



Medical Systems Division

Report Date (M/D/Y):

Name of Institution:

Seal or Signature

Address

Telephone Number

Name of Room

Safety Management Supervisor for Medical Equipment

This is a report on the maintenance procedures, which were completed as

Name of System [REDACTED]	System Component Described in the attached System Component List.
Management Registration No. [REDACTED]	Installation Date [REDACTED] (M/D/Y)
Inspection Date [REDACTED] (M/D/Y)	Month of Next Inspection [REDACTED] (M/Y)
Maintenance Engineers Name [REDACTED] Name [REDACTED]	
Maintenance Company [REDACTED]	Telephone Number [REDACTED]

[Inspection Results]

Inspection Date: (M) (D) (Y) to (M) (D) (Y)

Inspection Reporter:

Work Results:

<input type="text"/>

Replacement Parts:

Part Name	Part No.	Qty	Part Name	Part No.	Qty
<input type="text"/>					
<input type="text"/>					
<input type="text"/>					
<input type="text"/>					

Measuring Instruments Used:

Name of Measuring Instrument	Control No.	Name of Measuring Instrument	Control No.
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

[System Component List]

System Record:

System Inspection Results Overview

<Air-Conditioning in the Examination Room>

Temperature/humidity

- : Abnormal
- : Normal

Special note:

<Air-Conditioning in the Storage Room>

Temperature/humidity

- : Abnormal
- : Normal

Special note:

<I.I.・FPD>

Image

- : Abnormal
- : Normal

Special note:

<Main panel>

Operation

- : Abnormal
- : Normal

Special note:

<Side panel>

Operation

- : Abnormal
- : Normal

Special note:

<X-ray control unit>

Operation

- : Abnormal
- : Normal

Special note:

<Collimator>

Operation

- : Abnormal
- : Normal

Special note:

<X-ray tube>

Operation

- : Abnormal
- : Normal

Special note:

<C-arm>

Operation

- : Abnormal
- : Normal

Special note:

<Monitor>

Degree of deterioration

- : Abnormal
- : Normal

Special note:

<Power supply>

Operation

- : Abnormal
- : Normal

Special note:

<Image Processing Unit>

Operation

- : Abnormal
- : Normal
- : No equipped

Special note:

No.	Inspection Item	Safety Item	Details				Inspection Result
3. Main body(C-arm)							
(1)	C-arm slide motion	<input type="radio"/>	a. Lock check				
			b. Operation, stroke range check (90°/-30°)				
(2)	C-arm rotary motion	<input type="radio"/>	a. Lock check				
			b. Operation, stroke range check (300°/-120°)				
(3)	C-arm forward/back movement	<input type="radio"/>	a. Lock check				
			b. Operation, stroke range check (200mm)				
(4)	C-arm lateral swiveling movement	<input type="radio"/>	a. Operation, Noise, and Lock check				
			b. Operation, stroke range check (+12.5°/-12.5°)				
(5)	C-arm vertical movement	<input type="radio"/>	a. Lock check				
			b. Operation, stroke range check (450mm)				
			c. Balance check				
(6)	C-arm running operation	<input type="radio"/>	a. Noise, Vibration check				
			b. Brake check				
			c. Steering wheel maneuverability check				
(7)	Parallel leaf open/close operation	—	Noise, Motion, Amount of movement check				
(8)	Parallel leaf rotation operation	—	Noise, Motion, Amount of movement check				
(9)	Octagonal leaf open/close operation	—	Noise, Motion, Amount of movement check				
(10)	BH filter switching operation	—	Motion, Amount of movement check				
(11)	Camera motion (Only OPESCOPE ACTENO)	<input type="radio"/>	a. Rotary motion check				
			b. H/V inversion operation check				
(12)	Fluoroscopy field	—	The position of the collimator must be visible on the monitor. Fixed rectangular leaf must not be visible. (FD type should be adjusted with the adjustment tool.)				
(13)	Radiography field	—	The position of the collimator must be visible on the monitor. Fixed rectangular leaf must not be visible. (FD type should be adjusted with the adjustment tool.)				

4. X-ray generator

(1)	Fluoroscopy operation	<input type="radio"/>	DC Fluoroscopy 40kV	<input type="radio"/>	K		mA
			DC Fluoroscopy 110kV	<input type="radio"/>	K		mA
(2)	Radiography operation	<input type="radio"/>	110kV 1.2mAs	<input type="radio"/>	K		mA
			100kV 2mAs	<input type="radio"/>	K		mA
(3)	Radiography time precision	<input type="radio"/>	Radiography: 100kV 0.5mAs(25ms)			msec	

Remarks

【Inspection Report】

No.	Inspection Item	Safety Item	Details				Inspection Result
1. Checking installation environment							
(1)	Indicator during use	<input type="radio"/>	Lighting of the indicator during use				
(2)	Temperature and humidity	<input type="radio"/>	Examination Room	Temperature: 10~35°C		deg C	
				Relative humidity: 30~85%		%	
(3)	Power supply voltage	<input type="radio"/>	Machine Room	Temperature: -10~40°C		deg C	
				Relative humidity: 10~90%		%	
(4)	Grounding wire connection	<input type="radio"/>	Status of the grounding wire				
2. Checking equipment usage status							
(1)	External appearance	<input type="radio"/>	External appearance, fastening status, and cable connection status of each unit				
(2)	Labels	<input type="radio"/>	Appearance of caution and warning labels on each unit				
(3)	Instrument cleaning	<input type="radio"/>	Clean it with a cleaner.				
(4)	Cable connection condition	<input type="radio"/>	Check the connection of each cable terminal/connector.				
(5)	Checking cable condition	<input type="radio"/>	Check each cable state (whether rubbing, twisting, pulling, and others exist or not)				
(6)	Checking the cart cable condition	<input type="radio"/>	Check the connector part of the cart cable.				
(7)	Mechanical parts fixture	<input type="radio"/>	Check the mounting condition of each mechanical part.				
(8)	Power supply voltage(AC)	<input type="radio"/>	AC input section of DC power supply on C-arm side	220V±10%		V	
(9)	Power supply voltage(DC)	<input type="radio"/>	Power supply section on C-arm side	+5V±10%		V	
				+12V±10%		V	
				-12V±10%		V	
				+24V±10%		V	

Remarks

[Explanation about marks used in the Inspection Result column]

C : Checked	: Visual inspection or operation check has been performed. Measurement values have been confirmed to be within the standards.
M : Maintenance work performed	: Fixing parts have been re-tightened, lubrication and cleaning have been performed, and parts have been replaced.
A : Adjusted	: Settings have been changed and adjustment has been performed.
- : Not applicable	: There is no equipment subject to inspection or the item is not applicable.
N : Special note	: Detailed information is described in the Remarks section.
NA	: Items not subject to inspection due to the inspection cycle

Safety Item: Inspection items related to safety are marked with a circle.

No.	Inspection Item	Safety Item	Details	Inspection Result
5. System operation				
(1)	DC Fluoroscopy operation	—	Each DC Fluoroscopy operation check	
(2)	Pulse Fluoroscopy operation	—	Each Pulse Fluoroscopy operation check	
(3)	Boost Fluoroscopy operation	—	Boost Fluoroscopy operation check	
(4)	Super Shot operation	—	Super Shot operation check (Only ACTENO without DR option)	
(5)	Radiography operation	—	Radiography operation check (Only ACTENO with DR option and FD type)	
(6)	Fluoroscopy buzzer and timer	—	The buzzer should sound at the set time and fluoroscopy should be interrupted.	
(7)	LIH(Last Image Hold)	—	LIH image check	
(8)	Write/read memory images	—	Memory image read/write check	
(9)	APR function	—	Read-write operation check	

(1)	IBS balance	—	Operation check									
(2)	Noise, scratches, stains	—	Image check									
(3)	Fluoroscopy image	—	Brightness, luminance irregularity, distortion, defects, resolution(Only ACTENO)									
(4)	Radiography image	—	Image check(Only ACTENO with DR option)									
(5)	<I.I> Uneven brightness, scratches, stains, and pressure resistance	—	Image check(Only ACTENO)									
(6)	<I.I.> Relative luminance (Only ACTENO)	—	<div style="display: flex; justify-content: space-between;"> <div style="flex: 1;">Iris value at installation</div> <div style="flex: 1;">(Installation FkV)-(Current FkV)</div> </div> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th></th> <th>Installation</th> <th>Current</th> <th></th> </tr> <tr> <td>9"</td> <td></td> <td>kV</td> <td></td> </tr> </table>		Installation	Current		9"		kV		
	Installation	Current										
9"		kV										
(7)	Maximum Fluoroscopic Dose Measurement	<input checked="" type="radio"/>	Maximum dose does not exceed the regulation value of your area.									
(8)	Calculated dose indication	—	Error must be within the standard									

Remarks

No.	Inspection Item	Safety Item	Details	Inspection Result
7. Peripherals (Option)				
(1)	Thermal printer	—	Operation check	
(2)	Laser pointer	—	Operation check	
(3)	Doctor handle	—	Operation check	
(4)	Hand switch	—	Operation check	
(5)	Wireless foot switch	—	Operation check	
(6)	Wireless hand switch	—	Operation check	
(7)	Area dosimeter	—	Measurement accuracy check	
(8)	Wireless LAN	—	Operation check	
(9)	Long cable foot switch	—	Operation check	
(10)	Rooter	—	Operation check	
(11)	External video output	—	Operation check	
8. Monitors				
(1)	LIVE monitor	—	a. Check the contact of connectors and clean the monitor. b. Check the grayscale. c. Check the artifact and the brightness.	
(2)	REFERENCE monitor	—	a. Check the contact of connectors and clean the monitor. b. Check the grayscale. c. Check the artifact and the brightness.	
9. System overall operation				
(1)	Overall operation after inspection	—	a. Fluoroscopy / Radiography operation b. Display image c. Interlocking operation with related equipment	

Remarks
