

IBM

@server

xSeries 440 Type 8687

Hardware Maintenance Manual



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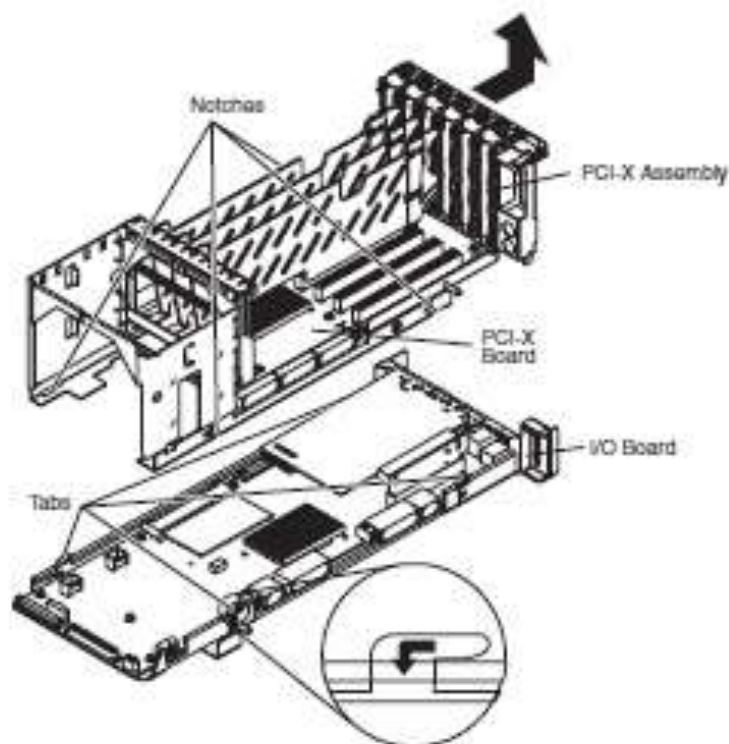
## Riser card and Remote Supervisor Adapter replacement

Complete the following steps to remove the riser card.

**Note:**

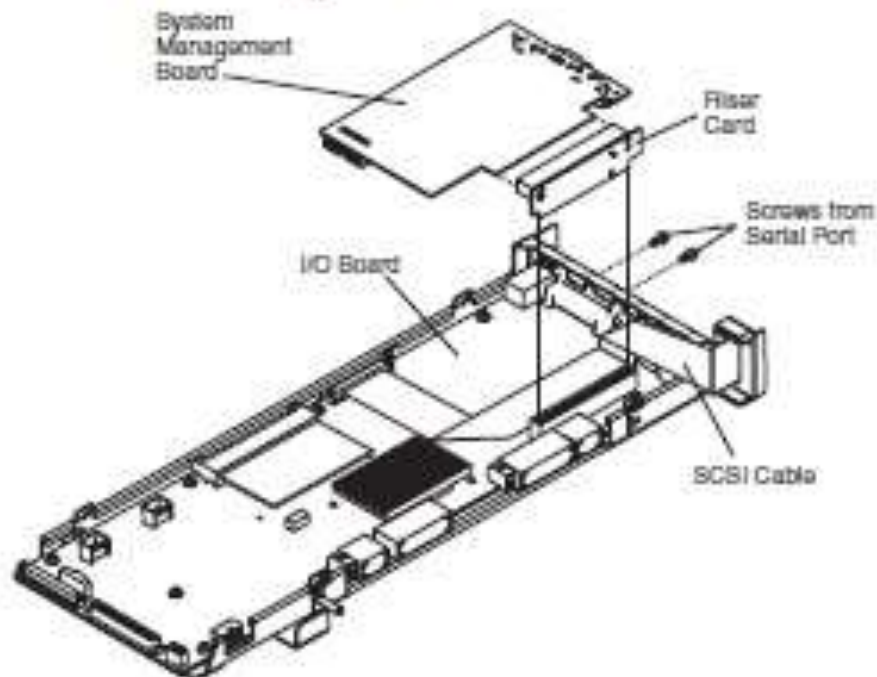
- Read ["Installation guidelines"](#) on page 71.
  - Read the safety notices at ["Safety notices \(multi-lingual translations\)"](#) on page 205.
  - Read ["Handling electrostatic discharge-sensitive devices"](#) on page 204.
1. Turn off the server (see ["Turning off the server"](#) on page 11) and disconnect all power cords and external cables.
  2. Remove the PCI brick from the server (see ["PCI brick"](#) on page 125) and place it on a clean work surface.
  3. Remove the PCI-X assembly from the I/O board:
    - a. Remove any adapters and adapter separators that are installed (see ["PCI and PCI-X adapters"](#) on page 77), unplugging any necessary cables.

**Note:** The illustrations in this document might differ slightly from the hardware being serviced.



- b. Remove the centerplane by turning the two centerplane thumbscrews to release it (see ["Centerplane"](#) on page 127); then, carefully lift the centerplane out of its socket and place it on a static-protective surface.
- c. Release the PCI-X assembly from the I/O board at the four notches that secure them together, then lift the PCI-X assembly off of the I/O board and set it in a safe place.

**Note:** The illustrations in this document might differ slightly from the hardware being serviced.

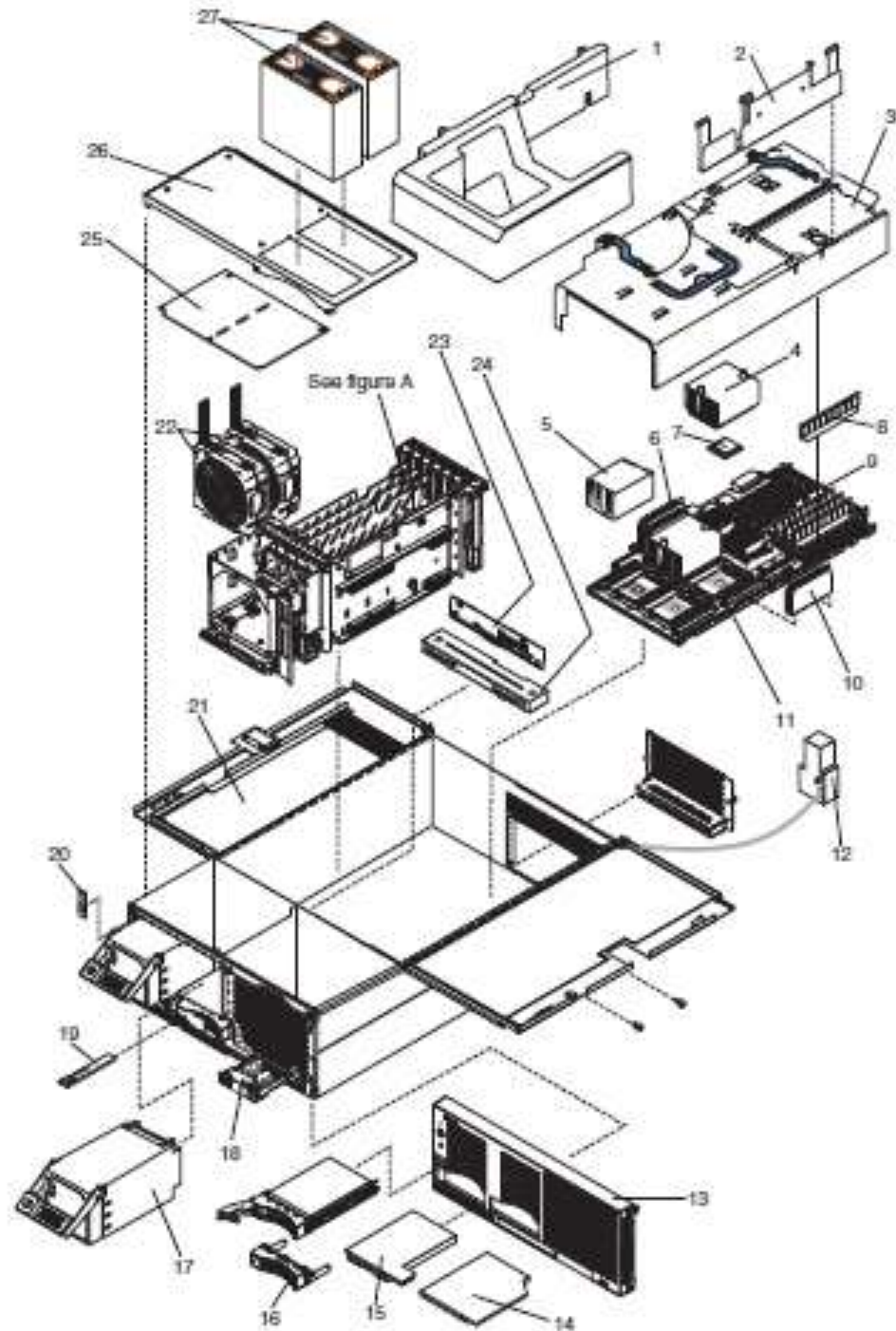


- d. Remove the serial port screws.
  - e. Pull the Remote Supervisor Adapter out of the riser card, disconnecting any cables, and set it in a safe place.
  - f. Pull the riser card out of the I/O board, disconnecting any cables.
4. To replace the riser card and/or the Remote Supervisor Adapter, reverse the previous steps.

## Parts listing, xSeries 440, Type 8687

The following Parts information is for the xSeries 440, Type 8687, Models 1RX, 2RX, 3RX, 4RX, 5RX, 6RX, 7RX, 3RY, 4RY, 1VX, 2VX, 3VX.

### System





Index	xSeries 440 (models 1RX, 2RX, 3RX, 4RX, 5RX, 6RX, 7RX, 3RY, 4RY, 1VX, 2VX, 3VX)	FRU No.	CRU/FRU
1	Baffle, SMP (models 1RX, 2RX, 3RX, 4RX, 5RX, 6RX, 7RX, 3RY, 1VX, 2VX, 3VX)	24P1299	FRU
2	Retention bracket (models 1RX, 2RX, 3RX, 3RY, 4RY, 4RX, 5RX, 6RX, 7RX, 1VX, 2VX, 3VX, 4VX, 5VX, 7VX)	24P1283	FRU
3	SMP cover assembly (all models)	03K9044	CRU
4	Heatsink assembly (models 1RX, 2RX, 3RX, 3RY, 4RY)	25P6309	CRU
4	Heatsink assembly (models 4RX, 5RX, 6RX, 7RX)	49P3151	CRU
5	Heatsink baffle (all models)	24P1284	CRU
6	VRM, 40, 12V (all models)	00N7754	FRU
7	Microprocessor, 100/1400-512 (model 1RX, 1VX)	36L9511	FRU
7	Microprocessor, 100/1500-512 (model 2RX, 2VX)	36L9509	FRU
7	Microprocessor, 100/1600-1M (model 3RX, 3VX)	36L9510	FRU
7	Microprocessor, 400/2400-0K-L3 (models 3RY, 4RY)	37L3570	FRU
7	Microprocessor, 100/1500-1 MB (model 4RX)	71P9372	FRU
7	Microprocessor, 100/1900-1 MB (models 5RX, 6RX)	71P9373	FRU
7	Microprocessor, 100/2000-2 MB (model 7RX)	71P9374	FRU
8	Memory, 512 DIMM PC133 ECC (models 1RX, 2RX, 3RX, 4RX, 5RX, 7RX, 3RY, 4RY, 1VX, 2VX, 3VX)	33L3325	CRU
8	Memory, 1 GB DIMM (model 6RX)	33L3327	CRU
9	VRM, Memory / Centerplane, 16, 12V (models 1RX, 2RX, 3RX, 4RX, 3RY, 4RY, 1VX, 2VX, 3VX)	74P4343	CRU
10	VRM, Microprocessor, 9.05F, 12V (models 1RX, 2RX, 3RX, 1VX, 2VX, 3VX)	49P2073	CRU
10	VRM, Microprocessor, 9.05P, 12V (models 4RX, 3RY, 6RX, 7RX, 4RY, 4VX, 5VX, 7VX)	49P2129	CRU
11	SMP board (models 1VX, 2VX, 3VX, 4VX, 5VX, 7VX)	90P0011	FRU
11	SMP board (models 1RX, 2RX, 3RX, 3RY, 4RX, 5RX, 6RX, 7RX)	90P0010	FRU
12	AC box assembly mechanism (all models)	49P2990	FRU
13	Bezel, 4U FT (all models)	03K9045	CRU
14	CD-ROM drive (all models)	27L4301	CRU
15	Diskette drive, primary (all models)	08K9606	CRU
15	Diskette drive, alternate (all models)	08K9607	CRU
16	Bezel, slim hard disk drive (all models)	08P6245	FRU
17	Power supply with mounting, 1050W (all models)	74P4347	CRU
18	Light Path card (all models)	03K9039	FRU
19	Media extract mechanism (all models)	03K9047	FRU
20	Power/reset card assembly (all models)	59P5814	FRU
21	Chassis, 4UX26* (all models)	49P2989	FRU
22	PCI fan assembly (all models)	03K9049	CRU
	See <a href="#">Figure A* on page 198</a>		
23	Hard disk drive (DASD) card (all models)	03K9037	FRU
24	Media bay card (all models)	03K9036	FRU
25	Top power board (all models)	03K9038	FRU
26	Top cover assembly (all models)	03K9043	FRU
27	SMP fan assembly (all models)	03K9048	CRU
	Cover assembly, CEC (models 4RX, 5RX, 6RX, 7RX, 1AX, 2AX, 3AX, 4AX, 5AX, 7AX)	02R9111	FRU
	Baffle, CEC (all models except 4RY)	02R9132	FRU
	Lift handle (all models)	24P1295	CRU
	Label, GMB (models 4RX, 5RX, 6RX, 7RX, 1AX, 2AX, 3AX, 4AX, 5AX, 7AX, 1RX, 2RX, 3RX, 3RY, 4RY, 1VX, 2VX, 3VX, 4VX, 5VX, 7VX)	73P6296	CRU
	Thermal grease kit (all models)	59P4740	FRU
	Alcohol wipes (all models)	59P4739	FRU
	Cable management arm (all models)	31P6119	FRU
	Battery, 3.0V (all models)	33F8354	FRU