


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

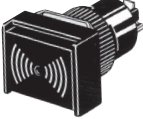

- Lineup includes standard-volume models (80 phons, constant) and high-volume models (70 to 95 phons, variable). Intermittent or continuous sound can be selected.





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

## List of Models

### Buzzer

| Appearance  | Model   |
|---|---------|
| Rectangular standard-volume model<br> | M2BJ-B  |
| Rectangular high-volume model<br>    | 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         |

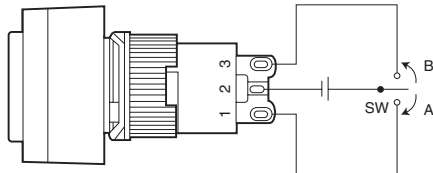
\*1. High-sound models incorporate an LED, which lights when the Buzzer sounds.  
 \*2. Refer to "Short-circuiting Jumper (M2BJ-BTH)" on page 5 for the insert direction of the jumper.

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%<br>*1 Short:700 times/minute±10% | 190 times/minute±10% | *4 Long:55 times/minute±10%<br>*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%<br>*1 Short:700 times/minute±10% | 190 times/minute±10% | *4 Long:55 times/minute±10%<br>*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   |  |                      |  |                      |             |

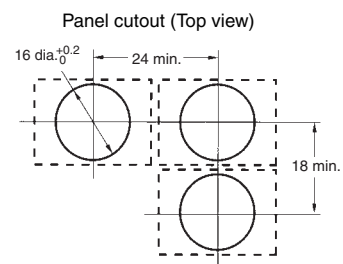
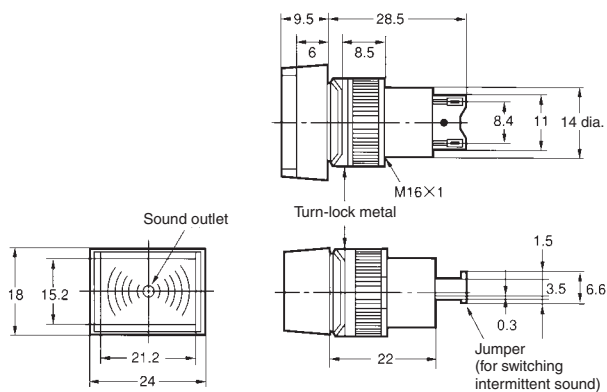
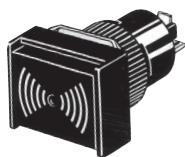
| Item   | Model | High-sound Models                                       |                  |  |                  |                        |  |
|--|-------|---|------------------|--|------------------|------------------------|--|
|  |       | M2BJ-BH06D  | M2BJ-BH24D       | M2BJ-BH06E   | M2BJ-BH24E       | 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.<br>*5 Short: Approx. 700 times/min. |                  | Approx. 190 times/min. | *6 Long: Approx. 55 times/min.<br>*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

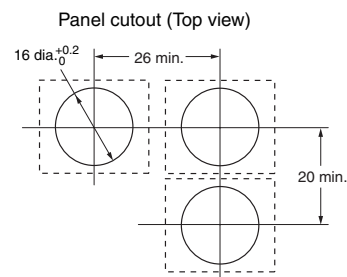
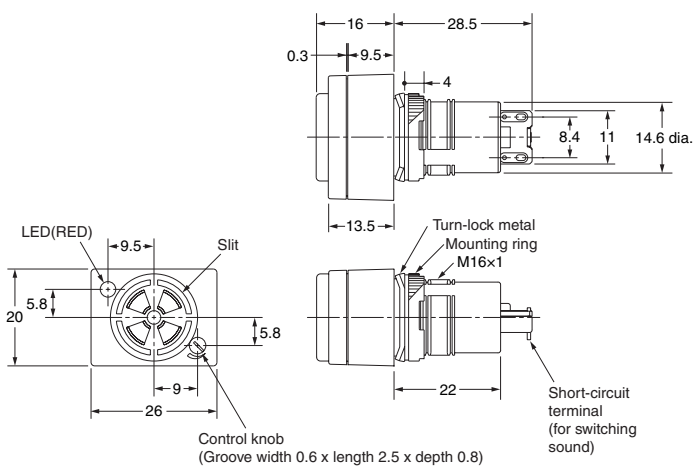
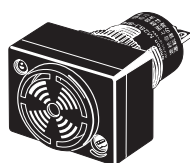
|    |                 |                         |                            |
|----|-----------------|-------------------------|----------------------------|
| *1 | Standard volume | High volume             | Bird cry                   |
| *2 |                 |                         | Telephone 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



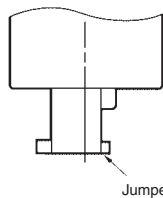
### High-sound Models M2BJ-BH



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

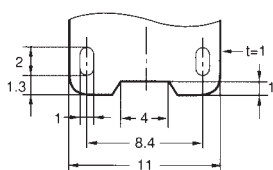
## Contact Form

All Models  
(Standard and High-sound Models)

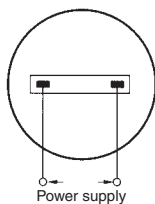


Jumper

Terminal Hole Dimensions



Terminal Arrangement  
(Bottom view)



Power supply

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

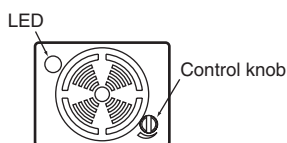
- Perform soldering promptly and correctly at a temperature of 350°C within 3 seconds. Wait for one minute after soldering before exerting any external force on the solder.
- If flux is required, use non-corrosive rosin liquid. Ensure that the flux does not penetrate the inside of the case.
- In order 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.

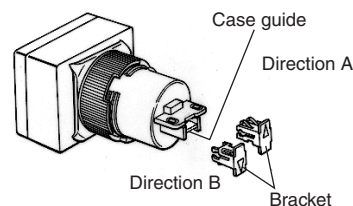
#### Volume Adjustment Mechanism (M2BJ-BH Only)

- 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.

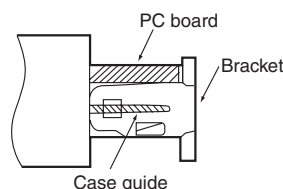


#### Short-circuiting Jumper (M2BJ-BTH)

- 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



## Read and Understand This Catalog

Please read and understand this catalog before purchasing the products. Please consult your OMRON representative if you have any questions or comments.

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2008.12

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#### Как с нами связаться

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**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.