# DP-L2

## Digital Ambient Noise Controller

Digital audio processor adjusts
BGM/announcement
sound volume to match changes
in listening area noise levels.

# Consistently Pleasant-sounding BGM and

**The TOA DP-L2 Digital Ambient Noise Controller is the easy, automatic solution to the problem of keeping BGM and announcements audible and understandable when the ambient noise levels at an airport check-in counter or boarding gate, or a shopping mall, restaurant or pub, are higher because a large number of people are present. Furthermore, the DP-L2 also works to keep music and information audio from reaching levels that are irritating to customers and staff when the surrounding ambient noise levels are not so high.**

## Automatic and Accurate Input and Output Sound Level Adjustment

The DP-L2 is a digital audio processor with an ambient noise control (ANC) function that makes automatic changes in its output sound levels depending on the amount of surrounding noise, and an automatic level control (ALC) function that automatically adjusts the input signal level so it is appropriate at all times. BGM and announcements remain audible and understandable at all times, with no annoying loudness for customers and employees.

## Output Excluded from Ambient Noise Sensing

The ambient noise sensor microphone enables accurate measurement of BGM/announcement listening-area noise levels.
In addition, for complete accuracy, a DP-L2 feature exclusive to TOA automatically separates the unit's own output from the calculation of the ambient sound level, instead of just mixing all sound sources together, meaning that the output is not detected as noise. Additionally, a monitoring feature makes it possible to check the sound collected by the ambient noise sensor microphone.

**DP-L2**

INPUT LEVEL
−60 −42 −30 −24 −18 −12 −6 CLIP

0
−6   4
−12   6
12
18
24 dB

OUTPUT LEVEL
−60 −42 −30 −24 −18 −12 −6 CLIP

POWER

BACK

NEXT

ALC

0  3  6  9  12
ALC LEVEL

MAXIMUM
OUTPUT

ANC

−18  −9  −6  −3  0
ANC LEVEL

RESET

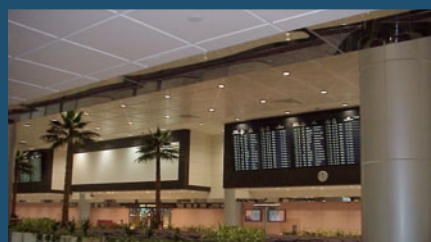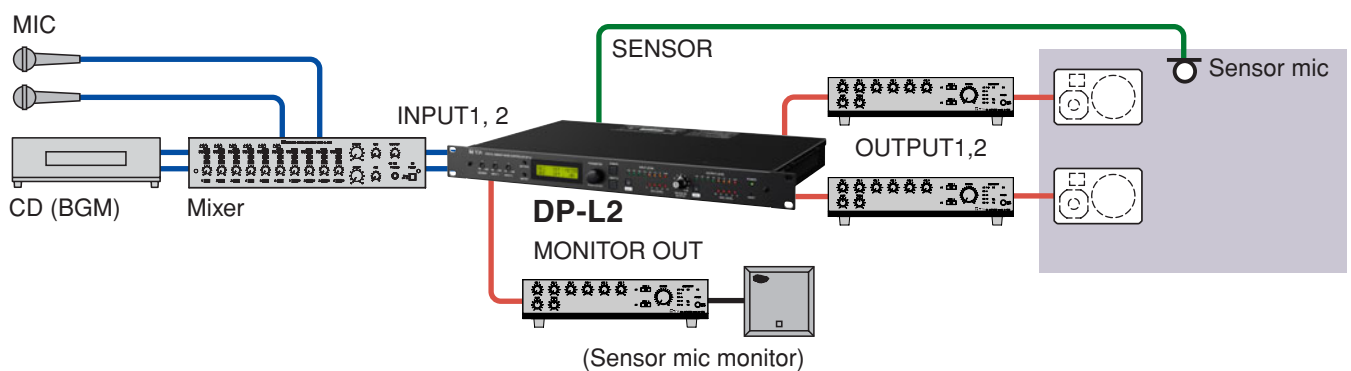# Information for Customers and Employees.

## Easy, Quick Installation and Simple Operation

The DP-L2 fits on a standard 1U size rack, so there is no time-consuming, complex installation procedure. All functions can be easily set from the unit's front panel, thanks to an LCD (liquid crystal display), keys and knobs.
A key-lock function prevents accidental incorrect front-panel key settings, and there are also front-mounted LED meters for input/output signal levels, as well as ALC and ANC levels.



## System Example (When broadcasting is done via a microphone while BGM is on)



MIC

SENSOR

Sensor mic

INPUT1, 2

OUTPUT1,2

CD (BGM)     Mixer

**DP-L2**

MONITOR OUT

(Sensor mic monitor)

# SPECIFICATIONS

| | DP-L2 CU |
|---|---|
| **Power Source** | AC mains, 50/60Hz |
| **Power Consumption** | 20W |
| **Frequency Response** | 48kHz |
| **Sampling Frequency** | 20 — 20,000Hz, ±1dB |
| **Dynamic Range** | Over 108dB (IHF-A weighted) |
| **Distortion** | Under 0.006%, 1kHz, +4dB* input/output (20 — 20,000Hz BPF) |
| **Input** | Sensor input (Ambient noise sensor microphone input):<br>+4/–48dB* changeable, 10kΩ, electronically-balanced, removable terminal block (4 pins),<br>phantom power (+15V DC, can be turned on or off with Phantom switch) with +15V DC terminal<br>Input 1, 2: +4/–8/–20dB* changeable, 15kΩ, electronically-balanced,<br>removable terminal block (3 pins) |
| **Output** | Monitor output: +4dB*, 600Ω, electronically-balanced, removable terminal block (3 pins)<br>Output 1, 2: +4dB*, 600Ω, electronically-balanced, removable terminal block (3 pins) |
| **A/D Converter** | 24 bit |
| **D/A Converter** | 24 bit |
| **Signal Processing** — **Automatic Level Control Function** | Level meter (4 LED meters), Automatic input signal level control function.<br>Automatic input sensitivity setting function: +4/–8/–20dB*,<br>Noise gate level setting: –99 to –3dB |
| **Ambient Noise Control Function** | Level meter (4 LED meters). BGM/Announce level control function,<br>Automatic sensor input reference level measuring function,<br>Sensor input reference level fine adjustment function,<br>Maximum output signal level control: –15 to 0dB,<br>Minimum output signal level control: –18 to –3dB,<br>Sample time setting: 10 s, 20 s, 30 s, 1 min, 5 min<br>Gain ratio setting (Ambient noise; Output signal level) 6: 3, 5: 3, 4: 3, 3: 3, 3: 4, 3: 5, 3:6,<br>Ambient noise measuring frequency setting: 20 — 20,000Hz, 3 points |
| **Maximum Output Signal Level Control Function** | –12, –6, 0, +4, +6, +12, +18, +24dB* |
| **Input Level Indicator** | |
| **Output Level Indicator** | 8 LEDs indicator |
| **Other Feature** | 8 LEDs indicator |
| **Operating Temperature** | Phantom power switch (sensor input), Key lock function,<br>Ground lift switch (INPUT 1, INPUT 2), Input/Output bypass function in power off |
| **Operating Humidity** | 0°C to +40°C |
| **Finish** | Under 90% RH (no condensation) |
| **Dimensions** | Pre-coated steel plate, black, 30% gloss |
| **Weight** | 482 (W) × 44 (H) × 303 D)mm |
| **Accessory** | 3.7kg |
| | Power cord (2m) × 1,<br>Removable terminal plug (4 pins) ×1,<br>Removable terminal plug (3 pins) × 5 |

Note: Prepare ambient noise sensor microphone separately.