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# iPad Rotor Balancing Kit

## Quick Start Guide

### Description

Motionics iPad rotor balancing kit is an iPad-based rotor balancer. This kit includes an accelerometer to measure machine vibration and a digital tachometer to measure machine rotational speed. Accelerometer and tachometer signals are acquired through the 2-Channel DAQ box mounted on the back of an iPad and passed to the iRotorBalancer App via iPad lightning port. In the iRotorBalancer App, user can follow the guides to complete single plane balancing (1-channel 4-run method or 2-channel vector method) or two-plane balancing (inbound or overhung) using vibration and optical signals. A PDF test report can be created after each balancing work and saved to local report manager for future access.

### Included in the Package:

- Accelerometer with cable and magnetic base 1x
- Digital Tachometer with data cable and magnetic tripod 1x
- 2-Channel DAQ box (integrated on the iPad cover) 1x
- Protective carrying case 1x
- iRotorBalancer App 1x
- iVibraMeter App 1x
- VibraTestPro App 1x

### Quick Start

1. Attach the iPad cover with DAQ box to the back of the iPad
2. Connect the accelerometer to CH1 of the DAQ box
3. Connect tachometer data cable to output port (marked as ▼) of the tachometer and CH2 of the DAQ box
4. Plug in the lightning cable of the DAQ box to the lightning port of the iPad
5. Clean the plane to be balanced, apply a piece of reflective tape to the rotor and use it as 0 degree reference in balancing process
6. Attach the accelerometer to the testing machine using magnetic base
7. Hold the trigger button on tachometer and press Menu/Lock button one time to keep laser on (repeat the same button combination can turn laser off)
8. Mount the tachometer using magnetic tripod and make sure laser is aligned with accelerometer axis
9. Launch iRotorBalancer App and select corresponding balancing method based on the machine configuration
10. If it's first time use, calibrate the system on the Calibration page of the App. You need a 1G standard shaker for calibration. Also, you can manually enter the calibration value included in the package
11. Vibration velocity is recommended for balancing. Vibration acceleration should be selected for calibration