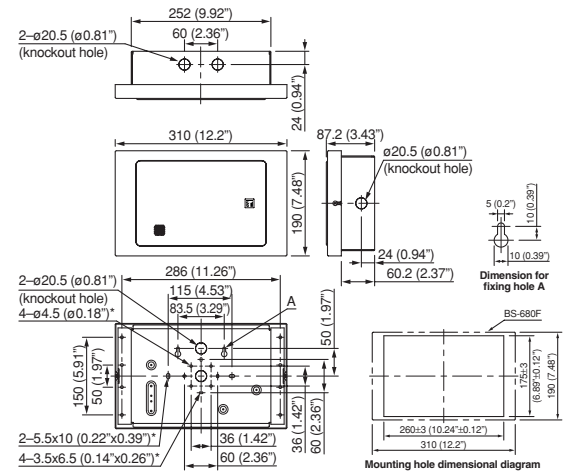


# BS-680F Wall Mount Speaker System



## APPEARANCE AND DIMENSIONAL DIAGRAM



\*Since no mounting screws are supplied with the speaker, separately prepare them appropriate for the construction of wall and its thickness.

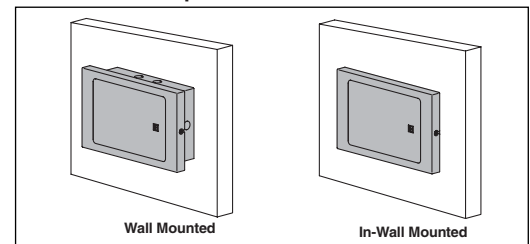
## DESCRIPTION

The BS-680F speaker has a strong, all-metal body, and are ideally suited for voice alarm system applications. 16cm (6") double cone speaker unit ensures high-quality sound. The speaker can be quickly and easily installed in either a horizontal or a vertical orientation. Either concealed in-wall wiring or exposed wiring can be used for speaker cable connection. A push-in type input connector allows easy cable connections and bridge wiring. The selectable input impedance can be easily adjusted by changing the top position of the unit's transformer. Both wall and in-wall mounting are possible. The innovative structural design is based on the Golden Ratio (1: 1.618), and also permits direct wall installation with screws, making the speaker unit resistant to falling even if outward force is applied to it.

## FEATURES

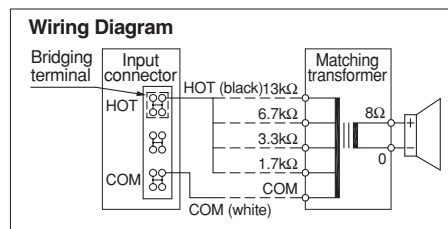
- Innovative design based on the Golden Ratio (1:1.618)
- Quick and easy installation
- Strong all-metal body
- Horizontal / vertical installation
- Wall / in-wall mounting
- Ideally suited for voice alarm system application

## Installation Example



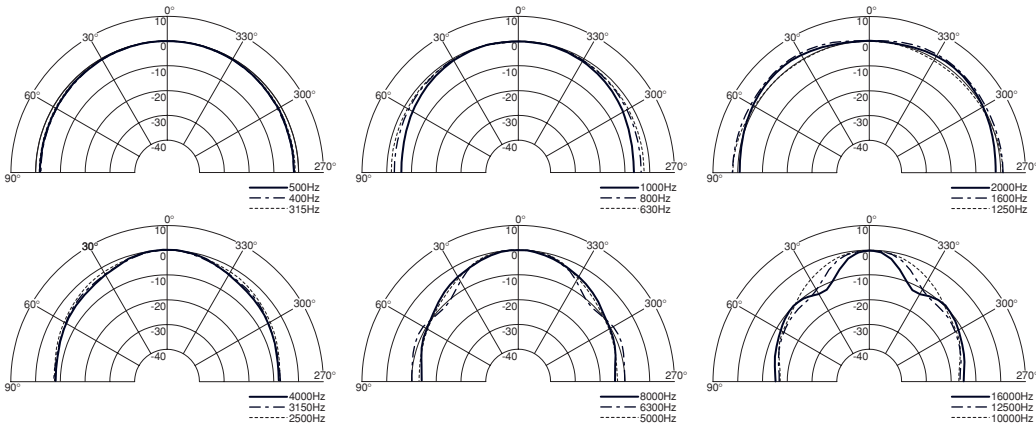
## SPECIFICATIONS

<b>Rated Input:</b>	6W (100V line), 3W (70V line)
<b>Rated Impedance:</b>	100V line: 1.7kΩ (6W), 3.3kΩ (3W), 6.7kΩ (1.5W), 13kΩ (0.8W) 70V line: 1.7kΩ (3W), 3.3kΩ (1.5W), 6.7kΩ (0.8W), 13kΩ (0.4W)
<b>Sensitivity (1W, 1m):</b>	94dB (500Hz – 5kHz, pink noise)
<b>Frequency Response:</b>	150Hz – 20kHz (peak –20dB)
<b>Speaker Component:</b>	16cm (6") double cone-type
<b>Applicable Cable:</b>	Solid wire: ø0.8 – ø1.6mm (AWG 20 – 14) 7-core twisted wire: 0.75 – 1.25mm <sup>2</sup> (AWG 18 – 16)
<b>Connection:</b>	Push-in connector (bridging terminal)
<b>Finish:</b>	Baffle, Cabinet: Steel plate, off-white (RAL 9010 or equivalent colour) Grille: Surface-treated steel plate net, off-white (RAL 9010 or equivalent colour)
<b>Dimensions:</b>	310 (W) × 190 (H) × 87.2 (D) mm (12.2" × 7.48" × 3.43")
<b>Weight:</b>	2.6kg (5.73 lb)
<b>Accessory:</b>	Rubber grommet × 2, Speaker mounting screw (4 × 16) × 4

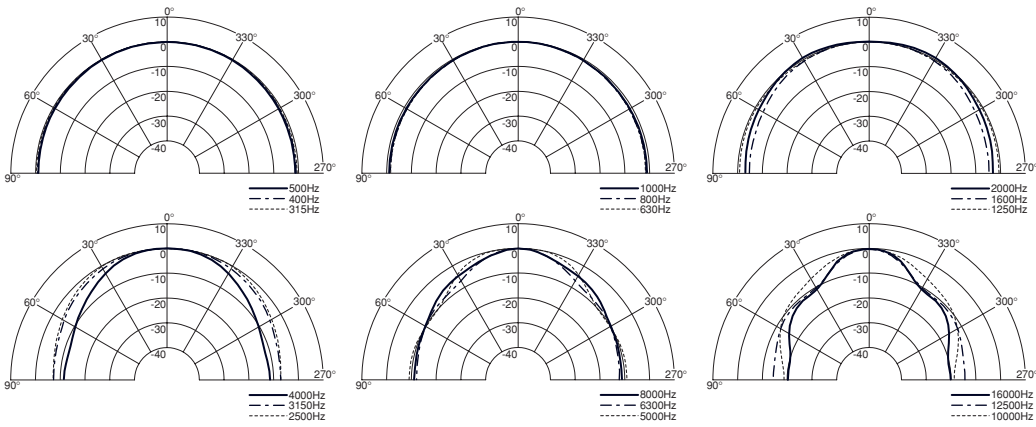


# CHARACTERISTIC DIAGRAMS

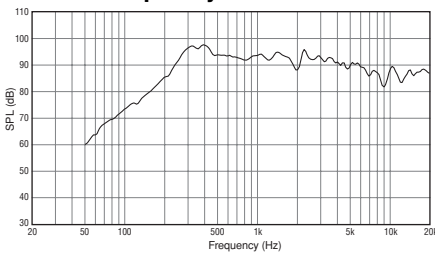
## Polar Response (Horizontal)



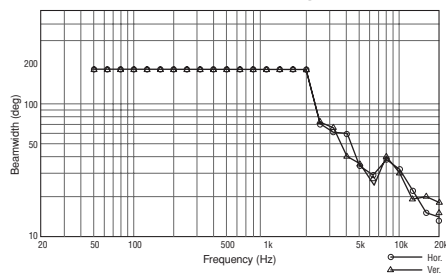
## Polar Response (Vertical)



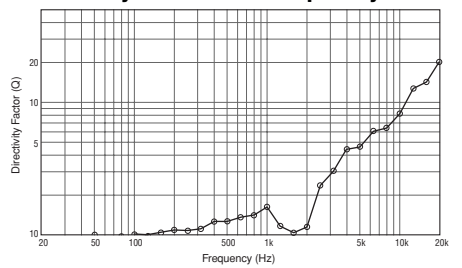
## SPL vs. Frequency



## Beamwidth vs. Frequency



## Directivity Factor vs. Frequency



# ARCHITECTURAL AND ENGINEERING SPECIFICATIONS

The speaker shall be a 16cm (6") double cone-type box speaker suitable for wall mounting. Cable connection shall be by means of a push-in connector bridging terminal. The speaker shall be able to be quickly and easily installed in either a horizontal or a vertical orientation. Both wall and in-wall mounting shall be possible.

The speaker shall include a transformer having multiple taps (0.8W, 1.5W, 3W, 6W at 100V and 0.4W, 0.8W, 1.5W, 3W at 70V) adjustable. The sensitivity at a distance of 1m with a 1W input level

applied shall be 94dB. The speaker shall have a frequency response of 150Hz – 20kHz (-20dB).

The speaker baffle and cabinet shall be constructed of steel plate. The grille shall be surface-treated steel plate net. The speaker shall be available in off-white colour. The unit shall have dimensions of 310 (W) × 190 (H) × 87.2 (D) mm (12.2" × 7.48" × 3.43"), and a weight of 2.6 kg (5.73 lb).

The speaker shall be a TOA model BS-680F.