
Appendix B

Processor Upgrade Reference

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Compaq Processor Upgrades

Deskpro				
Model	Socket Pins	Configuration Code	Processor Board	Processor Chip
5133, 5120, 5100, 590 575	320	HMW, HMX, HKW, HSE, HMY, HGL, HNX, HSZ, HSY, HTA, HSF, HSG, GSG, HSJ, GSJ, GKW, HSX, GSX, HSI, GSI, HSY, GSY, HTL, GTL, HSH, GSH	no	90 MHz Pentium (DP575 only)
466, 450	238	HKR, HKS, HKQ, HKT, HKU, HKV, HLE, HLF	no	100 MHz DX4
4/25	168	HAJ	no	50 MHz DX

Deskpro i				
Model	Socket Pins	Configuration Code	Processor Board	Processor Chip
486	238	HFW, HFY, HFZ	no	66 MHz DX2
486	169	HCR, HEF, HCS, HEG, HCT, HEH, HEC, HED, HEE	no	66 MHz DX2
386	169	HEA, HCP, HCQ, HEB	no	66 MHz DX2

Deskpro L				
Model	Socket Pins	Configuration Code	Processor Board	Processor Chip
386/33L		HAS	to 486/33	no
486/33L	168	HAM	no	66 MHz DX
486/50L	168	HBA	no	no

Deskpro M				
Model	Socket Pins	Configuration Code	Processor Board	Processor Chip
5/66M	273	HFB	no	no
5/60M	273	HFA	no	no
4/66M	238	HCJ	to Pentium 60	no
4/50M	168	HBP	to Pentium 60	no
4/33M	168	HBN	to Pentium 60	66 MHz DX2
486s/33M	169	HGF	to Pentium 60	33 MHz DX 66 MHz DX2
486s/16 486s/25 ¹	169	HBL (16MHz) HBM (25MHz)	to Pentium 60	33 MHz DX 50 MHz DX2
386	386	HBR (25MHz) HBV (33MHz)	to Pentium 60	no

¹ Some versions support selectable processor bus speed while others do not. When upgrading a Deskpro 486/16M without selectable processor bus speed, be aware that a 33 MHz 486DX upgrade processor operates at 16 MHz; the 50 MHz DX2 and OverDrive processors will operate at 32 MHz; and the 75 MHz DX4 and OverDrive processors operates at 48 MHz.

Compaq Processor Upgrades

Deskpro XE				
Model	Socket Pins	Configuration Code	Processor Board	Processor Chip
560	273	HFC	no	no
486	238	HGW, HGX, HGY, HKH	no	66 MHz DX2

Deskpro XL				
Model	Socket Pins	Configuration Code	Processor Board	Processor Chip
5133	320	HSN	no	no
5120	320	HRC (120 MHz)	to 133 MHz Pentium	no
575, 590 5100	320	HPR (100 MHz) HHR (90 MHz) HPQ (75 MHz)	to 133 MHz Pentium	125 MHz Pentium
560, 566	273	60 MHz HHN 66 MHz HHP	to 133 MHz Pentium	no
466	238	HHM	to 133 MHz Pentium	no
450	238	HHL	to 133 MHz Pentium	no

Presario				
Model	Socket Pins	Configuration Code	Processor Board	Processor Chip
466	169	HJA	no	66 MHz DX2
510	169	HLL	no	50 MHz DX2 66 MHz DX2
772, 774, 972, 974, 978, 982, 992	320	HPU, HPW, HPX, HPY, HQZ	no	to 100 MHz Pentium
762, 962	273	HPS, HPT	no	no
940, 942, 944, 948, 954	238	HQC, HQD, HQF, HQG	no	100 MHz DX4
720, 724, 744, 920, 924	238	HLV, HLW, HQB, HLU, HMB, HMC, HLY, HLZ	no	100 MHz DX4
866	238	HHF	no	no
833, 850, 860	238	HHD, HHE, HKL	no	66 MHz DX2
650	169	HKN	no	66 MHz DX2
425, 433, 520, 524, 526, 528, 625, 633, 660	169	HFG, HJA, HLM, HQS, HQJ, HHY, HGU, HGT, HJE	no	66 MHz DX2

Compaq Processor Upgrades

ProLinea				
Model	Socket Pins	Configuration Code	Processor Board	Processor Chip
5133, 5120, 5100, 590, 575	320	HMZ, GMZ, HNA, GNA, HNB, GNB, HLD, GLD, HLK, GLK, HNY, GNY, HSD, GSD, HTX, GTX, HTA, GTA, HTN, GTN, HTO, GTO, HTP, GTP, HSF, GSF, HSU, GSU, HTQ, GTQ, HTR, GTR, HSK, GSK	no	90 MHz Pentium (PL575 only)
466, 450	238	HKZ, GKZ, HLB, GLB, HLH, GLH, HKY, GKY, HLA, GLA	no	100 MHz DX4
MT	238	HHA, HHB, HHC	no	66 MHz DX2
4/66	169	HEV, HEW	no	N/A
4/50	169	HET	no	66 MHz DX2
4/50	168	HDV	no	no
4/33, 4/33s	169	HER, HEU, HES, HGN, HGP	no	66 MHz DX2
4/33	168	HCW	no	66 MHz DX2
4/25s	169	HEP, HEQ	no	66 MHz DX2 50 MHz DX2
4/25s	169	HDU	no	50 MHz DX2
3/25s, 3/25zs		HCU, HCV	no	N/A
Net/1	169	HJB	no	66 MHz DX2

ProLinea (Enhanced)				
Model	Socket Pins	Configuration Code	Processor Board	Processor Chip
4/100	238	HKE	no	N/A
4/66	238	HKD, HNE	no	N/A
4/50	238	HKC, HND	no	66 MHz DX2
4/50s	238	HKB	no	66 MHz DX2
4/33s	238	HKA	no	66 MHz DX2

Intel Processor Upgrades

Deskpro					
Model	Socket Pins	Configuration Code	Intel [®] dx2™ Overdrive	Intel [®] dx4™ Overdrive	Pentium [®] Overdrive
590, 575, 5100, 5133, 5120	320	HSE, HGL, HSZ, HTA, HSF, HSG, GSG, HSY, HSH, GSH, HMW, HMX, HKW, HMY, GMW, HNX, GMX, GNX, GMY, HSC, HSY, HSJ, GSJ, GKW, HSX, GSX, HSI, GSI, GSY, HTL, HTW, HWU, HWT, HWY, GTL	N/A	N/A	PDOP150 ²
466, 450	238	HKR, HKS, HKQ, HKT, HKU, HKV, HLE, HLF	ODP66, ODPR66	ODP100, ODPR100	¹
4/25	168	HAI	ODP50, ODPR50	N/A	N/A

Deskpro i					
Model	Socket Pins	Configuration Code	Intel [®] dx2™ Overdrive	Intel [®] dx4™ Overdrive	Pentium [®] Overdrive
486	238	HFW, HFY, HFZ	ODP66, ODPR66	ODP100, ODPR100	¹
486	169	HCR, HEF, HCS, HEG, HCT, HEH, HEC, HED, HEE	ODP66, ODPR66	N/A	N/A
386	169	HEA, HCP, HCQ, HEB	ODP66, ODPR66	N/A	N/A

Deskpro L					
Model	Socket Pins	Configuration Code	Intel [®] dx2™ Overdrive	Intel [®] dx4™ Overdrive	Pentium [®] Overdrive
3/33L		HAS	N/A	N/A	N/A
4/33L	168	HAM	ODP66, ODPR66	N/A	N/A
4/50L	168	HBA	N/A	N/A	N/A

¹ This configuration has not been qualified.

² P5 Pins 1 & 2 Jumpered. P11 Pins 2 & 3 Jumpered

Intel Processor Upgrades

Deskpro M					
Model	Socket Pins	Configuration Code	Intel®dx2™ Overdrive	Intel®dx4™ Overdrive	Pentium® Overdrive
5/66M	273	HFB	N/A	N/A	¹
5/60M	273	HFA	N/A	N/A	¹
4/66M	238	HCJ	N/A	ODP100, ODPR100	PODP83
4/50M ³	168	HBP	N/A	ODP75, ODPR75	N/A
4/33M ³	168	HBN	ODP66, ODPR66 ²	ODP100, ODPR100 ²	N/A
486s/33M	169	HGF	ODP66, ODPR66	ODP100, ODPR100	N/A
486s/16 486s/25	169	HBL (16 MHz), HBM (25 MHz)	ODP50, ODPR50	N/A	N/A
386	386	HBR (25 MHz), HBV (33 MHz)	N/A	N/A	N/A

Deskpro XE					
Model	Socket Pins	Configuration Code	Intel®dx2™ Overdrive	Intel®dx4™ Overdrive	Pentium® Overdrive
560	273	HFC	N/A	N/A	¹
486	238	HGW, HGX, HGY, HKH	ODP66, ODPR66	ODP100, ODPR100	N/A ⁴

Deskpro XL					
Model	Socket Pins	Configuration Code	Intel®dx2™ Overdrive	Intel®dx4™ Overdrive	Pentium® Overdrive
5133	320	HSN	N/A	N/A	¹
575, 590, 5100, 5120	320	HRC (120MHz) HPR (100MHz) HHR (90MHz) HPQ (75MHz)	N/A	N/A	
560, 566	273	60MHz HHN 66MHz HHP	N/A	N/A	¹
466	238	HHM	N/A	ODP100, ODPR100	¹
450	238	HHL	ODP66, ODPR66	ODP100, ODPR100	¹

¹ This configuration has not been qualified.

² Will not work with assemblies 2319-xxx or 2297-xxx.

³ Some versions include an ODP-compatible Type 1, 169 pin processor socket while others do not. The recommended solution works in ALL versions. To ensure proper operation only upgrade processor chips rated at the same (or greater) processor bus speed as the original processor should be added to these models.

⁴ Must run in write-through mode which results in no performance increase.

Intel Processor Upgrades

Presario					
Model	Socket Pins	Configuration Code	Inteldx2™ Overdrive	Inteldx4™ Overdrive	Pentium® Overdrive
466	169	HJA	ODP66 ODPR66	ODPR75 ODPR100	N/A
510	169	HLL	ODP50 ODP66	ODP75 ODP100	N/A
772, 774	320	HPU	N/A	N/A	²
972, 974, 978	320	HPW, HPX, HPY	N/A	N/A	PODP125
982	320	HPW, HPX, HPY	N/A	N/A	PODP125
992	320	HQZ	N/A	N/A	²
762, 962	273	HPS, HPT	N/A	N/A	²
940, 942, 944, 948, 954	238	HQC, HQD, HQF, HQG	N/A	ODPR100	PODP83
742, 744, 748	238	HQB	N/A	ODP100, ODPR100	PODP83
720	238	HLV	ODPR50, ODPR66	²	PODP83
724	238	HLU	²	ODPR75, ODPR100	PODP83
920, 924	238	HMB, HMC, HLY, HLZ	ODP66, ODPR66	ODPR100	PODP83
866	238	HHF	N/A	ODPR100	PODP83 ¹
860	238	HKL	ODP66	ODPR100	PODP83 ¹
850	238	HHE	ODP66	ODP100	PODP83 ¹
833	238	HHD	ODP66, ODPR66	ODP100, ODPR100	PODP83 ¹
650	169	HKN	ODP50, ODPR50, ODP66, ODPR66	ODP75, ODPR75, ODP100, ODPR100	N/A
425, 433,	169	HFG, HJA	ODP50, ODP66	ODP75, ODP100	N/A
520	169	HLM	ODP66	ODPR75, ODPR100	N/A
524, 526, 528	169	HQS, HQJ, HHY	²	ODPR75, ODPR100	N/A
625	169	HGT	²	²	N/A
633	169	HGU	ODP50, ODP66	ODP75, ODP100	N/A
660	169	HJE	ODP66, ODPR50	ODPR75, ODPR100	N/A

¹ Confirm that P1 is jumpered 1-2 (CPU cache in write-through mode).

² This configuration has not been qualified.

Intel Processor Upgrades

ProLinea (see table below for Enhanced ProLinea)					
Model	Socket Pins	Configuration Code	Inteldx2™ Overdrive	Inteldx4™ Overdrive	Pentium® Overdrive
5133, 5120, 5100, 590, 575	320	HMZ, GMZ, HNA, GNA, HNB, GNB, HLD, GLD, HLK, GLK, HNY, GNY, HSD, GSD, HTX, GTX, HTA, GTA, HTN, GTN, HTO, GTO, HTP, GTP, HSF, GSF, HSU, GSU, HTQ, GTQ, HTR, GTR, HSK, GSK	N/A	N/A	PODP150 ³
466, 450	320	HKZ, GKZ, HLB, GLB, HLH, GLH, HKY, GKY, HLA, GLA	ODP66, ODPR66	ODP100, ODPR100	PODP83
MT	238	HHA, HHB, HHC	ODP66, ODPR66	ODP100, ODPR100	PODP83 ¹
4/66	169	HEV, HEW	²	ODPR100	N/A
4/50	169	HET	²	²	N/A
4/50	168	HDV	N/A	²	N/A
4/33 4/33s	169	HER, HEU, HES, HGN, HGP	ODP66, ODPR66	ODP100, ODPR100	N/A
4/33	168	HCW	²	²	N/A
4/25s	169	HEP, HEQ	ODP66, ODPR66	ODP100, ODPR100	N/A
4/25s	169	HDU	²	²	N/A
3/25s 3/25zs		HCU, HCV	N/A	N/A	N/A
Net/1	169	HJB	²	²	N/A

¹ Confirm that P1 is jumpered 1-2 (CPU cache in write-through mode).

² This configuration has not been qualified.

³ P5 Pins 1 & 2 Jumpered. P11 Pins 2 & 3 Jumpered

ProLinea (Enhanced)					
Model	Socket Pins	Configuration Code	Inteldx2™ Overdrive	Inteldx4™ Overdrive	Pentium® Overdrive
4/100	238	HKE	N/A	N/A	PODP83 ¹
4/66	238	HKD, HNE	N/A	²	PODP83 ¹
4/50	238	HKC, HND	²	²	PODP83 ¹
4/50s	238	HKB	ODP66, ODPR66	ODP100, ODPR100	PODP83 ¹
4/33s	238	HKA	ODP66, ODPR66	ODP100, ODPR100	PODP83 ¹

¹ Confirm that P1 is jumpered 1-2 (CPU cache in write-through mode).

² This configuration has not been qualified.

Compaq Support for Upgrade Processors

Compaq Processor Upgrades

Compaq Processor upgrades are fully supported and warranted by Compaq. Like other Compaq options, processors are warranted for the balance of the warranty term of the Compaq product in which they are installed, or one year, whichever is longer. Compaq processor upgrades are not warranted or supported in non-Compaq products. The Compaq warranty does not cover damage resulting from incorrect installation. The original processor should be retained in case Compaq in-warranty repair is required.

Intel Processor Upgrades

Summary

Most Compaq desktop products are designed to be upgradeable, and incorporate Intel OverDrive processor support. Intel provides warranty support for their processor upgrade products.

Detail

Most Compaq desktop products are designed to be upgradeable, and incorporate Intel OverDrive processor support. Intel and Compaq exchange engineering and technical support information to facilitate the support of appropriate Intel OverDrive processors in Compaq products.

Intel may provide a warranty for the performance of their OverDrive products. Contact Intel for information on their OverDrive processor warranty. Installation of appropriate Intel processor upgrades does not invalidate the Compaq warranty for the system into which they are installed. The Compaq warranty does not cover damage resulting from incorrect installation. The original processor should be retained in case Compaq in-warranty repair is required. Technical support on the configuration of Intel processor upgrades in Compaq products is available from either Intel or Compaq.

Intel Support: 800-321-4044 - Internet: <http://www.intel.com>

Compaq Upgrade Processor Chip Summary

Description	Code Name	Option Part Number	Speed (Int/Ext)	Spare Part Number	Volts	Pins
486/33		N/A	33MHz	140411-001 194495-001	5V	168
486 DX2/50	P24D	N/A	50/25MHz	194394-001 (A) 197421-001 (B)	5V	168
486 DX2/50 SL Enhanced ¹		N/A	50/25MHz	194394-001 (A) 163661-001 (B)	5V	168
486 DX2/66	P24D	197411-001	66/33MHz		5V	168
486 DX2/66 SL Enhanced ¹		194305-001	66/33MHz	163662-001 (B)	5V	168
486 DX4/100		172510-001	100/33MHz	164592-001	3.3V	168
Pentium 75	P54C	N/A	75/50MHz	213112-001 (w/o Heat Sink)	3.3V	296
Pentium 90	P54C	172511-001	90/60MHz	192764-001	3.3V	296
Pentium 100	P54C	N/A	100/66MHz	213113-001 (w/o Heat Sink)	3.3V	296

Description	Comments
486/33	
486 DX2/50	(A) DP/XE (B) ProLinea/Presario minitower
486 DX2/50 SL Enhanced ¹	² (A) For DP/XE (also supports Enhanced ProLinea, Presario 400/500/600) (B) For DP/XL
486 DX2/66	
486 DX2/66 SL Enhanced ¹	²
486 DX4/100	Requires 3.3 volt support
Pentium 75	Requires Type 5 socket and 3.3 volt support
Pentium 90	Requires Type 5 socket and 3.3 volt support
Pentium 100	Requires Type 5 socket and 3.3 volt support

¹ SL Enhanced DX2 processors are required to maintain energy conservation features in Deskpro XE, Deskpro XL, Deskpro xxx(x) Series, ProLinea xxx(x) Series, and Presario models.

² SL Enhanced includes support for power conservation features.

Intel Upgrade Processor Chip Summary

Description	Part Number	Speed (Ext/Int)	Voltage	Pins
IntelDX2™ OverDrive 50	DX2ODP50	50/25 MHz	5V	169
IntelDX2™ OverDrive 50 Replacement ¹	DX2ODPR50	50/25 MHz	5V	168
IntelDX2™ OverDrive 66	DX2ODP66	66/33 MHz	5V	169
IntelDX2™ OverDrive 66 Replacement ¹	DX2ODPR66	66/33 MHz	5V	168
IntelDX4™ OverDrive 75	DX4ODP75	75/25 MHz	Ext/5V Int/3.3V	169
IntelDX4™ OverDrive 75 Replacement ¹	DX4ODPR75	75/25 MHz	Ext/5V Int/3.3V	168
IntelDX4™ OverDrive 100	DX4ODP100	100/33 MHz	Ext/5V Int/3.3V	169
IntelDX4™ OverDrive 100 Replacement ¹	DX4ODPR100	100/33 MHz	Ext/5V Int/3.3V	168
Pentium® OverDrive 63	PODP5V63	63/25 MHz	Ext/5V Int/3.3V	237
Pentium® OverDrive 83	PODP5V83	83/33 MHz	Ext/5V Int/3.3V	237
Pentium® OverDrive 120	PODP5V120	120/60 MHz	Ext/5V Int/3.3V	273
Pentium® OverDrive 133	PODP5V133	133/66 MHz	Ext/5V Int/3.3V	273
Pentium® OverDrive 125	PODP3V125	75/50 MHz	Ext/3.3V Int/3.3V	320
Pentium® OverDrive 150	PODP3V150	90/60 MHz	Ext/3.3V Int/3.3V	320
Pentium® OverDrive 166	PODP3V166	100/66 MHz	Ext/3.3V Int/3.3V	320

¹ Intel ODP-R (OverDrive-Replacement) processors are supported in Compaq products by the jumper settings for the equivalent DX2 or DX4-based processor jumper settings.

Upgrade Processor Board Summary

Description	Part Number	Comments
Deskpro L		
486/33	122452-001	Service Option
Deskpro M		
DX2/66	139052-002	Sales Option
Pentium 60	149909-001	Sales Option
Deskpro XI		
Pentium 75	213110-001	Sales Option
Pentium 90	148150-001	Sales Option
Pentium 100	213111-001	Sales Option
Pentium 120	213124-001	Sales Option
Pentium 133	223308-001	Sales Option