



# Noise monitoring terminal Nor1530

Norsonic noise monitoring case Nor1506

NorMonit Nor1022

NorReview Nor1026

NorWeb

## Features

- See your noise data online via the web
- Listen to recorded events!
- Use wireless technology (Bluetooth, Wifi, GPRS or 3G)
- Self check and calibration of microphone
- Log weather data (wind, rain and more)
- Get notified by email or SMS when set thresholds are reached!



The Nor1530 noise monitoring terminal is a robust, cost efficient solution for your outdoor noise monitoring. Equipped with the class 1 Nor140 sound level meter and latest generation communication modules, noise data can be reliably and securely transferred to your office. Even a file containing the recorded sound of an event can be evaluated for source identification. The system can be self contained, or remotely controlled by the powerful noise monitoring software NorMonit. If set up to communicate with NorMonit, the unit can provide real time data, automatically detect noise events and send email or SMS when threshold limits are breached. Meteorological data can be logged in parallel with the noise data. Your measurement data can be presented and post processed in NorReview software, or accessed from anywhere through a web browser thanks to the NorWeb software. A number of noise monitoring terminals can be controlled by a central server running NorMonit. The Noise Monitoring Terminal can also be delivered as portable case model (Nor1506).



*Nor1530 – compact noise monitoring terminal*

More and more continuous noise monitoring is required in noisy environments. authorities often have noise regulations for construction work, traffic, railways, airports, and harbour activities, and require the noise levels to be documented. At the same time sound emission from events such as concerts, motor sport races and other recreational activities are obliged to be monitored. Reliable and ready to deploy monitoring stations are an important tool for such surveys.

For noise measurements lasting several days, it is clearly a benefit to be able to download noise data from a remote monitoring station to a PC in your office. With Norsonic noise monitoring terminal Nor1530 and the NorMonit software we offer a convenient access to your noise data. Using the latest in high bandwidth wired and wireless technology, we can guarantee you access to noise data from anywhere you have a computer with an Internet connection. You can even download and listen to the noise in order to identify the real source of a noise event.

## Nor1530 compact noise monitoring terminal

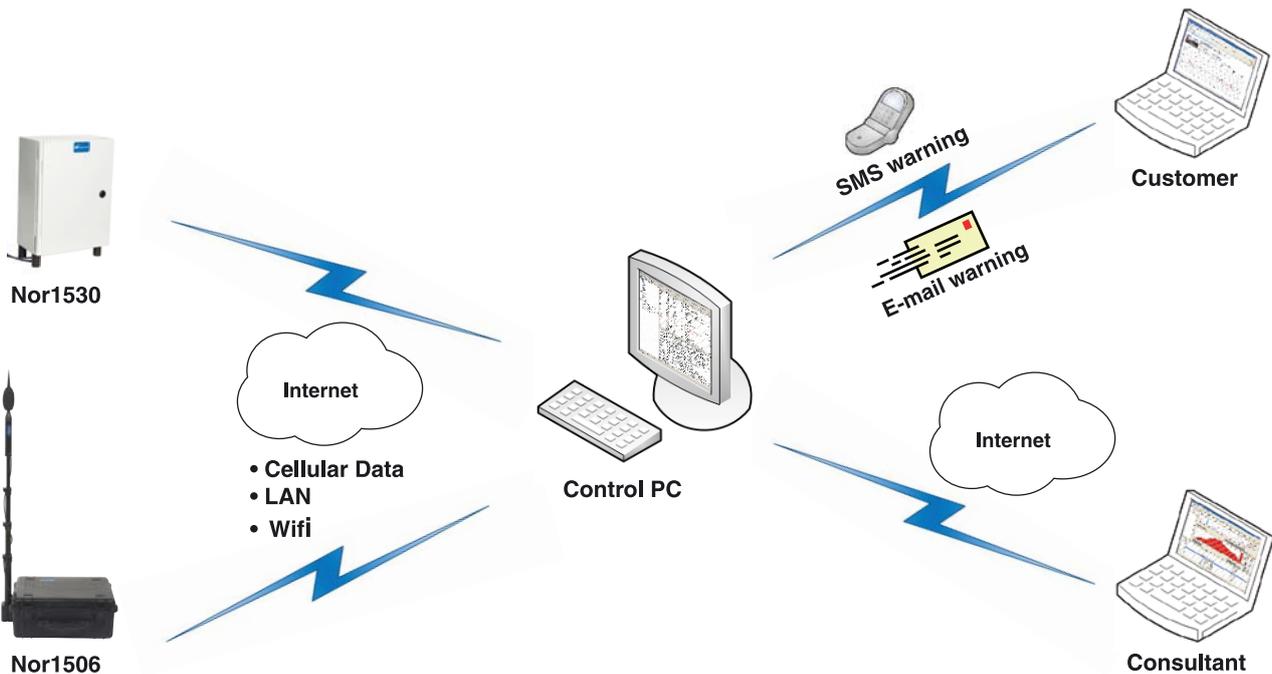
The Nor1530 noise monitoring terminal is designed to be a robust and cost effective solution for collection of noise data. The built in backup battery will ensure un-interrupted power supply even with mains failure. Noise data is measured using the Nor140 sound analyser, which has been independently type approved by PTB (the German national metrology institute) and complies with IEC 61672 Class 1. The sound analyzer can also be taken out of the cabinet and used as a stand-alone sound level meter. The Nor1530 can be an autonomous installation where the measurement data is stored in the Nor140's SD card, or it can be connected to a network through LAN cable, Wifi, Bluetooth, ADSL or a cellular modem (GPRS, 3G, HSDPA/UMTS). Thanks to advanced trigger features it is possible to automatically record the sound before and during an event so that the real noise source can be easily identified later.

### System components

- Nor1530 noise monitoring terminal or Nor1506 portable noise monitoring terminal
- Communication module (GPRS/3G, LAN, ADSL- or Wifi- unit)
- NorMonit controlling software
- NorReview post processing and presentation software
- NorWeb webpage, realtime presentation of noise data on the Internet



Nor1530 compact noise monitoring terminal



Network diagram of typical system configuration.

## NorMonit

The NorMonit software can control one or several monitoring stations. It controls which noise parameters to log ( $L_{Aeq}$ ,  $L_n$ ,  $L_{max}$ ,  $L_{min}$ , 1/1 and 1/3 octave bands etc) and the time resolution required (freely selectable). The setup can automatically change depending on the time of the day or the day in the week. Trigger levels can be set on any of the logged parameters, and the action to take when a trigger is set can be defined to sending SMS/email, or start of audio- or video recording.

The NorMonit software guarantees that if the system loses the connection between the host and the noise terminal it will re-established connection automatically and continue the data transfer.

The basic software collects the measurement files from the terminals at preset intervals.

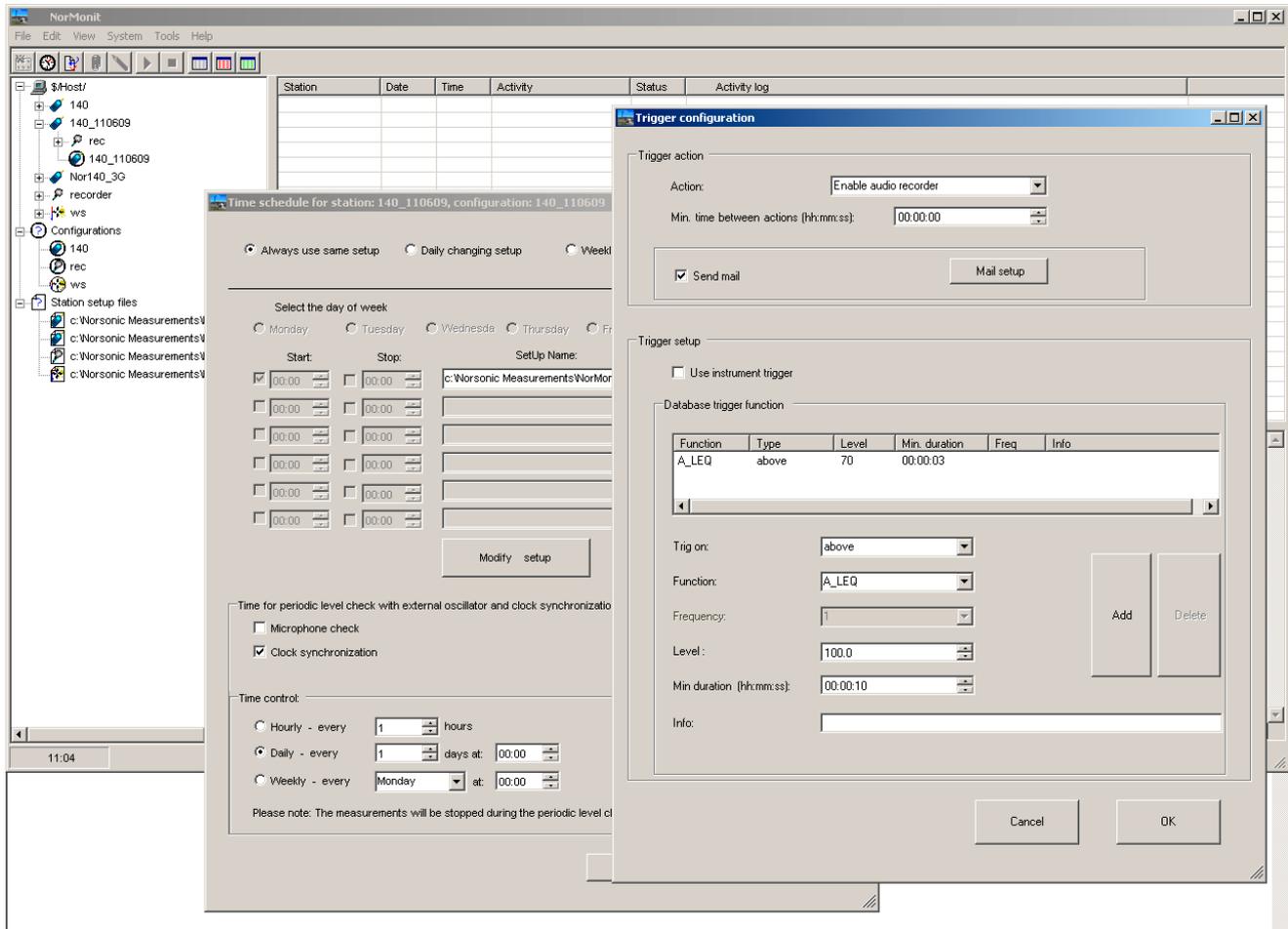
With the real time option you will have the noise data on your screen as the noise is created, and with advanced trigger features warnings can be issued through SMS or email when noise breaches occur. Noise source identification is often an important issue in order to determine the source of the noise. With the audio option, your system will automatically record any event that breaches a defined noise level.

A weather station can also be integrated with the Nor1530, so that important weather data such as wind direction, wind speed and precipitation can be logged. Several noise terminals can be controlled from one single computer. A daily verification of the microphone will be executed automatically.

For taking benefit of all the possibilities available through NorMonit such as video recording and continuous sound recording, the advanced Nor1520 Noise Monitoring Terminal is required. See separate data sheet for further information.

### NorMonit

- Controls 1-100 stations
- Automatic change of measurement setup for each hour and each day
- Advanced trigger features, relative to fixed level or background noise level
- Can synchronize noise data with audio recordings, video recordings and weather data.
- Runs on Windows XP and Vista



NorMonit can be configured to change the setup of the noise measurements at hourly and daily intervals. Triggers can be defined to start audio and video measurements and also sending of SMS or email.

## NorReview - Displaying, calculation and reporting software Nor1026

NorReview is a powerful tool used to display data on line from the environmental terminals. The same software is also used for advanced calculation and reporting such as  $L_{den}$  calculation according to ISO 9613-2. An advanced marker identification system is built in. This allows the user to set individual markers and treat each marked area differently, for example report them separately or exclude them from the overall calculation.

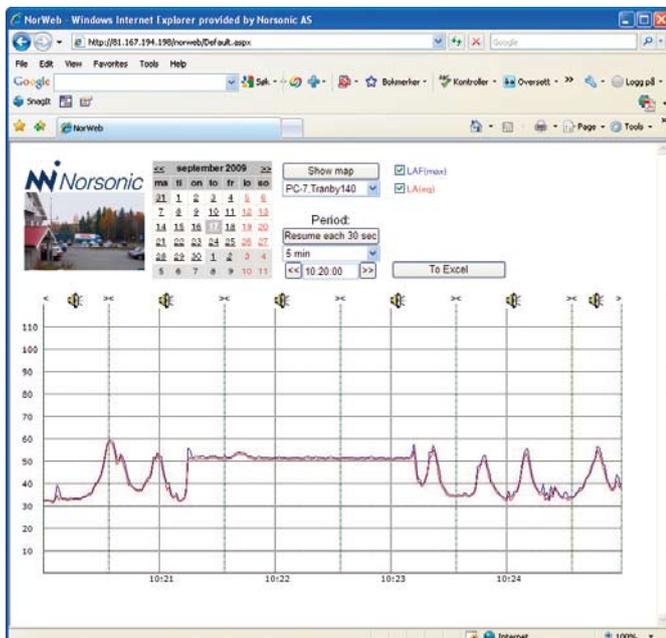
Data is displayed on line as level vs. time and as level vs. frequency if required. Playback of recorded sound or video is easily done by clicking on markers in the L(t) display.

NorReview with realtime option gives direct access to noise data as they happen, and one can remotely connect to a central database from anywhere in the world.

For more information see separate datasheet.

## NorWeb

Our noise monitoring system can be set up to present a webpage with noise data. The NorWeb presents real time data and by using a calendar function, historical data can be viewed. Noise data from a number of stations can be accessible through a pull down menu. Detailed noise data can be easily downloaded as a Microsoft Excel® file. The web solution is suitable when noise data needs to be shared with more people and it can also be password restricted.



With the NorWeb application and realtime options, the user can access noise data directly from the web.

### Ordering information:

#### Nor1530 Compact noise monitoring terminal

- includes class 1 sound level meter Nor140 with options 4,5, 6, 7. Backup battery (10Ah sealed lead acid maintenance free) and battery charger.

#### Nor1506 Portable noise monitoring suitcase

- Nor1506A Portable environmental suitcase with 6 sun screen
- Nor1506/140 Internal mounting kit for Nor140
- Nor1506/12V 12Vdc input connector
- Nor1506/Batt 10Ah chargeable battery
- Nor1506/Chrgr Charger for external charger of 1 pc. Nor1506/Batt
- Nor1506/Stand Side-mounted brackets and removable 1.4m microphone stand for Nor1212

#### Nor140 Class 1 Precision Sound analyzer

- Nor140/4-7 Required for use with NorMonit
- Nor140/1 1/1 octave filter band
- Nor140/3 1/3 octave filter band
- Nor140/8 Audio recording
- Nor140/16 Instrument trigger

#### Communication module

Depending on available network (Wifi, Bluetooth, LAN, ADSL, GPRS, 3G)

#### NorServer

Ready configured PC/server with NorMonit and SQL database (realtime option)

#### Nor1022 NorMonit

- Nor1022/01 Continuous sound recording
- Nor1022/03 Real time - 4GB SQL database
- Nor1022/04 Control and read-in module for weather station

#### NorReview 1026

- Nor1026/01 Professional Event and Calculation module
- Nor1026/02 Enhanced display module.
- Nor1026/03 Multiple file read-in module
- Nor1026/04 Special NorReview sound player
- Nor1026/06 Read-in of measurement data from a SQL-compatible database

#### NorWeb

Web presentation of noise data

#### Outdoor microphone

- Nor1212 Microphone weather protection kit
- Nor1210 All weather outdoor microphone
- Nor512 Power supply and adaptor kit for Nor1210 microphone

Pole and tripods, cables and other accessories, see [www.norsonic.com](http://www.norsonic.com)