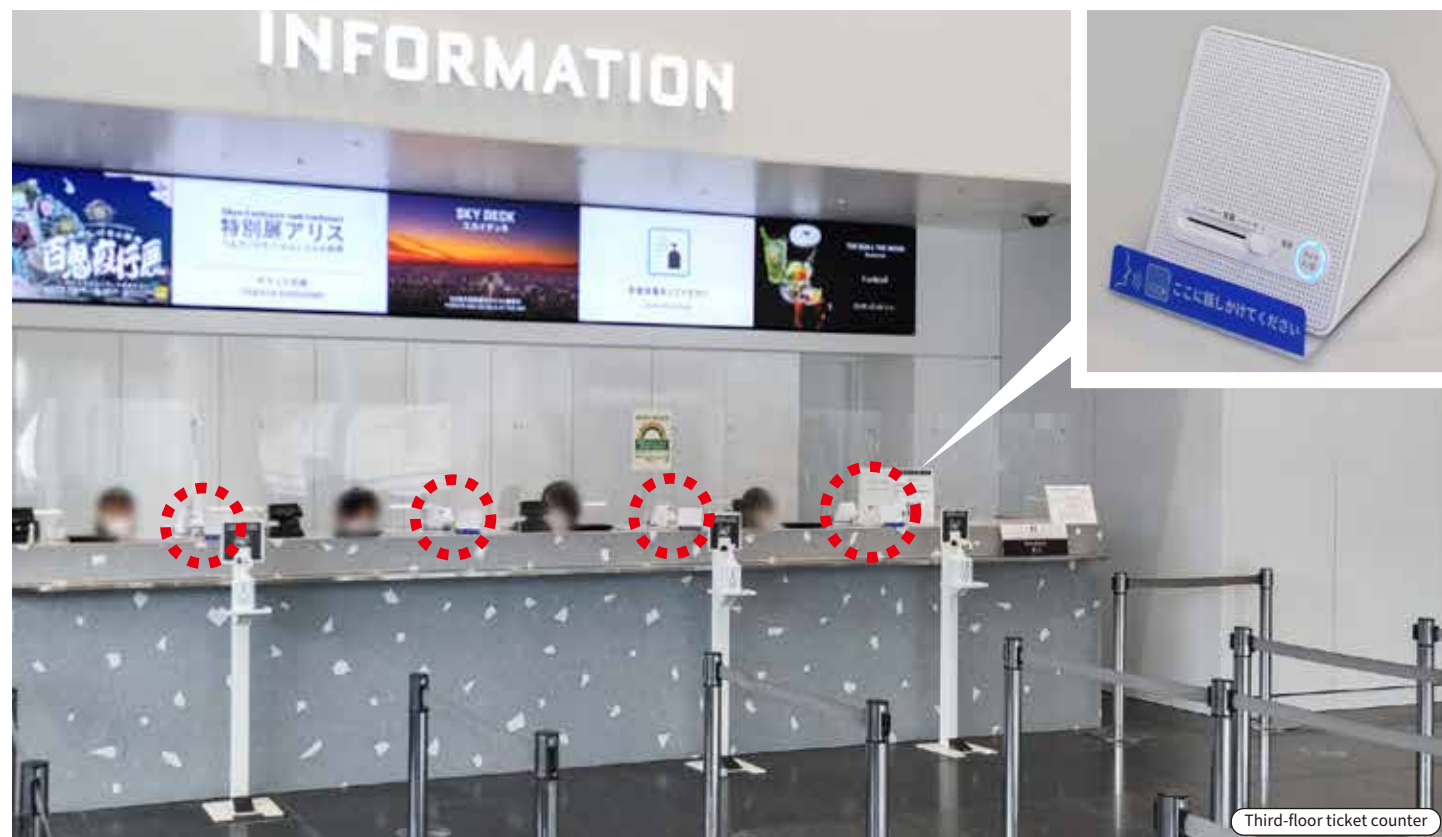


## A speaker system for clear conversation through partitions that is installable within narrow counter spaces.



Third-floor ticket counter

### Customer

#### Roppongi Hills Mori Tower, Mori Building Co., Ltd.

- Minato-ku, Tokyo
- Opened in 2003. The tower is home to the Tokyo City View observation deck and Mori Arts Center Gallery on the 52nd floor, the Mori Art Museum on the 53rd floor, and the rooftop Sky Deck. A reception counter for these facilities is situated on the third floor.



Mori Art Museum

### Implemented product

#### Speaker system\*

GX-CS100×8 sets

- Introduced in March 2022. Four sets are installed on the third-floor ticket counter. One set is installed at each of the group reception counter, the Mori Art Museum's entrance counter, the general reception desk, and the restaurant (the remaining set is a spare).

\* This product is currently sold in Japan only (as of November 2022).

## This is what we realized.

### Challenges before implementation

As part of our measures against viral epidemics, we installed partitions to prevent the scattering of airborne droplets at ticket counters and various other service windows. However, there was a problem: With people wearing masks, the partitions made it even more difficult for customers and staff to talk to each other.

The speaker system made it easier to hear voices clearly even through partitions, facilitating conversation and customer service.

There is almost no unpleasant acoustic feedback, even when the main unit and sub unit are installed close together.

The microphone and speaker are integrated for compactness. The space-saving design makes it easy to install even on narrow counters.



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### Background of implementation

Partitions and masks make it difficult to converse. Studying a speaker system installable in limited spaces.

To stop viral spread as much as possible, we installed partitions to prevent the scattering of airborne droplets at service counters. However, these partitions, combined with the masks worn by both staff members and customers, muffled voices and made it difficult to converse. We considered installing microphones and speakers, but because stand-up microphones require installation space and headset-type microphones take time to disinfect during staff changes, we looked around for something better.

### Reasons for selection

Good sound gathering and clear voice audibility. Almost no acoustic feedback even when devices are placed close to each other.

While exploring options, we learned about a Sharp speaker system having an integrated microphone and speaker. We borrowed two sets of demo units to try them out. We found that the system has a space-saving design that is installable even on narrow counters. Moreover, its sound gathering is so good that voices can be heard clearly, even through a partition. Another advantage is that it causes almost no feedback, even when the main and sub units are moved close to each other.

### Effect after implementation

Smoother counter operations with less repeated conversation.

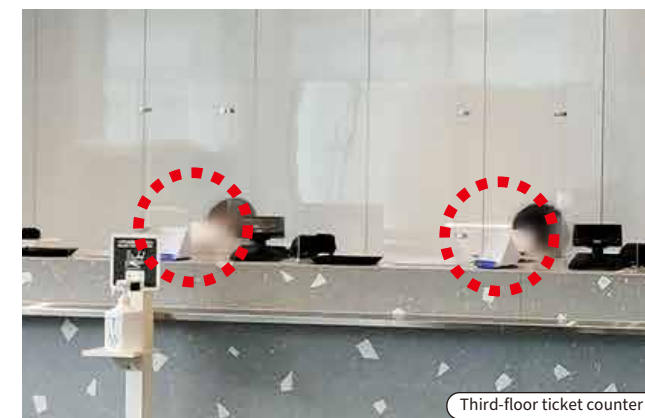
Compactness that does not take up work space.

Now that the speaker system is installed, staff members can clearly hear what customers say, even if they speak softly. Conversely, staff members' voices reach customers' ears more easily, making conversations through the partitions smoother. As a result, there is almost no back-and-forth repetition at crowded ticket counters, shortening the waiting time for the next customer. Additionally, the device's small size keeps it from interfering with money and ticket handling by the staff, even when it is placed on the counter. So its compactness is helpful in creating an environment that reduces errors.

### Future prospects

Intention to continue use even after the pandemic ends. Studying introduction into other Mori Building Group facilities.

Sharp's speaker system makes it easier to hear voices clearly and helps customers who are hard of hearing due to advanced age or disability. So we intend to continue using it even after the pandemic settles down and partitions are no longer necessary. We also want to consider installing it at the counters of other facilities in our group where partitions have been installed.



Third-floor ticket counter

Almost no feedback, even when units are placed close to each other.



Mori Art Museum's entrance counter

Smoother conversation even at counters with airborne droplet-preventing partitions



General information counter

The simple white design fits well with the counter environment.