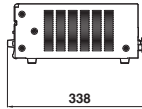
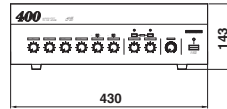


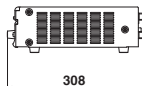
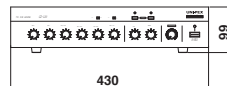
High Power Amplifiers Selectable output from 60W to 240W for your application.

GZ-240



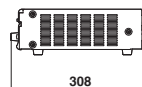
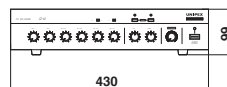
- Power supply** AC 127/220V or 230~240V (with voltage selector switch) 50/60Hz
- Current consumption** 550mA
- Output** 240W (Rated), 400W (Max.)
- Output road impedance** Speaker: 4Ω(Low impedance), Unbalanced
42Ω(High impedance 100V line), Balanced
REC: 0dBV 600Ω, Unbalanced
LINE: 0dBV 600Ω, Unbalanced
- Frequency response** 50Hz~20kHz ±3dB
- Tone control** Bass: ±10dB at 100Hz (1kHz standard)
Treble: ±10dB at 10kHz (1kHz standard)
- Input** MIC 1~6: -62dBV 600Ω, Electronically balanced with volume control
AUX 1, 2: -22dBV 10kΩ, Electronically balanced with volume control
TAPE: -22dBV 10kΩ, Unbalanced with volume control
CD: -16dBV 10kΩ, Unbalanced with volume control
Power in: 0dBV 600Ω, Unbalanced
- S/N ratio** 60dB
- Finish** Front panel (Aluminum): Half-matt Black
Rear panel (Steel)
- Cover (Steel):** Half-matt Black
- Mass** Approx. 15.3kg

GZ-120



- Power supply** AC 127/220V or 230~240V (with voltage selector switch) 50/60Hz
DC 28V (DC 24V battery)
- Current consumption** 220mA, 9.2A (DC power, rated output)
- Output** 120W (Rated), 200W (Max.)
- Output road impedance** Speaker: 4Ω(Low impedance), Unbalanced
83Ω(High impedance 100V line), Balanced
REC: 0dBV 600Ω, Unbalanced
LINE: 0dBV 600Ω, Unbalanced
- Frequency response** 50Hz~20kHz ±3dB
- Tone control** Bass: ±10dB at 100Hz (1kHz standard)
Treble: ±10dB at 10kHz (1kHz standard)
- Input** MIC 1~6: -62dBV 600Ω, Electronically balanced with volume control
AUX 1, 2: -22dBV 10kΩ, Electronically balanced with volume control
TAPE: -22dBV 10kΩ, Unbalanced with volume control
CD: -16dBV 10kΩ, Unbalanced with volume control
Power in: 0dBV 600Ω, Unbalanced
- S/N ratio** 60dB
- Finish** Front panel (Aluminum): Half-matt Black
Rear panel (Steel)
- Cover (Steel):** Half-matt Black
- Mass** Approx. 10.1kg

GZ-60



- Power supply** AC 127/220V or 230~240V (with voltage selector switch) 50/60Hz
DC 28V (DC 24V battery)
- Current consumption** 100mA (power OFF), 4.8A (DC power, rated output)
- Output** 60W(Rated), 100W(Max.)
- Output road impedance** Speaker: 4Ω(Low impedance), Unbalanced
167Ω(High impedance 100V line), Balanced
REC: 0dBV 600Ω, Unbalanced
LINE: 0dBV 600Ω, Unbalanced
- Frequency response** 50Hz~20kHz ±3dB
- Tone control** Bass: ±10dB at 100Hz (1kHz standard)
Treble: ±10dB at 10kHz (1kHz standard)
- Input** MIC 1~6: -62dBV 600Ω, Electronically balanced with volume control
AUX 1, 2: -22dBV 10kΩ, Electronically balanced with volume control
TAPE: -22dBV 10kΩ, Unbalanced with volume control
CD: -16dBV 10kΩ, Unbalanced with volume control
Power in: 0dBV 600Ω, Unbalanced
- S/N ratio** 60dB
- Finish** Front panel (Aluminum): Half-matt Black
Rear panel (Steel)
- Cover (Steel):** Half-matt Black
- Mass** Approx. 7.6kg

Related Equipments

BUX-100 (Unit case)



- Power supply** AC 100V only 50/60Hz
- Dimensions** 424 (W) x 102 (H) x 313 (D) mm
- Mass** Approx. 4.5kg

AU-800 (Wireless unit 800MHz)



AU-203 (CD player unit)



AU-300 (Wireless unit 300MHz)



AU-100 (FM/AM radio tuner unit)



AU-500 (SD recorder unit)



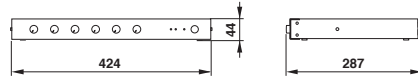
AU-403 (Program chime unit)



Microphone mixer

MX-192

MX-192 can be used for simultaneous mixing of 6 microphones or line inputs from CD player and cassette tape player. With REC output jack, MX-192 can be connected cassette tape recorder for recording.



Power supply AC 100V/220V 50/60Hz

Output 0dBV/-20dBV/-50dBV
600Ω, Balanced

Recording output 0dBV/-20dBV 600Ω, Unbalanced

Inputs Input 1-3 : -62dBV/-22dBV/-2dBV 600Ω

Electrically balanced with volume control

Input 4-5 : -62dBV/-22dBV/-2dBV 600Ω

Electrically balanced with volume control

-12dBV 10kΩ, Unbalanced

Input 6 : -62dBV/-22dBV/-2dBV 600Ω

Electrically balanced with volume control

-22dBV 10kΩ, Unbalanced

Input 7 : -2dBV 600Ω, Unbalanced

S/N ratio 60dB or more

Finish Panel (Steel plate): Semi-matt Black

Cover (Vinyl-laminated steel plate): Black

Mass Approx. 3.0kg

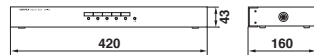
Option

Balanced transformer
LT-16A

Relay Box

BR-50

Using with RMM-105, BR-50 acts as intermediary device.



Power supply AC 100V 50/60Hz

Power consumption 7W

Power control(AMP) Non-voltage contact;
Contact capacity DC30V, 1A

Contact capacity 250W per 1 station
500W per 5 stations

Speaker station control 3-wired type, 5 stations with all-call
Remote microphone precedence system

Remote circuit 1 unit: DC24V, 60mA (max.) per 1 station
4 units: DC24V, 140mA (max.) per 4 stations

Finish Panel (Steel plate): Half-matt black

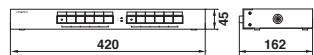
Case (Vinyl-laminated steel): Black

Mass Approx. 2.3kg

Speaker Switch Board

SB-100

SB-100 is equipped 10 lines (or 5 lines x 2) and All call switch for 2 or 3 wire system speaker. Possible to connect High impedance speaker only.



Output control circuit 10 lines/5 lines x2 (with All Call)

Control capacity 1 line: 100W or less
All Call: 400W or less

Finish Panel (Steel): Half-matt Black

Case (Vinyl laminated steel): Black

Mass Approx. 1.9kg

Remote Microphones

RMM-101 <RMM-105> <RMM-110>



RMM-101

RMM series has speaker circuit selector switches to control speaker away from amplifier.

Remote switch

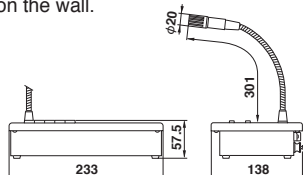
RMM-101: All call paging

RMM-105: All call paging and select up to 5 circuits.

RMM-110: All call paging and select up to 10 circuits

Possible to built-in chimeunit, EC-44. (option)

With AK-01 (option), RMM series can be mounted on the wall.



Power supply AC 100V/220V 50/60Hz
DC 24V

Output 0dBV 600Ω, Balanced
-20dBV 10kΩ, Balanced

Frequency response 100Hz ~ 10kHz ±3dB (AUX input)
300Hz ~ 7kHz ±3dB (MIC input)

Inputs MIC: -62dBV 600Ω, Unbalanced

AUX: -22dBV 10kΩ, Unbalanced

Chime: -22dBV 10kΩ, Unbalanced (installable EC-44)

Microphone Unidirectional, dynamic microphone

Remote switch All call

All call, 5 channels <RMM-105>

All call, 10 channels <RMM-110>

Finish Panel (ABS resin): Light gray

Case (Steel): Light gray

Mass Approx. 1.3kg

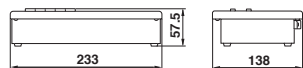
Option

Chime unit
EC-44
Wall mounting bracket
AK-01

Extension Equipment for RMM series

RMZ-110

Switch expansion equipment for RMM series.



Remote switch Circuit switch x10,
Broadcast control output

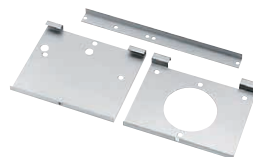
Finish Panel (ABS resin): Light gray
Case (Steel): Light gray

Mass Approx. 0.7kg

Option Wall mounting bracket
AK-01

Bracket

AK-01



Type Wall mounting bracket

Mass Approx. 180g

Chime Unit

EC-44

6 kinds of chime melody can be selected by DIP switch.
Flexible speed control.



Power supply DC 12~15V
(Supplied from installed equipment)

Current consumption 15mA

Chime 4 tones
(Automatic continuous chime)
Tone up & down

Chime frequency 440/554/659/880Hz

Chime output -22dBV 10kΩ Unbalanced

Mass Approx. 40g

Balanced Transformer

LT-16A

LT-16A can be changed from unbalanced to balanced for microphone and line input.
Also Isolate input circuit and outside line by using LT-16A.



Input 600Ω (at 1kHz)

Output 600Ω (at 1kHz)

Frequency response 20Hz~20kHz ±1dB (1V input)

Insertion loss 3dB max. (at 1kHz)

Finish Metal

Mass Approx. 30g

Chime Microphone

MC-301

Power supply DC 7.5V (supplied from AC adaptor)

Chime 440Hz/554Hz/659Hz/880Hz

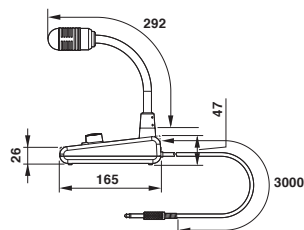
Impedance 600Ω, Unbalanced

Output level MIC: -66dBV/-82dBV/-62dBV
Chime: -45dBV/-35dBV

Directional Uni-directional

Finish Body (Zinc die-casting) : Metallic light gray

Mass Approx. 1.0kg (without cable)



Desktop type Microphone

MD-33

Impedance 600Ω, Unbalanced

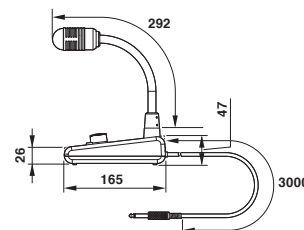
Sensitivity -52dB

Frequency response 80Hz ~ 12kHz

Directional Uni-directional

Finish Body (Zinc die-casting) : Metallic light gray

Mass Approx. 1.0kg (without cable)



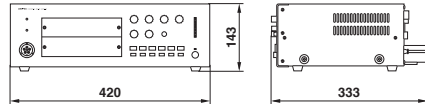
Vessel Amplifiers Good sales from ferry size boat to ship.

TT-60 / <TT-30>



TT series amplifier is table top type PA amplifier with both AC and DC power source and also many functions for announcement for vessel's operation and broadcasting inside the cabin. 5-station speaker selector and 4-station talk-back function. All call switch can enable telephone paging inside the cabin. Possible to be installed optional function unit, AM/FM radio tuner (FU-110R).

- Power supply** AC 100V 50/60Hz
DC 26.4V (24V battery, hot earth)
- Current consumption** DC 4A
DC 2.5A <TT-30>
- Rated output** 60W
30W <TT-30>
- Output load impedance** 170Ω (100V line)/ 83Ω (70V line), Balanced
330Ω (100V line)/170Ω (70V line), Balanced <TT-30>
- Frequency response** 100Hz~10kHz ±3dB (at 10dB rated output)
- Tone control** -10dB at 10kHz (1kHz standard)
- Inputs** Main MIC: -62dBV 600Ω, Balanced with volume control
MIC 1~3: -62dBV 600Ω, Balanced with volume control
LINE 1~2: -22dBV 10kΩ, Unbalanced with volume control
- S/N ratio** 55dB
- Speaker output circuit** 5-circuits (2 line system), with All-Call switch, Talk Back for Speaker 1~3 and Monitor circuit.
- BK input** DC 26.4V, 15mA (DC 24V at BK terminal, only for power source)
- Finish** Panel (Steel): Matt Black
Case (Steel): Light Green
- Mass** Approx. 12.4kg
Approx. 9.7kg <TT-30>



Convertible Units

FU-110R

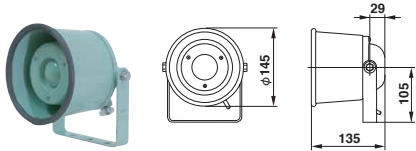


AM/FM Radio Tuner Unit

- Power supply** DC 12V (Supplied from installed equipment)
- Current consumption** 100mA or less
- Rated output** -20dBV with volume control
- Receiving frequency** AM: 531~1602kHz FM: 76.0~90.0MHz
- Antenna** AM: Loop antenna (Low impedance, unbalanced)
FM: 75Ω unbalanced
- Usable frequency** AM: 30dBμV (at 1kHz, 30% modulation, S/N ratio 20dB)
FM: 12dBμV (at 1kHz, 75kHz FM, S/N ratio 30dB)
- Finish** Panel (ABS resin): Black
- Mass** Approx. 400g

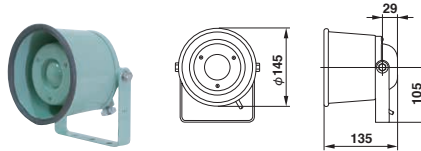
Splash-proof Speakers High Durability against Salt attack.

MA-15 / <MA-15/16>



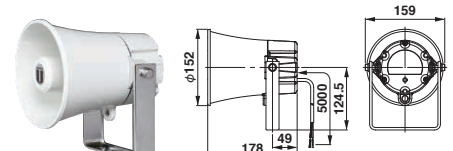
- Rated input** 10W
- Rated impedance** 8Ω
16Ω <MA-15/16>
- SPL** 100dB (1W/1m)
- Frequency response** 500Hz~5kHz
- Finish** Horn, Reflector (Aluminum): Light green
Cover (Aluminum diecasting): Light green
Bracket (Stainless steel): Light green
- Mass** Approx. 1.3kg
Approx. 1.35kg <MA-15/16>

MA-15T



- Rated input** 10W
- Rated impedance** 1kΩ/2kΩ (100V line)
- SPL** 100dB (1W/1m)
- Frequency response** 500Hz~5kHz
- Finish** Horn, Reflector (Aluminum): Light green
Cover (Aluminum diecasting): Light green
Bracket (Stainless steel): Light green
- Mass** Approx. 1.6kg

CA-151S

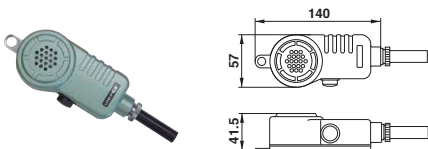


- Rated input** 5W
- Rated impedance** 8Ω
- SPL** 104dB (1W/1m)
- Frequency response** 400Hz~5kHz
- Finish** Horn, Reflector (ASA resin): Silver gray
Cover (ASA resin): Silver gray
Bracket (Stainless steel)
- Mass** Approx. 1.4kg

JIS C 0920
IEC 60529 (IP65)

Splash-proof Microphone

MD-2B



- Impedance** 600Ω, Balanced
- Sensitivity** -53dB (1kHz 0dB=1V/Pa)
- Frequency response** 300Hz~5kHz ±20dB
- Directional** Omni-directional
- Finish** (Aluminum diecasting): Light green
- Mass** Approx. 270g

Extension cords

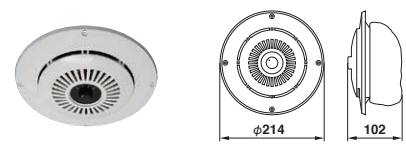
LM-405 <LM-410>



- Length** 5m
10m <LM-410>
- Mass** Approx. 0.5kg
Approx. 1.0kg <LM-410>

Exposed type Speaker

PS-311L



- Rated input** 3W
- Impedance** 3.3kΩ (100V line)
- SPL** 92dB (1W/1m)
- Frequency response** 90Hz~12kHz
- Speaker** Φ160mm dynamic cone speaker, 8Ω
- Finish** (ABS resin): Half-matted Ivory white
- Mass** Approx. 700g