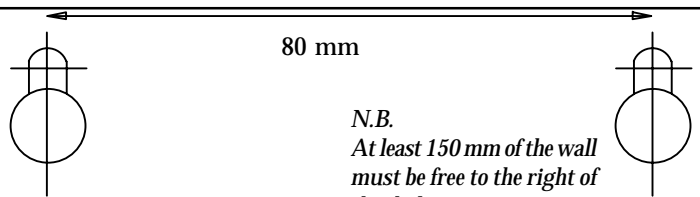


## OUTPUT

Adjust the loop current with the "OUTPUT LEVEL" potentiometer until recommended field strength is obtained. This can be measured with an field strength meter. Note that the recommended field strength is based on the *International Electrotechnical Commission's* publication IEC-118-4. The standard is 100mA/m RMS, 100 - 5000Hz. If no field strength meter is available, the adjustment could be simplified using the LED instrument "OUTPUT AMPS". follow the recommendations below for a approximated adjustment.

Loop area	Loop config./wire	Output RMS	Output peaks
< 35 m <sup>2</sup>	2-turn/0,38 mm <sup>2</sup>	yellow LED	(green LED)
35 m <sup>2</sup>	1-turn/0,76 mm <sup>2</sup>	yellow LED	green LED
35 m <sup>2</sup>	2-turn/0,38 mm <sup>2</sup>	yellow LED	(green LED)
50-75 m <sup>2</sup>	1-turn/0,76 mm <sup>2</sup>	yellow LED	green LED
75-100 m <sup>2</sup>	1-turn/1,50 mm <sup>2</sup>	green LED	red LED
100-150 m <sup>2</sup>	1-turn/3,00 mm <sup>2</sup>	green LED	red LED

If needed adjust "EQUALIZER" by listening.



*N.B.  
At least 150 mm of the wall  
must be free to the right of  
this hole.*

## Wall mounting chart

### EQUALIZER

Adjust the equalizer so that a good sound quality is obtained.

- Increasing the high frequencies in the amplifier could be necessary to compensate the high frequency losses in case of building reinforcement or similar.
- Increasing the amplifiers mid frequencies could in certain cases be a good method to improve the apprehension of speech.

**LOW** — Bass, 50Hz ±12dB.

**MID** — Mid range, 800Hz ±12dB.

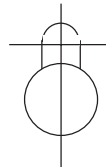
**HIGH** — Treble, 12kHz ±12dB.

*(The amplifiers frequency response is flat, 100 - 5000Hz,  
with EQ adjusted in "12 o'clock position")*

LIC AUDIO AB  
P.O. BOX 603  
SE-194 26 UPPLANDS VÄSBY  
SWEDEN

DISTRIBUTOR:

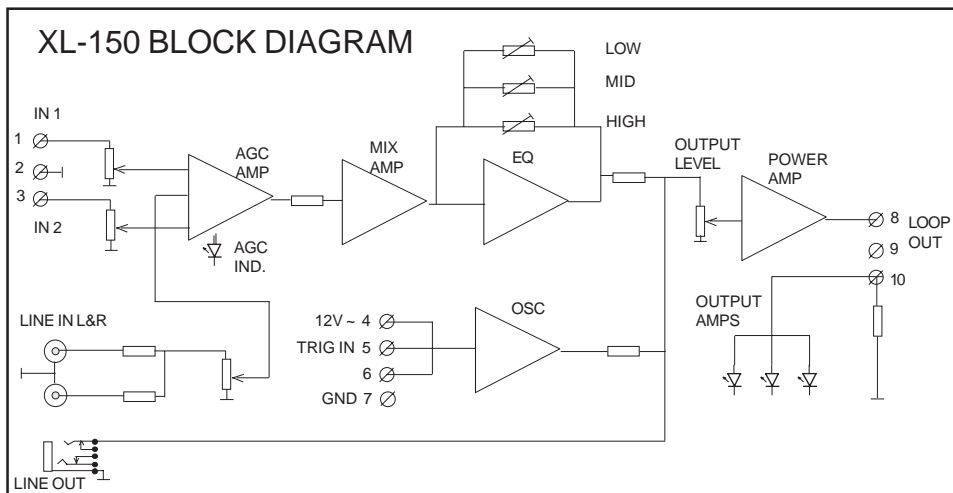
PHN. + 46 8 590 00 450  
FAX. + 46 8 590 00 490



## INSTALLATION INSTRUCTIONS INDUCTION LOOP AMPLIFIER

# XL-150

LIC AUDIO 



## Inputs & Outputs

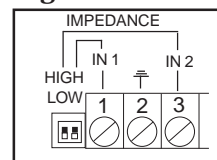
**IN 1.** 50 mV - 10V/430W/70kW, AGC (10-pin connector). See fig. 2A.

**IN 2.** 20 mV - 10V/430W/200kW AGC (10-pin connector). See fig. 2A.

**LINE IN.** 2x200 mV - 10V/50kW, AGC (RCA conn., stereo compat). See fig. 2B.

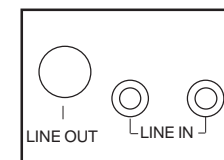
**LINE OUT.** Output, 0.775V (0dB)/150W (6.3 mm Tele connector). See fig. 2B.

**Fig. 2A**



*Inputs*

**Fig. 2B**



*Line Out, Line In*

## Before you begin the installation

- Check to ensure that the background magnetic interference is acceptable in the area to be served by the loop. (Should not exceed -25dBA rel. 100 mA/m).
- Plan the layout of conductors in such way that the leads carrying the input signal are not placed in parallel and close to the loop conductors.
- Choose loop wire of correct dimension, in relation of area to be covered. (See recommendation below).
- Make sure that a mains socket rated for 240V is available.
- The amplifier will become warm under maximum load conditions. We recommend you to inform the user about this.

## Acoustic installation, doorbell etc.

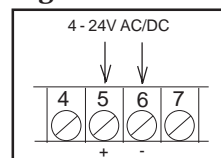
**Fig. 3A:** Trig input, from existing doorbell or similar. 4-24V AC/DC. In case of DC voltage, connect + to pin 5.

**Fig. 3B:** Tone indication on the loop, by a short circuit function.

**Fig. 3C:** Door- and/or telephone bell, power supplied from XL-150. 12V AC max. 1.6A.

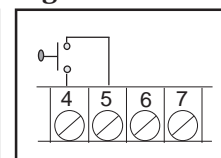
**Fig. 3D:** Power supply output, 12V AC max 1.6A.

**Fig. 3A**



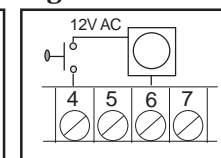
*Trig input, 4-24V AC/DC*

**Fig. 3B**



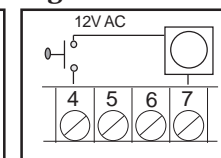
*Tone indication, by short circuit function*

**Fig. 3C**



*Door/telephone bell supplied from XL-150*

**Fig. 3D**



*Power supply output 12V AC max 1.6A*

*N.B. Every connection (except fig. 3D) gives a tone indication on the loop.*

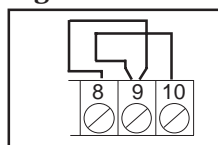
## Loop Output

**Fig. 1:** Connect the loop wire to “LOOP OUT” (pin 8 & 10) on the 10-pin connector on the rear panel. For 2-turn loop, use pin 9 as intermediate connection point.

## Recommendations for loop wire (1-turn loop)

< 35 m <sup>2</sup>	—	2 x 0,38 mm <sup>2</sup>	=	0,76 mm <sup>2</sup>
35-50m <sup>2</sup>	—	2 x 0,38 mm <sup>2</sup>	=	0,76 mm <sup>2</sup>
50-75 m <sup>2</sup>	—	2 x 0,38 mm <sup>2</sup>	=	0,76 mm <sup>2</sup>
75-100 m <sup>2</sup>	—	2 x 0,75 mm <sup>2</sup>	=	1,50 mm <sup>2</sup>
100-150 m <sup>2</sup>	—	2 x 1,50 mm <sup>2</sup>	=	3,00 mm <sup>2</sup>

**Fig. 1**



*Loop Output*

## NOTE:

1. For a 2-turn loop the magnetic field strength will become stronger, but the high frequency response will decrease
2. If the cross-section area of the loop wire is greater than recommended, the amplifiers gain will decrease and due to this the magnetic field strength will become weaker in the area covered by the loop wire.

## Adjustments

### INPUT

All Inputs are adjustable with potentiometers on the front panel. To get a better dynamic range with AGC (IN 1, IN 2 och LINE) these potentiometers should be adjusted so that the AGC LED lights only in normal program peaks.

- If a programme with high impedance is connected to IN 1 or IN 2, the switch marked “IMPEDANCE” on the rear of the amplifier should be adjusted in “HIGH” position.
- If no signal is connected the control shall always be in “0” position.