

9. MAINTENANCE**WARNING**

Maintenance is to be performed only by competent, trained personnel who are familiar with the potential hazards associated with this equipment. Failure to do so may result in injury or equipment damage to the patient or user.

NOTE

Maintenance schedule frequency may be dictated by certain regulatory requirements of the country or state in which the installation is located. Always check the local codes and regulations when setting the maintenance schedule.

WARNING

Always turn off mains power to the generator and wait a minimum of 3 minutes for capacitors to discharge before starting any preventative maintenance, including cleaning. Otherwise, you may be electrocuted.

WARNING

Turn off all electrical power to "GXR-SD/CSD/USD" system at its disconnect switch before servicing unit. Also ensure that the shut-off switch is locked and marked "Equipment Being Serviced" before servicing the unit. Otherwise, you may be electrocuted.

WARNING

This equipment is NOT classified as anesthetic-proof and may ignite flammable anesthetics. Flammable agents used for skin cleaning or disinfecting may also produce an explosion hazard.

CAUTION

The insulation oil level of the HT tank does not require periodic checks under normal conditions. However, if there is evidence of possible oil loss, such as oil leakage from the generator, contact DRGEM Corporation or service provider for possible equipment damage.

9.1 MAINTENANCE TASKS

- Operator

When to Do It	What to Do	Who to Do It	Related Section
Every day or as Required	Daily x-ray tube warm-up procedure	Operator	<u>9.1.1</u>
	Test of Emergency Stop Switch	Operator	<u>9.1.2</u>
	Checking the visible damaged of DAP	Operator	<u>9.1.3</u>
Once a month or as Required	Exposed tracks	Operator	<u>9.1.4</u>
Every three months after installation	Apparatus operation	Operator	<u>Operation Manual 4.4</u>
Every 6 months or as Required	Cleaning and disinfecting external surfaces	Operator	<u>9.1.5</u>
	Clean Grid Surface	Operator	<u>9.1.6</u>
	AEC functional check	Operator	<u>9.1.7</u>
	Console and miscellaneous generator checks	Operator	<u>9.1.4</u>
Every 1 years or as Required	Checking the visible damaged components	Operator	<u>9.1.4</u>
	Touch Calibration	Operator	<u>9.1.14</u>
whenever a related certifiable X-ray component is replaced, when not used for several days	Tube seasoning	Operator	<u>9.1.8</u>
As required or when the remote control does not work	Remote control battery replacement cycle	Operator	<u>9.1.13</u>

- Service Engineer

When to Do It	What to Do	Who to Do It	Related Section
Every Month or as Required	Check Fasteners and bearing	Service Engineer	<u>9.1.9</u>
	Brake Gap	Service Engineer	<u>9.1.10</u>
Every three months after installation	System & Automatic collimator Calibration	Service Engineer	<u>6.2</u>
	Image Calibration	Service Engineer	<u>6.3</u>
Every 6 Months AND whenever a related certifiable X-ray component is replaced:	kV Calibration mA Calibration AEC Calibration	Service Engineer	<u>6.1</u>
	Clean and re-grease all HV connections (Using vapor proof compound)	Service Engineer	-
	Check that all HV connections are tight	Service Engineer	<u>9.1.4</u>
	Clean the control console, and main cabinet	Service Engineer	<u>9.1.5</u>
	Test the X-ray tube thermal switch circuits	Service Engineer	<u>9.1.11</u>
	Checking the visible damaged components	Service Engineer	<u>9.1.4</u>
Every 10 years after installation or as Required	Insulation oil check	Service Engineer	<u>9.1.12</u>