

保守点検報告書

2025年 第1回

顧客名 独立行政法人国立病院機構
四国がんセンター

装置名 Achieva 1.5T

設置場所 MRI室

点検実施日 2025年4月23日

Case番号 0125342088

株式会社フィリップス・ジャパン

点検項目の説明

製品グループ Achieva 1.5Tシリーズ

検査項目

Chapter: Configuration (All Visits) システム構成(全訪問回)	Chapter: Liquid Cooling Eaton Williams (1, 3) ホースの水漏れ確認:Eaton Williams(訪問回数1、3) 安全機構動作確認:Eaton Williams(訪問回数1、3)
Chapter: Visit number (All Visits) 訪問回数(全訪問回)	Chapter: Liquid Cooling Eaton Williams (1) 不凍液濃度確認
Chapter: Liquid Cooling LCC2B/2BB (All) 水冷システム点検:LCC2B/2BB(全訪問回)	Chapter: Magnet system (All) 安全性確認(全訪問回)
Chapter: Liquid Cooling LCC2/2A (All) 水冷システム点検:LCC2/2A(全訪問回)	Chapter: Magnet system (1, 3) ヘリウム排気管排水穴確認(訪問回数1、3)
Chapter: Liquid cooling LCC2B/2BB (1, 2, 4) 水冷システム点検:LCC2B/2BB(訪問回数1、2、4)	Chapter: Magnet system (2, 4) ヘリウム排気管設置状況確認(訪問回数2、4)
Chapter: Liquid cooling LCC2A (1, 2, 4) 水冷システム点検:LCC2(訪問回数1、2、4)	Chapter: Magnet system (3) ヘリウム排気管取付確認(訪問回数3)
Chapter: Liquid Cooling LCC2B/2BB (1, 3) 水冷システム点検:LCC2B/2BB(訪問回数1、3)	Chapter: Magnet system (4) 緊急磁場消失ユニット機能確認(訪問回数4)
Chapter: Liquid Cooling (1) ・不凍液濃度確認 ・ストレナー清掃	Chapter: Operator Console & Viewing (All) コンソール機能確認(全訪問回)
Chapter: Liquid Cooling LCC2B/2BB (3) 冷却水経路洗浄:LCC2B/2BB(訪問回数3)	Chapter: Operator Console & Viewing (1, 3) 天井取付具点検:Interventionalシステム(訪問回数1、3)
Chapter: Liquid Cooling LCC2A (3) 冷却水経路洗浄:LCC2A(訪問回数3)	Chapter: Gradient System (1, 3) グラディエントシステム点検(訪問回数1、3)
Chapter: Liquid Cooling LCC2 (3) 冷却水経路洗浄:LCC2(訪問回数3)	Chapter: Gradient System (2, 4) グラディエントシステム点検(訪問回数2、4)
Chapter: Liquid Cooling LCCx (1, 3) ホースの水漏れ確認:LCCx(訪問回数1、3)	Chapter: Software (All) ソフトウェア点検(全訪問回)
Chapter: Liquid Cooling LCCx (1) 冷却水経路洗浄:LCCx(訪問回数1)	Chapter: Software (2,4) ソフトウェア点検(訪問回数2、4)
Chapter: Liquid Cooling Neslab (All) 冷却水レベル確認:Neslab(全訪問回)	Chapter: Software (2) リモート接続確認(訪問回数2)
Chapter: Liquid Cooling Neslab (1, 3) ホースの水漏れ確認:Neslab(訪問回数1、3) 安全機構動作確認:Neslab(訪問回数1、3)	Chapter: Workflow (All) 担当者への面談
Chapter: Liquid Cooling Eaton Williams (All) 冷却水レベル確認:Eaton Williams(全訪問回)	Chapter: System Level Checks (Visits 1,3) システムレベル点検(訪問回数1、3)

点検項目の説明

製品グループ Achieva 1.5Tシリーズ

検査項目

Chapter: System Level Checks (Visits 2,4)	Chapter: PM end
システムレベル点検(訪問回数2、4)	最終確認
Chapter: System Level Checks (Visits 2)	
システムレベル点検(訪問回数2)	
Chapter: 2 System Level Checks (Visits 4)	
システムレベル点検(訪問回数4)	
Chapter: Patient support MT (All)	
寝台システム点検:MT(全訪問回)	
Chapter: Patient support MT (1, 3)	
寝台システム点検:MT(訪問回数1、3)	
Chapter: System Meas. & Adjustments (All)	
システム測定及び調整(全訪問回)	
Chapter: System Meas. & Adjustments (2, 4)	
システム測定及び調整(訪問回数2、4)	
Chapter: System Meas. & Adjustments (4)	
スパイクノイズ確認(訪問回数4)	
Chapter: Earth bonding	
アース導通測定	
Chapter: Earth bonding Exam Room	
アース導通測定:検査室	
Chapter: Earth bonding Tech Room	
アース導通測定:機械室	
Chapter: Earth Leakage Current	
漏れ電流測定	
Chapter: Refrigerator system (All)	
冷凍機システム点検(全訪問回)	
Chapter: Refrigerator system (1, 3)	
冷凍機システム点検(訪問回数1、3)	
Chapter: SAFETY (All)	
静電気対策	
Chapter: One time tasks (all)	
LEDポアライトへの交換	

Ship To:
独立行政法人国立病院機構 四国がんセンター
南梅本町甲160
松山市
Japan

Test and Verification Report

Case Number: 0125342088

Work Order: WO-12682983

WORK DETAILS

Engineer Name: MASASHI HIKASA

Event Type: Predictive / Preventative Maintenance

Device Status: Pass

Service Activity: Visit 2

EQUIPMENT DETAILS

Product Name: Achieva 1.5T

Serial Number: 32625

Product Number: 781296

Installed Product: 51640158

UDI:

	Min	Max	UoM	Measurement	Result	Comments
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PM section 4. Safety

4. Safety

Prevent electro static discharge					PASS	
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PM section 6. Workflow

Workflow

Interview the representative of the site					YES	
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PM section 7. System level

System level

Do PIQT (Remote / On-site)					PASS	
Check system parts visually					PASS	
Check the safety signs					PASS	
Clean the computers externally					PASS	
Clean the EWS (Extended WorkSpace) internally					Not installed	
Check the dust filter					PASS	
Clean the dust filter					PASS	
Check the dust filter of the patient ventilation					PASS	
Disable alerts					PASS	
Check the RF enclosure					PASS	
Check the shock indicator(s)					PASS	
Check the RF coils for damage					PASS	

	Min	Max	UoM	Measurement	Result	Comments
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PM section 7. System level

System level

Check the -5 V power supply	-5	-4.9	V	-4.934	Pass	
Relative humidity Examination room	40	70	%	57	Pass	
Relative humidity Technical room	30	70	%	54	Pass	
Temperature Examination room (R3 or upgraded from R3)	20	24	°C	22	Pass	
Temperature Technical room	15	24	°C	21	Pass	
Check the respiratory sensor and hose					PASS	
Check the version of the SPT spec file (Remote / On-site)					PASS	
Compare and download the SPT spec file					PASS	

PM section 9. Gradient System

Gradient System

Check the torque of the C78x mains connection block	9.49	11.86	Nm	10	Pass	
Check the torque of the gradient cables	18.98	22.51	Nm	20	Pass	
Check the torque of the C78x output filter	3.8	4.7	Nm	4	Pass	
Check internal hoses					PASS	
Check the circuit to detect an overheated gradient coil					PASS	

PM section 10. Liquid Cooling

Liquid cooling

Check the flow in the gradient coil circuit	18	22	l/min	21	Pass	
Check the flow in the gradient amplifier	30	45	l/min	31	Pass	

Liquid cooling [LCC2]

Check the filling pressure	1.4		bar	2	Pass	
Check the hoses with liquid cooling for leaks					PASS	
Flush the circuit of the gradient coil	2.2	2.4	bar	2.2	Pass	
Fill the circuit of the gradient coil					PASS	
Fill the circuit of the gradient amplifier					PASS	
Check the flow of the wc RF amplifier (WDH1.5T, AN8137)	16	20		18	Pass	
Check the flow of the wc RF amplifier (S35)	9	11		10	Pass	

PM section 11. Refrigerator system

Refrigerator system

Check the dynamic pressure of the compressor					PASS	
Check the cryogenic performance					PASS	
Check for leaks					PASS	

	Min	Max	UoM	Measurement	Result	Comments
PM section 12. Magnet system						
Magnet system						
Check the labels and covers of the ERDU buttons					PASS	
Check the outlet of the helium venting system					PASS	
Check the service history of the coldhead [10K]					< 24 Months	
Record the last date coldhead service was done					Jan 11, 2023	
Record the compressor type					HC-8E	
Record the Coldhead serial number					A3865	
PM section 13. Patient support						
Patient support [MT]						
Check the stop function on operator console					PASS	
Check the stop scan buttons on the magnet					PASS	
Check the emergency stop circuit					PASS	
Check the emergency stop button					PASS	
Check the stop function of finger protection plate					PASS	
Check the patient alarm					PASS	
Check the patient comfort lights					PASS	
PM section 14. System Meas. & Adjustments						
Run the software tests for PM						
PFEI peripheral test					PASS	
Patient support self test					PASS	
TX att. calibration					PASS	
Max kW calibration body coil					PASS	
RF amp TX1 PMU test body coil					PASS	
RF amp TX2 PMU test body coil [Multitransmit]					NA (not Multitransmit)	
RF amp controlloop calibration [3T solid state RFA and CDAS]					NA (not 3T solid state RFA or CDAS)	
F0 determination					PASS	
RF power ref. cal. body coil					PASS	
Pickup coil tripl.cal.body coil					PASS	
Multitransmit RF calibration					NA (not Multitransmit)	
Pickup coil tr.cal TR-Knee coil [3.0T]					NA (not 3.0T)	
Max kW calibration H-Head coil [1.5T]					NA (not 1.5T)	
RF power ref. cal. H-Head coil [1.5T]					NA (not 1.5T)	
System measurements and adjustments						
Use the analyzer					PASS	
Run the RF spurious test batch					PASS	

	Min	Max	UoM	Measurement	Result	Comments
PM section 14. System Meas. & Adjustments						
System measurements and adjustments						
Analyze the result of the spurious noise test batch					PASS	
PIQT						
Do PIQT					PASS	
Generate a report with PIQT results					PASS	
Mark the PIQT scans as reference specifications					PASS	
PM section 15. Operator Console & Viewing						
Operator Console & Viewing (All)						
Clean the mouse, keyboard, monitor of host (and ISP/EWS)					PASS	
Check the audio communications					PASS	
PM section 16. Software						
Software						
Check and update the EAS software (e-Alert): check the version of the software on the system					e-Alert is not installed	
Find the latest version of the EAS software (e-Alert) on InCenter					https://philips.mizecx.com/knowledgeDocument.html?17eeaa963b1881a0c0354f5a426d4f93	
Clean up disks					PASS	
Defragment the hard disks					PASS	
Do the PRS related checks					PASS	
Make a system back-up					PASS	
Export the configuration					PASS	
PM section 17. FCOs and corrective maintenance						
FCOs and corrective maintenance						
Implement FCOs and corrective maintenance					FCO78100582	
PM section 19. PM end						
19. PM end						
PM - Enable alerts					PASS	
Handover					PASS	
Administration					PASS	

Philips Representative Signature:

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Engineer Name: MASASHI HIKASA

Date: Apr 23, 2025



ヘリウムレベル推移表(%)

