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# ILD20

## Induction Loop Amplifier

### Installation & Commissioning Handbook

#### 1. INTRODUCTION

The ILD20 has been designed as a high quality current driver for counter systems and small rooms. The unit is easy to install and use, and as a counter installation the ILD20 is a complete kit, whilst only suitable wire is required for most small rooms.

#### 2. PRELIMINARY INSTALLATION DATA

If the system is installed with the counter loop pad, follow the instructions in 2.1.

If the system is to be used with a perimeter loop, follow the instructions in 2.2.

Sections 3, 4 and 5 apply to all installations.

##### 2.1 Fitting the loop coil

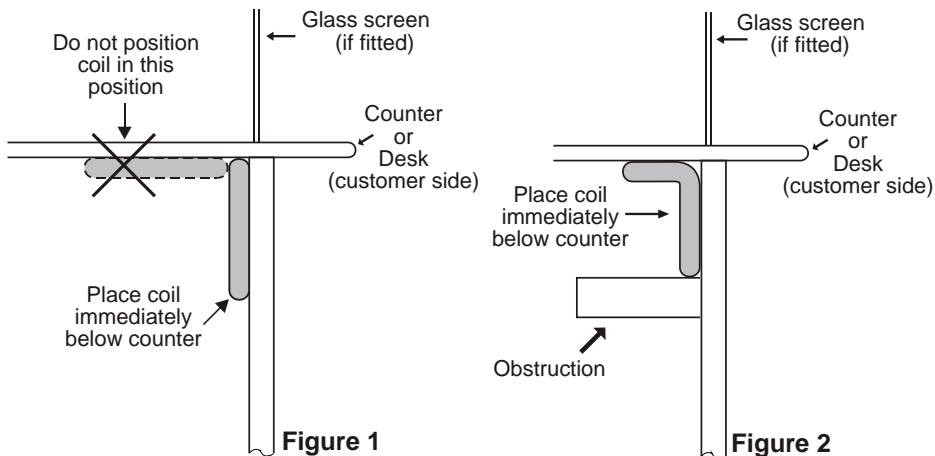
The loop coil can be positioned as shown in figure 1, with the larger dimension of the coil horizontal.

If the space for fixing the coil is restricted, then a small portion of the coil may be bent over as shown as in figure 2.

The coil can be fixed to the wall or partition using the adhesive cable clips supplied. Position the clips so that the tabs point towards the centre of the coil and locate the tabs or clips so that the coil is held firmly when the tabs are bent over. Other clips may be used if preferred.

Important Notes:

- i) The partition or desk must not be made of metal for the system to function correctly; if this is a problem please contact Ampetronic Ltd for advice.
- ii) Do not install the coil in a horizontal plane unless agreed with Ampetronic Ltd in advance.
- iii) Do not pierce the coil structure with any object.



## 2.2 Installing a perimeter loop.

Where an induction loop facility is required to cover a room or defined area, a perimeter loop should be used.

### i) Loop Position and Size

The loop will often run around the edge of the room and for best performance should never be located at headheight (listening level). An optimum spacing from loop to normal listening height is 12 - 16% of the loop width. This often places the loop at floor or ceiling level. In special circumstances, a range of 8 - 25% may be used, though the evenness of the signal across the area is significantly degraded.

Alternative positions may be possible, such as covering the seated area of a desk, etc. Contact Ampetronic for further advice.

The ILD20 is intended for use with loops up to 20m<sup>2</sup> in area. If the area to be covered is larger, a more suitable driver unit should be used. Please contact Ampetronic Ltd for details of other units available.

### ii) Loop Cable

All Ampetronic loop drivers are designed to operate into **single turn** loops and must not be used with multi-turn loops.

The resistance of the loop should be between 0.2 and 1 . The cable length limits for various wire sizes are as follows:

Cable size section	Minimum length (m)	Maximum length (m)
0.5 mm <sup>2</sup>	5.5	28
0.75 mm <sup>2</sup>	8.5	42
1.00 mm <sup>2</sup>	11	56
1.8 mm <sup>2</sup> Flat Cable	20	87

*Note 1: value defined by maximum impedance at 1600 Hz, affecting frequency response. Consult Ampetronic for further advice.*

Normal stranded or solid-cored cable can be used. A suitable cable for most applications is BS6231 'Tri-rated' cable. Flat copper tape is available for use under carpets where normal wire would be unsuitable.

### **3. FITTING THE MICROPHONE**

The selected microphone (tieclip, desktop or boundary) should be positioned so that it is near to the desired sound source and directed towards that source. There are many ways to mount the microphone and the method used will depend on the circumstances of the installation but should ensure that a clear, non-reverberant signal is obtained.

Microphones must be the unbalanced electret type, suitable for powering from the equipment. Balanced dynamic or condenser microphones are not suitable for direct connection to the ILD20; if such microphones must be used, the MAT60 adapter is available from Ampetronic. The unbalanced microphone cable to the ILD20 should never exceed 3m in length. Longer cables do not ensure that the EMC immunity performance is maintained.

### **4. INSTALLING THE ILD20 AMPLIFIER**

The ILD20 should be positioned near to the loop coil in counter systems, and may be placed in an enclosed space such as under a counter. It may be mounted vertically or flat standing. For vertical mounting the drilling template is provided with the equipment. Only use the specified screws, and ensure that the unit is tightly held to the wall or surface when installed. When mounted vertically, the microphone connections are at the top.

The microphones, loop and AC power supply should be connected to the appropriate terminals/connectors. Ensure that the loop terminals are secure and that there are no trailing cables which might get caught or pulled. Bunch up any loose cables and secure safely.

### **5. SETTING UP THE ILD20 LOOP DRIVER**

- i) Turn the 'DRIVE' control to  $\frac{3}{4}$  full. Set the 'TONE' control to mid position.
- ii) Increase the 'MICROPHONE 1' (or 2 if used) from minimum until the green 'Compression' LED begins to light with normal speech from the usual position of the counter staff, or with the normal input signal for non-counter systems. The red 'Current' LED should light at peaks in the input signal.
- iii) Using a loop monitor receiver, adjust the 'TONE' control if necessary for the best sound.
- iv) If a field strength monitor is available, check the level at the listening position and adjust the 'DRIVE' control as necessary.

## **6. GENERAL INFORMATION**

### **6.1 Safety Notice**

The ILD20 contains hazardous voltages and direct connection to the AC mains. Do not open the unit unless suitably qualified. Internal servicing may only be carried out by Ampetronic Ltd unless written authority is obtained in advance.

The unit contains no user serviceable parts or adjustments.

**6.2 Dimensions** Width: 101 mm Height: 40 mm Length: 194 mm

**6.3 Weight:** 990g

### **6.4 Warranty Information**

This product carries a 5 year parts and labour warranty which could be invalidated if these instructions are not followed correctly, or if the unit is tampered with in any way.

The 5 year warranty is dated from the time the equipment leaves Ampetronic and NOT when it is installed.

ILD20 is designed and manufactured in England by Ampetronic Ltd.

## **DECLARATION OF CONFORMITY**

Manufacturer: Ampetronic Ltd.  
Address: Northern Road Newark,  
Nottinghamshire, NG24 2ET  
United Kingdom.

Declares that the product:

Description: Induction Loop Driver  
Type Name: ILD20

Conforms to the following Directive(s) and Norm(s):  
Directive 89/336/EEC

EMC: EN50081-1 (1992)  
EN50082-1 (1992)

Directive 73/23/EEC

Safety: EN60065 (1995)

December 1995  
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