

CROW ELECTRONIC ENGINEERING LTD.

("Crow") - WARRANTY POLICY CERTIFICATE

This Warranty Certificate is given in favor of the purchaser (hereunder the "Purchaser") purchasing the products directly from Crow or from its authorized distributor.

Crow warrants these products to be free from defects in material and workmanship under normal use and service for a period of 24 months from the last day of the week and year whose numbers are printed on the printed circuit board inside these products (here the "Warranty Period").

Subject to the provisions of this Warranty Certificate, during the Warranty Period, Crow undertakes, at its sole discretion and subject to Crow's procedures, as such procedures are from time to time, repair or replace, free of charge for materials and/or labor, products proved to be defective in materials or workmanship under normal and service. Repaired products shall be warranted for the remainder of the original Warranty Period.

All transportation costs and in-transit risk of loss or damage directly or indirectly, to products returned to Crow for repair or replacement shall be borne solely by the Purchaser. Crow's warranty under this Warranty Certificate does not cover products that is defective (or shall become defective) due to: (a) alteration of the products (or any part thereof) by anyone other than Crow; (b) accident, abuse, negligence, or improper maintenance; failure caused by a product which Crow did not provide; (d) failure caused by software or hardware which Crow did not provide; (e) use or storage other than in accordance with Crow's specified operating and storage instructions.

There are no warranties, expressed or implied, of merchantability or fitness of the products for a particular purpose or otherwise, which extend beyond the description on the face hereof.

This limited Warranty Certificate is the Purchaser's sole and exclusive remedy against Crow and Crow's sole and exclusive liability toward the Purchaser in connection with the products, including without limitation - for defects or malfunctions of the products. This Warranty Certificate replaces all other warranties and liabilities, whether written, (non-mandatory) statutory, contractual, in tort or otherwise.

In no case shall Crow be liable to anyone for any consequential incidental damages (inclusive of loss of profit, and whether occurring by negligence of the Crow or any third party on its behalf) for of this or any other warranty, expressed or implied, or upon any other basis of liability whatsoever. Crow does not represent that these products can not be compromised or circumvented; that these products will prevent any person injury or property loss or damage by burglary, fire or otherwise; or that these products will in all cases provide adequate warning or protection.

Purchaser understands that a properly installed and maintained product may in some cases reduce the risk of burglary, fire, robbery or other events occurring without providing an alarm, but it is insurance or a guarantee that such will not occur or that there will be no personal injury or property loss or damage as a result. Consequently, Crow shall have no liability for any personal injury, property damage or any other loss based on claim that these products failed to give any warning.

If Crow is held liable, whether directly or indirectly, for any loss or damage with regards to these products, regardless of cause or Crow's maximum liability shall not in any case exceed the purchase price of these products, which shall be the complete and exclusive remedy against Crow.



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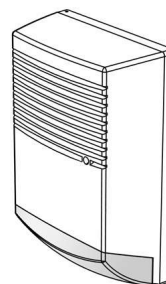
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P/N 7101439 Rev.E Y.A./S.A/Y



BS-1 SIREN

High Power Siren With Battery Back-up and Flashlight

INSTALLATION INSTRUCTIONS & USER MANUAL

Siren BS-1 Manual Installation

BS-1 Features

The BS-1 siren is a new generation of professional high power acoustic siren with battery back-up and flashlight, which include all performance and reliability for security alarm system.

Features:

- Outdoor battery back-up siren with flashlight.
- Double housing: External –3mm plastic PC with UV, Internal – 0.8mm metal.
- Continuous frequency modulated sound.
- Tamper protection in 3 ways – Screw or Cover opening or tearing housing from the wall.
- Positive and negative alarm trigger inputs.
- Trigger input to activate only the flashlight.
- Siren period can set as follow trigger or 3 min cutoff
- Selector for lamp or xenon
- Alarm by main power failure.
- Protecting against totally battery discharge.
- Plug Terminal for easy Installation.
- Environmental immunity.

Functional Description Alarm Trigger:

The alarm can be triggered by applying high or low voltage to the "GO+" or "GO-" inputs terminals respectively. The sound and flashlight triggered together.

Alarm siren duration depended on the Trigger selector state:

- F.T- Follow Trigger .
- TMR- siren cutoff after 3 minutes, this state is recommended in order to avoid violation of any local regulations.

Flash Trigger:

The flashlight can be triggered by applying "low" level to "FL-" terminal. Flash duration is not limited and the time of flashlight is set by control panel - as long as trigger available the flashlight will be active

Tamper:

The tamper is normally closed while the housing is closed with the screw, so in this state the tamper terminals are shorted (0 Ohm). The tamper will open while opening the screw or by tearing the housing from the wall.

Note: It's essential to screw the tamper socket to the wall properly.

Power Failure:

On Power Failure the siren and flashlight are triggering, until power supply is restored or time out period (5 minutes) expires.

Battery Protection

The Siren is supplied with protection against totally battery discharge by cutting off the siren, when voltage level falls down to less than 8Vdc.

Installation Instructions

1. Choose the mounting location for the siren – the wall must be even and free of holes and excessive protrusions.
2. Mark and drill 5 holes with the help of the attach drill pattern plate (4holes for the housing base and 1 for the tamper).

Note: Take a consideration about the wires inputs in the housing base.



- Open the siren housing (1 screw on the front), fig 1 and remove the metal cover (2 screws), fig 2.
- Unplug the terminal (5) on the siren driver
- Mount the siren housing on the wall.
- Connect the wires to the terminals (5).

Important: Cut off the power before you make the connections.

- Plug the terminal to the drive board.
- Power on the system and check that it function properly.
- Connect the Back-up battery.

Important: Keep attention to the polarity of the Battery, a reverse polarity can cause damage to the driver circuit.

- Mount the metal cover by 2 screws.
- Close the housing by 1 screw.

Terminal Block Connection

Terminal 1 - Marked "FL-" Trigger for the flashlight. Connect it to an output in the Alarm System, Active while the input is low.

Terminals 2 - Marked "GO+" Trigger for the siren and the flashlight, Active while the input is high.

Terminal 3 - Marked "GO-" Trigger for the siren and the flashlight, Active while the input is low.

Terminal 4 - Marked "GND" Connect to ground of the control unit.

Terminal 5 - Marked "+12V" Connect to a positive Voltage output of 13.6 – 14.2Vdc source (usually from the alarm control unit).

Terminals 6 & 7 - Marked "TAMPER" If a Tamper function is required connect these Terminals to a 24-hour normally closed protective zone in the control unit. If the front cover of the siren is opened or siren box is tearing from the wall, an immediate alarm signal will be sent to the control unit.

Siren BS-1 Specification

Sound Pressure Level	128dB
Fundamental Frequency	1850 Hz
Siren Tone	Yelp
Frequency Range	1300 ~ 2400 Hz
Flash Light	Lamp 12Vdc / 5W
Power Supply Voltage	13.8 ~ 14.2 Vdc
Charge Current Limit	250mA
Current consumption (Speaker and Strobe).	Standby: 8mA Alarm: 1600mA @ 13.8V DC
Maximum Power	50W (Peak)
Trigger Level	Trigger Low = Max. 1Vdc Trigger High = Min. 9Vdc
Siren Alarm Period	F.T- Follow trigger TMR - 3min.
Input Impedance (Alarm / Flash / Trigger)	1K Ohm
Tamper Switch	N.C 28 Vdc Maximum current 0.1 A - open when cover is removed
Backup Battery	Rechargeable Lead Acid Battery 12V up to 7.2Ah
Low Battery Level	8 Vdc +/- 0.3Vdc
Material	External Box: ABS (3mm thick). Internal Cover: Metal (0.8 mm thick).
Dimensions of unit	L=270mm X W=193mm X H=100mm
Weight (Without Battery)	1.85 Kg
Operating temperature range	-30°C to +60°C
Case Protection Level	· Water splash resistant · Plastic PC with UV protection · Conformal coated circuit board

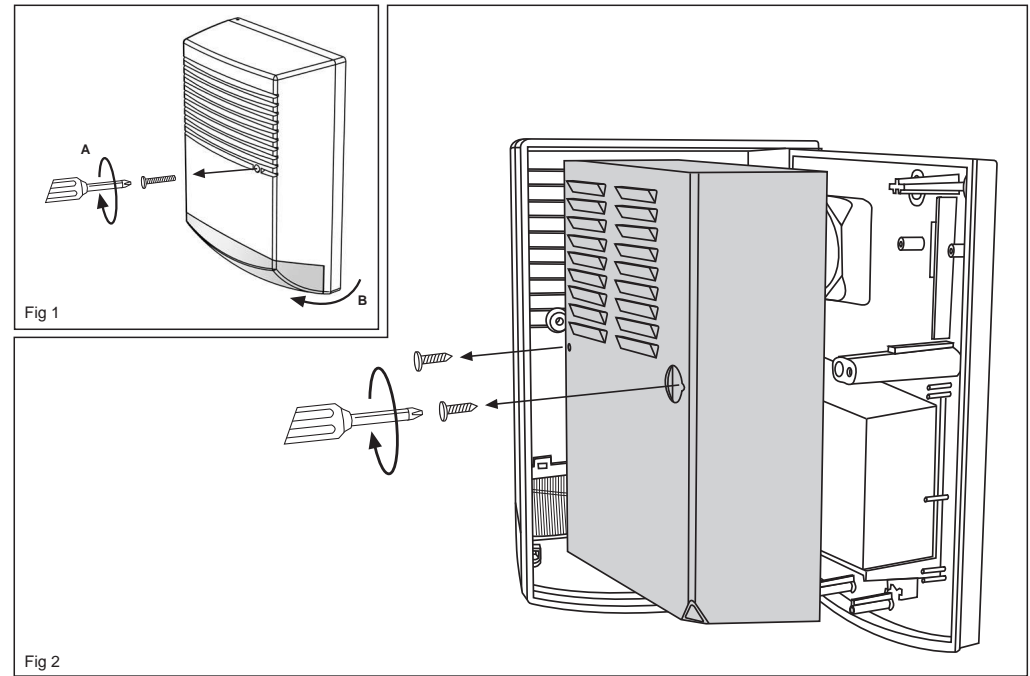


Fig 2

Siren Includes:

- 1-Horn 4-Tamper
- 2-Lamp 5-Terminal Block
- 3-Battery 6-Connector

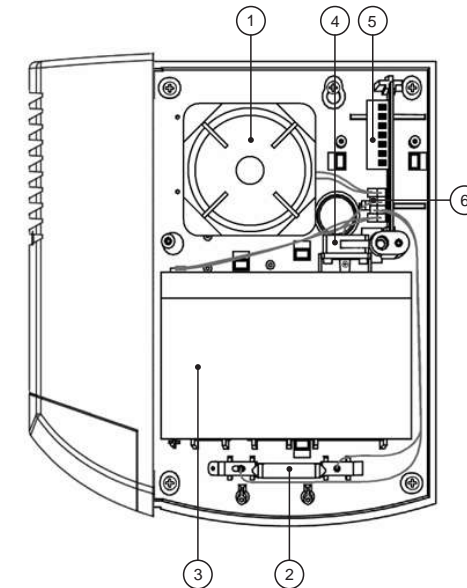


Fig 3

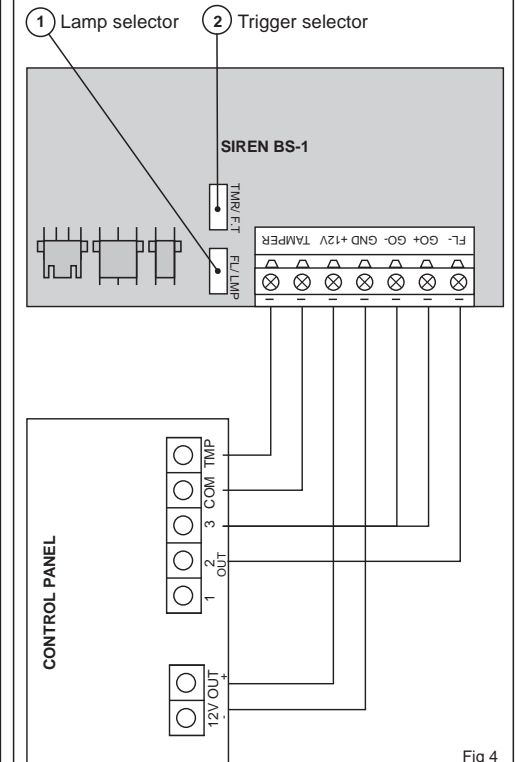


Fig 4