



	Description			
Sensor		SAMS 121f04 500.0 sa/sec, 200.0 Hz		
Location		LAB1P4, ER8, Strata Front, Seat Track 2		
	Plot Type	Spectrogram		
Notes:				
•	This color	spectrogram spans16 hours		
	starting at	GMT 09-Jun-2016/08:00.		
•	This plot c	learly shows a strong vibratory		
disturbance		e starting at 13:02 and ending at		
	about 18:3	out 18:33 on this day.		
• The first, black, vertical dashed line n when current started to flow in the EX		lack, vertical dashed line marks		
		ent started to flow in the EXPRESS		
Rack 8 (ER8), Locker 8 location at about				
GMT 12:34.		4.		
• The second, black, vertical dashed		l, black, vertical dashed line marks		
	when the strong vibratory disturbance			
	associated	with Manufacturing Device		
activity in the ER8, Locker 8 location.				

Regime:	Vibratory	
Category:	Equipment	
Source:	Manufacturing Device 2016-06-09	







Description			
Sensor	NRT List Request 1.0 sa/sec, 1.0 Hz		
Location	LAB1P4, ER8, Locker 8 Current		
Plot Type Current vs. Time			
<ul> <li>Notes:</li> <li>This plot of ER8, Locker 8 current versus time spans the same time frame as the spectrogram from the previous page.</li> <li>This plot shows that current draw starts at about 12:34 and that very large current draw starts at about 13:02, which is coincident with the strong, vibratory disturbance shown qualitatively on the previous page.</li> <li>The large electrical current and strong vibrations documented on these first 2 pages implies that the Manufacturing Device was</li> </ul>			

Regime:	Vibratory
Category:	Equipment
Source:	Manufacturing Device 2016-06-09





25 -

20 ·

15 ·

10 -

5 ·

0 -

08:00

CURRENT (A)

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Description			
Sensor	SAMS 121f04 500.0 sa/sec, 200.0 Hz		
Location	LAB1P4, ER8, Strata Front, Seat Track 2		
Plot Type	Spectrogram		
<ul> <li>Notes:</li> <li>This plot is an overlay of the plots on the previous 2 pages.</li> <li>We see here a strong correlation between ER8, Locker 8 current draw and vibrations measured near Strata on that same rack.</li> </ul>			

Regime:	Vibratory
Category:	Equipment
Source:	Manufacturing Device 2016-06-09





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Description				
Sensor	SAMS 121f04 500.0 sa/sec, 200.0 Hz			
Location	LAB1P4, ER8, Strata Front, Seat Track 2			
Plot Type	Cumulative RMS vs. Freq.			
<ul><li><u>Notes</u>:</li><li>This plot sl</li></ul>	nows cumulative RMS versus			
<ul> <li>This plot si frequency if GMT span 09:00, which drawing cu Device, (2) when curre appear that fully active at 16:00 wl Manufactu</li> <li>Strong spea 145-147 H appreciable Locker 8 lo Device, and accounts for</li> </ul>	traces for 3 different one-hour s: (1) RED TRACE starting at ch was before ER8, Locker 8 starts rrent for the Manufacturing of GREEN TRACE starting at 13:00 ont was flowing, but it did not the Manufacturing Device was e yet, & (3) BLUE TRACE starting nen it was apparent that the ring Device was doing its thing. ctral components mainly at about z or so appear when there was e current draw from the ER8 ocation of the Manufacturing d this narrow frequency range or much of the difference relative			
to no activity from that Locker 8 location. The blue trace shows higher RMS levels owing primarily to broadband (turbulant)				
vibrations was fully a	when the Manufacturing Device ctive.			
<ul> <li>The traces shown on f</li> </ul>	shown on the following pages			

Regime:	Vibratory	
Category:	Equipment	
Source:	Manufacturing Device 2016-06-09	





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sams2, 121f04 at LAB1P4, ER8, \$ 500.0000 sa/sec (200.00 Hz) ∆f = 0.015 Hz, Nfft = 32768 P = 49.1%, No = 16096 -4	Strata Front, Seat Track 2:[59.70 -40.09 159.95]           SAMS2, 121f04, LAB1P4, ER8, Strata Front, Seat Track 2, 200.0 Hz (500.0 s/sec)           H           Start GMT 09–June–2016, 161/09:00:00.001	Sum anning, k = 107 = 3600.00 sec.
$10^{-5}$ = 10^{-6} = 10^{-7} = 10 <sup>-7</sup> = 10^{-7} = 10^{-7} = 10 <sup>-10</sup> = 10^{-10} = 10^{-10} = 10 <sup>-11</sup> = 10^{-12} = 10^{-12}		Lo Plo Notes: • Thi cale dur wh to t Ma • Par cur on
0 20	0 40 60 80 100 120 140 160 180 Frequency (Hz)	200 15-Jun-2016.11:03:47.520

Description			
Sensor	SAMS 121f04 500.0 sa/sec, 200.0 Hz		
Location	LAB1P4, ER8, Strata Front, Seat Track 2		
Plot Type	Power Spectral Density		
Notes:			
• This is a pl	This is a plot of power spectral density		
calculated from acceleration measurements during a one-hour period starting at 09:00,			
which was before any current started flowing			
to the ER8, Locker 8 location where the			
Manufacturing Device is located.			
• Parseval's	• Parseval's theorem was used to compute the		
cumulative RMS versus frequency (red) trace			
on an earli	on an earlier page.		

Regime:	Vibratory	
Category:	Equipment	
Source:	Manufacturing Device 2016-06-09	





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Description			
Sens	sor g	SAMS 121f04 500.0 sa/sec, 200.0 Hz	
Locati	on L	_AB1P4, ER8, Strata Front, Seat Track 2	
Plot Ty	pe F	Power Spectral Density	
<ul> <li>Notes:</li> <li>This is a plot of power spectral density calculated from acceleration measurements during a one-hour period starting at 13:00, which was after current started flowing to the ER8, Locker 8 location but before any serious activity from the Manufacturing Device location.</li> </ul>			
<ul> <li>Parseva cumula trace or</li> </ul>	Parseval's theorem was used to compute the cumulative RMS versus frequency (green) trace on an earlier page.		

Regime:	Vibratory
Category:	Equipment
Source:	Manufacturing Device 2016-06-09





sams2, 121f04 at LAB1P4, E 500.0000 sa/sec (200.00 Hz) Δf = 0.015 Hz, Nfft = 32768 P = 49.1%, No = 16096 -4 I	R8, Strata Front, Seat Track 2;[59.70 –40.09 159.95] SAMS2, 121f04, LAB1P4, ER8, Strata Front, Seat Track 2, 200.0 Hz (500.0 s/sec) Start GMT 09–June–2016, 161/16:00:00.001	Sum Hanning, k = 107 Span = 3600.00 sec.
$10^{-4}$		
10 <sup>-12</sup> + 0	20 40 60 80 100 120 140 160 180 Frequency (Hz)	200

Description			
Sensor	SAMS 121f04 500.0 sa/sec, 200.0 Hz		
Location	LAB1P4, ER8, Strata Front, Seat Track 2		
Plot Type	Power Spectral Density		
<ul> <li>Notes:</li> <li>This is a plot of power spectral density calculated from acceleration measurements during a one-hour period starting at 16:00, which was after current started flowing to the ER8, Locker 8 location and while we saw serious activity from the Manufacturing Device location.</li> <li>Parseval's theorem was used to compute the cumulative RMS versus frequency (blue)</li> </ul>			

Regime:	Vibratory
Category:	Equipment
Source:	Manufacturing Device 2016-06-09





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