

Available CTC Autosampler Parts

SGE 492 901	<p><b>MEPS GC Solutions Kit for GC PAL / CombiPAL / LHX PAL</b></p> <p>1 x MEPS Syringe 100L for CTC PAL (p/n 005291)          1 x MEPS Syringe 250L for CTC PAL (p/n 006292)          1 x MEPS BINS Development pack for 100L MEPS Syringe (p/n 2900105)          1 x MEPS BINS Development pack for 250L MEPS syringe (p/n 2900305)          1 x SciSEP Solutions DVD          1 x MEPS CTC PAL syringe holder for MEPS 100L syringe (p/n MSU 019-00A)          1 x MEPS CTC PAL syringe holder for MEPS 250L syringe (p/n MSU 026-00A)          1 x MEPS plunger holder (p/n MSK 01-00A)          MEPS wash station, option 1 or 2*</p>
SGE 492 902	<p><b>MEPS LC Solutions Kit for HTC / HTS / HTX PAL</b></p> <p>1 x MEPS Syringe 100L for CTC PAL (p/n 005291)          1 x MEPS Syringe 250L for CTC PAL (p/n 006292)          1 x MEPS BINS Development pack for 100L MEPS Syringe (p/n 2900405)          1 x MEPS BINS Development pack for 250L MEPS syringe (p/n 2900505)          1 x SciSEP Solutions DVD          1 x MEPS CTC PAL syringe holder for MEPS 100L syringe (p/n MSU 019-00A)          1 x MEPS CTC PAL syringe holder for MEPS 250L syringe (p/n MSU 026-00A)          1 x MEPS plunger holder (p/n MSK 01-00A)          MEPS wash station, option 1 or 2*</p>
PAL HTS0	<p><b>HTS PAL without TraySet or Stack*</b></p> <p>Prep and Load System for High Throughput Screening, consisting of:</p> <p>1 pc PAL80 X/Y unit          1 pc HTS Injection unit          2 pc Standalone support 215mm          1 pc Control terminal &amp; cable          1 pc Power supply, Input Voltage 100-240V, 120/150W &amp; cable          1 pc Valve drive          1 pc VICI Valco C2V-1006D-CTC-K Valve 6port &amp; sample loop 20µl          1 pc Fast wash station &amp; 1pc tubing kit &amp; 2pc wash solvent bottles          1 pc Syringe adapter 100µl &amp; plunger holder          2 pc Syringe 100µl SYRX G100-22S-3          1 pc Safety guard          1 pc Operating Manual          1 pc PAL Interface Cable 3m          1 pc PC connection cable          1 pc Disk Firmware Loader Program          (*requires PAL TraySet or PAL Stack)</p>
PAL HTS9	<p><b>HTS PAL without TraySet or Stack, valve drive, injection valve, fast wash station and syringe kit</b></p> <p>Prep and Load System for High Throughput Screening, consisting of:</p> <p>1 pc PAL80 X/Y unit          1 pc HTS Injection unit          2 pc Standalone support 215mm          1 pc Control terminal &amp; cable          1 pc Power supply, Input Voltage 100-240V, 120/150W &amp; cable          1 pc Safety guard          1 pc Operating Manual          1 pc PAL Interface Cable 3m          1 pc PC connection cable          1 pc Disk Firmware Loader Program</p>

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PAL HTX9	<p><b>HTX9 PAL without TraySet or Stack, valve drive, injection valve,</b> fast wash station and syringe kit Prep and Load System for High Throughput Screening, consisting of: 1 pc PAL120 X/Y unit 1 pc HTS Injection unit 2 pc Standalone support 215mm 1 pc Control terminal &amp; cable 1 pc Power supply, Input Voltage 100-240V, 120W, 50/60Hz &amp; cable 1 pc Safety guard 1 pc Operating Manual 1 pc PAL Interface Cable 3m 1 pc PC connection cable 1 pc Disk Firmware Loader Program (*specify required Operating Manual)</p>
PAL HTC0	<p><b>HTC PAL without TraySet or Stack*</b> Prep and Load System for High Throughput Screening consisting of: 1 pc PAL50 X/Y unit 1 pc HTS Injection unit 2 pc Standalone support 215mm 1 pc Control terminal &amp; cable 1 pc Power supply, Input Voltage 100-240V, 120/150W &amp; cable 1 pc Valve drive 1 pc VICI Valco C2V-1006D-CTC-K Valve 6port &amp; sample loop 20µl 1 pc Fast wash station &amp; 1pc tubing kit &amp; 2pc wash solvent bottles 1 pc Syringe adapter 100µl &amp; plunger holder 2 pc Syringe 100µl SYRX G100-22S-3 1 pc Safety guard 1 pc Operating Manual 1 pc PAL Interface Cable 3m 1 pc PC connection cable 1 pc Firmware Loader Program (*requires PAL TraySet or PAL Stack)</p>
PAL HTC9	<p><b>HTC PAL without TraySet or Stack, valve drive, injection valve,</b> fast wash station and syringe kit Prep and Load System for High Throughput Screening, consisting of: 1 pc PAL50 X/Y unit 1 pc HTS Injection unit 2 pc Standalone support 215mm 1 pc Control terminal &amp; cable 1 pc Power supply, Input Voltage 100-240V, 120W,50/60Hz &amp; cable 1 pc Safety guard 1 pc Operating Manual 1 pc PAL Interface Cable 3m 1 pc PC connection cable 1 pc Disk Firmware Loader Program (specify required Operating Manual)</p>
PAL LC1	<p><b>LC PAL with 1 Trayholder</b> LC Prep and Load System, consisting of: 1 pc PAL50 X/Y unit 1 pc LC Injection unit 2 pc Standalone support</p>

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	<p>1 pc Control terminal &amp; cable          1 pc Power supply, Input Voltage 100-240V &amp; cable          1 pc Valve drive          1 pc VICI Valco C2V-1006D-CTC-K Valve 6port &amp; sample loop 20µl          1 pc Trayholder holding up to:              4 standard microplates or              4 deepwell plates or              4 x 54 2ml vials          4 pc PAL TrayMT2ml sample trays for 54x2ml vials          1 pc Standard wash station, 2 x 100ml solvent bottles &amp; waste port          1 pc Syringe adapter 100µl &amp; plunger holder          2 pc Syringe 100µl SYRX G100-22S-3          1 pc Safety guard          1 pc Operating Manual          1 pc PAL Interface Cable 3m          1 pc PC connection cable          1 pc Firmware Loader Program</p>
PAL LC2	<p><b>LC PAL with 1 Trayholder</b>          LC Prep and Load System, consisting of:          1 pc PAL50 X/Y unit          1 pc LC Injection unit          2 pc Standalone support          1 pc Control terminal &amp; cable          1 pc Power supply, Input Voltage 100-240V &amp; cable          1 pc VICI Valco C2V-1006D-CTC-K Valve 6port &amp; sample loop 20µl          1 pc Trayholder holding up to:              4 standard microplates or              4 deepwell plates or              4 x 54 2ml vials          4 pc PAL TrayMT2ml sample trays for 54x2ml vials          1 pc Fast wash station &amp; 1pc tubing kit &amp; 2pc wash solvent bottles          2 pc Syringe 100µl SYRX G100-22S-3          2 pc Syringe 100µl SYRC G100-22S-3          1 pc Safety guard          1 pc Operating Manual          1 pc PAL Interface Cable 3m          1 pc PC connection cable          1 pc Firmware Loader Program</p>
PAL SyrLC10µl	<p>Kit LC Syringe 10µl for HTS/HTC/LC PAL consisting of:          1pc syringe adapter and 1pc plunger holder          2 pc syringe SYRC G10-22S-3</p>
PAL SyrLC25µl	<p>Kit LC Syringe 25µl for HTS/HTC/LC PAL consisting of:          1 pc syringe adapter and 1pc plunger holder          2 pc syringe SYRC G25-22S-3</p>
PAL SyrLCX25µl	<p>Kit LC X-Syringe 25µl for HTS/HTC/LC PAL consisting of:          1 pc syringe adapter and 1pc plunger holder          2 pc syringe SYRX G25-22S-3</p>
PAL SyrLCX50µl	<p>Kit LC X-Syringe 50µl for HTS/HTC/LC PAL consisting of:          1 pc syringe adapter and 1pc plunger holder          2 pc syringe SYRX G50-22S-3</p>
PAL SyrLC100µl	<p>Kit LC Syringe 100µl for HTS/HTC/LC PAL consisting of:</p>

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	1 pc syringe adapter and 1pc plunger holder 2 pc syringe SYRC G100-22S-3
PAL SyrLCX100µl	Kit LC X-Syringe 100µl for HTS/HTC/LC PAL consisting of: 1 pc syringe adapter and 1pc plunger holder 2 pc syringe SYRX G100-22S-3
PAL SyrLCX100µl-22	Kit LC X-Syringe 100µl for HTS/HTC/LC PAL consisting of: 1 pc syringe adapter and 1pc plunger holder 2 pc syringe SYRX G100-22-3
PAL SyrLC250µl	Kit LC Syringe 250µl for HTS/HTC/LC PAL consisting of: 1 pc syringe adapter and 1pc plunger holder 2 pc syringe SYRC G250-22-3
PAL SyrLC500µl	Kit LC Syringe 500µl for HTS/HTC PAL consisting of: 1 pc syringe adapter and 1pc plunger holder 2 pc syringe SYRC G500-22-3
PAL SyrLC1000µl	Kit LC Syringe 1000µl for HTS/HTC PAL consisting of: 1 pc syringe adapter and 1pc plunger holder 2 pc syringe SYRC G1000-22-3
PAL SyrLC2500µl	Kit LC Syringe 2500µl for HTS/HTC PAL consisting of: 1 pc syringe adapter and 1pc plunger holder 2 pc syringe SYRC G2500-22-3
PAL SyrLC5000µl	Kit LC Syringe 5000µl for HTS/HTC PAL consisting of: 1 pc syringe adapter and 1pc plunger holder 2 pc syringe SYRC G5000-22-3
SYRC G10-22S-3	Syringe gastight 10µl for HTS/HTC/LC PAL Fixed needle, gauge 22S, Pointstyle 3 (LC applications)
SYRC G25-22S-3	Syringe gastight 25µl for HTS/HTC/LC PAL Fixed needle, gauge 22S, Pointstyle 3 (LC applications)
SYRX G25-22S-3	Syringe X-type gastight 25µl for HTS/HTC/LC PAL Fixed needle, gauge 22S, Pointstyle 3 (LC applications)
SYRX G50-22S-3	Syringe X-type gastight 50µl for HTS/HTC/LC PAL Fixed needle, gauge 22S, Pointstyle 3 (LC applications)
SYRX G100-22-3	Syringe X-type gastight 100µl for HTS/HTC/LC PAL Fixed needle, gauge 22, Pointstyle 3 (LC applications)
SYRX G100-22S-3	Syringe X-type gastight 100µl for HTS/HTC/LC PAL Fixed needle, gauge 22S, Pointstyle 3 (LC applications)
SYRC G100-22-3	Syringe gastight 100µl for HTS/HTC/LC PAL Fixed needle, gauge 22, Pointstyle 3 (LC applications)
SYRC G100-22S-3	Syringe gastight 100µl for HTS/HTC/LC PAL Fixed needle, gauge 22S, Pointstyle 3 (LC applications)
SYRC G250-22-3	Syringe gastight 250µl for HTS/HTC/LC PAL Fixed needle, gauge 22, Pointstyle 3 (LC applications)
SYRC G500-22-3	Syringe gastight 500µl for HTS/HTC PAL Fixed needle, gauge 22, Pointstyle 3 (LC applications)
SYRC G1000-22-3	Syringe gastight 1000µl for HTS/HTC PAL Fixed needle, gauge 22, Pointstyle 3 (LC applications)
SYRC G2500-22-3	Syringe gastight 2500µl for HTS/HTC PAL Fixed needle, gauge 22, Pointstyle 3 (LC applications)
SYRC G5000-22-3	Syringe gastight 5000µl for HTS/HTC PAL Fixed needle, gauge 22, Pointstyle 3 (LC applications)
PLG G10	10 pcs. Replacement syringe plunger for syringe SYRC G10-22S-3
PLG G25	10 pcs. Replacement syringe plunger for 25µl syringe

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PLG X25	3 pcs. Replacement syringe plunger for SYRX G25 syringe
PLG X50	3 pcs. Replacement syringe plunger for SYRX G50 syringe
PLG X100	3 pcs. Replacement syringe plunger for SYRX G100 syringe
PLG G100	10 pcs. Replacement syringe plunger for 100µl syringe
PLG G250	10 pcs. Replacement syringe plunger for 250µl syringe
PLG G500	10 pcs. Replacement syringe plunger for 500µl syringe
PLG G1000	1 pcs. Replacement syringe plunger for 1000µl syringe
PLG G2500	1 pcs. Replacement syringe plunger for 2500µl syringe
PLG G5000	1 pcs. Replacement syringe plunger for 5000µl syringe
PAL Tray1ml	Sample tray for 200 vials 0.7/1ml
PAL Tray2ml	Sample tray for 98 vials 2ml or 78 vials 0.7/1ml
PAL Tray20ml	Sample tray for 32 vials 10/20ml or 21 vials 2ml
PAL TrayMT2ml	Sample tray MT footprint, for 54x2ml vials for PAL Stacks all types or PAL MTHolders all types
PAL TrayMT2ml/6	Set of 6 pcs. PAL TrayMT2ml sample trays
PAL Stack8MT	PAL System stack for 8 Microtiter plates
PAL Stack12MT	PAL System stack for 12 Microtiter plates
PAL Stack4DW	PAL System stack for 4 micro- or deepwell plates
PAL Stack6DW	PAL System stack for 6 Deepwell plates or 6 PAL TrayMT2ml
PAL MTHolder	Trayholder for 2 Microtiter/Deepwell plates or 2 PAL TrayMT2ml
PAL MT4Holder	Trayholder for 4 Microtiter/Deepwell plates or 4 PAL TrayMT2ml
MR 21-00	Trayholder 76mm for standard vial trays 1,2 & 10ml vials
MR 22-00	Trayholder 114mm for standard vial trays 10ml/20ml vials
PAL TraySet1ml	Sample tray for 200 vials 0.7/1ml, including Trayholder 76mm
PAL TraySet2ml	Sample tray for 98 vials 2ml or 78 vials 0.7/1ml, including Trayholder
PAL TrayCooler	Peltier Cooler 4°C to 70°C* for 1 PAL Tray2ml (without sample tray) consisting of: 1pc TrayCooler with 84mm legs 1pc Tray cover for PAL Tray2ml 1pc Power Supply 110/220V incl. Temperature Regulation ± 1°C
PAL LiqCooler	Liquid Tray Cooler 4°C to 70°C* for 1 PAL Tray2ml (without sample tray) consisting of: 1pc LiqCooler with 84mm legs 1pc plastic tray cover for PAL Tray2ml (circulator connection tube OD 8mm) *excluding external heating/cooling circulator
MC 30-10	Plexiglas Tray Cover to use 1 PAL Tray1ml in PAL TrayCooler or PAL LiqCooler
MC 30-11	Plastic Tray Cover to use 1 PAL Tray2ml in PAL TrayCooler / PAL LiqCooler
MC 30-14	Plastic Tray Cover to use 1 96well MT/DW in PAL TrayCooler/PAL LiqCooler
MC 50-01	Adapter plate to use 1 96 well MT/DW in PAL TrayCooler / LiqCooler
PAL StkCooler2DW	Peltier cooled 2DW Stack 4°C to 40°C for 2pcs. Standard Microplates or 2pcs. Deepwell plates or 2pcs PAL TrayMT2ml (2x54 2ml vials) including 1 pc. Power Supply 110V/240V LED Display, temperature regulation ± 1°C
PAL StkCooler	Peltier cooled 6DW Stack 4°C to 40°C for 6pcs. Standard Microplates or

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	6pcs. Deepwell plates or 6pcs PAL TrayMT2ml including 1 pc. Power Supply 110V/220V LED Display, temperature regulation $\pm 1^{\circ}\text{C}$ ,
PAL StkCooler12MT	Peltier cooled 12MT Stack $4^{\circ}\text{C}$ to $40^{\circ}\text{C}$ for 12pcs. Standard Microplates including 1 pc. Power Supply 110V/220V LED Display, temperature regulation $\pm 1^{\circ}\text{C}$ ,
PAL 4VlvDrv-SPE1	1pc PAL 4VlvDrv-C2V6 4-Valve Module incl. 4pcs. Cheminert 6-port Injection valves, type C2V-2006D-CTC 1pc RP ADS HPLC Selectivity Kit containing 1 LiChroCART® 25-2 LiChrospher® RP-4 ADS column 1 LiChroCART® 25-2 LiChrospher® RP-8 ADS column 1 LiChroCART® 25-2 LiChrospher® RP-18 ADS column 1 manu-CART® 4 cartridge holder 1pc Oasis® WCX column 30?m 2.1 x 20mm 1pc Inline-Filter, stainless steel frit, dead volume free 1pc Step by Step application development guide 1pc Set of HighSPEeed Cycle Composer macros 1pc Set PEEK tubing kit including PEEK fittings
PAL 4VlvDrv-CV6	PAL 4 Valve Module type 2 consisting of: 4 pcs. Valve Drives MV 03-01 4 pcs. VICI Cheminert 6-port Injection valves, type C2V-1006D-CTC 4 pcs. Sample loops 20µl 1 pc PEEK Solvent manifold 1 set PEEK tubing kit including PEEK fittings 1 set Electrical connection cables (Free AUX connector at PAL power supply needed)
PAL 4VlvDrv	PAL 4-Valve Module, type 2 consisting of: 4 pcs. Valve Drives MV 03-01 1 pc PEEK Solvent manifold 1 set PEEK tubing kit including PEEK fittings 1 set Electrical connection cables (Free AUX connector at PAL power supply needed) (requires VICI Valco LC Valves, type DCxWK, type C or Rheodyne PD)
PAL MuxKit	Kit for Waters MUX™ Interface consisting of: 4 pcs. Check valve for waste port
PAL SelVlv	8-port Selector valve, type 2 consisting of: 1pc 8-port Selector valve C5F 1pc 12meter Teflon tubing waste lines 1pc Valve Drive MV 03-01 1pc Electrical connection cable to PAL 4VlvDrv-DC6 (requires PAL 4VlvDrv-DC6)
PAL ColSel6	Column Switching Valve Module for up to 6 columns (requires Cycle Composer or PAL ICC-CE Software and PAL 1VlvDrv)
PAL 1VlvDrv-D	PAL 1Valve Drive Module High Torque consisting of: 1 pc Multiposition Valve Drive MV 03-02 with bracket 1 set Electrical connection cable (Free AUX connector at PAL power supply needed) (requires LC Injection Valve, all types)
PAL 1VlvDrv	PAL 1-Valve Drive Module consisting of:

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	1 pc Multiposition Valve Drive MV 03-01 with bracket 1 set Electrical connection cable (Free AUX connector at PAL power supply needed) (requires LC Injection Valve, all types)
PAL 2VlvDrv	PAL 2-Valve Drive Module consisting of: 2 pcs Multiposition Valve Drives MV 03-01 with bracket 1 set Electrical connection cable (Free AUX connector at PAL power supply needed) (requires LC Injection Valve, all types)
PAL 3VlvDrv	PAL 3-Valve Drive Module consisting of: 3 pcs Multiposition Valve Drives MV 03-01 with bracket 1 set Electrical connection cable (Free AUX connector at PAL power supply needed) (requires LC Injection Valve, all types)
PAL VlvDrv	PAL Valve Drive for Valco LC valve type WK or C (without Valve) 1 pc 2 Position Valve Drives MV 02-01 with bracket 1 set Electrical connection cable (requires LC Injection Valve, all types)
C2-Adptr	Adaptor to mount C2V valve on PAL VlvDrv old style (MV 10-00)
DC10WK-K	10-Port VICI type WK Injection Valve 0.4mm bore incl. Needle Guide, Needle Seal, Kit LCVlv
DC6WK-K	6-Port VICI type WK Injection Valve 0.4mm bore incl. Needle Guide, Needle Seal, Kit LCVlv
DCI4WK.5/1-K	4-Port VICI type WK Injection Valve 0.4mm bore, internal loop 0.5/1.0µl incl. Needle Guide, Needle Seal, Kit LCVlv
C2V-0006D-CTC-K	6-port VICI Cheminert Injection Valve 0.15mm bore incl. Needle Guide, Needle Seal, Kit LCVlv
C2V-0346D-CTC-K	6-port VICI Cheminert Injection Valve PAEK 0.15mm bore incl. Needle Guide, Needle Seal, Kit LCVlv
C2V-1006D-CTC-K	6-port Cheminert Injection Valve 0.25mm bore (microbore) including 10µl sample loop 0.025mm ID
C2V-1346D-CTC-K	6-port Cheminert Injection Valve PAEK 0.25mm bore incl. Needle Guide, Needle Seal, Kit LCVlv
C2V-3006D-CTC-K	6-Port Cheminert Injection Valve 0.75mm bore (prep version) incl. Needle Guide gauge 19, Needle Seal gauge 19, Kit LCVlv
C2VH-1340D-CTC-K	10-port Cheminert Injection Valve PAEK 0.25mm bore incl. Needle Guide, Needle Seal, Kit LCVlv
C2VH-1000D-CTC-K	10-port Cheminert Injection Valve 0.25mm bore incl. Needle Guide, Needle Seal, Kit LCVlv
CN2-4346D-CTC	6-port Cheminert Switching Valve PAEK version 0.1mm bore 1/32" Connections, no vertical port, can not be used as injection valve
CN2-4340D-CTC	10-port Cheminert Switching Valve PAEK version 0.1mm bore 1/32" Connections, no vertical port, can not be used as injection valve
C5F-1004D-CTC	8-port VICI Selector Valve 0.25mm bore (requires Valve Drive MV 03-01)
C72VX-1696D-CTC-K	6-port VICI Cheminert Injection Valve, 0.25mm bore Pressure up to 15'000psi incl. Needle Guide, Needle Seal, Kit LCVlv
C72VX-1690D-CTC-K	10-port VICI Cheminert Injection Valve, 0.25mm bore Pressure up to 15'000psi incl. Needle Guide, Needle Seal, Kit LCVlv

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PD 7991-K	6-port Rheodyne Injection Valve 0.20mm bore SPC4 (Special plating on Titanium, biocompatible) Pressure up to 1000bar (15'000psi) incl. Needle Guide, Needle Seal, Kit LCVlv (requires MV 02-01 or MV 03-01 slim valve drive)
SS-100 Set-10	SWAGELOK ferrule 1/16" SST, pack of 10 (used for PD 7991-K) (required for PD 7991-K fluid connections)

TR050306B	Sample Loop 5ul Stainless Steel for Rheodyne type PD
TR050306C	Sample Loop 10ul Stainless Steel for Rheodyne type PD
TR050306D	Sample Loop 20ul Stainless Steel for Rheodyne type PD
TR050306E	Sample Loop 50ul Stainless Steel for Rheodyne type PD
TR050306F	Sample Loop 100ul Stainless Steel for Rheodyne type PD
SL1KCW	Sample loop 1000µl for VICI HPLC-valve, type DC6WK and DC10WK
SL500CW	Sample loop 500µl for VICI HPLC-valve, type DC6WK and DC10WK
SL250CW	Sample loop 250µl for VICI HPLC-valve, type DC6WK and DC10WK
SL200CW	Sample loop 200µl for VICI HPLC-valve, type DC6WK and DC10WK
SL100CW	Sample loop 100µl for VICI HPLC-valve, type DC6WK and DC10WK
SL50CW	Sample loop 50µl for VICI HPLC-valve, type DC6WK and DC10WK
SL20CW	Sample loop 20µl for VICI HPLC-valve, type DC6WK and DC10WK
CSL5K	Sample loop 5000µl for Cheminert Injection valve
CSL2K	Sample loop 2000µl for Cheminert Injection valve
CSL1K	Sample loop 1000µl for Cheminert Injection valve
CSL500	Sample loop 500µl for Cheminert Injection valve
CSL250	Sample loop 250µl for Cheminert Injection valve
CSL100	Sample loop 100µl for Cheminert Injection valve
CSL50	Sample loop 50µl for Cheminert Injection valve
CSL20-CTC	Sample loop 20µl for Cheminert Injection valve
CSL10-CTC	Sample loop 10µl for Cheminert Injection valve
CSL5-CTC	Sample loop 5µl for Cheminert Injection valve
CSL2-CTC	Sample loop 2µl for Cheminert Injection valve
CZSL20PK	Sample loop PEEK 20µl for Cheminert Injection valve
CZSL10PK	Sample loop PEEK 10µl for Cheminert Injection valve
CZSL5PK	Sample loop PEEK 5µl for Cheminert Injection valve
CZSL2PK	Sample loop PEEK 2µl for Cheminert Injection valve
PAL NdlSealP	10pcs. PEEK Needle seal, gauge 22
PAL NdlSeal	10pcs. MV30-13 Needle seal, gauge 22, for needle guide MV 30-12
PAL NdlSeal-19	10pcs. Needle seal, gauge 19
PAL NdlSealR	10pcs. Needle seal, gauge 22 for Rheodyne valves
7991-999	RheBuild Kit Rotor for PD 7991-K
7991-005	Stator for PD 7991-K
C2-00R6	Rotor for C2-0006D-CTC-K
C-0C06	Stator for C2-0006D-CTC-K
CN2-43R6	Rotor for CN2-4346D-CTC
CN2-4C46I	Stator for CN2-4346D-CTC
C2-13R0H	Rotor for C2VH-1340D-CTC-K
C2V-1C40H	Stator for C2VH-1340D-CTC-K
C2-10R0H	Rotor for C2VH-1000D-CTC-K
C2V-1C00H	Stator for C2VH-1000D-CTC-K
C2-00R6	Rotor for C2V-0006D-CTC-K
C2V-0C06	Stator for C2V-0006D-CTC-K



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C2-03R6	Rotor for C2V-0346D-CTC-K
C2V-0C46	Stator for C2V-0346D-CTC-K
C72-16R6	Rotor for C72VX-1696D-CTC-K
C72V-1C96	Stator for C72VX-1696D-CTC-K
C72-16R0	Rotor for C72VX-1690D-CTC-K
C72V-1C90H	Stator for C72VX-1690D-CTC-K
C2-13R6	Rotor for C2V-1346D-CTC-K
C2V-1C46	Stator for C2V-1346D-CTC-K
C2-03R6	Rotor for C2-0346D-CTC-K
C-0C46	Stator for C2-0346D-CTC-K
CN2-43R0	Rotor for CN2-4340D-CTC-K
CN2-4C40I	Stator for CN2-4340D-CTC-K
C2V-1C06	Stator for 6-port Cheminert Injection valve 0.25mm microbore
C2-10R6	Rotor for 6-port Cheminert Injection valve 0.25mm microbore
C2-20R6	Rotor for LC PAL Injection valve, 6 Port 2 Position
C2V-2C06	Stator for LC-PAL Injection valve 6 Port 2 Position
C2V-2C46	Stator for C2V-2346D-CTC PEAK Injection Valve
C2-23R6	Rotor for C2V-2346D-CTC PEAK Injection Valve
C5-1C28	Stator for PAL SelVlv C5 Selector Valve
C5F-10R4	Rotor for PAL SelVlv C5 Selector Valve
SSACI4W.5/1	Rotor for LC-Valve DCI4WK.5/1 4 Port 2 Position with internal loop 0.5/1µl
SSAC6W	Rotor for LC-Valve, type DC6WK, 6 Port 2 Position
SSAC10W	Rotor for LC-Valve 10 Port, type DC10WK, 2 Position
PAL Dilutor	<b>PAL Dilutor Option</b> for HTS PAL or CombiPAL consisting of: 1pc Dilutor module 1pc Dilutor Syringe 2.5ml 1pc Solvent bottle transfer line including PEEK solvent filter 10µm 1pc Solvent bottle 1000ml with cap 1pc Transfer tubing kit 1/16" 1pc Dilutor module connection cable 1pc Operating manual (requires PAL SyrLCSP80µl, PAL SyrLCSP20µl or
PAL SyrLCSP80µl	<b>Kit Dilutor Syringe 80µl</b> for HTS PAL consisting of: 1pc Sideport Syringe Plunger Sealing Screw 1pc Sideport Syringe Adapter and Plunger holder 1pc Sideport Syringe 80µl SYRC SP80-R 3pcs Ndl S-22-3 Needles gauge 22 pointstyle 3 for Sideport Syringe
PAL SyrLCSP20µl	<b>Kit Dilutor Syringe 20µl</b> for HTS PAL consisting off: 1pc Sideport Syringe Plunger Sealing Screw 1pc Sideport Syringe Adapter and Plunger Holder 1pc Sideport Syringe 20µl SYRC SP80-R 3pcs Ndl S-22S-3 Needles gauge 22S pst 3 for Sideport Syringe
SYRC DIL1.0	PAL Dilutor Syringe 1ml
SYRC DIL2.5	PAL Dilutor Syringe 2.5ml
SYRC DIL5.0	PAL Dilutor Syringe 5ml
SYRC DIL10	PAL Dilutor Syringe 10ml
SYRC SP80-R	Sideport Syringe 80µl gastight without needle
SYRC SP20-R	Sideport Syringe 20µl gastight without needle
PLG DIL1.0	Replacement Dilutor Syringe Plunger 1ml
PLG DIL2.5	Replacement Dilutor Syringe Plunger 2.5ml
PLG DIL5	Replacement Dilutor Syringe Plunger 5.0ml

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PLGDIL10	Replacement Dilutor Syringe Plunger 10ml
PLG SP80	10pcs Replacement syringe plunger for 80µl Sideport Syringe
PLG SP20	10pcs Replacement syringe plunger for 20µl Sideport Syringe
Ndl S-22-3	3pcs Replacement needle gauge 22 pst 3 for Sideport Syringe 80µl
Ndl S-22S-3	3pcs Replacement needle gauge 22S pst 3 for Sideport Syringe 20µl
PAL SyrOringSP20	1 pc Perflour O-Ring for SYRC SP20-R
PAL SyrOringSP80	1 pc Perflour O-Ring for SYRC SP80-R
PAL TubeDilHTX	1pc PAL Dilutor Transfer Tubing Kit for 120cm X-axis
PAL TubeDilutor	1pc PAL Dilutor Transfer Tubing Kit for 50cm or 80cm X-axis
PAL DilAspKit	1pc FEP Solventline including PEEK solvent Filter 10µm
1000-SV	1pc Dilutor Solvent bottle 1000ml
MM 30-36	Dilutor Syringe Screw
DilWasher	10pc PTFE Dilutor Syringe Washer (set of 10)
PAL DilOring	1pc Perfluor O-Ring
MSU 30-14	1pc Sideport Syringe Plunger Sealing Screw
MM 90-02	3-way Dilutor Valve, PCTFE
MM 90-03	3-way Dilutor Valve, PTFE
PAL MALDIOpt	PAL MALDI Option - Fraction Collection system consisting of: 1pc Tool parking bracket 1pc MALDI spotting tool 3pcs. Spotting tips 1pc Tool holder 1pc Waste tube 1pc Microfluidic fitting and tubing accessories 1pc CD-ROM PAL firmware 3.0 and CycleComposer cycles (requires PAL firmware 3.0 or higher and Cycle Composer)
MSpoTip3	3 pcs. Coated Fused Silica Spotting Tips, 360 µm OD, 20 µm ID
MP 52-01	MALDI Target Adapter for 2pcs. Waters 96/384 Targets
MP 52-02	MALDI Target Adapter for 2pcs. ABI Opti-TOF orABI 4700 / Voyager
MP 52-04	MALDI Target Adapter for 1pc Bruker AnChor Chip
PAL CycCompCD	Cycle Composer Remote Control Software for PAL System CD ROM consisting of: 1 Cycle Composer standalone version 1 PAL Driver for Agilent Technologies ChemStation data system 1 PAL Driver for Thermo Xcalibur data system
PAL CycCompCD5	Cycle Composer Remote Control Software for PAL System CD ROM, site license for 5 instruments consisting of: 1 Cycle Composer standalone version including 5 serial numbers 1 PAL Driver for Agilent Technologies ChemStation data system 1 PAL Driver for Thermo Xcalibur data system
PAL CCUpgrd	Cycle Composer Remote Control Software for PAL System CD Upgrade Version 1.5 (requires valid Cycle Composer license number)
PAL CycEdit	PAL Cycle Editor License (Usage see CTC SalesNote #08, 2005)
PAL ICC-CE	CTC Instrument Control Components incl. Cycle Editor (Usage see CTC SalesNote #08, 2005)

Available CTC Autosampler Parts

PAL DrvEmp	PAL Driver License for Waters Empower (Needs Firmware 2.4.0 or above) The instrument control add-on module PAL DrvEmp will be installed as an addition to the base software and should be installed
PAL LC-QDoc	Instrument Qualification for HTS/HTC and LC PAL consisting of: 1pc LogBook 1pc Documentation IQ procedure 1pc Documentation OQ procedure
PAL LC-ReQ	Instrument Requalification for HTS/HTC and LC PAL consisting of: 1pc Documentation OQ procedure
PAL WashActive-22	PAL Active Wash station consisting of: 1 pc Wash station 1 pc Pumpholder bracket incl. 2 micropumps 1 pc Electrical connection cable 1 pc Teflon Tubing Kit incl. check valve 2 pc 1 liter Wash solvent bottles 2 pc Solvent bottle transfer line incl. PEEK solvent filter 10µm 1 pc CD-ROM (compatible to PAL HTX9, HTS9 or HTC9) (requires MR 036-01 if used with PAL 2VlvDrv or PAL 3VlvDrv)
MR 036-01	Holder for PAL WashActive-22, 92mm
PAL Tube Wash act	Tubing Kit for Active WashStation with 1 Injection Valve
PAL VV-3315	1pc 174-28 Waste Check Valve 0.2bar, for ActiveWashStation
PAL WashActive-22Upgr	PAL Active Wash station upgrade consisting of: 1 pc Wash station upgrade 1 pc Pumpholder bracket incl. 2 micropumps 1 pc Electrical connection cable 1 pc Teflon Tubing Kit incl. check valve 1 pc CD-ROM (requires existing PAL WashFast all types)
PAL WashAct2-22	PAL Wash station for two injection valves, two solvents for high sample throughput (needle gauge 22), consisting of:  2 pc Wash station 1 pc Holder with 2 pumps 2 pc Electrical connection cable 1 pc Tubing kit pumps - valve 2 pc 1 liter Wash solvent bottles 2 pc Tubing kit with PEEK solvent filter 10µm 1 pc 2 channel flow selector
PAL WashAct2-22Upgrd	PAL Wash station for two injection valves, two solvents for high sample throughput (needle gauge 22), consisting of:  2 pc Wash station 1 pc Holder with 2 pumps 1 pc Electrical connection cable 1 pc Teflon Tubing kit 1 pc SelVlv with VlvDrv for 2 channel flow selection
PAL WashAct4-22	PAL Wash station for 4VlvDrv, two solvents for high sample throughput (needle gauge 22), consisting of:

Available CTC Autosampler Parts

	<p>4 pc Wash station          1 pc Holder with 2 pumps          1 pc Valve holder for 4 valves          2 pc Electrical connection cable          1 pc Tubing kit pumps - valve          2 pc 1 liter Wash solvent bottles          2 pc Tubing kit with PEEK solvent filter 10µm          1 pc 4 channel flow selector</p>
PAL WashAct4-22Upgrd	<p>PAL Wash station for 4VlvDrv, two solvents for high sample throughput (needle gauge 22), consisting of:</p> <p>4 pc Wash station          1 pc Holder with 2 pumps          1 pc Valve holder for 4 valves          1 pc Electrical connection cable          1 pc Teflon Tubing kit          1 pc SelVlv with VlvDrv for 4 channel flow selection</p>
PAL WashFast-22	<p>Wash station HTS PAL for two solvents consisting of:</p> <p>1 pc Double wash station incl. Holder for 2 x 500ml bottles          1 pc Electrical Connection cable          1 pc Tubing Kit          2 pc Solvent bottles 500ml</p>
PAL WashFast2-22	<p>Wash station LC PAL for two solvents consisting of:</p> <p>1 pc Double wash station incl. Holder for 2 x 500ml bottles          1 pc Electrical Connection cable          1 pc Tubing Kit          2 pc Solvent bottles 500ml</p>
PAL WashFast3-22	<p>Wash station HTC PAL for two solvents consisting of:</p> <p>1 pc Double wash station incl. Holder for 2 x 500ml bottles          1 pc Electrical Connection cable          1 pc Tubing Kit          2 pc Solvent bottles 500ml</p>
Kit FWash1000	<p>1000ml Solvent Kit consisting of:</p> <p>1pc Bottle Holder Bracket incl. screws          2pcs 1000ml Solvent Bottles</p>
PAL WashLarge	<p>LC PAL Wash station for two solvents, consisting of:</p> <p>1 pc Vial holder for 2 x 100ml vials          2 pcs Vial 100ml, including Caps and Seals          1 pcs Waste port including septa, cap waste tubing</p>
PAL 3xSolv100	<p>Solvent Reservoir consisting of:</p> <p>1pc Holder for 3pc 100ml vials          3pcs Solvent vials 100ml including caps and seals</p>
PAL FlowCell	<p>Flow-Through Cell for PAL System consisting of* :</p> <p>1pc Flow-Cell Stainless Steel 316          incl. 2pc Connectors Swagelok ¼" and Holder 88mm          4 pc Inlet Septa          (*required external pump and transfer tubing not included)</p>
PAL OutExpBox	<p>Output Expansion Box for HTS PAL or CombiPAL System          8 x Relay Contact / 8 x 24V (P tot = 12W) consisting of:</p> <p>1 pc Output Expansion Box          1 pc Cable DSub25M/F          1 pc Cable Power 36V</p>

Available CTC Autosampler Parts

	(requires PAL Firmware 2.4 or higher)
PAL BCReader	Barcode Reader Laser scanner for barcode labels on 2ml/10ml/20ml vials including electrical connection cable (needs Firmware >1.4.8)
USB-Ser2	USB to 2 RS232 Converter (connects PAL SER ports to USB port)
MSZ 02-01	Microtiterplate foil cutter for Needles max. gauge 22
PAL TwinKit1	Extension tubes and brackets to mount a PAL80 onto another PAL80
PAL XExtR	X-axis extension tube right side 140mm, incl. bracket
PAL XExtL	X-axis extension tube left side 140mm, incl. bracket
PAL Toolkit	Torx Driver Set for PAL System
PAL DLW-HTC-xt	Dynamic Load and Wash Option including HTC-xt Upgrade Kit 1 pc DLW Injection Adapter with sample holding loop and syringe 100?l 1 pc Wash Station 1 pc Wash Solvent Pump Station with 2 active micro pumps 2 pc 1 Liter Wash Solvent bottles 2 pc Solvent bottle transfer line including PEEK solvent filter 10?m 1 pc System CD ROM DLW including Cycles 1 pc Manual DLW Option  1 pc Kit HTC-xt (Control Board-xt for PAL System - Firmware 4.0.X) Choose this kit if you want to upgrade an existing HTC PAL to the DLW Option
PAL DLW-HTS-xt	Dynamic Load and Wash Option including HTS-xt Upgrade Kit 1 pc DLW Injection Adapter with sample holding loop and syringe 100?l 1 pc Wash Station 1 pc Wash Solvent Pump Station with 2 active micro pumps 2 pc 1 Liter Wash Solvent bottles 2 pc Solvent bottle transfer line including PEEK solvent filter 10?m 1 pc System CD ROM DLW including Cycles 1 pc Manual DLW Option  1 pc Kit HTS-xt (Control Board-xt for PAL System - Firmware 4.0.X) Choose this kit if you want to upgrade an existing HTS PAL to the DLW Option
PAL DLW Option	Dynamic Load and Wash Option including HTS-xt Upgrade Kit 1 pc DLW Injection Adapter with sample holding loop and syringe 100?l 1 pc Wash Station 1 pc Wash Solvent Pump Station with 2 active micro pumps 2 pc 1 Liter Wash Solvent bottles 2 pc Solvent bottle transfer line including PEEK solvent filter 10?m 1 pc System CD ROM DLW including Cycles 1 pc Manual DLW Option  Requires but does not include XT-Upgrade for PAL and Firmare 4.0.X Choose this kit if your PAL is already equipped with the XT-Upgrade
PAL PMKit1	Preventative Maintenance Kit for HTS/HTC/LC PAL consisting of: 1 pc PAL Grease and 1 pc Brush 1 pc Tension Cord MZ 30-21 and 1 pc Tension Cord MZ 30-23 1 pc Needle Seal for LC-Valve and 1 pc PM Documentation
PAL MR-Std	Standard Support Leg, 215mm, 2pcs
MR 11-00	Module clamp countersink holes for PAL
PAL LubKit	Lubrication Kit for PAL System incl. Brush
PAL Paint	Paint for PAL System 20ml including brush
MSB6.3AT/10	10pcs. Fuse 6.3AT for APR CPU, APR Control boards
APR CPU	CPU module for HTS PAL, CombiPAL and LHS0

Available CTC Autosampler Parts

APR Control-HTC	Motor driver input/output control and CPU module for HTC PAL
APR Control-LC	Motor driver input/output control and CPU module for LC PAL
APR MOTIO	Motor driver and input/output control module HTS, Combi and LHS0
MN 01-00	Power supply for PAL System all types Power 120/150 Watt, Input Voltage 100-240V
MN 03-00	Power supply for PAL StkCooler's and PAL TrayCooler's, all types Power 120/150 Watt, Input Voltage 100-240V (specify Cooler type)
MN 05-00	Power supply for PAL 4VlvDrv-DC6 4Valve Module Power 120/150 Watt, Input Voltage 100-240V
Cbl RS20R-300	Cable 20p shielded, MiniRibbon connectors, 200mm long (Connection cable of LC valve drive)
Cbl RS20R-760	Cable 20p shielded, MiniRibbon connectors, 760mm long (Connection cable of LC valve drive or PAL Dilutor)
Cbl RS2MR-2500	Power Cable for MultiposVlvDrv MV 03-01
Cbl RS3JR-850	Signal Cable for MultiposVlvDrv MV 03-01, 850mm
Cbl RS3J3-1200	Signal Cable for MultiposVlvDrv MV 03-01, 1200mm
Cbl RS14R-250	Cable 14p shielded, MiniRibbon connectors, 250mm long (connection of MultiposVlvDrv MV 03-01)
Cbl RS3M-2000	Power cable 2m for PAL all types (connection of MultiposVlvDrv MV 03-01)
Cbl RS4EX-1300	Cable for dual Fast Wash Station HTX PAL
Cbl RS4EX-800	Cable for dual Fast Wash Station HTS PAL
Cbl R4LX-700	Cable for dual Fast Wash Station HTC PAL and LC PAL
Cbl RS4C0-3000	PAL Interface cable 3m long 15 pin connector - open wires
Cbl RS9B-3000	Cable RS-232 with connector DB9 3m long (Connection PAL - PC)
Cbl RS9B-6000	Cable RS-232 with connector DB9 6m long (Connection PAL - PC)
Cbl SS8J-700	Cable 8p shielded, RJ45 connectors, 700mm long (Connection between LCD Terminal and PAL)
PAL CblSerPrtr	Cable and adapter to connect a PAL System to a serial printer with DB 25 connector (requires Printer with serial interface)
PAL 3Ferrule	1pc Flangeless Trio Ferrule PTFE 3 x 1/16" for ActiveWashStation(former MM 70-13)
PAL AWOring	Perfluor O-Ring for ActiveWashStation (set of 2 pcs)
PAL TubeWasteAct	1pc Waste line for PAL ActiveWashStation, 2m
CV-3315	1pc 174-28 Waste Check Valve 0.2bar, for ActiveWashStation
PAL TubeWashAct	Tubing Kit for Active WashStation with 1 Injection Valve
MM 012-01	Teflon solvent overflow collector incl. ActiveWash Station needle guide
MM 91-01	1pc PTFE Solenoid Micropump, for ActiveWashStation
MB 20-00	Holder assembly for PAL Control Terminal
MB 01-00	Control terminal for PAL all types
MM 01-01	Fast wash module for two solvents, Without holder and cable
MM 11-00	Fast wash module valve assembly
MM 30-21	Glas tube for fast wash station, gauge 22, ID 0.8mm, length 57mm
MM 30-19	Viewing glass OD 20mm for Fast wash module
PAL ORingFWS	O-ring Perfluor white, kit of 4pcs.
PAL TubeWaste	Waste line for PAL WashFast all types
PAL TubeFWash	Connection tube incl. fittings and shutoff valve between Wash solvent bottle and Fast wash station module HTS/HTC/LC PAL
MM 31-00	1 pc Swagelok fitting incl. ferrules for connection between 500-WV Wash solvent bottle and shutoff valve
MM 04-00	1 pc Shutoff valve between 500-WV bottle and Fast wash (now PALTubeFWash)
PAL TubeFWash1	1 pc Teflon tube including fittings between

Available CTC Autosampler Parts

	Solvent bottle shutoff valve and Fast wash valve assembly
1000-WV	1000ml Wash solvent bottle for PAL Fast Wash Station
500-WV	500ml Wash solvent bottle for PALWashFast2-22 Fast Wash Station
100-WV	100ml Solvent bottle for LC PAL Wash Station PAL WashLarge or PAL 3xSolv 100 Solvent Reservoir, including cap and seal
Kit SealCap	10 caps and 10 seals for 100-WV Solvent bottle
CV-3345	1pc Check valve for MUX Kit
MP StkDrwMag	Stack Drawer Magnet Assembly, kit
Kit StkRollsSSSt	12pcs rolls stainless steel incl. screws for stack drawer
MC 30-65A	1 pc Front cover 31mm for PAL StkCooler12MT
MC 30-45B	1 pc Front cover 63mm for PAL StkCooler
Kit CStkScrews	Kit of replacement Nylon screws for PAL StkCooler front cover
PAL UprNdlGde	Upper Needle Guide Assembly (Gauge 19)
MZ 23-01	Needle Guide Replacement Kit for HTS/HTC/LC PAL
MZ 20-45	Lower Needle Guide with chemical resistant coating. Without transport magnets installed, hole size for needles Gauge 19
MZ 20-46	Upper Needle Guide with chemical resistant coating Hole size for Gauge 19 needles
MV 30-16	PEEK Needle guide for valve type for C-PAEK versions
MV 30-12	Needle guide gauge 22, stainless steel for Valco type C or type WK
MV 30-52	Needle guide gauge 19, stainless steel for Valco type C or type WK
MZ 32-00	Transparent front cover for PAL injection unit all types
MX 32-00	Plexiglas Safety Guard for PAL80
MX 33-00	Plexiglas Safety Guard for PAL50
MX 36-00	Plexiglas Safety Guard for PAL120
MX 37-00	Thumb Nut Kit for Safety Guard
MZ 30-21	Injection unit tension cord black, 280mm, 5pcs
MZ 30-23	Needle guide tension cord black, 90mm -100mm, 5pcs
MZ 06-00	Injection unit for LC PAL
MZ 01-00	Injection unit for HTS PAL or HTC PAL
MX 30-27	PAL X-Axis Side Cover Right hand side
MX 30-10	PAL X-Axis Side Cover Left hand side
MX 30-41	PAL X-Axis Side Cover Left hand side with Grounding Point
MY 30-10	PAL Y-Axis Front Cover
MY 30-11	PAL Y-Axis Rear Cover
MY 30-12	Sheet Metal Cover for Ribbon Cable, 170mm
MY 30-14	Sheet Metal Cover for Ribbon Cable, 215mm
PAL FlexBandKit	PAL Flexband for standard PAL50/80 Models, 1pc
PAL FlexBandKit2	PAL Flexband for PAL Models 120cm length, single Z-Axis installed,
MX 20-15	1 pc Metal Angle Bracket for Ribbon Cable
PAL XYSENS	X-Y-Axis Position Sensor PCB's, Kit
PAL XYSENSDual	X-Y-Axis Position Sensor PCB's, Dual Kit for Dual Injection Unit PAL
MX 52-00	Grounding Conductor for X/Y Carriage
MX 30-12	Blind Cover for Combi/HTS PAL
MX 30-39	Blind Cover for HTX/HTXX PAL
MX 30-37	Faceplate X-Axis Gas Inlet
PAL MZCovTop	Top Cover for Z-Axis, Kit
PAL SlidStopKit	Slider Stopper Assembly ( Z-Axis )
PAL RCbl50	Ribbon Cable Kit for X-Axis 50cm
PAL RCbl80	Ribbon Cable Kit for X-Axis 80cm
PAL RCbl120	Ribbon Cable Kit for PAL X-Axis 120cm, for Single Injection Unit PAL

Available CTC Autosampler Parts

PAL RCblDual	Ribbon Cable Kit for PAL X-Axis 120cm, for Dual Injection Unit PAL
MZ 50-00	Ribbon Cable Z-axis, 500mm
MZ 51-00	Ribbon Cable Z-Axis, 450mm
PAL MZCovCtrl	Cover for Control Module Z-Axis, Kit
PAL MZCovCbl	Cover for Motors and Ribbon Cable Z-Axis, Kit, (Rev. B or higher)
MZ 20-14	Mechanical Stop for Needle Guide
MZ 20-15	Adapter for Short Tension Cord ( Z-Axis )
PAL MZCtrl	PCB Assembly for PAL Injection Unit, Kit, (Rev. D or higher)
PAL NdIBlkMag	Solenoid for Needle Guide Blocking Assembly, Kit
PAL MotPlg	PAL Stepper Motor Plunger, Kit, (For Injection Rev.B or higher only)
PAL MotZ	PAL Stepper Motor Z-Axis, Kit
PAL MZTRack350	Toothed Rack, 350mm, Kit
PAL MZTRack300	Toothed Rack, 300mm, Kit
PAL MZZMag	Switching Magnet for Z-Sensor, Kit
BN 4851 M4x25	Screws for X-Axis Side Covers, 10pcs
BN 4851 M3x20	Screws for Y-Axis Side Covers, 10pcs
PAL GC1	<b>GC PAL for Liquid Injection only</b> (no upgrade possibility to LHS models) consisting of*: 1 pc PAL80 X/Y unit 1 pc Injection unit 1 pc Control terminal & cable 1 pc Power supply, Input Voltage 100-240V & cable 1 pc Wash station for 2 solvents and 1standard liquid 1 pc Kit SealCap 1 pc Sample tray holder 76mm 1 pc Sample tray 98x2ml/76x1ml 1 pc Syringe adapter 10µl & plunger holder 2 pc Syringe 10 µl SYRC L10-26S-AS 1 pc Safety guard 1 pc Operation manual 1 pc PC connection cable 1 pc Firmware Loader Program (*requires GC mounting kit)
PAL GC9	<b>GC PAL for Liquid Injection only, without Washstation, Trayset and Syringe Kit (no upgrade possibility to LHS models) consisting of*:</b> 1 pc PAL80 X/Y unit 1 pc Injection unit 1 pc Control terminal & cable 1 pc Power supply, Input Voltage 100-240V,120W,50/60Hz & cable 1 pc Safety guard 1 pc Operation manual 1 pc PC connection cable 1 pc Firmware Loader Program (*requires GC mounting kit)
PAL LHS0	<b>Combi PAL for Liquid Injection, without Headspace option, without vial Tray or Trayholder consisting of*:</b> 1 pc PAL80 X/Y unit 1 pc Combi Injection unit 1 pc Control terminal & cable 1 pc Power supply, Input Voltage 100-240V & cable 1 pc Wash station for 2 solvents and 1standard liquid



Available CTC Autosampler Parts

	<p>1 pc Kit SealCap                  1 pc Syringe adapter 10µl &amp; plunger holder                  2 pc Syringe 10 µl SYRC L10-26S-AS                  1 pc Safety guard                  1 pc Operation manual                  1 pc PC connection cable                  1 pc Firmware Loader Program                  (*requires PAL Trayset and GC mounting kit)</p>
PAL HS	<p><b>PAL HS Combi PAL for Headspace Injection only with 10/20ml vial tray, consisting of*:</b>                  1 pc PAL80 X/Y unit                  1 pc Combi Injection unit                  1 pc Control terminal &amp; cable                  1 pc Power supply, Input Voltage 100-240V, 120W, 50/60Hz &amp; cable                  1 pc Incubator for vials 2/10/20ml, shaker, temp. up to 200° C                  1 pc Pressure regulator including connection fittings                  1 pc Sample tray holder 114 mm                  1 pc Sample tray 32x10/20ml                  1 pc Syringe heater 2.5ml, temperature up to 150°C                  2 pc Headspace Syringes 2.5ml SYRC HS2.5-23-5                  1 pc Safety guard                  1 pc Operation manual                  1 pc PC connection cable                  1 pc Firmware Loader Program                  (*requires GC mounting kit, instrument available in certain countries only.                  PAL HS can not be upgraded to PAL LHS2.)</p>
PAL LHS2	<p><b>Combi PAL for Liquid and Headspace Injection, with 2ml and 10/20ml vial tray, consisting of*:</b>                  1 pc PAL80 X/Y unit                  1 pc Combi Injection unit                  1 pc Control terminal &amp; cable                  1 pc Power supply, Input Voltage 100-240V &amp; cable                  1 pc Incubator for vials 2/10/20ml, shaker, temperature up to 200° C                  1 pc Pressure regulator including connection fittings                  1 pc Wash station for 2 different solvents                  1 pc Kit SealCap                  2 pc Sample tray holder 114 mm                  1 pc Sample tray 98x2ml/76x1ml                  1 pc Sample tray 32x10/20ml                  1 pc Syringe adapter 10µl &amp; plunger holder                  2 pc Syringe 10µl SYRC L10-26S-AS                  1 pc Syringe heater 2.5ml, temperature up to 150°C                  2 pc Headspace Syringes 2.5ml SYRC HS2.5-23-5                  1 pc Safety guard                  1 pc Operation manual                  1 pc PC connection cable                  1 pc Firmware Loader Program                  (*requires GC mounting kit)</p>
PAL LHX9	<p><b>Combi PAL without Liquid Injection option, Headspace option, Vial Tray, Trayholder and Wash Station consisting of*:</b>                  1 pc PAL120 X/Y unit</p>

Available CTC Autosampler Parts

<p>1 pc Combi Injection unit          1 pc Control terminal &amp; cable          1 pc External HS flush gas tubing kit          1 pc Power supply, Input Voltage 100-240V, 120W,50/60Hz &amp; cable          1 pc Safety guard          1 pc Operating Manual          1 pc PAL Interface Cable 3m          1 pc PC connection cable          1 pc Disk Firmware Loader Program          (*requires PAL Trayset, Syringe Kit and GC mounting kit)</p>
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**SPE with MEPS from SGE, see SN 1/2008 from CTC**

CTPAL GC-IQ/OQ/PV	<b>Instrument Qualification - (Service procedure),</b> with installation	1.5 days together
PAL SyrGC1.2µl	Kit GC Syringe 1.2µl for CombiPAL and GC1 PAL consisting of: 1 pc syringe adapter and 1 pc plunger holder 2 pc Syringe SYRC L1.2-26P-AS (plunger in needle design)	
PAL SyrGC5µl	Kit GC Syringe 5µl for CombiPAL and GC1 PAL consisting of: 1 pc syringe adapter and 1 pc plunger holder 2 pc Syringe SYRC L5-26S-AS	
PAL SyrGC10µl	Kit GC Syringe 10µl for CombiPAL and GC1 PAL consisting of: 1 pc syringe adapter and 1 pc plunger holder 2 pc Syringe SYRC L10-26S-AS	
PAL SyrGC10µl-G	Kit GC Syringe 10µl gastight for CombiPAL and GC1 PAL consisting of: 1 pc syringe adapter and 1 pc plunger holder 2 pc Syringe SYRC L10-26S-AS	
PAL SyrGC25µl	Kit GC Syringe 25µl for CombiPAL and GC1 PAL consisting of: 1 pc syringe adapter and 1 pc plunger holder 2 pc Syringe SYRC G25-26S-AS	
PAL SyrGC100µl	Kit GC Syringe 100µl for CombiPAL and GC1 PAL consisting of: 1 pc syringe adapter and 1 pc plunger holder 2 pc Syringe SYRC G100-26S-AS	
PAL SyrGC250µl	Kit GC Syringe 250µl for CombiPAL and GC1 PAL consisting of: 1 pc syringe adapter and 1 pc plunger holder 2 pc Syringe SYRC G250-26-AS	
PAL SyrGC500µl	Kit GC Syringe 500µl for CombiPAL and GC1 PAL consisting of: 1 pc syringe adapter and 1 pc plunger holder 2 pc Syringe SYRC G500-26-AS	
PAL SyrHS1.0ml	Kit HS Syringe 1.0ml for CombiPAL consisting of: 1 pc syringe heater and 1 pc plunger holder 2 pc Syringe SYRC HS1.0-23-5	
PAL SyrHS2.5ml	Kit HS Syringe 2.5ml for CombiPAL consisting of: 1 pc syringe heater and 1 pc plunger holder 2 pc Syringe SYRC HS2.5-23-5	
PAL SyrHS5.0ml	Kit HS Syringe 5.0ml for CombiPAL consisting of: 1 pc syringe heater and 1 pc plunger holder 2 pc Syringe SYRC HS5.0-23-5	
SYRC HS1.0-23-5	Headspace Syringe HD-type 1.0ml for Combi PAL Sideport for gas flushing, fixed needle gauge 23, Pointstyle 5	
SYRC HS2.5-23-5	Headspace Syringe HD-type 2.5ml for Combi PAL	

Available CTC Autosampler Parts

	Sideport for gas flushing, fixed needle gauge 23, Pointstyle 5
SYRC HS2.5-23-5	Headspace Syringe HD-type 5.0ml for Combi PAL Sideport for gas flushing, fixed needle gauge 23, Pointstyle 5
PLG HD1000	HD - type replacement syringe plunger for 1ml Headspace Syringe
PLG HD2500	HD - type replacement syringe plunger for 2.5ml Headspace Syringe
PLG HD5000	HD - type replacement syringe plunger for 5ml Headspace Syringe
SYRC HS5.0-26-5	Headspace Syringe 5.0ml for Combi PAL Sideport for gas flushing, fixed needle gauge 26, Pointstyle 5
SYRC L1.2-26P-AS	Liquid syringe 1.2µl for Combi PAL and GC1 PAL Fixed needle gauge 26P, Pointstyle AS
SYRC L5-26S-AS	Liquid syringe 5µl for Combi PAL and GC1 PAL Fixed needle gauge 26S, Pointstyle AS
SYRC G10-26S-AS	Liquid syringe gastight 10µl for Combi PAL and GC1 PAL Fixed needle gauge 26S, Pointstyle AS
SYRC L10-26S-2	Liquid syringe 10µl for Combi PAL and GC1 PAL Fixed needle gauge 26S, Pointstyle 2
SYRC L10-23S-AS	Liquid syringe 10µl for Combi PAL and GC1 PAL Fixed needle gauge 23S, Pointstyle AS
SYRC G25-26S-AS	Liquid syringe 25µl for Combi PAL and GC1 PAL Fixed needle gauge 26S, Pointstyle AS
SYRC G100-26S-AS	Liquid syringe 100µl for Combi PAL and GC1 PAL Fixed needle gauge 26S, Pointstyle AS
SYRC G250-26-AS	Liquid syringe 250µl for Combi PAL and GC1 PAL Fixed needle gauge 26, Pointstyle AS
SYRC G500-26-AS	Liquid syringe 500µl for Combi PAL and GC1 PAL Fixed needle gauge 26, Pointstyle AS
PLG G25	10 pcs. Replacement syringe plunger for 25µl syringe
PLG G100	10 pcs. Replacement syringe plunger for 100µl syringe
PLG G250	10 pcs. Replacement syringe plunger for 250µl syringe
PLG G500	10 pcs. Replacement syringe plunger for 500µl syringe
PLG G1000	1 pcs. Replacement syringe plunger for 1000µl syringe
PLG G2500	1 pcs. Replacement syringe plunger for 2500µl syringe
PLG G5000	1 pcs. Replacement syringe plunger for 5000µl syringe
PAL TrayCooler	Peltier Cooler 4°C to 70°C* for one PAL Tray2ml (without sample tray) consisting of: 1pc TrayCooler with 84mm legs 1pc Tray cover for PAL Tray2ml 1pc Power Supply 110/220V incl. Temperature Regulation ± 1°C
PAL TrayCooler2	Peltier Tray Cooler 4°C to 70°C for one PAL Tray2ml or one cooling plate 20ml MP 50-031 consisting of: 1pc TrayCooler with 136mm legs 1pc Cooling plate for 20ml vials 1pc Tray cover for PAL Tray2ml 1pc Power Supply 110/220V incl. Temperature Regulation ± 1°C
PAL LiqCooler	Liquid Tray Cooler 4°C to 70°C* for 1 PAL Tray2ml (without sample tray) consisting of: 1pc LiqCooler with 84mm legs 1pc plastic tray cover for PAL Tray2ml (circulator connection tube OD 8mm) *excluding external heating/cooling circulator
PAL LiqCooler2	Liquid Tray Cooler 4°C to 70°C* consisting of:

Available CTC Autosampler Parts

	1 pc TrayCooler with 136mm legs 1 pc cooling plate for 20ml vials 1 pc plastic tray cover for PAL Tray2ml (* excluding PAL Tray2ml and external circulator)
MC 30-10	Plastic Tray Cover to use 1 PAL Tray1ml in PAL Tray Coolers
MC 30-11	Plastic Tray Cover to use 1 PAL Tray2ml in PAL Tray Coolers
MC 30-14	Plastic Tray Cover to use 1 96 well MT/DW in PAL Tray Coolers
MC 50-01	Adapter plate to use 1 96 well MT/DW in PAL TrayCooler or PAL LiqCooler
MP 50-031	Cooling plate for 32 vials 10/20ml (requires PAL LiqCooler2)
PAL Tray1ml	Sample tray for 200 vials 0.7/1ml
PAL Tray2ml	Sample tray for 98 vials 2ml or 78 vials 0.7/1ml
PAL Tray20ml	Sample tray for 32 vials 10/20ml or 21 vials 2ml
PAL TrayMT2ml	Sample tray MT footprint, for 54x2ml vials for PAL Stacks all types or PAL MTHolders all types
PAL TrayMT2ml/6	Set of 6 pcs. PAL TrayMT2ml sample trays
PAL TraySet1ml	Sample tray for 200 vials 0.7/1ml, including holder 76mm
PAL TraySet2ml	Sample tray for 98 vials 2ml or 78 vials 0.7/1ml, incl.Trayholder 76mm
PAL TraySet10ml	Sample tray for 32 vials 10ml or 21 vials 2ml, incl.Trayholder 76mm (can not be used for 20ml vials)
PAL TraySet20ml	Sample tray for 32 vials 10/20ml or 21 vials 2ml, incl.Holder 114mm (positioned 38mm lower than standard holder)
PAL TraySet2ml-2	Sample tray for 98 vials 2ml or 78 vials 0.7/1ml, incl.Holder 114mm (Holder may be alternatively used for 20ml vial trays)
PAL MTHolder	Trayholder 76mm for 2 Microtiter/Deepwell plates or PAL TrayMT2ml
PAL MT4Holder	Trayholder for 4 Microtiter/Deepwell plates or 4 PAL TrayMT2ml
MR 21-00	Tray holder 76mm for standard vial trays 1ml, 2ml, 10ml vials
MR 22-00	Tray holder 114mm for standard vial trays 10/20ml vials
PAL Stack4DW	PAL System stack for 4 deepwell plates for deepwell plate GC operation (1 stack per GC may be used)
PAL StkCooler2DW	Peltier cooled 2DW Stack 4°C to 40°C for 2pcs. Standard Microplates or 2pcs. Deepwell plates or 2pcs PAL TrayMT2ml (2x54 2ml vials) including 1 pc. Power Supply 110V/240V LED Display, temperature regulation ± 1°C
PAL Dilutor	PAL Dilutor Option for HTS PAL or CombiPAL consisting of: 1pc Dilutor module 1pc Dilutor Syringe 2.5ml 1pc Solvent bottle transfer line including PEEK solvent filter 10µm 1pc Solvent bottle 1000ml with cap 1pc Transfer tubing kit 1/16" 1pc Dilutor module connection cable 1pc Operating manual (requires PAL SyrGCSP80µl, PAL SyrGCSP20µl)
PAL SyrGCSP80µl	Kit Dilutor Syringe 80µl for Combi PAL consisting of: 1pc Sideport Syringe Plunger Sealing Screw 1pc Sideport Syringe Adapter incl. Plunger Holder 1pc Sideport Syringe 80µl SYRC SP80-R 3pcs Ndl S-26-AS Needles gauge 26, pst AS for Sideport Syringe
PAL SyrGCSP20µl	Kit Dilutor Syringe 20µl for Combi PAL consisting of:

Available CTC Autosampler Parts

	<ul style="list-style-type: none"> <li>1pc Sideport Syringe Plunger Sealing Screw</li> <li>1pc Sideport Syringe Adapter incl. Plunger Holder</li> <li>1pc Sideport Syringe 20µl SYRC SP80-R</li> <li>3pcs Ndl S-26S-AS Needles gauge 26S pst AS for Sideport Syringe</li> </ul>
SYRC DIL1.0	PAL Dilutor Syringe 1ml
SYRC DIL2.5	PAL Dilutor Syringe 2.5ml
SYRC DIL5.0	PAL Dilutor Syringe 5ml
SYRC DIL10	PAL Dilutor Syringe 10ml
SYRC SP80-R	Sideport Syringe 80µl gastight without needle
SYRC SP20-R	Sideport Syringe 20µl gastight without needle
PLG DIL1.0	Replacement Dilutor Syringe Plunger 1ml
PLG DIL2.5	Replacement Dilutor Syringe Plunger 2.5ml
PLG DIL5	Replacement Dilutor Syringe Plunger 5.0ml
PLGDIL10	Replacement Dilutor Syringe Plunger 10ml
PLG SP80	10pcs Replacement syringe plunger for 80µl Sideport Syringe
PLG SP20	10pcs Replacement syringe plunger for 20µl Sideport Syringe
Ndl S-26-AS	3pcs Replacement needle gauge 26 pst AS Sideport Syringe 80µl
Ndl S-26S-AS	3pcs Replacement needle gauge 26S pst AS Sideport Syringe 20µl
PAL SyrOringSP20	1pc Perfluor O-Ring for SYRC SP20-R
PAL SyrOringSP80	1pc Perfluor O-Ring for SYRC SP80-R
PAL TubeDilHTX	1pc PAL Dilutor Transfer Tubing Kit for 120cm X-axis
PAL TubeDilutor	1pc PAL Dilutor Transfer Tubing Kit
PAL DilAspKit	1pc FEP Solventline including PEEK solvent Filter 10µm
1000-SV	1pc Dilutor Solvent bottle 1000ml
MM 30-36	Dilutor Syringe Screw
DilWasher	10pc PTFE Dilutor Syringe Washer
PAL DilOring	1pc Perfluor O-Ring
MSU 30-14	1pc Sideport Syringe Plunger Sealing Screw
MM 90-02	3-way Dilutor Valve, PCTFE
MM 90-03	3-way Dilutor Valve, PTFE
PAL SPMEOpt	<p>SPME option for CombiPAL consisting of:</p> <ul style="list-style-type: none"> <li>1pc SPME Fiber Holder</li> <li>3pc Fiber Assembly</li> <li>1pc SPME Holder Adapter including 1pc Plunger Holder</li> <li>1pc SPME Application documentation</li> </ul> <p>(requires model PAL LHS2 and Septumless GC-Injector)</p>
PAL FibCond	<p>SPME Fiber Conditioning Station consistig of:</p> <ul style="list-style-type: none"> <li>1 pc heater up to 350°C with connection cable and bracket 40mm</li> <li>1 pc flush gas connection</li> <li>1 pc fitting for CombiPAL flush gas regulator incl. tubing</li> <li>1 pc alternate bracket 14mm</li> </ul>
PAL MHETool	<p>MHE Tool for COMBI PAL 780.00</p> <ul style="list-style-type: none"> <li>1pc MHE Tool</li> <li>1pc MHE Parkstation</li> <li>1pc Needle MHE Gauge 22/5</li> <li>1 pc MHE Tool CD (Firmware 3.X backup file)</li> <li>1pc Manual MHEOption</li> </ul> <p>(requires PAL LHS2)</p>
PAL ITEX-2Opt	<p>PAL ITEX Option consisting of:</p> <ul style="list-style-type: none"> <li>1pc 1.3ml ITEX Syringe with M7 x 0.5 fitting</li> <li>1pc Replacement plunger 1.3ml</li> </ul>

Available CTC Autosampler Parts

	2pc ITEX-2 trap TENAX TA 80/100mesh incl. O-Ring 1 pc Trap heater inc. Electrical connections 1pc Syringe Heater incl. Plunger holder 1pc Syringe Heater side bracket (requires PAL LHS2 and Cycle Composer)
ITEX-2TrapTXTA	1pc ITEX Trap Tenax TA 80/100 mesh
ITEX-2TrapTXTA3	Set of 3pcs. ITEX Trap Tenax TA 80/100 mesh
SYRC ITEX-2-1.3	1pc replacement ITEX Syringe 1.3mL
PLG ITEX-2-1.3	Replacement plunger for 1.3mL syringe
ITEXTrapTXTA	1pc ITEX Trap Tenax TA 80/100 mesh
ITEXTrapTXTA3	Set of 3pcs. ITEX Trap Tenax TA 80/100 mesh
ITEXTrapCstm3	3pcs. ITEX Trap custom filling (specify Trap material)
ITEX HT	1pc ITEX Trap heater
SYRC ITEX2.5	1pc replacement ITEX Syringe 2.5ml
PLG G2500	Replacement plunger for 2.5ml syringe
PAL MR-5890	Mounting hardware and interconnection cable to install a GC1, LHS0 or LHS2 on a HP5890 GC
PAL MR-7890	Mounting hardware and interconnection cable to install a GC1, LHS0, LHS2 or LHX9 on an Agilent 6890/7890 GC
PAL MR-6850	Mounting hardware and interconnection cable to install a GC1, LHS0 or LHS2 on a Agilent 6850 GC
PAL MR-6850-Dual	MR-6850 add-on mounting hardware to align 2 Agilent 6850 GC's requires 1 PAL MR-6850
PAL MR-8000	Mounting hardware and interconnection cable to install a GC1, LHS0, LHS2 and LHX9 on a CE Instruments GC 8000
PAL MR-8TOP	Mounting hardware and interconnection cable to install a GC1, LHS0, LHS2 and LHX9 on a CE Instruments GC 8top
PAL MR-TRACE-OC	Mounting hardware and interconnection cable to install a GC1, LHS0, LHS2 and LHX9 on Thermo GC Trace 2000 (150mm legs, for Thermo On-column Injector only requires Kit Trace-OC)
Kit Trace-OC	Modification Kit for Thermo GC Trace On-column Injector
PAL MR-TRACE-SSL	Mounting hardware and interconnection cable to install a GC1, LHS0, LHS2 and LHX9 on Thermo GC Trace 2000 (215mm legs, for Thermo Split/Splitless and PTV Injector)
PAL MR-Focus	Mounting hardware and interconnection cable to install a GC1, LHS0 or LHS2 on a Thermo GC Focus
PAL MR-V3800	Mounting hardware and interconnection cable to install a GC1, LHS0 or LHS2 on a Varian GC 3800 or 450
PAL MR-V3400/3600	Mounting hardware and interconnection cable to install a GC1, LHS0 or LHS2 on a Varian GC 3400 or GC 3600
PAL MR-V3900	Mounting hardware and interconnection cable to install a GC1, LHS0 or LHS2 on a Varian GC 3900 or 43x
PAL MR-S2010	Mounting hardware and interconnection cable to install a GC1, LHS0 or LHS2 on a Shimadzu GC S2010
PAL MR-S2014	Mounting hardware and interconnection cable to install a GC1, LHS0, LHS2 and LHX9 on a Shimadzu GC S2014
PAL MR-S17A	Mounting hardware and interconnection cable to install a GC1, LHS0 or LHS2 on a Shimadzu GC 17A
PAL MR-S14B	Mounting hardware and interconnection cable to install a GC1, LHS0 or LHS2 on a Shimadzu GC 14B
PAL MR-PEXL	Mounting hardware and interconnection cable

Available CTC Autosampler Parts

	to install a GC1, LHS0 or LHS2 on a Perkin Elmer GC Autosystem XL or Clarus 500
PAL MR-PEC600	Mounting hardware and interconnection cable to install a GC1, LHS0 or LHS2 on a Perkin Elmer GC Clarus 600
PAL TwinKit1	Extension tubes and brackets to mount a PAL80 onto another PAL80
PAL MR-Std	2pcs Standard standalone support 215mm for GC1, LHS0 or LHS2
PAL XExtR	X-axis extension tube right side 140mm, incl. bracket
PAL XExtL	X-axis extension tube left side 140mm, incl. bracket
PAL CycCompCD	Cycle Composer Remote Control Software for PAL System CD ROM consisting of: 1 Cycle Composer standalone version 1 PAL Driver for Agilent Technologies ChemStation data system 1 PAL Driver for ThermoFinnigan Xcalibur data system
PAL CycCompCD5	Cycle Composer Remote Control Software for PAL System CD ROM, site license for 5 instruments consisting of: 1 Cycle Composer standalone version including 5 serial numbers 1 PAL Driver for Agilent Technologies ChemStation data system 1 PAL Driver for ThermoFinnigan Xcalibur data system
PAL CCUpgrd	Cycle Composer Remote Control Software for PAL System CD Upgrade Version 1.5 (requires valid Cycle Composer license number)
PAL CycEdit	PAL Cycle Editor License (Usage see CTC SalesNote #08, 2005)
PAL ICC-CE	CTC Instrument Control Components incl. Cycle Editor (Usage see CTC SalesNote #08, 2005)
PAL DrvEmp	PAL Driver License for Waters Empower 2 Build 2154. A license key will be supplied with the software CD(Needs Firmware 2.5.2 or above) A valid key is required for every single installation.
PAL GC-QDoc	Instrument Qualification for GC PAL and Combi PAL consisting of: 1pc LogBook 1pc Documentation IQ procedure 1pc Documentation OQ procedure
PAL GC-ReQ	Instrument Requalification for GC PAL and Combi PAL consisting of: 1pc Documentation OQ procedure
PAL LHSUpgrd	Headspace Upgrade for LHS0 Combi PAL Liquid only version consisting of: 1 pc Incubator for 10ml/20ml vials, shaker, temperature up to 200°C 1 pc Syringe heater 2.5ml 2 pc Headspace Syringes 2.5ml SYRC HS 2.5-23-5 1 pc PAL TraySet20ml Tray for 32 vials 10/20ml incl. holder 114mm 1 pc Pressure regulator and 1 pc Magnetic transport ring 1 pc Vial transport teaching kit and 6 pcs Adapter to use 10ml vials 1 pc CD with HS Software Upgrade ( requires model PAL LHS0)
PAL 3xSolv100	Solvent Reservoir and LVI Wash Station consisting of: 1pc Holder for 3pc 100ml vials 3pcs Solvent vials 100ml including caps and seals
PAL FlowCell	Flow-Through Cell for PAL System consisting of* : 1pc Flow-Cell Stainless Steel 316 incl. 2pc Connectors Swagelok ¼" and Holder 88mm 4 pc Inlet Septa (*required external pump and transfer tubing not included)

Available CTC Autosampler Parts

PAL BCReader	Barcode Reader Laser scanner for barcode labels on 2ml / 10ml / 20ml vials including electrical connection cable (Firmware >1.4.8)
USB-Ser2	USB to 2 RS232 Converter (connects PAL SER ports to USB port)
PAL WashStd1	Wash station for 2 solvents and 1 standard liquid, consisting of: 1 pc Vial holder 5 x ø23mm 5 pcs Vials 10ml, 5pcs Caps and Seals
PAL WashFast-22	CombiPAL Washstation for two solvents for high sample throughput, consisting of: 1 pc Double wash station incl. Holder for 2 x 500ml bottles 1 pc Electrical Connection cable 2 pc Solvent bottles 500ml incl. 1 pc Tubing Kit
Kit FWash1000	1000ml Solvent Kit consisting of: 1pc Bottle Holder Bracket incl. screws 2pcs 1000ml Solvent Bottles
PAL Ins20/2ml	6 pcs 2ml inserts to use 2ml vials in PAL Incub6x20
PAL Toolkit	Torx Driver Set for PAL System
PAL MAN-E	PAL System user manual in english (specify type of instrument)
PAL PMKit2	Preventative Maintenance Kit for LHX/CombiPAL / GC PAL consisting of: 1 pc PAL Grease and 1 pc Brush 2 pc Tension Cords (1pc MZ 30-21 / 1pc MZ 30-23) 1 pc FlexBandKit 1 pc Drive belt for Incubator CombiPAL 1 pc KitWash 10-CV 1 pc Test Label Barcode Reader 1 pc PM Documentation
PAL LubKit	Lubrication Kit for PAL System incl. Brush
PAL Incub6x20	Incubator for 10ml/20ml vials, with shaker, temperature up to 200°C
PAL TubeFlushX	Replacement Kit for Flush Tube-X in PAL80 crossrail
PALTubeFlushXY	Replacement Kit for Gas Flush Tube for X-Y-Axis, complete Tube
PAL TubeFlush LHX	Replacement Kit for Gas Flush Tube LHX PAL
Kit Flush LHX	Gas Flush Kit for LHX PAL, field upgrade kit
PAL AgiORing	2 pcs. Drive belt for Incubator CombiPAL
PAL MZAgiOpen	Bumper for PAL Injection Unit, Kit
MH 30-30A	6 pcs 10ml inserts for PAL Incub6x20
PAL FibCondTube	Gas tube Fiber Conditioning Station - Pressure Regulator, incl. SwageLok fittings and flow reduction
MM 03-00	Pressure regulator for CombiPAL incl. connection fittings / washer
MM 09-01	Swagelok fitting M5 brass and 3/16" fitting SS assembled for MM 03-00
MM 015-01	Tube Connector from Pressure Regulator to Tubing, 1/8"
D2515-25R	Manometer for Pressure Regulator, 0 - 2.5 Bar (0-35psi)
Kit SealFlush	Kit Sealing Gasket for MM 03-00 PAL Pressure Regulator, 10 pcs
MX 90-00	Magnetic flush gas ON/OFF valve for CombiPAL including connector
MX 90-01	Gas Flush Valve for LHX and HS PAL
KJL23-M3	Elbow Adapter for Gas Flush Tube
M-3ALU-3	Gas Tube Adapter, 90°
MX 30-11	PAL X-Axis Side Cover Right hand side, incl. Gas Distribution Block
MX 30-27	PAL X-Axis Side Cover Right hand side
MX 30-10	PAL X-Axis Side Cover Left hand side
MY 30-10	PAL Y-Axis Front Cover
MY 31-01	PAL Y-Axis Front Cover for LHX PAL including Gas Flush Tubing connections



Available CTC Autosampler Parts

MY 30-11	PAL Y-Axis Rear Cover
MY 30-12	Sheet Metal Cover for Ribbon Cable, 170mm
PAL FlexBandKit	PAL Flexband for standard PAL50/80 Models, 1pc
MX 20-15	Metal Angle Bracket for Ribbon Cable
PAL RCbl80	Ribbon Cable Kit for X-Axis 80cm
PAL RCbl120	Ribbon Cable Kit for PAL X-Axis 120cm, for Single Injection Unit PAL Models
PAL XYSens	X-Y-Axis Position Sensor PCB's, Kit
MX 52-00	Grounding Conductor for X/Y Carriage
MSB6.3AT/10	10 pcs. Fuse 6.3AT for APR CPU and Control boards
SFC 4/10	SupraFuse 4A for PAL CPU and Control Boards, pkg of 10pcs
BAT VL2330	Backup Battery for PAL CPU/Control Board (1pc)
APR CPU	CPU module for CombiPAL and LHS0
APR MOTIO	Motor driver and input/output control module for CombiPAL and LHS0
APR Control-GC	Control Board for GC PAL
MX 30-12	Blind Cover for Combi/HTS PAL
MX 30-34	Blind Cover for GC PAL
MX 30-42	Blind Cover for LHX PAL
MX 30-37	Faceplate X-Axis Gas Inlet
MR 11-00	Module clamp countersink holes for PAL
Cbl RS20R-300	Cable 20p shielded, MiniRibbon connectors, 200mm long (Connection cable of LC valve drive or CombiPAL incubation heater)
Cbl RS20R-760	Cable 20p shielded, MiniRibbon connectors, 760mm long (Connection cable of CombiPAL incubation heater or PAL Dilutor)
Cbl RS3M-2000	Power cable 2m for PAL all types (Connection between PAL power supply and PAL)
Cbl RS4C0-3000	PAL Interface cable 3m long 15 pin connector - open wires
Cbl RS9B-3000	Cable RS-232 with connector DB9 3m long (Connection PAL - PC)
Cbl RS9B-6000	Cable RS-232 with connector DB9 6m long (Connection PAL - PC)
Cbl SS8J-700	Cable 8p shielded, RJ45 connectors, 700mm long (Connection between LCD Terminal and PAL)
PAL CblSerPrtr	Cable and adapter to connect a PAL System to a serial printer with DB 25 connector (requires Printer with serial interface)
MB 20-00	Holder assembly for PAL Control Terminal
MB 01-00	Control terminal for PAL all types
100-WV	100ml Solvent bottle for LC PAL Wash Station PAL WashLarge or PAL 3xSolv 100 Solvent Reservoir including cap and seal
Kit Wash 10-CV	Replacement Kit for Standard WashStation of CombiPAL or GC PAL consisting of: 10pcs. 10ml 10CV vials 10pcs. Wash cap Polypropylene Snap Cap 10pcs. 20-ST101 Silicone/PTFE Septa
Kit SealCap	10 caps and 10 seals for 100-WV Solvent bottle or PAL WashStd
MN 01-00	Power supply for PAL System all types Power 120/150 Watt, Input Voltage 100-240V
MN 03-00	Power supply for PAL StkCooler's and PAL TrayCooler's, all types Power 120/150 Watt, Input Voltage 100-240V (specify Cooler type)
MSK 02-00	Plunger holder for SyrHS1.0ml / SyrHS2.5ml / SyrHS5.0ml
MSH 01-00	Syringe heater 1.0ml for PAL
MSH 02-00	Syringe heater 2.5ml for PAL
MSH 03-00	Syringe heater 5.0ml for PAL
PAL SyrOring1ml	10 pcs O-Ring for PAL SyrHS1.0ml

Available CTC Autosampler Parts

PAL SyrOring2.5ml	10 pcs O-Ring for PAL SyrHS2.5ml
PAL SyrOring5ml	10 pcs O-Ring for PAL SyrHS5.0ml
PAL Paint	Paint for PAL System 20ml including brush
MSH 30-23	Safety Clamp for CombiPAL syringe heater
MSZ 01-00	Magnetic vial transport adapter ring for magnetic caps, 10/20ml vials
MZ 23-02	Needle guide assembly with transport magnets for LHX/Combi/GC PAL
MZ 23-03	Needle Guide Replacement Kit for ITEX PAL
PAL UprNdlgde	Upper Needle Guide Assembly (Gauge 19)
MZ 32-00	Transparent front cover for PAL injection unit all types
MX 32-01	Safety Shield for ITEX Unit
MX 32-00	Plexiglas Safety Guard for CombiPAL / GC PAL and HTS PAL
MX 37-00	Thumb Nut Kit for Safety Guard
MZ 30-21	Injection unit tension cord black, 280mm, PAL all types, 5 pcs
MZ 30-23	Needle guide tension cord black, 90mm -100mm, PAL all types, 5 pcs
MZ 02-00	Injection unit for LHX and Combi PAL
MZ 06-00	Injection unit for GC1 PAL and LC PAL
PAL MZCovTop	Top Cover for Z-axis, all types
PAL SlidStopKit	Slider Stopper Assembly Z-axis, all types
PAL StkDrwMag	Stack Drawer Magnet Assembly, Kit
PAL RCbl80	Ribbon cables X/Y and X/Z for PAL80 incl. cable cover and support
PAL RCbl120	Ribbon cables X/Y and X/Z for PAL120 incl. cable cover and support
PAL RCblDual	Ribbon cables X/Y and X/Z for PALDual incl. cable cover and support
MZ 50-00	Ribbon Cable Z-axis, complete incl. connectors
MZ 50-01	Ribbon Cable for ITEX Z-Axis, 560mm
PAL MZCovCtrl	Cover for Electronic part Z-axis
PAL MZCovCbl	Cover for Ribbon Cable/Motors
MZ 20-14	Mechanical Stop for Needle Guide
MZ 20-15	Holder for short tension cord
PAL MZCtrl	PCB assembly for PAL Injection unit, all types
PAL NdIBlkMag	Solenoid for Needle Guide Blocking assembly
PAL TubeFlushZ	Flush gas tube replacement kit for Z-axis
Tool Flush	Leak Test Meter for Gas Flush Line in PAL System
PAL MotZ	PAL Stepper Motor Z-Axis, Kit
PAL MotPlg	PAL Stepper Motor Plunger, Kit, (For Injection Rev.B or higher only)
PAL MZTRack350	Toothed Rack, 350mm, Kit
PAL MZTRack300	Toothed Rack, 300mm, Kit
PAL MZZMag	Switching Magnet for Z-Sensor, Kit
BN 4851 M4x25	Screws for X-Axis Side Covers, 10pcs
BN 4851 M3x20	Screws for Y-Axis Side Covers, 10pcs
PAL IFC9	PAL Dual Head System consisting of : 1 pc PAL120 X/Y unit dual head version 2 pc Injection unit 1 pc Safety guard 2 pc Control terminal & cable 1 pc Power supply, Input Voltage 100-240V,120W,50/60Hz & cable 1 pc Synchronization cable 2 pc PC connection cable 1 pc Firmware Loader Program

Available CTC Autosampler Parts

	<b>Headspace Vials and Caps</b>
1803 2063	100 Slit ultraclean silicone with PTFE layered septa, cap
1803 1309	100 Blue ultraclean silicone/PTFE layered septa, cap
1803 1414	100 Blue ultraclean silicone/PTFE layered septa, cap
1803 1416	100 Red rubber septa, cap
1809 1306	10 mL clear screwtop vials
1809 1307	20 mL clear screwtop vials
1803 1874	Aluminum foil/