

BDM 232

Operating Instructions

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BALDWIN BOXALL
COMMUNICATIONS

BDM 232

The BDM 232 dynamic microphone is designed for use with our MITRE and VIGIL amplifiers.

To Operate

1. Select zones needed. An LED will illuminate indicating selected zone.
2. Press 'Speak' and make the announcement. If a pre-announcement chime is being used, the 'Speak Now' delay function must be selected. The LED will illuminate after 2.5 seconds indicating that the system is ready for the message.
3. 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 microphones and maybe selected as required. DIL switches are accessed with a screwdriver through the base - refer to Figure 2.

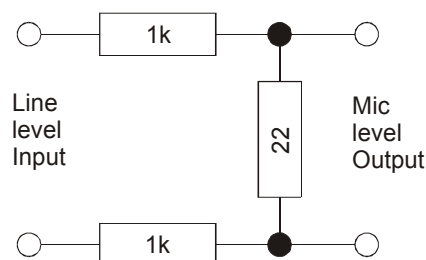
1) Speak Now Indicator

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

- a) Illuminates instantly when P.T.T. is pressed.
- b) Illumination delayed by 2.5 seconds to allow time for the chime to operate and finish. The delay circuit is built into the microphone as this avoids having to feed a return back from the amplifier.

2) Output Level Option

The balanced audio output can be selected to either microphone (2.5mV) or line level (250mV), switchable by careful use of a small screwdriver or similar tool. 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 Figure 1 below.



3) Zone Select Cancel

This facility is selectable between cancel and no cancellation modes.

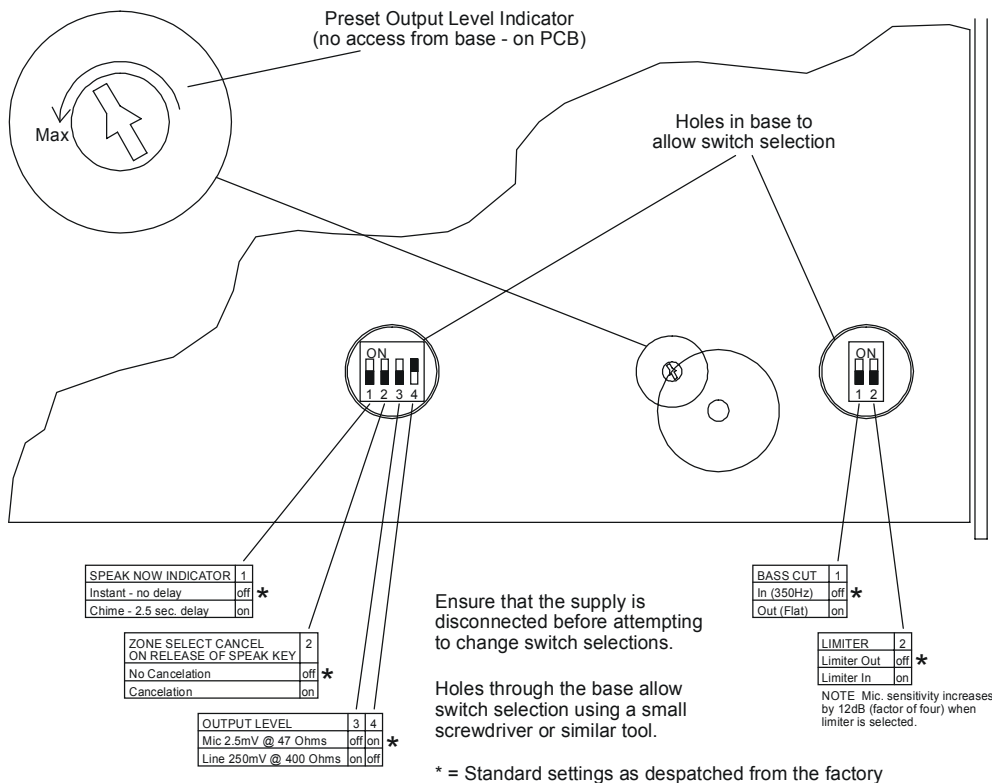
- a) When 'Speak' key is released, all zone selections will be cancelled. When a fresh announcement is to be made, zones must be re-selected.
- b) When 'Speak' key is released, the zones will remain selected. This is particularly useful when repeat messages to the same zones are made.

4. Bass Cut
Bass cut operating at 350Hz is selectable if required. This can be particularly advantageous to overcome the affects of talking closely to the microphone.
5. 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.

Technical Specification

	MICROPHONE	LINE
Nominal output level	2.5mV	250mV
Maximum output level limiter operating	7mV	700mV
Output impedance	47ohms	400ohms
Frequency Response	100Hz - 10KHz	
Bass cut facility	-3dB @ 350Hz	
Power Requirements	24V DC BDM232 35mA Standby	490mA Max
Dimensions	435mm (W) x 145mm (D) x 75mm (H) excluding gooseneck microphone.	

Figure 2. BDM 232 Selector Locations (on base) and Settings



BDM232 Connections and Terminations

The microphone is terminated to two 25 way 'D' connectors and is supplied with two BMS25 single gang socket boxes. Connections are made using screw terminals.

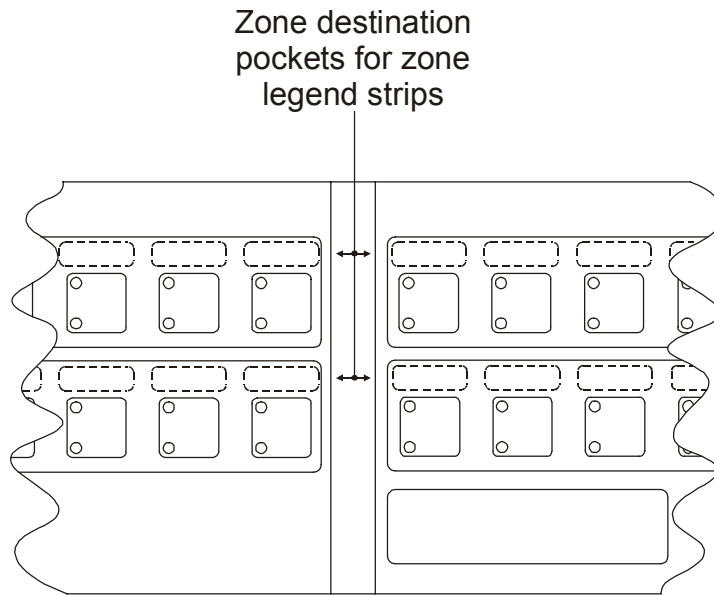
Cable no. 1

Function		Colour	BMS25 Pin Number
Select Zone 1		Green	1
Select Zone 2		Grey	2
Select Zone 3	NPN open	Pink	3
Select Zone 4	Collector outputs,	Orange	4
Select Zone 5	40v @ 100mA	Turquoise	5
Select Zone 6	max to zone	White / Red	6
Select Zone 7	Select relays etc	White / Blue	7
Select Zone 8	.	Green / Red	8
Select Zone 17	Connects to 0v	Red / Blue	9
Select Zone 18	When the 'Zone'	Yellow / Blue	10
Select Zone 19	or 'Speak' keys	Yellow / Red	11
Select Zone 20	are selected	Red / Black	12
Select Zone 21	Together, or	Red / Brown	13
Select Zone 22	'All Call'	Blue / Black	14
Select Zone 23		Orange / Blue	15
Select Zone 24		Yellow / Green	24
Spare		Brown	16
Spare		Screen / Green / Yellow	17
Spare		Blue	18
Spare		Black	19
Spare		Red	20
Spare		White	21
Spare			
Spare		Mauve	22
Spare			23
Spare			25

Cable no. 2

Function		Colour	BMS25 Pin Number
Select Zone 9		Green	1
Select Zone 10		Grey	2
Select Zone 11	NPN open	Pink	3
Select Zone 12	collector outputs,	Orange	4
Select Zone 13	40v @ 100mA	Turquoise	5
Select Zone 14	max to zone	White / Red	6
Select Zone 15	select relays etc.	White / Blue	7
Select Zone 16		Green / Red	8
Select Zone 25	Connects to 0v	Red / Blue	9
Select Zone 26	when the 'Zone'	Yellow / Blue	10
Select Zone 27	or 'Speak' keys	Yellow / Red	11
Select Zone 28	are selected	Red / Black	12
Select Zone 29	together, or	Red / Brown	13
Select Zone 30	'All Call'	Blue / Black	14
Select Zone 31		Orange / Blue	15
Select Zone 32		Yellow / Green	24
Audio Line	Floating Output	Brown	16
Screen	Connect to 0V	Screen / Green / Yellow	17
Audio Line	Floating Output	Blue	18
0V (-)		Black	19
24V (+)	Supply Input	Red	20
Access (Amplifier)	Connects to 0V when 'Speak' or 'All Call' keys are pressed.	White	21
Busy LED	Switch to 0V to illuminate	Mauve	22
Spare			23
Spare			25

Figure 3. To insert Zone Legend Strips



Zone legend strips can be fitted by sliding them in under the membrane.
The base of the microphone does not need to be removed.

Figure 4. To remove the base

Ensure that the supply is disconnected.

To remove the base, remove the 2 lower screws from both the left and right hand sides. Carefully lift the top, including the side panels, away from the base.

Cable removal from Base

Remove nut from gland.
Pull gland forward and slide cable through slot.

Remove these two screws from the base on each side

