

# SIGNALING

# PC Series Ceiling Mount Speaker



# Ceiling Speakers for General Paging and Emergency Announcements

The PC-580RU and PC-580RVU are designed to fill the need for a high-performance, cost effective ceiling speaker for use in Mass Notification Systems, Voice Evacuation, Emergency Paging, and everyday Paging and Background Music requirements. The PC-580RU and PC-580RVU speakers meet ULC S541, UL 1480 UUMW (Fire Alarm Signaling) and UL 2043 (use in air handling spaces) standards when using the HY-BC580U Back Can.

#### Features:

- 8" in-ceiling speaker for high-quality paging applications
- Cost effective design makes this speaker ideal for projects requiring large quantities
  25V & 70V transformer taps up to 5W
  - Fits standard ceiling-speaker template (PC-671R and others). Perfect for retrofits
- ULC S541, UL 1480 UUMW and UL 2043 standards. Certified to work with emergency announcement systems
  - Unique "monocoque" design provides better structural integrity
  - PC-580RVU version provides a center-grille volume adjustment potentiometer
  - Optional UL-rated HY-BC580U stackable back-can for use in ceiling plenums

# PC-580 Series Ceiling Speaker



PC-580RU



PC-580RVU

|                              |             | PC-580RU   | PC-580RVU   |  |  |  |  |
|------------------------------|-------------|--|---|--|--|--|--|
| Rated Input                  |             | 10W (speaker), 5 W (transformer, 70.7 V line and 25 V line)  |   |  |  |  |  |
| Rated Impedance              | 70.7 V line | 20 K (0.25 W), 10K (0.5W), 5K (1 W), 2.5 K (2 W), 1 K (5 W) Ohms   |   |  |  |  |  |
| Rated impedance              | 25 V line   | 2.5 K (0.25 W), 1.25 K (0.5 W), 625 (1 W), 312.5 (2 W), 125 (5 W) Ohms   |   |  |  |  |  |
| Sensitivity                  |             | 97 dB (1 W, 1 m)   |   |  |  |  |  |
| Dispersion (1 to 4k Hz avg.) |             | 120° Horizontal 120° Vertical  |   |  |  |  |  |
| Frequency Response           |             | 50 - 16.5 KHz  |   |  |  |  |  |
| Speaker Componen             | t           | 200 mm (8") dual cone type   |   |  |  |  |  |
| Magnet Size                  |             | Dia. 80 (3.15") x dia. 32 (1.26") x 12 (0.47") mm  |   |  |  |  |  |
| Magnet Weight                |             | 272g (10 oz)   |   |  |  |  |  |
| Flux Density                 |             | 11,900 gauss   |   |  |  |  |  |
| Potentiometer                |             |  | Type: Screw-driver adjust<br>Wire wound, resistance 50 Ohms |  |  |  |  |
| Dimensions of Fixing Hole    |             | Dia. 203.2 mm (8.00")  |   |  |  |  |  |
| Finish                       |             | Baffle: Steel plate, white<br>Grille: Surface-treated steel plate net, white   |   |  |  |  |  |
| Dimensions                   |             | Dia. 324 x 87.3 (d) mm   | Dia. 324 x 98.8 (d) mm                                      |  |  |  |  |
| Weight                       |             | 1.50 kg (3.31 lbs)   | 1.52 kg (3.35 lbs)  |  |  |  |  |
| Accessory                    |             | Mounting screw (M 5 x 38 mm) x 4; Speaker pass through terminal strip  |   |  |  |  |  |
| UL Standards                 |             | ULC S541, UL 1480 UUMW and UL 2043 when used with HY-BC580U  |   |  |  |  |  |
| Option                       |             | Back can (for UL/ULC certified installation): HY-BC580U<br>Back can (for other installations): BB-580<br>Tile bridge, mounting channel: Q-HY-TB2 |   |  |  |  |  |

### Sound pressure level at 10 ft (3m)

| Voltage            | 25V Vrms |       |     |    | 70 V Vrms |        |       |     |     |     |
|--------------------|----------|-------|-----|----|-----------|--------|-------|-----|-----|-----|
| Тар                | 0.25 W   | 0.5 W | 1 W | 2W | 5W        | 0.25 W | 0.5 W | 1 W | 2 W | 5 W |
| SPL @ 10 ft. (dBA) | 72       | 77    | 80  | 83 | 87        | 74     | 77    | 81  | 83  | 87  |

# **PC-580 Series Back Boxes**





|                 | HY-BC580U   | BB-580   |  |  |  |  |
|-----------------|---|--|--|--|--|--|
| Finish          | Surface-treated steel plate, black paint, anti-resonance material applied to the interior of the enclosure            | Galvanneal (satin-coat) steel construction, unpainted, anti-resonance spray coating applied to the interior of the enclosure |  |  |  |  |
| Dimensions      | 324 (12.76") x 252 (9.92") x 111 (4.37") mm   | 10" inner-diameter at the base, 11-5/8" outer-diameter at the mounting flange, 4" deep                                       |  |  |  |  |
| Weight          | 1.05 kg (2.31 lbs)  | 1.02 kg (2.24 lbs)   |  |  |  |  |
| Knockouts       | Four combination conduit knockouts 1/2" – 3/4" (13 – 19 mm), four J-clips and two flexible perforated mounting straps | Four "2-way" 1/2"-3/4" knock-outs spaced evenly at 90 degrees arouthe body, 2" from back, four mounting straps               |  |  |  |  |
| Compatible Spea | PC-580RU, PC-580RVU   |  |  |  |  |  |

# **PC-580 Series Optional Accessories**

Q-HY-TB2: Mounting Channel

WARNING NOTICE: The PC-580RU and PC-580RVU speakers only meet ULC S541, UL 1480 UUMW (Fire Alarm Signaling) and/or UL 2043 (use in air handling spaces) certification(s) when using the HY-BC580U back can.

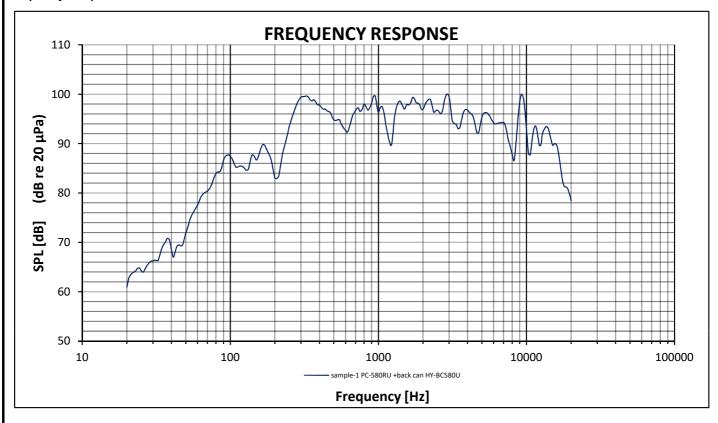


#### **TOA Canada Corporation**



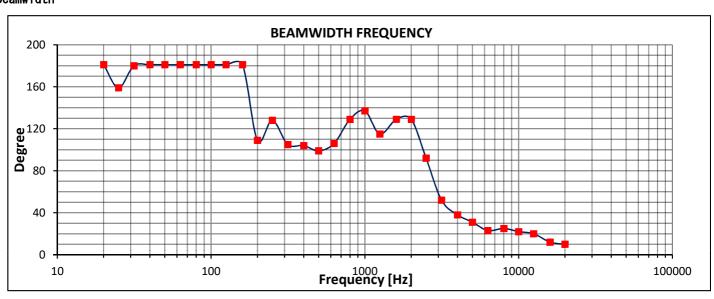
| PT. TOA GALVA INDUSTRIES |                                   |          |         |   |             |                 |  |
|--------------------------|-----------------------------------|----------|---------|---|-------------|-----------------|--|
| MODEL                    | PC-580RU (With Back Can) Page : 3 |          |         | 3 | DATE        | 30 Oktober 2018 |  |
| LOT NO.                  | SAMPLE-B1                         | No. C    |         |   | TEMPERATURE | 19 C            |  |
| INSTRUMENT               | LISTENING                         | SoundChe | ck 11.1 |   | HUMIDITY    | 38%             |  |

#### Frequency Response



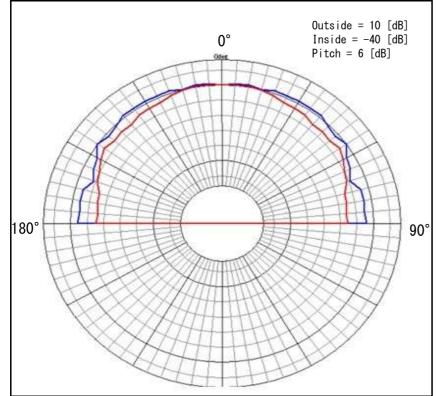
|                          | Specification on manual | Standard                  | Measure   |  |
|--------------------------|-------------------------|---------------------------|-----------|--|
| SPL                      | 97dB                    | Pink noise 330Hz-3.3kHz   | 97. 7dB   |  |
| Frequency Response Lower | 50Hz                    | -20dB of SPL 330Hz-3.3kHz | 60Hz      |  |
| Frequency response Upper | 16. 5kHz                | -20dB of SPL 330Hz-3.3kHz | 20kHz     |  |
| Rated Impedance          | 1kΩ                     | ±15% of specification     | 1. 017k Ω |  |

#### Beamwidth **...**



## Polar Pattern

> AT frequency 500Hz and 1kHz





# > AT frequency 2kHz and 4kHz

