



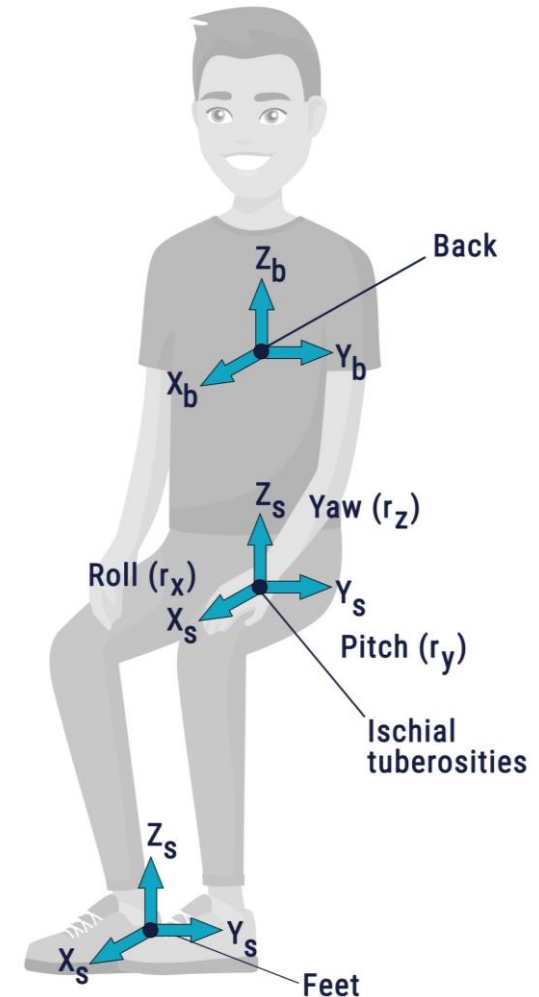
Model 4404AX

Advanced 6DoF Vibration Recorder

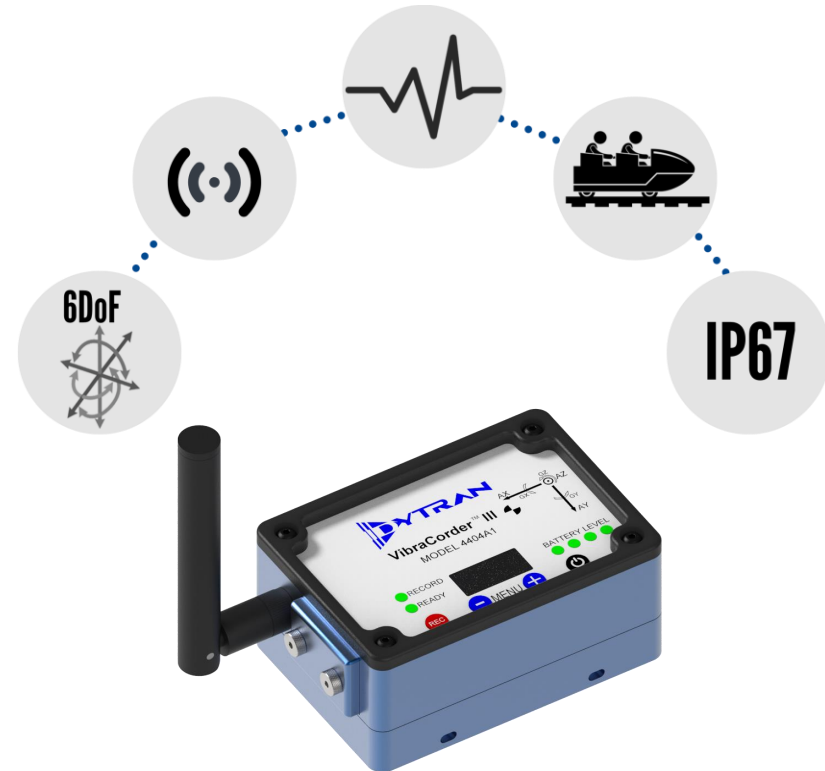
Designed in accordance
with ASTM F2137-16

What can this model do for you?

- Model 4404AX captures 6 degrees of freedom vibration data that helps detect unwanted whole-body vibration measurements to improve ride design and patron safety
- The VibraCorder™ III device replaces expensive and less user-friendly dynamic measurement systems
- Offered in 5 ranges: $\pm 2g$, $\pm 5g$, $\pm 10g$, $\pm 30g$, $\pm 200g$
- Records multiple data channels for several days
- Compact, battery operated, environmentally sealed (IP67) package fits into tight spaces
- Programmable axis orientation (swapping of axis according to mounting in application)
- Easily installed, user-configurable, software optimizes data collection while built-in firmware handles acceleration in three axes as well as gyroscope data on the removable Micro SD card



Key Features



1. Built-in low noise, MEMS based triaxial accelerometers & gyroscopes provide 6DoF data.
2. Designed in accordance with ASTM F2137-16
3. Remote triggering of multiple units via wireless mesh network (2.4Ghz ISM band)
4. Environmentally sealed, IP67 rating
5. $\pm 3\%$ transverse sensitivity for more reliable test data
6. Easy to install, user configurable software
7. Multiple selection of sampling rates includes 120, 500, and 720 samples/sec as described in ASTM F2137-16
8. Wide dynamic range



Designed in accordance with ASTM F2137-16

The following characteristics, derived from the ASTM F2137-16 standard, are pertinent design parameters for the 4404AX:

- Sampling rates
- Low pass filter corner frequencies
- Filter topology
- Transverse sensitivity
- Resolution
- Linearity



Specification Summary

Physical	Performance
<ul style="list-style-type: none">▪ Weight: 600 grams▪ Rugged anodized aluminum housing▪ Four 10-32 mounting screws▪ MicroSDHC card compatible▪ IP67 environmental rating	<ul style="list-style-type: none">▪ $\pm 3\%$ transverse sensitivity▪ Acceleration ranges: $\pm 5g$, $\pm 10g$, $\pm 30g$, $\pm 200g$, $\pm 2g$ (4404A1, A2, A3, A4, A5 respectively)▪ Angular rate ranges ($^{\circ}/\text{sec}$): ± 150, ± 50, ± 150, ± 250, $\pm 20,000$, ± 50
Device Features	Software Features
<ul style="list-style-type: none">▪ Records multiple data channels for several days▪ Line of site remote triggering (up to 50ft)▪ Programmable axes orientation▪ Simultaneous sampling of gyro & accelerometer data▪ Traceable calibration per ISO17025 requirements	<ul style="list-style-type: none">▪ User configurable setup<ul style="list-style-type: none">▪ Selectable sampling rate▪ Triggering methods▪ Data view & processing▪ Low & high pass filtering▪ FFT analysis▪ Data export formats: JPEG, Text, MATLAB, TDMS, UFF58, SQ Lite



Applications

- Whole-body vibration testing in theme park ride engineering
- Seating dynamics testing
- Human vibration testing for transportation
- Can also be used in vibration testing on off-road vehicles, including earth moving machinery, industrial trucks and agricultural tractors
- To discuss specific applications, please call Dytran to speak with one of our experienced Sales Engineers



VibraCorder™ III System Includes

Model 4404AX



Micro SD Card: SanDisk Extreme Plus 32GB



Software Toolkit



Charger & USB Cable



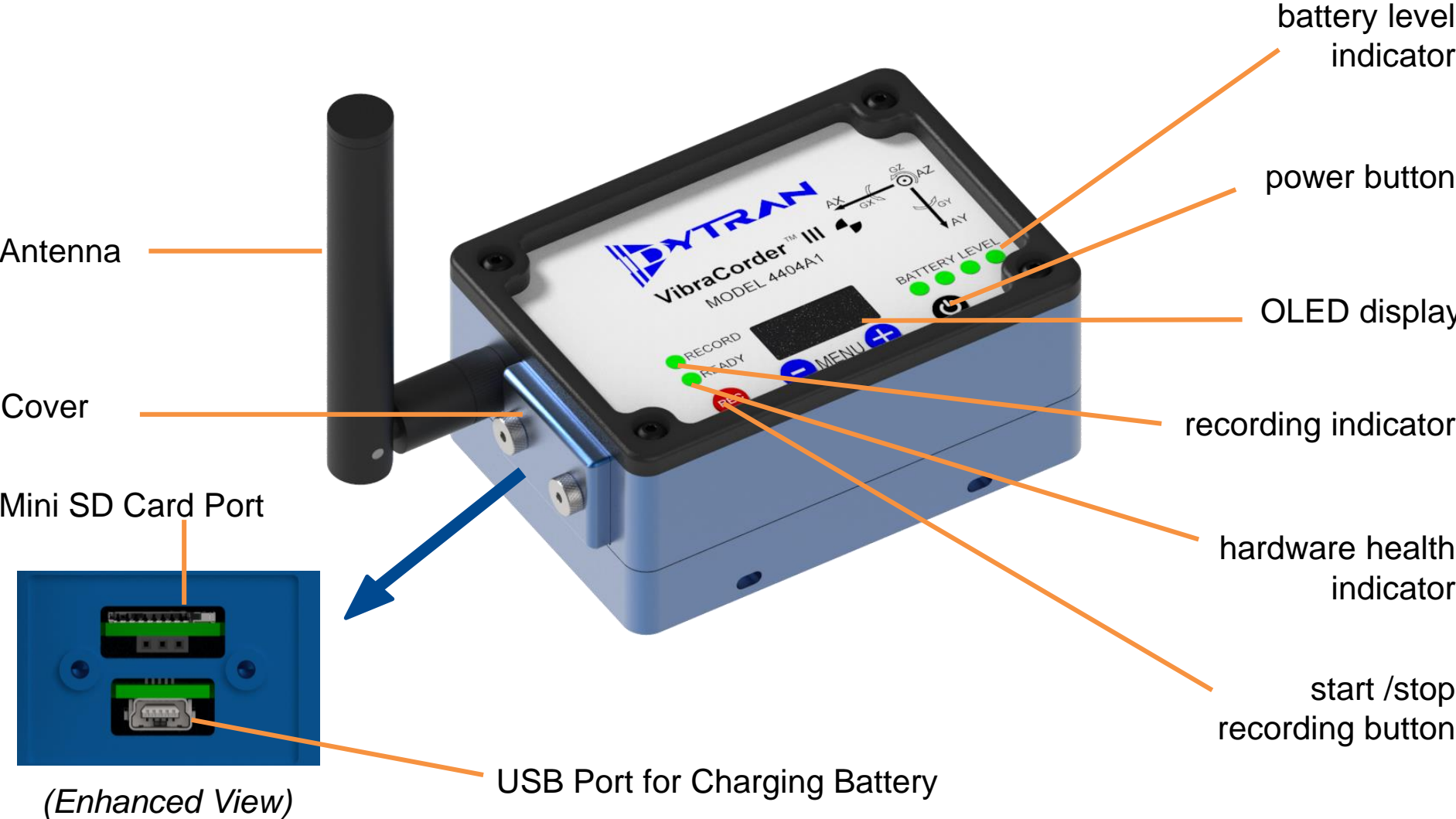
Torque Wrench



Suggested, not included:
Micro-SD card reader, USB 3.0 cable

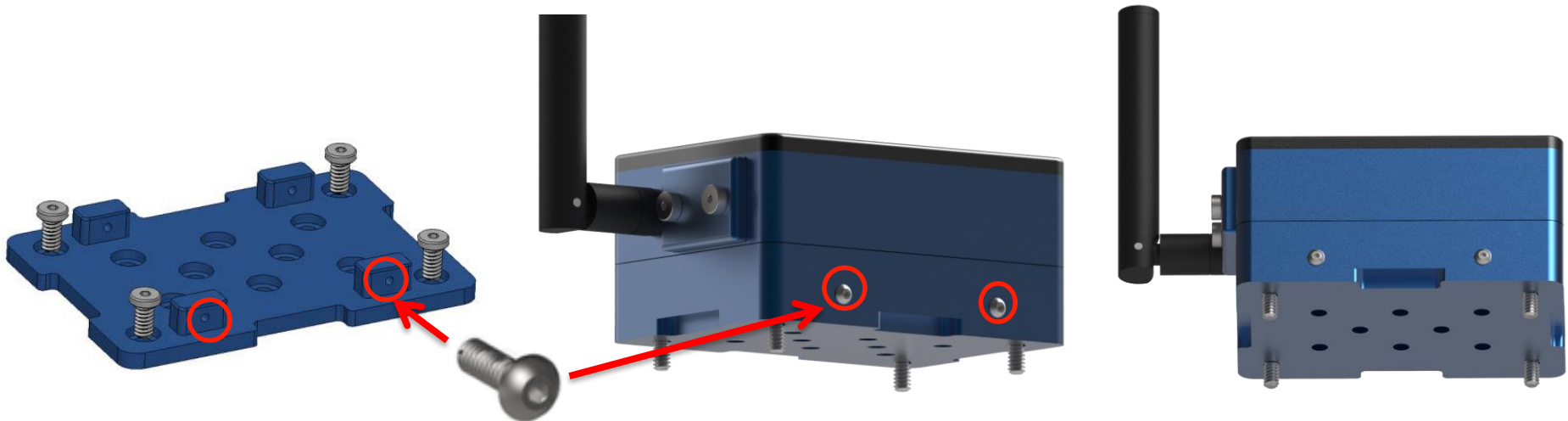


Product Functionality



Mounting

1. Model 4404AX can be mounted using the supplied removable mounting plate and screws.
2. Select a desired hole pattern as outlined on 127-4404AX drawing (2" x 2", 2" x 1" or 1" x 1"), drill and tap four 10-32 holes x 0.35" minimum depth.
3. Mount the plate to the test surface using the supplied four 10-32 low profile head screws. Torque screws to 28lb-in.
4. Mount Model 4404AX onto mounting plate as shown below.



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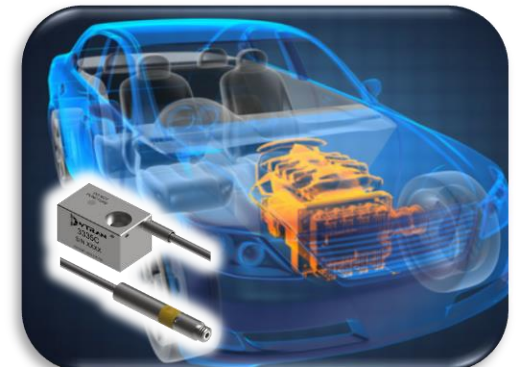
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