

Printed: Tue May 31 2016

Problem					TSB		Resolution								
May 2016 12M PM due					01 *	21	Test ALL Valve & Switches - OK. Flowrate (Org)= 11.8ml @ Sheath Pressure = 6.525psi adjusted 11.0ml @ Sheath Pressure = 6.012psi Red laser power= 7.09mW Green laser power= 13.7mW (JDS Uniphase 14JUNE2012) split = 33.600us Sheath Fluid (P/N: 40-50,000) 20L 1x Sheath box, Lot: B49284, Exp: 2017-08-19 Lots used for testing. CAL1 (B48466) Exp: 2017-07-08 CAL2 (B47117) Exp: 2017-04-07 CON1 (B47497) Exp: 2017-05-07 CON2 (B47498) Exp: 2016-07-24 CALs & CONs - Events >250 to 575 in <30s - PASS. Optimise Red - DD, Steering mirror & CL1- side screw (screws loose). Threadlocked all screw allowed to dry. Verification (INITIAL & FINAL) - PASS 47Plex Beads are hitting right of centre in regions -OK. Probe height adjusted for 'v' bottom 'Costar' disposable uPlate for Assay use & AMP in Well H12. CALs & CONs kits using xPO3.1.971 (with IXPO-00007129) - As above - PASS Instrument meets specification.								
Optics Alignment Verification					02 *	22									
DD Temp:	24.392	deg (C)	Laser Time		03 *	23									
Sheath Pressure:	6.012		Green:	7500026	04 *	24 *									
Flow Rate (2 min):	11.0	ml	Red:	744536	05 *	25									
					06 *	26 *									
					07 *	27									
					08 *	28									
					09	29									
					10 *	30 *									
					11 *	31 *									
					12 *	32									
					13 *	33									
					14 *	34									
					15 *	35									
					16 *	36									
					17	37									
					18 *	38									
					19 *	39									
					20	40									
										Parts					
										Serial No	Item No	Description	Quantity	Price	Extended Price
											TRAVEL	Travel for On-Site Field Service	18.00		
											LABOR	Labor Charges	6.00		
											FS-0214-01	LX100/200 12 month PM Kit	1.00		

TOTAL EUR: 0.00

Field Service Technician		Customer	
Name:	Jeremy White	Name:	SYLVIE VAN DER ZEEUW-HINGREZ
Date:	May 31 2016	Date:	May 31 2016

~~M. Jysen~~



Field Service Report

Work Order No: WO-00056536

Printed: Tue May 26 2015

Customer	Instrument	Call
Name: RADBOUD UMC Address: POSTBUS 9101 HUISPOST 28, NIJMEGEN, 6500 HB Contact: SYLVIE VAN DER ZEEUW-HINGREZ (s.vanderzeeuw-hingrez@labgk.umcn.nl)	Name: Luminex 100 IS V 2.1 w/Developers Workbench, OBS Serial Number: LX10001263008 PC Model: Dell Optiplex 710	Type/Code: - HARDWARE Category: PM - PM Contract: SLA Gold

Problem	TSB	Resolution
May 2015 12M PM due	01 * 21	Performed 12 months PM (details see checklist). Performed system verification: CV's a little high (CL1 4.65 CL2 5.68). Performed alignment: cv's and means in spec. (Sheath fluid B36418, Cal1 B42050, Cal2 B43322, Con1 B41110, Con2 B42053, Alignment microspheres B43311). Run customer controls: all ok.
Optics Alignment Verification	02 * 22	
DD Temp: 23.741 deg (C) Laser Time	03 * 23	
Sheath Pressure: 6.129 Green: 5662201	04 * 24 *	
Flow Rate (2 min): 11.0 ml Red: 4920616	05 * 25	
	06 * 26 *	
	07 * 27	
	08 * 28	
	09 29	
	10 * 30 *	
	11 * 31 *	
	12 * 32	
	13 * 33	
	14 * 34	
	15 * 35	
	16 * 36	
	17 37	
	18 * 38	
	19 * 39	
	20 40	
Classification Results		
CV (Initial/if required): DD CL1 CL2 RP1		
Mean (Initial/if required): 9.40 3.18 4.93 6.72		
CV (Final): 10724.07 3325.80 3542.00 3535.39		
Mean (Final):		
Classification Passed: Yes Fluidics 1 Passed: Yes		
Control Passed: Yes Fluidics 2 Passed: Yes		
		Travel Time Total: 1.25
		TOTAL: 0.00
		This is an estimate of charges. An invoice will be sent to you.

Field Service Technician	Customer
Name: Rob Wilkens	Name: SYLVIE VAN DER ZEEUW-HINGREZ
Date: May 19 2015	Date: May 19 2015

Signature:

WO-00056536 di,19 mei 2015 04:47:42 p.m. W
 WO-00056536 di,19 mei 2015 04:47:42 p.m. W
 WO-00056536 di,19 mei 2015 04:47:42 p.m. W
 WO-00056536 di,19 mei 2015 04:47:42 p.m. W
 WO-00056536 di,19 mei 2015 04:47:42 p.m. W
 WO-00056536 di,19 mei 2015 04:47:42 p.m. W
 WO-00056536 di,19 mei 2015 04:47:42 p.m. W
 WO-00056536 di,19 mei 2015 04:47:42 p.m. W
 WO-00056536 di,19 mei 2015 04:47:42 p.m. W



Field Service Report

Work Order No: WO-00044868

Printed: Tue May 13 2014

Customer	Instrument	Call
Name: RADBOUD UMC Address: POSTBUS 9101 HUISPOST 28, NIJMEGEN, , 6500 HB Contact: SYLVIE VAN DER ZEEUW-HINGREZ (s.vanderzeeuw-hingrez@labgk.umcn.nl)	Name: Luminex 100 IS V 2.1 w/Developers Workbench, OBS Serial Number: LX10001263008 PC Model: Dell Optiplex 760	Type/Code: - HARDWARE Category: PM - PM Contract: SLA Gold

Problem	TSB	Resolution
May 2014 12M PM	01 * 21	PM Service to LX100 instrument. Performed 12th May 2013. WO-00044868 UMC St. Radboud, Postbus 9101, LMI 469, 6500 HB, Nijmegen, Nederland. Kjeld van Houwelingen (Hoofdanalist Immuno Genetica) e-mail: K.vanHouwelingen@labgk.umcn.nl Tel : +31-24-3668144
Optics Alignment Verification	02 * 22	http://portal.umcn.nl/organisatie/labgk Sylvie Van der Zeeuw-Hingrez e-mail: S.vanderZeeuw-Hingrez@labgk.umcn.nl Tel : +31 24 3613152 LX10001263008-A Firmware: 2.3.9 DSP: 3.17.0 Dell Optiplex 760. Service Tag: DGGT94J Express Service Code: 29293867891 ABTI Asset Nr : 313. TSB 01-08, 10-16, 18-19, 24, 26, 30, 31 Problem Description : "PM Service on LX100 Instrument". Check ALL valves - Tested - OK. Windows XP OS with xPONENT 3.1.971 Replace PM Consumables (64-50011-00-001). lost ball bearing during xyp adjustment checks - new needle height alignment kit delivered - NO Charge (64-00010-00-001)
DD Temp: 24.826 deg (C) Laser Time	03 * 23	x1. Declog Cuvette. A fine jet of sheath fluid is seen exiting the hockey puck reliably on command. *Please make "Sanitise solution" from thin domestic household bleach (Sodium Hypochlorite <5%) 20% Volume / 80% fresh DI Water to prevent clogs. - only make enough for one weeks use. Dried Particles seen on probe (thick part not probe end) & needle alignment guide at the top. Reset needle arm actuator linkage including fixing to Bimba cylinder to make the probe go vertically straight -Tested - OK. Determine Flowrate = 11.0ml @ Sheath Pressure=6.100psi. Red laser power (Org)= 9.09mW. Red laser Seconds= 2923506s Green laser power= 10.8mW (JDS Uniphase silver alu box) Green laser Seconds= 3665091s split = 37.600us Sheath (P/N: 40-50000) Lot: B35560 Exp.2015-08-23 CALs & CONS - Events/s >250 TO 550 in <30s -PASS. Lots used for testing. CAL1 (B32944) CAL2 (B35729) CON1 (B32469) CON2 (B32470) Verification (Final) - PASS. PEAK= 9553 %CV's: DD=10.25 CL1=2.73 CL2=4.16 RP1=6.41 MEAN: 10543.85 CL1=3454.07 CL2=3557.14 RP1=3650.86 47Plex beads are hitting slightly left of centre in regions - OK. Probe Sonicated & needle alignment guide clean for 20minutes in "sanitise solution" - Tested -OK. Probe height checked - Hitting low~2mm.for use with heater block 'v' bottom 'Costar' disposable uPlate for Assay use - AMP is compatible for CALibrations/ CONTROLS. Checked probe for straightness - OK and XYP positions to confirm. 96 Well uPlate checked : probe in S direction with x=0mm, y=0.5mm from CL position. A1 Pos (Org) x=1553, y=670 WRT Home pos x=1704, y=788 A1 Pos (Final) x=1553, y=677 WRT Home pos x=1704, y=795 CALS & CONS using customer kits using AMP - xPONENT 3.1.971 PC - as above - Passed. Basic instruction given to customer on xPONENT 3.1.971 software (after being IS2.3 users for years)- removing partial batches. Travel = 0.75hour Total Labour = 5hours Total
Sheath Pressure: 6.100 Green: 3665091	04 * 24 *	
Flow Rate (2 min): 11.0 ml Red: 2923506	05 * 25	
Classification Results	06 * 26 *	
CV (Initial/If required): DD CL1 CL2 RP1	07 * 27	
Mean (Initial/If required): N/A N/A N/A N/A	08 * 28	
CV (Final): 10.25 2.73 4.16 6.41	09 29	
Mean (Final): 10543.85 3454.07 3557.14 3650.86	10 * 30 *	
Classification Passed: Yes Fluidics 1 Passed: Yes	11 * 31 *	
Control Passed: Yes Fluidics 2 Passed: Yes	12 * 32	
	13 * 33	
	14 * 34	
	15 * 35	
	16 * 36	
	17 37	
	18 * 38	
	19 * 39	
	20 40	

Parts

Serial No	Item No	Description	Quantity	Price	Extended Price
	TRAVEL	Travel for On-Site Field Service	17.00		
	LABOR	Labor Charges	5.00		
	64-50011-00-001	PM Kit (12 Month)	1.00		
	64-00010-00-001	Assy, Sample Needle Height Alignment Kit	1.00		

Travel Time Total: 0.0
TOTAL: 0.00

Luminex F.S. Report

09:30a - 12:30p (13:00h)

Incident #: Task # 215783

Customer UMC St. Radboud
Name: Laboratorium Geneeskunde - LMI
Address: M379.03.193 Geert Grote Plein Zuid 10
6500 HB Nijmegen
Contact: Ms. Sylvie van der Zeeuw-Hoppe

Instrument
☒ LX100 ☐ XYP ☐ SDS ☐ HTS
S/N: LX10001263008-A **Firmware:** 2.3.9
DSP: 3.17.0 **Software:** 2.3.182
PC Model: Delloptplex 760

Call Type
☒ Service ☒ P.M. ☐ Install ☐ Recertification

Call Category
☐ Warranty ☐ P.O. ☒ SLA
☐ Platinum
☐ Gold +
☒ Gold
☐ Silver
☐ Bronze

Problem
Description: PM Service to LX100 Instrument.

Resolution
Action Taken: Replace PM Consumables
Declon Cuvette. Determine flow rate = 11.0 ml/min. Green Laser Power = 12.6 mW
Red Laser Power = 9.09 mW. CAC's & Con's - Events/s > 250 to 550 in < 30s - PASS.
Verification (Final) - PASS Split = 36.800 µs
47 Flex beads are hitting left of centre in regions - OK
New Needle Alignment guide fitted. Probe height not disturbed
Use Costar V-bottom plate type for CAC's & Con's using Costar beads
& IS2.3 AC - as above - PASS.

Parts

S/N	Description/Part #	Cost
64-50011-00-001	PM Kit (12 month)	
68-00026-00-001	Needle Alignment guide LX100	
90-10001-00-003	Declon wire xl	
81-10021-PS-009	Screw #6 (LX100 cover back)	
86-10021-00-013	Anti-Tamper proof label	
Time to Repair:	3hrs	Labor
Travel (miles/cost):	Travel Time: 0.75hr	Travel
		Total Cost

Jeremy White
 Field Service Representative (Print)

Jeremy White
 Field Service Representative

Living
 Customer Signature

29 MAY 2013
 Date
29 May 2013
 Date

Yellow-F.S. Manager

Pink-F.S. Engineer

Optics Alignment Verification

DD Temp: 24.826° (C) **Sheath Pressure:** 6.100 psi
Laser Time (IS) Green: 1872395 **Red:** 1130810
Flow Rate (2 min.): 11.0 ml @ Break = 6.100 psi

LOT #'S

CAL 1 B29568
CAL 2 B29750
CON 1 B29570
CON 2 B29571

PEARL = 9838

Classification Results

	DD	CL1	CL2	RP1
CV (Initial/if required)	-	-	-	-
Mean (Initial/if required)	-	-	-	-
MEAN CV (Final) <u>1872395</u>	10676.64	3424.07	3522.85	3665.62
CV Mean (Final) <u>1872395</u>	9.80	2.97	3.20	6.48

Control 1 Results

Region	A1	A2	B1	B2	C1	C2	D1
1	9,640.00	10.96	734.32	4.47	216.80	5.08	1.03
2	9,635.00	11.65	65.27	6.54	68.58	6.26	1.04
3	10,896.00	7.47	22,847.87	4.05	5,469.02	4.66	3.85
4	9,628.00	12.18	2,258.87	4.44	17,540.26	4.97	13.12
5	9,628.00	11.75	231.95	5.10	5,671.14	5.42	5.28

Control 2 Results	Region	1	2	3	4
	A1	29.24	193.45	1,954.95	16,199.39
	A2	19.65	9.14	6.05	5.38

TSB

01. ☒
02. ☒
03. ☒
04. ☒
05. ☒
06. ☒
07. ☒
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35. ☐
36. ☐
37. ☐
38. ☐
39. ☐
40. ☐

Luminex® F.S. Report

09:45am - 14:45p

Incident #: TASK # 213202

Customer Name: UMC St. Radboud
Laboratorium geneeskunde LMS

Instrument ☒ LX100 ☐ XYP ☐ SDS ☐ HTS

Call Type ☐ Service ☐ P.M. ☐ Install ☐ Recertification

Address: m379.03.198
Geert Grote Plein 10, 6500 HB Nijmegen

S/N: LX10001263008-A Firmware: 2.3.9

Contact: Mrs. Sylvie van der Zeeuw-Hingrez
+31 24 3613152

DSP: 3.17.0 Software: IS 2.3.182

PC Model: Dell optiplex 760

Call Category ☐ Warranty ☐ P.O. ☒ SLA

☐ Platinum
☐ Gold +
☒ Gold
☐ Silver
☐ Bronze

Problem

Description: CON 1 Failure B2, CL2 of activator Errors on LX100

Test AS IS Condition - CON 1 fails.

Sheath Box missing frut fuller Sink Weight - replaced NEW x1
incl. Latch Clamp x1.

AU, optic screws threadlocked - allowed to dry with coverspilt
CALs & CONs using IS 2.3 PC - Customer's beads-as right-PASS

Resolution

Action Taken: LX100 instrument was too far forward

Causing rubbing on Needle Alignment Guide at the bottom - recent red-Tested OK

Check all Valve & Switches for correct operation - Tested-OK.

Determine flow-rate - OK. Split = 36.800µs

Red laser Power = 9.09mW, Green laser Power = 10.5mW

Optimise Verification (initial) Pass. DD Peak requires adjustment

"h" Optimise Red - DD - focal turn +1 CW (@ 2 turns from install new i2)

CL1 & CL2 - Side & Vert, Steering - Side. CAL's & CON's - Events/s > 250 to 550 in < 30s

-Pass. Verification (final) - Pass. 47 flex beads are hitting slightly left

Parts of Centre in regions - OK. Probe height adjusted coster & bottom p1ed

S/N	Description/Part #	Cost
83-10024-FS-002	Ratchet Clamp x1	
83-10056-00-008	Frut Fuller Sink Weight for Sheath Fluid Box	
L100-CAL1	CAL1 (B28587)	
L100-CAL2	CAL2 (B27750)	
86-10021-00-013	Anti tamper-proof label	
Time to Repair:	5 hrs	Labor
Travel (miles/cost):	Travel Time: 3/4 hr	Travel
		Total Cost

JEREMY WHITE
Field Service Representative (Print)

Jeremy White
Field Service Representative

[Signature]
Customer Signature

nd
22 March 2013
Date

22-03-2013
Date

Yellow-F.S. Manager

Pink-F.S. Engineer

Optics Alignment Verification

DD Temp: 24.175° (C) Sheath Pressure: 6.144psi
Laser Time (IS) Green: 1534999 Red: 793414
Flow Rate (2 min.): 11.0 ml @ Sheath = 6.144psi

LOT #'S

CAL 1 B28587
CAL 2 B28366
CON 1 B29570
CON 2 B28823

PEAK = 10028 → 9681

Classification Results

	DD	CL1	CL2	RP1
CV (Initial/if required)	10.34	3.13	3.34	6.49
Mean (Initial/if required)	10744.79	3399.13	3499.02	3599.35
CV (Final)	9.48	2.96	2.94	6.26
Mean (Final)	10821.81	3426.29	3530.08	3663.75

Control 1 Results

Region	A1	A2	B1	B2	C1	C2	D1
1	10,038.00	10.20	736.37	4.39	217.58	4.53	1.11
2	10,052.00	10.17	66.17	6.22	69.51	5.66	1.05
3	11,337.00	6.98	22,923.50	3.77	5,803.17	4.46	3.72
4	9,633.00	11.16	2,262.57	4.24	17,577.56	4.44	12.77
5	9,635.00	10.77	232.80	4.90	5,678.70	4.61	5.08

Control 2 Results	Region	1	2	3	4
	A1	28.90	194.19	1,957.16	16,191.19
	A2	20.72	9.18	5.93	5.59

Luminex® F.S. Report

09:30a - 17:00p

Customer UMC St. Radboud.
Name: Postbox 9101, LMI 469

Instrument

ASTI Nr: 313

☒ LX100 ☐ XYP ☐ SDS ☐ HTS

Incident #: TASK# 203500

Sheet 1 of 2

Call Type

☒ Service ☐ P.M. ☐ Install ☐ Recertification

Address: 6500 HB Nijmegen, Nederland.

S/N: LX10001263008-A

Firmware: 2.3.9

Contact: Ms. Sylme Van Der Zeeuw-Hingrez

DSP: 3.17.0

Software: TS 2.3.132

PC Model: Dell Optiplex 760

Call Category

☐ Warranty ☐ P.O. ☒ SLA

- ☐ Platinum
☐ Gold +
☒ Gold
☐ Silver
☐ Bronze

Problem

Description: Zero bead counts / Self test Error on LX100 instrument

Dried Sheath Salts (Crusty) Seen over Syringe Valve & Drive Arm. Syringe teflon tip worn replaced New. Waste tubing not draining - Replace Old Lee Black Backflush Valve (TSBico-026) * Please Sanitize with thin domestic household bleach (5.25% Sodium Chloride) 20% Volume / 80% Fresh DI Water only make enough for one weeks use only.

Resolution

Action Taken: Replace PM Consumables

Deblock Cuvette - Blockage Experienced - Rinsed Clean - Determine flowrate - OK. Red laser Power (erg) = 0.36mW dead replace with NEW = 9.09mW, Green laser Power = 10.6mW Split = 33.600us. CAL' & CONs - Events/s > 250 to 550 in 430s - Air. Optimize Red & Green laser Optics - Red & Green focal turn CW Verification (Final) - PASS

47 flex beads are hitting left of Centre in regions - OK
24P A1 Pos (erg) 2 Pos = 1547, 4 Pos = 677 WRT Pos CAL 2 = 1678, 4 = 795
A1 Pos Final X Pos = 1553, 4 Pos = 670 WRT Pos CAL 2 = 1744, 4 = 788
* = 1mm check & count using Customer's bead & PC - as above - PASS

Parts

S/N	Description/Part #	Cost
64-50011-00-001	PM Kit (12 months)	
81-10021-FS-009	Screw #6 (Hex for cover x)	
64-50008-00-001	Lee Backflush Valve retrofit Kit	
69-10008-00-001	Red laser w/o Mount S/N: 12868	
86-10021-00-013	Anti tamperproof label	
90-10001-00-003	Decoding wire S/S x1	
Time to Repair:	<u>7 1/2 hr</u>	Labor
Travel (miles/cost):		Travel
Travel Time:	<u>3 hr</u>	
		Total Cost

JEREMY WHITE
Field Service Representative (Print)

Jeremy White
Field Service Representative

[Signature]
Customer Signature

11 OCTOBER 2012
Date

12 october 2012
Date

Optics Alignment Verification

DD Temp: 25.477° (C) Sheath Pressure: 6.085psi
Laser Time (IS) Green: 749039 Red: 21309264
Flow Rate (2 min.): 11.0 ml @ Sheath = 6.085psi

LOT #'S

CAL 1 B27945
CAL 2 B27750
CON 1 B26441
CON 2 B28078

PEAK = 10032

Classification Results

	DD	CL1	CL2	RP1
CV (Initial/if required)	-	-	-	-
Mean (Initial/if required)	-	-	-	-
CV (Final)	<u>9.78</u>	<u>2.67</u>	<u>2.73</u>	<u>6.24</u>
Mean (Final)	<u>10575.98</u>	<u>3427.60</u>	<u>3579.88</u>	<u>3667.30</u>

Control 1 Results

Region	A1	A2	B1	B2	C1	C2	D1
1	<u>10,038.00</u>	<u>10.41</u>	<u>741.38</u>	<u>4.43</u>	<u>217.17</u>	<u>4.79</u>	<u>1.05</u>
2	<u>9,653.00</u>	<u>10.69</u>	<u>66.25</u>	<u>6.16</u>	<u>68.39</u>	<u>6.87</u>	<u>0.94</u>
3	<u>10,875.00</u>	<u>8.19</u>	<u>23,020.54</u>	<u>3.88</u>	<u>5,527.70</u>	<u>4.37</u>	<u>3.88</u>
4	<u>9,632.00</u>	<u>11.69</u>	<u>2,274.17</u>	<u>4.05</u>	<u>17,681.31</u>	<u>4.50</u>	<u>13.14</u>
5	<u>9,640.00</u>	<u>11.12</u>	<u>232.44</u>	<u>4.36</u>	<u>5,635.06</u>	<u>4.25</u>	<u>5.33</u>

Control 2 Results

Region	1	2	3	4
A1	<u>29.12</u>	<u>194.12</u>	<u>1,965.76</u>	<u>16,342.25</u>
A2	<u>19.68</u>	<u>8.58</u>	<u>6.01</u>	<u>5.57</u>

Luminex® F.S. Report

12:00p - 13:30p
15:15p - 17:30p (17:45p)

Incident #: TASK #203500
Sheet 2 of 2.

Customer Ume St. Radboud
Name: Postbus 9101, LM1469
Address: 6500 HB Nijmegen, Nederland
Contact: Mrs Sylke Van Der Zeeuw - Angrez

Instrument
☒ LX100 ☐ XYP ☐ SDS ☐ HTS

Call Type
☐ Service ☐ P.M. ☐ Install ☐ Recertification

S/N: LX10001263003-A Firmware: 2.3.9
DSP: 3.17.0 Software: TS 2.3.182 PC Model: Dell Optiplex 760

Call Category
☐ Warranty ☐ P.O. ☐ SLA

☐ Platinum
☐ Gold +
☐ Gold
☐ Silver
☐ Bronze

Problem

Description: CON1 fault on %CV's R4, B2, C2
Courtesy Visit - Syringe Valve Deep hole dripping during assay
* Sanitized Instrument with Next Black also Sanitized
Syringe Valves.

Resolution

Action Taken: Lab door Closes hard - Stud Wall
with Lab bench is linked Solid. Hence optical misalignment
Customer informed - door Autoclose mechanism disabled
- close by hand. Syringe Valve - removed off New Pump to make repair
Optimize Red Laser - DD Housing Side Screws.
CL1 & CL2 - Side Screw to tighten det Plot. Split = 34.400µs
CL1's & CON's - Events/s > 250 to 550 in < 30s - Pass
Verification (Initial) & (Final) - Pass
47 Plex beads are hitting left of centre in regions - OK
Parts CL1's & CON's using Customer beads & TS23 PC as above - Pass

Optics Alignment Verification

DD Temp: 24.175 ° (C) Sheath Pressure: 6.085psi
Laser Time (IS) Green: 777817 Red: 36232
Flow Rate (2 min.): 11.0 ml

LOT #'S

CAL 1 B27945
CAL 2 B26215
CON 1 B326441
CON 2 B28078

Classification Results

	DD	CL1	CL2	RP1
CV (Initial/if required)	9.80	3.31	3.63	6.37
Mean (Initial/if required)	10715.70	3463.29	3554.72	3809.87
CV (Final)	10.70	2.90	2.87	6.53
Mean (Final)	10468.14	3422.13	3526.58	3784.34

Control 1 Results

Region	A1	A2	B1	B2	C1	C2	D1
1	9,635.00	12.27	728.51	4.95	214.35	5.46	1.12
2	9,637.00	12.58	63.53	7.03	68.92	6.49	1.10
3	10,481.00	9.14	22,884.33	4.02	5,414.86	4.60	3.85
4	9,259.00	14.12	2,240.80	5.81	17,371.61	6.43	12.66
5	9,640.00	12.94	228.16	5.89	5,617.99	5.92	5.42

Control 2 Results

Region	1	2	3	4
A1	29.70	196.39	1,997.62	16,438.71
A2	20.01	9.84	5.99	5.60

TSB

- 01.□
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- 40.□

S/N	Description/Part #	Cost
L100 - CON1	CON1 (B26441)	
L100 - CAL 1	CAL 1 (B27945)	
L100 - CAL 2	CAL 2 (B27750)	
	Syringe Valve xCALIBUR type	
Time to Repair: <u>3 3/4 hrs</u>		Labor
Travel (miles/cost):		Travel Time: <u>3/4 hr</u>
		Travel
		Total Cost

JEREMY WHITE
Field Service Representative (Print)

Jeremy White
Field Service Representative

Customer Signature

12 OCTOBER 2012
Date

12 October 2012
Date

31

Luminex® F.S. Report

09:45 am — 16:45 pm (17:00 pm)

Incident #: TASK # 196433**Customer**

Name: UMC St. Radboud
Geert Grooteplein Zuid N° 30
Centraal Ontvangst Groederen
Nijmegen, Nederland
 Address:
 Contact: Mr. Kjeld van Houwelingen

Instrument

ABTI N°: 311
☒ LX100 ☐ XYP ☐ SDS ☐ HTS
 S/N: LX10001263008-A Firmware: 2.3.9
 DSP: 3.17.0 Software: IS 2.3.182 PC Model: Dell optiplex 760

Call Type

☒ Service ☐ P.M. ☐ Install ☐ Recertification

Call Category

☐ Warranty ☐ P.O. ☒ SLA

☐ Platinum
☐ Gold +
☒ Gold
☐ Silver
☐ Bronze

Problem

Description: Crystals on Syringe/Leaking of PM Service
Dried Sheath Salts (Crusty) Seen over Syringe Glassware
Barrel, Plunger, drive Arm of Syringe Valve weep hole indicating
a clog or blockage in the System. - Replace with PM Kit as in Precaution
* Please Sanitize with Fresh thin domestic household bleach
(2.5% Sodium Hypochlorite) 20% Volume / 80% Fresh DI Water
Make enough for one weeks use only. * Sanitized Instrument

Optics Alignment Verification**LOT #S**

DD Temp: 25.911° (C) Sheath Pressure: 6.085 psi
 Laser Time (IS) Green: 20567846 Red: 20567676
 Flow Rate (2 min.): 11.0 ml @ Sheath = 6.085 psi

CAL 1 B27148
 CAL 2 B26966
 CON 1 B27452
 CON 2 B27453

FEAK = - → 10092 **Classification Results**

	DD	CL1	CL2	RP1
CV (Initial/if required)	9.69	3.28	4.21	11.74
Mean (Initial/if required)	10523.91	3281.20	3518.34	3619.64
CV (Final)	9.12	2.59	2.78	6.27
Mean (Final)	10658.26	3288.11	3539.15	3739.52

Control 1 Results

Region	A1	A2	B1	B2	C1	C2	D1
1	10,041.00	11.43	7148.34	4.45	219.49	5.38	2.57
2	9,644.00	11.49	70.42	5.71	67.61	7.85	2.44
3	10,290.00	8.76	23,103.57	3.80	5,636.39	4.76	5.02
4	9,267.00	12.58	2,294.33	4.63	17,822.90	4.81	13.90
5	9,625.00	11.61	237.59	4.25	5,703.39	4.21	6.29

Control 2 Results

Region	1	2	3	4
A1	30.96	197.05	1,989.82	16,461.91
A2	21.99	9.23	5.78	5.45

Resolution

Action Taken: Replace PM Consumables

Dealog Cuvette. Determine flowrate = 11.0 ml @ Sheath = 6.085 psi
Red laser power = 9.03 mW. Green laser power = 10.3 mW → 11.0 mW
Replace Green laser due to beam fuzzy "old Black box Head"
S/N: P0111, Ctrl Head S/N: G1322 & RPI Volts climbing = 731 V
Check JDS type PSU = 5.55 Vdc - OK. Optimise Red & Green
- Red + 4 CW focal, DD, CL1, CL2 & Steering Side Screw. Green + 3 CW
Focal, 15mm All Screws, 4mm All Screws. CAL's & CON's - Ready
>250 to 550 in <30s - PASS Verification (Initial) - Fail on RPI

Parts %CV = 11.74 (Tol <10). Verification (Final) - PASS Split = 35.2ms

47 flex beads are holding slightly right of centre in region -

S/N	Description/Part #	Cost
64-50011-00-001	PM Kit (12 months)	
82-10631-00-008	JDS Uniphase Green laser Head # F1 HA40004 Ctrl H FCA3710231	
11-65090	LA Aspheres (B25538)	
L100-CON1	CON1 (B27452)	
L100-CON2	CON2 (B27453)	
86-10021-00-013	Anti tamperproof label	
Time to Repair: <u>7 hrs</u>		Labor
Travel (miles/cost):		Travel
Travel Time: <u>3 hr</u>		
		Total Cost

JEREMY WHITE
 Field Service Representative (Print)

Jeremy White
 Field Service Representative

[Signature]
 Customer Signature

14 June 2012
 Date

14th June 2012
 Date

Luminex® F.S. Report

10:30 am - 17:00 p

311
313

Incident #: TASK# 169080

Customer UMC St. Radboud
Name: GEERT GROOTEPLEIN ZUID NR30
Address: 6500 HB Nijmegen
Contact: Mr Kjeid van Houwelingen

Instrument
☒ LX100 ☐ XYP ☐ SDS ☐ HTS
S/N: LX10001263008-4 **Firmware:** 2.3.9
DSP: 3.17.0 **Software:** IS 2.3.182 **PC Model:** 760

Call Type
☐ Service ☐ P.M. ☐ Install ☐ Recertification

Call Category
☐ Warranty ☐ P.O. ☒ SLA

☐ Platinum
☐ Gold +
☐ Gold
☐ Silver
☒ Bronze

Problem

Description: PM Service to LX100 Instrument.
Dried Sheath Salts encrusted over external glomware
& dried Salts on stainless steel Plunger-Tip Worn (tip/b) replaced
Part from PM kit
Big Drop been going to Sample Needle 'old Sample Valve
replaced 10 Jan 06-Jw - replaced New Petrokit kit TSB100-31

Optics Alignment Verification

DD Temp: 24.601 °C **Sheath Pressure:** 6.056psi
Laser Time (IS) Green: 18219064 **Red:** 18218895
Flow Rate (2 min.): 11.0 ml

LOT #'S
CAL 1 B19650
CAL 2 B20429
CON 1 B19927
CON 2 B19606

PEAK = 9435-59636 **Classification Results**

	DD	CL1	CL2	RP1
CV (Initial/if required)	10.24	3.13	3.33	12.23
Mean (Initial/if required)	10545.83	3512.10	3573.09	3570.03
CV (Final)	9.53	2.89	3.88	9.00
Mean (Final)	10634.85	3547.84	3572.69	3564.39

Control 1 Results

Region	A1	A2	B1	B2	C1	C2	D1
1	10,043.00	10.50	743.06	5.14	214.26	6.21	3.80
2	10,031.00	10.44	69.95	5.96	67.63	8.28	3.90
3	10,903.00	7.91	23,501.33	3.70	5,597.86	4.55	6.71
4	9,641.00	12.02	2,333.48	4.02	17,633.58	4.70	18.74
5	9,654.00	10.70	236.10	4.81	5,828.65	4.95	9.65

Control 2 Results

Region	1	2	3	4
A1	30.85	188.13	1,922.42	16,706.65
A2	24.52	12.71	8.64	8.38

Resolution

Action Taken: Replace PM Consumables
Decidey Cuvette Determine flowrate = 11.0ml @ Sheath = 6.056psi
led laser power = 9.09 mW Green laser Power = 10.8 mW
CM's & con's - Events/s > 250 to 500 in < 30s - PASS
Verification (Initial) - fail on RPI % cv (Tolerance < 10)
Optimize Red & Green laser Optics - Green laser RP Spot
fuzzy made Sharper. Verification (Final) - PASS.
47 Plex beads are hitting Centrally in regions. Split = 32.800µs
CAL's & con's using customers beads & IS 2.3.182 - as above - PASSED

Parts

S/N	Description/Part #	Cost
04-50011-00-001	PM Kit 12 month	
04-50021-00-001	Sample Valve (3 way) rebuild kit (TSB100-031)	\$397.60
L100-CAL1	CAL 1 (B19650)	\$0.00
L100-CON2	CON 2 (B19606)	
86-10041-00-013	Anti Tamperproof label.	
Time to Repair: <u>5 1/2 hrs</u>		Labor
Travel (miles/cost):		Travel
Travel Time: <u>1 hr</u>		
		Total Cost

JEREMY WHITE
Field Service Representative (Print)

Jeremy White
Field Service Representative

[Signature]
Customer Signature

10 MARCH 2011
Date

10th March 2011
Date

Pink-F.S. Engineer

Yellow-F.S. Manager

Luminex® F.S. Report

#313

Customer

Name: UMC St Radboud

Address: Geert Grooteplein 24id 30

Contact: Nyrogen

Instrument

☒ LX100 ☐ XYP ☐ SDS ☐ HTS

S/N: LX10001263000 Firmware: 2.3.9

DSP: 3.17.0 Software: 1523 PC Model: Dell Optiplex 760

Incident #: 149900

Call Type

☐ Service ☒ P.M. ☐ Install ☐ Recertification

Call Category

☐ Warranty ☐ P.O. ☐ SLA

- ☐ Platinum
- ☐ Gold +
- ☐ Gold
- ☐ Silver
- ☐ Bronze

Problem

Description: _____

Pm visit
PR1 to high
Leaking sheath fluid through the
Syringe valve

Resolution

Action Taken: Perform Pre-maintenance
Verify Replaced Syringe unit-valve
and syringe seal
Perform Alignment Green laser
Perform Run all calibrations and verification
all pass within spec

TSB

- 01. ☐
- 02. ☐
- 03. ☐
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Optics Alignment Verification

DD Temp: 23.7 °(C) Sheath Pressure: 6.0
Laser Time (IS) Green: 1622499 Red: 1622430
Flow Rate (2 min.): 11 ml

LOT #'S

CAL 1 B14605
CAL 2 B14606
CON 1 B14044
CON 2 B13664

Classification Results

	DD	CL1	CL2	RP1
CV (Initial/if required)	<u>9.1</u>	<u>4.6</u>	<u>5.3</u>	<u>10.5</u>
Mean (Initial/if required)	<u>16784.17</u>	<u>3776.49</u>	<u>3672.44</u>	<u>358.75</u>
CV (Final)	<u>9.5</u>	<u>4.0</u>	<u>4.5</u>	<u>0.7</u>
Mean (Final)	<u>10601.4</u>	<u>3566.6</u>	<u>3677.1</u>	<u>3610.26</u>

Control 1 Results

Region	A1	A2	B1	B2	C1	C2	D1
1	<u>10.040</u>	<u>11.9</u>	<u>66393</u>	<u>6.31</u>	<u>214.02</u>	<u>6.53</u>	<u>3.63</u>
2	<u>10.043</u>	<u>12.1</u>	<u>66.01</u>	<u>6.89</u>	<u>67.17</u>	<u>7.12</u>	<u>3.29</u>
3	<u>10.090</u>	<u>9.6</u>	<u>22.14139</u>	<u>5.35</u>	<u>5.04630</u>	<u>5.87</u>	<u>10.40</u>
4	<u>9.652</u>	<u>13.4</u>	<u>2.337.6</u>	<u>6.56</u>	<u>17.803.36</u>	<u>5.76</u>	<u>12.92</u>
5	<u>10.035</u>	<u>12.0</u>	<u>209.27</u>	<u>6.40</u>	<u>5.04460</u>	<u>5.96</u>	<u>0.19</u>

Control 2 Results

Region	1	2	3	4
A1	<u>30.74</u>	<u>1001.66</u>	<u>1889.41</u>	<u>16.056.63</u>
A2	<u>24.03</u>	<u>12.76</u>	<u>0.70</u>	<u>7.03</u>

Parts

S/N	Description/Part #	Cost
<u>62-00001-00-143</u>		<u>Price?</u>
<u>83-10001-00-036</u>	<u>Syringe Pump (xcalibur)</u>	
<u>S/N 0102003007</u>		
<u>64-50011-00-001</u>	<u>Pin-Left 12mm</u>	
Time to Repair: <u>Pin 6</u>		<u>Labor</u>
Travel (miles/cost):		<u>Travel</u>
Travel Time: <u>4</u>		
		<u>Total Cost</u>

Harold Warrum
Field Service Representative (Print)

Warrum
Field Service Representative

Warrum
Customer Signature

March 30-2010
Date

30-03-2010
Date

Luminex® F.S. Report

Customer

Name: Umc St Rad Boud Ziekhuis

Address: Geert Groteplein 24-30

Contact: Nijmegen Nederland

Problem

Description: do Pm

Instrument

☒ LX100

☐ XYP

☐ SDS

☐ HTS

S/N: LX1000 126.3000

Firmware: 2.3.9

DSP: 3.17.0 Software: 18.23

PC Model:

Incident #: 131629

Call Type

☐ Service ☒ P.M. ☐ Install ☐ Recertification

Call Category

☐ Warranty ☐ P.O. ☐ SLA

☐ Platinum
☐ Gold +
☐ Gold
☐ Silver
☐ Bronze

Resolution

Action Taken:

Perform Pm-maintenance
Perform global check, Run all
cal / con, Run verification
all pass with a speed

Parts

S/N	Description/Part #	Cost
64-50011-00-001	Pm-kit	1
Time to Repair: <u>Pm 4</u>	Labor	
Travel (miles/cost):	Travel Time: <u>2</u>	Travel
Total Cost		

Field Service Representative (Print)

Field Service Representative

Customer Signature

Date

Date

Optics Alignment Verification

DD Temp: 24.3° (C) Sheath Pressure: 6.0
Laser Time (IS) Green: 140829/13 Red: 140827/54
Flow Rate (2 min.): 11 ml

LOT #'S

CAL 1 A 6970
CAL 2 A 7001
CON 1 A 5973
CON 2 A 5042

Classification Results

	DD	CL1	CL2	RP1
CV (Initial/if required)	<u>9.00</u>	<u>3.78</u>	<u>5.99</u>	<u>7.78</u>
Mean (Initial/if required)	<u>10937.59</u>	<u>3800.74</u>	<u>375.12</u>	<u>3570.57</u>
CV (Final)				
Mean (Final)				

Control 1 Results

Region	A1	A2	B1	B2	C1	C2	D1
1	<u>10.045.00</u>	<u>9.66</u>	<u>675.43</u>	<u>4.09</u>	<u>201.97</u>	<u>6.92</u>	<u>6.45</u>
2	<u>10.053.00</u>	<u>9.74</u>	<u>67.30</u>	<u>5.80</u>	<u>64.05</u>	<u>7.32</u>	<u>2.32</u>
3	<u>10.025.00</u>	<u>7.12</u>	<u>22.46.06</u>	<u>3.05</u>	<u>5.779.56</u>	<u>5.02</u>	<u>7.91</u>
4	<u>10.020.00</u>	<u>11.35</u>	<u>2.370.47</u>	<u>4.07</u>	<u>12.115.42</u>	<u>4.53</u>	<u>16.20</u>
5	<u>10.044.00</u>	<u>10.35</u>	<u>212.41</u>	<u>4.40</u>	<u>5.844.39</u>	<u>4.07</u>	<u>7.36</u>

Control 2 Results

Region	1	2	3	4
A1	<u>30.03</u>	<u>103.95</u>	<u>1.914.21</u>	<u>17.145.75</u>
A2	<u>26.00</u>	<u>12.70</u>	<u>7.00</u>	<u>7.16</u>

A311

Incident #: 108580

☐ Service ☒ P.M. ☐ Install ☐ Recertification☒ LX100 ☐ XYP ☐ SDS ☐ HTS

S/N: LX10001763008 Firmware: 2.3.9

DSP: 3.17 Software: 15.2.3 PC Model: RETAIL

☐ Warrant ☐ P.O. ☒ SLA

☐ Platinum
☐ Gold +
☐ Gold
☐ Silver
☒ Bronze

Resolution

Description:

Action Taken:  Bronze

MAY 17 DUE

PERFORATED P17

PERFORMED CALS / VERIFICATION / CONS.

ALL VALUES ARE WITHIN SPEC

LOT.#'S

CAL 1 A6020

CAL 2A-5991

CON 15727

CON 2 A 5923

	DD	CL1	CL2	RP1
CV (Initial/if required)				
Mean (Initial/if required)				
CV (Final)	9.72	4.02	4.56	2.07
Mean (Final)	10375	3398	3485	3428

Region	A1	A2	B1	B2	C1	C2	D1
1	10040	10.10	709.30	5.25	198.20	5.15	2.40
2	10039	9.73	600.01	6.62	65.85	6.95	2.26
3	10876	7.50	22424	3.49	5382	4.54	2.50
4	8882	11.44	2327	3.60	17631	4.19	19.37
5	9634	11.04	222.04	4.55	5722	4.38	8.84

Region	1	2	3	4
A1	29.36	170.40	1081.16	16043
A2	25.52	12.14	6.99	6.30

TSB

01. ☐ 02. ☐ 03. ☐ 04. ☐ 05. ☐ 06. ☐ 07. ☐ 08. ☐ 09. ☐ 10. ☐ 11. ☐ 12. ☐ 13. ☐ 14. ☐ 15. ☐ 16. ☐ 17. ☐ 18. ☐ 19. ☐ 20. ☐ 21. ☐ 22. ☐ 23. ☐ 24. ☐ 25. ☐ 26. ☐ 27. ☐ 28. ☐ 29. ☐ 30. ☐ 31. ☐ 32. ☐ 33. ☐ 34. ☐ 35. ☐ 36. ☐ 37. ☐ 38. ☐ 39. ☐ 40. ☐

S/N	Description/Part #	Cost
64-50011-00-001	P17-KIT 1217.	
Time to Repair: 2		<u>Labor</u>
Travel (miles/cost):	Travel Time: 2 1/2	<u>Travel</u>
K12 05 13-00		<u>Total Cost</u>

Kris De Boen
Field Service Representative (Print)

Field Service Representative

Customer Signature

13TH MAY-2008

Date _____

Luminex® F.S. Report

A311

Customer
 Name: UML ST RAADBOOM
 Address: NIJMEGEN
 Contact: _____

Instrument
☐ LX100 ☐ XYP ☐ SDS ☐ HTS
 S/N: LX10001263008 Firmware: _____
 DSP: _____ Software: _____ PC Model: _____

Incident #: 110629
Call Type
☒ Service ☐ P.M. ☐ Install ☐ Recertification

Call Category
☒ Warranty ☐ P.O. ☐ SLA
BILL TO LUMX

Problem
 Description: LEAKING SYRINGE PUMP VALVE
PERFORMED WITH PM # 108580

Resolution
 Action Taken: REPLACED SYRINGE PUMP

- ☐ Platinum
- ☐ Gold +
- ☐ Gold
- ☐ Silver
- ☐ Bronze

TSB

- 01. ☐
- 02. ☐
- 03. ☐
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- 39. ☐
- 40. ☐

Optics Alignment Verification

DD Temp: _____ ° (C) **Sheath Pressure:** _____
Laser Time (IS) Green: _____ **Red:** _____
Flow Rate (2 min.): _____ ml

LOT #'S

CAL 1 _____
 CAL 2 _____
 CON 1 _____
 CON 2 _____

Classification Results

	DD	CL1	CL2	RP1
CV (Initial/if required)				
Mean (Initial/if required)				
CV (Final)				
Mean (Final)				

Control 1 Results

Region	A1	A2	B1	B2	C1	C2	D1
1							
2							
3							
4							
5							

Control 2 Results

Region	1	2	3	4
A1				
A2				

Parts

S/N	Description/Part #	Cost
62-00001-00-143	SYRINGE PUMP W. BRACKET #707001092	
83-10021-00-048	FITTING 2K	
Time to Repair: <u>2</u>		Labor
Travel (miles/cost):	Travel Time:	Travel
		Total Cost

WIS DE BOER
 Field Service Representative (Print)

[Signature]
 Field Service Representative

13 MAY -08
 Date

[Signature]
 Customer Signature

13-5-08
 Date

Field Service Report

311

Company: Rodbold univ.		Invoice name:		Call ID number:		Zone: 2	
Department: ABTE		Address 1:		System or model: A96 / A196			
Address: Leert Straatje plein 12		Address 2:		Serial number: DA120			
City: Nijmegen	Postcode:	City:	Postcode:	Travel expenses	Train <input type="checkbox"/>	Air plane <input type="checkbox"/>	Hotel <input type="checkbox"/>
Contact: J. Ruiter	Phone:	Invoice contact:	Phone:	Call status	Open <input type="checkbox"/>	Follow up <input type="checkbox"/>	Closed <input type="checkbox"/>
e-mail:		e-mail:		P.O. number:		P.O. Copy attached <input type="checkbox"/>	

Fault description:	Part number	Part description	Quantity	Unit Price	Total Price
	1648241	Q.R valve	1		
		ORINGS	1		
		" " valve	1		
		zone #2.	1		

Failure code:	Service code:
---------------	---------------

Description of performed service:	Material cost						
Probleem harvest: 'HOT' valve blijft hangen → klop as gesmeerd, valve vervangen → Okinge te bestellen (10) Matrix 96 probl: detector afgeregeld, Schoongemaakt - Software aangepast voor tekst-file formaat	<table border="1"> <tr> <th>Service date</th> <th>Travel h.</th> <th>Labour h.</th> </tr> <tr> <td>25 jan 08</td> <td>25</td> <td>30</td> </tr> </table>	Service date	Travel h.	Labour h.	25 jan 08	25	30
Service date	Travel h.	Labour h.					
25 jan 08	25	30					
	Total hours						
	Travel cost						
	Labour cost						

How to contact us:	Update for ISD	PM checklist <input type="checkbox"/> Performance check <input type="checkbox"/>	Grand Total
--------------------	----------------	----------------------------------------------------------------------------------	-------------

European Customer Care Center
Imperiastraat 8 - B-1930 Zaventem
Belgium

Please find country specific addresses,
telephone and fax numbers
on the reverse.

Name Engineer: **S. Ymkur**

Signature:

Date: **28/1/08**

Name Customer: **J. Ruiter**

Signature:

Date:

13:30pm - 17:30pm

Luminex® F.S. ReportIncident #: TASK # 102564Customer Umc St. Radboud
Name: Geert Grooteplein Zuid Nr 30**Instrument**☒ LX100 ☐ XYP ☐ SDS ☐ HTS**Call Type**☒ Service ☐ P.M. ☐ Install ☐ RecertificationAddress: 6525 GA NijmegenS/N: LX10001263008-A Firmware: 2-3.9Contact: Mr Chris Van den Brink
Mr Henk ThijssenDSP: 3.17.0 Software: IS 2.3.182 PC Model: Switch Business class**Call Category**☐ Warranty ☒ P.O. ☐ SLA
Po # TBA Monday 3rd March 08.☐ Platinum
☐ Gold +
☐ Gold
☐ Silver
☐ Bronze**Problem**Description: Laser Warmup Sequence will not initializeSyringe pump on initialization not performing home properly or full stroke - Syringe pump stalls on 1/4 stroke.**Resolution**Action Taken: Power Supply Voltages checked+14.83V, -14.92V, +5.56V, +24.90V - OKFirmware checked XYP = 2.1.15-E SD Unit = 2.05-B - OKReplace Syringe Pump (New) S/N: 707001077"old" faulty pump P/N: 7287838 (600024 Rev A) S/N: 0108076717.Flow rate = 12.5ml adjusted from 6.686psi → 6.012psi.Verification (Final) - PASSED. 100 Plex beads are hittingCentrally in regions. CAL's & CONS → 250 to 500 in <30s using Customer PC. Split = 36.000µs.**Parts**

S/N	Description/Part #	Cost
62-00001-00-143	Assy Syringe Pump with Bracket S/N: 707001077	TBA
83-10021-00-048	Barb fittings for Syringe Pump	TBA
L100-CAL1	CAL1 (AS344)	-30-
86-10021-00-013	Anti-Tamper proof label	-
Time to Repair: <u>4 hrs</u>		Labor TBA.
Travel (miles/cost):		Travel \$75-00
		Total Cost TBA

JEREMY WHITE
Field Service Representative (Print)Jeremy M White
Field Service RepresentativeThijssen
Customer Signature29th Feb 2008
Date29-02-2008
Date**Optics Alignment Verification**DD Temp: 26.997 (C) Sheath Pressure: 6.012psiLaser Time (IS) Green: 11554346 Red: 11554177Flow Rate (2 min.): 11.0 ml @ 6.012psi**LOT #'S**CAL 1 AS344CAL 2 AS761CON 1 AS646CON 2 AS429PEAK = 10079**Classification Results**

	DD	CL1	CL2	RP1
CV (Initial/if required)	-	-	-	-
Mean (Initial/if required)	-	-	-	-
CV (Final)	<u>9.91</u>	<u>4.41</u>	<u>4.57</u>	<u>7.29</u>
Mean (Final)	<u>10330.35</u>	<u>3546.53</u>	<u>3641.75</u>	<u>3511.02</u>

Control 1 Results

Region	A1	A2	B1	B2	C1	C2	D1
1	<u>10,051.00</u>	<u>9.59</u>	<u>716.35</u>	<u>4.43</u>	<u>205.74</u>	<u>4.61</u>	<u>2.29</u>
2	<u>10,035.00</u>	<u>9.75</u>	<u>64.81</u>	<u>6.29</u>	<u>67.42</u>	<u>6.64</u>	<u>5.62</u>
3	<u>10,901.00</u>	<u>7.48</u>	<u>22,515.68</u>	<u>3.77</u>	<u>5,667.69</u>	<u>4.40</u>	<u>7.59</u>
4	<u>8,887.00</u>	<u>10.47</u>	<u>2,350.33</u>	<u>3.94</u>	<u>17,963.17</u>	<u>3.42</u>	<u>21.49</u>
5	<u>9,651.00</u>	<u>10.70</u>	<u>224.36</u>	<u>4.34</u>	<u>5,794.09</u>	<u>4.25</u>	<u>9.95</u>

Control 2 Results

Region	1	2	3	4
A1	<u>30.37</u>	<u>184.52</u>	<u>1,951.33</u>	<u>17,320.36</u>
A2	<u>24.66</u>	<u>12.11</u>	<u>6.94</u>	<u>6.44</u>

TSB01. ☒
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03. ☒
04. ☒
05. ☒
06. ☒
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Printed: Tue May 31 2016

Problem					TSB		Resolution				
May 2016 12M PM due					01 *	21	Test ALL Valve & Switches - OK. Flowrate (Org)= 11.8ml @ Sheath Pressure = 6.525psi adjusted 11.0ml @ Sheath Pressure = 6.012psi Red laser power= 7.09mW Green laser power= 13.7mW (JDS Uniphase 14JUNE2012) split = 33.600us Sheath Fluid (P/N: 40-50,000) 20L 1x Sheath box, Lot: B49284, Exp: 2017-08-19 Lots used for testing. CAL1 (B48466) Exp: 2017-07-08 CAL2 (B47117) Exp: 2017-04-07 CON1 (B47497) Exp: 2017-05-07 CON2 (B47498) Exp: 2016-07-24 CALs & CONs - Events >250 to 575 in <30s - PASS. Optimise Red - DD, Steering mirror & CL1- side screw (screws loose). Threadlocked all screw allowed to dry. Verification (INITIAL & FINAL) - PASS 47Plex Beads are hitting right of centre in regions -OK. Probe height adjusted for 'v' bottom 'Costar' disposable uPlate for Assay use & AMP in Well H12. CALs & CONs kits using xPO3.1.971 (with IXPO-00007129) - As above - PASS Instrument meets specification.				
					02 *	22					
					03 *	23					
					04 *	24 *					
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					07 *	27					
					08 *	28					
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					16 *	36					
					17	37					
					18 *	38					
					19 *	39					
					20	40					

TOTAL EUR: 0.00

Field Service Technician		Customer	
Name:	Jeremy White	Name:	SYLVIE VAN DER ZEEUW-HINGREZ
Date:	May 31 2016	Date:	May 31 2016

~~M. Jysen~~



Field Service Report

Work Order No: WO-00044868

Printed: Tue May 13 2014

Customer	Instrument	Call
Name: RADBOUD UMC Address: POSTBUS 9101 HUISPOST 28, NIJMEGEN, , 6500 HB Contact: SYLVIE VAN DER ZEEUW-HINGREZ (s.vanderzeeuw-hingrez@labgk.umcn.nl)	Name: Luminex 100 IS V 2.1 w/Developers Workbench, OBS Serial Number: LX10001263008 PC Model: Dell Optiplex 760	Type/Code: - HARDWARE Category: PM - PM Contract: SLA Gold

Problem	TSB	Resolution
May 2014 12M PM	01 * 21	PM Service to LX100 instrument. Performed 12th May 2013. WO-00044868 UMC St. Radboud, Postbus 9101, LMI 469, 6500 HB, Nijmegen, Nederland. Kjeld van Houwelingen (Hoofdanalist Immuno Genetica) e-mail: K.vanHouwelingen@labgk.umcn.nl Tel : +31-24-3668144
Optics Alignment Verification	02 * 22	http://portal.umcn.nl/organisatie/labgk Sylvie Van der Zeeuw-Hingrez e-mail: S.vanderZeeuw-Hingrez@labgk.umcn.nl Tel : +31 24 3613152 LX10001263008-A Firmware: 2.3.9 DSP: 3.17.0 Dell Optiplex 760. Service Tag: DGGT94J Express Service Code: 29293867891 ABTI Asset Nr : 313. TSB 01-08, 10-16, 18-19, 24, 26, 30, 31 Problem Description : "PM Service on LX100 Instrument". Check ALL valves - Tested - OK. Windows XP OS with xPONENT 3.1.971 Replace PM Consumables (64-50011-00-001). lost ball bearing during xyp adjustment checks - new needle height alignment kit delivered - NO Charge (64-00010-00-001)
DD Temp: 24.826 deg (C) Laser Time	03 * 23	x1. Declog Cuvette. A fine jet of sheath fluid is seen exiting the hockey puck reliably on command. *Please make "Sanitise solution" from thin domestic household bleach (Sodium Hypochlorite <5%) 20% Volume / 80% fresh DI Water to prevent clogs. - only make enough for one weeks use. Dried Particles seen on probe (thick part not probe end) & needle alignment guide at the top. Reset needle arm actuator linkage including fixing to Bimba cylinder to make the probe go vertically straight -Tested - OK. Determine Flowrate = 11.0ml @ Sheath Pressure=6.100psi. Red laser power (Org)= 9.09mW. Red laser Seconds= 2923506s Green laser power= 10.8mW (JDS Uniphase silver alu box) Green laser Seconds= 3665091s split = 37.600us Sheath (P/N: 40-50000) Lot: B35560 Exp.2015-08-23 CALs & CONS - Events/s >250 TO 550 in <30s -PASS. Lots used for testing. CAL1 (B32944) CAL2 (B35729) CON1 (B32469) CON2 (B32470) Verification (Final) - PASS. PEAK= 9553 %CV's: DD=10.25 CL1=2.73 CL2=4.16 RP1=6.41 MEAN: 10543.85 CL1=3454.07 CL2=3557.14 RP1=3650.86 47Plex beads are hitting slightly left of centre in regions - OK. Probe Sonicated & needle alignment guide clean for 20minutes in "sanitise solution" - Tested -OK. Probe height checked - Hitting low~2mm.for use with heater block 'v' bottom 'Costar' disposable uPlate for Assay use - AMP is compatible for CALibrations/ CONTROLS. Checked probe for straightness - OK and XYP positions to confirm. 96 Well uPlate checked : probe in S direction with x=0mm, y=0.5mm from CL position. A1 Pos (Org) x=1553, y=670 WRT Home pos x=1704, y=788 A1 Pos (Final) x=1553, y=677 WRT Home pos x=1704, y=795 CALS & CONS using customer kits using AMP - xPONENT 3.1.971 PC - as above - Passed. Basic instruction given to customer on xPONENT 3.1.971 software (after being IS2.3 users for years)- removing partial batches. Travel = 0.75hour Total Labour = 5hours Total
Sheath Pressure: 6.100 Green: 3665091	04 * 24 *	
Flow Rate (2 min): 11.0 ml Red: 2923506	05 * 25	
Classification Results	06 * 26 *	
CV (Initial/If required): DD CL1 CL2 RP1	07 * 27	
Mean (Initial/If required): N/A N/A N/A N/A	08 * 28	
CV (Final): 10.25 2.73 4.16 6.41	09 29	
Mean (Final): 10543.85 3454.07 3557.14 3650.86	10 * 30 *	
Classification Passed: Yes Fluidics 1 Passed: Yes	11 * 31 *	
Control Passed: Yes Fluidics 2 Passed: Yes	12 * 32	
	13 * 33	
	14 * 34	
	15 * 35	
	16 * 36	
	17 37	
	18 * 38	
	19 * 39	
	20 40	

Parts

Serial No	Item No	Description	Quantity	Price	Extended Price
	TRAVEL	Travel for On-Site Field Service	17.00		
	LABOR	Labor Charges	5.00		
	64-50011-00-001	PM Kit (12 Month)	1.00		
	64-00010-00-001	Assy, Sample Needle Height Alignment Kit	1.00		

Travel Time Total: 0.0
TOTAL: 0.00

Luminex F.S. Report

09:30a - 12:30p (13:00h)

Incident #: Task # 215783

Customer UMC St. Radboud
Name: Laboratorium Geneeskunde - LMI
Address: M379.03.193 Geert Grote Plein Zuid 10
6500 HB Nijmegen
Contact: Ms. Sylvie van der Zeeuw-Hoppe

Instrument
☒ LX100 ☐ XYP ☐ SDS ☐ HTS
S/N: LX10001263008-A **Firmware:** 2.3.9
DSP: 3.17.0 **Software:** 2.3.182

Call Type
☒ Service ☒ P.M. ☐ Install ☐ Recertification

Call Category
☐ Warranty ☐ P.O. ☒ SLA
☐ Platinum
☐ Gold +
☒ Gold
☐ Silver
☐ Bronze

Problem
Description: PM Service to LX100 Instrument.

Resolution
Action Taken: Replace PM Consumables
Declon Cuvette. Determine flow rate = 11.0 ml/min. Green Laser Power = 12.6 mW
Red Laser Power = 9.09 mW. CAC's & Con's - Events/s > 250 to 550 in < 30s - PASS.
Verification (Final) - PASS Split = 36.800 µs
47 Flex beads are hitting left of centre in regions - OK
New Needle Alignment guide fitted. Probe height not disturbed
Use Costar V-bottom plate type for CAC's & Con's using Costar beads
& IS2.3 AC - as above - PASS.

S/N	Description/Part #	Cost
64-50011-00-001	PM Kit (12 month)	
68-00026-00-001	Needle Alignment guide LX100	
90-10001-00-003	Declon wire xl	
81-10021-PS-009	Screw #6 (LX100 cover back)	
86-10021-00-013	Anti-Tamper proof label	
Time to Repair: <u>3hrs</u>		Labor
Travel (miles/cost):		Travel
Travel Time: <u>0.75hr</u>		Total Cost

Jeremy White
 Field Service Representative (Print)

Jeremy White
 Field Service Representative

Living
 Customer Signature

29 MAY 2013
 Date
29 May 2013
 Date

Yellow-F.S. Manager

Pink-F.S. Engineer

Optics Alignment Verification

DD Temp: 24.826° (C) **Sheath Pressure:** 6.100psi
Laser Time (IS) Green: 1872395 **Red:** 1130810
Flow Rate (2 min.): 11.0 ml @ Break = 6.100psi

LOT #'S
CAL 1 B29568
CAL 2 B29750
CON 1 B29570
CON 2 B29571

PEARL = 9838

Classification Results				
	DD	CL1	CL2	RP1
CV (Initial/if required)	-	-	-	-
Mean (Initial/if required)	-	-	-	-
MEAN CV (Final) <u>1872395</u>	<u>10676.64</u>	<u>3424.07</u>	<u>3522.85</u>	<u>3665.62</u>
CV Mean (Final) <u>1130810</u>	<u>9.80</u>	<u>2.97</u>	<u>3.20</u>	<u>6.48</u>

Control 1 Results							
Region	A1	A2	B1	B2	C1	C2	D1
1	<u>9,640.00</u>	<u>10.96</u>	<u>734.32</u>	<u>4.47</u>	<u>216.80</u>	<u>5.08</u>	<u>1.03</u>
2	<u>9,635.00</u>	<u>11.65</u>	<u>65.27</u>	<u>6.54</u>	<u>68.58</u>	<u>6.26</u>	<u>1.04</u>
3	<u>10,896.00</u>	<u>7.47</u>	<u>22,847.87</u>	<u>4.05</u>	<u>5,469.02</u>	<u>4.66</u>	<u>3.85</u>
4	<u>9,628.00</u>	<u>12.18</u>	<u>2,258.87</u>	<u>4.44</u>	<u>17,540.26</u>	<u>4.97</u>	<u>13.12</u>
5	<u>9,628.00</u>	<u>11.75</u>	<u>231.95</u>	<u>5.10</u>	<u>5,671.14</u>	<u>5.42</u>	<u>5.28</u>

Control 2 Results					
Region		1	2	3	4
A1		<u>29.24</u>	<u>193.45</u>	<u>1,954.95</u>	<u>16,199.39</u>
A2		<u>19.65</u>	<u>9.14</u>	<u>6.05</u>	<u>5.38</u>

Luminex® F.S. Report

09:45am - 14:45p

Incident #: TASK # 213202

Customer Name: UMC St. Radboud
Laboratorium geneeskunde LMS

Instrument ☒ LX100 ☐ XYP ☐ SDS ☐ HTS

Call Type ☐ Service ☐ P.M. ☐ Install ☐ Recertification

Address: m379.03.198
Geert Grote Plein 10, 6500 HB Nijmegen

S/N: LX10001263008-A Firmware: 2.3.9

Contact: Mrs. Sylvie van der Zeeuw-Hingrez
+31 24 3613152

DSP: 3.17.0 Software: IS 2.3.182

PC Model: Dell optiplex 760

Call Category ☐ Warranty ☐ P.O. ☒ SLA

☐ Platinum
☐ Gold +
☒ Gold
☐ Silver
☐ Bronze

Problem

Description: CON 1 Failure B2, CL2 & activator Errors on LX100

Test AS IS Condition - CON 1 fails.

Sheath Box missing frut fuller Sink Weight - replaced NEW x1
incl. Latch Clamp x1.

AU, optic screws threadlocked - allowed to dry w/cover split
CALs & CONs using IS 2.3 PC - Customer's beads-as right-PASS

Resolution

Action Taken: LX100 instrument was too far forward

Causing rubbing on Needle Alignment Guide at the bottom - recent red-Tested OK

Check all Valve & Switches for correct operation - Tested-OK.

Determine flow-rate - OK.

Split = 36.800µs

Red laser Power = 9.09mW, Green laser Power = 10.5mW

Optimise Verification (initial) Pass. DD Peak requires adjustment

"h" Optimise Red - DD - focal turn +1 CW (@ 2 turns from install new bead)

CL1 & CL2 - Side & Vert, Steering - Side. CAL's & CON's - Events/s > 250 to 550 in < 30s

-Pass. Verification (final) - Pass. 47 flex beads are hitting slightly left

Parts of Centre in regions - OK. Probe height adjusted coster & bottom plid

S/N	Description/Part #	Cost
83-10024-FS-002	Ratchet Clamp x1	
83-10056-00-008	Frut Fuller Sink Weight for Sheath Fluid Box	
L100-CAL1	CAL1 (B28587)	
L100-CAL2	CAL2 (B27750)	
86-10021-00-013	Anti tamper-proof label	
Time to Repair:	5 hrs	Labor
Travel (miles/cost):	Travel Time: 3/4 hr	Travel
		Total Cost

JEREMY WHITE
Field Service Representative (Print)

Jeremy White
Field Service Representative

[Signature]
Customer Signature

nd
22 March 2013
Date

22-03-2013
Date

Yellow-F.S. Manager

Pink-F.S. Engineer

Optics Alignment Verification

DD Temp: 24.175° (C) Sheath Pressure: 6.144psi
Laser Time (IS) Green: 1534999 Red: 793414
Flow Rate (2 min.): 11.0 ml @ Sheath = 6.144psi

LOT #'S

CAL 1 B28587
CAL 2 B28366
CON 1 B29570
CON 2 B28823

Peak = 10028 → 9681

Classification Results

	DD	CL1	CL2	RP1
CV (Initial/if required)	10.34	3.13	3.34	6.49
Mean (Initial/if required)	10744.79	3399.13	3499.02	3599.35
CV (Final)	9.48	2.96	2.94	6.26
Mean (Final)	10821.81	3426.29	3530.08	3663.75

Control 1 Results

Region	A1	A2	B1	B2	C1	C2	D1
1	10,038.00	10.20	736.37	4.39	217.58	4.53	1.11
2	10,052.00	10.17	66.17	6.22	69.51	5.66	1.05
3	11,337.00	6.98	22,923.50	3.77	5,803.17	4.46	3.72
4	9,633.00	11.16	2,262.57	4.24	17,577.56	4.44	12.77
5	9,635.00	10.77	232.80	4.90	5,678.70	4.61	5.08

Control 2 Results	Region	1	2	3	4
	A1	28.90	194.19	1,957.16	16,191.19
	A2	20.72	9.18	5.93	5.59

White-Customer

Luminex® F.S. Report

09:30a - 17:00p

Customer UMC St. Radboud.
Name: Postboks 9101, LMI 469

Instrument

ASTI Nr: 313

☒ LX100 ☐ XYP ☐ SDS ☐ HTS

Incident #: TASK# 203500

Call Type

Sheet 1 of 2

☒ Service ☐ P.M. ☐ Install ☐ Recertification

Address: 6500 HB Nijmegen, Nederland.

S/N: LX10001263008-A

Firmware: 2.3.9

Contact: Ms. Sylme Van Der Zeeuw-Hingrez

DSP: 3.17.0

Software: TS 2.3.132

PC Model: Dell Optiplex 760

Call Category

☐ Warranty ☐ P.O. ☒ SLA

- ☐ Platinum
☐ Gold +
☒ Gold
☐ Silver
☐ Bronze

Problem

Description: Zero bead counts / Self test Error on LX100 instrument

Dried Sheath Salts (Crystals) Seen over Syringe Valve & Drive Arm. Syringe teflon tip worn replaced New. Waste tubing not draining - Replace Old Lee Black Backflush Valve (TSBico-026) * Please Sanitize with thin domestic household bleach (5.25% Sodium Chloride) 20% Volume / 80% Fresh DI Water only make enough for one weeks use only.

Resolution

Action Taken: Replace PM Consumables

Deblock Cuvette - Blockage Experienced - Rinsed Clean - Determine flowrate - OK. Red laser Power (erg) = 0.36mW dead replace with NEW = 9.09mW, Green laser Power = 10.6mW Split = 33.600us. CAL' & CONs - Events/s > 250 to 550 in 430s - Air. Optimize Red & Green laser Optics - Red & Green focal turn CW Verification (Final) - PASS

47 flex beads are hitting left of Centre in regions - OK
24P A1 Pos (erg) 2 Pos = 1547, 4 Pos = 677 WRT Pos CAL 2 = 1678, 4 = 795
A1 Pos Final 2 Pos = 1553, 4 Pos = 670 WRT Pos CAL 2 = 1744, 4 = 788
* = 1mm check & count using Customer's bead & PC - as above - PASS

Parts

S/N	Description/Part #	Cost
64-50011-00-001	PM Kit (12 months)	
81-10021-FS-009	Screw #6 (Hex for cover x)	
64-50008-00-001	Lee Backflush Valve retrofit Kit	
69-10008-00-001	Red laser w/o Mount S/N: 12868	
86-10021-00-013	Anti tamperproof label	
40-10001-00-003	Decoding wire S/S x1	
Time to Repair:	<u>7 1/2 hr</u>	Labor
Travel (miles/cost):		Travel
Travel Time:	<u>3 hr</u>	
		Total Cost

JEREMY WHITE
Field Service Representative (Print)

Jeremy White
Field Service Representative

[Signature]
Customer Signature

11 OCTOBER 2012
Date

12 October 2012
Date

Optics Alignment Verification

DD Temp: 25.477° (C) Sheath Pressure: 6.085psi
Laser Time (IS) Green: 749039 Red: 21309264
Flow Rate (2 min.): 11.0 ml @ Sheath = 6.085psi

LOT #'S

CAL 1 B27945
CAL 2 B27750
CON 1 B26441
CON 2 B28078

PEAK = 10032

Classification Results

	DD	CL1	CL2	RP1
CV (Initial/if required)	-	-	-	-
Mean (Initial/if required)	-	-	-	-
CV (Final)	<u>9.78</u>	<u>2.67</u>	<u>2.73</u>	<u>6.24</u>
Mean (Final)	<u>10575.98</u>	<u>3427.60</u>	<u>3579.88</u>	<u>3667.30</u>

Control 1 Results

Region	A1	A2	B1	B2	C1	C2	D1
1	<u>10,038.00</u>	<u>10.41</u>	<u>741.38</u>	<u>4.43</u>	<u>217.17</u>	<u>4.79</u>	<u>1.05</u>
2	<u>9,653.00</u>	<u>10.69</u>	<u>66.25</u>	<u>6.16</u>	<u>68.39</u>	<u>6.87</u>	<u>0.94</u>
3	<u>10,875.00</u>	<u>8.19</u>	<u>23,020.54</u>	<u>3.88</u>	<u>5,527.70</u>	<u>4.37</u>	<u>3.88</u>
4	<u>9,632.00</u>	<u>11.69</u>	<u>2,274.17</u>	<u>4.05</u>	<u>17,681.31</u>	<u>4.50</u>	<u>13.14</u>
5	<u>9,640.00</u>	<u>11.12</u>	<u>232.44</u>	<u>4.36</u>	<u>5,635.06</u>	<u>4.25</u>	<u>5.33</u>

Control 2 Results

Region	1	2	3	4
A1	<u>29.12</u>	<u>194.12</u>	<u>1,965.76</u>	<u>16,342.25</u>
A2	<u>19.68</u>	<u>8.58</u>	<u>6.01</u>	<u>5.57</u>

Luminex® F.S. Report

12:00p - 13:30p
15:15p - 17:30p (17:45p)

Incident #: TASK #203500
Sheet 2 of 2.

Customer Ume St. Radboud
Name: Postbus 9101, LM1469
Address: 6500 HB Nijmegen, Nederland
Contact: Mrs Sylke Van Der Zeeuw - Angrez

Instrument
☒ LX100 ☐ XYP ☐ SDS ☐ HTS

Call Type
☐ Service ☐ P.M. ☐ Install ☐ Recertification

S/N: LX10001263003-A Firmware: 2.3.9
DSP: 3.17.0 Software: TS 2.3.182 PC Model: Dell Optiplex 760

Call Category
☐ Warranty ☐ P.O. ☐ SLA

☐ Platinum
☐ Gold +
☐ Gold
☐ Silver
☐ Bronze

Problem

Description: CON1 fault on %CV's R4, B2, C2
Courtesy Visit - Syringe Valve Deep hole dripping during assay
* Sanitized Instrument with Next Black also Sanitized
Syringe Valves.

Resolution

Action Taken: Lab door Closes hard - Stud Wall
with Lab bench is linked Solid. Hence optical misalignment
Customer informed - door Autoclose mechanism disabled
- close by hand. Syringe Valve - removed off New Pump to make repair
Optimize Red Laser - DD Housing Side Screws.
CL1 & CL2 - Side Screw to tighten det Plot. Split = 34.400µs
CL1's & CON's - Events/s > 250 to 550 in < 30s - Pass
Verification (Initial) & (Final) - Pass
47 Plex beads are hitting left of centre in regions - OK
Parts CL1's & CON's using Customer beads & TS2.3 PC as above - Pass

Optics Alignment Verification

DD Temp: 24.175 ° (C) Sheath Pressure: 6.085psi
Laser Time (IS) Green: 777817 Red: 36232
Flow Rate (2 min.): 11.0 ml

LOT #'S

CAL 1 B27945
CAL 2 B26215
CON 1 B326441
CON 2 B28078

Classification Results

	DD	CL1	CL2	RP1
CV (Initial/if required)	9.80	3.31	3.63	6.37
Mean (Initial/if required)	10715.70	3463.29	3554.72	3809.87
CV (Final)	10.70	2.90	2.87	6.53
Mean (Final)	10468.14	3422.13	3526.58	3784.34

Control 1 Results

Region	A1	A2	B1	B2	C1	C2	D1
1	9,635.00	12.27	728.51	4.95	214.35	5.46	1.12
2	9,637.00	12.58	63.53	7.03	68.92	6.49	1.10
3	10,481.00	9.14	22,884.33	4.02	5,414.86	4.60	3.85
4	9,259.00	14.12	2,240.80	5.81	17,371.61	6.43	12.66
5	9,640.00	12.94	228.16	5.89	5,617.99	5.92	5.42

Control 2 Results

Region	1	2	3	4
A1	29.70	196.39	1,997.62	16,438.71
A2	20.01	9.84	5.99	5.60

TSB

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S/N	Description/Part #	Cost
L100 - CON1	CON1 (B26441)	
L100 - CAL 1	CAL 1 (B27945)	
L100 - CAL 2	CAL 2 (B27750)	
	Syringe Valve xCALIBUR type	
Time to Repair: <u>3 3/4 hrs</u>		Labor
Travel (miles/cost):		Travel Time: <u>3/4 hr</u>
		Travel
		Total Cost

JEREMY WHITE
Field Service Representative (Print)

Jeremy White
Field Service Representative

Customer Signature

12 OCTOBER 2012
Date

12 October 2012
Date

31

Luminex® F.S. Report

09:45 am — 16:45 pm (17:00 pm)

Incident #: TASK # 196433**Customer**

Name: UMC St. Radboud
Geert Grooteplein Zuid N° 30
Centraal Ontvangst Goederen
Nijmegen, Nederland
 Address:
 Contact: Mr. Kjeld van Houwelingen

Instrument

ABTI N° 311
☒ LX100 ☐ XYP ☐ SDS ☐ HTS
 S/N: LX10001263008-A Firmware: 2.3.9
 DSP: 3.17.0 Software: IS 2.3.182 PC Model: Dell optiplex 760

Call Type

☒ Service ☐ P.M. ☐ Install ☐ Recertification

Call Category

☐ Warranty ☐ P.O. ☒ SLA

☐ Platinum
☐ Gold +
☒ Gold
☐ Silver
☐ Bronze

Problem

Description: Crystals on Syringe/Leaking of PM Service
Dried Sheath Salts (Crusty) Seen over Syringe Glassware
Barrel, Plunger, drive Arm of Syringe Valve weep hole indicating
a clog or blockage in the System. - Replace with PM Kit as in Precaution
* Please Sanitize with Fresh thin domestic household bleach
(2.5% Sodium Hypochlorite) 20% Volume / 80% Fresh DI Water
Make enough for one weeks use only. * Sanitized Instrument

Optics Alignment Verification**LOT #S**

DD Temp: 25.911° (C) Sheath Pressure: 6.085 psi
 Laser Time (IS) Green: 20567846 Red: 20567676
 Flow Rate (2 min.): 11.0 ml @ Sheath = 6.085 psi

CAL 1 B27148
 CAL 2 B26966
 CON 1 B27452
 CON 2 B27453

FEAK = - → 10092 **Classification Results**

	DD	CL1	CL2	RP1
CV (Initial/if required)	9.69	3.28	4.21	11.74
Mean (Initial/if required)	10523.91	3281.20	3518.34	3619.64
CV (Final)	9.12	2.59	2.78	6.27
Mean (Final)	10658.26	3288.11	3539.15	3739.52

Control 1 Results

Region	A1	A2	B1	B2	C1	C2	D1
1	10,041.00	11.43	7148.34	4.45	219.49	5.38	2.57
2	9,644.00	11.49	70.42	5.71	67.61	7.85	2.44
3	10,290.00	8.76	23,103.57	3.80	5,636.39	4.76	5.02
4	9,267.00	12.58	2,294.33	4.63	17,822.90	4.81	13.90
5	9,625.00	11.61	237.59	4.25	5,703.39	4.21	6.29

Control 2 Results

Region	1	2	3	4
A1	30.96	197.05	1,989.82	16,461.91
A2	21.99	9.23	5.78	5.45

Resolution

Action Taken: Replace PM Consumables

Dealog Cuvette. Determine flowrate = 11.0 ml @ Sheath = 6.085 psi
Red laser power = 9.03 mW. Green laser power = 10.3 mW → 11.0 mW
Replace Green laser due to beam fuzzy "old Black box Head"
S/N: P0111, Ctrl Head S/N: G1322 & RPI Volts climbing = 731 V
Check JDS type PSU = 5.55 Vdc - OK. Optimise Red & Green
- Red + 4 CW focal, DD, CL1, CL2 & Steering Side Screw. Green + 3 CW
Focal, 15mm All Screws, 4mm All Screws. CAL's & CON's - Ready
>250 to 550 in <30s - PASS Verification (Initial) - Fail on RPI

Parts %CV = 11.74 (Tol <10). Verification (Final) - PASS Split = 35.2ms

47 flex beads are holding slightly right of centre in region -

S/N	Description/Part #	Cost
64-50011-00-001	PM Kit (12 months)	
82-10631-00-008	JDS Uniphase Green laser Head # F1 HA40004 Ctrl H FCA3710231	
11-65090	LA Aspheres (B25538)	
L100-CON1	CON1 (B27452)	
L100-CON2	CON2 (B27453)	
86-10021-00-013	Anti tamperproof label	
Time to Repair: <u>7 hrs</u>		Labor
Travel (miles/cost):		Travel
Travel Time: <u>3 hr</u>		
Total Cost		

JEREMY WHITE
 Field Service Representative (Print)

Jeremy White
 Field Service Representative

[Signature]
 Customer Signature

14 June 2012
 Date

14th June 2012
 Date

Luminex® F.S. Report

10:30 am - 17:00 p

311
313

Incident #: TASK# 169080

Customer UMC St. Radboud
Name: GEERT GROOTEPLEIN ZUID NR30
Address: 6500 HB Nijmegen
Contact: Mr Kjeid van Houwelingen

Instrument
☒ LX100 ☐ XYP ☐ SDS ☐ HTS
S/N: LX10001263008-4 **Firmware:** 2.3.9
DSP: 3.17.0 **Software:** IS 2.3.182 **PC Model:** 760

Call Type
☐ Service ☐ P.M. ☐ Install ☐ Recertification

Call Category
☐ Warranty ☐ P.O. ☒ SLA

☐ Platinum
☐ Gold +
☐ Gold
☐ Silver
☒ Bronze

Problem

Description: PM Service to LX100 Instrument.
Dried Sheath Salts encrusted over external glomware
& dried Salts on stainless steel Plunger-Tip Work (Teflon) replaced
Part from PM Kit
Big Drop seen going to Sample Needle 'old Sample Valve
replaced 10 Jan 06-Jw - replaced New Petrokit Kit TSB100-31

Optics Alignment Verification

DD Temp: 24.601 °C **Sheath Pressure:** 6.056psi
Laser Time (IS) Green: 18219064 **Red:** 18218895
Flow Rate (2 min.): 11.0 ml

LOT #'S
CAL 1 B19650
CAL 2 B20429
CON 1 B19927
CON 2 B19606

PEAK = 9435-59636 **Classification Results**

	DD	CL1	CL2	RP1
CV (Initial/if required)	10.24	3.13	3.33	12.23
Mean (Initial/if required)	10545.83	3512.10	3573.09	3570.03
CV (Final)	9.53	2.89	3.88	9.00
Mean (Final)	10634.85	3547.84	3572.69	3564.39

Control 1 Results

Region	A1	A2	B1	B2	C1	C2	D1
1	10,043.00	10.50	743.06	5.14	214.26	6.21	3.80
2	10,031.00	10.44	69.95	5.96	67.63	8.28	3.90
3	10,903.00	7.91	23,501.33	3.70	5,597.86	4.55	6.71
4	9,641.00	12.02	2,333.48	4.02	17,633.58	4.70	18.74
5	9,654.00	10.70	236.10	4.81	5,828.65	4.95	9.65

Control 2 Results

Region	1	2	3	4
A1	30.85	188.13	1,922.42	16,706.65
A2	24.52	12.71	8.64	8.38

Resolution

Action Taken: Replace PM Consumables
Decidey Cuvette Determine flowrate = 11.0ml @ Sheath = 6.056psi
led laser power = 9.09 mW Green laser Power = 10.8 mW
CM's & con's - Events/s > 250 to 500 in < 30s - PASS
Verification (Initial) - fail on RPI % cv (Tolerance < 10)
Optimize Red & Green laser Optics - Green laser RP Spot
fuzzy made Sharper. Verification (Final) - PASS.
47 Plex beads are hitting Centrally in regions. Split = 32.800µs
CAL's & con's using customers beads & IS 2.3.182 - as above - PASSED

Parts

S/N	Description/Part #	Cost
04-50011-00-001	PM Kit 12 month	
04-50021-00-001	Sample Valve (3 way) rebuild kit (TSB100-031)	\$397.60
L100-CAL1	CAL 1 (B19650)	\$0.00
L100-CON2	CON 2 (B19606)	
86-10041-00-013	Anti Tamperproof label.	
Time to Repair: <u>5 1/2 hrs</u>		Labor
Travel (miles/cost):		Travel
Travel Time: <u>1 hr</u>		
		Total Cost

JEREMY WHITE
Field Service Representative (Print)

Jeremy White
Field Service Representative

[Signature]
Customer Signature

10 MARCH 2011
Date
10th March 2011
Date

Yellow-F.S. Manager

Pink-F.S. Engineer

Luminex® F.S. Report

#313

Customer

Name: UMC St Radboud

Address: Groot Grootplein 2413 30

Contact: Nyrogen

Instrument

☒ LX100 ☐ XYP ☐ SDS ☐ HTS

S/N: LX10001263000 Firmware: 2.3.9

DSP: 3.17.0 Software: 1523 PC Model: Dell Optiplex 760

Incident #: 149900

Call Type

☐ Service ☒ P.M. ☐ Install ☐ Recertification

Call Category

☐ Warranty ☐ P.O. ☐ SLA

- ☐ Platinum
☐ Gold +
☐ Gold
☐ Silver
☐ Bronze

Problem

Description: _____

Pm visit
PR1 to high
Leaking sheath fluid through the
Syringe valve

Resolution

Action Taken: Perform Pre-maintenance
Verify Replaced Syringe unit-valve
and syringe seal
Perform Alignment Green laser
Perform Run all calibrations and verification
all pass within spec

TSB

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Optics Alignment Verification

DD Temp: 23.7 °(C) Sheath Pressure: 6.0
Laser Time (IS) Green: 1622499 Red: 1622430
Flow Rate (2 min.): 11 ml

LOT #'S

CAL 1 B14605
CAL 2 B14606
CON 1 B14044
CON 2 B13664

Classification Results

	DD	CL1	CL2	RP1
CV (Initial/if required)	<u>9.1</u>	<u>4.6</u>	<u>5.3</u>	<u>10.5</u>
Mean (Initial/if required)	<u>16784.17</u>	<u>3726.49</u>	<u>3672.44</u>	<u>358.75</u>
CV (Final)	<u>9.5</u>	<u>4.0</u>	<u>4.5</u>	<u>0.7</u>
Mean (Final)	<u>10601.4</u>	<u>3566.6</u>	<u>3677.1</u>	<u>3610.26</u>

Control 1 Results

Region	A1	A2	B1	B2	C1	C2	D1
1	<u>10.040</u>	<u>11.9</u>	<u>66393</u>	<u>6.31</u>	<u>214.02</u>	<u>6.53</u>	<u>3.63</u>
2	<u>10.043</u>	<u>12.1</u>	<u>66.01</u>	<u>6.89</u>	<u>67.17</u>	<u>7.12</u>	<u>3.29</u>
3	<u>10.090</u>	<u>9.6</u>	<u>22.14139</u>	<u>5.35</u>	<u>5.04630</u>	<u>5.87</u>	<u>10.40</u>
4	<u>9.652</u>	<u>13.4</u>	<u>2.337.6</u>	<u>6.56</u>	<u>17.803.36</u>	<u>5.76</u>	<u>12.92</u>
5	<u>10.035</u>	<u>12.0</u>	<u>209.27</u>	<u>6.40</u>	<u>5.04460</u>	<u>5.96</u>	<u>0.19</u>

Control 2 Results

Region	1	2	3	4
A1	<u>30.74</u>	<u>100.66</u>	<u>1089.41</u>	<u>16.056.63</u>
A2	<u>24.03</u>	<u>12.76</u>	<u>0.70</u>	<u>7.03</u>

Parts

S/N	Description/Part #	Cost
<u>62-00001-00-143</u>		<u>Price?</u>
<u>83-10001-00-036</u>	<u>Syringe Pump (xcalibur)</u>	
<u>S/N 0102003007</u>		
<u>64-50011-00-001</u>	<u>Pin-Left 12mm</u>	
Time to Repair: <u>Pin 6</u>		<u>Labor</u>
Travel (miles/cost):		<u>Travel</u>
Travel Time: <u>4</u>		
		<u>Total Cost</u>

Harold Warrum
Field Service Representative (Print)

Warrum
Field Service Representative

[Signature]
Customer Signature

March 30-2010
Date

30-03-2010
Date

Luminex® F.S. Report

Incident #: 131 629

Customer

Name: Umic St Kad 1504d Zuhairi

Instrument

☒LX100 ☐XYP ☐SDS ☐HTS

Call Type

☐ Service ☒ P.M. ☐ Install ☐ Recertification

Address: Geert Groteplein 24d 30

S/N: LX10001263000 Firmware: 2.3.9

Firmware: 2.3.9

Contact: Nijmegen Nederland

DSP: 3.17.0 Software: 18.2.3 PC Model:

PC Model:

Problem

Description: _____

Resolution

Action Taken: _____ ☐ Bronze

☐ Platinum
☐ Gold +
☐ Gold
☐ Silver
☐ Bronze

Optics Alignment Verification

DD Temp: 24.3° (C) Sheath Pressure: 6.0

Laser Time (IS) Green: 14082923 Red: 14082754

Flow Rate (2 min.): 11 ml

LOT #'S

CAL 1 A 6970

CAL 2 A 7001

CON 1 A 5970

CON 2 A 5647

Classification Results

	DD	CL1	CL2	RP1
CV (Initial/if required)	9,100	3,78	5,99	7,78
Mean (Initial/if required)	10937.59	3800.71	379.17	3570.57
CV (Final)				
Mean (Final)				

Control 1 Results

Region	A1	A2	B1	B2	C1	C2	D1
1	10,045.00	9,66	675,43	4,99	201,94	6,92	6,48
2	10,053.00	9,74	67,30	5,00	64,05	7,32	2,32
3	10,425.00	7,12	22,446,06	3,05	5,477,56	5,02	7,91
4	10,020.00	11,35	2,370,47	4,07	12,115,42	4,53	16,20
5	10,044.00	10,35	212,41	4,40	5,544,39	4,07	7,36

Control 2 Results	Region	1	2	3	4
	A1	30,03	103,95	1,91421	17,145,75
	A2	26,00	12,30	2,00	7,16

TSB

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Resolution

Action Taken: _____ ☐ Bronze

Perform pm-maintenance
Perform global checks, Run all
col / con, Run verification
all pass with in spec

Parts

S/N	Description/Part #	Cost
64-50011-00-001	Ph-kit	1
Time to Repair: Ph 4		<u>Labor</u>
Travel (miles/cost):	Travel Time: 2	<u>Travel</u>
Harbor/Hudson		<u>Total Cost</u>

Herbert W. Watson
Field Service Representative (Print)

Field Service Representative

Customer Signature _____

20-April 2009
Date

28-4-09
Date

Luminex® F.S. Report

Customer

Name: UML STRADBOOM

Address: NIJMEGEN

Contact: _____

Instrument

☐ LX100 ☐ XYP ☐ SDS ☐ HTS

S/N: LX10001263008 Firmware: _____

DSP: _____ Software: _____ PC Model: _____

Incident #: 110629

Call Type

☒ Service ☐ P.M. ☐ Install ☐ Recertification

Call Category

☒ Warranty ☐ P.O. ☐ SLA

☐ Platinum
☐ Gold +
☐ Gold
☐ Silver
☐ Bronze

Problem

Description: _____

LEAKING SYRINGE PUMP VALVE

PERFORMED WITH PM # 108580

Resolution

Action Taken: _____

REPLACED SYRINGE PUMP

TSB

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Optics Alignment Verification

DD Temp: _____ ° (C) Sheath Pressure: _____

Laser Time (IS) Green: _____ Red: _____

Flow Rate (2 min.): _____ ml

LOT #'S

CAL 1 _____

CAL 2 _____

CON 1 _____

CON 2 _____

Classification Results

	DD	CL1	CL2	RP1
CV (Initial/if required)				
Mean (Initial/if required)				
CV (Final)				
Mean (Final)				

Control 1 Results

Region	A1	A2	B1	B2	C1	C2	D1
1							
2							
3							
4							
5							

Control 2 Results

Region	1	2	3	4
A1				
A2				

Parts

S/N	Description/Part #	Cost
62-00001-00-143	SYRINGE PUMP W. BRACKET #707001092	
83-10021-00-048	FITTING 2K	
Time to Repair: <u>2</u>		Labor
Travel (miles/cost):		Travel
Total Cost		

WIS DE BOER
Field Service Representative (Print)

[Signature]
Field Service Representative

13 MAY -08
Date

[Signature]
Customer Signature

13-5-08
Date

Field Service Report

311

Company: Rodbold univ.		Invoice name:		Call ID number:		Zone: 2	
Department: ABTE		Address 1:		System or model: A96 / A196			
Address: Leert Straatje plein 12		Address 2:		Serial number: DA120			
City: Nijmegen	Postcode:	City:	Postcode:	Travel expenses	Train <input type="checkbox"/>	Air plane <input type="checkbox"/>	Hotel <input type="checkbox"/>
Contact: J. Ruiter	Phone:	Invoice contact:	Phone:	Call status	Open <input type="checkbox"/>	Follow up <input type="checkbox"/>	Closed <input type="checkbox"/>
e-mail:		e-mail:		P.O. number:		P.O. Copy attached <input type="checkbox"/>	

Fault description:	Part number	Part description	Quantity	Unit Price	Total Price
	1648241	Q.R valve	1		
		ORINGS	1		
		" " valve	1		
		zone #2.	1		

Failure code:	Service code:
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Description of performed service: Probleem harvest: 'HOT' valve blijft hangen → klop as gesmeerd, valve vervangen → Okinge te bestellen (10) Matrix 96 probl: detector afgeregeld, Schoongemaakt - Software aangepast voor tekst-file formaat	Material cost		
	Service date	Travel h.	Labour h.
	25 jan 08	25	30
	Total hours		
	Travel cost		
	Labour cost		

How to contact us:	Update for ISD	PM checklist <input type="checkbox"/> Performance check <input type="checkbox"/>	Grand Total
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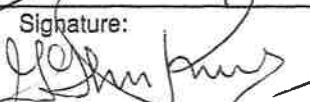
European Customer Care Center
Imperiastraat 8 - B-1930 Zaventem
Belgium

Please find country specific addresses,
telephone and fax numbers
on the reverse.

Name Engineer: **S. Ymkur**

Signature:  Date: **28/1/08**

Name Customer: **J. Ruiter**

Signature:  Date:

13:30pm - 17:30pm

Luminex® F.S. ReportIncident #: TASK # 102564Customer Umc St. Radboud
Name: Geert Grooteplein Zuid Nr 30**Instrument**☒ LX100 ☐ XYP ☐ SDS ☐ HTS**Call Type**☒ Service ☐ P.M. ☐ Install ☐ RecertificationAddress: 6525 GA NijmegenS/N: LX10001263008-A Firmware: 2-3.9Contact: Mr Chris Van den Brink
Mr Henk ThijssenDSP: 3.17.0 Software: IS 2.3.182 PC Model: Switch Business class**Call Category**☐ Warranty ☒ P.O. ☐ SLA
Po # TBA Monday 3rd March 08.☐ Platinum
☐ Gold +
☐ Gold
☐ Silver
☐ Bronze**Problem**Description: Laser Warmup Sequence will not initializeSyringe pump on initialization not performing home properly or full stroke - Syringe pump stalls on 1/4 stroke.**Resolution**Action Taken: Power Supply Voltages checked+14.83V, -14.92V, +5.56V, +24.90V - OKFirmware checked XYP = 2.1.15-E SD Unit = 2.05-B - OKReplace Syringe Pump (New) S/N: 707001077"old" faulty pump P/N: 7287838 (600024 Rev A) S/N: 0108076717.Flow rate = 12.5ml adjusted from 6.686psi → 6.012psi.Verification (Final) - PASSED. 100 Plex beads are hittingCentrally in regions. CAL's & CONS → 250 to 500 in <30s using Customer PC. Split = 36.000µs.**Parts**

S/N	Description/Part #	Cost
62-00001-00-143	Assy Syringe Pump with Bracket S/N: 707001077	TBA
83-10021-00-048	Barb fittings for Syringe Pump	TBA
L100-CAL1	CAL1 (AS344)	-30-
86-10021-00-013	Anti-Tamper proof label	-
Time to Repair: <u>4 hrs</u>		Labor TBA.
Travel (miles/cost):		Travel \$75-00
		Total Cost TBA

JEREMY WHITE
Field Service Representative (Print)Jeremy M White
Field Service RepresentativeThijssen
Customer Signature29th Feb 2008
Date29-02-2008
Date**Optics Alignment Verification**DD Temp: 26.997 (C) Sheath Pressure: 6.012psiLaser Time (IS) Green: 11554346 Red: 11554177Flow Rate (2 min.): 11.0 ml @ 6.012psi**LOT #'S**CAL 1 AS344CAL 2 AS761CON 1 AS646CON 2 AS429PEAK = 10079**Classification Results**

	DD	CL1	CL2	RP1
CV (Initial/if required)	-	-	-	-
Mean (Initial/if required)	-	-	-	-
CV (Final)	<u>9.91</u>	<u>4.41</u>	<u>4.57</u>	<u>7.29</u>
Mean (Final)	<u>10330.35</u>	<u>3546.53</u>	<u>3641.75</u>	<u>3511.02</u>

Control 1 Results

Region	A1	A2	B1	B2	C1	C2	D1
1	<u>10,051.00</u>	<u>9.59</u>	<u>716.35</u>	<u>4.43</u>	<u>205.74</u>	<u>4.61</u>	<u>2.29</u>
2	<u>10,035.00</u>	<u>9.75</u>	<u>64.81</u>	<u>6.29</u>	<u>67.42</u>	<u>6.64</u>	<u>5.62</u>
3	<u>10,901.00</u>	<u>7.48</u>	<u>22,515.68</u>	<u>3.77</u>	<u>5,667.69</u>	<u>4.40</u>	<u>7.59</u>
4	<u>8,887.00</u>	<u>10.47</u>	<u>2,350.33</u>	<u>3.94</u>	<u>17,963.17</u>	<u>3.42</u>	<u>21.49</u>
5	<u>9,651.00</u>	<u>10.70</u>	<u>224.36</u>	<u>4.34</u>	<u>5,794.09</u>	<u>4.25</u>	<u>9.95</u>

Control 2 Results

Region	1	2	3	4
A1	<u>30.37</u>	<u>184.52</u>	<u>1,951.33</u>	<u>17,320.36</u>
A2	<u>24.66</u>	<u>12.11</u>	<u>6.94</u>	<u>6.44</u>

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