

SELF-POWERED OUTDOOR ACOUSTIC ALARM DEVICE ECO500 / ECO560 / ECO500LS / ECO500XLS / ECO560LS

GENERAL DESCRIPTION:

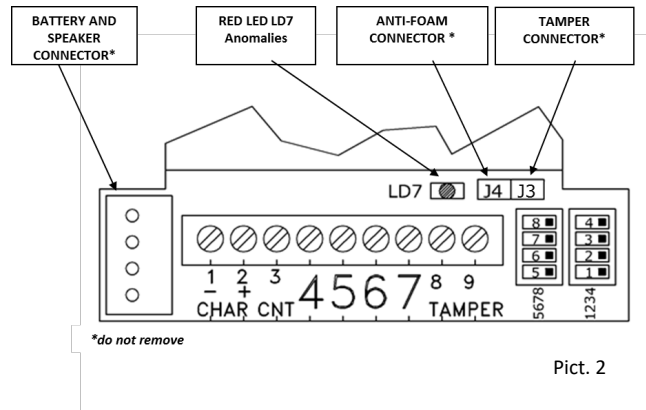
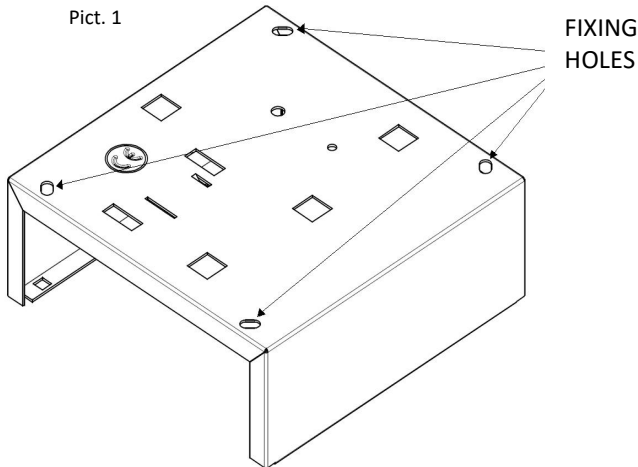
Sounder mod. ECO500/ECO560/ECO500LS/ECO500XLS/ECO560LS **with patented anti-foam system**, double-micro anti-shock system against hard hits and high-luminous and low-consumption led flashing light. Anti-opening and anti-removal tamper protection – programmable sound and timing – alarm counting – microprocessor self-test of: battery and speaker with anomaly negative output – programming of separate siren and flashing unit command – input for flashing-unit reset – immediate or permanent optical indication of ON/OFF system – electronic circuit protected against polarity inversion and resin tropicalization against humidity – external cover in ABS, painted metal or Stainless Steel (ECO500XLS), bottom and internal cover in painted zinc-plated steel. The sensors detecting removal, opening, foam and shock are series-connected and in case of a tampering attempt show the alarm by opening the contact between two terminals TAMPER.

TECHNICAL DATA:

Cover ECO 500 L, ECO 560 L, ECO 500 LS, ECO 560 LS	ABS/painted ABS
Cover ECO 500 XLS	stainless steel
Bottom and internal cover	painted zinc-plated steel
Flash cover	polycarbonate
Minimum supply voltage (to ensure full battery recharge)	13.8 V $\overline{=}$
Voltage of battery recharge	13.0 ÷ 13.8 V $\overline{=}$
Minimum voltage of functioning	10 V $\overline{=}$
Maximum voltage of functioning	15 V $\overline{=}$
Batteries	12 V $\overline{=}$ 1.2 Ah or 2.2 Ah
Current consumption in stand-by	15 mA max
Battery autonomy in stand-by	120 hours with 12 V 2.2 Ah battery
Current consumption from control panel during battery recharge	0.5 A \pm 100 mA
Battery current consumption during sounder alarm	1.3 A +100/-300 mA
Current consumption of flashing unit	90 \pm 10 mA
Current absorption of the control inputs (each)	+0.5 mA @Vc= 12 V $\overline{=}$; -0.3 mA @Vc=0 V $\overline{=}$
Alarm voltage of sounder and flash	< 2.0 e > 3.5 V $\overline{=}$ (MAX 13.8 V $\overline{=}$)
Block voltage of sounder and flash	> 2.0 e < 3.5 V $\overline{=}$ (MAX 13.8 V $\overline{=}$)
Open collector output	-10 mA Max
Sounder block (option)	on request
Sounder timing	3 minutes – programmable at 8 minutes
Sounds frequency	see Chart. 9
Acoustic power	> 107 dB (A) @ 3 m.
Duration of led flashing	1,000,000 flashes
Tamper switch	N.C. 0.2 A max.
Size ECO 500 LS, ECO 560 LS, ECO 500 LSX	190x220x80 (HxLxD)
Weight ECO 500 LS, ECO 560 LS	2,230 g
Weight ECO500 LSX	2,400 g
Operating humidity range	from 20 % to 100 %
Operating temperatures	from -25° C to + 70° C
IP protection	IP34
Anti-tamper protection	cover opening, sounder removal, foam and shock
Anti-foam device	patented double micro-switch anti-foam device
Environmental class	IV
Standards	EN50131-4:2009 (degree 3) SSF1014 v.5 T031:2018
Larmklass	Larmklass 3
Certification body	Telefication BV/Applica Test & Certification AS

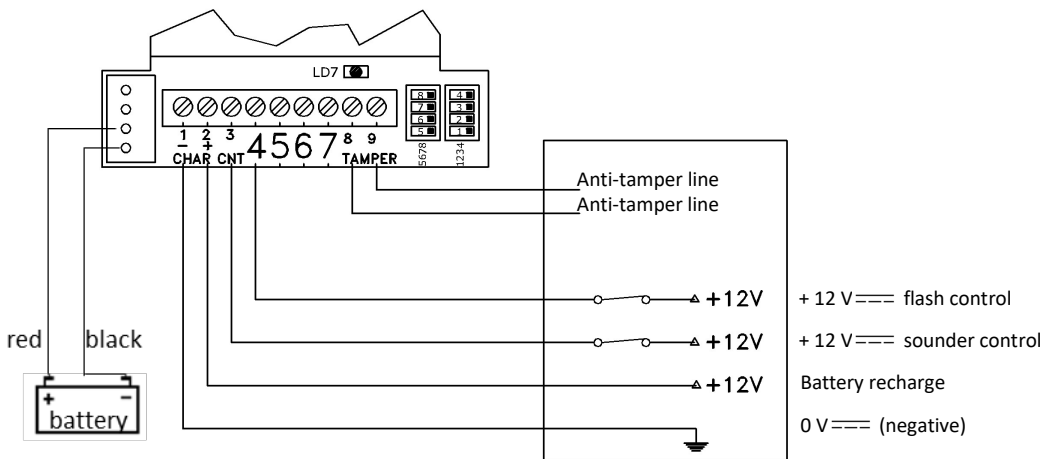
MOUNTING:

1. Fix the sounder to the wall and check correct functioning of tamper protection
2. Insert connecting cables through the holes on bottom of the housing
3. If required, modify the default set-up and move dip-switches according to the charts shown below
4. Connect battery and supplying to control panel
5. Close internal and external covers using the screws given.

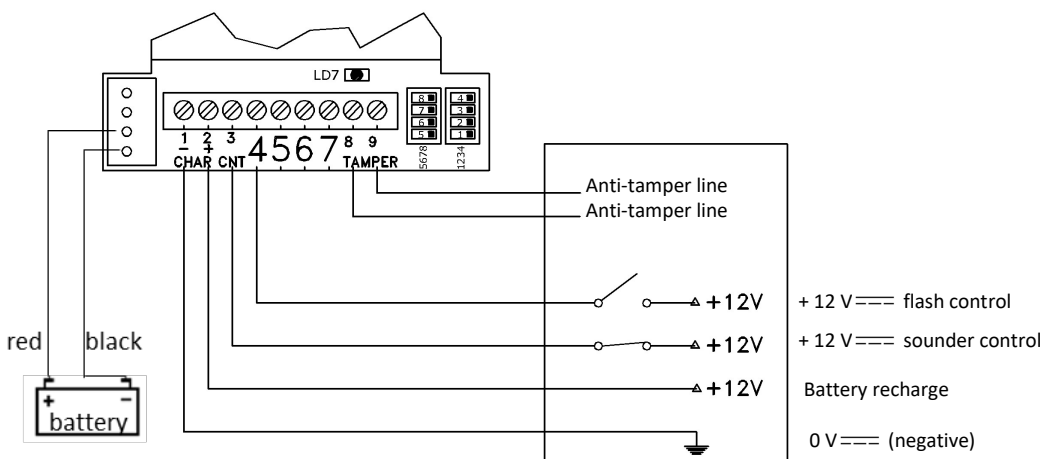


CONNECTION WITH 2 CONTACTS

CONTROL PANEL IN STAND-BY

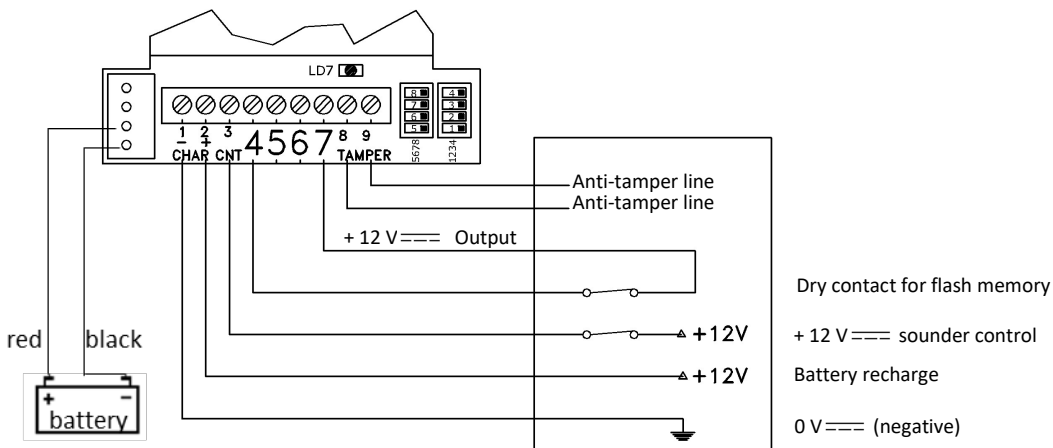


CONTROL PANEL ARMED



CONNECTIONS WITH 1 CONTACT

CONTROL PANEL IN STAND-BY



CONTROL PANEL ARMED

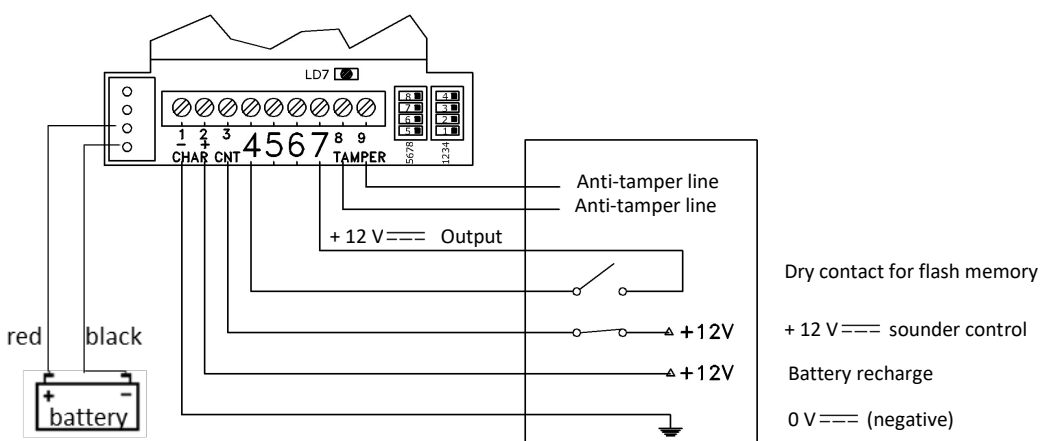


CHART 1: DIP SWITCHES

DIP1	Alarm timing
DIP2	Polarity of alarm input
DIP3	Polarity of flash input
DIP4	Control panel ON/OFF indication
DIP5	Sounder and Flash activation mode
DIP6	Sounder and Flash activation mode
DIP7	Max number of alarms per day
DIP8	Tone selection

CHART 2: ALARM DURATION

DIP1	Alarm Duration
ON (default)	3 minutes
OFF	8 minutes

CHART 3: WIRING

Terminals	Connection
1	Supplying Negative 0 V==== GND
2	Supplying positive from +12 V==== to +13.8 V==== (advised)
3	Sounder control Chart 3
4	Flash control Chart 4
5	ON/OFF indication
6	Anomaly output. Open collector, 0 V==== = anomaly.
7	12 V==== Output for connection of the flash memory input with a no-voltage dry contact
8	N.C. self-protection and anti-foam
9	N.C. self-protection and anti-foam

CHART 4: SOUNDER INPUT POLARITY

DIP2	Terminal 3	Sounder state
ON (default)	+1 2V====	Silence
	Not connected or 0 V==== (Positive missing)	Alarm
OFF	0 V====	Silence
	Not connected or +12 V==== (Negative missing)	Alarm

CHART 5: FLASH INPUT POLARITY

DIP3	Terminal 4	flash condition
ON (default)	0 V==== or not connected	Flashing
	12 V====	blocked
OFF	12 V==== or not connected	Flashing
	0 V====	blocked

CHART 6: ON/OFF CONTROL PANEL INDICATION		
DIP4	Terminal 5	Flash condition (ON/OFF)
ON (default)	+12 V ===	All LEDs flash 3 times
	Not connected or 0 V ===	All LEDs stay on for 4 seconds then switch off
OFF	+12 V ===	All LEDs flash 3 times and one LED keeps on flashing
	Not connected or 0 V ===	All LEDs stay on for 4 seconds and then switch off

CHART 7: SOUNDER AND FLASH ACTIVATION			
DIP5	DIP6	sounder condition	Flash condition
ON (default)	ON (default)	Controlled by Terminal 3	T.4 Arms - T.3 Starts - T.4 Disarms and stops.
OFF	ON	Controlled by Terminal 3	Starts with T.3 and Stops with 1 pulse to Reset flash T.4
ON	OFF	Controlled by Terminal 3	Controlled by Terminal 3
OFF	OFF	Controlled by Terminal 3	Starts with T.4 and stops with T.4 (independent)

CHART 8: MAX NUMBER OF ALARMS	
DIP7	Number of alarms during 24 Hours after first alarm
ON (default)	Infinite alarms
OFF	Limitation to 4 daily (24 hours) alarms of sounder activation (T.5 resets the counter)

CHART 9: SOUNDER TONES			
DIP8	Sound	Frequency limits (Hz)	dB (A) at 1m
ON (default)	Increasing-Continuous-Decreasing	1.200 - 1.750	116
OFF	Increasing-Decreasing (NFC 48-265)	1.400 - 1.600	115

CHART 10: ANOMALIES		
Anomalies	RED LED LD7	OUTPUT T.6
Speaker interruption (check every 10 s)	1 FLASH	OPEN
Missing recharge current (V recharge < 12V) (check every 10 s)	2 FLASHES	OPEN
Battery not connected (check every 12 hours)	3 FLASHES	OPEN
Battery low voltage (V battery < 10,5 V ===) (check every 10 s)	4 FLASHES	OPEN
Faulty Battery – Internal resistor higher than 2,5 Ohm (check every 12 hours)	5 FLASHES	OPEN
No Anomaly	OFF	0V

To reset an anomaly, remove its cause, wait for 10 seconds, give an input to terminal 3 or 5.

Installation: when supplied, the sounder is in stand-by condition until input 3 “sounder control” is put to 12 V === or 0 V === once. This is aimed to avoid sounder operating during installation.

Attention: if battery is out of charge (voltage lower than 10.5 V ===), in case of alarm, the sounder operates for 5 seconds only, in order to avoid a deeper discharge. Vice versa, the flash keeps on working regularly and quickly (anomaly) and showing alarm or ON/OFF.

If battery voltage goes lower than 9.5 V ===, both sounder and flash do not operate in order to avoid a deeper discharge of the battery. When flash is active during anomalies, it operates quickly

DIP switches can be moved only within the first 12 hours after the board is powered. After this period, DIP switches settings will be stored and any further switching will be useless.

By disconnecting battery and power supply, DIP switches will return to active for another 12 hours.

Maintenance: it is suggested to disconnect also the recharge (terminal 2) during battery replacement in order to immediately start a complete test of the sounder.

30 seconds after supplying the microcontroller tests the battery, then the test is repeated every 2 hours. If during first 30 seconds an alarm is triggered off, the battery anomaly indication remains on until following test which will take place after 2 hours.

WARRANTY

All Venitem products are guaranteed for manufacturing or material defects. With the aim of improving design and quality of its products, Venitem retains the right to modify the products without any warning. All defective or failed products have to be returned to the own supplier.



Certification for Belgium
 Complying with T014 Standards



WASTING:
 This product must be wasted in appropriate wheelie-bin for electric and electronic materials.
 Do not put in wheelie-bin for other kind of waste.



MADE IN ITALY

Product manufactured in Italy
 by Venitem srl Via del lavoro, 13 – 30030 Salzano (VE) Italy info@venitem.com www.venitem.com