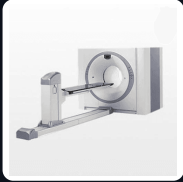


Siemens Biograph 64 PET/CT

 Siemens Healthineers, Model Biograph 64 PET/CT

Siemens Biograph 64 TruePoint PET/CT Integrated PET/CT medical imaging system TruePoint PET detectors Straton Z X-ray tube Biograph PHS patient handling assembly PET syngo software Image...



Category: Medical Imaging

Typical Failure Modes (category reference)

PET Detector Crystal Degradation	High
Symptoms: Reduced sensitivity, increased noise in emission images, quantitation drift Cause: Radiation damage and aging of lutetium oxysilicate crystals; PMT gain drift	
CT X-Ray Tube Overheating	High
Symptoms: Thermal protection fault, reduced scan power, 'tube overtemp' error Cause: Inadequate coolant flow, thermistor failure, or RF circuit stress; Straton Z tube stress	
Patient Table Motion Failure	Medium
Symptoms: Table fails to move, stops mid-position, or error 'table position error' Cause: Stepper motor encoder failure, brake drag, or cable harness wear in Biograph PHS assembly	
Vaporizer/Anesthetic Gas Leak (if applicable)	Medium
Symptoms: Unstable gas flow, low fresh gas readings, safety interlock trips Cause: Vaporizer seal desiccation or loose fittings in the gas delivery system	
Power Supply Unit (PSU) Fan Failure	Medium
Symptoms: PSU overheating warning, intermittent system shutdowns Cause: Fan bearing wear, dust accumulation on heatsinks; critical for magnetron and electronics cooling	

Serviceable Parts & Consumables (category reference)

PART	P/N	SERVICE CLASS	REL. COST	R&R
PET Crystal Block Assembly	-	Major service part	\$\$\$\$	Expert-level
CT X-Ray Tube (Straton Z)	-	Major service part	\$\$\$\$	Expert-level
Patient Table Stepper Motor	-	Periodic replacement	\$\$\$	Moderate
PSU Cooling Fan	-	Periodic replacement	\$	Easy
Vaporizer Assembly	-	Periodic replacement	\$\$	Fairly easy

Troubleshooting Approach (BioDeviceHub synthesis)

Symptom: System displays 'PET sensitivity error' and images are noisy

1. Run system self-test diagnostic (syngo CT/PT) to confirm sensitivity values outside spec
2. Verify PMT high voltage settings via service interface; adjust if within allowable range
3. If values remain out of spec, replace PET Crystal Block Assembly - OEM alignment required

Symptom: CT scanner will not generate high voltage, tube error on standby

1. Check coolant flow rate and reservoir level; verify pump operation
2. Measure thermistor resistance at tube housing; compare to temperature curve
3. If coolant and thermistor OK, inspect RF circuit for arcing or component stress; replace CT X-Ray Tube if persistent