

USER MANUAL

LORA KEY & MONITOR APP



1. Connect the IoT SoundSensor™ to a LoRa network

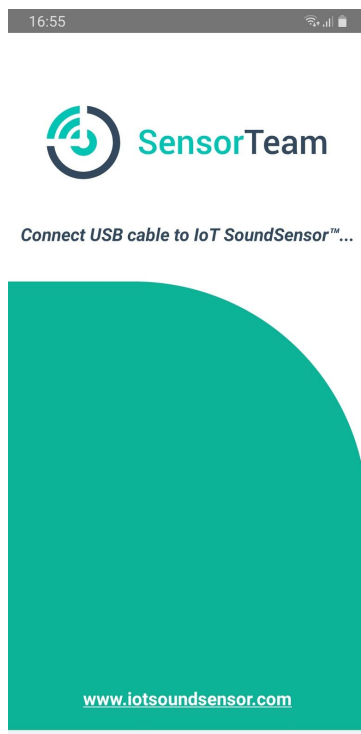
- A. Download SensorTeam's mobile app from [Google Play Store](#).



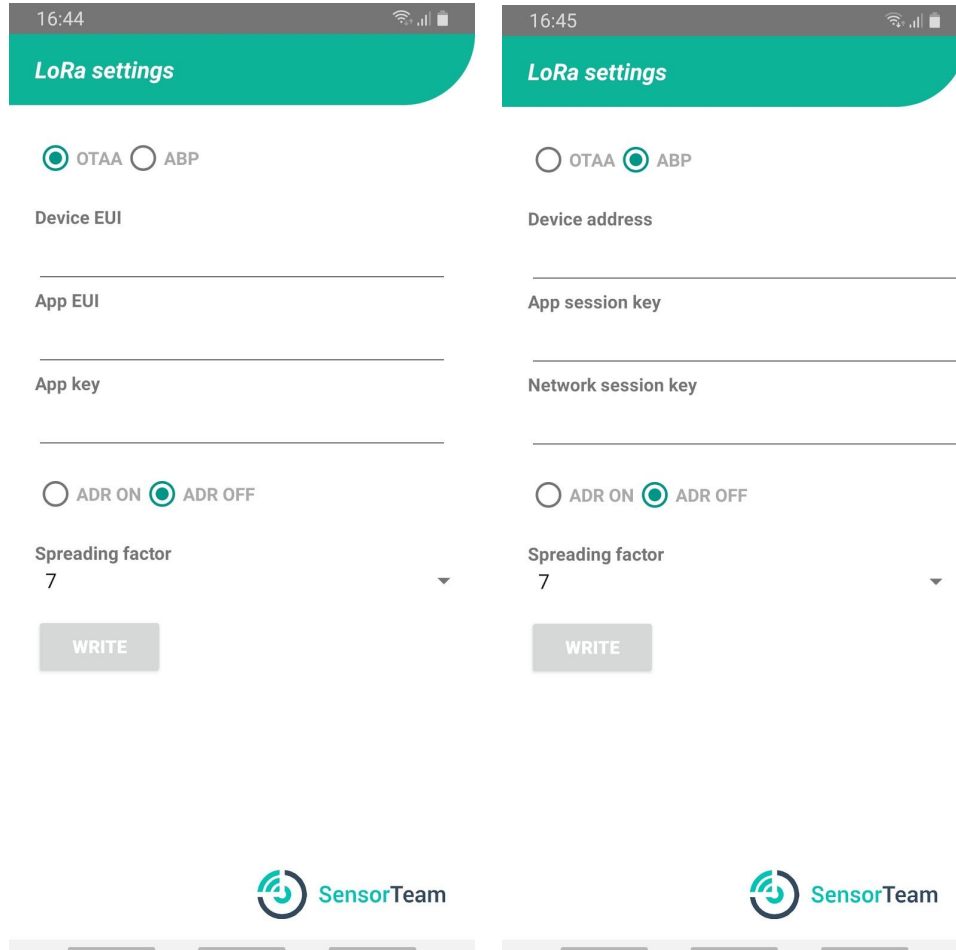
- B. Connect the IoT SoundSensor™ to your mobile Android device by using the USB cable (included).



- C. Open the mobile app manually if it does not open automatically.



D. Choose OTAA or ABP.



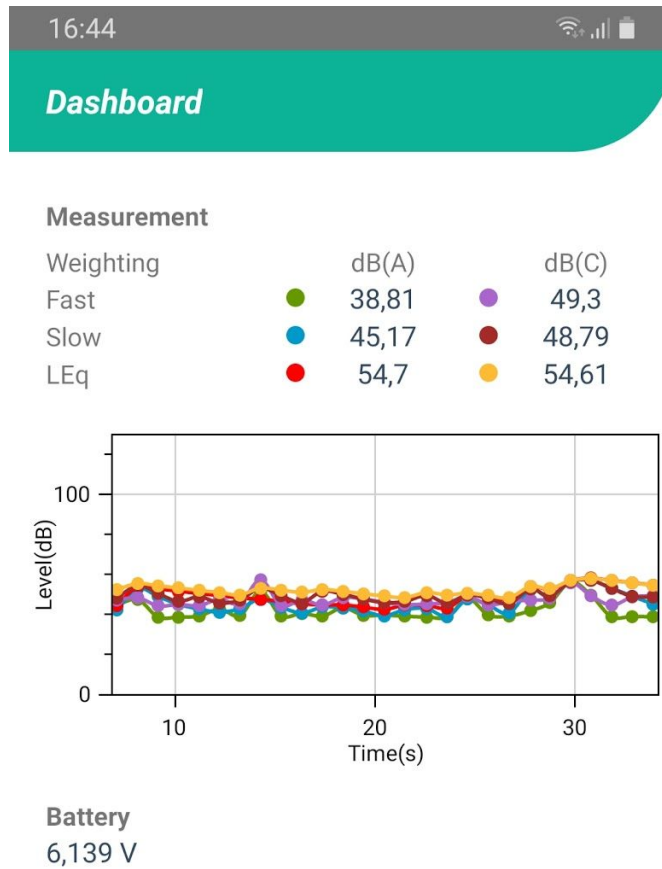
The image displays two side-by-side screenshots of the 'LoRa settings' application interface. Both screenshots show the time 16:44 and 16:45 respectively, along with signal strength and battery icons. The left screenshot (16:44) shows the 'OTAA' option selected with a radio button, and the 'ABP' option unselected. Below this, there are input fields for 'Device EUI', 'App EUI', and 'App key'. At the bottom, the 'ADR ON' option is unselected, 'ADR OFF' is selected, and the 'Spreading factor' is set to 7. A 'WRITE' button is visible at the bottom. The right screenshot (16:45) shows the 'OTAA' option unselected and 'ABP' selected. Below this, there are input fields for 'Device address', 'App session key', and 'Network session key'. At the bottom, the 'ADR ON' option is unselected, 'ADR OFF' is selected, and the 'Spreading factor' is set to 7. A 'WRITE' button is visible at the bottom. Both screenshots feature the SensorTeam logo at the bottom center.

- E. Enter the LoRa network keys.
- F. Click "Write" and wait for the "Write successful!" confirmation.
- G. The IoT SoundSensor™ is now connected with the LoRa network.
- H. Choose "ADR ON" or "ADR OFF" to set the *Adaptive Date Rate*.
- I. Choose the "Spreading factor".



2. Live monitoring

In order to monitor live sound level measurements click on “Dashboard”.



3. Additional comments

- The LoRa keys consist of a string of many characters. Advise: copy the keys from an email or document on your phone.
- The key boxes are validated and each box requires a certain quantity of hexadecimal values (other characters are not accepted).
- Your local LoRa network provider (or TTN) will provide you with the LoRa keys and tell you to use ABP or OTAA.
- Spreading factor and Adaptive Data Rate settings are depending on network features and usage.
- The app will show the keys that are currently saved in the sensor. This can take a few seconds if the IoT SoundSensor™ is still starting up.
- Return to menu via back button on Android device.
- Device info will display the hardware and software version.
- On Wikipedia you will find more information about the meaning of different sound measurements and weighting.

4. LoRa key example

Over The Air Activation (OTAA)

Device EUI: CAEC28432577CBAD
App EUI: AECD48553277CDAB
App key: ACC523D45E5C369E514B77476645344C

Activation by Personalisation (ABP)

Device address: 152167C4
App session key: 8F8D9A3F01E3E15F90D379EC68EF40F3
Network session key: 60D5C32DFF2A5F643B27E4D1673A4221

