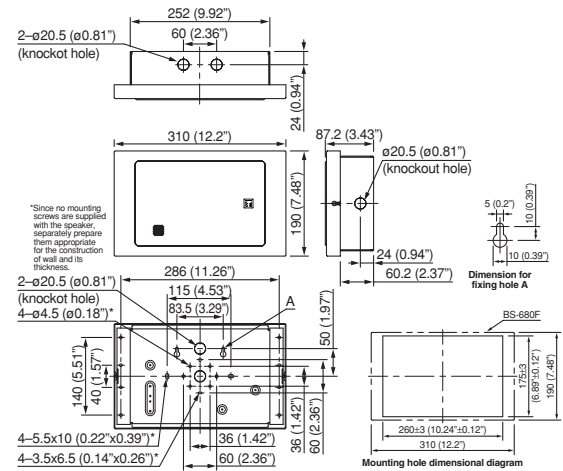


BS-680F/680FC Wall Mount Speaker System



APPEARANCE AND DIMENSIONAL DIAGRAM



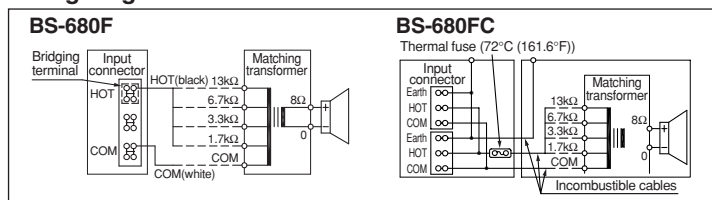
DESCRIPTION

The BS-680F/FC speakers have a strong, all-metal body, and are ideally suited for emergency broadcasting (voice alarm system) applications. 6" (16cm) double cone speaker unit ensures high-quality sound. They 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 on the BS-680F allows easy cable connections and bridge wiring, while on the BS-680FC, which complies with the British Standard for speaker protection, two ceramic screw terminal blocks (1 cable to 1 connection type) allow bridge connection. 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 emergency broadcasting applications

Wiring Diagram



SPECIFICATIONS

BS-680F

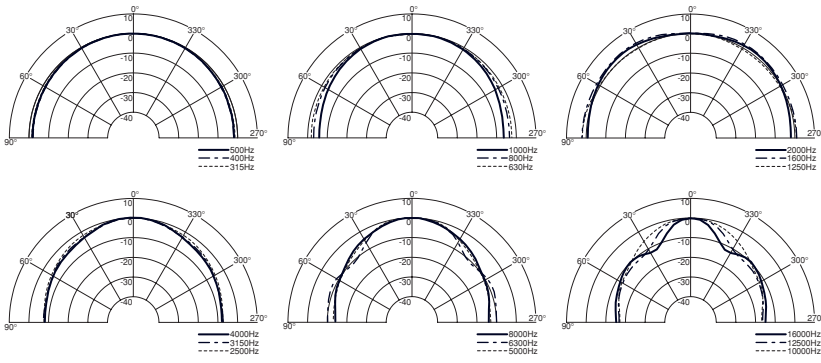
Rated Input:	6W (100V line), 3W (70V line)
Rated Impedance:	100V line: 1.7kΩ (6W), 3.3kΩ (3W), 6.7kΩ (1.5W), 13kΩ (0.8W) 70V line: 1.7kΩ (3W), 3.3kΩ (1.5W), 6.7kΩ (0.8W), 13kΩ (0.4W)
Sensitivity (1W, 1m):	94dB (500 – 5,000Hz, pink noise)
Frequency Response:	150 – 20,000Hz (peak –20dB)
Speaker Component:	6" (16cm) double cone-type
Applicable Cable:	600V vinyl-insulated cable (IV wire or HIV wire) Solid wire: ø0.8 – ø1.6mm (equivalent to AWG 20 – 14) 7-core twisted wire: 0.75 – 1.25mm ² (equivalent to AWG 18 – 16)
Connexion:	Push-in connector (bridging terminal)
Finish:	Baffle, Cabinet: Steel plate, off-white (RAL 9010 or equivalent colour) Grille: Surface-treated steel plate net, off-white (RAL 9010 or equivalent colour)
Dimensions:	310 (W) × 190 (H) × 87.2 (D) mm (12.2" × 7.48" × 3.43")
Weight:	3kg (6.61 lb)
Accessory:	Rubber grommet × 2, Speaker mounting screw (4 × 16) × 4

BS-680FC

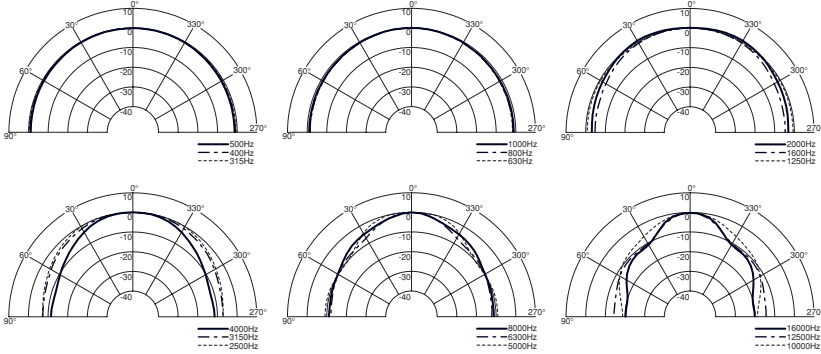
Rated Input:	6W (100V line), 3W (70V line)
Rated Impedance:	100V line: 1.7kΩ (6W), 3.3kΩ (3W), 6.7kΩ (1.5W), 13kΩ (0.8W) 70V line: 1.7kΩ (3W), 3.3kΩ (1.5W), 6.7kΩ (0.8W), 13kΩ (0.4W)
Sensitivity (1W, 1m):	94dB (500 – 5,000Hz, pink noise)
Frequency Response:	150 – 20,000Hz (peak –20dB)
Speaker Component:	6" (16cm) double cone-type
Standard:	In compliance with the British Standard BS 5839-8:1998 (10.3 Protection of Loudspeakers)
Applicable Cable:	600V vinyl-insulated cable (IV wire or HIV wire) Solid copper wire: ø3mm (equivalent to AWG 9)
Connexion:	Screw connector (ceramic terminal × 2) bridging allowable
Finish:	Baffle, Cabinet: Steel plate, off-white (RAL 9010 or equivalent colour) Grille: Surface-treated steel plate net, off-white (RAL 9010 or equivalent colour)
Dimensions:	310 (W) × 190 (H) × 87.2 (D) mm (12.2" × 7.48" × 3.43")
Weight:	3kg (6.61 lb)
Accessory:	Rubber grommet × 2, Speaker mounting screw (4 × 16) × 4



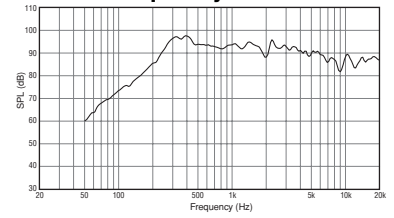
Polar Response (Horizontal)



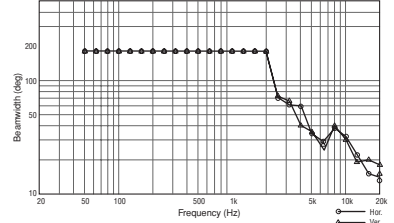
Polar Response (Vertical)



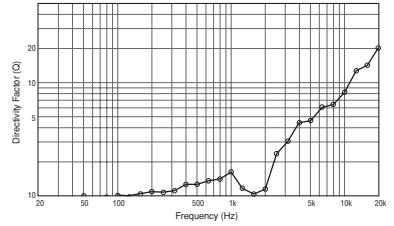
SPL vs. Frequency



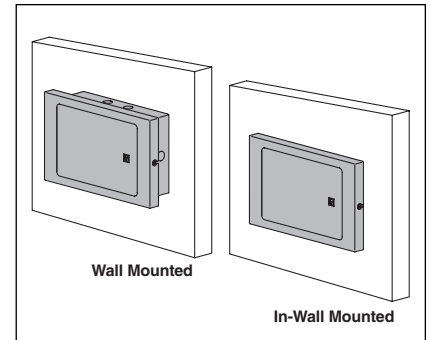
Beamwidth vs. Frequency



Directivity Factor vs. Frequency



Installation Example



Architect's and Engineer's Specifications

BS-680F

The speaker shall be a 6" (16cm) double cone-type speaker suitable for wall mounting. Cable connection shall be by means of a push-in connector bridging terminal.

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 output sound pressure level at a distance of 1m with a 1W input level applied shall be 94 dB SPL. The speaker shall have a frequency response of 150 – 20,000Hz (-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 3 kg (6.61 lb).

The speaker shall be a TOA model BS-680F

BS-680FC

The speaker shall be a 6" (16cm) double cone-type speaker suitable for wall mounting. Cable connection shall be by means of a screw connector (ceramic terminal x 2), with bridging allowable. The speaker shall comply with British Standard BS 5839-8:1998 (10.3 Protection of Loudspeakers).

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 output sound pressure level at a distance of 1m with a 1W input level applied shall be 94 dB SPL. The speaker shall have a frequency response of 150 – 20,000Hz (-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 3 kg (6.61 lb).

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