



# Quality Management System Instruction Form

Cook® Medical Incorporated

Title:

**Laser Service Report**

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Document Number: QMSI18\_09-F06

Original Date: 30Sep2016

Version Number: 4

Effective Date: 18Aug2017

CR Number: CMI-17-187

Checked By: AB 16Aug2017

Laser Serial Number: 2471312-1215

Date: 06/11/18

Please fill out as much information as possible in the form below.

## General Information and Background

Laser System Type: ☐ Odyssey ☒ H-30

Laser Owner (Hospital): C. Las Corder

Under Warranty? ☐ Yes ☐ No

Customer Number:

Phone Number:

Contact Person:

Technician: Abon Yara

Email:

When was the laser last serviced? 04/18

By whom was the laser last serviced?

Under Service Contract? ☐ Yes ☐ No

Current Service Location:

Installation Date:

Plug Type:

Any unusual environmental condition? ☐ Yes ☒ No If yes, explain:

Any information to reasonably suggest laser caused or contributed to illness or injury to patient or user? ☐ Yes ☒ No If yes, explain:

Was laser used for treatment or diagnosis? ☐ Yes ☒ No

Additional comments: (Note any recent issues and their resolutions.) Note: Only enter information if additional information is applicable otherwise leave blank.

If this Section does not apply check box ☐

## Laser Use Information at Occurrence

Pulse Width Mode: ☐ Short ☒ Long

Repetition Rate (Hz): ☐ 5 ☐ 8 ☐ 10 ☐ 12 ☐ 15 ☒ 20

Pulse Energy: 0.5 J, 0.8 J

Fiber Size(s) Used (µm):

Total Energy Delivered:

Total Time:

☐ 150 ☐ 200 ☐ 273 ☐ 365 ☐ 550 ☐ 940

In what operational state(s) was the laser when the issue occurred?

☒ Standby ☐ Transition ☐ Ready ☐ Preparatory ☐ Lasing

If this Section does not apply check box ☐

Note any error code(s) that was present:


MPS

## General Description of Issue:

Equipo Passa de Ready A Standby

## Work Performed (Include Troubleshooting)

Calibracao

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Date: 06/11/18

List Calibrated Equipment, Tools or Test Equipment Used

+	PART NUMBER/CPN	I.D. NUMBER	CALIBRATION DUE DATE
	Gentec "Maestro" Power Meter	242057	2017
	Gentec "Maestro" Target	224533	2017
	BC Medical SA-2001 Safety Analyzer		
-			

Service Manual Revision Number: \_\_\_\_\_

Were replacement parts used? ☐ Yes ☒ No

+	PART NUMBER/CPN	LOT NUMBER	DESCRIPTION
-			

Defective Part Disposition: Disposed of \_\_\_\_\_

Returned to COOK Capital Equipment \_\_\_\_\_

Final Resolution


Cook welcomes your feedback at [capitalservice@cookmedical.com](mailto:capitalservice@cookmedical.com)

If this Section does not apply check box ☐

Calibration

VALUE	INITIAL VALUE	E1	E2	FINAL VALUE	E1	E2
PHD OFFSET (10Hz, 0.5J)		MIN:	MAX:		MIN:	MAX:
PHD POTENTIOMETER/COARSE (10HZ, 3.0J)		INT:	EXT:		INT:	EXT:
PHD FULLSCALE/FINE (10 HZ, 3.0J)		INT:	EXT:		INT:	EXT:
PHD SHUTTER CLOSED		OPEN:	CLOSED:		OPEN:	CLOSED:

Notes (calibration, tuning, centration, alignment, etc.) Note: Only enter information if additional information is applicable, otherwise leave blank.

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PHD Calibration Verification (data can be replaced with external data sheets, if desired)

CAL	SHORT PW				LONG PW			
RATE	PHD ADJ		E <sub>MIN</sub>	E <sub>MAX</sub>	PHD ADJ		E <sub>MIN</sub>	E <sub>MAX</sub>
	LOW	HIGH			LOW	HIGH		
5 Hz			0.5	3.5			0.5	3.0
8 Hz			0.5	3.0			0.5	2.5
10 Hz			0.5	3.0			0.5	2.5
12 Hz			0.5	2.5			0.5	2.0
15 Hz			0.5	1.5			0.5	1.5
20 Hz			0.5				0.5	

Final Steps

Attach pictures of DAC values and plot from CAL menu, if voltage values changed.

If this Section does not apply check box ☐


Short PW Calibration Table (record average output values in User mode) with a 550  $\mu$  fiber.

ENERGY	TOLERANCE	REP. RATE: 5 Hz	8 Hz	10 Hz	12 Hz	15 Hz	20 Hz
0.5 J	0.45 - 0.55	0.47	0.49	0.50	0.49	0.51	0.45
0.6 J	0.54 - 0.66						
0.7 J	0.63 - 0.77						
0.8 J	0.72 - 0.88						
1.0 J	0.90 - 1.10					0.98	
1.2 J	1.08 - 1.32						
1.5 J	1.35 - 1.65				1.40	1.42	
2.0 J	1.80 - 2.20	1.71	1.74	1.92			
2.5 J	2.25 - 2.75				2.12		
3.0 J	2.70 - 3.30		2.17	2.50			
3.5 J	3.15 - 3.85	2.52					

If this Section does not apply check box ☐

Long PW Calibration Table (record average output values in User mode) with a 550  $\mu$  fiber.

ENERGY	TOLERANCE	REP. RATE: 5 Hz	8 Hz	10 Hz	12 Hz	15 Hz	20 Hz
0.5 J	0.45 - 0.55	0.48	0.49	0.50	0.49	0.47	0.46
0.6 J	0.54 - 0.66						
0.7 J	0.63 - 0.77						
0.8 J	0.72 - 0.88						
1.0 J	0.90 - 1.10					0.91	
1.2 J	1.08 - 1.32				1.04		
1.5 J	1.35 - 1.65		1.35	1.23		1.30	
2.0 J	1.80 - 2.20	1.50			1.48		
2.5 J	2.25 - 2.75		1.87	1.81			
3.0 J	2.70 - 3.30	2.22					

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ELECTRICAL SAFETY TEST		UNITS	TOLERANCE	MEASURED	PASS	FAIL
Ground Resistance		OHMS	$\leq 0.27$			
Unit OFF	Forward Leakage	NAµA	$\leq 450$			
	Reverse Leakage	NAµA	$\leq 450$			
Unit ON	Forward Leakage	NAµA	$\leq 450$			
	Reverse Leakage	NAµA	$\leq 450$			

**Note:** If any item of Electrical Safety fail, contact service department immediately. Do not put H30 System back into operation mode. System may need to be returned to service department for service.

Form Submitted By: Andres Yañez Date: 06/11/18

  
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 Area Informática  
 CENCOMEX S.A.  
06/11/18

  
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 06 NOV 2018  
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