

## **Product End-of-Life Instructions**

### PRODUCT FAMILY

Power Edge Servers

### **PURPOSE**

The intent of this document is to provide guidance to recyclers on the presence of materials and components at the product / family level, as required by the EU WEEE Directive 2012/19/EU. This document should also help direct recyclers to proper methods for removing parts and general product disassembly instructions.

### PRODUCT DISASSEMBLY INSTRUCTIONS

Most parts can be removed easily by hand. In some cases, common household tools such as Philips and/or flat-head screw drivers may be necessary. To remove discrete components such as the electrolytic capacitors, needle-nose pliers may be helpful. Instructions for removing parts in each product can be found in the User Documentation originally provided with the product. This documentation can be found online:

https://www.dell.com/support/home/us/en/19/products/server int

#### PRODUCT MATERIAL INFORMATION

The following substances, preparations, or components should be disposed of or recovered separately from other WEEE in compliance with Article 4 of EU Council Directive 75/442/EEC. Note: Check service manual or use service tag for more information on the parts

	Mercury	Dell does not use internal batteries based on Mercury (Hg) and its compounds.
Batteries	Cadmium	Dell does not use internal batteries based on Cadmium (Cd) and its compounds.
	Lead	Dell does not use internal batteries based on Lead (Pb) and its compounds.
	Other	Dell servers use Lithium Primary Coin Cells. Depending on the feature set, some may also include Lithium Ion secondaries. Additional features such as add in PERC, RAID, or DRAC cards may include a Lithium Ion Button Cell or Nickel Metal Hydride batteries.
Mercury	Lamps, Bulbs, and other Lighting Applications	Product does not contain a Mercury based lamp or bulb.
	Other Uses	Other parts used in Dell products can not contain intentionally added Mercury.
	Displays (LCD) 00 cm2	Product does not contain an LCD greater than 100 cm2.



Cathode Ray Tubes (CRT)	Product does not contain a CRT
Plastic containing Brominated flame retardants other than in PCB / PCA	This product may contain plastic parts greater than 25 grams.  Many of these parts are bromine free. Regardless, these parts are labeled (usually molded directly into the plastic) per ISO 11469. This product may contain plastic parts with Brominated flame retardants. Plastic parts location can be visually identified by their typical design function for the product (also shown in the service manual). See reference plastic list  - Many of these parts (Greater than 25 grams) are bromine free. Regardless, these parts are labeled (usually molded directly into the plastic) per ISO 11469.  A typical label would look like:  > Polymer Abbreviation - FR(#) < i.e. > PC+ABS FR(40) < Flame retardant codes (FR(#)) are given in ISO 1043-4. Codes for some Brominated flame retardants:  14 aliphatic/alicyclic Brominated compounds  15 aliphatic/alicyclic Brominated compounds in combination with antimony compounds  16 aromatic Brominated compounds (excluding Brominated diphenyl ether and biphenyls)  17 aromatic Brominated compounds (excluding Brominated diphenyl ether and biphenyls) in combination with antimony compounds  22 aliphatic/alicyclic chlorinated and Brominated compounds  42 Brominated organic phosphorus compounds  - Plastics parts weighing less than 25 grams may or may not contain brominated flame retardants. These smaller plastics parts may include: top and bottom rail, blank, clamps, holders, ODD cover.  Recycler should treat these parts separately. For more information contact support or visit: https://support.dellproductcompliance.com/hc/en-us
Capacitors with PCB's	Dell does not use capacitors with PCB
Printed Circuit Boards (PCB) or Printed Circuit Assemblies (PCA)	Present in Dell Server:- system board (mother board) and printed circuit board components such as Memory board, PCle cards, M.2 drive, network/daughter card (network interface card), storage controller card, SSD backplane, Expansion (expander) card, I/O Card, OCP card, riser card, PCl Express card, PERC card, GPU card, iDRAC card, MicroSD Card, IDSDM/Flash card, drive backplane, midplane board, SAS backplane, media board, SPI



	board, Trusted platform module(TPM), Processor Expansion module(PEM), USB, PCB inside Power supply unit, power board(Check with service tag on support.dell.com and product service manual)  For more information contact support or visit:  https://support.dellproductcompliance.com/hc/en-us
chlorofluorocarbons (CFC), hydrochlorofluorocarbons (HCFC) or hydrofluorocarbons (HFC), hydrocarbons (HC)	Dell products do not contain Ozone depleting substance (Class 1 and Class II CFCs and HCFCs)
External Electrical cables	External cables may be present.
Electrolyte capacitors (height > 25mm, diameter > 25mm)	Electrolytic capacitors (height and/or diameter greater than 25mm) are not used on Dell motherboards. However, these capacitors are often present in power supply units (silver box).
Asbestos and its compounds	Parts used in Dell products cannot contain asbestos or its compounds
Refractory ceramic fibers	Parts used in Dell products cannot contain refractory ceramic fibers
Radio-active substances	Parts used in Dell products cannot contain Radio-active substances.
Beryllium and its compounds (including Beryllium Oxide)	Beryllium may be present in electronic components as a copper beryllium alloy, which contains less than 2% beryllium. CuBe alloys may be used in various components such as connectors, switches, relays, current carrying springs, integrated circuit sockets, and RF shielding.
Gasses - which fall under Regulation (EC) 2037/2000 and all hydrocarbons (HC)	Parts used in Dell products do not contain gasses which fall under Regulation (EC 2037/2000) and all hydrocarbons (HC).
Components with pressurized gas which need special attention (Pressure > 1,5bar)	Product does not contain parts with pressurized gas.
Liquids	This product may contain a heatsink heat pipe. Heat pipes contain a very small amount of very pure water.

# **DELL CORPORATE ENVIRONMENTAL INFORMATION**

Information on Dell's Environmental initiatives, policies, programs and goals can be found at <a href="https://www.dell.com/environment">www.dell.com/environment</a>.

Representative plastics reference list\*

Plastic Part name	Picture	Location Description
Hard Drive Bracket		Part of the hard drive assembly,
		inside the HDD filler bracket



	<u></u>	
Fan Assembly		Located behind drive backplane
Air Shroud		It sits under the top cover and around the cooling fan
Holder latch		Located near the air shroud, PCle card and serial ports, above system cover.
Blanks (USB, HDD)		HDD blank is around hard disk drive and USB blank will be towards the rear of the unit.



	T	
Latch Lever Insert/bracket		It is between the processor and heat sink module.
ODD Plastic cover		Outside the Optical disk drive.
Latch, Clamps & Locks		As seen in blue in the picture  Note: rack rails are optional accessory and sold separately.
Riser Plug and intrusion switch		Can be located near the rear of the system on the system board.



<sup>\*</sup>Some parts may not be applicable to all products in this family or may be made with material other than plastics