



## Fitting & commissioning instructions

### 1 Planning a loop system.

The majority of problems with AFILS (audio frequency induction loop systems) occur when the installation has not been properly thought through, taking a little time at the beginning can save no end of time later.

Ideally the loop amplifier should be placed as close to the area to be covered as possible, with the shortest run on the microphone cables. This may involve placing the amplifier on the vanity panel of a desk, or fixing it to the underside of the board room table, and then running an extended mains feed which will cause few problems with the installation.

It is always wise to consider who is using the system, for instance; if you are covering an interview room, you only need to provide for the interviewer and client, so a loop around the desk may be a better solution rather than providing a loop around the perimeter of the room, it will also reduce over spill and increase privacy.

### 2 Installing the loop.

The loop can consist of either cable, or a pre-made telecoil. The latter is ideal for quick installation to bank counters and ticket offices and should be placed as close to the customer as possible. The telecoil produces a field about 1.2m in diameter allowing them to be placed on alternate serving positions in densely populated bank halls.

If the area to be covered is larger than that covered by the telecoil, then a single turn wire loop should be employed.

The ET30 amplifier is rated at 30m<sup>2</sup> coverage for a square room (5.2m a side) where the loop cable is fitted at ceiling (2.4m) or skirting board level. If the room is rectangular the unit will cover 50m<sup>2</sup> (10m by 5m) with the cable at ceiling or floor level. If the floor contains a lot of steel (computer decking) or aluminium or the cable is placed at a higher level than 2.4m then the coverage will be reduced (approximately 20% per additional metre in height).

The loop consists of insulated cable between 0.5mm and 1.5mm CSA (we recommend tri-rated switch gear wire, this has a much thicker jacket and is easier to clip down as well as being harder wearing).

The cable should be securely clipped at either skirting level (taking adequate care for protection when going past doorways) or at ceiling level (2.4m).

If there is any doubt as to the construction of the building, it is always best to lay a temporary loop in the approximate position the final loop will occupy, this will determine the operation of the loop. Many new

buildings contain aluminium in lost screed flooring, loops placed on the floor near this aluminium will fail to operate satisfactorily.

place driver here to insert cable



Once the loop cable is installed the ends should be bared and placed into the orange loop connector on the top of the amplifier. The cable grip is opened using a small flat blade driver as shown above. Conventionally the loop start is connected to + and the end to -.

Good practice is to twist the loop feeder cable together between the start and end of the loop and the amplifier. Current Thinking provide the telecoils with twisted feeder cables, and feeder cable is available in 5m and 10m lengths.

### 3 Microphones.

Microphones should be placed near to the source of the sound for the loop. No one microphone will fit all uses, Current Thinking provide a variety of microphones, however in certain conditions specialist microphones will be required and these are available from third parties who should provide guidance on their usage.

In general the tie clip microphone will give good coverage placed on the mullion of a counter or on the side of a television or monitor. The desk microphone is particularly suited to desks, board room tables and counters.

Microphone cables must be run separately from the loop cable, under no circumstances should the cables be tied together for any distance, this will cause magnetic feedback and the unit will not perform correctly.

The microphones simply plug into the 3.5mm jack sockets on the top of the amplifier.

### 4 Mains power.

The ET30 is supplied with a pre-wired IEC type mains lead, if however you wish to remove this and wire directly to a fused spur then a 3A fuse should be fitted to the spur. The mains plug should be cut away and the plug section disposed of safely. The lead should then be stripped back and connected as follows:

Brown connects to  Live  (L)

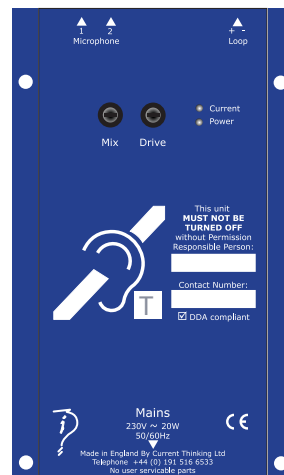
Blue connects to  Neutral  (N)

Green/Yellow connects to  Earth  (E)

**If you are in any doubt consult a qualified electrician.**

### 5 Commissioning.

Before applying power to the unit ensure the drive control (middle of the panel) is fully anti clockwise.



Apply power, the green power LED should illuminate.

Next set the Mix control this controls the balance between the two mic inputs. If only one is used then turn the control fully anti clockwise (input 1 used) or fully clockwise (input 2 used). If both mics are in use set to the center position initially.

Using a field strength meter or loop listening device slowly turn the drive control clockwise with someone speaking near the microphones positions (alternatively a small radio or pink noise source giving 65dBA output can be used), the desired field strength is 0dB (100µA<sup>-1</sup>) at the center of the room, or at head height in front of a counter using the telecoil.

As speech is being picked up the current LED should blink on the front of the unit, if it does not blink, and field strength is not achieved, switch off and check the wiring and loop continuity.

Once the field strength has been verified, the mix control can be adjusted to give the best balance if multiple microphones are used.

The check boxes on the front of the unit can now be completed with the responsible persons name and contact details (this should be the DDA officer for that section or the company using the unit). It is good practice to provide a site with a loop listening device so the responsible person can periodically test the installation and log operation in a booklet.

**Your ET30 should now be fully operational**



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