


# M2BJ

## Buzzer Unit Series with Cylindrical 22-mm × 16-dia. Body

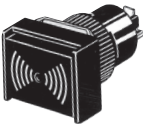

- Lineup includes standard-volume models (80 phons, constant) and high-volume models (70 to 95 phons, variable). Intermittent or continuous sound can be selected.





 Refer to "Safety Precautions for All Pushbutton Switches" and "Safety Precautions" on page 5.

## List of Models

### Buzzer

Appearance	Model
Rectangular standard-volume model 	M2BJ-B
Rectangular high-volume model 	M2BJ-BH

Ordering Information

Appearance							
	Standard sound				High sound *1		
	w/jumper direction A *2	Intermittent	Intermittent (short)	Intermittent (high-pitched)	Intermittent (short, high-pitched)	Intermittent (high-pitched)	Intermittent (short)
w/jumper direction B *2 (w/o jumper)	Continuous	Intermittent (long)	Continuous (high-pitched)	Intermittent (long, high-pitched)	Continuous	Intermittent (long)	
Supply voltage							
6 VAC/VDC	Model	M2BJ-B06	M2BJ-B06A	M2BJ-B06B	M2BJ-B06C	M2BJ-BH06D	M2BJ-BH06E
12 to 24 VAC/VDC		M2BJ-B24	M2BJ-B24A	M2BJ-B24B	M2BJ-B24C	M2BJ-BH24D	M2BJ-BH24E
12 to 24 VDC		M2BJ-B24-D	---	M2BJ-B24B-D	---	M2BJ-BH24D-D	M2BJ-BH24E-D

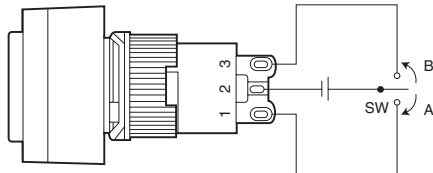
\*1. High-sound models incorporate an LED, which lights when the Buzzer sounds.  
 \*2. Refer to "Short-circuiting Jumper (M2BJ-BTH)" on page 5 for the insert direction of the jumper.

External Signal Selection Model (M2BJ-BH24D-DA)

- An external signal selection model is also available. With this model, it is possible to switch between continuous and intermittent sound using an external signal instead of the jumper.

M2BJ-BH24D-DA

- SW:
  - When A direction is ON (terminals 1, 2 ON): intermittent sound
  - When B direction is ON (terminals 2, 3 ON): continuous sound



- Note: 1. Ensure that voltage is not applied simultaneously between terminals 1, 2, and 3.  
 2. Check the power supply polarity. Connecting with the polarity reversed may result in damage.

## Specifications

### Buzzer

Item	Model	Standard-sound Models			
		M2BJ-B06	M2BJ-B06A	M2BJ-B06B	M2BJ-B06C
Operating voltage		6 VAC/VDC			
Sound pressure (at 0.1 m and rated voltage)		Continuous sound: 80 dB (phons) min.			
Driving frequency		2±0.5 kHz		4±0.5 kHz	
Intervals		190 times/minute±10%	*2 Long:55 times/minute±10% *1 Short:700 times/minute±10%	190 times/minute±10%	*4 Long:55 times/minute±10% *3 Short:700 times/minute±10%
Current consumption	DC	7 mA max.		20 mA max.	
	AC	20 mA max.			
Inrush current		1 A max.			
Life expectancy		1,000 hours min.			
Insulation resistance		100 MΩ min. (between ground and current-carrying parts)			
Dielectric strength		1,000 VAC for 1 minute (between grounds)			
Ambient operating temperature		-10°C to 55°C (no icing or condensation)			
Ambient operating humidity		35% to 85%RH			
Ambient storage temperature		-25°C to 65°C (no icing or condensation)			
Degree of protection		IP 40			
Weight		Approx. 9 g			

Item	Model	Standard-sound Models					
		M2BJ-B24	M2BJ-B24A	M2BJ-B24B	M2BJ-B24C	M2BJ-B24-D	M2BJ-B24B-D
Operating voltage		12 to 24 VAC/VDC			12 to 24 VDC		
Sound pressure (at 0.1 m and rated voltage)		Continuous sound: 80 dB (phons) min.					
Driving frequency		2±0.5 kHz		4±0.5 kHz		2±0.5 kHz	4±0.5 kHz
Intervals		190 times/minute±10%	*2 Long:55 times/minute±10% *1 Short:700 times/minute±10%	190 times/minute±10%	*4 Long:55 times/minute±10% *3 Short:700 times/minute±10%	190 times/minute±10%	
Current consumption	DC	7 mA max.		20 mA max.		7 mA max.	20 mA max.
	AC	20 mA				---	
Inrush current		1 A max.				---	
Life expectancy		1,000 hours min.					
Insulation resistance		100 MΩ min. (between ground and current-carrying parts)					
Dielectric strength		1,000 VAC for 1 minute (between grounds)					
Ambient operating temperature		-10°C to 55°C (no icing or condensation)					
Ambient operating humidity		35% to 85%RH					
Ambient storage temperature		-25°C to 65°C (no icing or condensation)					
Degree of protection		IP 40					
Weight		Approx. 9 g					

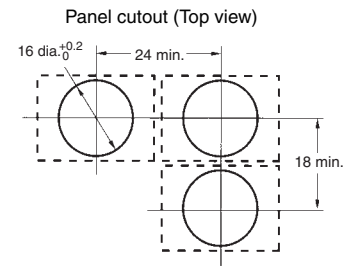
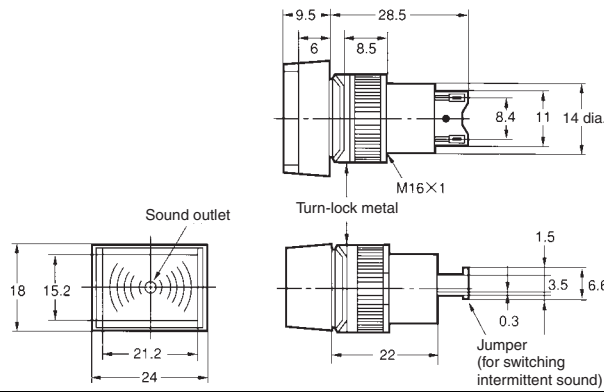
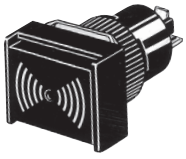
Item	Model	High-sound Models					
		M2BJ-BH06D	M2BJ-BH24D	M2BJ-BH06E	M2BJ-BH24E	M2BJ-BH24D-D	M2BJ-BH24E-D
Operating voltage		6 VAC/VDC	12 to 24 VAC/VDC	6 VAC/VDC	12 to 24 VAC/VDC	12 to 24 VDC	
Sound pressure (The sound pressure can be adjusted. The figure for sound pressure given above is for measurement at a distance of 0.1 m at the rated voltage.)		70 to 95 dB (phons)					
Driving frequency		3±0.5 kHz					
Intervals		Approx. 190 times/min.		*6 Long: Approx. 55 times/min. *5 Short: Approx. 700 times/min.		Approx. 190 times/min.	*6 Long: Approx. 55 times/min. *5 Short: Approx. 700 times/min.
Current consumption	DC	50 mA max.					
	AC	100 mA max.			---		
Inrush current		1 A max.			---		
Life expectancy		1,000 hours min.					
Insulation resistance		100 MΩ min. (between ground and current-carrying parts)					
Dielectric strength		1,000 VAC for 1 minute (between grounds)					
Ambient operating temperature		-10°C to 55°C (no icing or condensation)					
Ambient operating humidity		35% to 85%RH					
Ambient storage temperature		-25°C to 65°C (no icing or condensation)					
Degree of protection		IP 40					
Weight		Approx. 12 g					

\*Tone

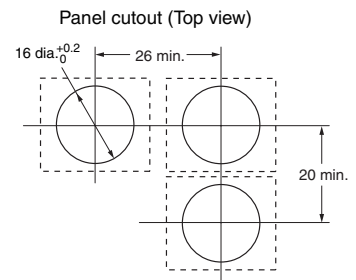
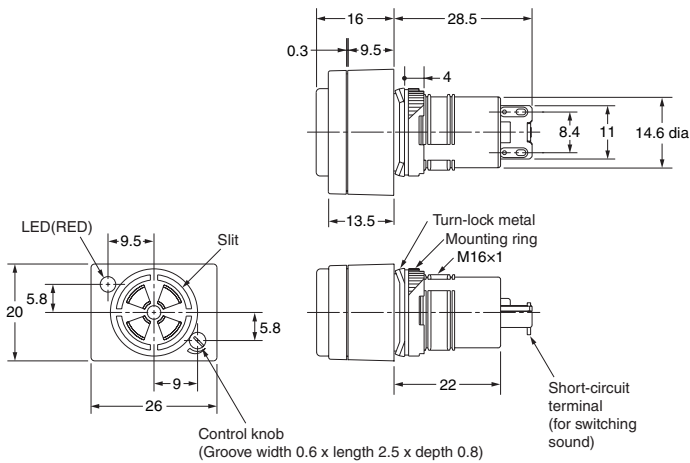
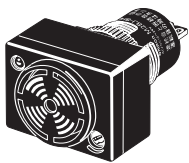
*1	Standard volume	High volume	Bird cry
*2			Telephone busy signal
*3		Continuous (high pitch)	Short beeps
*4			Long beeps
*5	High volume	Intermittent	Alternating high-low pitch
*6			Long beeps

## Dimensions

### Standard-sound Models M2BJ-B



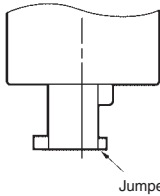
### High-sound Models M2BJ-BH



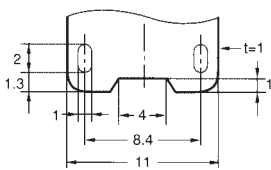
Note: The LED lights while the sound is produced.  
For intermittent sound, the LED flashes  
synchronized with the sound.

## Contact Form

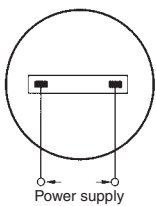
All Models  
(Standard and High-sound Models)



Terminal Hole Dimensions



Terminal Arrangement  
(Bottom view)



Note: There is no +/- polarity.

## Safety Precautions

Refer to *Safety Precautions for All Pushbutton Switches*.

### Precautions for Correct Use

#### Application Precautions

- When power is supplied, there is an inrush current of up to 1 A. Confirm that this will not adversely affect operation or damage any devices before using the M2BJ in application. There is no inrush current with DC-only models (M2BJ-□□□□-D).
- With models that can use both AC and DC, residual energy in the internal capacitor may cause residual sound.

#### Wiring

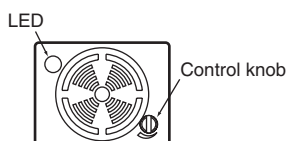
- Perform soldering promptly and correctly at a temperature of 350°C within 3 seconds. Wait for one minute after soldering before exerting any external force on the solder.
- If flux is required, use non-corrosive rosin liquid. Ensure that the flux does not penetrate the inside of the case.
- In order to improve the reliability of the soldering and to prevent pattern burnout, loop the wire through the terminal hole before soldering.
- In order to fit the terminal holes, use lead wires with a nominal cross sectional area of 0.25 mm<sup>2</sup> max.

#### Operating Environment

- Do not use the Buzzer in environments where foreign substances may enter the sound outlet. Otherwise, the Buzzer may not sound.

#### Volume Adjustment Mechanism (M2BJ-BH Only)

- Adjust the volume by turning the control knob on the face of the Buzzer using a screwdriver. Turn to the right to increase the volume and turn to the left to decrease the volume.
- Turn the control knob with a torque of 0.98 to 2.94 mN·m.

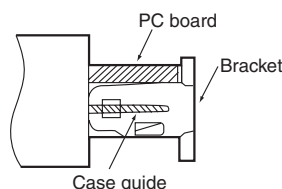


#### Short-circuiting Jumper (M2BJ-BTH)

- The Buzzer sounds continuously or intermittently depending on how the short-circuiting bracket is attached to the case guide. When the bracket is attached with the triangle on it facing direction A (PC board side), the Buzzer sounds intermittently.
- To produce continuous sounds, attach the bracket to the case guide so that the triangle on the bracket faces direction B.
- The bracket is set in direction A when ship the product. If the bracket becomes lost, contact your OMRON representative. The model number to order is M2BJ-BTH.



#### Short-circuit Bracket Mounting Location



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2008.12

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