

# ANGLE ADJUSTMENT BRACKETS

## HY-60DB, HY-60DW, HY-60DB-WP, HY-60DW-WP

Thank you for purchasing TOA's Angle Adjustment Bracket.  
Please carefully follow the instructions in this manual to ensure long, trouble-free use of your equipment.

### 1. SAFETY PRECAUTIONS

- Before installation or use, be sure to carefully read all the instructions in this section for correct and safe operation.
- Be sure to follow all the precautionary instructions in this section, which contain important warnings and/or cautions regarding safety.
- After reading, keep this manual handy for future reference.

#### **WARNING**

Indicates a potentially hazardous situation which, if mishandled, could result in death or serious personal injury.

- (HY-60DB and HY-60DW only)  
Since the bracket is designed for indoor use, do not install it outdoors. If installed outdoors, the aging of parts causes the speaker to fall off, resulting in personal injury. Also, when it gets wet with rain, there is a danger of electric shock.
- Do not use other methods than specified to mount the bracket. Extreme force is applied to the speaker and it could fall off, possibly resulting in personal injuries.

- Tighten each nut and bolt securely. Ensure that the bracket has no loose joints after installation to prevent accidents that could result in personal injury.
- Use the specified Speaker System in combination. Doing otherwise may cause the speaker or component to fall off, resulting in personal injury.
- 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**

Indicates a potentially hazardous situation which, if mishandled, could result in moderate or minor personal injury, and/or property damage.

- Avoid touching the bracket's sharp metal edge to prevent injury.
- Have the bracket checked periodically by the shop from where it was purchased. Failure to do so may result in corrosion or damage to the bracket that could cause the speaker to fall, possibly causing personal injury.

### 2. GENERAL DESCRIPTION

TOA's HY-60D Series Brackets are used to change the directivity angle mode of HX-7 Series Speaker System to 60° mode. Three pieces of the HY-60D Series are required to obtain 60° mode of directivity angle.

Both HY-60DB and HY-60DW brackets are designed for indoor use only. The HY-60DB-WP and HY-60DW-WP brackets can be used outdoors, but only under eaves or in other locations not directly exposed to rain and the elements.

Use these brackets in combination with the speaker systems shown at right.

Speaker System	Angle Adjustment Bracket
HX-7B	HY-60DB
HX-7W	HY-60DW
HX-7B-WP	HY-60DB-WP
HX-7W-WP	HY-60DW-WP

### 3. SPECIFICATIONS

Model No.	HY-60DB	HY-60DW	HY-60D-WP	HY-60W-WP
Finish	Steel plate, black, semi-gloss, paint	Steel plate, white, semi-gloss, paint	Stainless plate, black, semi-gloss, paint	Stainless plate, white, semi-gloss, paint
Dimensions	102.2 x 26.2 mm (4.02" x 1.03"), t = 4.5 mm (0.18"), with ø9.4 mm (0.37") and ø6.4 mm (0.25") holes			
Weight	70 g (0.15 lb)			

**Note:** The design and specifications are subject to change without notice for improvement.

## 4. CHANGING TO 60° MODE

### **WARNING**

Tighten the bolts securely, as instructed below.

Failure to follow instructions precisely could result in a falling speaker and potential personal injury.

- Ensure that all bolts are securely inserted as far as their threads go, then securely fasten each bolt with a nut.
- Tighten all the bolts with the designated tightening torque.

For tightening, use a Phillips screwdriver, or open- or box-end wrench.

Before changing angle modes, lay out a protective sheet, corrugated cardboard or other soft material on a flat surface, and perform all work on the speaker with its front baffle facing downward. As the speaker assembly is quite heavy, it is recommended that at least two persons be involved in the modification work. As an example, the HX-7 Series speaker shown in the figure below is arranged in a direction that exposes the speaker's left-side protection covers.

#### Step 1. Detach all rear angle bars from the speaker.

Remove the nuts and bolts from both ends of the rear angle bars. Also carefully remove the spacer fitted into the larger hole in each angle bar.

##### Note

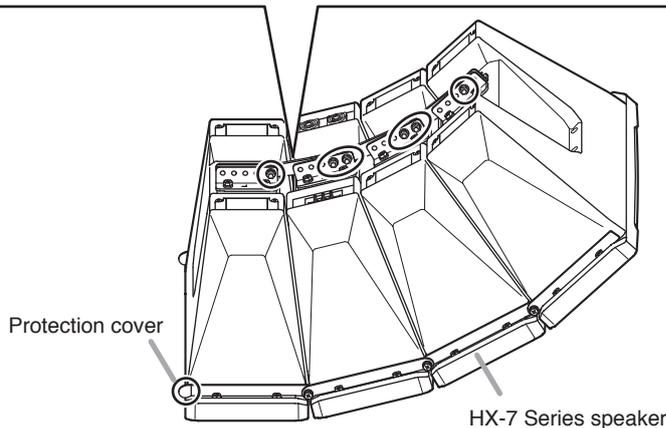
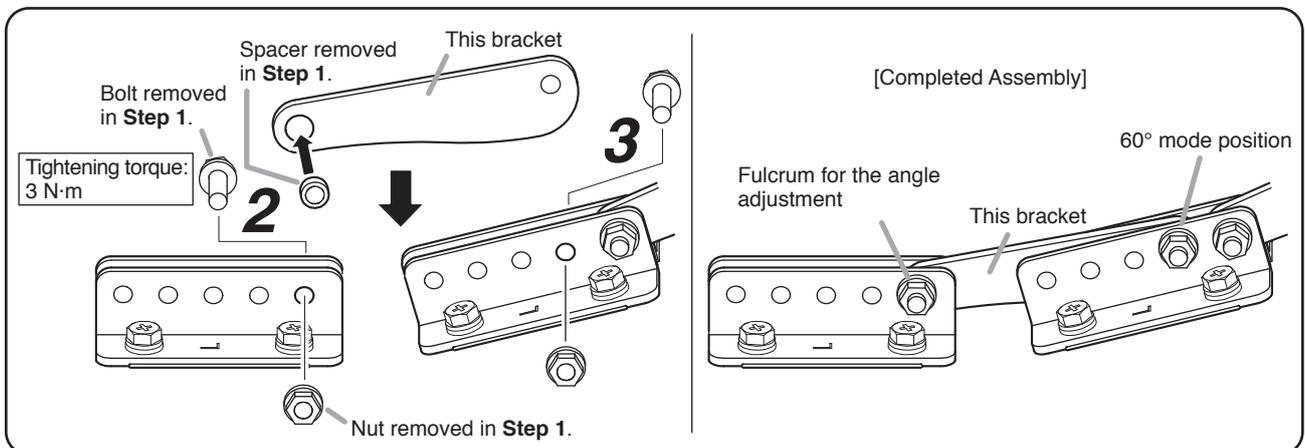
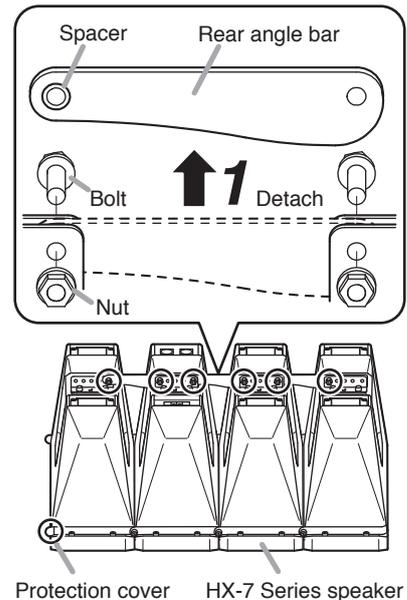
Take care not to lose the removed nuts, bolts and spacers, as they will be used again in reassembly.

#### Step 2. Fit the spacers into the larger holes in these brackets, and attach each bracket by inserting a bolt into the position where the rear angle bar was mounted. Then fasten each bolt with a nut.

##### Note

This position will become the fulcrum for the angle adjustment. Be sure to attach in the illustrated position. If attached in a different position, the angle mode will not assume the specified mode.

#### Step 3. Align the other side of each bracket with the 60° mode position, then insert a bolt and fasten the bolt with a nut.



#### Tip

Note that the speaker can be set to 15°, 30°, or 45° mode using these brackets. When selecting any other than 60° mode, attach each bracket to the hole corresponding to the desired directivity angle mode, referring to the figure below:

