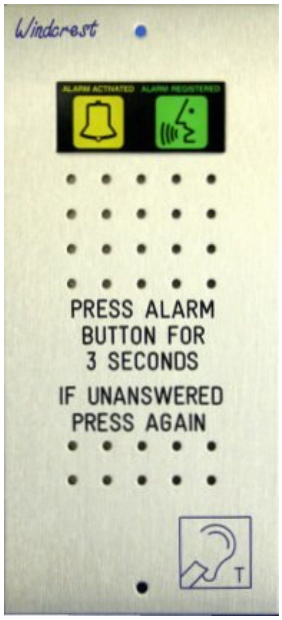
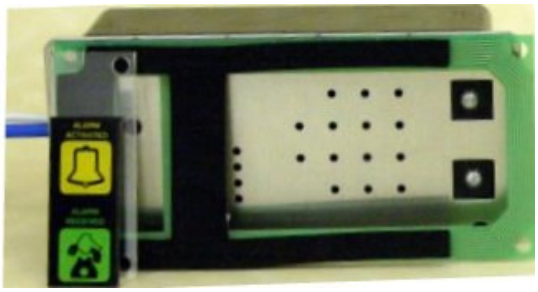
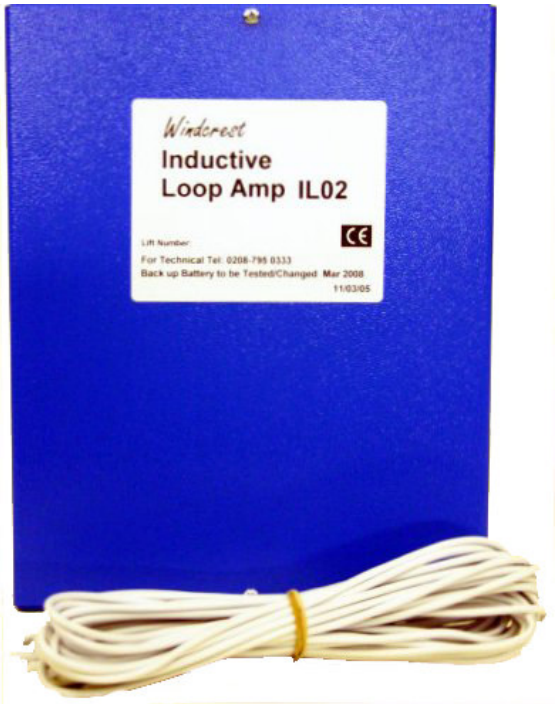
Inductive Loop Systems





Low Power Inductive Loop: ILO1



Medium Power Inductive Loop: ILO2

Introduction

An inductive loop amplifier is often used to improve the sound volume and quality of sound to a person with a hearing aid. Under normal situations, the hearing aid is set to pick up sound and amplify sound which is picked up by its internal microphone and present it to the person who is wearing the hearing aid. However, in a noisy environment or when the volume is low, the amplification of sound picked up by the microphone may not be good enough. To improve the general quality and volume of sound presented to the person with a hearing aid, he would place the hearing aid in the “T” position and pick up the signal from an inductive amplifier.

The Inductive amplifier simply converts the audio sounds to a magnetic field which is picked up by the hearing aid which there after reproduces the original audio. This process tends to improve the sound quality and allows the hearing aid wearer to adjust the volume to his requirement.

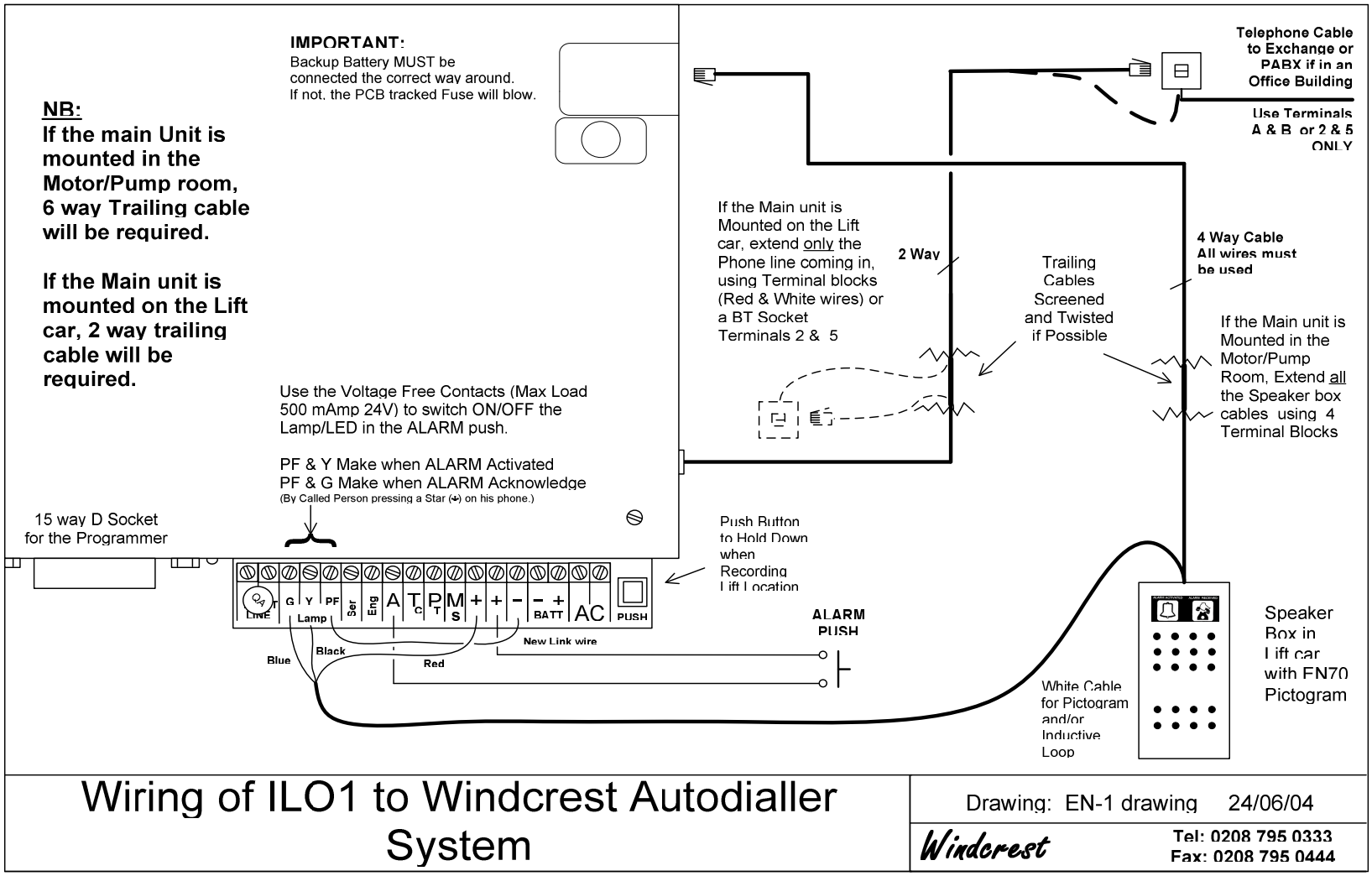
Windcrest has various Inductive Amplifiers which will produce the necessary magnetic field which can be picked up by the heating aid. The range of detection of the magnetic field is dependent on the amplifier power output and the local environment; as ferrous magnetic materials tend to absorb magnetic fields and reduce the effectiveness of the magnetic field.

Low Power Inductive Loop – ILO1 for Phone Line only

The standard speaker box, as used with a Windcrest Autodialler, can accommodate a low power inductive amplifier which amplifies the sound on the BT phone line. This amplifier is connected to a loop formed by the tracks of a pcb, which in turn is sandwiched between the speaker box assembly and the car operating face plate.
On the basis that the face plate is made of a non ferrous material, ie stainless steel, a range of approximately 300mm is possible.
The IL01 is powered by the Windcrest Autodialler and hence it is battery backed.

Installation of IL01

The installation of the IL01 consists of connecting the three wires to three terminals on the Windcrest Main unit. (If Pictograms are used, the Inductive loop amplifier will operate at the same time and no additional wiring is required).



Wiring of ILO1 to Windcrest Autodialler System

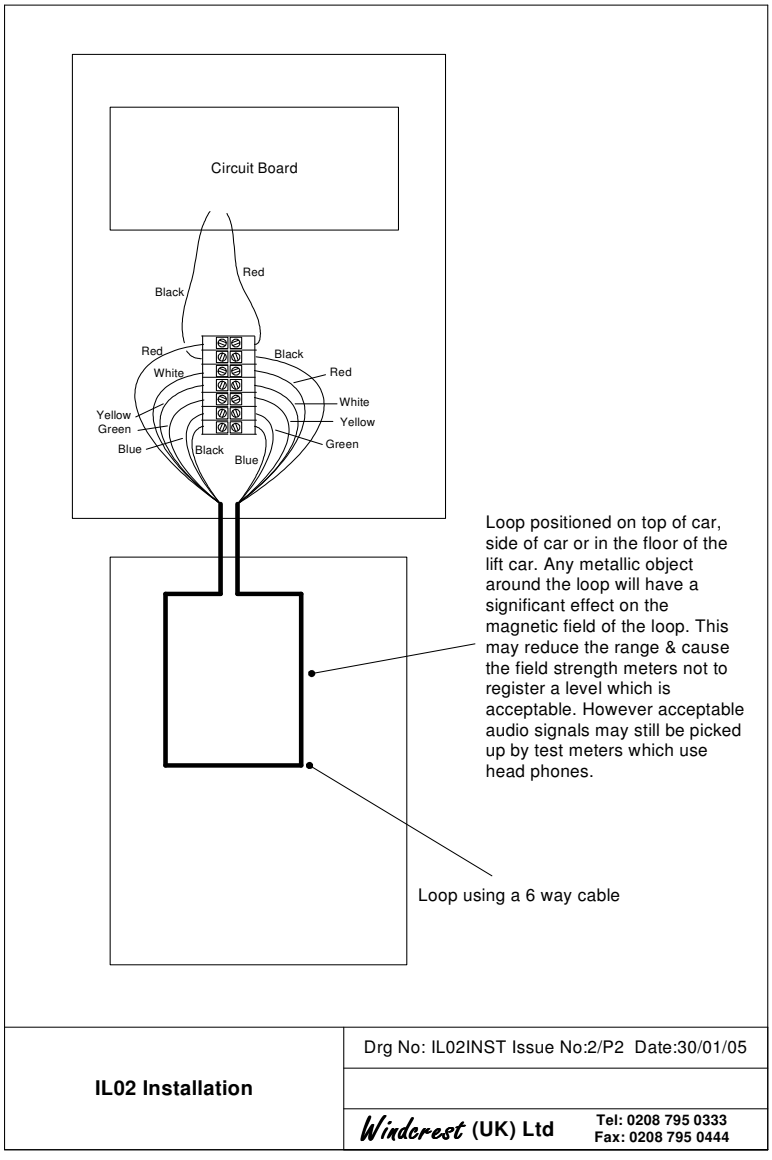
Drawing: EN-1 drawing 24/06/04

Windcrest
Tel: 0208 795 0333
Fax: 0208 795 0444

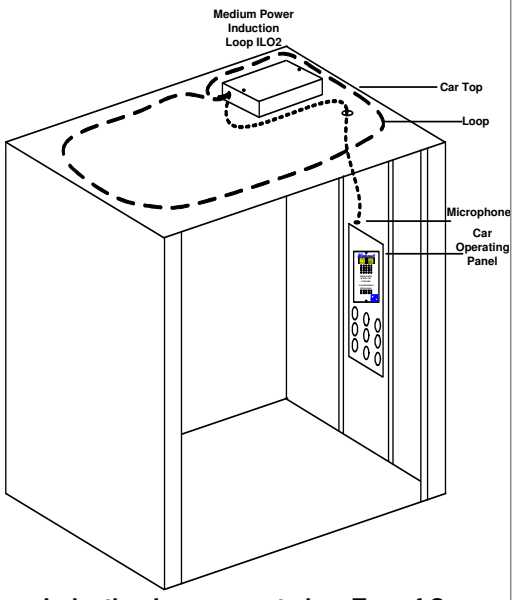
Medium Power Inductive Loop - ILO2 for Phone line and Speech Synthesis unit

For applications where a greater coverage is required and where a speech synthesis unit is installed, the IL02 solution is offered.
This unit is mains powered with battery back up and a higher current drive capability. It can be connected to larger loops made of wire and there by provide a more consistent magnetic field.
The unit uses a microphone mounted in the car operating panel not only to pick up the audio from the BT Phone line but also from the speech synthesis. (However, if a direct wired connection is required, the version IL08 will provide this facility).

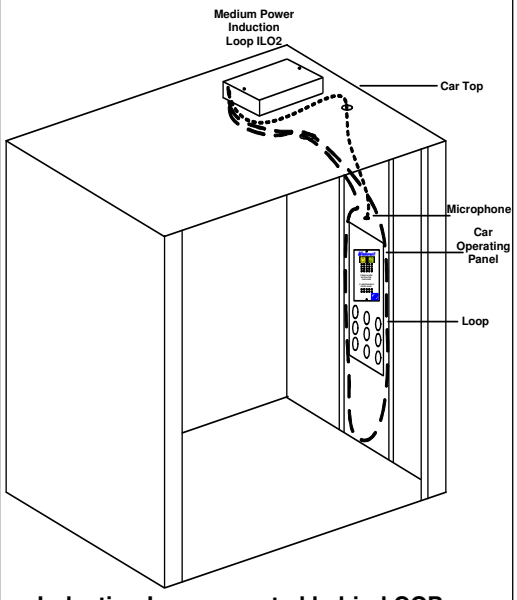
Installation of IL02



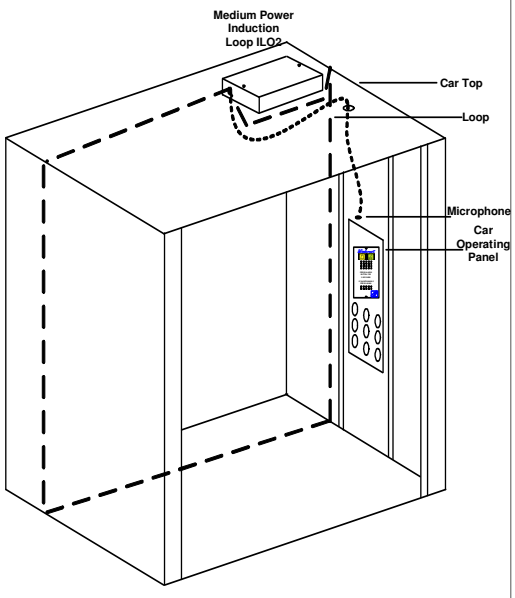
Examples showing Loop Wire installation for full lift coverage



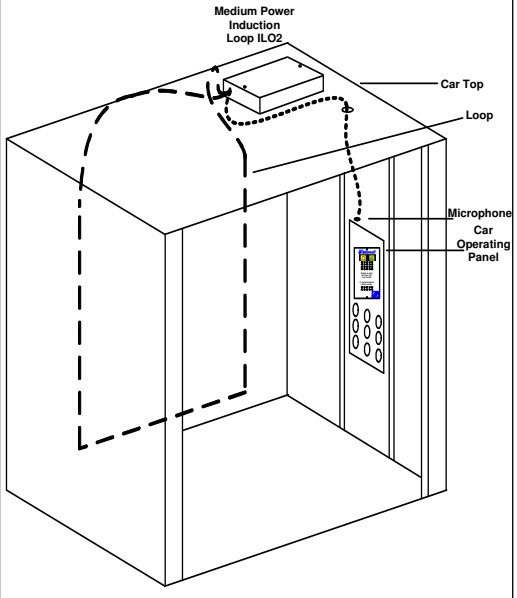
Induction Loop mounted on Top of Car



Induction Loop mounted behind COP



Induction Loop mounted around Lift Car



Induction Loop mounted behind Lift Car

Examples of ILO2 Installation	Drawing: ILO2 Installation Examples Revision 1.0
	DATE: 11/04/06
	Windcrest **Tel: 0208 795 0333** **Fax: 0208 795 0444**

Testing the Inductive Loop system

As mentioned, the inductive loop amplifiers produce the magnetic field which corresponds to the sound.
Various test units are available which provided a means of testing the effectiveness of the loop.

Audio Pick up Unit

> A test unit which acts like a hearing aid and simply coverts the magnetic field into sound which is played through a pair of headphones.

LED indicator type

> A test unit which indicates the presence and the level of a magnetic field by means of a set of LEDs. The general guide is to ensure there is an average level of magnetic field which corresponds to 0dB. However, the main thing is to ensure that the LED indicator responds to speech rather than simply a steady level. (Electric motors, door gear etc will produce a magnetic field and it may mask the speech from the inductive loop).

Inductive Loop Field Strength Meters