bracket. See **Figure 2a**.

3. Adjust the inner slide to access the other screw hole through the slotted opening in the inner slide. Use one more #8-32 x 3/8" Phillips head screw (provided by ALR) to fasten the outer rail to the bracket. See **Figure 2b**.

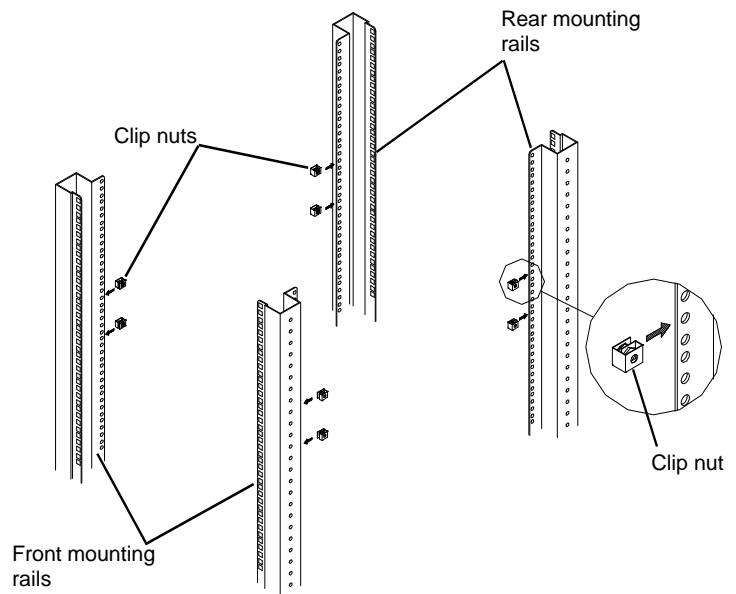4. Repeat steps 1 through 3 for opposite Adapter Backet.
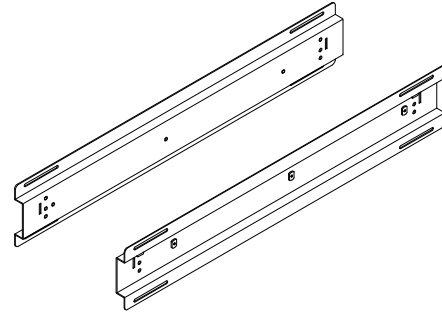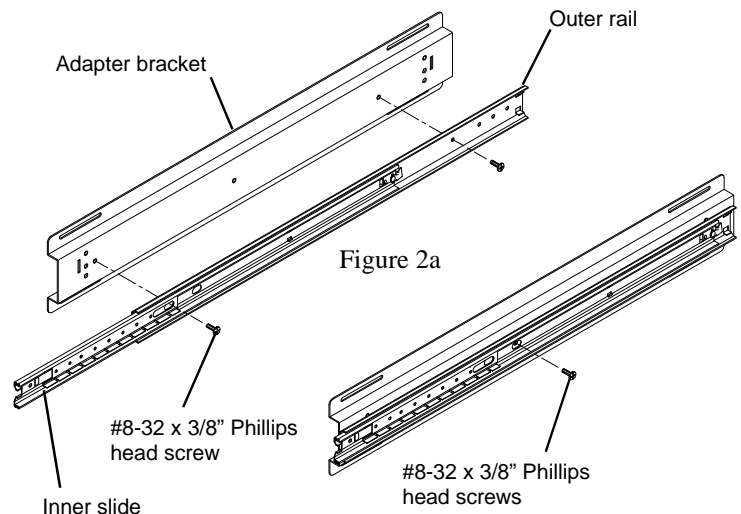

ALR Server Adapter Brackets

Figure 1

Figure 2a

Figure 2b

INSTALLING THE ADAPTER BRACKET ASSEMBLIES

1. With the front mounting rails positioned at their original location, adjust the rear mounting rails 28" from the front mounting rails. See **Figure 3**.

2. Attach the Mounting Bracket assemblies to the Clip Nuts with the #10-32 x .50" Phillips pan head screws provided and tighten securely. See **Figure 3**.
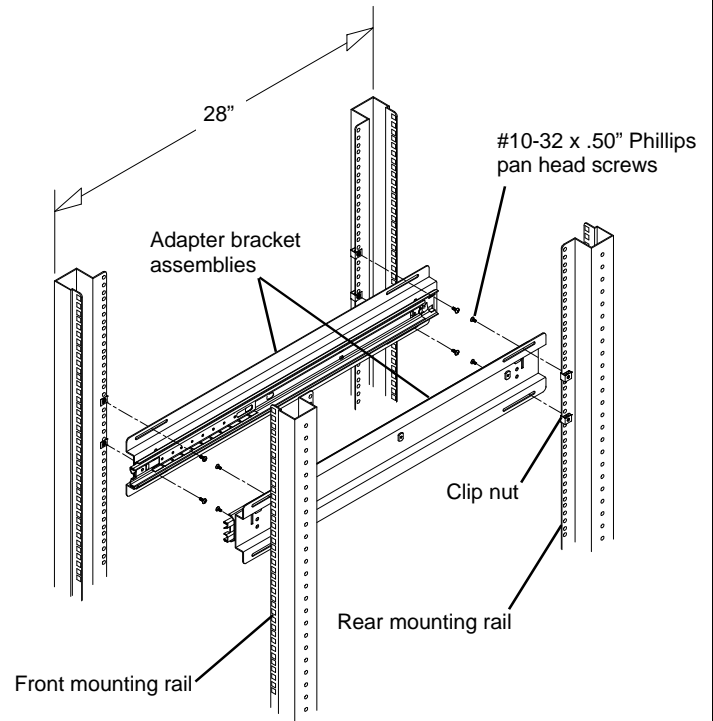
Figure 3

INSTALLING THE SERVER

1. Carefully align the server's rails with the suspension assemblies already mounted in the enclosure.

2. Depress the rail release latch on both sides of the server and slide the server all the way into the enclosure. See **Figure 4**.

   WARNING: To avoid personal injury, care should be taken when pressing the rail release latches and sliding the component into the rack. The side rails can pinch your fingertips.

NOTE: When pulling out the server, fully extend the server until the latches lock. To return the server to the enclosure, depress the latches and slide the server into the enclosure.
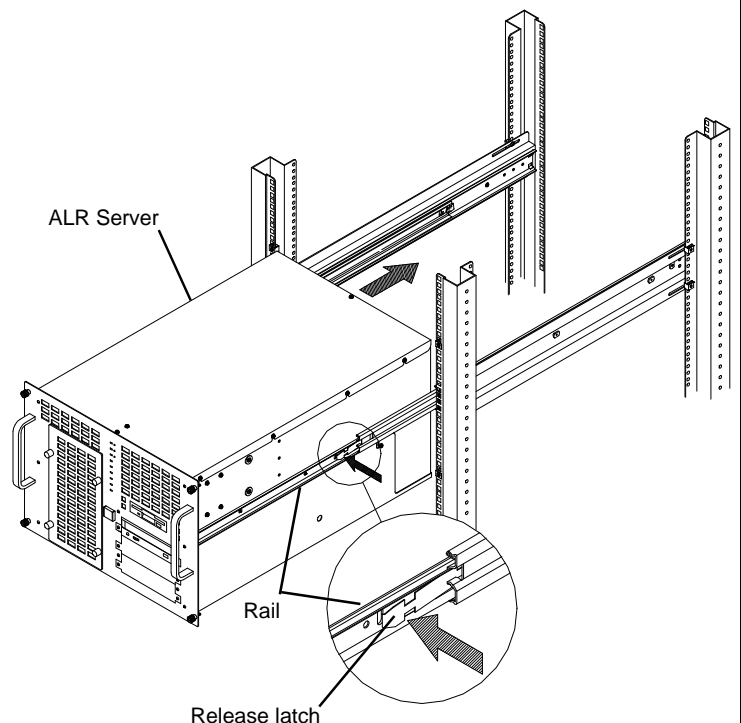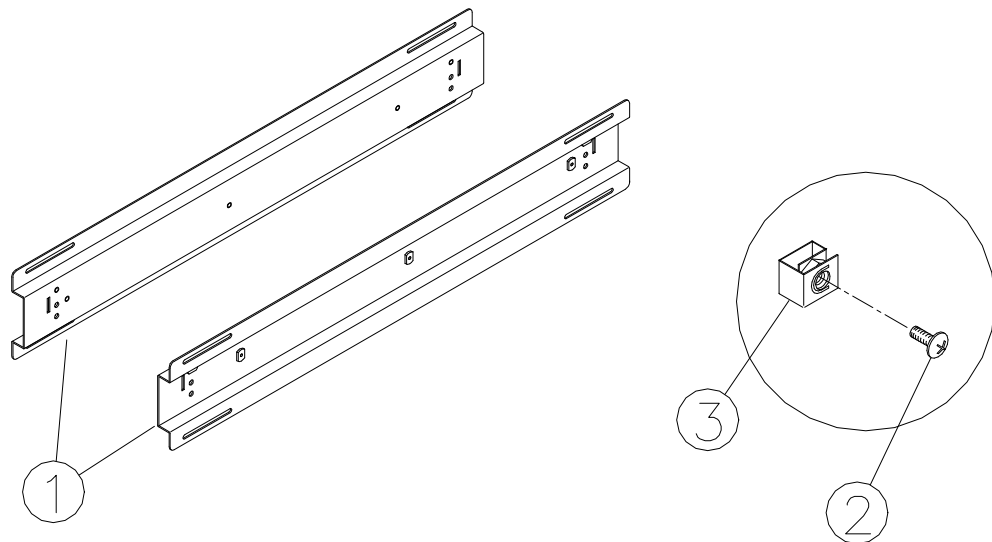
Figure 4

technical furniture

L a n   L o c k e r
A L R   S e r v e r
M o u n t i n g   B r a c k e t s
(c o n t .)

Parts List

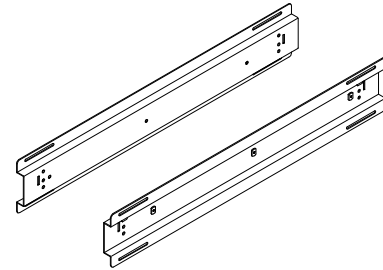|	Part Number	Description	Qty.
1	7677X	Adapter Bracket	2
2	82031	#10-32 x .50" Phillips Pan Head Machine Screw	8
3	84397	#10-32 G-Nut	8

Please read these instructions carefully and follow the installation steps in sequence.

Tools Required
  -Phillips head screwdriver
  -Flat blade screwdriver

CLIP NUT INSTALLATION

Clip Nuts have a front or screw side. Consider which way it should face for ease of access to the screw head during component installation. See **Figure 1**.

To remove a Clip Nut from a rail, insert a flat blade screwdriver or a knife under the tab on the front and pry up, freeing the retaining ring from the rail.

1. Select the location at which the **Server** will be located in the enclosure.

2. See **Figure 2** for Mounting Bracket locations for HP NetServer Lxr.

   See **Figure 3** for Mounting Bracket locations for HP NetServer LH.

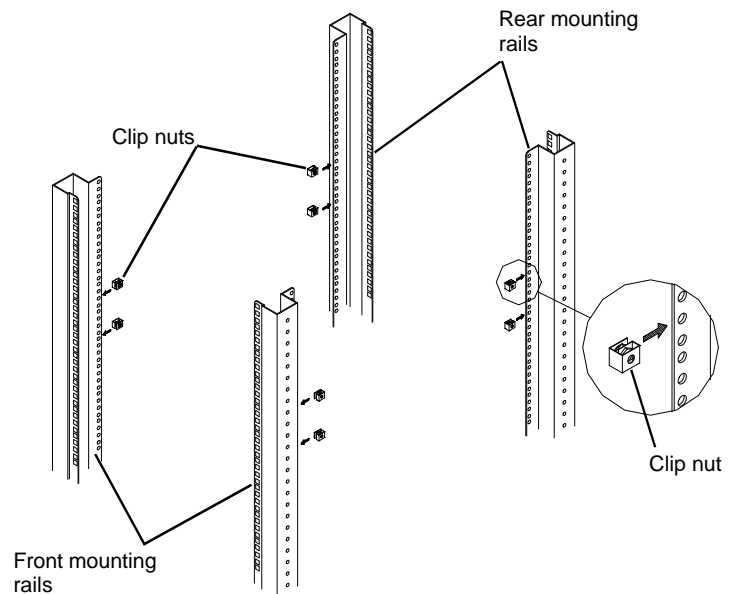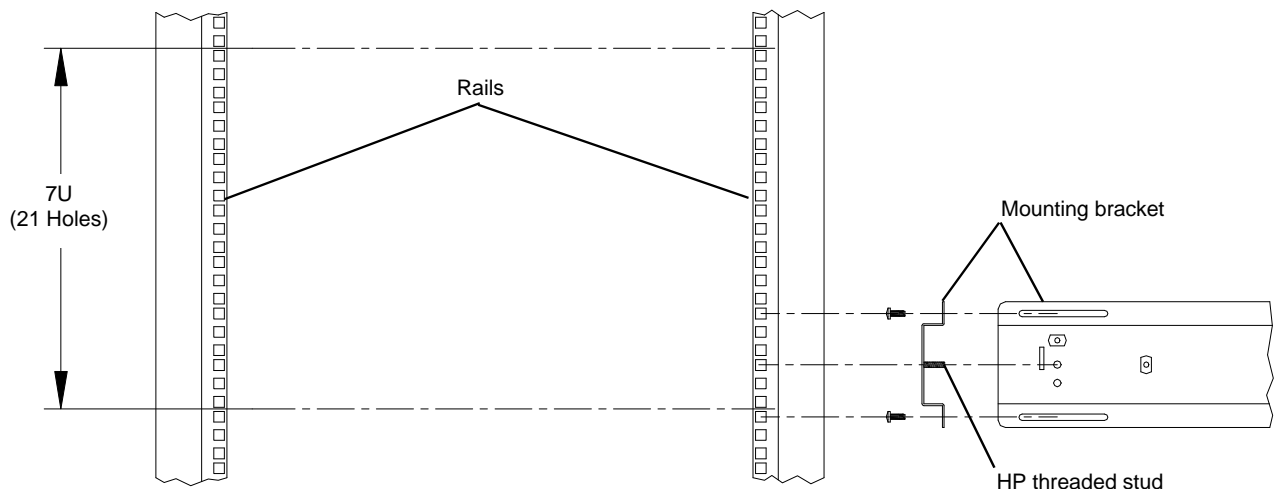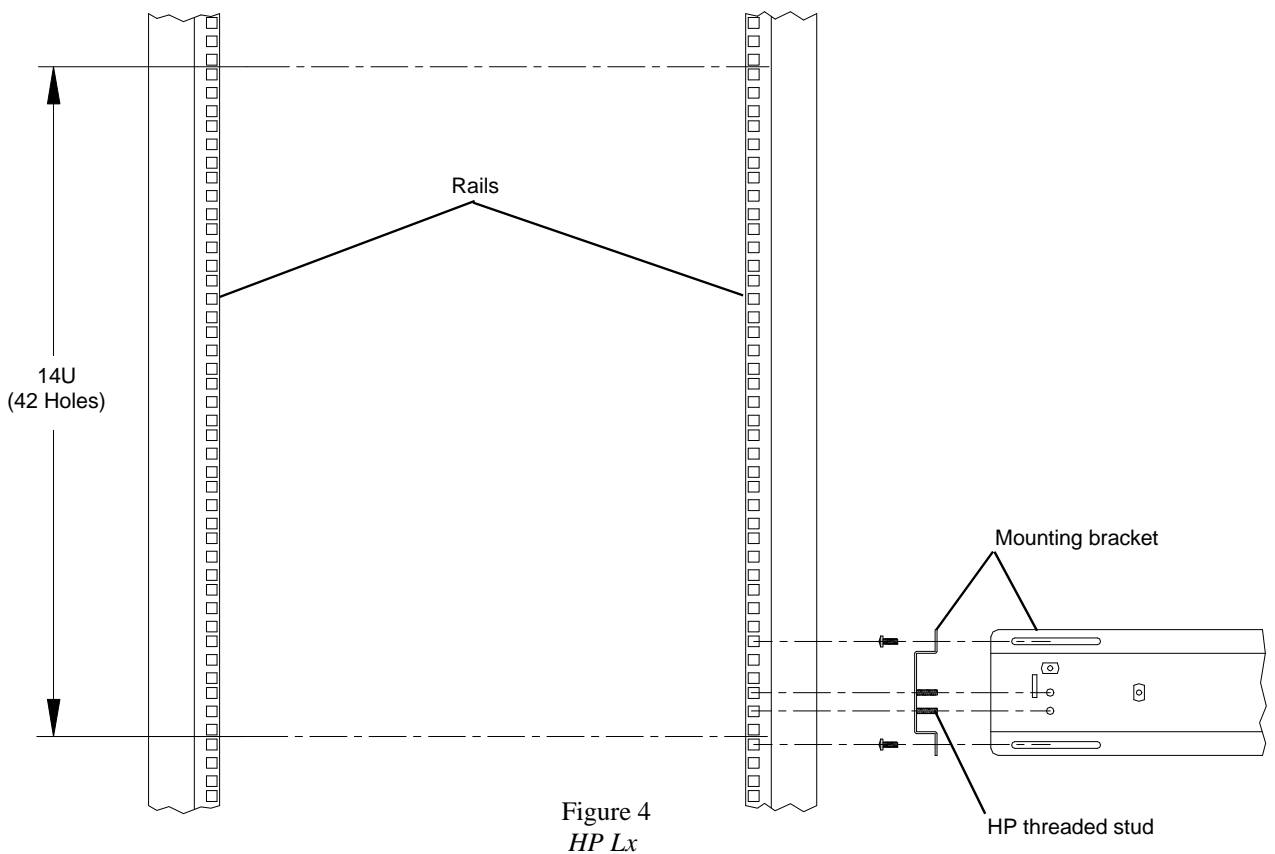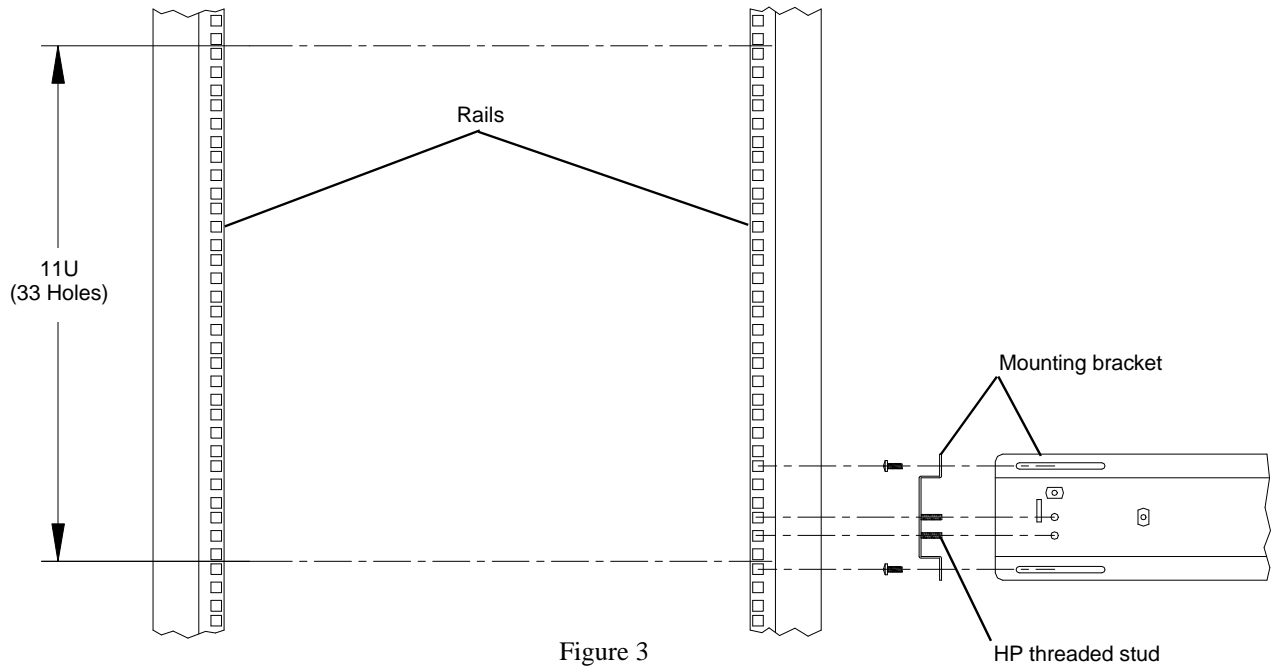   See **Figure 4** for Mounting Bracket Locations for HP NetServer Lx.

Hewlett Packard NetServer Mounting Brackets

Figure 1

Figure 2
HP Lxr

Rails

11U
(33 Holes)

Mounting bracket

HP threaded stud

Figure 3
HP LH

Rails

14U
(42 Holes)

Mounting bracket

Figure 4
HP Lx

HP threaded stud

LXr SERVER MOUNTING BRACKET ASSEMBLY

1. Assemble the **Hewlett Packard Suspensions** to the **Adapter Brackets**.

   Insert the threaded studs on the HP suspensions into the upper holes in the Adapter Brackets and fasten with the M6 Nuts provided with the server . See **Figure 5**.
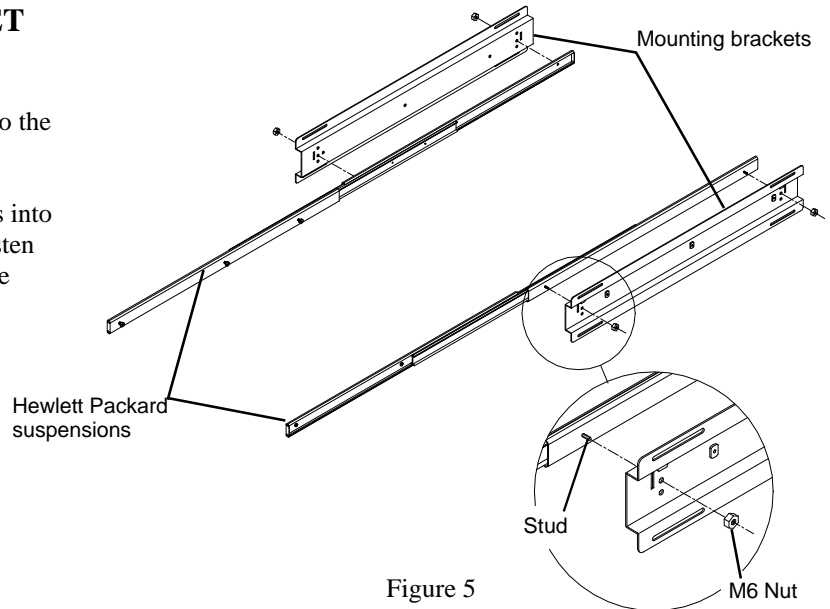
Mounting brackets

Hewlett Packard suspensions

Stud

Figure 5

M6 Nut

INSTALLING THE MOUNTING BRACKET ASSEMBLIES

1. For Tech I^{SE} Enclosures only, recess the front mounting rails 2 inches from their original location. For LAN Locker units, the front mounting rails can remain at their original location.

2. Adjust the rear mounting rails 28 inches from the front mounting rails and tighten all four rails securely.

3. Attach the Mounting Bracket assemblies to the Clip Nuts with the #10-32 x .50" Phillips pan head screws provided and tighten securely. See **Figure 6**.
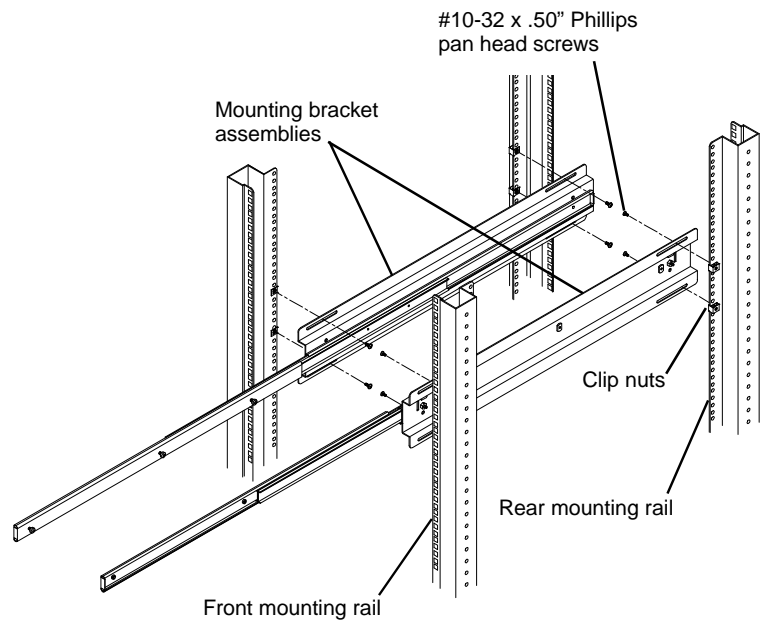
#10-32 x .50" Phillips pan head screws

Mounting bracket assemblies

Clip nuts

Rear mounting rail

Front mounting rail

Figure 6

technical furniture	**L a n L o c k e r**
	H e w l e t t P a c k a r d
	N e t S e r v e r M o u n t i n g
	B r a c k e t s (c o n t .)

INSTALLING THE LXr SERVER

1. With the HP suspensions in the extended position,
   align the slots in the **HP Server Shelf** with the screws
   in the suspensions and tighten the screws securely.
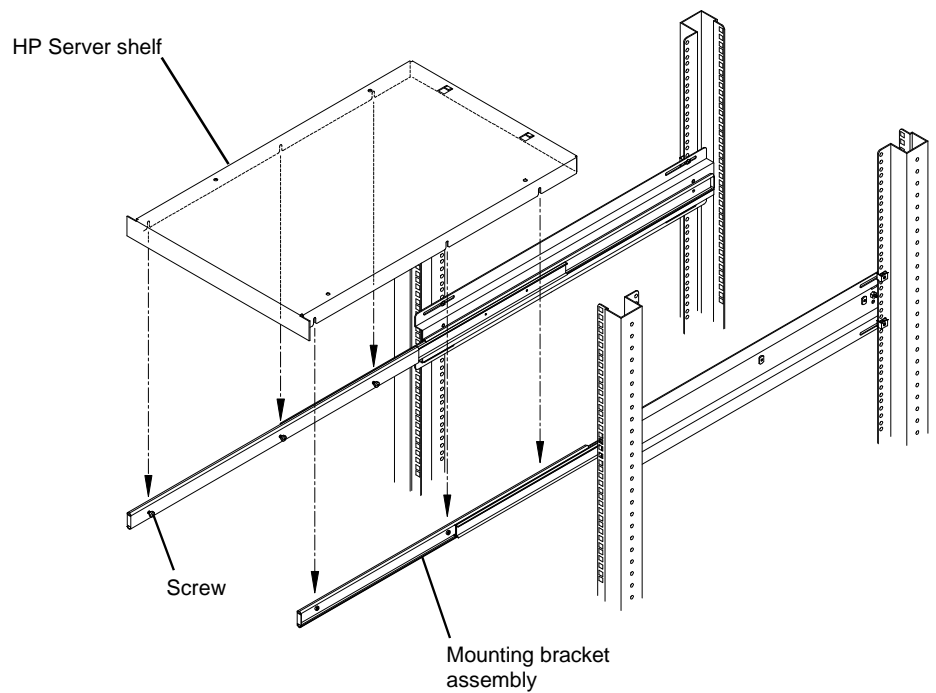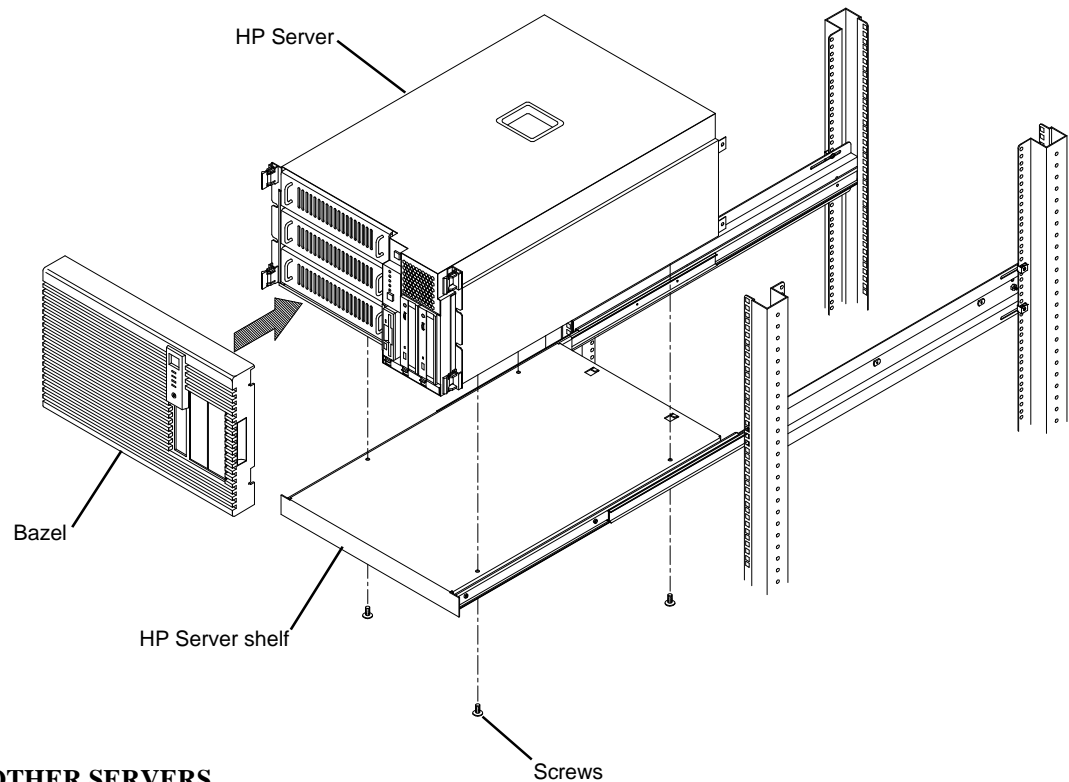   See **Figure 7**.

HP Server shelf

Screw

Mounting bracket
assembly

Figure 7

technical furniture	**L a n L o c k e r**
	H e w l e t t P a c k a r d
	N e t S e r v e r M o u n t i n g
	B r a c k e t s (c o n t .)

INSTALLING THE LXr SERVER (cont.)

2. Slide the **HP Server** onto the shelf and secure it with the HP provided hardware. See **Figure 5**.

3. Retract the **HP Server** into the enclosure. Secure the front flanges to the mounting rails with HP provided hardware. Be sure the enclosure is stable.

HP Server

Bazel

HP Server shelf

Screws

INSTALLING OTHER SERVERS
(LS series, LH series, LE, LM, L5)

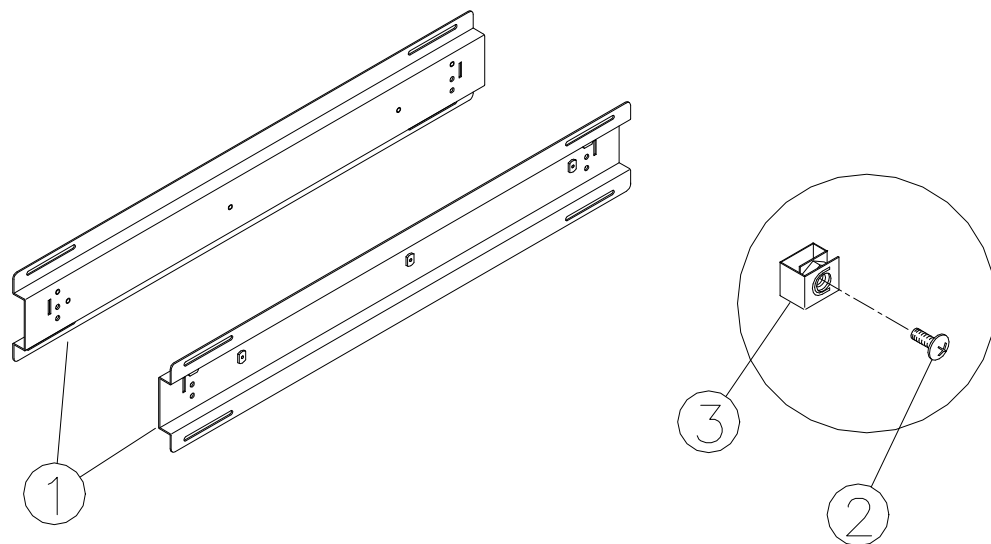1. Follow previous mounting bracket instructions in conjunction with HP rack-mount kit provided instructions.

Figure 5

Parts List

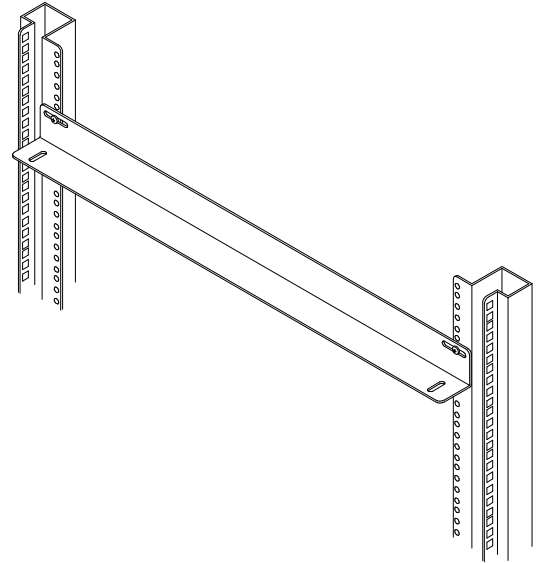|	Part Number	Description	Qty.
1	7677X	Adapter Bracket	2
2	82031	#10-32 x .50" Phillips Pan Head Machine Screw	8
3	84397	#10-32 G-Nut	8

Tools Required
   -Phillips head screwdriver

1. Four **#10-32 Clip Nuts** and four **#10-32 x 1/2" Phillips head machine screws** are included for attaching the **Horizontal Chassis Brackets** to the rails.

2. Install the Clip Nuts in the desired location on the rails. See **Figure 1**.

3. Attach the **Horizontal Chassis Bracket** to the rails using the #10-32 screws. See **Figure 1**.

   NOTE: For additional horizontal adjustments, attach the Horizontal Bracket as shown in **Figure 1**. For vertical adjustments attach the Horizontal Bracket using the hole on the other face.
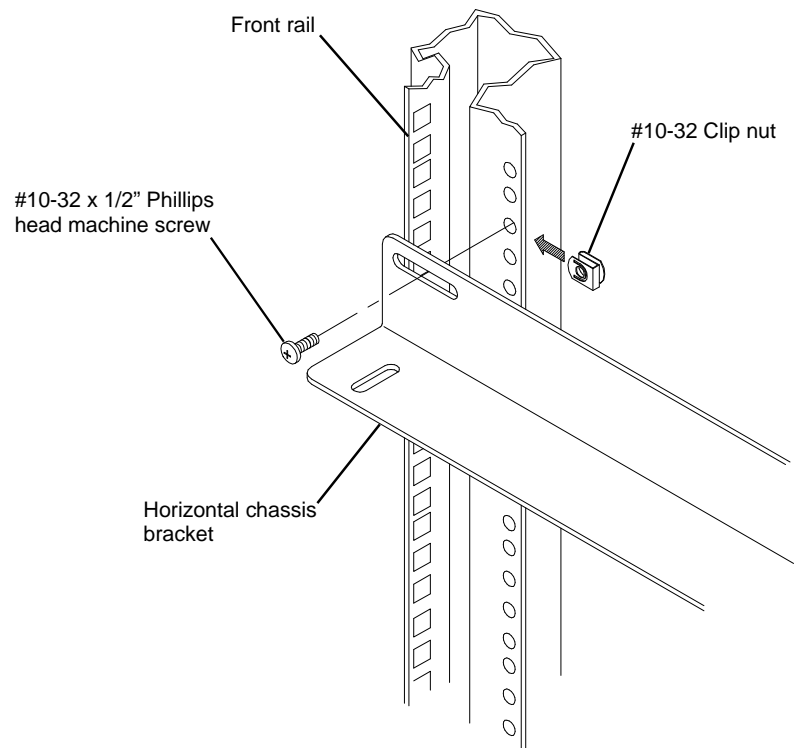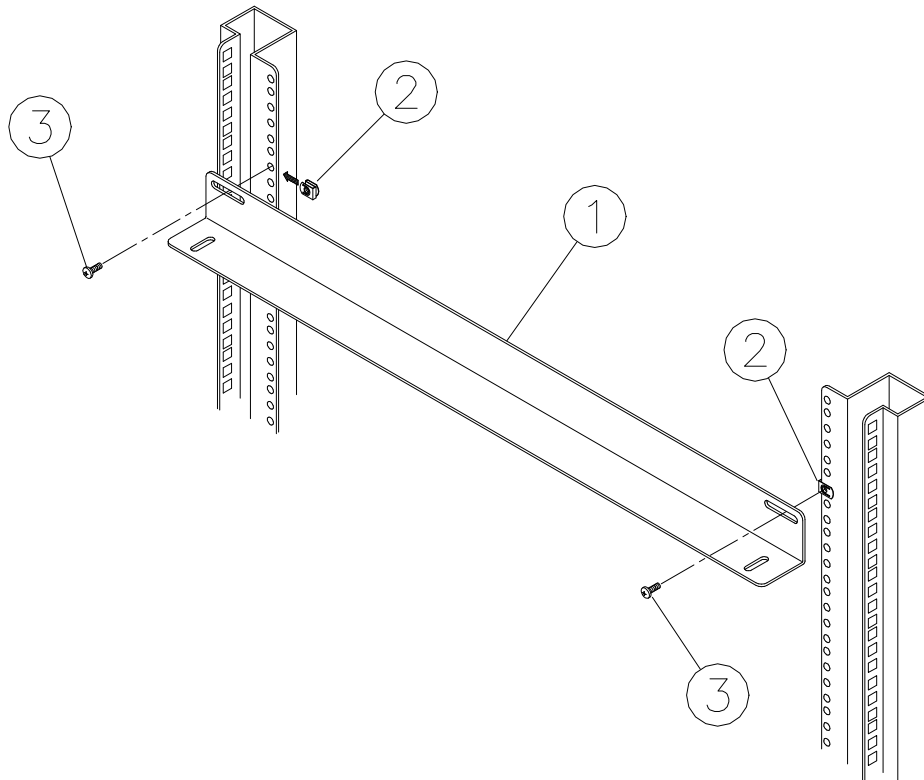
Horizontal Chassis Bracket

Front rail

#10-32 Clip nut

#10-32 x 1/2" Phillips head machine screw

Horizontal chassis bracket

Figure 1

82817   T-81

Parts List

Part Number		Description	Qty.
1	82766	28" Horizontal Chassis Bracket	2
2	82087	#10-32 Clip Nut	4
3	82031	#10-32 x .50 Phillips Pan Head Machine Screw	4

Please read these instructions carefully and follow the installation steps in sequence.

THE GAS SERVICE BULKHEAD PLATE MUST BE INSTALLED INTO THE RACEWAY CHANNEL <u>BEFORE</u> THE CHANNEL IS ATTACHED TO THE TECH FRAME'S SLOTTED STANDARDS.

1. You may install up to two **Bulkhead Plates** into each Tech Raceway module. (One module is the distance from one Tech Frame slotted standard to the next.)

   Slide the plate(s) into the end of the Raceway Channel with the plate's flanges pointing forward. See **Figure 1**. Position each plate so that the edge of the plate is at the centerline of the Raceway Channel. This will orient the **Bulkhead Fittings** opposite the access holes in the raceway cover. See **Figure 2**.

2. Secure each plate with two **Clamps** and two #10 x 3/4" Phillips head self tapping screws. See **Figure 2**.

3. Install the brass Bulkhead Fittings as shown in **Figure 2**.

4. Now the Raceway Channel may be installed onto the Tech Frame as instructed in the Tech Raceway Installation Manual.

5. The Bulkhead Fittings have a 1/4" NPT internal thread on each side. Any commercially available airline fittings having an appropriate male thread may be connected to the Bulkhead.

6. Each Service Raceway module is supplied with a **Raceway Cover** punched with the appropriate number of access holes for one Bulkhead Plate. Additional holes may be drilled in the field. A 3/4" spade type drill bit is recommended. Always position a wooden board behind the Cover when drilling through.

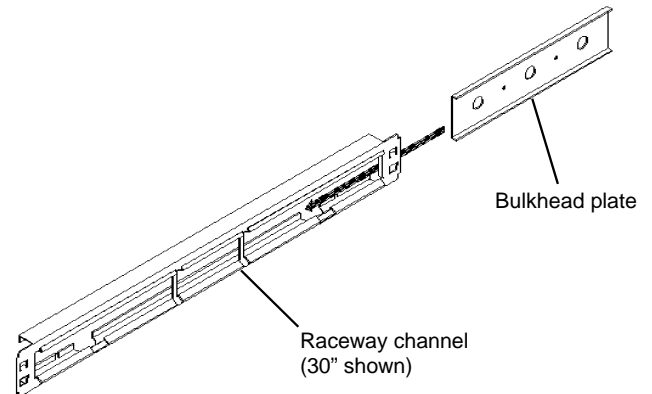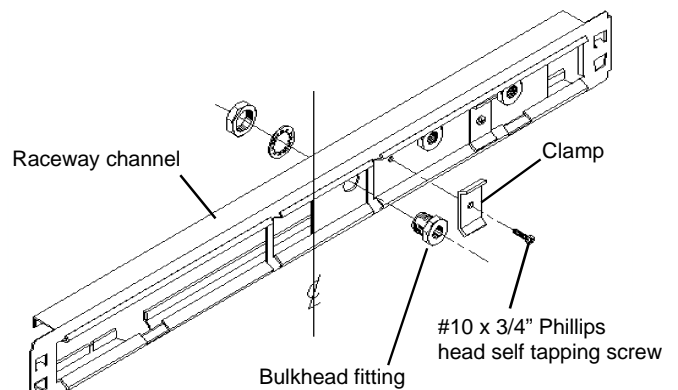   **Plastic Hole Covers** are supplied to plug unused access holes.

Bulkhead plate

Raceway channel
(30" shown)

Figure 1

Raceway channel

Clamp

#10 x 3/4" Phillips
head self tapping screw

Bulkhead fitting

Figure 2

Parts List

	Part Number	Description	Qty.
1	4071X	Raceway Channel, 24" Module	1
2	6123X	Bulkhead, 24" Raceway	1
	6124X	Bulkhead, 30" & 36" Raceway	
3	6125X	Clamp	2
4	80023	#10-24 x 3/4" Phillips Pan Head Self Tapping Screw	2
5	84901	Fitting - Bulkhead, 1/4" NPT	2-3
6	63655	Hole Plug (not shown)	2-3