

AMPETRONIC

Listen to the difference

HLS-UA Installation Handbook



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UP1 A301-1

Handbook contents

- Safety
- Introduction
- Installation
- Commissioning & Operation
- Technical Specification
- Warranty

Box contents:

- HLS-UA

Other items required:

- HLS 2C
(see doc ref. UP19701 for instructions)
- Connection cable (HLS-UA to HLS-2C)
- Input connections:
 - AC Mains
 - 100 V line PA
- Mounting hardware:
 - Screws & fixings as appropriate
- Cable Glands

Suggested tools:

- Screwdrivers
- Drill (for mounting and cable access/egress)



This symbol is used to alert the user to important operating or maintenance instructions.



The Lightning bolt triangle is used to alert the user to the risk of electric shock.

Safety:

1. It is important to read these instructions, and to follow them.
2. Keep this instruction manual in an accessible place.
3. Do not install this equipment near any heat sources such as radiators, heating vents or other apparatus that produces heat.



4. **WARNING:** THIS APPARATUS MUST BE EARTHED.



5. The HLS-UA is designed to be a permanently connected apparatus and must be installed with all applicable installation regulations. A readily accessible all pole mains disconnect device shall be incorporated in the installation power wiring.

6. The apparatus is protected against dripping or splashing liquids, but only if installed correctly. It should not have objects used for storing liquids placed upon it.

7. Mount the HLS-UA with the wiring entering from the bottom of the unit. Use cable glands to restrain all cables entering the unit. Position cables in a neat manner, and tighten the P-Clip to ensure the mains cable is fully restrained. The cables should be positioned in such a manner that any liquid spilled on to them will not run into the unit. Cable access is via entry points to be drilled into the lower face of the unit by the installer. If the installation cable glands do not fill the entry holes or any hole is not used then the hole should be masked such that any gaps are closed.



8. Refer all servicing and installation to qualified personnel.
WARNING: Isolate AC power externally before servicing or replacing fuses.

9. The amplifier generates some heat during normal operation and needs some ventilation.

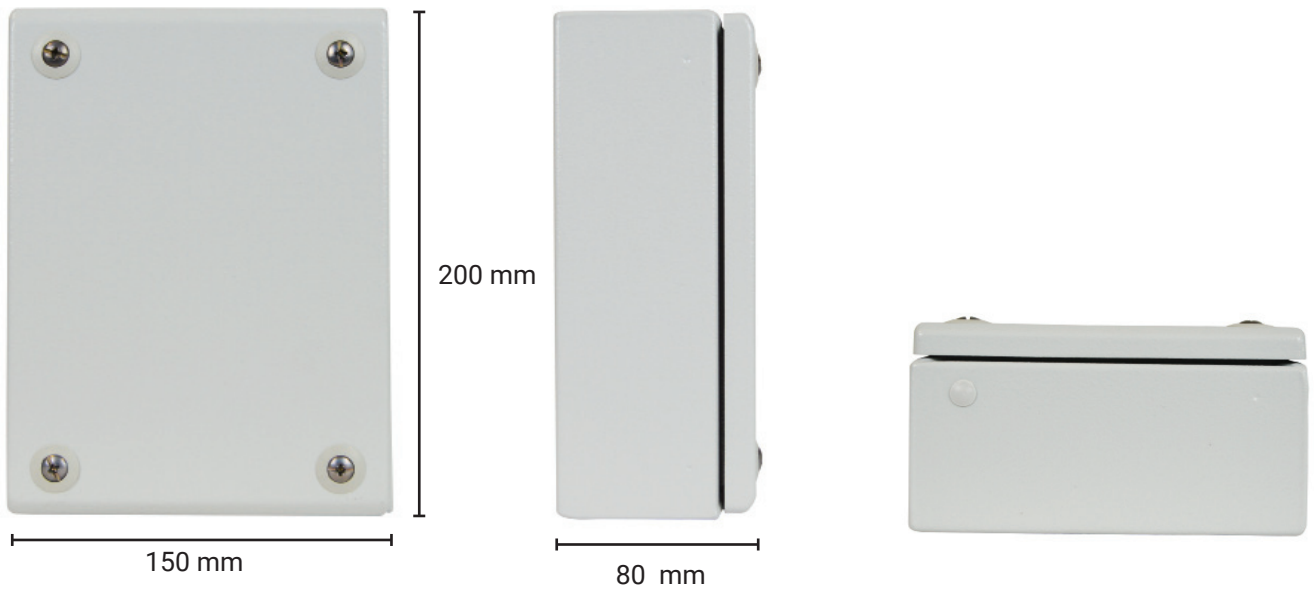
Introduction:

The HLS-UA is a an accesory for use with the HLS-2C Active Loop Panel.

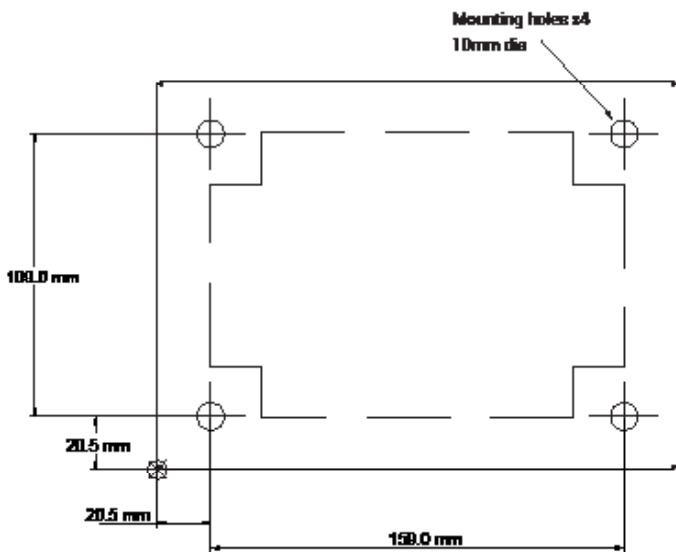
It provides an AC mains power supply from 110 V / 230 V AC with 24 V DC output and an input signal adapter from 100 V line PA to the HLS-2C.

When correctly mounted, and with appropriate cable glands, the enclosure can provide IP65 protection to the power supply and signal input adapter.

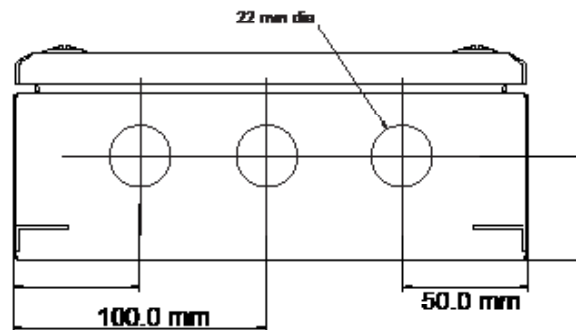
Dimensions:



Mounting details:

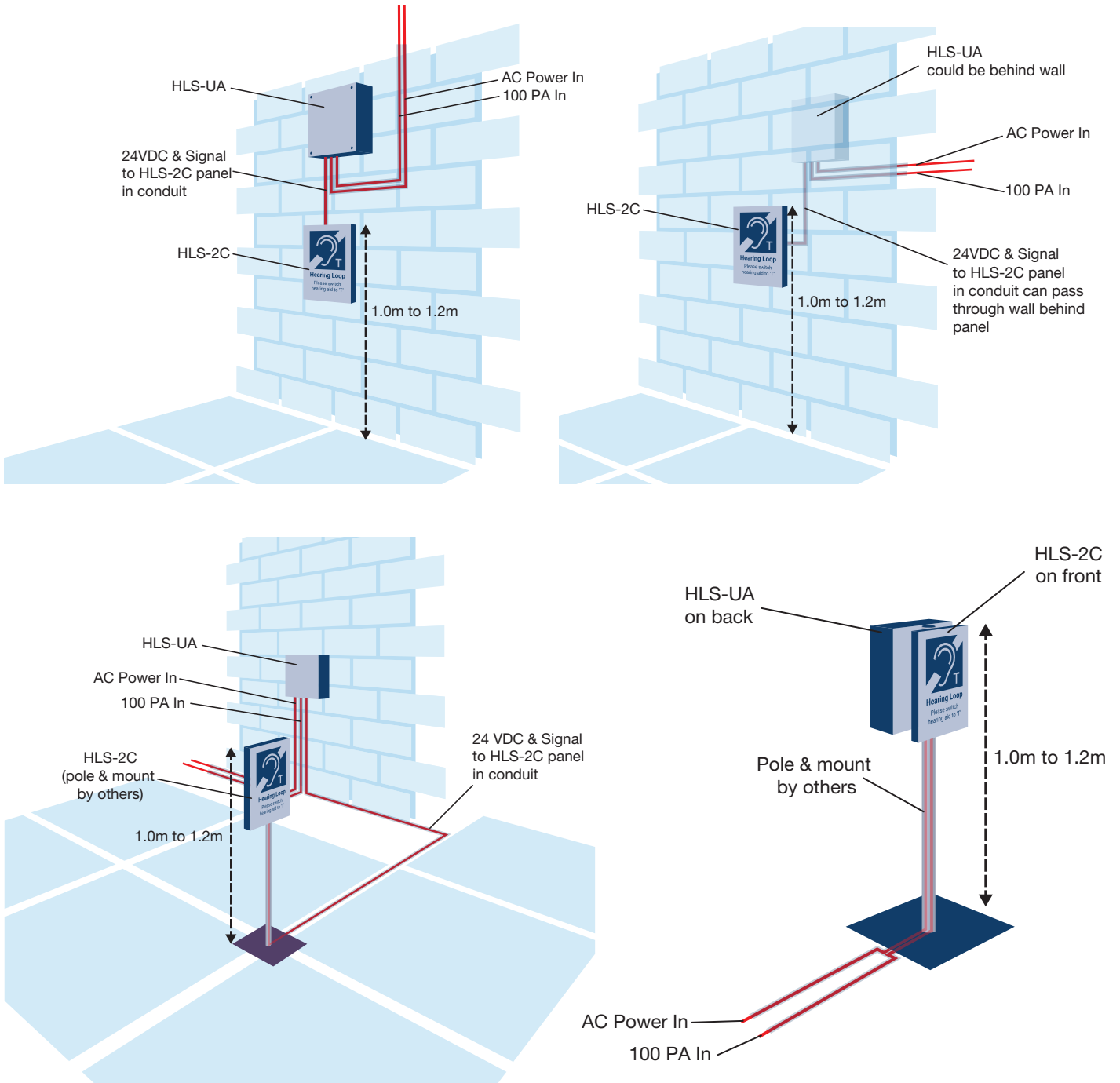


Possible drill locations for cable entry/exit:



Installation:

Typical installation scenarios




1. Mount all components securely

- **Cable access is via entry points to be drilled into the lower face of the unit before mounting.**
- Mount the HLS-UA with the wiring entering from the bottom of the unit.

2. Provide cable routes as required

- Use cable glands to restrain all cables entering the unit.
- Position cables in a neat manner, and tighten the P-Clip to ensure the mains cable is fully restrained.
- The cables should be positioned in such a manner that any liquid spilled on to them will not run into the unit.
- If the installation cable glands do not fill the entry holes or any hole is not used then the hole should be masked such that any gaps are <4 mm wide.

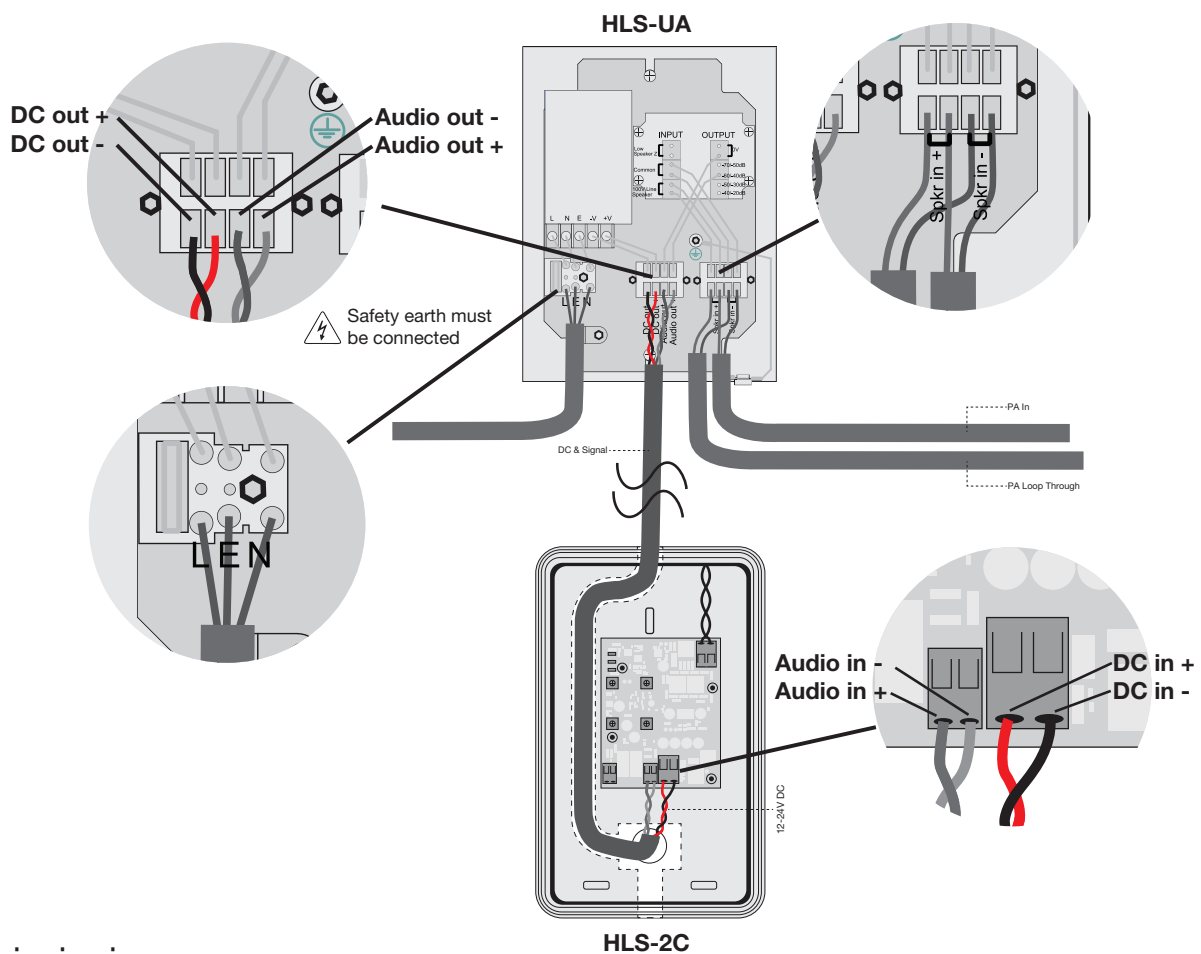
3. Choose and fit appropriate cables.

- AC Mains power input - 0.5-2.5 mm² per core.  Safety earth must be provided. Include a circuit breaker or fuse of 5 A or less in the supply.
- 100 V PA input - 0.1 - 2.5 mm² per core. Loop through terminals provided.
- DC & Signal connection to HLS-2C. See table below for maximum length with various cable types.

Cable type	1 pair of CAT-5e	Pair of 0.5 mm ²	Pair of 0.75 mm ²
Max Length	25 m	70 m	100 m

Cable sizes are per core (except CAT-5e). Cable should be one twisted pair for audio and one pair for power.

4. Connect cables as shown:



Commissioning:

1. Turn on AC power.
2. Check "Power" LED of HLS-2C is lit green. If not lit, check DC and AC power connections.
3. Apply PA announcement or test signal.
4. Check yellow AGC and green CURRENT LED are lit on HLS-2C during peaks of audio. If not lit, increase INPUT 1 gain of HLS-2C.
5. Do not adjust the CURRENT control of the HLS-2C. This is preset at the factory.

HLS-UA: The output tap on the 100 V PA attenuator adapter may need to be adjusted depending on the input 100 V line signal level.

HLS-2C: The HLS-2C is shipped preset - no adjustment is necessary.

You may use an induction loop field strength meter to verify overall performance of the HLS-2C.

Technical specification:

Universal adaptor unit		
Mains power supply	Supply voltage range:	90-264 VAC
	Supply voltage frequency:	47-63 Hz
	Connector:	Fused screw terminal, 0.5 - 2.5 mm ² solid core or untinned fine stranded wire
	Fuse:	1 AT (spare supplied)
	Power Consumption:	110 mA continuous sine
		70 mA continuous pink noise
		30 mA quiescent
	Isolation (60 s):	3 kV (input/output)
		1.5 kV (input/case)
		0.5 kV (output/case)
Audio input (100V line)	Voltage:	100 VAC max
	Connector:	Wago 264 cage clamp, 0.1 - 2.5 mm ² solid core or untinned fine stranded wire
	Isolation:	5.5 kV (6.5 kV for 1 sec)
Audio output to HLS-2C	Voltage:	1 VAC nominal
	Connector:	Wago 264 cage clamp, 0.2 – 0.75 mm ² solid core or untinned fine stranded wire twisted pair ^(Note 1)
DC output to HLS-2C	Voltage:	24 VDC nominal
	Power Consumption:	15 W max
	Connector:	Wago 264 cage clamp, 0.5 – 1.5 mm ² solid core or untinned fine stranded wire ^(Note 1)
Environmental	Operating temperature:	-20 to +70 °C
	Humidity (non condensing):	90 % RH max
Physical	Dimensions	width 150 mm x length 200 mm x depth 82 mm
	Weight	2 kg

Note 1: Wire size range specified to match terminals of both HLS-2C and the HLS-UA products

Warranty:

This product carries a two year parts and labour warranty from date of shipment from Ampetronic. The warranty could be invalidated if the instructions in this handbook are not followed correctly, or if the unit is misused in any way.

Troubleshooting:

<p>1.No loop signal received (via loop listener / field strength meter), or very quiet/low level</p>	<p>If “Power” LED (green) not illuminated on PCB inside HLS-2C</p> <ul style="list-style-type: none"> • See ‘2. No power’ below <p>If “AGC” LED (green) not illuminated when PA audio signal is active</p> <ul style="list-style-type: none"> • See ‘3. No input signal’ below <p>If Amber “Current” LED not lit on peaks of audio signal</p> <ul style="list-style-type: none"> • See ‘4. No output current’ below
<p>2. No power to HLS-2C (green “Power” LED in PCB is not lit)</p>	<p>Is a green LED visible inside the HLS-UA PSU module? If not, check AC mains input fuse: If fuse is blown, replace only with a fuse rated as shown in the technical details. If the fuse blows again, contact Ampetronic for advice.</p> <p>Check AC power is connected to HLS-UA and supply is turned on</p> <p>Check DC power connection wiring from HLS-UA to HLS-2C</p>
<p>3. No input signal to HLS-2C (Green “AGC” LED on PCB inside HLS-2C is not illuminated when PA audio signal is active)</p>	<p>Check PA input is connected to HLS-UA</p> <p>Check audio signal connection between HLS-UA and HLS-2C</p> <p>Adjust input 1 gain control on PCB inside HLS-2C until AGC LED is lit when PA is active</p> <p>Note: HLS-2C is supplied with input controls preset to 50% gain</p>
<p>4. No output current from HLS-2C PCB to Loop Coil in panel (Amber “Current” LED is not lit on peaks of audio signal)</p>	<p>Check that audio input is set up correctly (see ‘no input signal’ checks above) – if there is not enough input audio signal, there will be little or no output.</p> <p>Check loop coil has not become disconnected inside HLS-2C – if it has, re-insert wires to Loop terminals</p> <p>If the unit temperature exceeds the rated range for HLS-UA or HLS-2C, the Power Supply or HLS-2C PCB may shut down to self-protect. Take action to reduce the environmental temperature of the affected unit.</p> <p>Note: output “Current” control is supplied preset to the correct level for most installations. You should not adjust it unless advised by Ampetronic.</p>

If you experience other issues in installation or use, or problems persist after following the above advice, please contact Ampetronic for further support.

EC Declaration of Conformity

Manufacturer: Ampetronic Ltd
Address: Unit 2, Trentside Business Village
Farndon Road
Newark
NG24 4XB

declare that:

Equipment Power & Input Adaptor
Model name / number HLS-UA

in accordance with the following directives:

2014 / 30 / EU The Low Voltage Directive
and its amending directives
2014 / 35 / EU The Electromagnetic Compatibility Directive
and its amending directives
2011 / 65 / EU The RoHS Directive
and its amending directives

has been designed and manufactured to the following specifications:

Safety Standard: EN 60065:2014

EMC Standards:

Emission EN 55032:2015, EN61000-3-2, EN61000-3-3
Immunity EN61000-4-2, EN61000-4-3, EN61000-4-4, EN61000-4-5, EN61000-4-6, EN61000-4-8

**I hereby declare that the equipment named above has been designed to comply to with the relevant sections of the above specifications.
The unit complies with all essential requirements of the Directives.**

Date: December 2017
Name: Julian Pieters
Position: Managing Director



Contact details:

For more information about this product please contact:

Ampetronic, Unit 2, Trentside Business Village Farndon Road, Newark, NG24 4XB , UK

Tel: +44 (0) 1636 610062
Email: support@ampetronic.co
Web: www.ampetronic.co

Company number 02095350