



# 9043 Wireless Three Channel Vibration Analyzer & Data Collector

## Instruction Manual



## **Description**

The 9043 is a 3-channel vibration analyzer and data collector with 2 plane balancing capability. It features true simultaneous 3 channel capture for versatility, 24-bit A/D converter for high resolution, and wireless communication to an Android tablet running the TPI Ultra III app.

Used in conjunction with Ultra III software the 9043 features include:

- 2/10Hz to 1kHz ISO standard for assessing Unbalance, Misalignment or Looseness
- 1kHz to 10kHz BDU range for identification of Bearing Condition
- High resolution (0.2 Hz) frequency spectra from 2 Hz to 10 kHz
- Single and Dual Plane Balancing as well as No tachometer (4-run) Balancing
- Screen Cursors - Single, Harmonic, Moving Harmonic, Sideband, and Time/Frequency for waveform
- Demod & Coast Down, Phase & Orbit Plots, Gap Voltage Display
- Download Routes with Inspection points
- Clear, easy-to-read and navigate touchscreen
- Proximity Probe Compatible
- Triaxial Sensor Compatible
- Wireless or USB-C Charging
- Long Battery Life – 15 Hours Continuous
- Data transfer by USB-C where Bluetooth is not permitted
- Supplied in protective, magnetic, rubber boot for hands free use.
- DC to 30kHz Frequency Range
- 100 to 51,200 Line Resolution
- 108dB Dynamic Range

## Overview

### Front View

BNC connectors for Channel 1, 2, and 3 inputs  
When performing 2 plane balancing, Channel 3 is used as a Tachometer input.

Protective rubber boot with magnets and belt loop



Wireless charging,  
Place this area onto  
wireless charging pad.

### Side View

Power Indicator LED

Bluetooth Indicator LED

On/Off Switch

USB-C Charging / Data Transfer Connection Port



## **Charging the 9043**

The 9043 can be charged using a wireless charging pad or the USB-C connection port.

### **Wireless Charging**

Place the 9043 face down on the charging pad. Make sure the charge indication icon on the 9043 is placed on the pad. Please see the charge indication icon below.



### **USB-C Charging**


Connect the USB-C cable to the USB-C connection port on the 9043. Plug the USB puck into a suitable outlet. See the 9043 USB-C connection port below.



The GREEN power indication LED will flash while the 9043 is charging.

## **Turning the 9043 On and Off**

### **Powering On**

Press & hold the  on/off button to turn the 9043 on. The GREEN power LED will illuminate.

### **Powering Off**

Press and hold the power button  until the 9043 turns off.

## Using the 9043

1. Turn the 9043 on. The 9043 is ready to be connected to an Android tablet running the Ultra III app.
2. Open the Ultra III app on the Android tablet & enter Meter Mode. The Ultra III app will search for the 9043. When connected to the Android tablet the Bluetooth LED will illuminate
3. Make required accelerometer/tachometer/sensor connections to the BNC connectors on the 9043.
4. Use the Ultra III app to perform measurements. Please see the Ultra III app instruction manual for additional information.

**NOTE:** The 9043 can also be connected to the Android tablet directly using the USB-C data/charging cable. This is useful in areas where Bluetooth connection is not allowed.

**CE DOC**

**Declaration of Conformity**

We

**SUMMIT**  
58, Gaetbeol-ro, Yeonsu-Gu, Incheon, Korea

DECLARE ON OUR SOLE RESPONSIBILITY THAT THE PRODUCT

**KIND OF EQUIPMENT : Wireless Vibration Analyzer**  
**TYPE-DESIGNATION : TPI9043**

This EC-Declaration of conformity is following the provisions of EMC DIRECTIVE 2014/30/EU, RED DIRECTIVE 2014/53/EU.

It is confirmed that a sample of the product has been tested and found in conformity with below standard(s):

**EN 300 328 V2.2.2**  
**EN 301 489-1 V2.2.3**  
**EN 301 489-17 V3.2.4**  
**EN IEC 61326-1:2021**  
**EN 55011:2016+A2:2021**  
**EN IEC 61000-0-2:2019**  
**EN 61000-3-3:2013/A2:2021**

Detailed specification of the tested product shown in the following test Report(s):

**RF Test Report : AGC03285210303EE11**  
**RF Test Report : AGC03285210303EE04**  
**CE Test Report : KES-EM241684**

EU Authorised Representative  
Test Products International (EU) LTD  
Ground Floor,  
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Dublin, D02 P593  
Ireland

**Date of issue : 24, JUNE, 2024**

**Authorized By :**



## **SPECIFICATIONS**

<b>9043 Signal Parameters</b>	
Simultaneous Channel Capture	3 Channels
Input options	IEPE (Powered and Unpowered) DC or AC voltage
Amplitude	+/-0.5V, +/-5V, +/-30V
Frequency Range / Resolution	1-Channel Mode   DC to 30kHz   100 to 51,200 Lines 3-Channel Simultaneous   DC to 10kHz   100 to 12,800 Lines
BDU - Bearing Noise - Frequency Range	1kHz - 10kHz
Dynamic Range	108dB
A/D Converter	24 bit
<b>9043 Sensor Inputs</b>	
Sensor Connection	3-Standard BNC Connectors
Sensor Types	millivolt sensors (e.g. accelerometer, velocity, displacement, temperature, tacho etc.)
Triaxial Accelerometer Compatible	Yes
Proximity Probe Compatible	Yes
Tachometer Input	Yes
<b>9043 Information</b>	
Connection	Bluetooth or USB-C
Battery Life (Continuous Use)	Up to 15 hours
Charger	5V @ 1A
Operating Temperature	32 to 113°F (0 to 45°C) – charging    32 to 140°F (0 to 60°C) – discharging
Storage Temperature	-4 to 140°F (-20 to 60°C)
Dimensions & Weight	3.9" x 7.4" x 2.0" (98mm x 187mm x 50mm) / 15.1oz (427g)
<b>9043 Headphone Compatible</b>	
Bluetooth (A2DP)	Yes
<b>ULTRA III App</b>	
Screen Cursors	Single, Harmonic, Moving Harmonic, Sideband, and Time/Frequency for waveform
Band Alarms	Yes
Peak to Peak Displacement	Yes
No tachometer (4-run) Balancing	Yes
Single & Dual Plane Balancing	Yes
Balancing RPM (Range) Low Limit	120 RPM
Diagnostic Features	Demod, Coast Down, Phase & Orbit Plots, Gap Voltage
Ultra III Route Transfer	
USB-C	Yes
Bluetooth	Yes
Cloud	Yes



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210-160196

IC (Industry Canada) ID: 23872-FSCBT806A



## **STANDARD ACCESSORIES**

A9043 – Protective rubber boot with magnets and belt loop

A9113 – USB-C to USB-C data/charging cable

A9114 – Universal USB charging puck

Other standard accessories vary by kit configuration.

## **WARRANTY**

This product is warranted to the purchaser against defects in material and workmanship for three years from the date of purchase.

**Covered by Warranty:** Repair parts and labor; or replacement of the product at company's option. Normal transportation charges to the purchaser are also covered.

**Not Covered by Warranty:** Damages to the product which are the result of abuse, improper use or maintenance are not covered. Any other expense, consequential damages, incidental damages, or incidental expenses including damages to property are not covered. Transportation expenses to the company are not covered.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

**To Obtain Warranty Performance:** Include with the product: your name, address, phone number, written description of the problem and proof of purchase date. Carefully package and return to:

**TPI, Inc.**  
9615 SW Allen Blvd.  
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USA  
503-520-9197  
www.testproductsintl.com

**TPI Canada**  
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Milton, Ontario L9T 5B7  
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**TPI, Europe Ltd..**  
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www.tpieurope.com

**Implied Warranties:** Any implied warranties including implied warranties of merchantability and fitness for a particular purpose, are limited in duration to three years from date of purchase. To the extent any provision of this warranty is prohibited by federal or state law and cannot be preempted, it shall not be applicable. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

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