



Installation Note for Fan Tray Assemblies in Catalyst 4500 Series Switches

Fan Assembly Overview



Note

For complete environmental specifications, including airflow requirements, refer to Appendix A, “Specifications,” in the *Catalyst 4500 Series Installation Guide*. The guide is available online at <http://www.cisco.com/en/US/docs/switches/lan/catalyst4500/hardware/installation/guide/78-14409-08/4500inst.html>

The system fan assembly provides cooling air for the internal chassis components. The fan assembly is a tray of fans that you can insert and remove from the chassis while the system is on line. The Catalyst 4503 fan assembly has two fans, the Catalyst 4506 fan assembly has four fans, and the Catalyst 4507R fan assembly has six fans. The fans draw in fresh air from one side and exhaust air on the other side. Catalyst 4503 airflow is shown in [Figure 1](#). Catalyst 4506 airflow is shown in [Figure 2](#). Catalyst 4507R airflow is shown in [Figure 3](#).



Caution

You must install module filler plates on unused switching module slots to ensure proper airflow.



Caution

Removing and replacing fan trays produced between September 2002 and November 2002 might require rebooting the switch in a Catalyst 4506 switch with a Supervisor Engine III or Supervisor Engine IV and in a Catalyst 4507R switch with Supervisor Engine IV. Starting in December 2002, Cisco added a white strip on the bottom of the fan tray label to identify improved fan trays that do not have this limitation.



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Figure 1 Catalyst 4503 Airflow

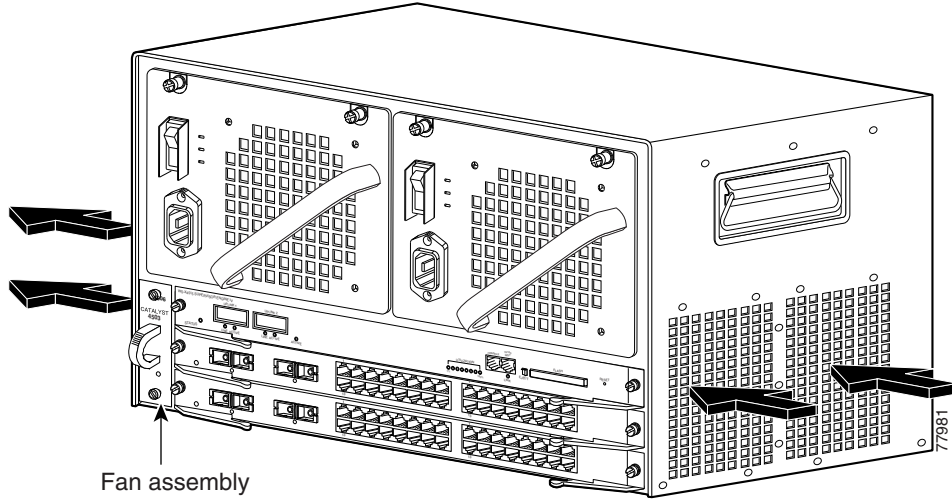


Figure 2 Catalyst 4506 Airflow

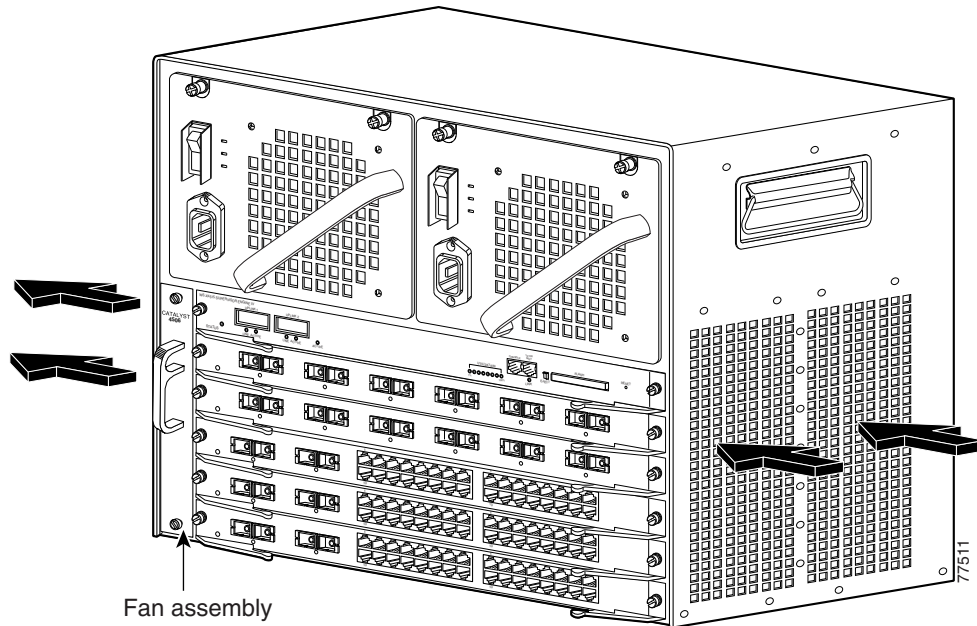
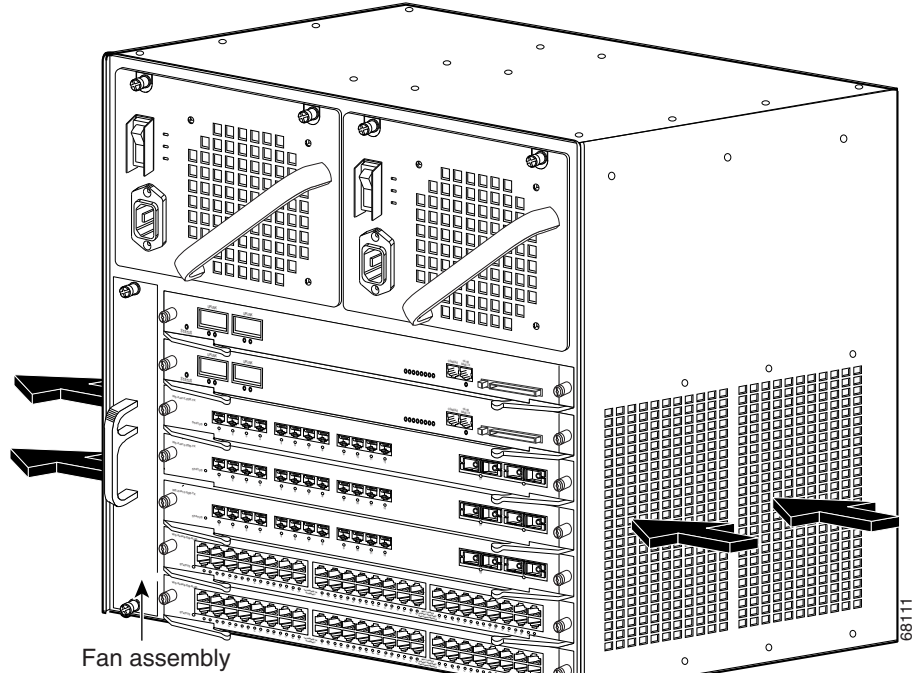


Figure 3 Catalyst 4507R Airflow

Removing and Replacing the Chassis Fan Assembly

This section describes how to remove and install the chassis fan assembly for the Catalyst 4500 series switches. See [Figure 4](#) for the Catalyst 4503 system fan assembly, [Figure 5](#) for the Catalyst 4506 system fan assembly, and [Figure 6](#) for the Catalyst 4507R system fan assemblies.

Required Tools

You will need a Phillips screwdriver for the following two procedures.

Figure 4 Catalyst 4503 System Fan Assembly

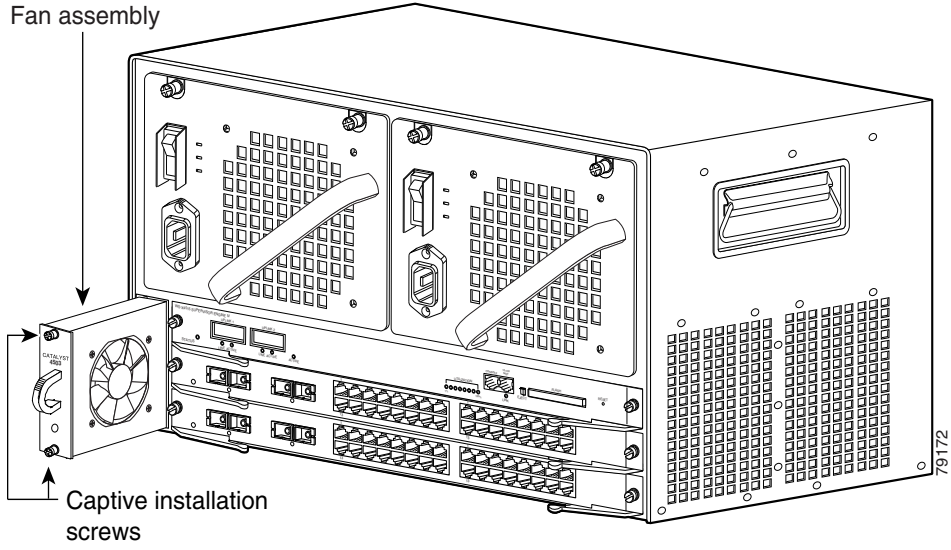


Figure 5 Catalyst 4506 System Fan Assembly

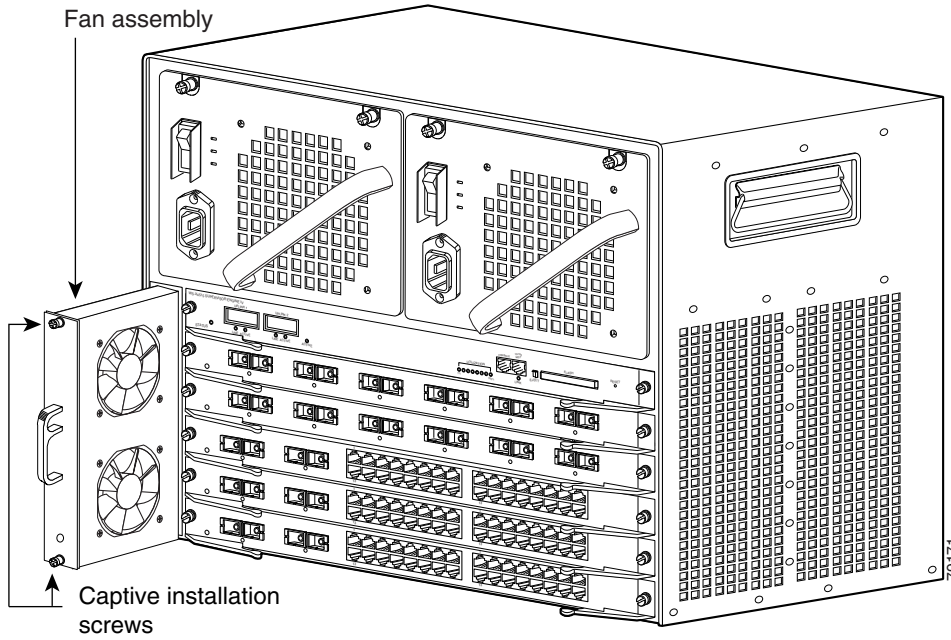
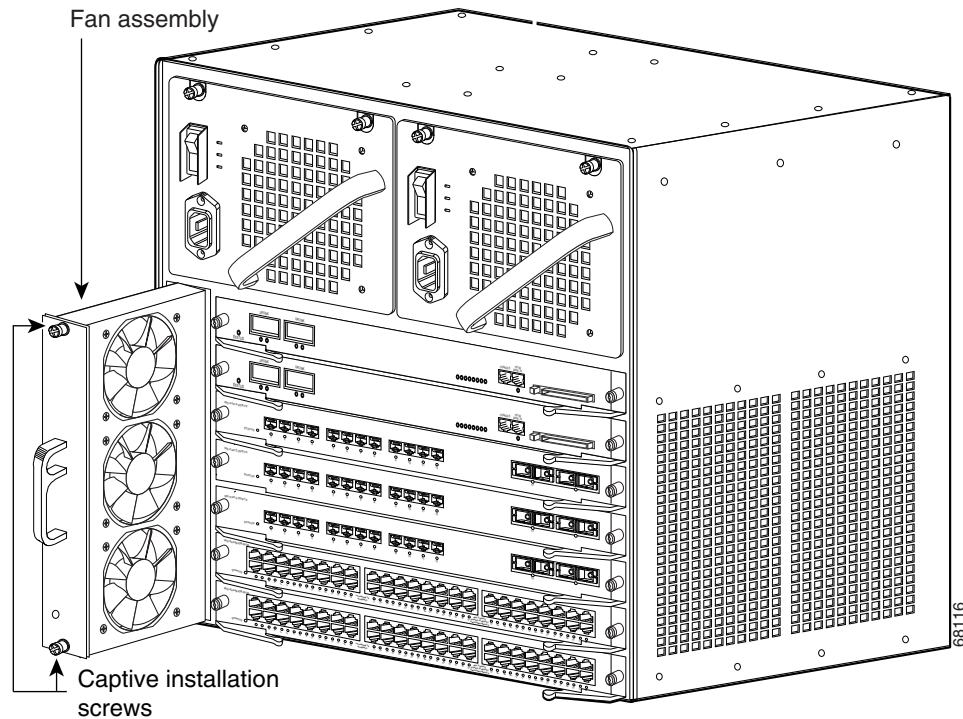


Figure 6 Catalyst 4507R System Fan Assembly



Removing the Fan Assembly



Caution

When changing fan assemblies, try to keep changeover times to under a minute. Never operate the system for an extended period if the fan assembly is removed or if it is not functioning properly. An overtemperature condition can cause severe equipment damage or an unscheduled system shutdown.

Follow these steps to remove the existing chassis fan assembly:

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- Step 1** Loosen the two captive installation screws on the fan assembly by turning them counterclockwise.
- Step 2** Grasp the fan assembly with both hands and pull it outward; wiggle it if necessary to unseat it from the backplane. Slide it out of the chassis and put it someplace where it will not be dropped or stepped on.
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Warning

When removing the fan tray, keep your hands and fingers away from the spinning fan blades. Let the fan blades completely stop before you remove the fan tray.

Waarschuwing

Houd tijdens het verwijderen van de ventilator de handen en vingers uit de buurt van de draaiende ventilatorschoepen. Laat de ventilatorschoepen volledig tot stilstand komen alvorens de ventilator te verwijderen.

Varoitus

Pidä kädet ja sormet pois tuulettimen pyörivistä siivistä tuuletinalustaa poistaessasi. Anna tuulettimen siipien pysähtyä kokonaan ennen kuin irrotat tuuletinalustan.

Attention

Lors du retrait du plateau du ventilateur, veillez à ce que vos mains et doigts restent à l'écart des pales en rotation du ventilateur. Attendez que les pales du ventilateur soient parvenues à une immobilité complète avant de retirer le plateau du ventilateur.

Warnung

Beim Herausnehmen des Lüfterkastens Hände und Finger von den sich drehenden Gebläseflügeln fern halten. Vor Herausnehmen des Gebläsekastens warten, bis die Gebläseflügel völlig zum Stillstand gekommen sind.

Avvertenza

Quando si toglie il vano della ventola, fare attenzione che le mani e le dita non vengano in contatto con la ventola in movimento. Attendere che la ventola si fermi completamente prima di togliere il vano.

Advarsel

Når du fjerner viftedekselet, hold hender og fingre borte fra de roterende viftebladene. La viftebladene stanse helt før du fjerner viftedekselet.

Aviso

Mantenha as suas mãos e dedos afastados das lâminas em movimento da ventoinha, ao retirar a respectiva bandeja. Deixe as lâminas da ventoinha parar completamente antes de retirar a bandeja.

¡Advertencia!

Cuando quite la bandeja del abanico, mantenga las manos y los dedos alejados de las aspas en movimiento. Deje que las aspas se detengan completamente antes de quitar la bandeja del abanico.

Varning!

Håll händer och fingrar borta från de roterande fläktbladen när du tar av fläktskyddet. Låt fläkten stanna helt innan du tar av fläktskyddet.

Installing the Fan Assembly

Follow these steps to install the new fan assembly:

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- Step 1** Hold the fan assembly with the fans facing to the right.
 - Step 2** Place the fan assembly into the fan assembly bay so it rests on the chassis, and then lift the fan assembly up slightly, aligning the top and bottom guides.
 - Step 3** Slide the fan assembly into the chassis until the two captive installation screws make contact with the chassis.
 - Step 4** Using a screwdriver, tighten the two captive installation screws by turning them clockwise.
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Verifying the Installation



Note To check the operation of the fans, you need to power up the chassis.

Follow these steps to verify that the new fan assembly was installed correctly:

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- Step 1** Listen for the fans; you should immediately hear them operating. If you do not hear them, ensure that the fan assembly is inserted completely in the chassis and that the faceplate is flush with the switch back panel.
- Step 2** If after several attempts the fans do not operate, or if you experience trouble with the installation (for instance, if the captive installation screws do not align with the chassis holes), contact the Cisco Technical Assistance Center (TAC) for assistance.
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Related Documentation

For other installation and configuration information, refer to this publication:

- *Catalyst 4500 Series Installation Guide*

Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, submitting a service request, and gathering additional information, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

<http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>

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