



# **Violin 6000 Series Memory Array Cable Management Installation Guide**

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# Installing the Cable Management Arm

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**Note:** The instructions in this guide supersede the cable management arm installation instructions in the *Violin 6000 Series Memory Array Installation and User's Guide*.

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Follow the instructions in this guide to install the cable management arm on a Violin 6000 Series Flash Memory Array. Use the cable management arm to prevent the cables from becoming entangled when the system is fully extended from the equipment rack.

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**WARNING!** Only authorized, qualified, and trained personnel should attempt to install or maintain this equipment.

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**Note:** You must install the Memory Array into an equipment rack before installing the cable management arm. See the *Violin 6000 Series Memory Array Installation and User's Guide* for instructions.

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## Reference Documents

The *Violin 6000 Series Memory Array Installation and User's Guide* is available from Violin Memory Customer Support at <http://www.violin-memory.com/support>

## Package Contents

Make sure that you received the following items in the cable management arm kit:

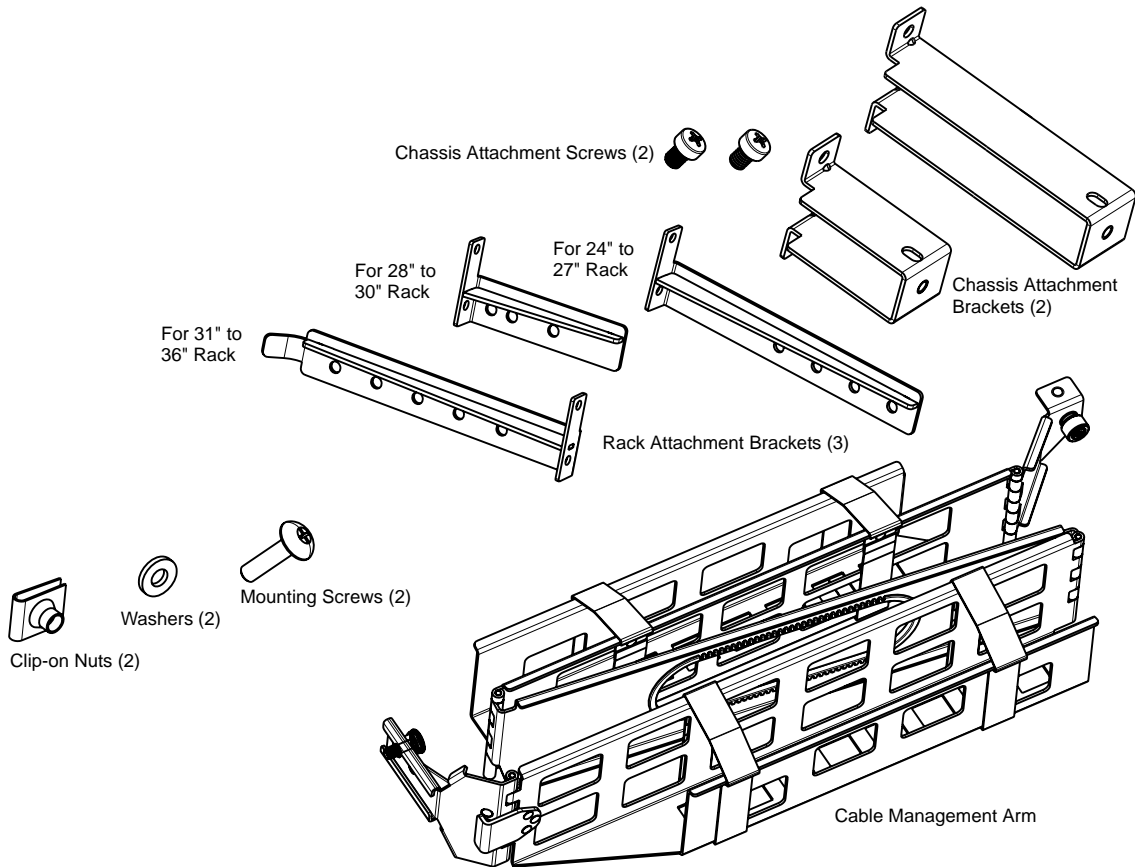


Figure 1.1 Package Contents

The cable management kit includes the following items:

- Cable management arm
- Chassis attachment brackets (2 sizes) for attaching the cable management arm to the right side of the chassis
- Rack attachment brackets (3 sizes) of different lengths to accommodate varying equipment rack depths
- Accessory pack including the following:
  - Clip-on nuts (2), washers (2) and mounting screws (2) for mounting rack-attachment bracket to equipment rack
  - additional lengths of Velcro straps for grouping and securing Fibre Channel cables to the cable management arm

## Required Tools

- #2 Phillips screwdriver (long-blade recommended)

## Connecting the Cable Management System

Follow these steps to connect the cable management system.

### Preparing for Cable Management Installation

1. Remove the screws that secure the rack ears to the front of the equipment rack. You will need to extend the system from the equipment rack to route the cables through the cable management arm.
2. Remove the cable management arm from its packaging.
3. Loosen the four Velcro straps that wrap around the cable management arm.

### Attaching the Right Chassis Attachment Bracket

1. The top cover must be moved back towards the rear of the chassis to attach the right chassis attachment bracket. Disengage the top cover as follows:
  - a. Depress the button on the top right of the cover.
  - b. Pull up on the sides of the cover while sliding it toward the rear of the chassis (approximately 3/4 inch).
2. Identify the right-side chassis attachment bracket that is best suited for your installation. Use the longer bracket if the Memory Array is connected using PCIe cables. Otherwise, the small or medium bracket should be used.

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**Note:** Use the screws that are included in the smaller right chassis attachment bracket for either bracket.

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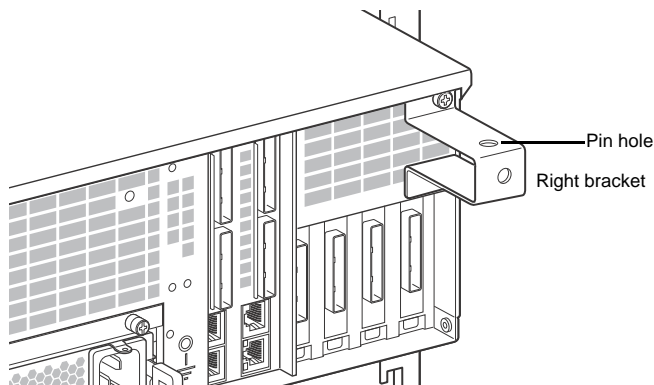


Figure 1.2 Attaching the Right Chassis Mounting Bracket

3. Orient the bracket with the pin hole on the top, as shown in [Figure 1.2](#).
4. Locate the two holes on the rear of the chassis that are reserved for the chassis mounting bracket. Using a #2 Phillips screwdriver and the included screws, attach the right chassis attachment bracket to the right rear of the chassis.
5. Close the top cover by placing a hand over the back edge of the cover and then sliding the cover toward the front of the chassis until the cover clicks into place.

## Attaching the Left Rack-Attachment Bracket

1. Identify the left rack-attachment bracket that fits your equipment rack using the table below.

Bracket Size	Equipment Rack Depth
Short	For equipment rack depths from 28" to 30"
Medium	For equipment rack depths from 24" to 27"
Long	For equipment rack depths from 31" to 36" (mounts on the inside of the equipment rack)

Table 1.1 Left-side Rack Attachment Brackets

2. Identify where the left rack-attachment bracket will be attached to the equipment rack.
3. Remove the clip-on nuts, washers and mounting screws from the accessory pack. Attach the clip-on nuts, as follows:
  - If you are using the *short or medium length rack-attachment bracket*, attach the clip-on nuts to the equipment rack over the holes that align with the bracket holes when placed on the equipment rack. See [Figure 1.3](#).
  - If you are using the *long rack-attachment bracket*, attach the clip-on nuts over the two holes on the upright section of the bracket. The bracket attaches to the *inside* of the equipment rack, as shown in [Figure 1.4](#).
4. Attach the left rack-attachment bracket to the equipment rack.

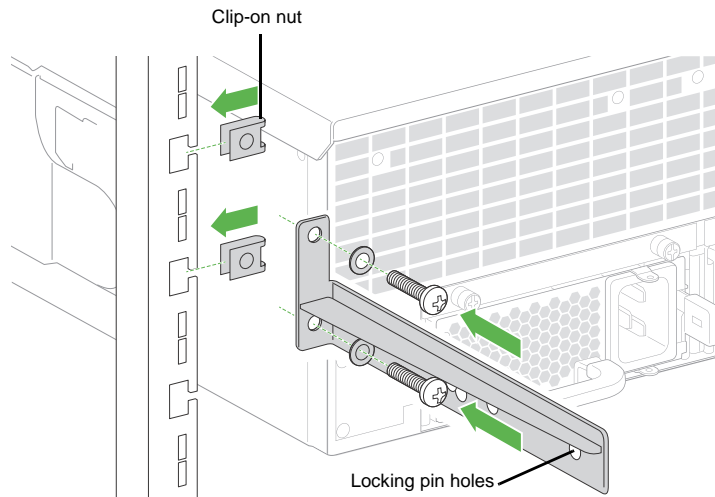


Figure 1.3 Attaching the Left Rack-Attachment Bracket

- a. Insert the washers on the two 10-32 mounting screws.
- b. Position the left rack-attachment bracket over the holes previously identified on the equipment rack. The smooth side of the bracket should face the inside of the equipment rack, and the holes reserved for the cable management arm locking pin should be on the bottom, as shown in [Figure 1.3](#).
- c. Using the supplied mounting screws, attach the bracket to the equipment rack.

**Note:** Only use the long bracket, shown in [Figure 1.4](#), for equipment rack depths from 31" to 36".

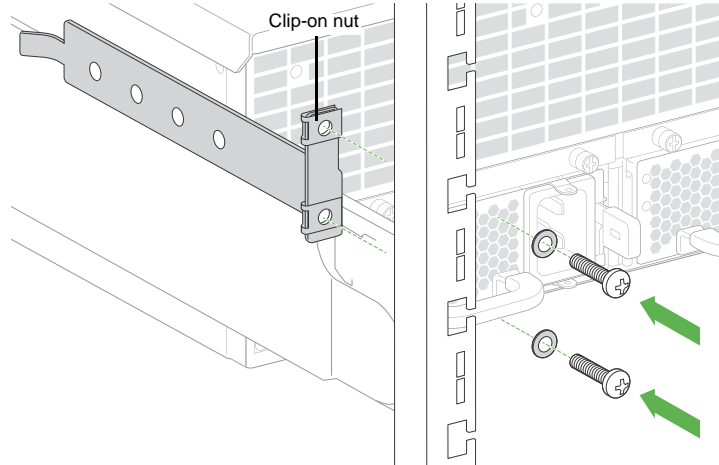


Figure 1.4 Attaching the Left Rack-Attachment Bracket to Inside of Equipment Rack

## Attaching the Cable Management Arm

**WARNING!** To avoid bending the right chassis-attachment bracket, do not route the cables through the cable management arm until you have attached the arm to the left and right brackets.

1. Attach the cable management arm to both brackets, as follows:
  - a. Using two hands, hold both ends of the cable management arm.

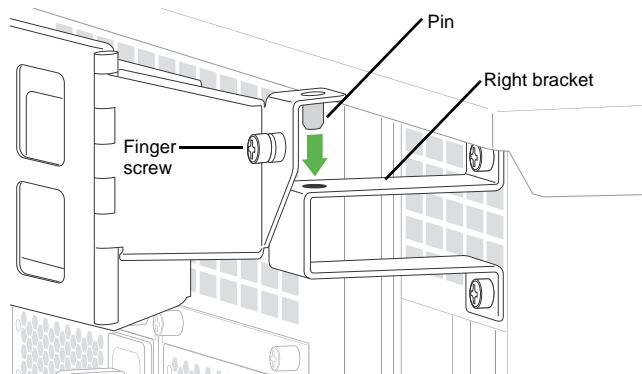


Figure 1.5 Attaching the Cable Arm to the Right Chassis-Attachment Bracket

- b. Attach the cable management arm to the right bracket by inserting the pin on the arm into the hole on the top of the bracket, as shown in [Figure 1.5](#).

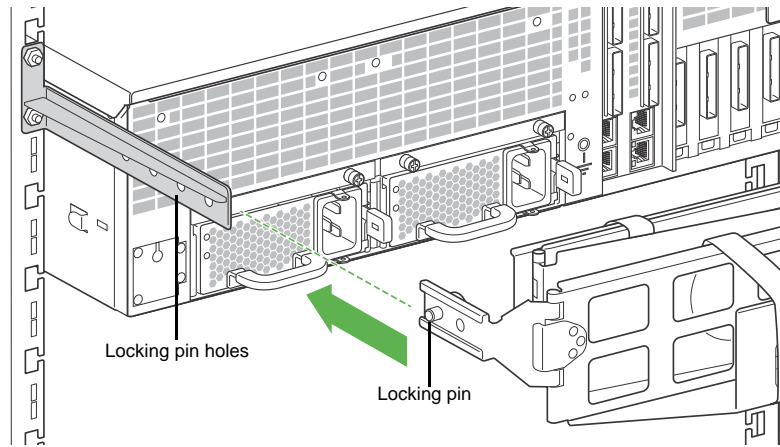


Figure 1.6 Attaching the Cable Arm to the Left Rack-Attachment Bracket

- c. Attach the cable management arm to the left rack attachment bracket by positioning the locking pin that is attached to the arm in one of the holes on the bracket, providing enough clearance between the rear of the system and the cable management arm when the arm is closed.
- d. Secure the cable management arm to the right bracket by tightening the finger screw on the arm, as shown in [Figure 1.5](#).

## Routing the Memory Array Cables

1. Slide the Memory Array partially out of the equipment rack.

It is easier to route the cables through the cable management arm with the Memory Array in this position.

2. Connect the power cords and interface cables to the ports on the rear of the Memory Array chassis. See the *Violin 6000 Series Memory Array Installation and User's Guide* for specific instructions.

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**Note:** Do not secure the Memory Array to the front of the equipment rack until after you have routed the cables through the cable management arm.

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3. Route the cables through the cable management arm.

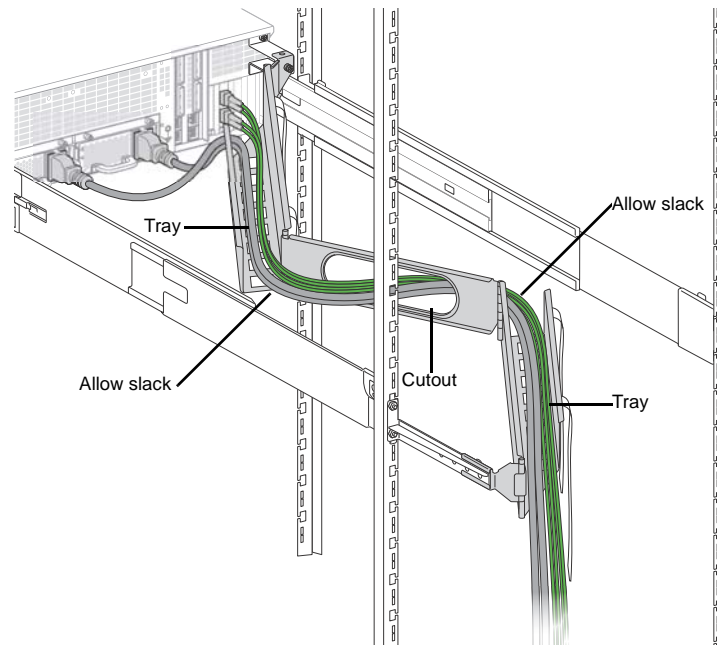


Figure 1.7 Routing the Cables

- a. Locate the trays and cutout on the cable management arm. The trays and cutout are provided for the cables to be routed through the cable management arm.
  - b. Route the cables through the front tray, then the cutout, then the rear tray, as shown in [Figure 1.7](#). Be sure to allow enough slack for the arm to close with all of the cables included and to ensure adequate bend radius.
4. Inspect the routed cables, as follows:
    - a. With another person observing the cables attached to the rear of the chassis, pull the Memory Array out from the front of the equipment rack until the slide rails lock into place.
    - b. Ensure that the cables attached at the rear chassis are fully connected and do not move when the arm is extended.
    - c. Press in the spring-loaded locking mechanism on the outside of both inner rail sections on the slide rails and then push the Memory Array in slightly. While observing the cables once again, slowly push the Memory Array back into the equipment rack.
    - d. Inspect the routing of all of the cables to ensure that the cables do not bend too tightly or are pulled when the cable management arm is extended and then returned to its closed position.
    - e. Adjust the cables within the arm, as necessary.
  5. If the Memory Array is connected using Fibre Channel cables, group these cables and then secure them to the cable management arm in four locations using the tear-off sections of the

additional Velcro strap included in the kit, as shown in [Figure 1.8](#). The Fibre Channel cables should rest on top of the other cables that are routed through the cable management arm.

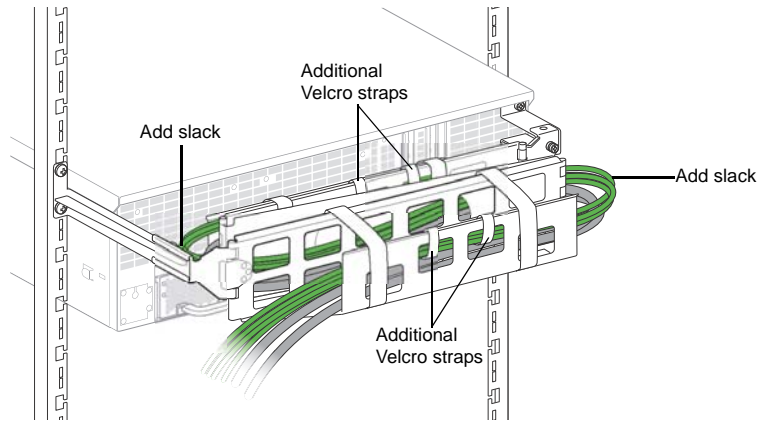


Figure 1.8 Closing the Cable Management Arm

6. Wrap the four Velcro straps that are attached to the cable management arm around the arm to secure the cables within the arm.
7. Reposition the locking pin on the left side of the cable management arm, as needed, to provide clearance between the cable management arm and the rear of the chassis, and to allow a rear equipment door to close.

## Securing the Memory Array to the Equipment Rack

1. Slide the Memory Array back into the equipment rack.
2. Using the rack ear screws, secure the system to the front of the equipment rack.