

SERVICE BULLETIN	
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Laser Diode Failure Modes

Product

Laser Diode Modules

Category

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Failure Modes

	FAILURE MODE	SYMPTOM	INSPECT or (TEST)	CONFIRM BY VISUAL INSPECTION	WARRANTY (12 months from ship date)
1	Diode Failure – Diode Material	No Current / Low Power	Inspect diode bars (Test: Power vs. Current)	NO	YES
2	Timer Board Defect	No Current	Timer Circuit Overheated	YES	YES
3	Water Leak	Moisture / Low Power / No Current	(Leak test)	NO	YES
4	Diode Failure – Insufficient Coolant	No Current / Low Power	Diode Array	YES	NO
5	Contaminated Coolant – Discolored rod barrel	Low Power	Rod Barrel	YES	NO
6	Rod Surface Damage	Low Power	Rod Surface	YES	NO
7	Diode Failure - Condensation	Low Power	Evidence of moisture	YES	NO
8	Rod Fracture – Insufficient coolant	No Power	Rod barrel	YES	NO
9	Broken Flow Tube – Module dropped or frozen	Leaking cooling fluid	Inspect flow tube or (leak test)	YES	NO
10	Array Pin Fins eroded due to using DI water	Low Power / Operating Temperature Shift	Disassembly required to inspect pin fins	NO	NO
11	Array Pin Fins Clogged	Low Power / Operating Temperature shift	Disassembly required to inspect pin fins	NO	NO
12	Diode Failure – Voltage Spike or High Current	Low Power	(Test: Power vs. Current)	NO	NO
13	Diode Failure – Reverse bias	No Current / Low Power	(Test: Power vs. Current, and reverse bias diode)	NO	NO