INFERNO INTENSO

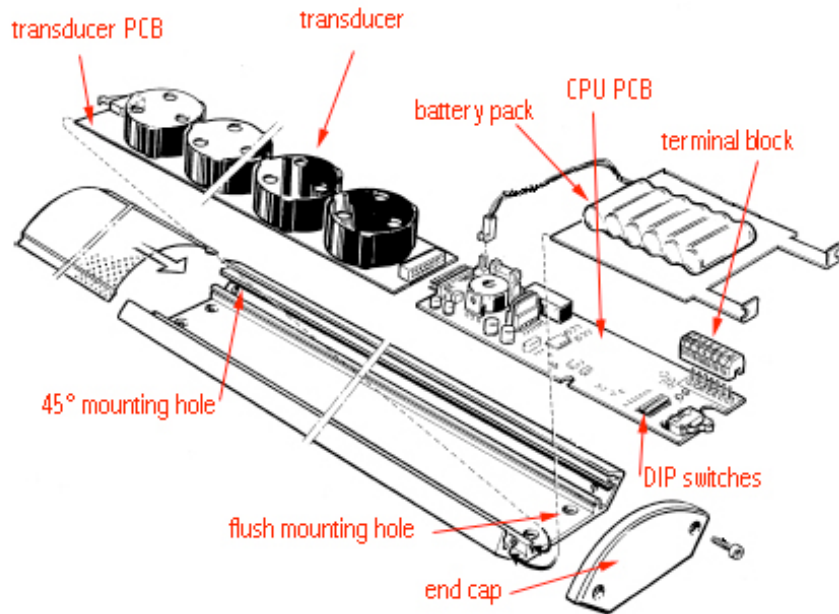## INSTALLATION INSTRUCTIONS

INSTALLATION OVERVIEW:
1. Location selection : determine the location where the Intenso will be mounted.
2. Cable routing : route cable to mounting location, and routing cable inside the Intenso.
3. Mounting : attach the Intenso to the selected surface.
4. Connecting : attach the 3 cores to the terminal connector.
5. DIP switches - adjustment of switches is optional.
6. Full power test.

NOTE:
Installation of the Intenso should only be performed by qualified installers. Take particular note of the following:
- charging voltage : 12-16V DC - do not exceed this range. Charging must occur via the Intenso CPU PCB - any attempt to charge the battery via other means could result in damage to the battery and/or CPU PCB.
- the unit will not sound properly until the battery has been charged for 6 hours.
- the battery must be replaced every 3 years.
- take care with the PCBs - precautions for handling electrostatic discharge sensitive devices must be observed.
- to protect against accidental activation, please use earplugs when installing.

TOOLS REQUIRED:
- small flathead screwdriver for terminal connector.
- T10 torx screwdriver for removing end caps.
- hardware and drill for affixing unit to wall/ceiling.

1. LOCATION SELECTION:
For best effect against intruders, position the Intenso above likely entry points such as doorways, windows, emergency exits, ventilation shafts and the like. The ultimate installation position is one where the intruder is assaulted by the sound spectrum as, or immediately after, he enters the premises. For protection of specific, high-value items, install an Intenso in close proximity & preferably directed at the item/s. The sound spectrum is directional, so is most effective when directed at the intruder from above. Mounting the unit on a 45° angle at the intersection of wall & ceiling is most effective, and also provides a measure of protection against sabotage by virtue of the height above floor level. Other installation methods include installed on the ceiling or wall in a semi-circle configuration (see picture a.) or if stud height is sufficient, hanging vertically in a 360° tower - see picture b. Use M5 x 12mm flathead bolts with lock-nuts for joining units. The Intenso can be installed in any orientation (ie angled, vertical, horizontal, upside down) however consider future access to the CPU end of the unit when installing.
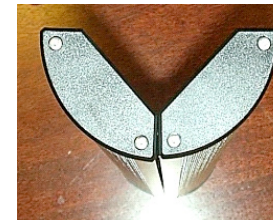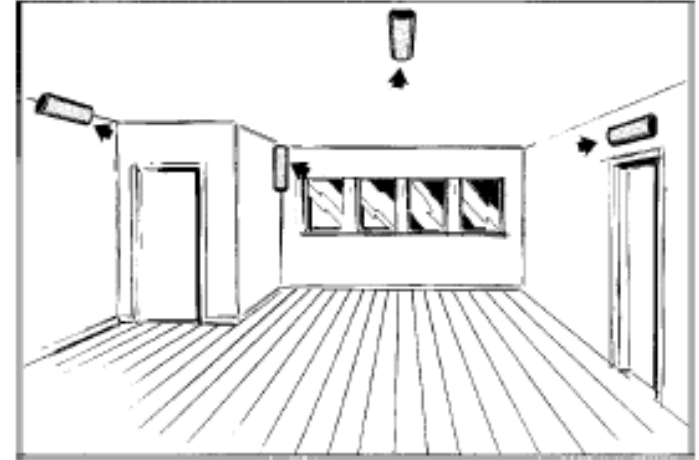
Picture a.
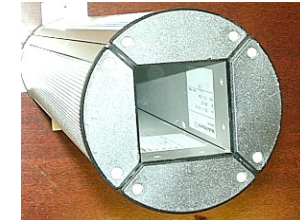
Picture b.

2. CABLE ROUTING:
Ensure that appropriate cable (AWG 22-18, 4 core) is present at the mounting location. Two of the cores must provide a continuous 12V supply (for charging the internal battery) and one for the trigger signal. Route the cable into the Intenso via one of the existing holes in the rear (for 45° mounting) or bevelled edges (for flush mounting). Ensure that the cable is routed into the correct end of the unit - that being the end with the CPU-PCB and white battery pack visible through the perforated grill.

3. MOUNTING:
Attach the Intenso securely to the selected surface using the appropriate hardware. Despite only weighing 1.7kg, it is recommended that the appropriate toggles/wall anchors are used when mounting the unit on fragile surfaces such as gib. Use all 4 mounting holes to ensure the unit is safely & securely attached to the surface.

4. CONNECTING:

1. Remove the end cap <u>opposite</u> the cable entry point. Slide the perforated grill away to expose the CPU-PCB & battery pack. If the grill is difficult to slide, remove the other end cap and slide the PCBs and battery pack out sufficiently far to expose the terminal block, battery and DIP switches.
2. Set DIP switch 3 to ON. The unit is now in test mode and will not emit the full power sound spectrum.
3. Set DIP switch 1 to ON. This allows the red LED to illuminate when the battery is being charged via the 12V supply.
4. Ensure CPU PCB and transducer PCB are pressed firmly together so that their connectors meet tightly.
5. Connect battery pack to battery connector on CPU PCB.
6. Remove (pull up) terminal block to reveal pins & labels.
7. Connect 12V power supply to terminals "GND" and "12V IN".
8. Connect either a positive trigger, (9-18V, 10mA) to "TRG +" <u>or</u> a negative trigger (0-0.5V, 10mA) to "TRG -".
9. Attach terminal block, then activate the trigger. It will produce 4 low volume test tones.
10. De-power sound barrier by disconnecting battery & removing terminal block. Leave de-powered for 30 seconds.
11. Switch DIP switch 3 back to OFF - now in full power mode!
12. Connect battery, then attach terminal block.

Shown connected with negative trigger. ↑

5. DIP SWITCHES:

The DIP switches allow the technician to alter various aspects of the Intenso's operation. DIP switch alteration must take place when the sound barrier is "de-powered" - ie battery disconnected, and all incoming cores removed. It is not necessary to adjust any DIP switches for the unit to operate. The asterisk indicates the default factory setting.

DIP 1 : Battery charging confirmation.
       ON : a red LED will indicate that battery voltage has dropped below 10.9V, and is thus actively charging.
       OFF* : no indication of battery charging.
DIP 2 : Delay between trigger signal and sounding.
       ON : a 30s delay will occur between the unit receiving a trigger signal, and sounding.
       OFF* : no delay - instantaneous sounding upon receiving trigger signal.
DIP 3 : Test mode - permits test tones rather than sound spectrum to be produced when installing.
       ON : test mode : 4 short tones of differing pitch, produced when triggered.
       OFF* : normal operational mode.
DIP 4 : Alarm signal length - determines duration of sounding.
       ON : infinite alarm - unit will sound until battery is flat - not recommended.
       OFF* : 3 minute sounding - unless disarmed prior, unit will sound for 3 minutes and then cease, awaiting a new trigger signal from control panel.
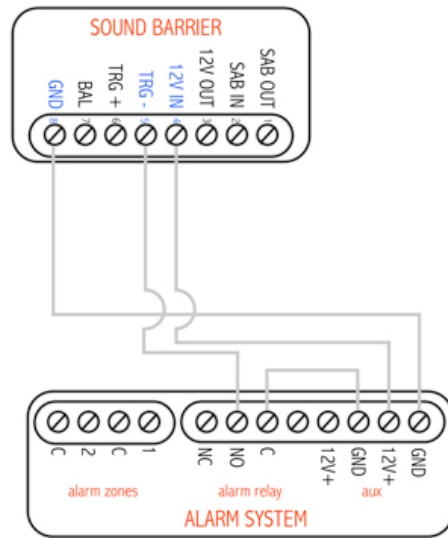DIP 5 : Reserve.
DIP 6 : Fixed alarm signal length.
       ON : 45s.
       OFF* : normal mode.
DIP 7 : Sound level - permits adjustment between 125db and 127dB.
       ON : 127 ± 1dB (A) for 20s, then 124dB ± 1dB (A).
       OFF* : 125 ± 1dB (A).
DIP 8 : Automatic battery check.
       ON : bad battery signal is generated via terminal 7.
       OFF* : the red LED flashes to indicate a bad battery.

6. FULL POWER TEST:

The unit will generate test tones <u>but not the full power sound spectrum unless the battery has been charged for at least 20 minutes</u>. Please ensure that the battery is sufficiently charged (ie >10.5V) to perform a full power test.
1. Ensure all DIP switches are set to OFF, excluding DIP 1 which is set to ON. Before altering any DIP switches, de-power sound barrier (both 12V feed & battery), alter DIP switch then re-power, connecting battery first, then 12V feed.
2. Warn people in the vicinity, then activate the sound barrier via the control panel <u>for at least one minute</u>. The unit will produce an extremely loud sound for the duration that the trigger is active.
3. If the unit does generate the sound spectrum described above, please check : 12V supply, terminal connections, battery connection, DIP switches (ensure all except DIP 1 is OFF), CPU PCB and transducer PCB are firmly connected. <u>Most importantly, confirm that the battery has sufficient charge - ie >10.5V.</u>
4. Reassemble unit.

TAMPER SWITCH:

The tamper loop provides an extra level of mechanical security protection, however is not needed for the function of the siren. The tamper loop consists of a series connection that enters at the SAB IN connector on the terminal block. It follows this path : microswitch at the end of the CPU → CPU PCB → transducer PCB → microswitch on transducer PCB → SAB OUT connector on terminal block. The loop can contain other normally-closed switches such as magnetic contacts or mercury tilt switches.

TECHNICAL SPECIFICATIONS:

General

Coverage :	70m²
Sound output :	125-127dB ± 1dB (A) @ 1 m, user selectable
Output frequency :	2-5kHz

Electrical interface

Power supply :	12-16V DC, 500mA
Activation signals :	Trig (-) : 0-0.5V, 10mA
	Trig (+) : 9-18V, 10mA
Cables :	0.25 - 1.0 mm², (AWG 22-18)

Battery

Type :	9.6V Ni-MH. Battery's performance is improved if charged and discharged.
Capacity :	1800mAh, sufficient for > 30 minutes continuous sounding
Charge time :	The unit should be charged for 6 hours prior to use.
Standby w/o charge:	1 month
Life time :	3 years

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+61 (0)438-729 807