Security Acceleration Module
Installing and Removing Memory

Important - We recommend that only experienced personnel install or remove hardware components. Installing or removing components incorrectly can permanently damage the appliance.

Preparing the Appliance
Before you start to install or remove DIMMs, make sure that:

- You can connect to the WebUI or CLI to shut down the appliance.
- The appliance is in a clean environment and on a level surface.
- You can physically access and remove the upper tray of the appliance.
- You have the Check Point DIMM upgrade kit.

Important - To protect the appliance and the memory modules from electrostatic discharge damage, make sure that you are properly grounded before you touch any of the electronic components. Read the Health and Safety Information in the Check Point Security Acceleration Module Getting Started Guide before you start to prepare the appliance.

We recommend that you use the grounding wrist strap that is included in the upgrade kit. The grounding plug on the rear of the appliance provides a chassis grounding point.

Upgrade Kit Contents
- Installation guide - Check Point Security Acceleration Module Installing and Removing Memory
- Six 4GB DIMMs or six 8GB DIMMs
- Screw driver
- Upgrade kit sticker
- ESD grounding strap (anti-static)

**To prepare the appliance:**

1. Log in to the appliance and shut it down:
   - From the WebUI: In the **Maintenance > Shut Down** page, click **Halt**.
   - From the CLI: Run the `halt` command.
   The appliance shuts down.
2. Remove the power cords from the appliance.
3. Put on the ESD strap and attach the other end to a grounding point.
4. Loosen the two retaining screws for the upper tray.
   Only use the screwdriver that is included in the upgrade kit on the retaining screws.
5. Pull hard on the extraction handles for the upper tray and remove the Security Acceleration Module from the appliance.

![Diagram of the appliance with labels](image)

**Note** - The previous diagram shows the 21700 and 21600 appliances.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Upper tray with Security Acceleration Module</td>
</tr>
<tr>
<td>2</td>
<td>Bottom tray with system board</td>
</tr>
<tr>
<td>3</td>
<td>Two retaining screws and extraction handles for the upper tray</td>
</tr>
<tr>
<td>4</td>
<td>Grounding point for ESD strap</td>
</tr>
</tbody>
</table>
The Security Acceleration Module has a default 12GB memory configuration with six 2GB DIMMs.

To upgrade the Security Acceleration Module to 24GB, remove the 2GB DIMMs and install the six 4GB DIMMs.
To upgrade the Security Acceleration Module to 48GB, remove the 2GB DIMMs and install the six 8GB DIMMs.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>🌡️</td>
<td>Cooling fan</td>
</tr>
<tr>
<td>🌡️</td>
<td>Memory socket with DIMM installed</td>
</tr>
<tr>
<td>🌡️</td>
<td>Unused Expansion memory socket</td>
</tr>
</tbody>
</table>
Upgrading DIMMs

For each installed DIMM, replace the 2GB DIMM with the applicable DIMM, depending on the upgrade kit. Security Acceleration Module does not use the expansion memory sockets. Do not install DIMMs in these sockets.

To install DIMMs in the appliance:

1. Find the DIMM slots on the Security Acceleration Module.
2. Remove one DIMM from the appliance.
   a) Press the two retaining clips outward.

   b) Carefully pull the DIMM up.

   If necessary, pull one end of the DIMM, then the other, to gradually release it from the contact pins.
3. Make sure that the two retaining clips are positioned outward.

4. Align the new DIMM above the socket.
   Only touch the top corners of the DIMM. Pressing on the heat sink or other DIMM components can damage the hardware.

The top of the DIMM is smooth. The bottom edge has two different-length sets of contacts, which connect to the slots on the socket.

**WARNING!** - There are sharp metal parts in the appliance, like the heat sink fin and bracket, that can cause injury and damage the hardware.
5. Press the new DIMM into the socket until it clicks into position.

   ![DIMM installation diagram]

   The retaining clips move into the lock position as you press the DIMM into position.

6. Do steps 2 - 5 again for the other DIMMs.

7. Insert the upper tray (Security Acceleration Module) in the appliance.
   a) Move the upper tray into the appliance until it clicks into position.
   b) Make sure that the upper tray is level with the lower tray.
   c) Tighten the two retaining screws for the upper tray.

8. Make sure the DIMMs are installed correctly.
   a) Connect the power cords to the appliance.

      The appliance turns on.

   b) Make sure that the LCD screen shows the appliance model.

   c) Confirm the appliance RAM configuration, from the CLI run `cat /proc/meminfo`
Attaching the Upgrade Kit Sticker

After you install the new upgrade component, attach the upgrade kit sticker on the appliance.

To attach the new upgrade kit sticker:
1. Make sure that the appliance operates correctly.
2. Attach the new upgrade kit sticker to the side of the appliance.
3. Clearly mark the component that was upgraded on the appliance.

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- [ ] SAM 48GB
- [ ] SAM 24GB
- [ ] LOM Card
- [ ] RAM Upgrade 64GB
- [ ] 32GB
- [ ] 24GB