

### DESCRIPTION

The F-2000 Series Speaker are compact two-way speaker systems designed for high efficiency, wide range, and high power input handling capability. These speaker systems can be installed in a manner ideal for the location and intended application. The F-2000BTWP features a water-proof design (splash-proof type meeting IPX4 standard), so that it can be permanently installed outdoors.

### SPECIFICATIONS

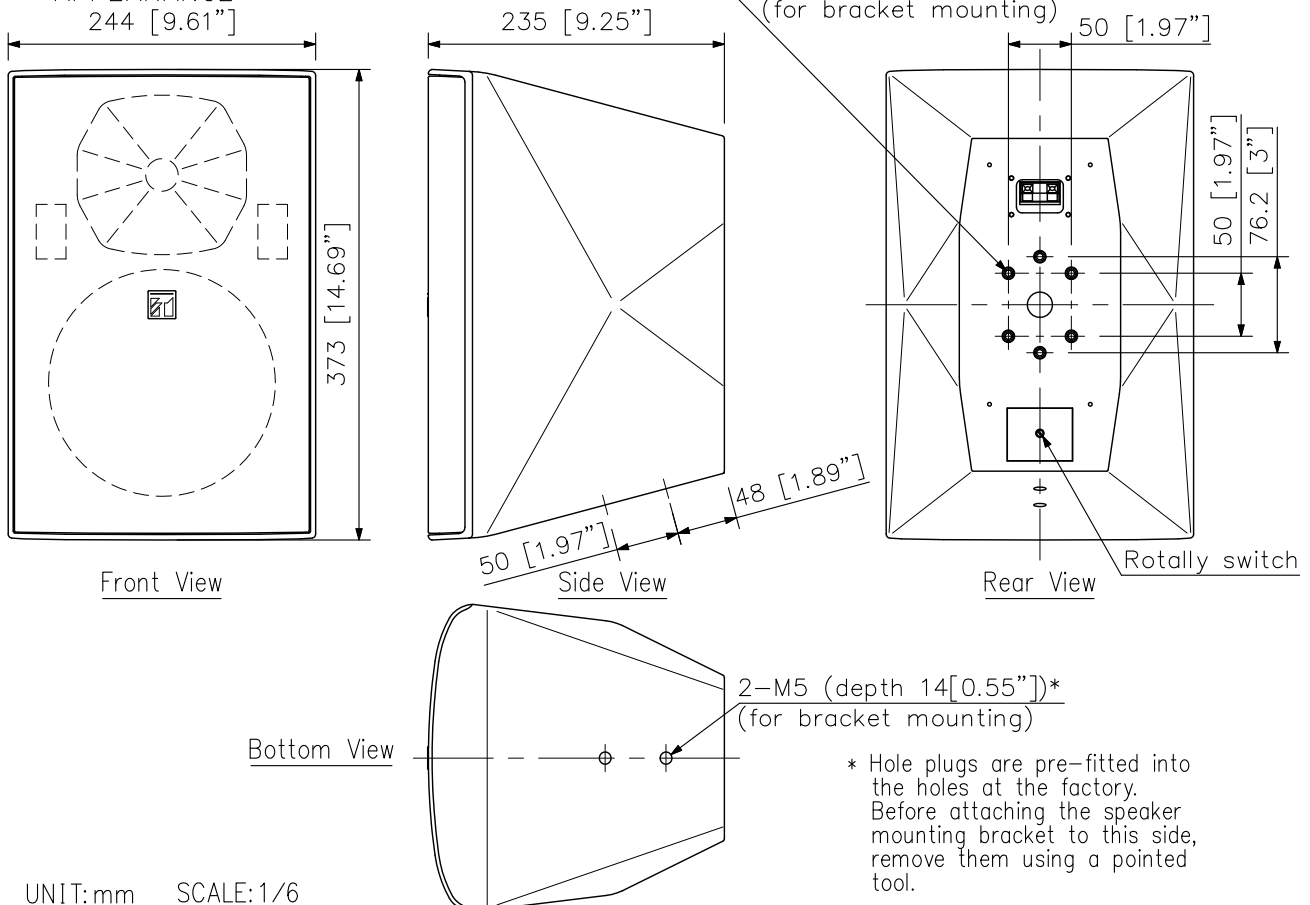
Enclosure	Bass-reflex type
Rated Input	60 W
Rated Impedance	100 V line: 170 Ω (60 W), 330 Ω (30 W), 670 Ω (15 W), 3.3 kΩ (3 W) 70 V line: 83 Ω (60 W), 170 Ω (30 W), 330 Ω (15 W), 670 Ω (7.5 W), 3.3 kΩ (1.5 W)
Sensitivity	92 dB (1 W, 1 m) at installation in 1/2 free sound field 93 dB (1 W, 1 m) at installation in 1/2 free sound field (with horn adapter)
Frequency Response	65 Hz – 20 kHz, -10 dB at installation in 1/2 free sound field
Crossover Frequency	2.5 kHz
Directivity Angle	Horizontal: 110°, Vertical: 100°    Horizontal: 80°, Vertical: 80° (with horn adapter)
Speaker Component	Low frequency: 20 cm (8") cone-type    High frequency: 25 mm (1") dome tweeter
Input Terminal	Push-in terminal
Water Protection	IPX4
Operating Temperature	-10 °C to +50 °C (14 °F to 122 °F)
Finish	Enclosure: HIPS, black Punched net: Surface-treated steel plate, black, anticorrosive paint Joint bracket, wall bracket: Stainless steel Speaker bracket: Die-cast aluminum, black, paint
Dimensions	244 (W) × 373 (H) × 235 (D) mm (9.61" × 14.69" × 9.25")
Weight	7.4 kg (16.31 lb) (including the supplied brackets)
Accessory	Speaker bracket ×1, Joint bracket ×1, Wall bracket ×1, Bracket fixing screw × 1 set, Horn adapter ×1, Horn adapter mounting screw ×4, Terminal cover ×1, Terminal cover mounting screw ×4
Option	Speaker mount bracket: SP-131, YS-60B

Note: Bolts and nuts for mounting the bracket to the wall or ceiling are not included. Prepare them separately. Avoid installing the speaker in locations close to the seashore or in indoor swimming facilities that are not well ventilated. In such locations the bracket may be vulnerable to corrosion, eventually allowing the speaker to fall resulting in personal injury.

#### ※ Caution on installation

Do not install the F-2000BTWP at places where it is likely to be corroded such as bath room, indoor pools, or seaside.

### APPEARANCE



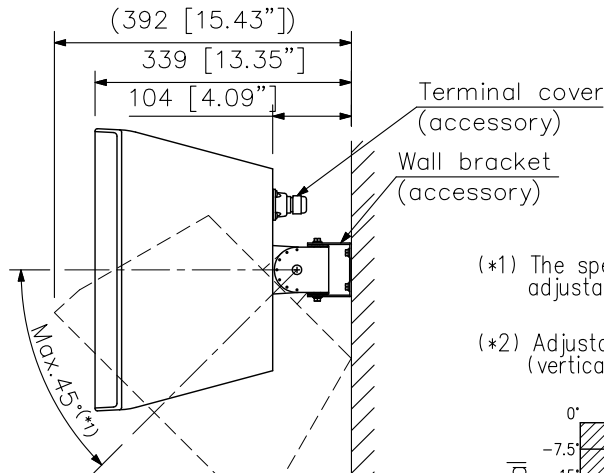
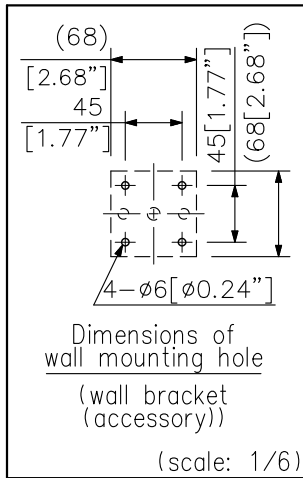
\* Hole plugs are pre-fitted into the holes at the factory. Before attaching the speaker mounting bracket to this side, remove them using a pointed tool.

UNIT:mm SCALE:1/6

**SPEAKER SYSTEM**  
(For outdoor use)

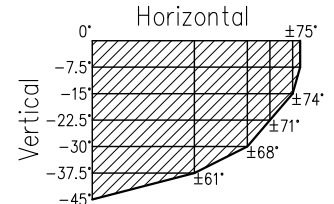
F-2000BTWP

■ APPEARANCE



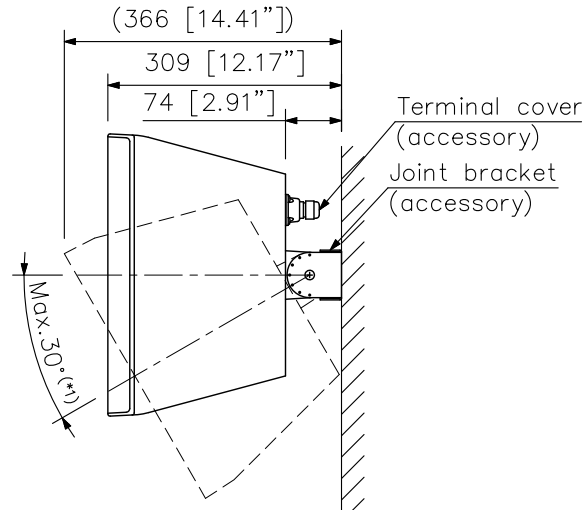
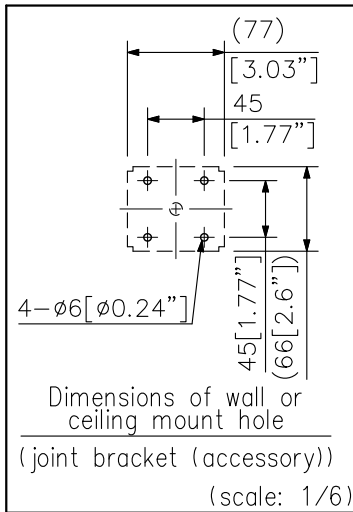
(\*1) The speaker vertical angle adjustable in 7.5° steps.

(\*2) Adjustable angle (vertical speaker mounting)

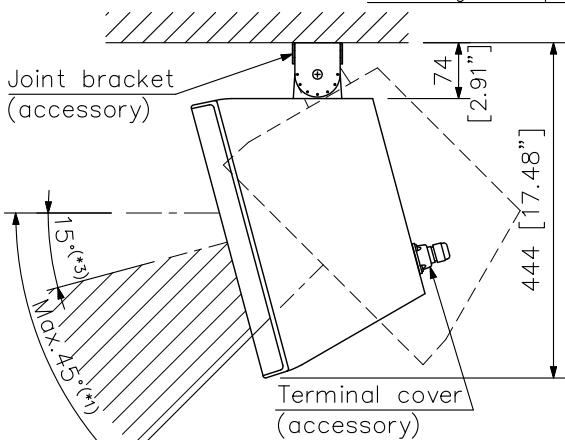


Up to 75° left or right is adjustable in a horizontal direction. (\*2)

Wall mounting example



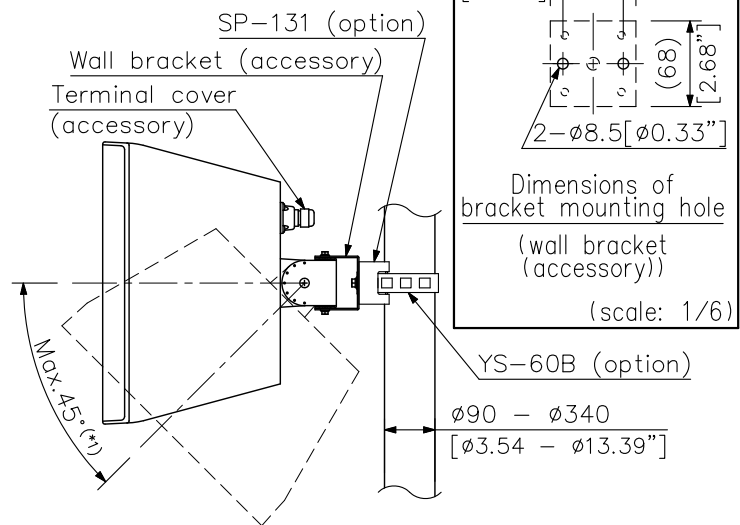
Only the vertical angle is adjustable.  
Mounting the speaker close to a wall surface



(\*3) Adjust the speaker angle within the downward range of 15° to 45°. (The speaker faces 15° downward when bracket mounting to a wall surface.) The speaker angle is adjustable in 7.5° steps in a vertical direction only.

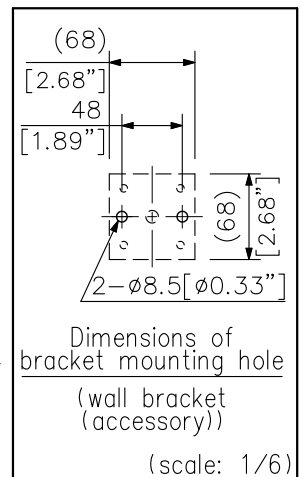
Ceiling mount example

(Only the vertical speaker mounting is allowed.)  
UNIT:mm SCALE:1/10



Up to 90° left or right is adjustable in a horizontal direction. (\*2)

Pole mounting example  
(Only the vertical speaker mounting is allowed.)



YS-60B (option)

ø90 - ø340  
[ø3.54 - ø13.39"]