YSEL Induction Loop System for Lifts with Battery Back Up Supply

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YSEL
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Precautions

Avoid locating the unit too close to devices like fluorescent lighting and transformers etc, as these may cause interference.
Avoid area's of dampness and extreme temperatures. Please read this instruction sheet fully before use.

Description

The YSEL Induction Loop System has been specifically designed to help hearing aid users pick up the sounds inside the Lift Car.
The unit contains an internal microphone and a coil or wire for producing the magnetic field, this coil of wire is known as the loop.
Due to the type of noise conditions in a Lift it can be difficult for a hearing aid to pick up the sounds and amplify these in the correct way.
In these situations a hearing aid user has an option to switch their hearing aid to a 'T' position.
This allows the hearing aid to pick up sound from any magnetic field which can then be converted to normal sounds i.e. announcements and conversations.
Our Loop Induction System has been designed to provide the required magnetic fields for a Lift and is easy to install with its compact, one connection design.
This unit is compatible with all manufacturer type of auto-dialler and speech units.

Loop Specification

Supply Voltage 12 V d.c. Socket
Max Operating Current 3A
Inputs Internal electret microphone
Suitable line level/second microphone
Microphone Sensitivity 66dBM to -2dBM
Bandwidth 50Hz to 20kHz
Overall Performance Bandwidth at any output level 50Hz to 15kHz +3dB around 1kHz reference
Distortion: <0.5% THD @1kHz
Dynamic range: > 90dB
Noise:< -86dB
CMRR:> 84dB
Coverage(internal loop) 1.5m radius
Input Level Control Mic: -8 to +40dB
Power Output current 0.8 ARMS @1KHz 3.0 Apeak
Quality Tested to and conforms with BS7594 and BS6083 part 4, EN60118-4
Power consumption: Standby (no sound close to mic) 25mA (0.04W)
Maximum in use 1.5A (9W)
Approvals EN61000-6-1 2001, EN60950: 2000, EN 61000-3-2: 2000, EN 61000-3-3 1995, A1: 2000 EN60950: 2000, EN50081-1: 1992.
Dimensions 160 x 110 x 45mm
Fixings 2 x M4 at 148.5mm centres.
Part Number YSEL - 083.000244

PSU Specification

Input Voltage: 240V AC
Output Voltage: 12VDC
Battery:12V 3.1Ah Sealed Lead Acid.
Battery duration: >3hr
Dimensions: 254mm x 180mm x 90mm

Volume / Power Adjustment

The YSEL has 2 potentiometers that can be adjusted by a slotted screw driver through the holes marked on the diagram to the right.
RV1:- Built in Microphone sensitivity.
Turn the pot anti-clockwise to make the input more sensitive.
If this input is not needed turn fully clockwise.
RV2:- External mic 2 or line level.
Turn pot anti-clockwise to make input more sensitive.

Installation

The YSEL unit is designed to be mounted within the COP of the Lift or within close proximity to it.

Battery Back Up Power Supply.

A battery backed 12V supply is provided and will require mounting in a location on top of the lift car and connecting to a suitably fused Mains outlet. A 2.1mm DC Plug with a 4Mtr length of wire is provided for the supply of the Loop Induction Unit.

Loop Inputs.

Input to the unit is via microphone, either built in or extension (for extension microphone use **M1** and **M2** using screen and tip of stereo 3.5mm plug), or line input via **M2** using screen and ring of 3.5mm plug (Not included).

The built in microphone is situated below the unit and works by receiving reflected sound. The feet on the YSEL are at the correct height for this microphone.
The two fixing holes at either end of the unit can be used with screws or threaded pillars, alternatively, self adhesive velcro is provided for fixing to the rear of the emFONE SL Unit.
Install the Loop Unit close to the required sound source so that the internal microphone can pick up and relay this sound, typically in the COP.
If this is not possible then **M 2** can be used as a line level input. Simply connect the line signal to the **M 2** input taking care to observe correct polarity.
The **M 2** input and the internal microphone can be used at the same time. For instance the internal microphone can be used to pick sound from the emergency phone while the line input is used for in car announcements or vice versa.
With the BBU PSU fitted, connect the 2.1mm DC Plug into the Loop supply Input.
In most cases this is all that is required; the LED on the top of the unit should indicate that power is on and that the unit is working.
To adjust level of internal microphone, rotate **RV1** to the correct position. Normally the LED should be just changing to red on peak inputs but this should be checked using a field strength meter and listening to the signal, adjust accordingly.

OPTION 1
If using an extension loop, plug it into the socket on the YSEL and secure it in the required position. Then install as above.

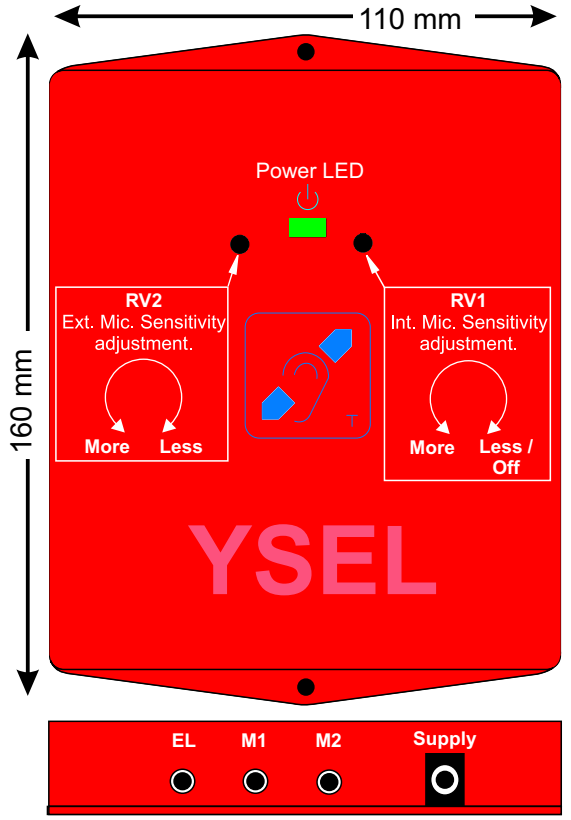
OPTION 2
If using the extension microphone, connect it to the **M1** (this shuts off the internal microphone) or **M2** (internal microphone still active) and secure the microphone in the required position. Then follow the instructions above.
RV1 adjusts input on **M1**, **RV 2** adjusts input on **M2**

OPTION 3
If connecting the unit to a line level input, connect using 3.5mm stereo plug using screen and ring, observe the correct polarity. Then follow the installation guide above.
Use RV2 to adjust input level.

Testing

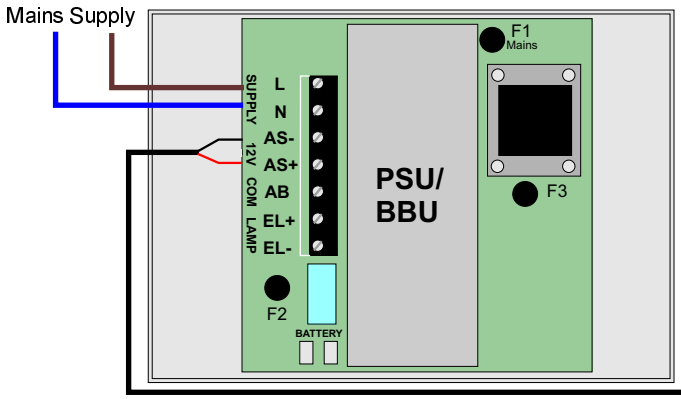
Field strength meters are available from TVC, part code: 083.000221.

Dimensions & Detail

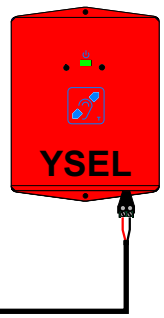


EL = External Loop Input
M1 = Mic Input 1
M2 = Mic Input 2 or Line In
Supply = 12Vd.c. Input

Typical Wiring to YSEL

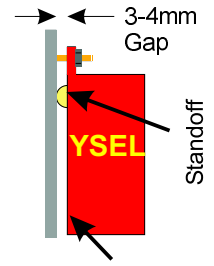


Compatible with all auto-dialler types



Example shown.
emFONE
CD-LX/SL
Speaker/ Mic unit

Side View



Internal microphone aperture on the rear of the device