### Quick Start Guide

### CMS-4400

Turbine Blade Tip Cold Clearance and Casing Roundness

Wi-Fi Measurement System

**PHILTEC®**

[www.philtec.com](http://www.philtec.com/)

## Hardware

The system comprises:

* 4 gap and angle sensor Wi-Fi modules with 20 mm range
* 1 Wi-Fi access point
* 1 USB power bank (powers Wi-Fi access point)
* 1 Windows tablet
* 1 USB charger with type A and type C outputs
* USB charging cables
  + 4 type A to type C (sensor Wi-Fi modules)
  + 2 type C to type C (tablet and power bank)

## Operation

## Note: All sensors, power bank, and tablet should be fully charged. Sensors should have been charged with the previous 2 weeks. Connecting to a charging source will reset the sensor scan timer.

## Mount sensors into their row positions.

## Connect access point to power bank. This creates the network used by the sensors and tablet.

## Turn on tablet (pin code “philtec” if requested) and start the CMS Control software.

## Wi-Fi CMS Control

## Confirm that the correct serial numbers are selected for each row

## Press “WiFi Scan Start” to begin searching for the sensor modules

## Once all 4 rows are detected, the application will connect and the “Connection Start” button will turn green. The application is now reading data from the modules

## Press “Display” button to view data from all 4 rows. Once sensor standoff distance is checked (less than 20mm), press “Tare Distance, Press to Reset”. Tare distance for each channel can be independently reset by pressing the row Tare value or all 4 can be reset by pressing the “Tare Distance” top row label.

## Press “Graph” button to view graph showing tare distance (Y axis) to angle (X axis)

## All readings are saved to file when “Save Data To File” button is selected (green).

## Troubleshooting

## Sensor modules not detected after 2 minutes.

## Confirm access point is plugged into the power bank and power bank is charged

## Plug modules into charger (or power bank) to confirm state of charge and to reset module scan timer

## Confirm that tablet is connected to the Access point (network name is on label on top of access point.