TECHNICAL INSTRUCTIONS FOR PIEZO SIREN

SIR/ZFV
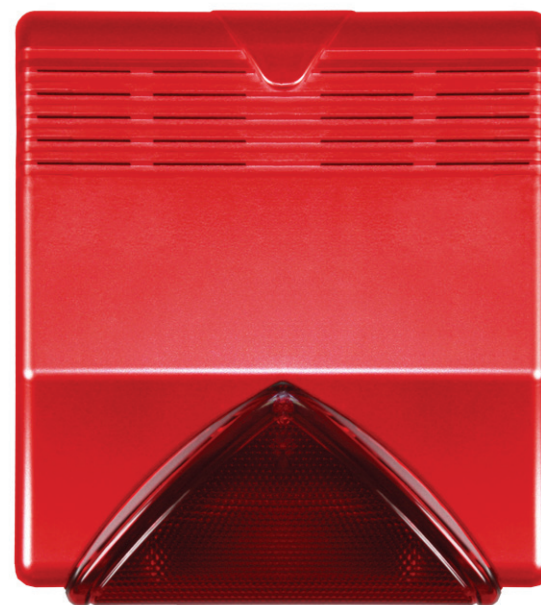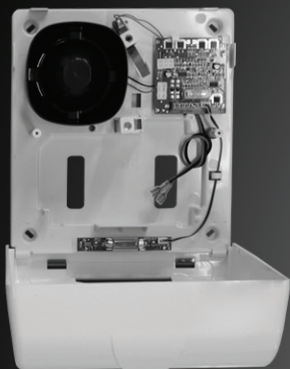
OUTDOOR, TAMPERING PROTECTED & BATTERY BACK-UP PIEZO SIRENS

PARADOX HELLAS S.A. in its attempt to cover the necessity of Greek and European market with self powered siren for outdoor use, with pleasure presents its new product SIR/ZFV.

SIR/ZFV is a siren that emits a continuous high intensity, frequency modulated sound and contains a flash indicator. Its visual signal indicates the location of the alarm easy and quickly.

SIR/ZF's case is made from polycarbonate material with space big enough for every company's logo. Inside it is protected with an internal metal cover made from galvanized metal sheets.

The siren is protected from opening or removing from the wall by a tamper microswitch.

GENERAL CHARACTERISTICS

- Complete initial connection can be made before power up the panel.
- Alarm time programmable to 3, 5 minutes or continuous.
- Protection of the siren from short circuit in the electric lamp of the FLASH.
- Protection with TAMPER from opening or removing from the wall.
- STANDBY indication (2 flash LEDs)
- Maximum alarm duration when shut down the SSP.
- POLYCARBONATE plastic box with UV protection, self extinguishing.
- Easy installation.

TECHNICAL CHARACTERISTICS

Operation Voltage	12 or 24 VDC
Standby Current	20 mA
Alarm Current	115mA
Acoustic Power	100dB/1m
Operating Frequency	1600-2400 Hz
Alarm Duration	3 or 5 or continuous
Tamper Switch Contact	1 A / 12 V
Flash Lamp	High Bright LED
Dimensions (mm)	275x250x90

Table 1. Technical Characteristics

SUPPLY VOLTAGE

Siren's supply voltage is determined from the Jumper (12/24) (Figure 1, item 2) located on the sirens PCB board. When Jumper is in position 12 (Figure 2), then the voltage that must be given to V_{IN} must be 12VDC. Respectively when Jumper is in position 24, then the voltage that must be given to V_{IN} must be 24VDC.

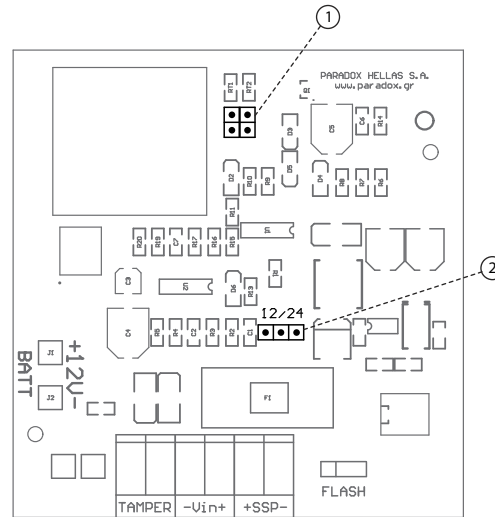**ATTENTION: In each case the battery terminals of the siren ONLY ONE battery of 12VDC can de connected.**

Figure 1. Siren Components Identification

V_{IN} = 12 VDC V_{IN} = 24 VDC

Figure 2. Supply Voltage Selection

SIREN'S FUNCTION

SIR/ZFV has been constructed in a such way that the technician can install it very easy.

First, after placing the siren on the wall, connect all the wires according to one of the installation methods mentioned below.

Secondly, connect the internal battery of the siren. The siren will not sound.

Thirdly, put the internal metal cover on and finally close the plastic case and screw the screw witch is also closing the tamper microswitch. You can leave the siren in this status as long as you need to finish the whole installation which maybe even up to one month period.

On powering up the installation the command + or - SSP will be given from the panel. The siren is going in

stand by mode.

When the command SSP will be interrupted, the siren sounds.

It stops when the SSP appears again be resetting the system. The period that the siren is sounding depends on the panel's alarm time.

In case of total SSP interruption (wire cutting-power off etc.) the siren will sound for a preprogrammed period of time (Figure 3) through a Jumper (Figure 1, item 1), powered by the internal battery.

3 min   5 min   Continuous

Figure 3. Alarm Time Settings

METHODS OF INSTALLATION

1st method

Connect +/- 12V terminals on the panel's battery via an 1A fuse.

The SSP command + or - has to be connected to the NC terminal of the optional panel's relay. The COM relay's terminal has to be connected to the + or - AUX terminal. The tamper terminals to a 24 hours zone.

When the panel interrupts the SSP command (panel in alarm) the siren is sounding. It stops by resetting the panel. This method ensures the function of the siren, even when the internal battery of the siren is destroyed.
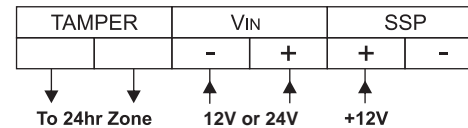
TAMPER		V_{IN}		SSP	
		-	+	+	-

To 24hr Zone   12V or 24V   +12V

Figure 4. Connection with Five Wires

2nd method

For connection with PARADOX HELLAS Fire Alarm Panels (Matrix2000, Fighter), connect siren's V_{IN} with the AUX 24VDC output of the panels. It is recommended that a 3 Amp fuse is used in series with the positive + terminal of the power input (V_{IN}+). Connect the positive terminal of the SSP+ with the negative terminal of the SIR output of the fire alarm panel (Figure 5).
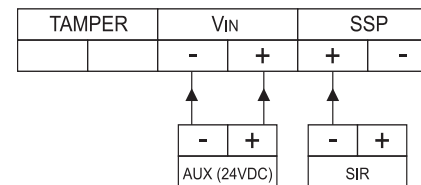
TAMPER		V_{IN}		SSP	
		-	+	+	-

-	+		-	+
AUX (24VDC)			SIR	

Figure 5. Connection with a Fire Alarm Panel

TECHNICAL DESCRIPTION

V_{IN}	Siren's power supply
+ / - SSP	Positive or negative commands which keep the siren in stand by condition. If for any reason (alarm or wire cutting) this tension fails, the siren automatically activated.
TAMPER	Tamper microswitch terminals.

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