

Technical Support Bulletin 2019-04	Tilt Sensor Hardware Change	October 22, 2019
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Alert Level: IMPORTANT

Instruments: Sediment Trap

Software Versions: N/A

Hardware: New Tilt Sensor Hardware (Sediment Traps with serial numbers 14869 and higher)

Subject: New Tilt Sensor hardware does not provide heading data

Summary: Sediment Traps with McLane serial number 14869 and higher have new Tilt Sensor hardware. The new Tilt Sensor hardware does not provide compass (heading) data. Figure 1 below shows a data offload from the new Tilt Sensor.

Sediment Traps with the previous Compass/Tilt Sensor hardware are not affected by this change. If firmware is updated on a Sediment Trap that has the previous Compass/Tilt Sensor hardware, data offload will continue to display Heading data as shown in Figure 2. Contact mclane@mclanelabs.com with any questions.

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DEPLOYMENT DATA
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Event 01

Scheduled start time: 10/09/19 20:00:00
Event start time:    10/09/19 20:00:03
Event stop time:     10/09/19 20:00:29
Event duration:      26 seconds

           Aligned      Battery
           Y            Voltage  Temp. (C)  Tilt (deg)
Start:    Y            20.4    -10.8     23
Stop:     Y            19.7    -10.7     23

SENSOR DATA
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Sensor sampling interval: 10 minutes

           Date           Time           Event      Tilt (deg)  Temp. (C)  Aligned
10/09/19, 20:10:00      1            23.3        -11.0054    Y
10/09/19, 20:20:00      1            23.3        -11.7549    Y
10/09/19, 20:30:00      1            23.3        -12.3799    Y
10/09/19, 20:43:00      2            23.3        -12.8513    Y
10/09/19, 20:53:00      2            23.3        -13.5764    Y
. . . ← Shortened for space
10/10/19, 06:24:00      19            23.2        -22.2877    Y
10/10/19, 06:37:00      20            23.2        -21.9346    Y
10/10/19, 06:47:00      20            23.2        -21.9296    Y
10/10/19, 06:57:00      20            23.2        -21.8296    Y

10/10/19 07:00:32 Shutdown condition: Schedule completed.

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Figure 1: New Tilt Sensor, no Heading Reading

SENSOR DATA

Sensor sampling interval: 1 minute

Date,	Time,	Event,	Tilt,	Hdng,	Temp,	Aligned
04/10/17,	21:01:01,	1,	92.1,	275.7,	-18.4,	Y
04/10/17,	21:02:01,	1,	92.3,	275.9,	-18.2,	Y
04/10/17,	21:03:01,	1,	92.2,	275.7,	-18.2,	Y
04/10/17,	21:04:01,	1,	92.4,	276.0,	-18.2,	Y
04/10/17,	21:05:01,	1,	92.4,	276.1,	-18.3,	Y
04/10/17,	21:06:01,	1,	92.2,	275.9,	-18.3,	Y
04/10/17,	21:07:01,	1,	92.4,	276.1,	-18.4,	Y
04/10/17,	21:08:01,	1,	92.2,	276.0,	-18.4,	Y
04/10/17,	21:09:01,	1,	92.5,	276.5,	-18.4,	Y
04/10/17,	21:10:01,	1,	92.3,	275.8,	-18.5,	Y
• • • ← Shortened for space						
04/11/17,	07:26:01,	21,	92.4,	276.0,	-17.8,	Y
04/11/17,	07:27:01,	21,	92.3,	276.0,	-17.8,	Y
04/11/17,	07:28:01,	21,	92.3,	276.0,	-17.9,	Y
04/11/17,	07:29:01,	21,	92.5,	276.2,	-17.9,	Y
04/11/17 07:30:35 Shutdown condition: Schedule completed.						

Figure 2: Previous Compass/Tilt Sensor includes Heading