

BDM 301 /301M

Operating Instructions

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BALDWIN BOXALL
COMMUNICATIONS

BDM 301

The BDM301 microphone is designed for use with our MITRE, ADEPT and VIGIL amplifier range and can be desk or wall mounted.

To Operate

1. Press 'Speak' to make an announcement. The 'Speak Now' LED will illuminate indicating that the system is ready for use. If a pre-announcement chime is being used the 'Speak Now' delay function must be selected. The LED will illuminate after approx. 2.5 seconds.
2. During the announcement the speech volume indicator will fluctuate. Try to keep the indication constant without the yellow segment illuminating. Maintaining a constant level will aid intelligibility.

Additional Features

Several important functions are incorporated into the microphone and may be selected as required. DIL switches are accessed via the side panel, refer to Fig 2.

1. Speak Now Indicator

The 'Speak Now' LED will operate in two different modes.

- a) Instantly illuminates when 'SPEAK' is pressed.
- b) Delayed by 2.5 seconds to allow time for the chime to operate and finish.

2. Output Level Option

The balanced audio output can be selected to either microphone (2.5mV) or line level (250mV), switchable by the DIL switch, refer to Fig 2.

Twin screened cable runs, up to 100 metres, generally operate well at microphone levels. However, if cable runs in excess of 100 metres are encountered or amplifier inputs are required to be wired in parallel, it is advisable to select the line level output and use amplifiers with line inputs. Using this higher level ensures that any unwanted interference signals induced on the cable are of a low level compared to the speech signal. If the amplifier only has balanced microphone inputs, it is possible to convert them to line level using three resistors forming an attenuator as shown in Fig 1 below.

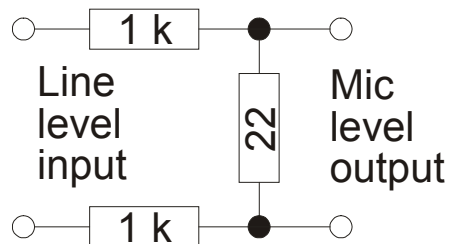


Fig1

3. Limiter

Selecting the limiter will ensure that the signal level remains fairly constant irrespective of input level changes. Using it will prevent system overload when different personnel use the microphone or speak too close to the microphone.

Note: Sensitivity increases by 12dB when limiter is selected.

BDM301M

The BDM301M has the same features as the BDM301 but has a factory fitted surveillance option to allow for monitoring of the microphone capsule and PTT line.

The surveillance frequency is factory set to either 20KHz or 1.5KHz (Default 20KHz).

The output surveillance level can be adjusted by VR1 on the surveillance option, which is located on the rear panel inside the microphone.

Technical Specification

	<i>Microphone</i>	<i>Line</i>
Nominal output level	2.5mV	250mV
Maximum output level limiter operating	7mV	700mV
Output impedance	47 Ohms	400 Ohms
Frequency response	250Hz – 10KHz	
Power requirements	24V DC	26mA standby 45mA max

BDM301 Connections

The microphone is terminated to a 25 way 'D' connector. It is supplied with a BMS25 single gang socket box and connections are made using the screw terminals.

<u>FUNCTION</u>		<u>BMS 25 CONNECTIONS</u>
AUDIO -	Output floating	16
CABLE SCREEN -	Connect to 0V	17
AUDIO -	Output floating	18
0V		19
24V DC -	Supply input	20
ACCESS -	Amplifier connects to 0V when speak or All Call keys are pressed. 24V @ 30mA	21
BUSY Indicator -	Switch to 0V to illuminate	22

Selector Location and Settings

Remove the two screws from right hand side and remove panel.

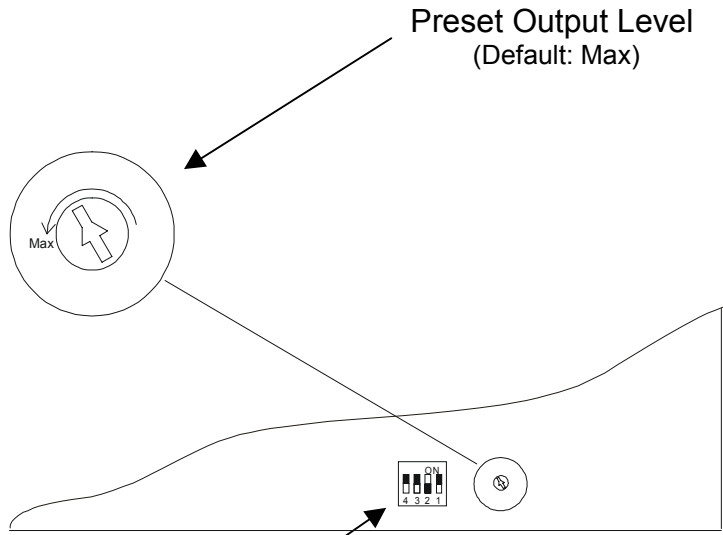


Fig 2

DIL Switch 1 on --- Mic level
 2 on --- Line level
 3 on --- Limiter
 4 on --- Speak Now delay
 (Default: 2 on. 1,3& 4 off)

Note: Ensure that the supply is disconnected before changing switch settings.