

# STRAIGHT HORN

# DH-502-AS

Thank you for purchasing TOA's Straight Horn Speaker.

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.

#### When Installing the Unit



### WARNING

- The standard supplied mounting bracket is not designed for use in locations exposed to strong winds and could become dislodged, resulting in possible personal injury. To ensure that the installation can withstand expected wind forces, always use the supplied mounting bracket in combination with a separately prepared bracket.
- Install the unit only in a location that can structurally support the weight of the unit and the mounting bracket. Doing otherwise may result in the unit falling down and causing personal injury and/or property damage.
- Use nuts and bolts that are appropriate for the installation place's structure and composition. Failure to do so may cause the speaker to fall, resulting in material damage and possible personal injury.
- 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.
- Attach the safety wire to the unit when installed in high location. Otherwise, there is a potential for personal injury if the speaker then falls due to something.
- Protect the unit from potential heavy loads, as this may cause the speaker to fall, resulting in personal injury.

## 2. GENERAL DESCRIPTION

The DH-502-AS features a long horn which permits sounds to easily pass through and is ideal for providing public address information. It is designed to be used in conjunction with 2 driver units, and has an internal bird protector net to prevent insects and birds from getting into the unit.

## 3. EQUIPMENT CONFIGURATIONS

The DH-502-AS speaker is comprised of the DH-502-AS BE (Bell unit) and DH-502-AS CE (Center unit and other parts).

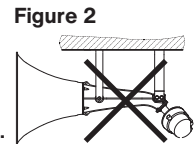
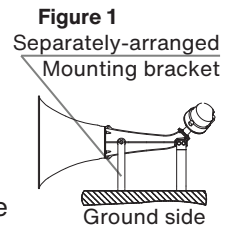
| Speaker Model No.         | DH-502-AS    |                         |             |
|---------------------------|--------------|-------------------------|-------------|
| Component Model No.       | DH-502-AS BE | DH-502-AS CE            | Note        |
| Bell + Bird Net           | 1            | -                       | -           |
| Horn B + Y-Shaped Adapter | -            | 1                       | -           |
| Mounting Bracket          | -            | 1                       | -           |
| Rubber Gasket             | -            | 1                       | Accessories |
| BH Screw M5X25 SUS 3-SEMS | -            | 4 pcs (Stainless steel) | Accessories |

## 4. INSTALLATION PRECAUTIONS

### WARNING

The supplied mounting bracket could become dislodged by strong winds, resulting in possible personal injury. To prevent this from expected wind forces, additionally use a separately prepared bracket as shown in Figure 1.

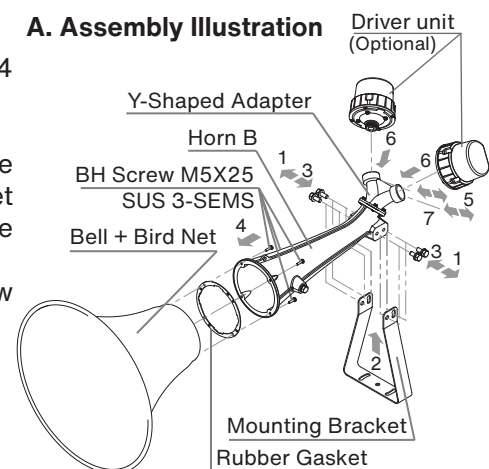
- Install the speaker as shown in Figure 1 and take care that rain water does not enter the driver unit from the front of the speaker. Hanging the speaker as shown in Figure 2 or installing it sideways could cause rain water to collect inside the driver unit, resulting in speaker failure.
- When facing the speaker upward, its mounting angle must be less than 10°. Exceeding this limit could cause rain water to collect inside the horn and no sound could be output.
- When mounting two driver units to the DH-502-AS, make sure that both units are of the same model number. If they differ in model number or power handling capacity, sound interference may occur, resulting in distorted sound or, at worst, speaker failure.
- Make sure the speaker cable connections to the amplifier are of the same polarity, otherwise it will result in the sound it produces is less clear, the sound pressure decreases and causes the speaker to break down quickly.



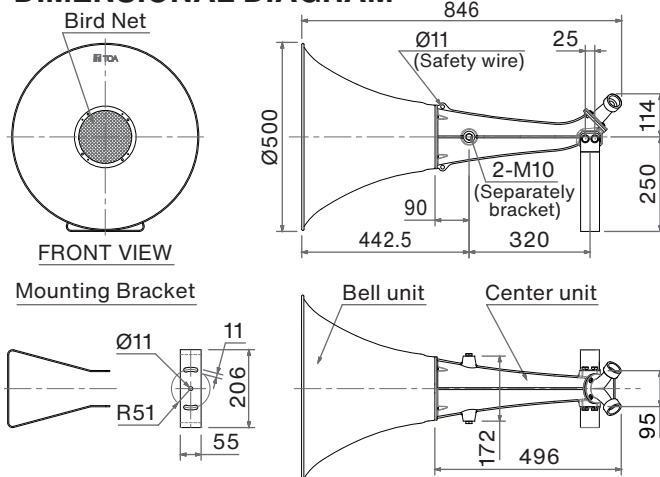
## 5. ASSEMBLY

- Step 1.** The screw M10 on the side of the horn B is released for 4 positions.
- Step 2.** Attach the Mounting bracket to the horn B.
- Step 3.** Reinstall the screw M10 that was previously released in the 4 positions earlier, to horn B past the Mounting bracket with the mounting angle must be less than 10°, then the screw is tightened.
- Step 4.** Attach Bell unit + Rubber Gasket + Center unit with Screw BH Screw M5X25 SUS 3-SEMS 4 pcs tightly.
- Step 5.** Loosen the safety screw at the end of the unit adapter.
- Step 6.** Install the unit driver rotate clockwise until full.
- Step 7.** Re-tighten the safety screw.

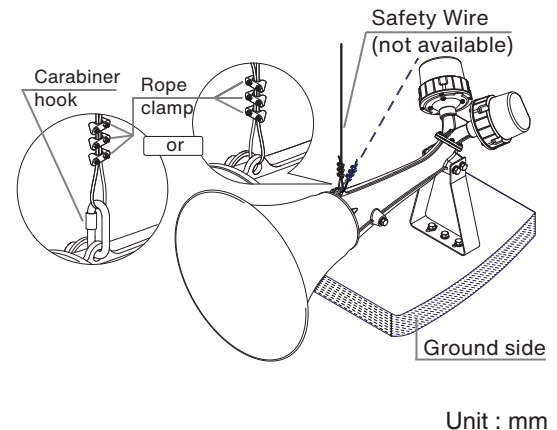
### A. Assembly Illustration



## 6. DIMENSIONAL DIAGRAM



### B. Installation Illustration



Unit : mm

## 7. SPECIFICATIONS

|                             |                                                                                                                                            |
|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Applicable Drivers          | TU-631 (M), TU-632 (M), TU-651 (M), TU-652 (M), TU-660 (M)                                                                                 |
| Sound Pressure Level        | 110 dB (1 W, 1 m) (when operated with driver)                                                                                              |
| Frequency Response          | 200 Hz - 6 kHz (when the TU-631 (M), TU-632 (M), TU-651 (M), TU-652 (M) unit is used)<br>200 Hz - 8 kHz (when the TU-660 (M) unit is used) |
| Driver Coupling Adapter     | 1 - 3/8 18 threads (inch screw)                                                                                                            |
| Variable Installation Angle | Hor. : +15°, -15° ; Ver. : +15°, -15° (when locally procured mounting bracket is used)                                                     |
| IP Rating                   | IP65 for Drivers (when be installed to Horn)                                                                                               |
| Finish                      | Bell, Horn B and Y-Shaped Adapter : Aluminum Grey, Powder coating<br>Mounting Bracket : Stainless Steel, Natural                           |
| Dimensions                  | ø500 x 846 (D) mm (ø19.69" x 33.31")                                                                                                       |
| Weight                      | 5.7 Kg (12.57 lb)                                                                                                                          |
| Accessories                 | BH Screw M5X25 SUS 3-SEMS ... 4 pcs, Rubber Gasket ... 1 pcs                                                                               |

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