SPECTROLAB
A Boeing Company

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Service Bulletin

#SB1019

Issue Date:	**October 30, 2019**
Subject:	**SpectroLink upgrade to internal electronics board for improved robustness against voltage transients.**
Affected Product(s):	**SpectroLink Integration Box used with SX Series Searchlight Systems.**
Part Numbers impacted:	033537 033537-1
Serial Numbers impacted:	1 – 174
Compliance:	Mandatory
Compliance time:	6 months from date of this bulletin.

Warning:

Do not operate SpectroLink in open configuration or with covers removed. Follow all safety precautions noted in product operation manuals.

Introduction

This Bulletin is to:
1. Alert owners and operators of SX series searchlight systems with SpectroLink configuration, and the potential of premature failure of internal micro-electronic components due to power quality condition (voltage transient conditions). The failure of one of the internal electronic components will result in the limitation of some or all searchlight functions and capabilities.
2. Advise owners of SpectroLink of design improvement updates for improved reliability and robustness against power quality deficiencies.
3. Contact Spectrolab Customer Service for additional information on product update implementation.

Background Summary:

Spectrolab has noticed a trend in SpectroLink failures. These failures are believed to be caused by deficiencies in power quality conditions. Voltage drop-outs and/or voltage spikes can exceed the input characteristics of some of the SpectroLink electronic components and result in failure. These conditions can be the result of deficient starter generators, rebuilt starter generators, loose connections, corroded connections, damaged cables and harnesses, and/or use of non-Spectrolab cables and harnesses.

Units from serial numbers 1 – 174, or with a manufacture date between June 2006 to June 1, 2018, can be updated with added circuit protection.

Units from serial number 175, or with a manufacture date after June 1, 2018, on forward have new added circuit and component protection to withstand power condition deficiencies.

Some SpectroLink units may already have been repaired and/or updated with the new circuit protection. Contact Customer Service for verification.

Recommendation(s):

1. Verify if your device serial number is affected.
2. Contact Spectrolab Customer Service to verify if your SpectroLink device has been repaired for compliance with this update.
3. Contact Spectrolab Customer Service to make arrangements for product update if applicable.
4. Perform assessment of all cables and connectors to ensure solid connections.
5. Consider performance of starter generator for voltage transients. The voltage transient shall not exceed 40V for 50ms to ensure proper operation.

Instructions:

How to verify the serial number or manufacture date of your device.
1. Locate the SpectroLink Box on your aircraft by referring to your installation documentation package. If you do not have this data available, locate the searchlight system Junction Box (J-Box) and follow the cable harness that runs from the J-Box J1 connector to the SpectroLink Box J3 Connector, as shown in *figure 1*. The SpectroLink Box is sometimes located directly on top of the Junction Box, as shown in *figure 2*.
2. Locate the name plate on the SpectroLink Box, as noted in figure 3.
3. Note items identified in figure 3.
4. Contact Spectrolab Customer Service to verify if this Service Bulletin is applicable.
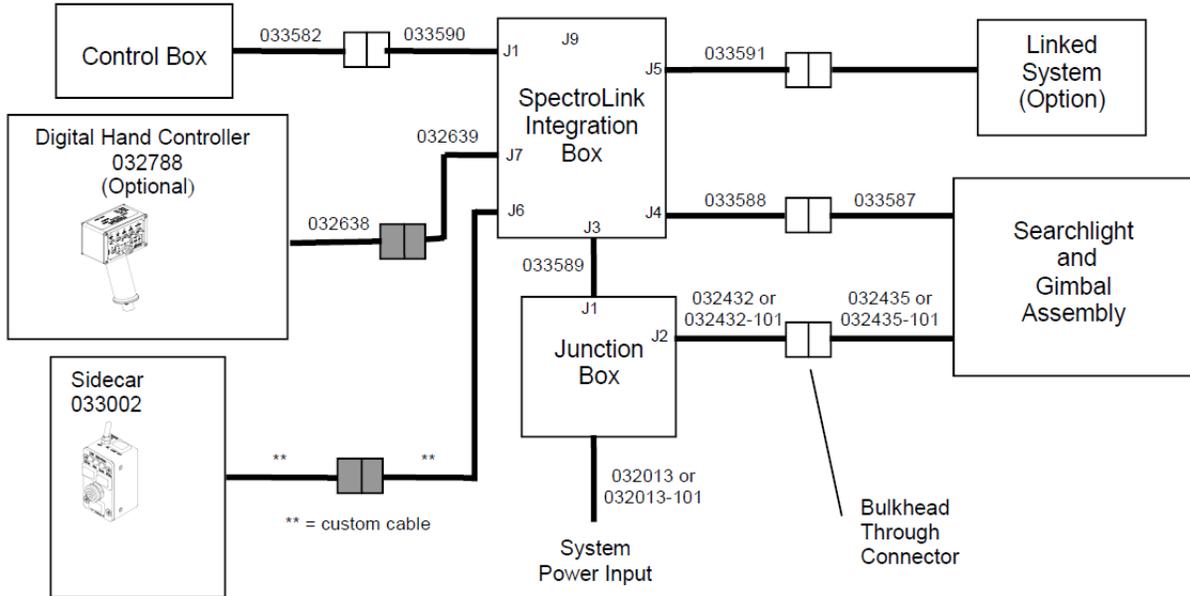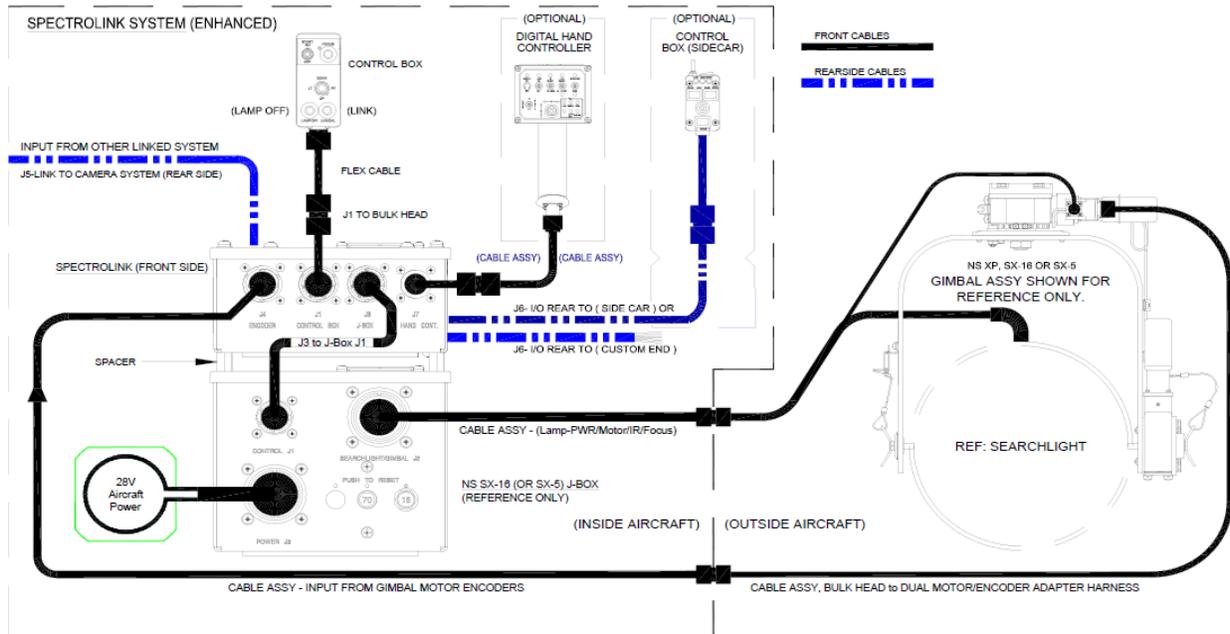
Figure 1: System Layout

Figure 2

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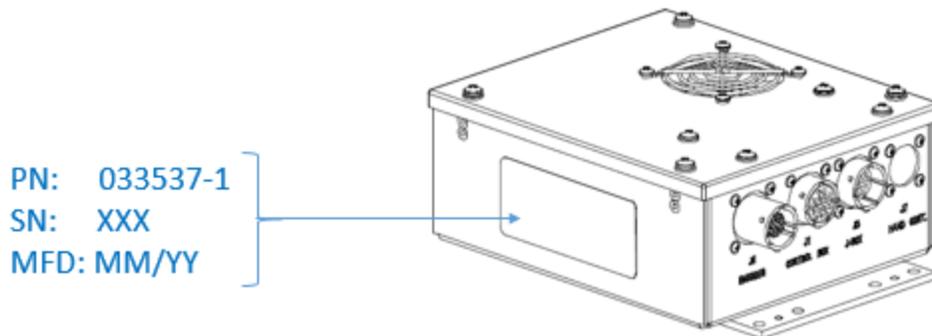
Figure 3

PN: 033537-1
SN: XXX
MFD: MM/YY

Reference Documents:

Doc 033600   SpectroLink Operation Manual
Doc 033584   Interface Document

Definitions:

ILS: Acronym for Spectrolab, Illuminations Product Line
J-Box: Junction Box
MFD: Manufacture Date
MN: Model Name
PN: Part Number
SN: Serial Number
SPL: Acronym for Spectrolab

Contact Spectrolab Customer Service

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