

## ENGINEERING CHANGE NOTIFICATION FORM

<b>ECN: 80200577</b>	<b>REV: 1</b>	<b>ISSUE DATE: 4/28/2019</b>						
<b>TYPE OF CHANGE: Firmware Modification</b>								
<b>DETAILED DESCRIPTION OF CHANGE:</b> Firmware release 2.42 for FireFly-II related models includes fix for assigning known default characters to fields with NULL characters in NMEA messages.								
<b>REASON FOR CHANGE:</b> Bug fixes and functionality improvements.								
<b>PRODUCTS AFFECTED:</b>								
<table border="1"> <thead> <tr> <th>Firmware Version</th> <th>Model</th> </tr> </thead> <tbody> <tr> <td><b>Firmware 2.41 and previous</b></td> <td>FireFly-IIA FireFly-1C ULN-1100 ULN-2550 LC_1x1 Single Oven (GPS-500) LC_1x1 Double Oven Mini-JLT</td> </tr> </tbody> </table>			Firmware Version	Model	<b>Firmware 2.41 and previous</b>	FireFly-IIA FireFly-1C ULN-1100 ULN-2550 LC_1x1 Single Oven (GPS-500) LC_1x1 Double Oven Mini-JLT		
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Notes:								
<b>AVAILABILITY:</b>								
<b>MILESTONE</b>		<b>DATE</b>						
ECN release for firmware release files		4/28/2019						
<p><b>Release 2.42 for FireFly-II related models provides the following improvements:</b></p> <p><b>Issue 1:</b></p> <p>Firmware 2.41 and previous will have NMEA buffer(s) with all "0" values if NMEA message(s) with incorrect checksum is received or no NMEA message(s) is received at certain second of time. The firmware will output incomplete \$GPRMC message due to NULL ('0x0') value in RMC status field provided by the empty NMEA buffer.</p> <p><b>Resolution:</b></p> <p>Firmware 2.42 fixes this issue by correcting NULL characters to known default characters such as 'V', 'N', and 'E' in NMEA buffers before generating NMEA messages.</p>								
<b>REFERENCE DOCUMENTS/ATTACHMENTS:</b>								
<table border="1"> <thead> <tr> <th>CONTACTS</th> <th>NAME</th> <th>EMAIL</th> </tr> </thead> <tbody> <tr> <td>Software Engineer</td> <td>Yun Lan</td> <td>yun@jackson-labs.com</td> </tr> </tbody> </table>			CONTACTS	NAME	EMAIL	Software Engineer	Yun Lan	yun@jackson-labs.com
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PLEASE CONTACT JACKSON LABS TECHNOLOGIES, INC. WITH ANY QUESTIONS