



**Material efficiency Requirements:
Disassembly for repair or reuse purposes
Weight range of specified critical raw materials
IBM FlashSystem products: 4983-AH8, AFF, A9F**

Product information for return and recycling can be found at:

- [Product recycling programs](#)

Complete product information for repair or reuse of components can be found on the IBM Documentation web site at:

- [IBM Storage FlashSystem 9500, 9200 and 9100 documentation](#)

Examples of System documentation includes (each is a hotlink to the document):

- [Removing and replacing the enclosure end caps](#)
You can remove and replace the enclosure end caps during some service procedures.
- [Replacing the control enclosure support rails](#)
You can replace faulty support rails with new rails that are received from stock.
- [Removing and replacing a drive](#)
Use the following procedures to remove a faulty drive from the enclosure and replace it with a new one from stock. The procedures are also applicable when you are removing or replacing an IBM FlashCore® Module.
- [Removing and replacing a drive blank](#)
Use the following procedures to remove a faulty drive slot filler and replace it with a new one from stock. Drive slot fillers are passive components that regulate airflow through the control enclosure.
- [Removing and replacing a power supply unit](#)
You can remove and replace either of the four hot-swap redundant power supply units (PSUs) in a FlashSystem 9500 control enclosure. These redundant power supplies operate in parallel, a minimum of two of them are needed to power the enclosure.
- [Removing and replacing a power interposer](#)
A faulty power interposer can be removed and replaced with an identical or equivalent replacement part from stock.
- [Removing and replacing the cover of a node canister](#)
To complete a service procedure, you may need to remove and replace the cover of a node canister.

- [Removing and replacing an SFP transceiver](#)
When a failure occurs on an optical link in a control enclosure, the SFP transceiver in the port that provides the link might need to be removed and replaced.
- [Removing and replacing a network adapter](#)
Use this procedure to remove and replace a network adapter, such as a host interface adapter or SAS adapter, in a FlashSystem 9500 system with a new one received from stock.
- [Removing and replacing an adapter cage](#)
Use this procedure to remove and replace a network adapter in a node canister with a new one received from stock. The adapter cage is replaced when replacing a single adapter does not work or both adapters in the cage are having problems.
- [Removing and replacing the node canister battery](#)
To remove and replace a faulty battery with a new one received from stock, use this procedure.
- [Removing and replacing a CMOS battery](#)
The complementary metal-oxide semiconductor (CMOS) battery is a coin-shaped power cell that is mounted inside the node canister. It is used to keep the system time when there is no power to the node canister.
- [Removing and replacing a memory module](#)
You can remove and replace a faulty dual in-line memory module (DIMM) from a control enclosure. You can also use this procedure to add DIMMs to increase the memory capacity of the node canister.
- [Removing and replacing the Trusted Platform Module](#)
Use this procedure to remove and replace a faulty Trusted Platform Module (TPM) with a new one received from stock.
- [Removing and replacing a boot drive](#)
Use this procedure to remove and replace a faulty boot drive from a node canister.
- [Removing and replacing an enclosure or midplane assembly](#)
A trained service provider will not replace a midplane, instead they will replace the enclosure with a new enclosure which contains the midplane assembly and PIBs. The midplane does include a VPD chip containing the Machine Type, Model and Serial number of the enclosure. These need to be recorded along with world wide node names.
- [Removing and replacing a fan module](#)
Use this procedure to replace a faulty fan module in a FlashSystem 9500 node canister with a new one received from stock.
- [Removing and replacing the air baffle of a node canister](#)
To service parts under the air baffle such as memory, you may need to remove and replace the air baffle of a node canister
- [Removing and replacing a compression card](#)
Use this procedure to remove and replace a compression card in a FlashSystem 9500 system with a new one received from stock.

- [Removing and replacing a node canister](#)

You can use this procedure to remove a faulty node canister and replace it with a new node canister. You can remove the parts from the faulty node canister and reinstall them into the new node canister. You can also use this procedure to allow for replacement of parts inside the node canister.

Cobalt in batteries	Less than 5 grams	5 grams to 25 grams	Above 25 grams
	None reported	None reported	None reported
Neodymium in Hard Disk Drives	Less than 5 grams	5 grams to 25 grams	Above 25 grams
	None reported	None reported	None reported

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