BT10

Installation Instructions

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BALDWIN BOXALL
COMMUNICATIONS

BT10 INTRODUCTION

The BT10 is a universal interface module.

Connect the input of the BT10 to either a 100 Volt loudspeaker line or a 0dB audio line level output. The BT10 output at either microphone or line level can be fed into an amplifier.

When a signal of a sufficient level is received at the input, the Vox circuit will operate and it will be passed via the output into the amplifier. In addition, the unit has a switched 0V available on the ACC terminal to access either an amplifier input or 3rd party equipment.

The Vox circuit is designed to ensure that there will not be any unwanted noise appearing at the amplifier input and being relayed through the loudspeakers.

The VOX amplifier incorporates a 1.5KHz filter allowing VOX operation on speech / music but not allowing operation on 20KHz surveillance tones.

A pre-set control allows adjustment of the Vox sensitivity. To set it, adjust the control so that it only switches on when a suitable signal level is present. The TEST LED will illuminate when the Vox has operated and the access will be switched ON.

The gain preset adjusts the gain of the unit and is factory pre-set at x 2 (6 dB). It can be used to compensate for different input signal levels.

The unit is powered from either mains or 24 VDC. If both are connected, in the event of mains failure there will be automatic switch over to the 24VDC and the unit will continue to operate.

BT10 CONFIGURATION

1) Set “VOX Sensitivity” to maximum (fully clockwise),
2) Set “Gain” to minimum (fully anticlockwise),
3) Connect the BT10 to the audio input (either 100V Line or Audio Line), and connect the output (and the access if required) to the amplifier. Apply power.
4) With a nominal signal applied, adjust “Gain” setting for the required output volume.
   Ensure the Green “TEST” LED is illuminated.
5) Reduce the “VOX Sensitivity” until just before the VOX gate removes the access as shown by the “TEST” LED.
   The nominal signal should now be sufficient to access the BT10.
6) If the signal source includes a 20KHz surveillance tone, ensure that the tone (without any additional audio) is not sufficient to access the BT10 and illuminate the “TEST” LED.

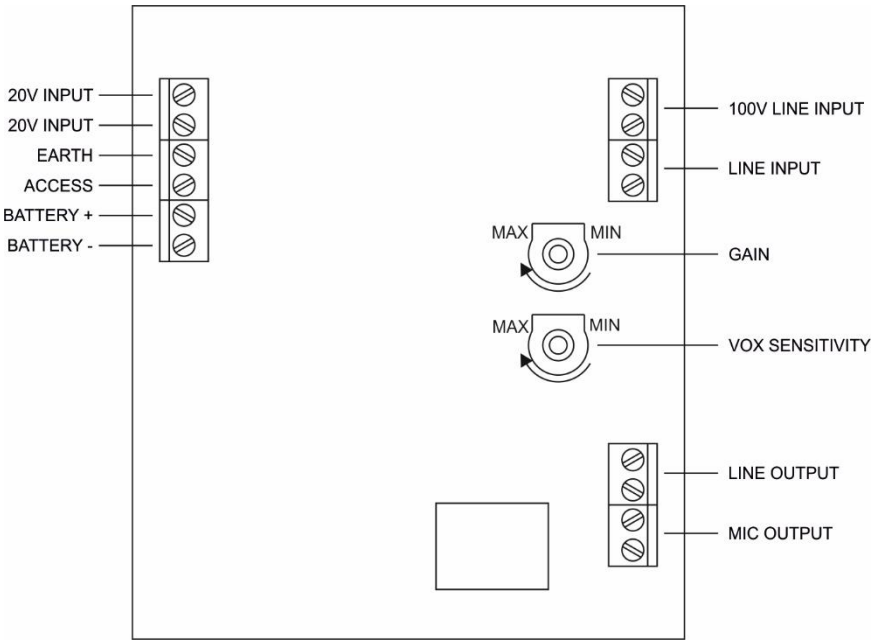

Figure 1 – BT10 Controls and Connections

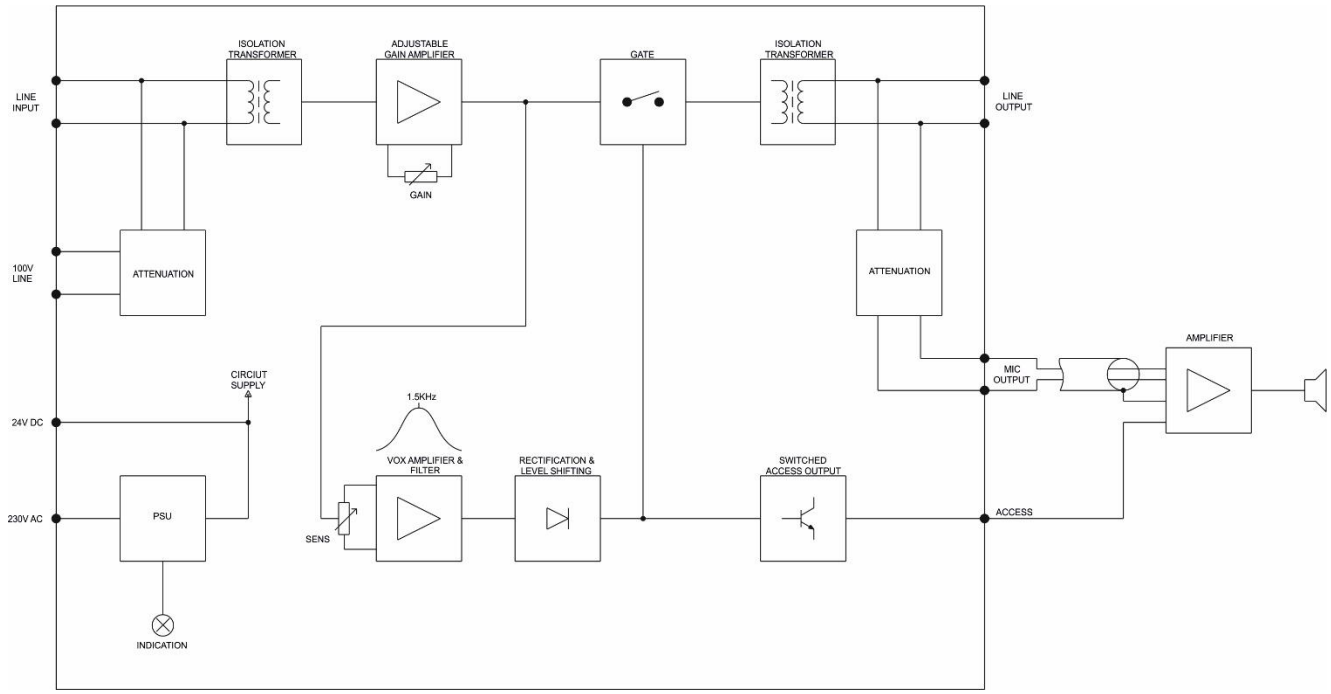

Figure 2 – BT10 Functional Block Diagram

SPECIFICATION

N.B. All figures are for 1 KHz input signal and gain set at X2 (6dB).

Vox Sensitivity (using audio line input)

Min	2.5mV (-50dB)
Max	250mV (-10dB)

Max output. (Before clipping)	3.0V (11.5dB)
T.H.D. (At max. output)	<0.02%
Gain Variable	0 - 16dB (x1 - x6) (Factory set to x2 (6dB)
Line Level Input for 0dB output. (max gain)	128mV (-16dB)
100V line input for 0dB output.	50V
DC supply current at	24VDC <20mA