Wireless controlled WSS siren is designed for acoustic and optical alarm signalling and may be outdoor installed. It features radio unit for communication with CB32, CB32G and CBP32 alarm control panels. It may also operate with any other alarm system equipped with WSM control module from Elmes Electronic. WSS is powered by external 15VDC adapter (included in the set) and alternatively can be powered from 13,8 VDC power line of wired alarm system. External powering of the WSS is necessary for charging backup battery installed in the unit. Without efficient and charged battery the WSS will not operate properly: communication with control panel is upheld while acoustic and optical signalling would fail to operate. The battery ensures 24-hour operation of the WSS in the event of an external power failure.

Along with acoustic and optical alarm signalling, the WSS also emits useful signals on system arming and disarming by hand held transmitter (remote). It features also anti–sabotage alarming on attempts of removing the unit from wall or opening its cover. In each case, WSS starts alarming and wirelessly notifies control panel. It also notifies of external power supply failure, which is then signalled by the control panel.

Description of jumpers JP1…JP4:

JP1 - selection of acoustic modulation speed (fast/slow).
JP2 – selection of acoustic modulation mode,
JP3, JP4 - selection of signalling modes when arming & disarming by hand held remote (if the function is set on in control panel), as below:

JP3	JP4	Pulse signalling mode
ON	ON	strobe flashes + loud sounds
OFF	ON	strobe flashes + quiet sounds
any	OFF	strobe flashes, no sounds

Operating range test prior to siren installation

**IMPORTANT: the test should be carried out with siren not programmed to CB32 panel!** To perform a radio range test, connect AC adapter cables and the battery to the WSS and within 30 seconds (the tamper alarm disability period) close the top cover and tighten protective screw. Select the radio reception range test function in the CB32/ CBP32 control panel and place the WSS with the control panel as close as possible to the intended installation places. With a help of a second person, activate radio transmissions in the siren by plugging in and unplugging the siren's AC adapter. Every time the AC adapter is plugged in and unplugged from the wall outlet, a pulsating radio transmission lasting few seconds is triggered, which can be observed and evaluated on 16-point bar graph scale of the control panel display, but only if the WSS has not been previously programmed into the panel. A signal level less than six points of the scale disqualifies selected installation place of the WSS and/or the control panel. In this case, another location should be checked. Sometimes even a small movement of devices significantly changes the signal level.

Programming WSS siren to CB32 control panel.

Detailed description can also be found in CB32/CBP32 control panel manuals.
1. In the CB32/CBP32 control panel menu, select line 29 in the wireless detector learning procedure and trigger the WSS radio transmission in one of two following ways:
   a. unplug and plug-in the AC adapter to the wall outlet while the WSS battery is connected and its case is closed (recommended),
   b. connect WSS battery when mains power is disconnected,
The text "OK – correct" confirms the successful procedure termination.
2. Set desired alarming time at OUT1 of the control panel that equals to the alarming time of the wireless WSS unit.
3. Set desired control panel radio link test check interval with the WSS (in range of 1 to 99 minutes) - 20 minutes as standard and then set on radio link testing function.
4. Define control panel reaction to CB32-WSS radio link failure. If a loud alarm is to be set on besides link failure signalling in the CB32, the function must be set on in the panel. If only failure is to be signalled, the function should be set off.
5. If hand remote arms/disarms alarm system option is selected, the armed/disarmed beep signalling by external siren should be set on.

**WARNING! To avoid the risk of electric shock due to high voltage generated on the electronics board during an acoustic alarm, WSS installation procedure must be carried out with power supply off and battery (+) terminal disconnected. Additionally, prior to installation and during maintenance, alarm zone 29 in the control panel should be disabled in order to avoid sabotage alarm.**

Installation

The WSS siren should be installed in a visible but hard-to-reach place. The power supply wire should be routed through the hole in the wall right under the siren, then through the hole in the bottom of the siren housing and finally connected to WSS board terminals in the way depending on the selected power supply mode:

-DC terminal	_Power supply negative (-) wire in any mode._
+DC terminal	_Power supply positive (+) wire, if supplied power pack 15VCD is used._
+13,8V terminal	_Power supply positive (+) wire, if powered from +13,8VDC line of wired alarm system panel._

NOTICE: Connecting positive 15VDC wire to +13,8V line voltage terminal would overcharge the battery leading to its destruction, while connecting +13,8V line to +DC terminal would never fully charge the battery.

Next, connect red wire to the battery "+" terminal (terminal "-" should be already connected) and close the WSS cover. Finally, connect AC adapter to the wall outlet. It should be noticed that, if battery is deeply discharged, it may take longer for the WSS to be ready for proper operation. Full charging of the battery may take up to 24 hours.

NOTICE: During first 30 seconds after power supply connection, anti-sabotage switches of the WSS siren are disabled allowing safe installation and top cover closure. Failure to close siren cover after that time may trigger sabotage alarm.

It is recommended to regularly test the siren by triggering alarms. If the siren fails to start alarming or the alarm is too short, the battery should be replaced. Apart from regular testing, it is recommended to replace battery every 3-4 years.
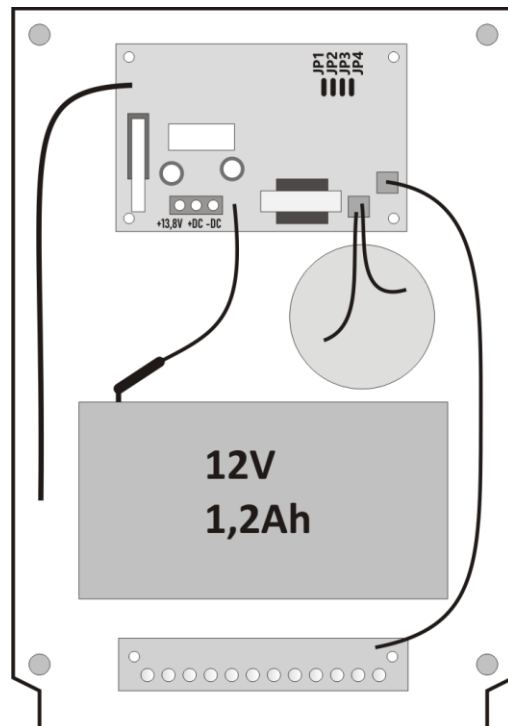
Specification

- power supply: AC adapter, 15VDC (included), or 13,8VDC wired alarm power supply line,
- current draw: 20/100mA typical/max,
- maintenance free 12V/1.2Ah battery,
- standby current draw from internal battery: 12mA,
- acoustic siren 105dB siren and optical LED alarm signalling,
- 433,92MHz radio band, sensitivity -105dBM, e.r.p. <10mW,
- external dimensions: (L/W/D) 246/153/65mm.

Manufacturer

ELMES ELEKTRONIK, 54-611 Wroclaw, Poland, ul. Awicenny 2,
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Manufacturer's Limited Warranty: