

Applications and users that have traditionally demanded conventional electromechanical hooters, sirens, buzzers and bells now have the next generation alternative featuring the latest in amplifier and digital to analogue conversion technology.

The E2S Hootronic series of products faithfully reproduce the sounds made by traditional electro-mechanical signalling devices but in a modern, reliable and cost effective way. With output levels of up to 121dB(A) at 1 metre the Hootronic also surpasses the performance and effectiveness of its traditional counterpart. Unlike the traditional electro-mechanical devices the Hootronic range is continuously rated, requires zero maintenance and signal quality and performance will not degrade with age.

The lightweight, durable housings are manufactured from impact and fire resistant UL94V0 ABS. The unit can also be supplied as combined unit with either a Xenon beacon in a choice of 6 lens colours or a multi-function L.E.D beacon in red, amber, green and blue.

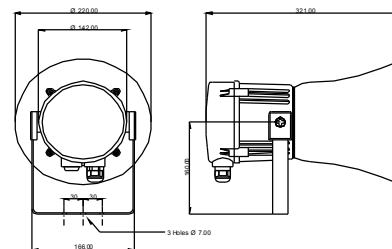
### Specifications:

- Nominal output : 121dB(A) @ 1m +/-3dB (HMCA112: 112dB(A) @ 1m)
- 3 stage audible alarm
- Volume control
- Voltages : 24vdc; 115vac;230vac
- IP66 dust protected & watertight
- Enclosure material : UL94V0 & 5VA rated FR ABS
- Colour available : Grey (RAL7035)
- Operating temperature : -25 to +55°C
- Storage temperature : -40 to +70°C
- Relative humidity : 90% at 20°C
- Weight HMA121: DC: 2.50Kg AC: 3.00Kg  
HMCA112: DC: 3.00Kg AC: 3.50Kg

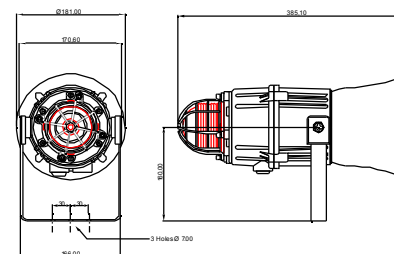
HMCA112-05: 5 Joule xenon beacon @ 1Hz (60FPM)  
HMCA112-L1: L.E.D Array of 32 high output L.E.D's



HMA121: Hootronic Alarm Horn



HMCA112: Hootronic Alarm Horn combined with either Xenon or L.E.D beacon.



All dimensions are in millimetres.

### NOTE:

- If applicable please review accompanying installation instructions for details regarding the xenon or L.E.D beacon.
- Cables for connecting the sounder to the beacon are supplied with the product.

Voltage range and current consumption for the HMA121 Hootronic Alarm Horn:

Voltage:	24vdc	115vac	230vac
		50/60Hz	50/60Hz
Range:	+/-25%	+/-10%	+/-10%
Current:	375mA	160mA	75mA

Voltage range and current consumption for the HMCA112-05 Hootronic Alarm with 5J Xenon:

Voltage:	24vdc	115vac	230vac
		50/60Hz	50/60Hz
Range:	+/-25%	+/-10%	+/-10%
Current:	645mA	270mA	130mA

Voltage range and current consumption for the HMCA112-L1 Hootronic Alarm with L.E.D beacon:

Voltage:	24vdc	115vac	230vac
		50/60Hz	50/60Hz
Range:	+/-25%	+/-10%	+/-10%
Current:	775mA	300mA	145mA

>121dB(A)@1m.



## Mounting and cabling instructions:

The unit can be mounted using the stainless steel bracket. The bracket contains three 7mm holes on 30mm spacings. The bracket position is adjustable by loosening the bolts at the top of the bracket.

The HMA121 and HMCA112 units contain two M20 cable entries, one of which is populated with an IP66 stopping plug.

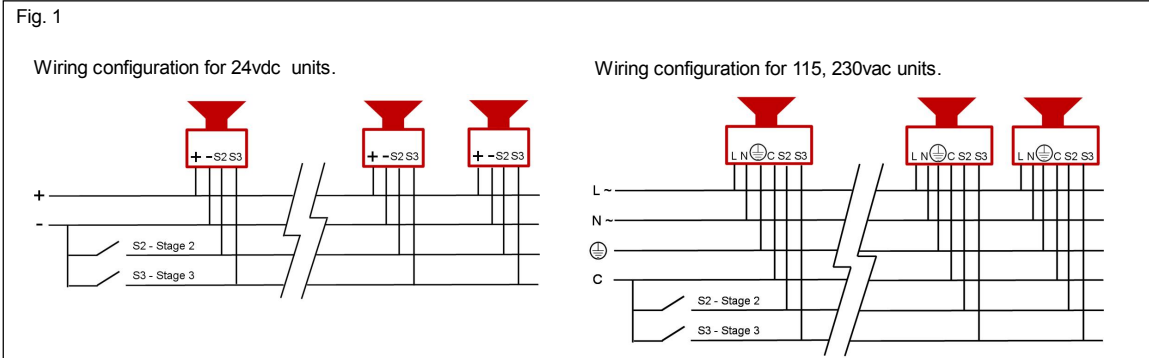
The terminals in the HMA121 and HMCA112 products will accept from 0.5mm<sup>2</sup> to 4.0mm<sup>2</sup> stranded or single core cables.

## DC units:

DC power supply connections should be made to the + and - terminals.

To remotely switch the second and third stage sounds cable into the terminals marked 'S2' and 'S3' respectively. To activate the second and third stage sounds switch 'S2' or 'S3' to the negative supply whilst the unit is powered (see Fig.1). Stage 2 overrides stage 1 and stage 3 overrides stage 2.

The Hootronic sounder has the facility to replicate the 'tail off' traditionally associated with these tone when generated by electro-mechanical devices. The switching is achieved by cabling into the terminal marked STOP. The user can remotely activate and de-activate the sounder by switching the connection between the STOP wire and the negative supply line whilst the unit is powered. To achieve the 'tail off' sound at switch off the unit must remain powered.



## AC units:

AC power supply connections should be made to the L, N and E terminals.

To remotely switch the second and third stage sounds cable into the terminals marked 'C/-', 'S2' and 'S3' respectively. To activate the second and third stage sounds switch 'S2' or 'S3' to the 'C/-' cable whilst the unit is powered (see Fig.1). Stage 2 overrides stage 1 and stage 3 overrides stage 2.

The Hootronic sounder has the facility to replicate the 'tail off' traditionally associated with these tone when generated by electro-mechanical devices. The switching is achieved by cabling into the terminals marked STOP and 'C/-'. The user can remotely activate and de-activate the sounder by switching the connection between STOP and the 'C/-' cables whilst the unit is powered. To achieve the 'tail off' sound at switch off the unit must remain powered.

## Tone Selection:

The Hootronic HMA121, HMCA112-05 and HMCA112-L1 have 5 user selectable 'traditional' sounds:

- Tone 1 : **Industrial Hooter**
- Tone 2 : **High Frequency Mechanical Siren**
- Tone 3 : **Medium Frequency Mechanical Siren**
- Tone 4 : **Electro Mechanical Buzzer**
- Tone 5 : **Mechanical Bell**

Each of these sounds has two additional, remotely selectable, alarm stages as shown in the table below (see Fig 2.). The first stage tone is selected by means of the pin headers marked 1,2,3 on the PCBA. Use the supplied jumper connectors to select the required tone by following the diagrams in the table below. See 'Mounting and cabling instructions' for details of how to activate the second and third stages.

Fig. 2

Stage1 tone	Alarm Description	Stage2 (S2)	Stage3 (S3)	Header
Tone 1	Industrial Hooter	Tone 3	Tone 5	3 ●● 2 ●● 1 ●●
Tone 2	High Frequency Mechanical Siren	Tone 1	Tone 5	3 ●● 2 ●● 1 ●●
Tone 3	Medium Frequency Mechanical Siren	Tone 1	Tone 5	3 ●● 2 ●● 1 ●●
Tone 4	Electro Mechanical Buzzer	Tone 1	Tone 5	3 ●● 2 ●● 1 ●●
Tone 5	Mechanical Bell	Tone 1	Tone 2	3 ●● 2 ●● 1 ●●



## ATTENTION

- Disconnect from power source to prevent electrical shock before installing and servicing
- Couper l'alimentation pour empêcher tout choc électrique avant d'effectuer des travaux d'installation et d'entretien.
- Vor der Installation und Wartung von der Spannungsquelle abnehmen, um elektrische Schläge zu vermeiden
- Prima dell'installazione e della manutenzione spegnere l'alimentazione elettrica per evitare scosse elettriche.
- Desconecte la alimentación para evitar descargas eléctricas antes de la instalación y mantenimiento
- Antes de instalar ou de fazer a manutenção desligue sempre da alimentação elétrica para evitar choques elétricos.
- Strømmen skal afbrydes ved installering og eftersyn for at undgå elektrisk stød.
- Los koppel van de elektrische voeding om elektrische schok vóór installatie en onderhoud te voorkomen.
- Før monteringen eller vedlikehold, må spenningen koples fra for å unngå strømstøt.
- Bryt strømmen innan installation och underhåll för att förhindra elektriska stötar stötar.

# Hootronic wiring configuration with «Tail-Off» function

**AC** power supply connections should be made to the "L", "N" and "E" terminals. To remotely switch the second and third stage sounds, cable into the terminals marked "C", "S2" and "S3" respectively. To activate the second and third stage sounds switch "S2" or "S3" to the "C" cable whilst the unit is powered (see Fig.1 on previous page). Stage 2 overrides stage 1 and stage 3 overrides stage 2.

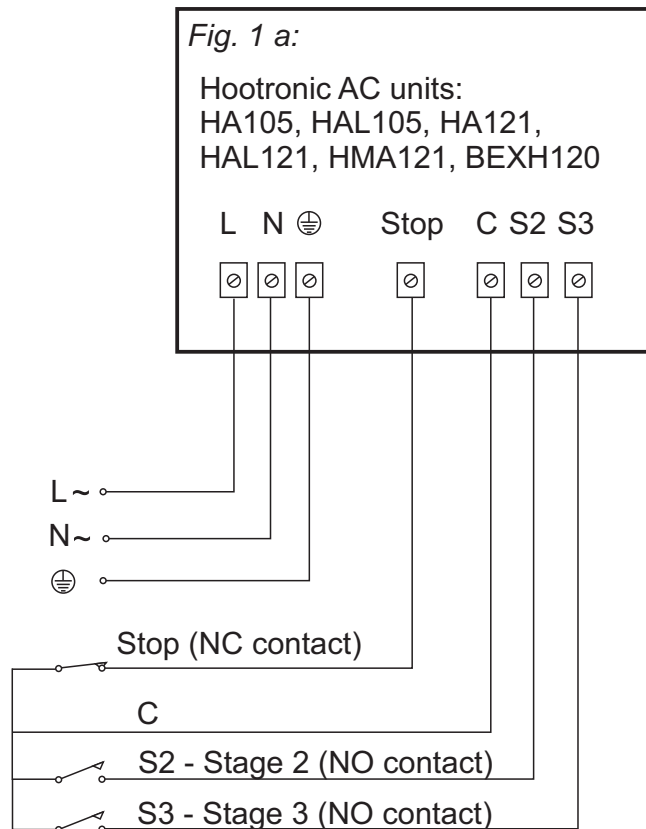
The Hootronic sounder has the facility to replicate the "tail-off" traditionally associated with these tones, when generated by electro-mechanical devices. The switching is achieved by cabling into the terminals marked "STOP" and "C". The user can remotely activate and de-activate the sounder by switching the connection between "STOP" and the "C" cables whilst the unit is powered. To achieve the "tail-off" sound at switch off, the unit must remain powered.

In other words, linking between "Stop" and "C", silence the sounder. Braking the link between "Stop" and "C", activates the sounder.

**DC** power supply connections should be made to the "+" and "-" terminals. To remotely switch the second and third stage sounds, cable into the terminals marked "S2" and "S3" respectively. To activate the second and third stage sounds switch "S2" or "S3" to the negative supply whilst the unit is powered (see Fig.1 on previous page). Stage 2 overrides stage 1 and stage 3 overrides stage 2.

The Hootronic sounder has the facility to replicate the "tail-off" traditionally associated with these tones, when generated by electro-mechanical devices. The switching is achieved by cabling into the terminal marked "STOP" and "-". The user can remotely activate and de-activate the sounder by switching the connection between the "STOP" wire and the negative supply line ("-") whilst the unit is powered. To achieve the "tail-off" sound at switch off, the unit must remain powered.

In other words, linking between "Stop" and "-", silence the sounder. Braking the link between "Stop" and "-", activates the sounder.



*P.s: For easy operation*

*In most installations, people are only interested in one of the several selectable sounds. In that case, select the desired sound, and ignore the "S2" and "S3" terminals.*

*Connect the power cables to a steady power supply, and activate the sounder via the "Stop" and "C/-" terminals only, by connecting through a simple «potential free» switch or relay.*

