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	Doc#: BGL-IS-ATT-000055	Revision: 1
Service ID: 168925	Instrument: CliniMACS S/N: 611	Date: 7.Feb.2024

Service report

Customer		Instrument	
Address	Azienda Ospedaliera Santobono-Pausilipon, Ospedale Pausilipon Dott. Mimmo Ripaldi Struttura Semplice Trapianto di Midollo Osseo e Degenze Protette (BASCO) Via Posillipo 226 IT 80122 Napoli	Current software ver.	2.41
Phone No.	+39 081-2205523/334 6048446	Ownership	Sold
		Cost center	3280
		Service coverage	N/A
		Coverage valid till	N/A
		Customer asset ID	N/A

Service Type
Maintenance

Reason for Service / Customer request	Complaint No.	N/A
Annual maintenance		

Failure description
N/A

Service activities
Annual maintenance done, test e QC passed.

Measuring equipment				
Equipment type	ID#	Manufacturer / model	Last calibration date	Calibration valid till
Electrical Safety Tester	6633	BEHA Unitest Telaris 0701/0702	15.Mar.2023	14.Mar.2025
Multimeter/VOM	59121	Fluke 289	27.Jun.2023	26.Jun.2025
Pin Gauge	68636	Veith Pin Gauge - 2.4mm	15.Jun.2022	N/A
Pin Gauge	68637	Veith Pin Gauge - 2.6mm	2.Aug.2022	N/A

Labor time					
Service Engineer	Service date	Time started	Time finished	Labor time (hrs.)	Travel time (hrs.)
Corrado Cattaneo	07.Feb.2024	09:00	12:00	3	6,5

Confirmation			Service work was executed as ordered 
Service accomplished successfully	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Device released for further use	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Napoli	7.Feb.2024		
Location	Date	Signature of Engineer	Signature of Customer



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Spare parts consumption

Material No.	Description	Pos	Qty.	Lot No.	S/N
N/A	N/A	N/A	N/A	N/A	N/A

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CliniMACS Plus Service Protocol

1 - Decontamination

Test / activity	Result
Perform decontamination	<input checked="" type="checkbox"/> done <input type="checkbox"/> N/A

2 - Visual Inspection

Test / activity	Result
Perform a visual inspection and note findings	<input checked="" type="checkbox"/> done <input type="checkbox"/> N/A
Stabilization foot installed	<input type="checkbox"/> done <input checked="" type="checkbox"/> N/A

3 - Instrument Self-Test

Test / activity	Result
Pre-Check of single components	<input checked="" type="checkbox"/> pass <input type="checkbox"/> fail

4 - Instrument Configuration

Test / activity	Result
Software version: 2.41	<input checked="" type="checkbox"/> done
PC Type: B+R (CF-Card)	

5 - Date & Time

Test / activity	Result
Date & Time settings verified	<input checked="" type="checkbox"/> pass <input type="checkbox"/> fail

6 - Language

Test / activity	Result
Language settings verified	<input checked="" type="checkbox"/> pass <input type="checkbox"/> fail

7 - Loudspeaker


Test / activity	Result
Alert sound audible after opening pump lid during pump rotation	<input checked="" type="checkbox"/> pass <input type="checkbox"/> fail

8 - Voltage Check (CS2 devices only)

Controller Board Pin	Specification	Measured value	Result
MP 2 Pin # 1	+ 5 V \pm 0,25 V DV	5,1 V	<input checked="" type="checkbox"/> pass <input type="checkbox"/> fail <input type="checkbox"/> N/A
MP 2 Pin # 2	+ 12 V \pm 0,3 V DV	12,1 V	<input checked="" type="checkbox"/> pass <input type="checkbox"/> fail <input type="checkbox"/> N/A
MP 2 Pin # 3	+ 24 V \pm 0,5 V DV	24,2 V	<input checked="" type="checkbox"/> pass <input type="checkbox"/> fail <input type="checkbox"/> N/A
MP 2 Pin # 4	+ 24 V \pm 0,5 V DV	24,1 V	<input checked="" type="checkbox"/> pass <input type="checkbox"/> fail <input type="checkbox"/> N/A
MP 2 Pin # 5	+ 1 V \pm 0,05 V DV	1 V	<input checked="" type="checkbox"/> pass <input type="checkbox"/> fail <input type="checkbox"/> N/A

9 - Fan

Test / activity	Result
Fan of electronic assembly is rotating	<input checked="" type="checkbox"/> pass <input type="checkbox"/> fail

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10 - Valves

Test / activity	Result
All valves open/close without tube	<input checked="" type="checkbox"/> pass <input type="checkbox"/> fail
All valves open/close with tube	<input checked="" type="checkbox"/> pass <input type="checkbox"/> fail

11 - Cam Follower Bearing

Test / activity	Result
PM only: check and grease bearing guide wheels if necessary	<input checked="" type="checkbox"/> done <input type="checkbox"/> N/A
Firmly mounted on magnet cam yoke	<input checked="" type="checkbox"/> pass <input type="checkbox"/> fail <input type="checkbox"/> N/A

12 - Magnet Drive

Test / activity	Result
Magnet moves two times	<input checked="" type="checkbox"/> pass <input type="checkbox"/> fail <input type="checkbox"/> N/A
Magnet moves two times all valves close & open	<input checked="" type="checkbox"/> pass <input type="checkbox"/> fail <input type="checkbox"/> N/A

13 - Pump Unit

Test / activity	Result
Pump rotates high speed cw / ccw	<input checked="" type="checkbox"/> pass <input type="checkbox"/> fail
Pump rotates high speed cw / ccw all valves open	<input checked="" type="checkbox"/> pass <input type="checkbox"/> fail

14 - Pump Reed Switch

Test / activity	Result
Pump stops and continues rotating	<input checked="" type="checkbox"/> pass <input type="checkbox"/> fail

15 - Liquid & Proximity Sensors

Test / activity	Result
Screen displays for liquid test empty / full status	<input checked="" type="checkbox"/> pass <input type="checkbox"/> fail
Screen displays for pump cover test open / close status	<input checked="" type="checkbox"/> pass <input type="checkbox"/> fail

16 - Pump Gap


Test / activity	Result
Check Pump Gap: 2.4 mm < Pump Gap < 2.6 mm	<input checked="" type="checkbox"/> pass <input type="checkbox"/> fail

17 - Pump Time & Load Volumes

Test item	Specification	Measured value	Result
Pump time	60 sec ± 1 sec	60 sec	<input checked="" type="checkbox"/> pass <input type="checkbox"/> fail
Low volume	18 ml ± 2 ml	17,5 ml	<input checked="" type="checkbox"/> pass <input type="checkbox"/> fail
High volume 470ml	470 ml ± 50 ml	465 ml	<input checked="" type="checkbox"/> pass <input type="checkbox"/> fail
High volume 740ml	740 ml ± 90 ml	700 ml	<input checked="" type="checkbox"/> pass <input type="checkbox"/> fail

18 - Keyboard

Test / activity	Result
All keys actuate when pressed	<input checked="" type="checkbox"/> pass <input type="checkbox"/> fail

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19 - Screen

Test / activity	Result
Pixel change from black to white	<input checked="" type="checkbox"/> pass <input type="checkbox"/> fail

20 - Electrical safety test according to DIN VDE 0701-0702

Test item	Specification	Measured value	Result
Protective Earth Resistance	< 0,3 Ω	0,2 Ω	<input checked="" type="checkbox"/> pass <input type="checkbox"/> fail
Insulation Resistance	> 1 MΩ	10,3 MΩ	<input checked="" type="checkbox"/> pass <input type="checkbox"/> fail
Auxiliary Leakage Current	< 3,5 mA	2,1 mA	<input checked="" type="checkbox"/> pass <input type="checkbox"/> fail

21 - Function Run

Test / activity	Result
PCC: G20F0004G4000Y0	<input checked="" type="checkbox"/> pass <input type="checkbox"/> fail
Mag Number: 0F000	<input checked="" type="checkbox"/> pass <input type="checkbox"/> fail
Separation counter: 48	<input checked="" type="checkbox"/> done

22 - Labeling

Test / activity	Result
Attach next maintenance label	<input checked="" type="checkbox"/> done <input type="checkbox"/> N/A
Attach safety label	<input type="checkbox"/> done <input checked="" type="checkbox"/> N/A