

## Chapter 3

### Parts Lists

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#### OVERVIEW

This chapter includes parts illustrations and related parts information.  
For each part, the following information is provided:

Item	Item number (refers to the number on the illustration)
RR Number	Removal & Replacement procedure number for this item (RR procedures are in Chapter 4.)
Catalog Number	Catalog Number (if applicable) List Number (if applicable)
Part Number	Part number (if catalog number is not applicable)
Description	Part name/description

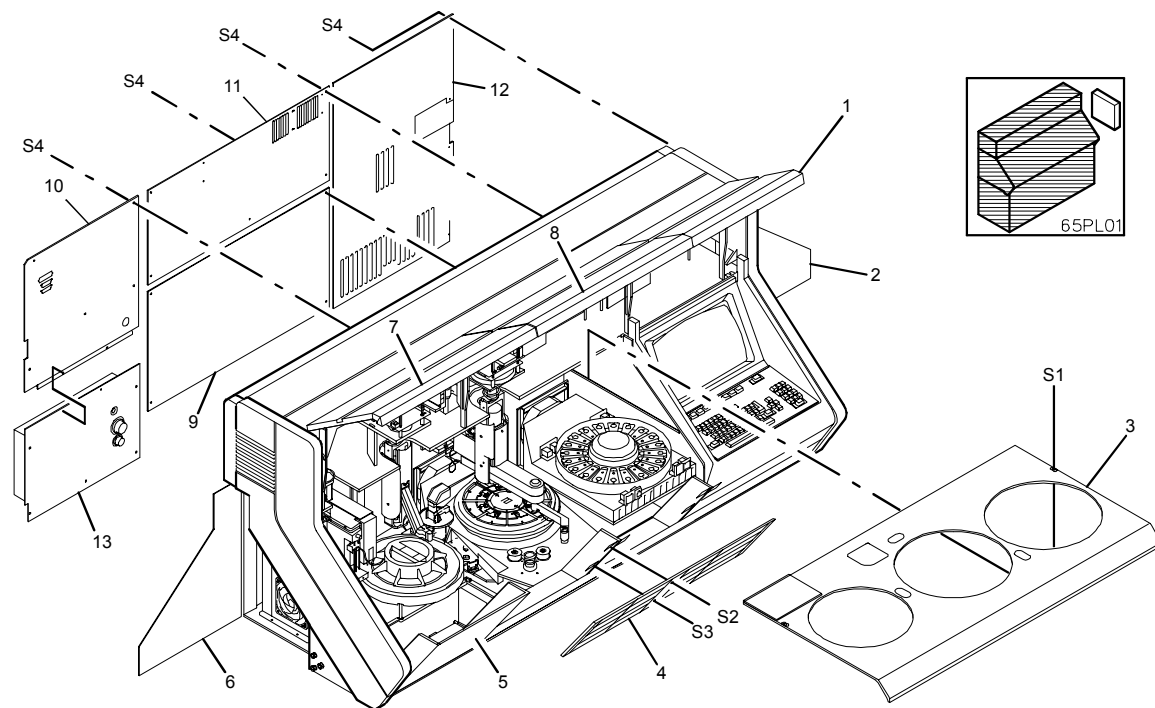
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### PL 1: COVERS

Item	RR #	Catalog #	Part #	Description
1			19463-301	Upper Right Door
2			06435-302	Right Side Door
3	1.3		19223-301	Top Deck
4	1.4		06435-302	Front Panel
5			06425-302	Sample Diluent Reservoir Access Door
6			06428-302	Left Side Door
7			06429-301	Upper Left Door
8			06430-301	Upper Center Door
9	1.9		N/A	Lower Center Back Panel
10	1.10		N/A	Upper Left Back Panel
11	1.11		N/A	Upper Center Back Panel
12	1.12		N/A	Right Back Panel
13	1.13		N/A	Lower Left Back Panel

Item	Part #	Description
S1	14494-213	#8-32 PHP
S2	14194-310	#10-32 X .625 PHP
S3	14194-308	#10-32 X .500 PHP
S4	14439-318	#10-24 X .375 BHC



### PL 2: ISE

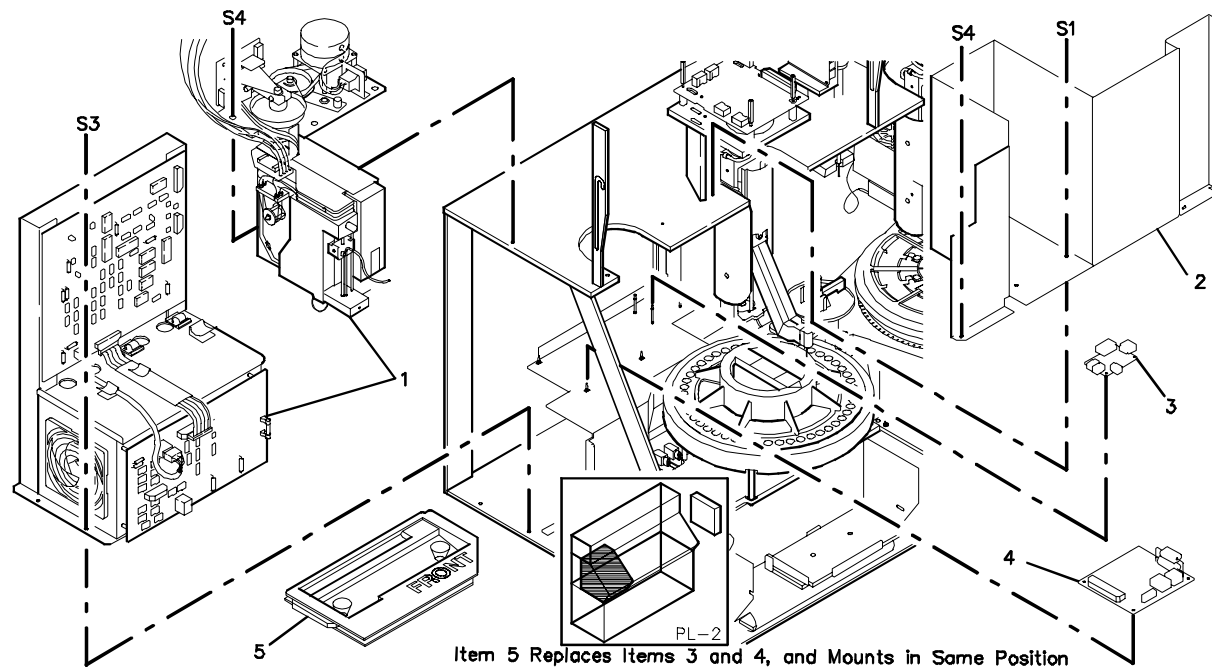
Item	RR #	Catalog #	Part #	Description
1		2-06800-02		ISE Assy for Spectrum Series II
2	2.2		07402-103	ISE Shroud
3	2.3			Home Station Interface Bd (old style) <i>NOTE: Replace with item #5.</i>
4	2.4			Pump & Valve Bd (old style) <i>NOTE: Replace with item #5.</i>
5	2.5	2-54905-02		Pump & Valve/Home Station Interface Bd

Related list/catalog/part numbers:

14107-204 .2 Amp microfuse

14107-193 1 Amp microfuse

Item	Part #	Description
S1	14489-155	#6-32 X .250 PHP
S2	14494-306	#10-32 X .375 PHP
S3	10890-015	#8 X .625 flat washer
S4	14494-310	#10-32 X .625 PHP



### PL 3: SAMPLE CAROUSEL DRIVE ASSEMBLY

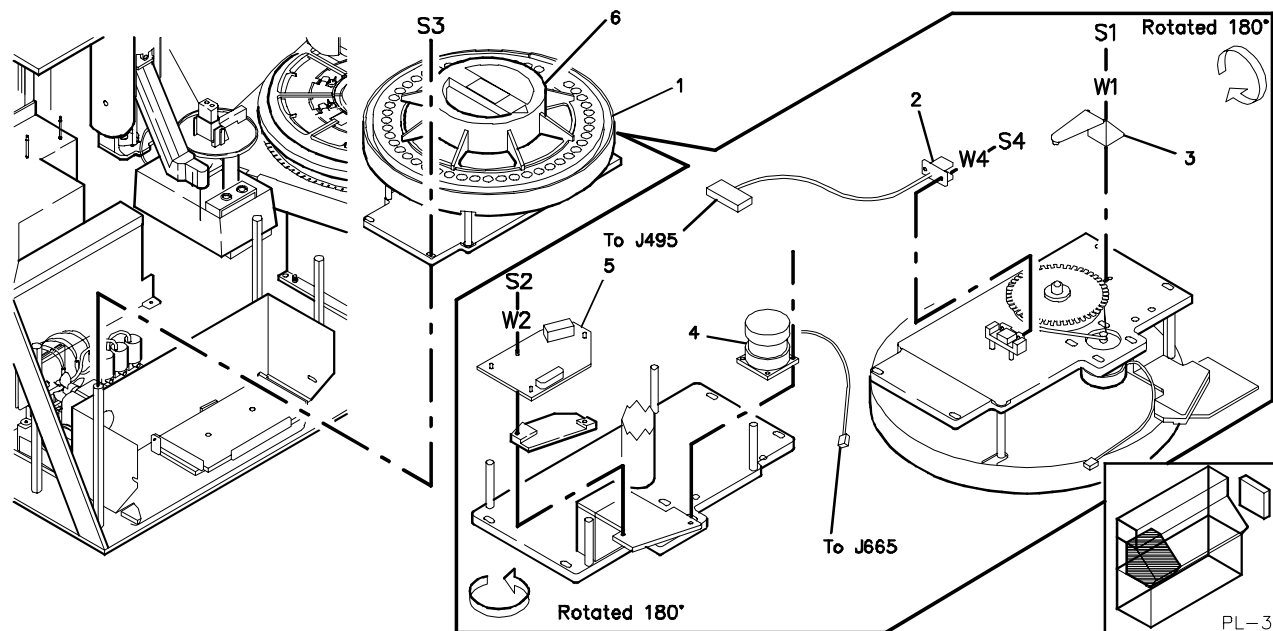
Item	RR #	Catalog #	Part #	Description
1	3.1	2-06302-01 2-06302-02		Sample Carousel Drive Assy (Spectrum) Sample Carousel Drive Assy (CCx)
2	3.2	2-06469-01		Sample Carousel Dual Optics Sensor
3		2-54585-01		Ground Strap
4		2-06289-01		Sample Carousel Motor
5	3.5	2-06760-01		Sample Carousel ID Reader Bd
6		1366-17		Sample Carousel Tray

Related list/catalog/part numbers:

2-06311-01 Sample Carousel Cover

1366-21 Sample Carousel ID Kit

Item	Part #	Description
S1	11449-106	#6-32 X .375 PHP
W1	11452-005	#6 washer
S2	14489-138	#4-40 X .725 PHP
W2	14537-001	#4 nylon washer
S3	14494-310	#10-32 X .620 PHP
S4	14478-532	#4-40 X .25 PHP
W4	14519-103	#4 X .250 washer

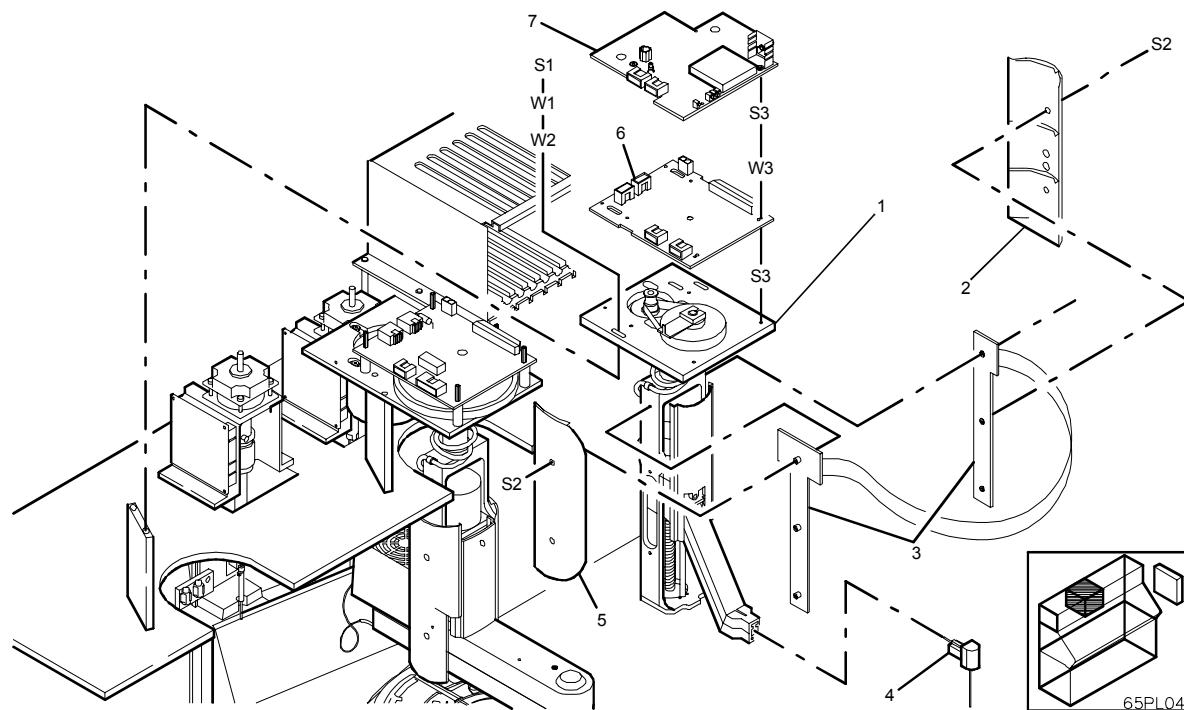


### PL 4: SAMPLE ARM

Item	RR #	Catalog #	Part #	Description
1	4.1	2-06200-02		Sample Arm
2			18953-101	Sample Arm Right Cover
3		2-06730-01		Sample Arm Middle Bd
4	4.4	1366-06		Sample Probe
5			06290-103	Sample Arm Left Cover
6		2-06735-01		Sample Arm Upper Bd
7	4.7	2-18925-01		Sample Arm Fluid Sense Bd

Item	Part #	Description
S1	14702-013	.250 nylon Hex stand-off
W1	14537-014	#6 nylon washer
S2	10854-420	#6-32 X .625 PHP
W2	14537-013	nylon washer
S3	14702-015	#6-32 X 1.5 standoff
W3	14522-005	tooth washer

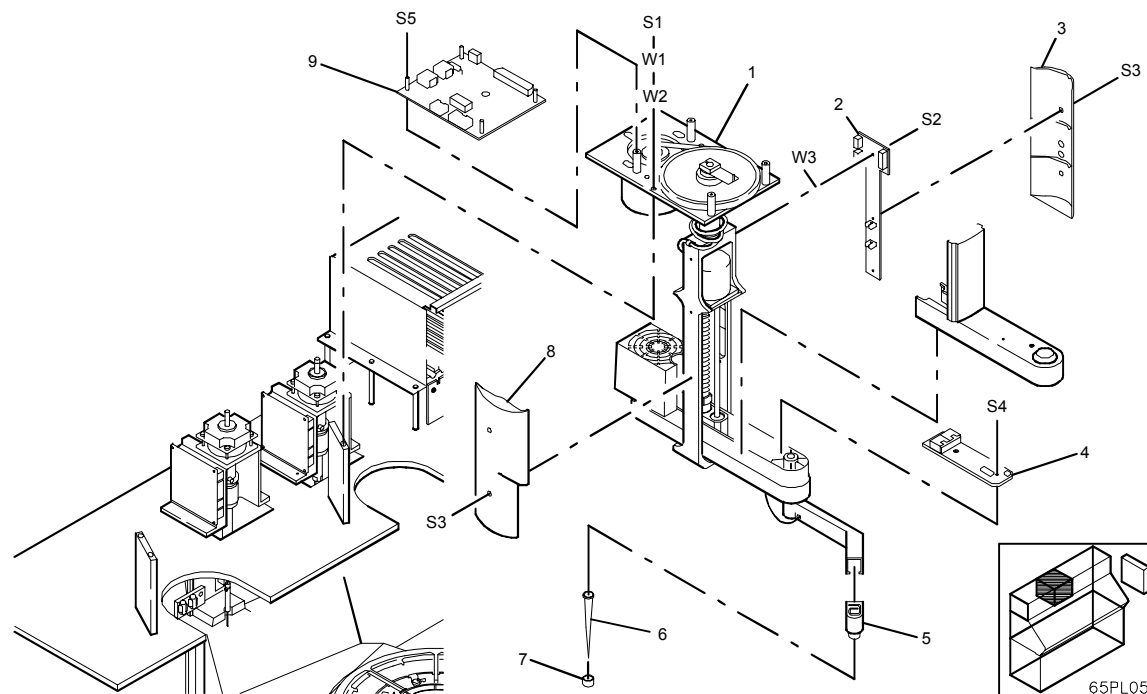




### PL 5: REAGENT ARM

Item	RR #	Catalog #	Part #	Description
1	5.1	2-06250-01		Reagent Arm
2		2-06720-01		Reagent Arm Middle Bd
3			06290-103	Reagent Arm Right Cover
4	5.4	2-06745-02		Reagent Arm Fluid Sense Bd
5		2-06259-01		Reagent Probe Adapter
6	5.6	1366-10		Reagent Probe
7			06275-101	Reagent Probe Retainer
8			06274-103	Reagent Arm Left Cover
9		2-06725-01		Reagent Arm Upper Bd

Item	Part #	Description
S1	14702-013	.250 nylon Hex stand-off
W1	14537-014	#6 nylon washer
W2	14537-013	nylon washer
S2	14489-155	#6-32 X. 250 PHP
W3	14537-014	#6 nylon washer
S3	14489-154	#6-32 X .1875 SCR
S4	14501-124	#4-40 X. 750 nylon
S5	14702-003	#6-32 X .75 Hex stand-off



**PL 6: SAMPLE AND REAGENT SYRINGES**

Item	RR #	Catalog #	Part #	Description
1	6.1	2-06451-01		Sample Syringe Drive Assy
2	6.2	2-06452-01		Reagent Syringe Drive Assy
3	6.3	1366-14		Reagent Syringe Quad Rings
4	6.4	1366-08		Reagent Syringe
5	6.5	1366-14		Sample Syringe Quad Rings
6	6.6	1366-07		Sample Syringe
7	6.7	1366-26		Sample Diluent Valve
8	6.8	1367-17		Sample Diluent 35-Micron Filter
9	6.9a 6.9b	1366-13 1366-13		Syringe Tubing - Reagent Syringe Tubing - Sample
10	6.10	2-06755-02		Sample Syringe Limit Bd
11	6.11	2-06755-01		Reagent Syringe Limit Bd

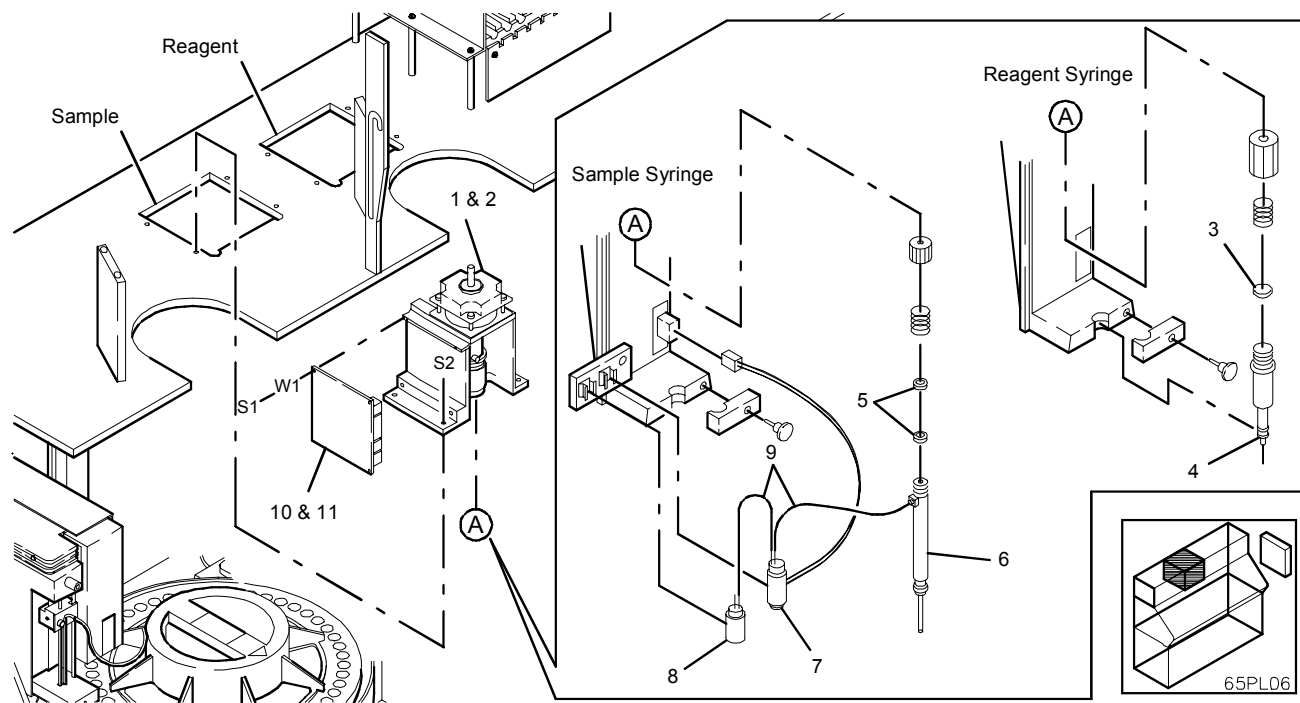
Item	Part #	Description
S1	14494-105	#6-32 X .31 SEMS
W1	10891-002	#6 Nylon washer
S2	14494-308	#10-32 X .500 PHP

Related list/catalog/part numbers:

2-06327-01 Syringe Drive Motor

14456-022 Sample Syringe Set Screw

2-06455-01 Syringe Bracket Thumb Screw



**PL-7: CARD CAGES (MASTER AND SLAVE)**

Item	RR #	Catalog #	Part #	Description
1	7.1	2-06592-01 2-06592-02		Master Card Cage ungn* Master Card Cage gnd
2	7.2	2-18895-01 2-19845-01		Bus I/O Bd 4.8 gnd Bus I/O Bd 4.8
3	7.3	2-18095-02 2-18095-03		CRT Controller Bd ungn CRT Controller Bd gnd
4	7.4	2-06675-01 2-18880-01		Incubator Servo Bd ungn Incubator Servo Bd gnd
5	7.5	2-06665-01 2-18885-01		Lamp Servo Bd ungn Lamp Servo Bd gnd
6	7.6	2-18835-01		Bar Code Reader Bd Interface Bd
7	7.7	2-54787-01		ROM Set, 4.8
8	7.8	2-19400-01		SRAM Bd
9	7.9	2-18155-01		Master CPU Bd
10	7.10	2-18165-02		Dual Port RAM Bd

Related list/catalog/part number:  
14100-027 SRAM Battery

\* ungn = ungrounded  
gnd = grounded

Item	RR #	Catalog #	Part #	Description
11	7.11	2-06700-02		AD Converter Bd
12	7.12	2-06690-01		Real Time Processor Bd (Slave CPU)
13	7.13	2-19645-02		Motor Controller Bd
14	7.14	2-06592-01 2-06592-02		Slave Card Cage ungnd Slave Card Cage gnd
15	7.15		14106-020	Card Cage Fan, 115 VAC
16	7.16	2-06610-01 2-18890-01		CRT Junction Bd ungnd CRT Junction Bd gnd
17	7.17	2-18162-01		Interrupt Cable

Item	Part #	Description
S1	14494-306	#10-32 X .375 PHP
S2	14494-216	#8-38 X 1.0 PHP

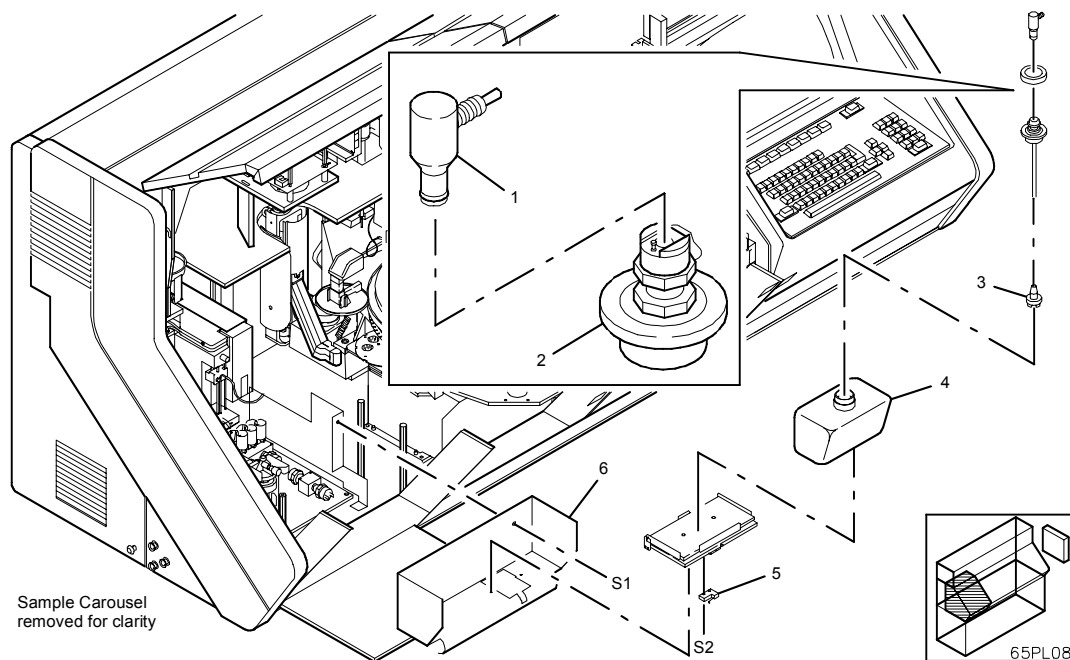


### PL 8: WATER AND DILUENT SYSTEMS (PART 1)

Item	RR #	Catalog #	Part #	Description
1			14603-114	Quick Disconnect (male)
2			18906-101	Quick Disconnect (female)
3	8.3	1366-55		Sample Diluent 70-Micron Filter
4		2-07193-01		Sample Diluent Bottle
5	8.5		11000-000	Sample Diluent Tray Level Switch
6	8.6	2-06515-01		Sample Diluent Tray

Item	Part #	Description
S1	14494-108	#6-32 X .5 PHP
S2	14489-121	#2-56 X .5 PHP





### PL 9: WATER AND DILUENT SYSTEMS (PART 2)

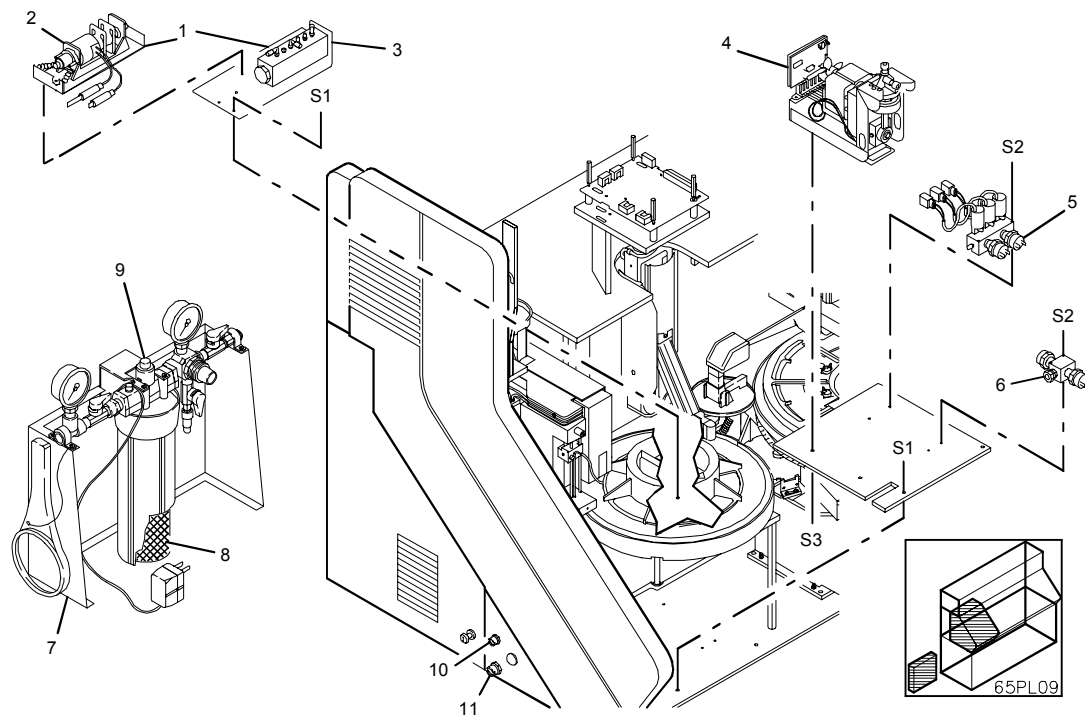
Item	RR #	Catalog #	Part #	Description
1	9.1	2-06528-01		Drain Assy
2	9.2	2-06521-01		Waste Pump
3		2-06527-01		Waste Manifold
4	9.4	2-06520-01		Sample Diluent Pump
5	9.5	2-06529-01		Wash Manifold
6	9.6	2-06532-01		Sample Diluent Manifold
7	9.7	1366-30		Water Quality Station
8		1366-35		0.2 Micron filter (pkg 4)
9			14110-039 14110-040	Water Quality Station Light (amber & green) Water Quality Station Light (amber)
10			14603-024 14603-026	Inlet Water Connector (female) Inlet Water Connector (male)
11			14603-023 14603-025	Drain Connector (female) Drain Connector (male)

Item	Part #	Description
S1	14494-306	#8-32 X .375 PHP
S2	14480-168	#6-32 X .1.12 PHP
S3	10859-616	#10-32 X .50 PHP

Related list/catalog/part numbers:

1366-64 External Wash/Waste Tubing Kit

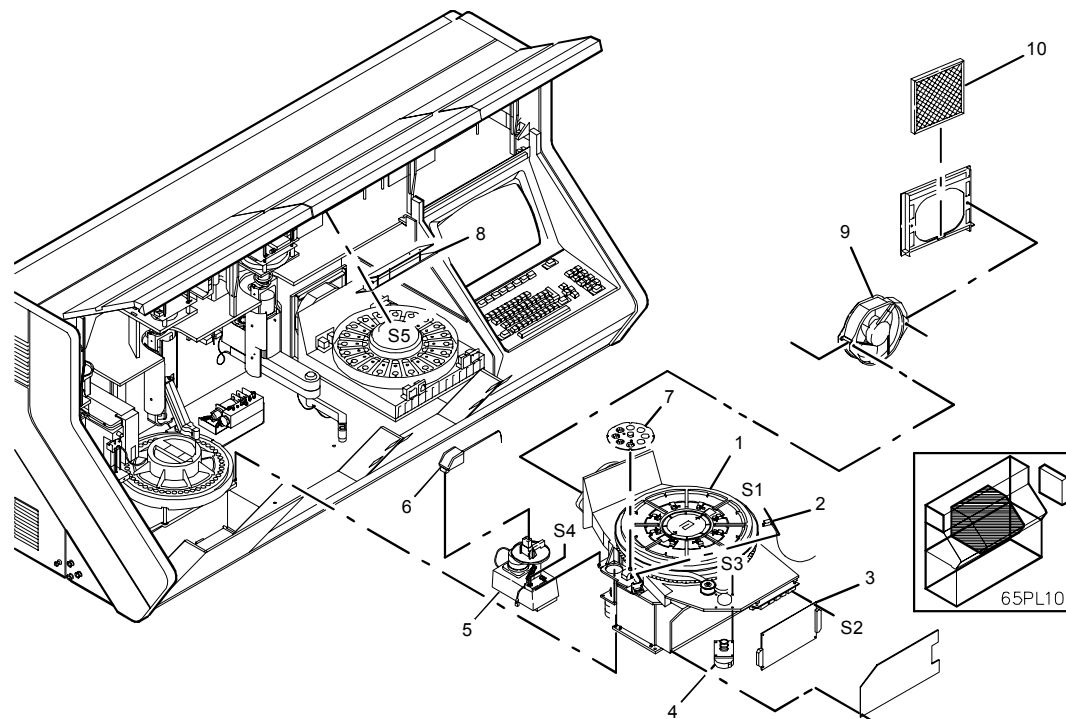
1366-22 Internal Wash/Waste Tubing Kit



### PL 10: INCUBATOR OPTICS (PART 1)

Item	RR #	Catalog #	Part #	Description
1	10.1	2-06050-03		Incubator Optics Assy
2	10.2	2-06469-01		Calibration Wheel Dual Optics Sensor
3	10.3	2-06705-02 2-06705-03	06705-107 06705-108	Front End Bd - High Gain Front End Bd - Low Gain
4	10.4	2-06322-01		Cuvette Carrier Motor
5	10.5	2-06860-01		Mixer Drive Assy
6	10.6	2-06851-01		Mix Arm Assy
7	10.7	2-06066-01		Calibration Wheel Assy
8	10.8	2-19499-01		Cuvette Change Panel
9	10.9		14106-020  14106-014	Incubator Optics Fan (for instruments with noise modification) (for instruments without noise modification)
10		1367-10		Fan Screen

Item	Part #	Description
S1	14435-121	#6-32 X .5 SCH
S2	14702-012	#6-32 X .375 stand-off
S3	14435-194	#10-32 X .75 SCH
S4	14435-130	#8-32 X .75 SCH
S5	14494-206	#8-32 X .375 PHP



**PL 11: INCUBATOR OPTICS (PART 2)**

Item	RR #	Catalog #	Part #	Description
1	11.1	2-06107-01		Cuvette Carrier Assy
2	11.2	1366-11		Cuvette Clamps
3	11.3	2-07288-01		Incubator Level Sense Probe
4a	11.4	2-06503-01		Reagent Wash Cup
4b	11.4	2-06516-01		Mix Wash Cup
4c	11.4	2-19195-01		Sample Wash Cup
5	11.5	2-06469-01		Cuvette Carrier Dual Optics Sensor
6	11.6	2-18775-01		Incubator Thermistor
7	11.7	2-06795-01		Incubator Optics Interface Bd
8	11.8	2-54904-01		Cuvette Carrier Bearings
9	11.9	2-06128-01		Lamp Housing Assy
10	11.10	2-06137-01		Heat Glass
11	11.11	2-19976-01		Lamp Socket Assy
12	11.12	1366-24		Source Lamp
13	11.13	2-06244-01		Incubator Lenses
14	11.14	2-19046-01		Shutter Assembly

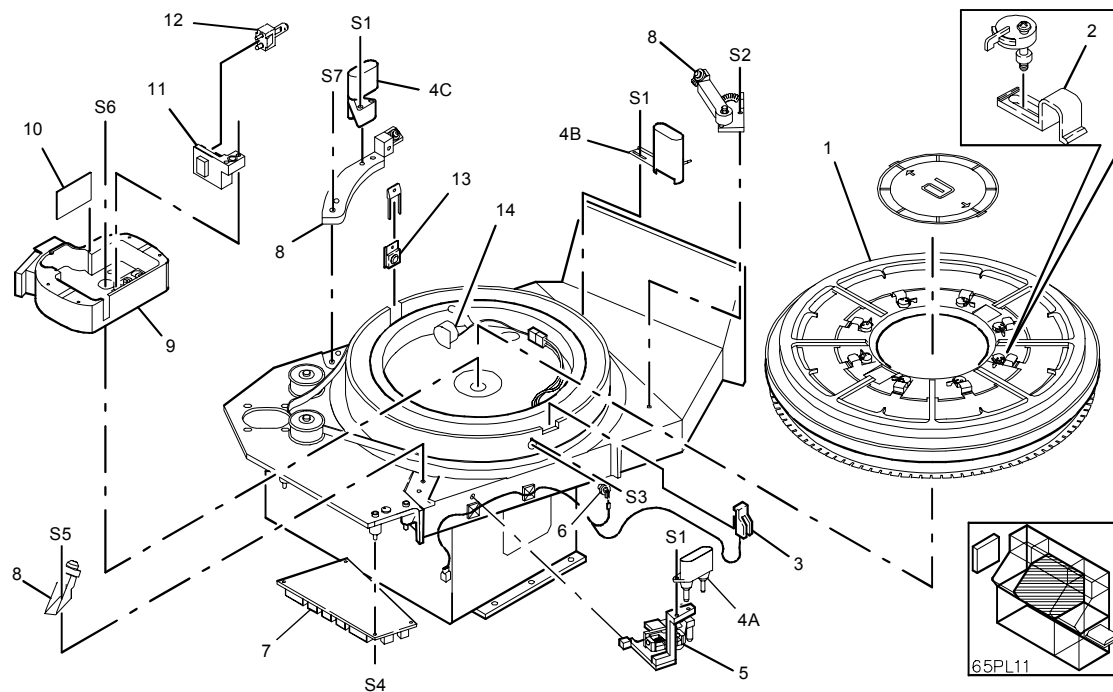
Item	Part #	Description
S1	14435-121	#6-32 X .5 SCH
S2	14435-128	#8-32 X .5 SCH
S3	14435-211	#6-32 X .438 SCH
S4	14494-004	#4-40 X .25 SEMS
S5	14435-128	#8-32 X .5 SCH
S6	14443-118	#8-32 X .375 FHS
S7	14435-128	#8-32 X .5 SCH

Related list/catalog/part numbers:

2-07821-01 Cuvette Carrier Cover

2-06508-01 Wash Cup Cover (Reagent Cup, Mix Cup, Sample Cup)

2-19838-01 Lamp Retaining Clip



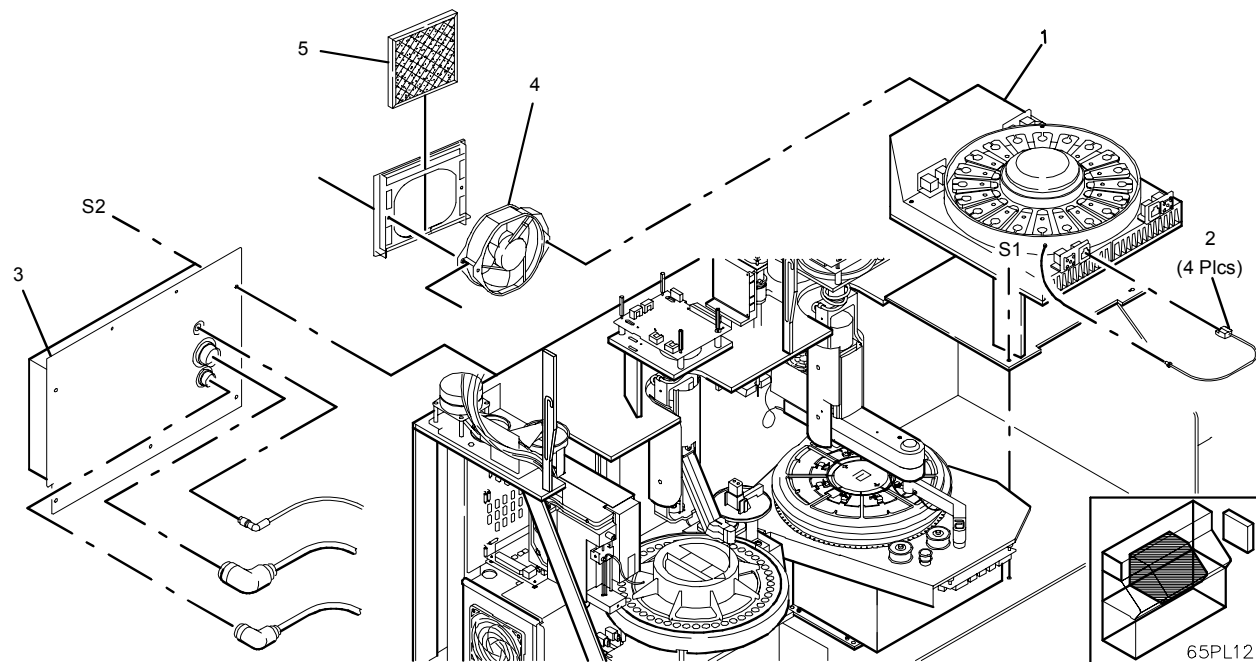
### PL 12: REAGENT COOLER

Item	RR #	Catalog #	Part #	Description
1	12.1a 12.1b	2-18332-08 2-18332-05 2-06376-01		Reagent Cooler Assy (Spectrum SII) Reagent Cooler Assy (CCx SII) Reagent Bar Code Reader Dual Optics Sensor (not shown) (under Reagent Cooler Assy)
2	12.2	2-18352-01		Reagent Cooler Thermistor
3	12.3	2-18726-01		Reagent Cooler Controller
4	12.4		14106-020	Reagent Cooler Fan, 115 VAC
5		1367-10		Fan Screen

Item	Part #	Description
S1	14494-408	.25-20 X .5 PHP
S2	14494-208	#8-32 X .5 PHP

Related list/catalog/part number:  
2-07184-01 Reagent Cooler Cover

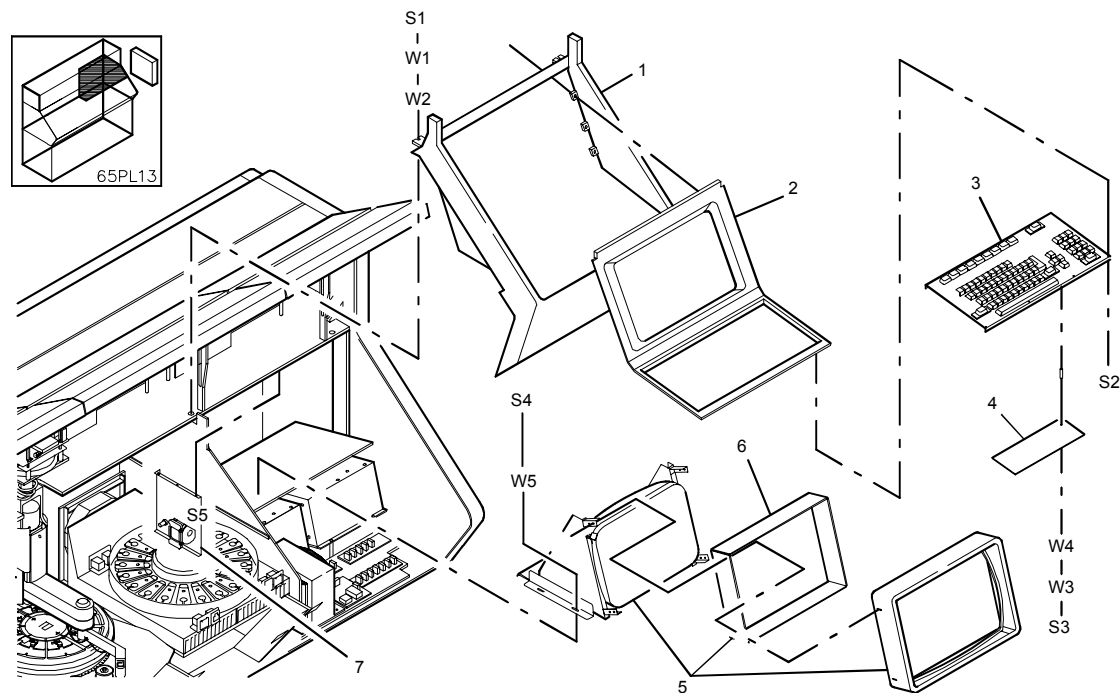




**PL 13: CRT AND KEYBOARD ASSEMBLIES**

Item	RR #	Catalog #	Part #	Description
1	13.1		06434-302	CRT/Keyboard Bezel
2			06434-301	Insert, CRT Bezel
3	13.3	2-06824-02		Keyboard Assy
4		2-19900-01		Keyboard Interface Bd
5	13.5	2-07302-01		CRT Assy with Touchscreen
6	13.6	2-06630-01		Touchscreen Assy
7	13.7	2-07276-01		Side Power Panel

Item	Part #	Description
S1	14494-310	#10-32 X .620 PHP
W1	10890-018	#10 flat washer
W2	10917-006	O-ring
S2	14494-104	#6-32 X .250 PHP
S3	14494-106	#6-32 X .375 PHP
W3	10891-102	#6 washer
W4	14702-612	stand-off, Hex #6
S4	11494-108	#6-32 PHP
W5	10946-117	#6 shoulder washer
S5	14494-310	#10-32 X .625 PHP



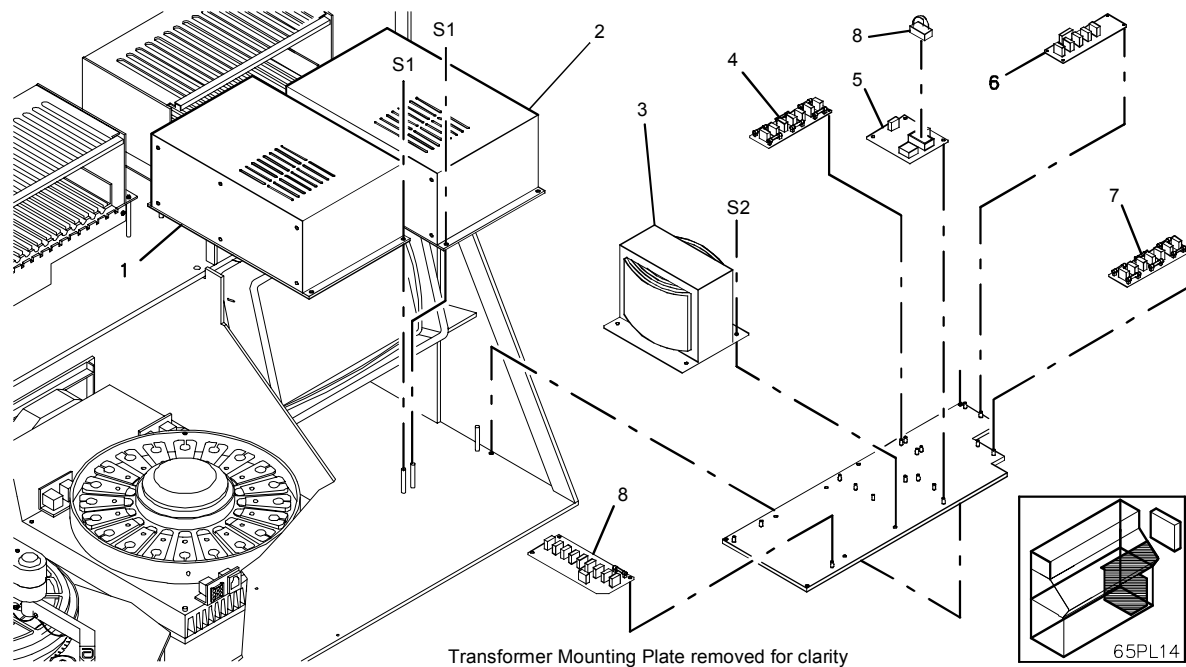
**PL 14: SYSTEM POWER**

Item	RR #	Catalog #	Part #	Description
1	14.1	2-06577-01 2-06577-02		24V Power Supply ungn 24V Power Supply d
2	14.2	2-06578-01 2-06578-02		Multi-Output Power Supply ungn Multi-Output Power Supply d
3	14.3	2-06576-01		Isolation Transformer
4	14.4	2-06815-01		Main 24V Distribution Bd
5	14.5	2-06715-01		Line Voltage Selection Bd
6	14.6	2-06845-01		Main AC Distribution Bd
7	14.7	2-06815-01		Lower 24V Distribution Bd
8	14.8	2-06890-01		Isolated AC Distribution Bd

Item	Part #	Description
S1	14494-206	#8-32 X .375 PHP
S2	14494-306	#10-32 X .380 SEMS

Related list/catalog/part number:

06958-204 Line Voltage Selection Plug



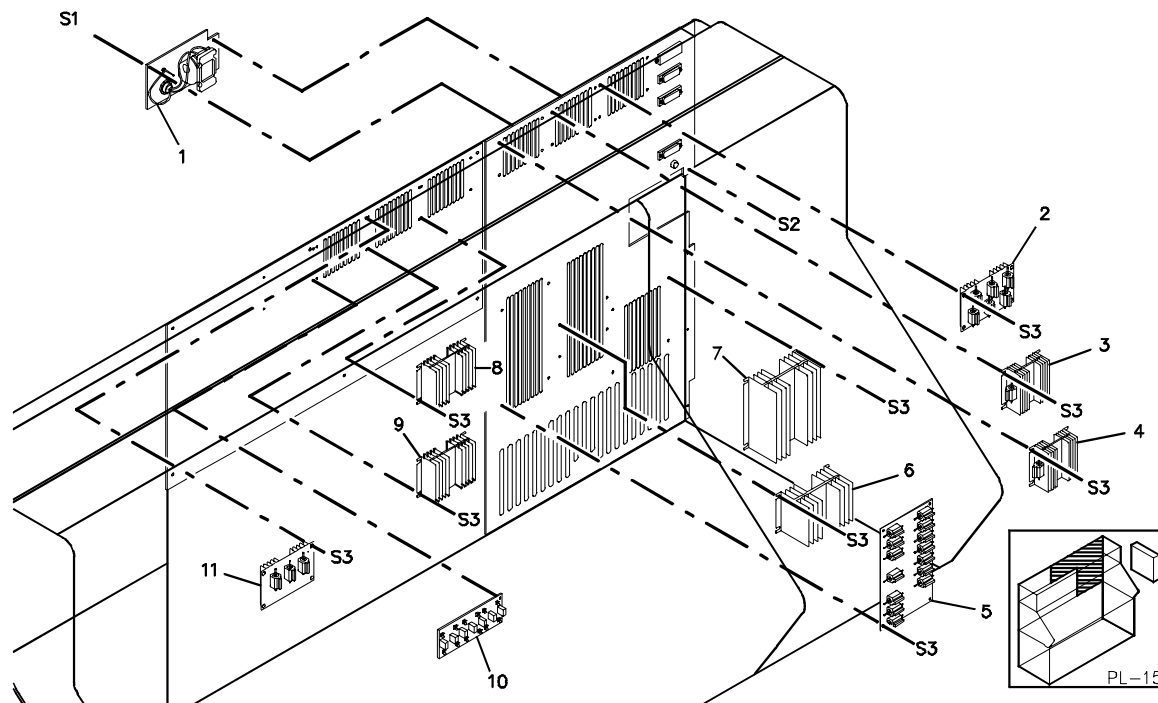
### PL-15: HEAT SINKS

Item	RR #	Catalog #	Part #	Description
1	15.1	2-07643-01 2-18262-01		Rear Power Panel 220 VAC Rear Power Panel 120 VAC
2	15.2	2-06589-01		Reagent Arm Resistive Heat Sink
3	15.3	2-19842-01		Reagent Arm Active Heat Sink
4	15.4	2-19774-01		Reagent Syringe Active Heat Sink
5	15.5	2-06586-01		Lower Resistive Heat Sink
6	15.6	2-06584-01		Lamp Drive Heat Sink
7	15.7	2-06582-01		Incubator Drive Heat Sink
8	15.8	2-19774-01		Sample Syringe Active Heat Sink
9	15.9	2-19774-01		Sample Arm Active Heat Sink
10	15.10	2-06815-01		Upper 24V Distribution Bd
11	15.11	2-06588-01		Sample Arm Resistive Heat Sink

Item	Part #	Description
S1	14494-206	#8-32 X .375 PHP
S2	14439-118	#10-24 X .375 PHP
S3	14494-206	#8-32 X .375 PHP

Related list/catalog/part numbers:

P/N	Description	
13540-028	LM350 Transistor	(used in 15.3, 15.4, 15.8, 15.9)
13910-035	MJ11028 Transistor	(used in 15.6, 15.7)
13910-034	MJ11029 Transistor	(used in 15.7)



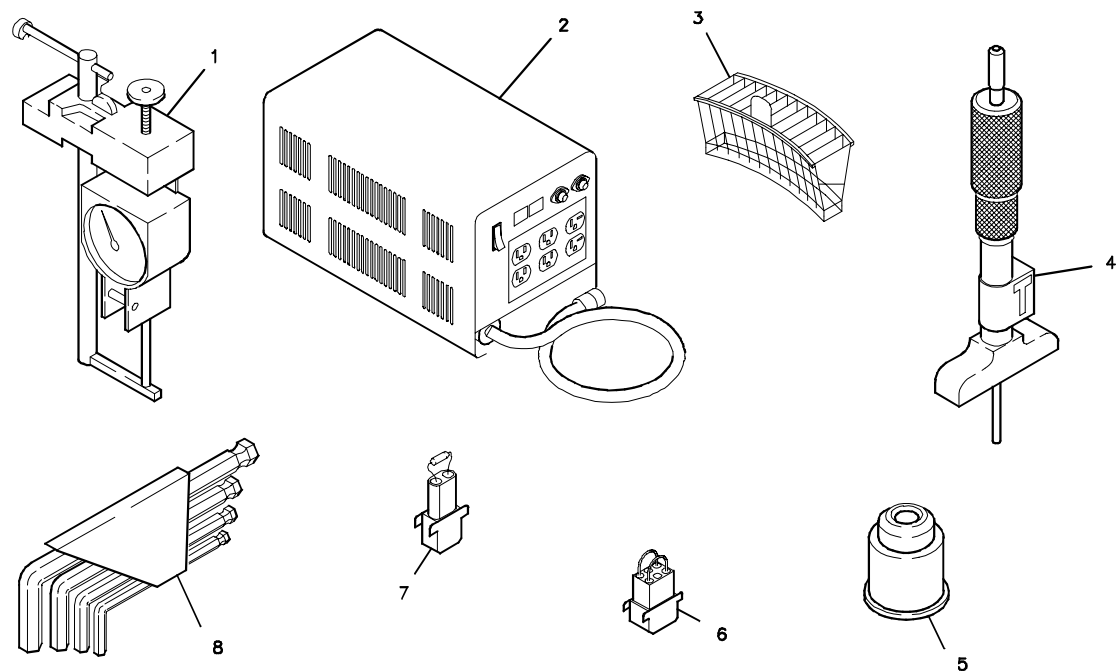
### PL-16: SUPPLEMENTAL TOOLS AND SUPPLIES

Item	Catalog #	Part #	Description
1	2-18955-01		Cuvette Carrier Belt Tensioning Tool
2	1370-52 1370-53		Oneac® Line Conditioner - 220 V Oneac® Line Conditioner - 110 V
3	2-07367-01		Dark Cuvette Set
4		14207-026	Depth Micrometer
5	2-19326-01		Syringe Motor Alignment Tool
6	2-18949-01		Pressure Bypass Plug
7	2-07338-01		Incubator Servo Calibration/ Adjustment Tool, 30K Plug
8		14205-014	Ball Allen™ Wrench Set

#### The following tools and supplies are not illustrated.

14207-034	25-Pin Wire Tap Breakout Plug
1366-40	Benzalkonium Chloride
1366-04	Customer Tool Kit
14237-010	Dow Corning® Compound 111
1367-01	ISE Starter Kit
14233-005	Krytox® (DuPont Krytox® 240AC Fluorinated Grease)
14233-008	Lithium 12-Hydroxy Grease
14237-007	LO-17 Oil
3-31295-01	Pipe Check Solution
2-54938-01	PM Kit
1370-92	Printer - Okidata® 184 (refurb)
1366-28	Printer Ribbon
5937-15	Static Mat
3A42-30	Teflon® Tubing Installation Kit
19315-101	Support Stand Key





PL-16

