

BONO



Integrated stand-alone siren with an in-built battery backup

The first truly stand-alone siren **Bono** combines the possibilities of sophisticated electronic sirens with compact dimensions, and a battery backup. It can be used both in the exterior and interior, industrial areas and noisy production halls, open-pit mines, and in a variety of other areas. Bono can reproduce alert tones and voice messages from its internal memory, broadcast live from an external microphone as well as transmit audio signals from other external sources. The electronics

of the siren including a battery and 100W pressure loudspeaker is embedded in a resistant box made of aluminium and stainless steel, while maintaining the low weight and minimum dimensions of the siren. A wide range of optional accessories is offered to communicate with, control, or to power the **Bono** siren using a solar panel. As standard, **Bono** is supplied with a big horn in the 100B version; however, upon request, it can also be supplied with a small horn in the 100S version.



Solarpack

By adding a solar pack as an option, **Bono** becomes completely self-contained, with no need for external power supply. Using a suitable activation method (e.g. by means of a satellite or sensors), **Bono** is a fully autonomous device usable anywhere – in a jungle during road construction or in a swamp of an open-pit mine. In addition, there are various options of compatible sensors that can be connected directly to the siren.



100W RMS



Acoustics

A specially-shaped horn made of aluminium alloys and stainless steel in combination with a powerful 100 W pressure loudspeaker provides high-quality acoustic coverage of the desired area. A virtually infinite number of voice messages with their pre-defined priorities, interruptions, or combinations can be recorded, stored in and conveyed by the Bono siren equipped with the MiniAudiomodule (mAUD11).



Communication

- eight binary inputs and two binary outputs
- S232/RS485 interface
- aBUS interface for other modules of the aSCADA® system
- FFSK analogue modem support
- Ethernet line interface (the optional module required)
- WiFi/X-bee interface (the optional module required)
- GPRS interface (the optional SmartBridge+GPRS modules required)

Autodiagnostics



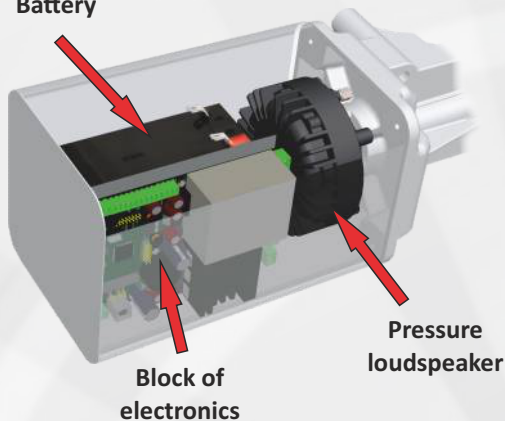
The **Bono** siren has a number of in-built self-diagnostic functions providing that customers opt for two-way communication between the siren and control centre. The battery status and systems functionalities can be monitored remotely by an operator, thus there is no need for a technician to be sent to the siren, which significantly saves the operational costs.

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Battery



Block of electronics

Pressure loudspeaker

	Bono 100B (big horn)	Bono 100S (small horn)
Amplifier power	100 W RMS (electronically adjustable)	
Acoustic pressure	130 dB(A) / 1 m	128 dB(A) / 1 m
	100 dB(A) / 30 m	98 dB(A) / 30 m
Basic assembly weight	10 kg	7 kg
Power supply	110 V AC or 230 V AC	
Battery type and capacity	7 Ah leaded battery	
Time in the operating mode	30-minute blare /sinusoidal/ or 120-minute speech at full power	
Working temperature range	-40°C to +85°C	

Optional modules



Remote control RCT11

Both RCT11 versions – the push-button RCT11 Basic and the display-and-encoder RCT11 Professional - can control the siren using either wireless communication or cable/line interface RS485.



Solar pack

This hardware package provides power supply to the siren from a solar panel. Apart from the solar panel, it contains a simple bracket/holder and a set of basic cable assemblies.

Radio station

A professional radio station ensures radio communication with the siren. Depending on the selected application, a one-way or two-way communication system can be supplied. It is necessary to specify the radio frequency band before the delivery of the siren, while the siren needs to be equipped with the MiniRadiomodem mRDM11.



Operator's control panel OCP11

The OCP11 control panel is used in sophisticated warning systems or operating centres and it can replace several single-purpose devices. In-built automation processes allow the creation of an unattended warning and notification system.



Additional Communication Interfaces



The **Bono** siren can be supplemented with additional modules for wireless communication and control, so the siren can be controlled by the devices supplied by the Telegrafia Company or by other manufacturers.



Mini Radiomodem mRDM11

In case the siren needs to be controlled by radio, it is necessary to add the mRDM11 module to the siren. It makes it possible to transmit analogue radio signals (similar to the FFSK modem).