

Part no.	Description			HTS	HTC	LC	COMBI	GC
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PAL Instruments Options, Accessories and Spare Parts for GC PAL Systems

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Part no.	Description			HTS	HTC	LC	COMBI	GC
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LHX, COMBI PAL and GC PAL Syringe Kits

PAL SyrGC1.2ul	Kit GC Syringe 1.2µl for COMBI PAL 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 SyrGC5ul	Kit GC Syringe 5µl for COMBI PAL and GC1 PAL consisting of: 1 pc syringe adapter and 1 pc plunger holder 2 pc Syringe SYRC L5-26S-AS						•	•
PAL SyrGC10ul	Kit GC Syringe 10µl for COMBI PAL and GC1 PAL consisting of: 1 pc syringe adapter and 1 pc plunger holder 2 pc Syringe SYRC L10-26S-AS						•	•
PAL SyrGC10ul-G	Kit GC Syringe 10µl gastight for COMBI PAL and GC1 PAL consisting of: 1 pc syringe adapter and 1 pc plunger holder 2 pc Syringe SYRC G10-26S-AS						•	•
PAL SyrGC25ul	Kit GC Syringe 25µl for COMBI PAL and GC1 PAL consisting of: 1 pc syringe adapter and 1 pc plunger holder 2 pc Syringe SYRC G25-26S-AS						•	•
PAL SyrGC100ul	Kit GC Syringe 100µl for COMBI PAL and GC1 PAL consisting of: 1 pc syringe adapter and 1 pc plunger holder 2 pc Syringe SYRC G100-26S-AS						•	•
PAL SyrGC250ul	Kit GC Syringe 250µl for COMBI PAL and GC1 PAL consisting of: 1 pc syringe adapter and 1 pc plunger holder 2 pc Syringe SYRC G250-26-AS						•	•
PAL SyrGC500ul	Kit GC Syringe 500µl for COMBI PAL 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 COMBI PAL 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 COMBI PAL 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 COMBI PAL consisting of: 1 pc syringe heater and 1 pc plunger holder 2 pc Syringe SYRC HS5.0-23-5						•	

LHX, COMBI PAL and GC PAL Standard Syringes

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 Sideport for gas flushing, fixed needle gauge 23, Pointstyle 5						•	
SYRC HS5.0-23-5	Headspace Syringe HD-type 5.0ml for COMBI PAL Sideport for gas flushing, fixed needle gauge 23, Pointstyle 5						•	
SYRSGE-008631	Diamond SGE Headspace Syringe 2.5ml for Combi PAL Sideport for gas flushing, fixed needle gauge 23, 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 L10-26S-AS	Liquid syringe 10µl 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 gastight 25µl for COMBI PAL and GC1 PAL Fixed needle gauge 26S, Pointstyle AS						•	•
SYRC G100-26S-AS	Liquid syringe gastight 100µl for COMBI PAL and GC1 PAL Fixed needle gauge 26S, Pointstyle AS						•	•
SYRC G250-26-AS	Liquid syringe gastight 250µl for COMBI PAL and GC1 PAL Fixed needle gauge 26, Pointstyle AS						•	•
SYRC G500-26-AS	Liquid syringe gastight 500µl for COMBI PAL and GC1 PAL Fixed needle gauge 26, Pointstyle AS						•	•
SYRSGE L10-26S-AS	Liquid syringe SGE 10µl for COMBI PAL and GC1 PAL Fixed needle gauge 26, Cone Tip						•	•

Part no.	Description			HTS	HTC	LC	COMBI	GC
PLG HD1000	1 pcs. HD -type replacement syringe plunger for 1ml Headspace syringe						•	
PLG HD2500	1 pcs. HD -type replacement syringe plunger for 2.5ml Headspace syringe						•	
PLG HD5000	1 pcs. HD -type replacement syringe plunger for 5ml Headspace syringe						•	
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						•	•

LHX, COMBI PAL and GC PAL Trays, Traysets, Tray Holders, Thermostatted Tray Holders and Stack

PAL TrayCooler-xt	Peltier tray cooler 4°C to 70°C for one PAL Tray2ml (without tray) consisting of: 1 pc Tray Cooler with 84mm legs 1 pc Tray cover for PAL Tray2ml 1 pc Power supply 100-240V incl. Temperature Regulator						•	•
PAL TrayCooler2-xt	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 100-240V incl. Temperature Regulation ± 1°C						•	•
PAL LiqCooler	Liquid Tray Cooler 4°C to 70°C* for 1 PAL Tray2ml consisting of: 1pc LiqCooler with 84mm legs 1pc plastic tray cover for PAL Tray2ml (circulator connection tube OD 8mm) (*excluding PAL Tray2ml and external heating/cooling circulator)						•	•
PAL LiqCooler2	Liquid Tray Cooler 4°C to 70°C* consisting of: 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 LiqCooler						•	•
MP 50-031	Cooling plate 32x20 for PAL LiqCooler2 and PAL TrayCooler2						•	•
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 TrayMT10ml/6	Sample tray with Microtiter footprint for 15 vials 10ml, Pack of 6 pcs						•	•
PAL TraySet1ml	Sample tray for 200 vials 0.7/1ml, including Tray Holder 76mm						•	•
PAL TraySet2ml	Sample tray for 98 vials 2ml or 78 vials 0.7/1ml, including Tray Holder 76mm						•	•
PAL TraySet10ml	Sample tray for 32 vials 10ml or 21 vials 2ml, incl. Tray Holder 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	Tray Holder 76mm for 2 Microtiter/Deepwell plates or 2 PAL TrayMT2ml						•	•
PAL MT4Holder	Tray Holder 76mm 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 micro- or deepwell plates for deepwell plate GC operation (1 stack per GC may be used)						•	•
PAL StkCooler2DW-xt	Peltier cooled 2DW Stack 4°C to 40°C for 2 pcs Standard Microplates or 2 pcs Deepwell plates or 2 pcs PAL TrayMT2ml including 1 pc Power Supply 110-240V LED Display, temperature regulation ±1°C						•	•

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LHX, COMBI PAL Dilutor Option

PAL Dilutor	PAL Dilutor Option, consisting of: 1 pc Dilutor module 1 pc Connection cable 1 pc Dilutor syringe 2.5ml 1 pc Transfer tube 1/16" 1 pc Solvent bottle 1000ml 1 pc Aspirating tube 1/8" (requires PAL PAL SyrGCSP80µl, PAL SyrGCSP20µl)						•	
PAL SyrGCSP80ul	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 SyrGCSP20ul	Kit Dilutor Syringe 20µl for COMBI PAL consisting of: 1pc Sideport Syringe Plunger Sealing Screw 1pc Sideport Syringe Adapter incl. Plunger Holder 1pc Sideport Syringe 20µl SYRC SP80-R 3pcs Ndl S-26S-AS Needles gauge 26S pst AS 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						•	
PLG DIL10	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 SyrOringSP80	1pc Perfluor O-Ring for SYRC SP80-R						•	
PAL SyrOringSP20	1pc Perfluor O-Ring for SYRC SP20-R						•	
PAL TubeDilHTX	1pc PAL Dilutor Transfer Tubing Kit for 120cm X-axis						•	
PAL TubeDilutor(B)	1pc PAL Dilutor Transfer Tubing Kit for 50cm or 80cm X-axis						•	
PAL DilAspKit	Aspiration tube kit, PFA tube and glass filter 40µl pore size						•	
1000-SV	1pc Dilutor Solvent bottle 1000ml						•	
MM 30-36	1pc Dilutor Syringe Screw						•	
PAL DilWasher	PTFE Dilutor washer, set of 10 pcs						•	
MM 90-02	3-way Dilutor Valve, PCTFE						•	
MM 90-03	3-way Dilutor Valve, PTFE						•	

LHX and COMBI PAL SPME Option

PAL System-SPME-Kit	PAL SPME option, consisting of: 1 pc SPME Holder Adapter 1 pc Plunger Holder 1 pc SPME Fiber Holder 1 pc SPME Fiber Assortment Kit (FIB-SEL5-S1) 1 pc SPME Performance Evaluation Mix						•	
PAL FibCond	SPME Fiber Conditioning Station consistig of: 1 pc heater up to 350°C with connection cable and bracket 40mm 1 pc flush gas connection 1 pc fitting for COMBI PAL flush gas regulator incl. tubing 1 pc alternate bracket 14mm						•	
PAL FibCondTube	Gas tube Fiber Conditioning Station - Pressure Regulator, incl. SwageLok fittings and flow reduction						•	

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LHX and COMBI PAL ITEX Option

PAL ITEX-2Option	1pc 1.3 ml ITEX Syringe with M7 x 0.5 Fitting 1pc Replacement plunger 1.3 ml 2pc ITEX-2 trap TENAX TA 80/100mesh incl. O-Ring 1pc Trap heater incl. electrical connections 1pc Syringe Heater incl. Plunger holder 1pc Syringe Heater side bracket 1pc CD-ROM with ITEX Cycle (requires PAL LHS2 and Cycle Composer)						•	
PAL ITEX-2Opt-LHX	ITEX-2 Option for PAL LHX, consisting of: 1 pc 1.3 ml ITEX Syringe with M7 x 0.5 Fitting 1 pc Replacement plunger 1.3 ml 2 pcs ITEX-2 trap TENAX TA 80/100 mesh incl. O - Ring 1 pc Trap Heater LHX incl. electrical connections 1 pc Syringe Heater incl. Plunger holder 1 pc Syringe Heater side bracket 1 pc Mounting kit LHX 1 pc CD Rom with ITEX software (requires PAL LHX and Cycle Composer)						•	
ITEX-2 TrapTXTA	1pc ITEX-2 Trap Tenax TA 80/100 mesh						•	
ITEX-2 TrapTXTA3	Set of 3pcs. ITEX-2 Trap Tenax TA 80/100 mesh						•	
SYRC ITEX-2.-1.3	1pc replacement ITEX-2 Syringe 1.3ml with Adapter M7x0.5						•	
PLG ITEX-2.-1.3	Replacement Plunger for ITEX-2 Syringe						•	
ITEX-2 HT	ITEX-2 Trap Heating Unit						•	
ITEX TrapTXTA	1pc ITEX Trap Tenax TA 80/100 mesh						•	
ITEX TrapTXTA3	Set of 3pcs. ITEX Trap Tenax TA 80/100 mesh						•	
SYRC ITEX2.5	1pc replacement ITEX Syringe 2.5ml						•	
PLG G2500	1pc Replacement syringe plunger for 2.5ml syringe						•	
PAL MHETool	MHE Tool for COMBI PAL 1pc MHE Tool 1pc MHE Parkstation 1pc Needle MHE Gauge 22/5 1pc MHE Tool CD (requires PAL LHS2, COMBI PAL Firmware 3.0.5 or preferably PAL COMBI-xt and Firmware 4.1.X or higher)						•	

PAL COMBI and COMBI-xt Mounting Kits

PAL MR-5890-xt	Mounting hardware and interconnection cable to install a PAL / PAL-xt on an Agilent 5890 GC						•	•
PAL MR-7890-xt	Mounting hardware and interconnection cable to install a PAL COMBI-xt, PAL GC-xt, GC1, LHS0, LHS2 or LHX9 on a Agilent 6890 / 7890 GC						•	•
PAL MR-7890-MQM-xt	Mounting hardware and interconnection cable to install a PAL COMBI-xt, PAL GC-xt, GC1, LHS0, LHS2 or LHX9 on a Agilent 6890 / 7890 Micromass Quattro GC						•	•
PAL MR-Trace1310GC-xt	Mounting hardware and interconnection cable to install a PAL COMBI-xt, PAL GC-xt, GC1, LHS0, LHS2 or LHX9 on a Thermo Trace 1310 GC						•	•
PAL MR-TRACE-OC-xt	Mounting hardware and interconnection cable to install a PAL COMBI-xt, PAL GC-xt, GC1, LHS0, LHS2 or LHX9 on a Thermo GC Trace 2000 (Thermo On-column Injector only, requires Kit Trace-OC)						•	•
PAL MR-TRACE-SSL-xt	Mounting hardware and interconnection cable to install a PAL COMBI-xt, PAL GC-xt, GC1, LHS0, LHS2 or LHX9 on a Thermo GC Trace 2000 (215mm legs, for Thermo Split/Splitless and PTV Injector)						•	•
PAL MR-V3800/V450-xt	Mounting hardware and interconnection cable to install a PAL COMBI-xt, PAL GC-xt, GC1, LHS0, LHS2 or LHX9 on a Varian GC 3800 or 450						•	•
PAL MR-V3900/V43x-xt	Mounting hardware and interconnection cable to install a PAL COMBI-xt, PAL GC-xt, GC1, LHS0, LHS2 or LHX9 on a Varian GC 3900 or 43x						•	•
PAL MR-S2014-xt	Mounting hardware and interconnection cable to install a PAL COMBI-xt, PAL GC-xt, GC1, LHS0, LHS2 or LHX9 on a Shimadzu GC S2014						•	•
PAL MR-S2010-xt	Mounting hardware and interconnection cable to install a PAL COMBI-xt, PAL GC-xt, GC1, LHS0, LHS2 or LHX9 on a Shimadzu GC S2010						•	•
PAL MR-S2025-xt	Mounting hardware and interconnection cable to install a PAL COMBI-xt, PAL GC-xt, GC1, LHS0, LHS2 or LHX9 on a Shimadzu GC S2025						•	•
PAL MR-S17A-xt	Mounting hardware and interconnection cable to install a PAL COMBI-xt, PAL GC-xt, GC1, LHS0, LHS2 or LHX9 on a Shimadzu GC 17A						•	•
PAL MR-Focus-xt	Mounting hardware and interconnection cable to install a PAL COMBI-xt, PAL GC-xt, GC1, LHS0, LHS2 or LHX9 on a Thermo GC Focus						•	•

Part no.	Description			HTS	HTC	LC	COMBI	GC
PAL MR-PEC600-xt	Mounting hardware and interconnection cable to install a PAL COMBI-xt, PAL GC-xt, GC1, LHS0, LHS2 or LHX9 on a PE Clarus600						•	•
PAL MR-DANI-Master-xt	Mounting hardware and interconnection cable to install a PAL COMBI-xt, PAL GC-xt, GC1, LHS0, LHS2 or LHX9 on a DANI Master GC						•	•
PAL MR-Bruker-436-xt	Mounting hardware and interconnection cable to install a PAL COMBI-xt, PAL GC-xt, GC1, LHS0, LHS2 or LHX9 on a Bruker GC 436						•	•
PAL MR-Bruker-451-xt	Mounting hardware and interconnection cable to install a PAL COMBI-xt, PAL GC-xt, GC1, LHS0, LHS2 or LHX9 on a Bruker GC 451						•	•
PAL MR-Bruker-456-xt	Mounting hardware and interconnection cable to install a PAL COMBI-xt, PAL GC-xt, GC1, LHS0, LHS2 or LHX9 on a Bruker GC 456						•	•
PAL MR-B3800/B450-xt	Mounting hardware and interconnection cable to install a PAL COMBI-xt, PAL GC-xt, GC1, LHS0, LHS2 or LHX9 on a Bruker 3800 GC or 450-GC						•	•
PAL MR-Std-xt	Standard Support Leg PAL-xt, 215mm, 2pcs						•	•
PAL MR-260mm-xt	Standalone support 260.4 mm, 1 pcs						•	•
PAL TwinKit1-xt	Mounting kit for two PAL-xt cross rails						•	•
PAL TwinSafetyGuard	Safety Guard for PAL Twin Kit with 126 mm displacement						•	•
PAL XExtL-xt	PAL-xt X-Axis Extension Left hand side, 126mm						•	•
PAL XExtR-xt	PAL-xt X-Axis Extension Right hand side, 126mm						•	•

LHX and COMBI PAL and GC PAL GC Mounting Kits

PAL MR-6850-Dual	MR-6850 add-on mounting hardware to align 2 Agilent 6850 GC's (requires 1 PAL MR-6850)						•	•
PAL MR-S14B	Mounting hardware and interconnection cable to install a GC1, LHS0, LHS2 and LHX9 on a Shimadzu GC 14B						•	•
PAL MR-PEXL	Mounting hardware and interconnection cable to install a GC1, LHS0, LHS2 and on PE Autosystem XL or Clarus500						•	•

LHX and COMBI PAL and GC PAL Software

PAL CycCompCD	Cycle Composer Remote Control Software for PAL System CD ROM consisting of: Cycle Composer standalone version (Requires PAL Firmware 2.2 or higher and Windows XP/ VISTA)						•	•
PAL CycCompCD5	Cycle Composer Remote Control Software for PAL System CD ROM, site license for 5 instruments consisting of: Cycle Composer standalone version including 5 serial numbers (Requires PAL Firmware 2.2 or higher and Windows XP/ VISTA)						•	•
PAL CC-Upgrd	Cycle Composer Remote Control Software for PAL System CD Upgrade Version 1.6 (requires Cycle Composer license number)						•	•
PAL CycEdit	PAL Cycle Editor License						•	•
PAL ICC-CE	CTC Instrument Control Components incl. Cycle Editor						•	•
PAL DrvEmp	PAL Driver License for Waters Empower2 Software						•	•
PAL DrvEmp3	PAL Driver License for Waters Empower3 Software						•	•

LHX and COMBI PAL and GC PAL Accessories

PAL GC-QDoc	Instrument Qualification for COMBI PAL and GC PAL consisting of: 1pc LogBook 1pc Documentation IQ procedure 1pc Documentation OQ procedure						•	•
PAL GC-ReQ	Instrument Requalification for COMBI PAL and GC PAL consisting of: 1pc Documentation OQ procedure						•	•
PAL Toolkit	Tool Kit for PAL System						•	•

Part no.	Description			HTS	HTC	LC	COMBI	GC
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 PAL System CD (requires model PAL LHS0)						•	
PAL FlowCell	Flow-Through Cell for PAL System, new design to accommodate up to 6 flow cells, consisting of* : 1 pc Holder 88mm 1 pc Flow-Cell Stainless Steel 316 with connectors Swagelok 1/4" (*required external pump and transfer tubing not included)						•	•
MM 06-00	Single Flow-Cell for PAL System, consisting of: 1 pc Flow-Cell Stainless Steel 316 with connectors Swagelok 1/4" 1 pc Septa (requires PAL FlowCell)						•	•
PAL BCReader	Barcode Reader Laser scanner for barcode labels on 2ml/10ml/20ml vials with magnetic caps including adapter and connection cables (PAL and PAL-xt Systems)						•	•
PAL BCAdapter	Barcode Adapter for PAL-xt System including cable - only required when upgrading existing PAL to PAL-xt System (Requires PAL firmware version 4.1.2 or higher)						•	•
USB-Ser2	USB to 2 RS232 Converter (connects PAL SER ports to USB port)						•	•
PAL 3xSolv100	Solvent Reservoir, consisting of: 1 pc Holder for 3 Solvent Vials, 3 pcs Solvent Vial 100 ml, incl. Cap and Seal						•	•
PAL WashStd1	Wash station for 2 solvents and 1 standard liquid, consisting of: 1 pc Vial holder 5 x ø23mm incl. 5 pcs Vials 10ml, 5pcs Caps and Seals						•	•
PAL WashFast-22	COMBI PAL 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 1pcs. 1000ml Solvent Bottles						•	

LHX and COMBI PAL and GC PAL Brochures

PAL Broch-COMBI -xt	Brochure COMBI-xt						•	•
PAL Broch-GC-xt system	Brochure GC-xt						•	•
PAL BrochCat	Accessories catalog						•	•

LHX and COMBI PAL and GC PAL Spare Parts

PAL PMKit2	Preventative Maintenance (PM) Kit for PAL GC Technique						•	•
PAL LubKit	PAL Lubrication Kit						•	•
PAL PaintCTC	Paint for PAL System 20ml including brush (white)						•	•
PAL Incub6x20	Incubator for 10ml/20ml vials, with shaker, temperature up to 200°C						•	
PAL Ins20/2ml	6 pcs 2ml inserts to use 2ml vials in PAL Incub6x20						•	
PAL Ins20/10ml	6 pcs 10ml inserts for PAL Incub6x20						•	
PAL AgiORing	6 pcs. Drive belt for Incubator COMBI PAL						•	
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						•	
PAL SyrOring2.5ml	10 pcs O-Ring for PAL SyrHS2.5ml						•	
PAL SyrOring5ml	10 pcs O-Ring for PAL SyrHS5.0ml						•	
MSH 30-23	Safety Clamp for COMBI PAL syringe heater						•	
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	Kit wash vial 10-CV for standard wash station 10 vials, 10 caps, 10 seals						•	•
Kit SealCap	10 Caps and 10 Seals for 100-WV Solvent Bottle						•	•

Part no.	Description	HTS	HTC	LC	COMBI	GC
PAL TubeFlushX	Replacement Kit for Flush Tube-X in PAL80 crossrail				•	
PAL TubeFlushXY	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 KitFlush-Ext800	Gas Flush Kit external for Combi PAL 800mm, field installation kit				•	
MM 03-01	Pressure regulator 0 - 2.5 Bar (0-35psi), including pressure gauge and fittings				•	
MM 09-01	Fitting assembly PAL Adapter / Tube Connector for Pressure Regulator				•	
MM 015-01	Tube Connector from Pressure Regulator to Tubing, 1/8"				•	
Kit SealFlush	Kit Sealing Gaskets for Pressure Regulator, 10 pcs				•	
Kit FlushVlv-xt	Kit Gas Flush Valve for PAL COMBI-xt and PAL LHX-xt models				•	•
KQ2L23-M3G	Elbow Adapter for Gas Flush Tube				•	
M-3ALU-3	Gas Tube Adapter, 90°				•	
MX 30-48-3	PALxt X-Axis Side Cover Right hand side				•	•
PAL FlexBandKit	PAL Flexband for standard PAL50/80 Models, 1pc				•	•
MX 20-15	Metal Angle Bracket for Ribbon Cable				•	•
MX 52-00	Grounding Conductor for X/Y Carriage				•	•
MX 30-34	Blind Cover for GC PAL					•
MX 30-42	Blind Cover for LHX PAL				•	
MB 20-00	Holder Assembly for PAL Control Terminal				•	•
PAL TermCTC-xt	Control terminal for PAL-xt system all types				•	•
Kit LCD Repl	Replacement Kit for PAL Control Terminal, incl. LCD-Module, flat cable, screws				•	•
BN4851 M4x25	Screws for X-Axis Side Covers, 10pcs				•	•
BN4851 M3x20	Screws for Y-Axis Side Covers, 10pcs				•	•
MSZ 01-00	Magnetic Adapter Ring for 20ml vials				•	
MZ 23-02	Needle Guide Replacement Kit for COMBI PAL				•	
PAL UprNdiGde	Upper Needle Guide Assembly (Gauge 19)				•	•
PAL UprNdiGde108	Upper Needle Guide Assembly 108mm (Gauge 19)				•	•
MZ 32-00	Safety Shield for PAL Injection Unit				•	•
MX 32-00	Plexiglas Safety Guard for PAL80				•	•
MX 37-00	Screw Kit for Safety Guard all types				•	•
PAL TCord280	Tension Cord 280mm (set of 5 pcs)				•	•
PAL TCord90	Tension Cord 90-95mm (set of 5 pcs)				•	•
MZ 02-00	Injection unit for LHX and COMBI PAL				•	
MZ 06-00	Injection unit for GC1 PAL or LC PAL					•
MZ 019-00	Injection unit for COMBI PAL-xt				•	
MZ 018-00	Injection unit for GC PAL-xt					•
PAL MZCovTop	Top Cover for Z-Axis, Kit				•	•
PAL MZCovTop-xt	Top Cover for Z-Axis, Kit (PAL-xt)				•	•
PAL SlidStopKit	Slider Stopper Assembly (Z-Axis)				•	•
PAL StkDrwMag	Stack Drawer Magnet Assembly, Kit				•	•
MZ 50-00	Ribbon Cable Z-Axis, 500mm				•	•
MZ 50-01	Ribbon Cable for ITEX Z-Axis, 560mm				•	
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 20-11	Lower Needle Guide Gauge22, transport magnets installed				•	•
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 TubeFlushZ	Gas Flush Tube for Z-Axis, Replacement Kit				•	
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				•	•
PAL MZAgiOpen	Bumper for PAL Injection Unit, Kit				•	
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 RCblDual	Ribbon Cable Kit for PAL X-Axis 120cm, for Dual Injection Unit PAL Models				•	
PAL XYSens	X-Y-Axis Position Sensor PCB's, Kit				•	•

Part no.	Description			HTS	HTC	LC	COMBI	GC
MSB6.3AT/10	Fuse 6.3AT for PAL CPU and Control Boards, pkg of 10pcs						•	•
SFC 4/10	SupraFuse 4A for PAL CPU and Control Boards, pkg of 10pcs						•	•
BAT VL2330	Backup Battery for PAL CPU/Control Board (1pc)						•	•
Kit COMBI-xt	Upgrade Kit for COMBI PAL to PAL COMBI-xt, incl. 1 pc Control Board-xt for PAL System - Firmware 4.1.X or higher 1 pc side cover with gas flush valve for PAL Combi-xt 1 pc back cover (for 80cm standard rail version) including screws cables, CD Rom						•	
Kit GC-xt	Upgrade Kit for GC PAL to PAL GC-xt, incl. 1 pc Control Board-xt for PAL System - Firmware 4.1.X, back cover, cables, CD							•
APR Control-xt	Control Board for all PAL Models						•	•
APR Control-GC	Control Board for GC PAL (non-xt)						•	•
APR CPU	CPU Board for PAL System (non-xt)						•	
APR MOTIO	Motor Driver and Input/Output Processing Board for PAL System (non-xt)						•	
Cbl RS20R-760	Cable 20p shielded, MiniRibbon connectors, 760mm long (Connection cable of COMBI PAL incubation heater , dilutor or valve drive)						•	
Cbl RS20R-1300	Cable 20p shielded, MiniRibbon connectors, 1300mm long (Connection cable of COMBI PAL incubation heater , dilutor or valve drive)						•	
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, LCD Terminal						•	•
PAL CblSerPrtr	Cable and adapter to connect a PAL System to a serial printer with DB 25 connector (requires Printer with serial interface)						•	•
PAL-POWERSUPPLY	Main Power supply for PALSystem. Input Voltage 100-240V						•	•
MN-03-02	Power supply for PAL StkCooler-xt and PAL TrayCooler-xt, all types Input Voltage 100-240V (specify Cooler type)						•	•
PAL-POWER-STACK	Power supply Peltier-Cooler incl. controller, PALxt						•	•
PAL-POWER-TRAY	Power supply Tray Cooler incl. controller, PALxt						•	•