

# Mixer Power Amplifiers

High Durability, High Reliability & High Cost-Performance



A-1121 (120W) / A-1061 (60W) / A-1031 (30W)  
LH / AS version

 TOA



# Mixer Power Amplifiers Within Your Budget.

TOA mixer power amplifiers are cost-effective professional PA amplifiers, suitable for factories, schools, hospitals, stores and many other commercial applications. TOA's years of experience as manufacturer of audio equipment is reflected in these products. Convenient features such as various protective circuits, MIC1 override and overall solid construction are sure to satisfy every commercial user.

The two series, both LH and AS versions come in 30W, 60W or 120W of rated output (max. 45W, 90W and 180W) to cover all broadcast area sizes. In addition to offering high-end performance at affordable cost, the system offers unparalleled versatility that allows integration with a wide range of speakers, microphones and other peripherals. Flexibility and integrity are the key words that describe the TOA engineering and workmanship. Think of TOA when you need professional amplifiers.



A-1121 (120W) / A-1061 (60W) / A-1031 (30W) Front



LH version Rear



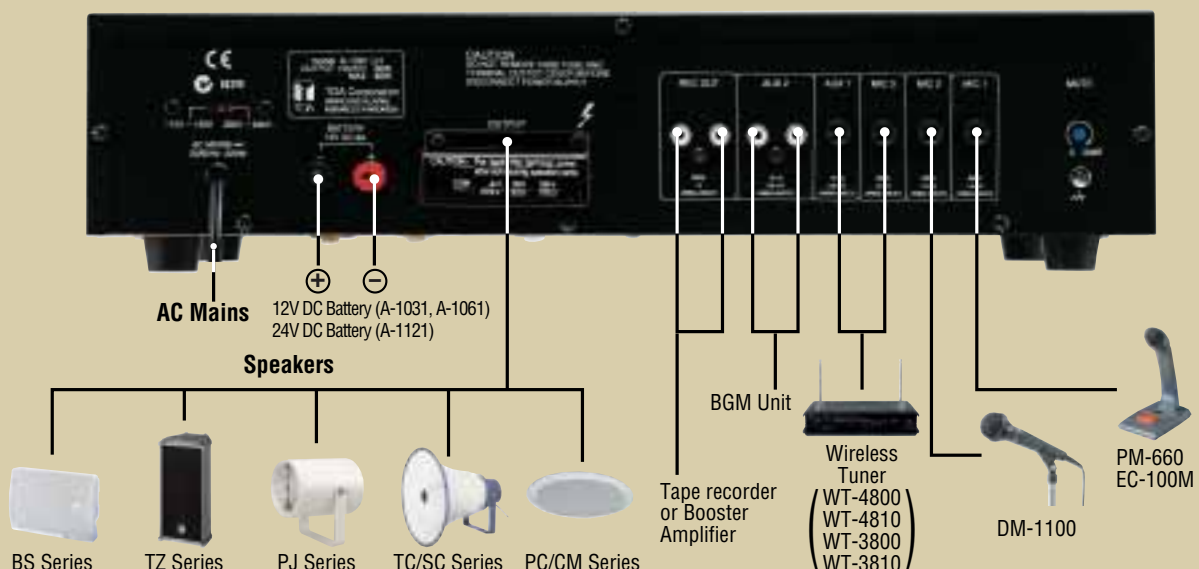
AS version Rear

## Features

- MIC1 overrides other input signals with 0 – 30dB attenuation.
- Current limiter circuitry.
- Thermal protection circuitry.
- 3 mic. inputs, 2 aux. inputs & 1 recording output.
- Constant voltage distribution system (100V and 70V).
- Low impedance output (4Ω).
- Independent input volume & master volume controls.
- Independent tone control for both high & low frequencies.
- AS version only
  - MIC1 input is an electrically balanced, cannon plug (3P XLR) type.
  - Muting is activated by external make contact.



## Connection Diagram (Photo: LH version)



## Box/ Column Speaker



	BS-330/330T	BS-633	TZ-105	TZ-205
Input	3W (100V line)	6W (100V line)/ 3W (70V line)	10W (100V line)	20W (100V line)
Sensitivity (1W/1m)	91dB/Pink noise (330 – 3,300Hz)	91dB	90dB	93dB
Frequency Response	120 – 15,000Hz	120 – 15,000Hz	150 – 10,000Hz	
Dimensions (W x H x D)	173 x 195 x 101mm		167 x 335 x 141mm	167 x 580 x 141mm
Weight	BS-330: 0.75kg BS-330T: 0.79kg	0.86kg	3.4kg (without bracket)	5.1kg (without bracket)
Finish	Case; ABS resin, off-white, Rear board; Hard board		Enclosure; Extruded aluminum Silver gray Grille; Punched net, black	

\*BS-330T has an attenuator.

## FGM Speaker



	F-160G/160W	F-160GM/160WWM	BS-1030B/1030W
Input	Continuous Program: 150W (8Ω)	30W (100V/70V line)	30W (100V/70V line), 8Ω
Sensitivity (1W/1m)	91dB/Pink noise (330 – 3,300Hz)		90dB
Frequency Response	100 – 20,000Hz (–10dB)		80 – 20,000Hz
Dimensions (W x H x D)	250 x 157 x 169mm		196 x 290 x 150mm
Weight	3.3kg	3.9kg	2.5kg (without bracket)
Finish	Enclosure; Polypropylene resin Grille; Punched metal Color: White (F-160W/160WWM)/ Dark gray (F-160G/160GM)		Enclosure; ABS resin Grille; surface treated steel plate Bracket; surface treated steel plate Color: White (BS-1030W)/ Black (BS-1030B)

## Horn



	TH-650	TH-660
Sensitivity (1W/1m)	110 dB (1W, 1m) ( when operating with driver)	
Frequency Response	200 – 6,000Hz (when operating with driver)	
Dimensions	ø500 x 394 (D) mm	ø600 x 425 (D) mm
Weight	2.9kg	
Finish	Horn flare and flange; ABS resin, off-white Reflector horn; ABS resin, off-white/Bracket holder; Aluminum, gray Bracket; Steel, gray/Screw and bolts; Stainless steel	

## Driver



	TU-630	TU-630M	TU-650	TU-650M
Input	30W (16Ω)	30W (100V/70V line)	50W (16Ω)	50W (100V/70V line)
Sensitivity (1W/1m)	110dB (When operated with JISC5504 standard horn)			
Frequency Response	150 – 6,000Hz (When operated with JISC5504 standard horn)			
Coupling	1-3/8 18 threads (inch screw)			
Dimensions (mm)	ø139 x 105	ø139 x 149	ø139 x 105	ø139 x 149
Weight	1.4kg	1.9kg	2kg	2.7kg
Finish	Flange; Aluminum, gray, powder coating/Rear cover; ABS resin, gray			

## Reflex Horn Speaker



	TC-615	TC-615M	TC-630	TC-630M
Input	15 W (8Ω)	15W (100V/70V line)	30W (16Ω)	30W (100V/70V line)
Sensitivity (1W/1m)	108 dB		110 dB	
Frequency Response	250 – 7,000 Hz		200 – 6,000 Hz	
Dimensions	ø400 x 376 (D) mm		ø500 x 463 (D) mm	
Weight	3 kg	3.2 kg	4.1 kg	4.5 kg
Finish	Horn flare; Aluminum, off-white/Reflector horn; ABS resin, off-white/ Bracket; Steel, gray/Rear cover; ABS resin, gray/ Screw and bolts; Stainless steel			

## Wide Range Weather- proof Speaker



	CS-64	CS-154	CS-304
Input	6 W (100V/70V line)	15 W (100V/70V line)	30 W (100V/70V line)
Sensitivity (1W/1m)	96 dB	97 dB	98 dB
Frequency Response	130 – 13,000 Hz	150 – 15,000 Hz	120 – 15,000 Hz
Dimensions (W x H x D) (mm)	233 x 224 x 208	366 x 230 x 272	366 x 230 x 272
Weight	1.5 kg	2.8 kg	3.1 kg
Finish	Horn , cover; ABS resin, off-white, paint/Bracket; Stainless steel/ Net; Aluminum, gray, paint/Screw; Stainless steel		

## Paging Horn Speaker



	SC-610	SC-610M	SC-615	SC-615M	SC-630	SC-630M	SC-650
Input	10W (8Ω) (Mobil mount use; 5W)	10W (100V/70V line)	15W (8Ω) (Mobil mount use; 10W)	15W (100V/70V line)	30W (8Ω) (Mobil mount use; 15W)	30W (100V/70V line)	50W (16Ω) (Mobil mount use; 30W)
Sensitivity	110dB (1W,1m at 500 to 2,500 Hz peak level)		112dB (1W,1m at 500 to 2,500 Hz peak level)		113dB (1W,1m at 500 to 2,500 Hz peak level)		109dB (1W, 1m)
Frequency Response	315 – 12,500 Hz		280 – 12,500 Hz		250 – 10,000 Hz		250 – 6,000 Hz
Dimensions (mm)	172 (W) x 161 (H) x 188 (D)		222 (W) x 179 (H) x 234 (D)		285(W) x 227 (H) x 277 (D)		430 (W) x 297.5 (H) x 327 (D)
Peso	1 kg	1.2 kg	1.1 kg	1.3 kg	1.7 kg	2 kg	3.4 kg
Finish	Horn flare; Aluminum, off-white/Reflector horn and rear cover; ABS resin, off-white/Bracket, Screws and bolts; Stainless steel						

## Projection Speaker



	PJ-100W	PJ-200W
Input	10W (100V/70V/50V line)	20W (100V/70V/50V line)
Sensitivity (1W/1m)	92dB	95dB
Frequency Response	65 – 15,000Hz	50 – 20,000Hz
Dimensions	ø140 x 195mm	ø180 x 250mm
Weight	1.8kg	2.5kg
Finish	ABS resin, off-white	

## Microphone



	DM-1100	PM-660	EC-100M
Directivity	Unidirectional		
Impedance	600Ω, Unbalanced		
Sensitivity (1kHz, 0dB=1V/pa)	–55dB	–58dB	Mic: –53dB Chime signal: –45dB
Frequency Response	100 – 12,000Hz	100 – 10,000Hz	200 – 10,000Hz
Output	1/4" unbalanced phone plug		
Peso	155g	440g	770g
Other functions	—	—	4-tone chime

\* PM-660U (electrically balanced type, without plug) is also available.

## UHF Wireless Microphone System



	WM-4200 Hand-held (Vocal) Wireless Microphone	WM-4210 Hand-held (Vocal) Wireless Microphone	WM-4220 Hand-held (Speech) Wireless Microphone	WM-4300 Lavaliere Wireless Microphone	WM-4310 Lavaliere Wireless Microphone	WM-4310H Headset Wireless Microphone	WM-4310A Headset (Aerobics) Wireless Microphone
Microphone Element	Dynamic microphone unit, Cardioid			Electret condenser unit, Cardioid		Electret condenser microphone, cardioid	
Frequency Range	692 - 865 MHz, UHF*1						
Channel Selectable	64 CH			16 CH		64 CH	
Battery	6LR61 (9 V x 1)			6LR61 (9 V x 1)			
Battery Life	More than 10 hours (alkaline)			More than 10 hours (alkaline)			
Finish	Resin, rubber coating		Resin, coating		Resin, coating		
Dimensions	ø52.2 x 279.4 mm		ø50 x 235.2 mm		ø45 x 235.2 mm		
Weight	300 g (with battery)		250 g (with battery)		62 (W) x 142 (H) x 32 (D) mm 135 g (with battery)		



WT-4800



WT-4810



YW-4500

	WT-4800 Wireless Tuner	WT-4810 Wireless Tuner
Power Requirement	AC mains (using AC-DC adapter)	
Receiving Frequency	692 - 865 MHz, UHF*1	
Channel Selectable	64 CH	16 CH
Diversity System	TOA Space Diversity*4	
Audio Output	MIC, -60 dB*3 / LINE -20 dB*3 600 Ω 1/4" Phone jack (unbalanced) XLR 3-31 type connector (balanced)	
Mixing Input	-20 dB*3, 10 kΩ, 1/4" Phone jack (unbalanced)	
Squelch System	Using together of noise SQ, carrier SQ and tone SQ	Using together of noise SQ, carrier SQ
Dimensions	210 (W) x 44.6 (H) x 180 (D) mm	240 (W) x 35 (H) x 110 (D) mm
Weight	700 g	390 g

	YW-4500 Wireless Antenna
Power Requirement	7 - 12 V DC (supplied from Antenna Distributor or Tuner)
Receiving Frequency	692 - 865 MHz, UHF*1
Dipole Ratio Relative Gain	More than 8 dB (780 MHz)
V.S.W.R	Less than 3.0
Dimensions	105 (W) x 140 (H) x 126 (D) mm
Weight	270 g

## VHF Wireless Microphone System



	WM-3210 Hand-held (Vocal) Wireless Microphone	WM-3220 Hand-held (Speech) Wireless Microphone	WM-3310 Lavaliere Wireless Microphone	WM-3310H Headset Wireless Microphone
Microphone Element	Dynamic microphone, cardioid		Electret condenser microphone, cardioid	
Frequency Range	169 - 216 MHz, VHF*2			
Channel Selectable	6 CH			
Battery	6LR61 (9 V x 1)			
Battery Life	More than 10 hours (alkaline)			
Finish	Resin, coating			
Dimensions	ø50 x 235.2 mm		ø45 x 235.2 mm	
Weight	250 g (with battery)		135 g (with battery)	



YW-3500

	YW-3500 Wireless Dipole Antenna
Power Requirement	8 - 12 V DC (supplied from Antenna Distributor or Tuner)
Receiving Frequency	169 - 216 MHz, VHF*2
Dipole Ratio Relative Gain	More than 6 dB (including booster amplifier)
V.S.W.R	Less than 2.6
Dimensions	197 (W) x 850 (H) x 32 (D) mm
Weight	200 g



WT-3800



WT-3810

	WT-3800 Wireless Tuner	WT-3810 Wireless Tuner
Power Requirement	AC mains (using AC-DC adapter)	
Receiving Frequency	169 - 216 MHz, VHF*2	
Channel Selectable	6 CH	
Diversity System	TOA Space Diversity*4	
Audio Output	MIC, -60 dB*3/LINE -20dB*3 600Ω 1/4" Phone jack (unbalanced) XLR 3-31 type connector (balanced)	-20dB*3 600Ω 1/4" Phone jack (unbalanced)
Mixing Input	-20 dB*3, 4 kΩ, 1/4" Phone jack (unbalanced)	
Squelch System	Using together of noise SQ, carrier SQ and tone SQ	Using together of noise SQ, carrier SQ
Dimensions	210 (W) x 44.6 (H) x 180 (D) mm	240 (W) x 35 (H) x 110 (D) mm
Weight	600 g	380 g

## UHF/VHF Wireless Microphone System



WD-4800

	WD-4800 Power/Antenna Distributor
Power Requirement	AC mains
Frequency Range	VHF/UHF
Antenna Input	Dual 2 inputs (front x 1, rear x 1), 75 Ω, BNC (phantom powering for antenna)
Antenna Output	Dual 4 outputs, 75 Ω, BNC
DC Power Supply	4 outputs (each output: 13V DC/250mA)
Dimensions	420 (W) x 44 (H) x 305.5 (D) mm
Weight	3.50 kg



WTU-4800/WTU-3800

	WTU-4800 UHF Wireless Tuner Unit	WTU-3800 VHF Wireless Tuner Unit
Power Requirement	7 - 12 V DC	
Receiving Frequency	692 - 865 MHz, UHF*1	169 - 216 MHz, VHF*2
Channel Selectable	16 CH	6 CH
Diversity System	TOA Space Diversity*4	

\*1 Frequency range dependent on individual country regulatory codes.

\*2 Frequency range dependent on individual country regulatory codes.

\*3 0dB = 1 V

\*4 Patents pending for TOA Space Diversity Technology.

## Specifications

Model		A-1031	A-1061	A-1121
Power requirements	LH type	110 – 120V AC or 220 – 240V AC (selectable), or 12V DC		110 – 120V AC or 220 – 240V AC (selectable), or 24V DC
	AS type	220 – 240V AC or 12V DC		220 – 240V AC or 24V DC
Rated output		30W (45W max.)	60W (90W max.)	120W (180W max.)
Power consumption		120W (rated output), 5A (DC operation)	220W (rated output), 9A (DC operation)	380W (rated output), 9A (DC operation)
Frequency response		100 – 10,000Hz (±3dB)		
Distortion		Less than 1% at 1kHz, 1/3 rated power		
Output regulation		Less than 3dB, no load to full load		
Tone controls		Over –10dB at 100Hz and 10,000Hz		
S/N ratio		Better than 92dB (all volume controls: ccw) Better than 75dB (MASTER volume: cw, all input volume: ccw) Better than 70dB (MIC 1, 2, 3) and better than 75dB (AUX 1, 2)		
Speaker outputs		High impedance; 170Ω (70V), 330Ω (100V), balanced  Low impedance; 4Ω, balanced M4 screw terminal	High impedance; 85Ω (70V), 170Ω (100V), balanced  Low impedance; 4Ω, balanced M4 screw terminal	High impedance; 42Ω (70V), 85Ω (100V), balanced  Low impedance; 4Ω, balanced M4 screw terminal
Recording output		0dBV, 600Ω, unbalanced, RCA pin jack (when using both L and R)		
Inputs	LH type	MIC1 : –55dBV (1.8mV), 600Ω, unbalanced, phone jack 6.3mm MIC2 : –55dBV (1.8mV), 600Ω, unbalanced, phone jack 6.3mm MIC3 : –55dBV (1.8mV), 600Ω, unbalanced, phone jack 6.3mm AUX1 : –20dBV (100mV), 10kΩ, unbalanced, phone jack 6.3mm AUX2 : –20dBV (100mV), 10kΩ, unbalanced, RCA pin jack (when using both L and R)		
	AS type	MIC1 : –55dBV (1.8mV), 600Ω, electrically balanced, 3P XLR type MIC2 : –55dBV (1.8mV), 600Ω, unbalanced, phone jack 6.3mm MIC3 : –55dBV (1.8mV), 600Ω, unbalanced, phone jack 6.3mm AUX1 : –20dBV (100mV), 10kΩ, unbalanced, phone jack 6.3mm AUX2 : –20dBV (100mV), 10kΩ, unbalanced, RCA pin jack (when using both L and R)		
Indicators		Power indicator LED, LED output level meter		
Protection circuits		Current limiter, thermal protection, AC and DC fuse		
Muting functions	LH type	MIC1 overrides other input signals with 0 ~ 30dB attenuation (activated by voice signal)		
	AS type	MIC1 overrides other input signals with 0 ~ 30dB attenuation (activated by external make contact)		
Finish		Panel: ABS resin, black / Case: Steel plate, black, paint		
Dimensions		420 (W) x 103 (H) x 262 (D)		
Weight		5kg	7kg	10kg

\* Specifications are subject to change without notice.

## Ceiling Speaker

### Combination Type



	PC-1863	PC-1864	PC-1867	PC-645R	PC-646R	PC-643S	PC-644S
Rated Input	6W (100V line), 3W (70V line)			6W (100V line), 3W (70V line)			
Sensitivity (1W/1m)	90dB/Pink noise (330 - 3,300Hz)						90dB/Pink noise (330 - 3,300Hz)
Frequency Response	100 - 16,000Hz			100 - 12,000Hz			
Dimensions (mm)	ø180 x 10.5 (Exposed section) + 110mm (PC-1864) ø180 x 11 (Exposed section) + 110mm (PC-1863/PC-1867)			ø191 x 8.5 (Exposed section) + 74mm	ø191 x 10 (Exposed section) + 74mm	200 x 200 x 11 (Exposed section) + 74mm	200 x 200 x 15 (Exposed section) + 74mm
Weight (bracket excluded)	650g	655g	650g	610g	620g	700g	720g
Finish	Baffle: ABS resin, Off-white Grille: Aluminum, Off-white	ABS resin, Off-white	Baffle: Aluminum, Off-white Grille: Aluminum, Off-white	ABS resin, Off-white	Baffle: ABS resin, Off-white Grille: Aluminum net, Off-white	ABS resin, Off-white	Baffle: ABS resin, Off-white Grille: Aluminum net, Off-white

### Grille Separation Type



	CM-760	CM-960
Rated Input	6W (100V line), 3W (70V line)	
Sensitivity (1W/1m)	90dB	92dB
Frequency Response	100 - 16,000Hz	100 - 12,000Hz
Dimensions (W x H x D) (mm)	215 x 134 x 89	230 x 174 x 106.5
Weight (bracket excluded)	655g	850g
Finish	Grille: Fire-resistant, high-impact styrene resin (resin material grade: UL94 V-0 or its equivalent), black	

### Speaker Grille



	CP-73	CP-93	CP-77	CP-97
Dimensions (mm)	ø180 x 11 (Exposed section)	ø230 x 12 (Exposed section)	ø180 x 11 (Exposed section)	ø230 x 12 (Exposed section)
Weight	70g	100g	70g	100g
Finish	Frame: ABS resin, Off-white Net: Aluminum, Off-white, paint		Frame: Metal, Off-white Net: Aluminum, Off-white, paint	

## Powered Mixer

MX-628



- Attractive, compactly sized MX-628 provides eight input channels and two output channels rated at 60W. Versatile expansion options to suit requirements.
- Easy setup makes it ideal for venues such as banquet rooms, weddings, places of worship, lecture halls, and many others.
- Eight input channels for flexibly combining sources such as mics, CDs etc.
- Compatible for use with two TOA wireless microphones when TOA diversity wireless tuner (UHF/VHF) option is installed onboard.
- Separate line outs allow system expansion by connecting to exterior power amplifiers.
- Foldback features allow independent monitor system to be utilized.
- Mic input terminals 1- 4 conveniently accept either XLR type or 1/4" phone plug connectors.
- Channels 1- 6 equipped with trim control for adjusting input sensitivity for easier mixing and to prevent distortion.
- Effector output control when incorporating effects into an input signal.
- Master section with master output controls and easy-to-see LED indicators.

### Options



WTU-4800  
UHF Wireless Tuner Unit  
WTU-3800  
VHF Wireless Tuner Unit

YW-3510  
UHF/VHF Wireless Antenna

## SL Speakers

SL-122/122M/152/152M/222

**SL-122**  
Handling Power Capacity;  
Continuous Program;  
240W, Low Frequency;  
ø30cm.  
Impedance: 8 ohms.



**SL-122M**  
Handling Power Capacity;  
Continuous Program;  
240W, Low Frequency;  
ø30cm.  
Impedance: 8 ohms.



**SL-152**  
Handling Power Capacity;  
Continuous Program;  
240W, Low Frequency;  
ø38cm.  
Impedance: 8 ohms.



**SL-152M**  
Handling Power Capacity;  
Continuous Program;  
240W, Low Frequency;  
ø38cm.  
Impedance: 8 ohms.



**SL-222**  
Handling Power Capacity;  
Continuous Program;  
240W, Low Frequency;  
ø30cm x 2.  
Impedance: 8 ohms.



## Mobile Amplifiers

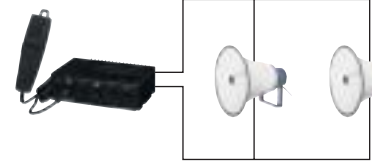
CA-130/CA-160



### System Applications

#### Two speakers connected in parallel

model	speaker applications
CA-130	SC-630 x 2
CA-130	TC-615 x 2
CA-160	SC-650 x 2
CA-160	TC-630 x 2



#### Four speakers connected in parallel and in series

model	speaker applications
CA-130	SC-615 x 4
CA-160	SC-650 x 4
CA-160	SC-630 x 4



### Specifications

	CA-130	CA-160
Power Source	Standard Voltage: 14V DC Usable Voltage: 10 – 16V DC, (12V battery used)	
Rated Output	30W, (60W max.)	60W, (120W max)
Output Impedance	4Ω/8Ω, Common Changeable by changing lead wire connections	
Frequency Response	100 – 10,000 Hz	
Input	Mic 1 & 2 : 600Ω, 4mV, Phone jack Aux: 10kΩ, 500 mV, Phone jack	
Dimensions (W x H x D)	178 x 50 x 144mm (mounting device excluded)	178 x 50 x 170mm (mounting device excluded)
Weight	1.1kg	1.2kg
Finish	Front panel; ABS resin, black Case; Zinc plated steel	
Standard Microphone	Unidirectional dynamic type with talk switch Impedance; 600Ω Sensitivity: -53dB (1kHz, 0 dB=1V/Pa)	

## Megaphones

ER-1015/1015S/2015/2015W/510/510W/510S



ER-1015



ER-1015S



ER-2015/2015W



ER-510/ER-510W



ER-510S

	ER-1015	ER-1015S (with Siren)	ER-2015	ER-2015W (with Whistle)	ER-510	ER-510W (with Whistle)	ER-510S (with Siren)
Output Power	Rated 15 W, Max. 23 W				Rated 6 W, Max. 10 W		
Power Requirements	9 V DC, R14P or "C" battery 6 pcs.				12 V DC, R6P or "AA" 8 pcs.		
Audible Range (approx.)	315 m (EIAJ)	Voice: 315 m (EIAJ) Siren: 500 m (EIAJ)	400 m (EIAJ)	Voice: 400 m (EIAJ) Whistle: 500 m (EIAJ)	250 m (EIAJ)	Voice: 250 m (EIAJ) Whistle: 315 m (EIAJ)	Voice: 250 m (EIAJ) Siren: 315 m (EIAJ)
Dimensions (W x H x L)	210 x 291 x 319 mm		210 x 210 x 310 mm		160 x 256 x 260 mm		
Weight (without batteries)	0.97 kg	0.98 kg	1.12 kg	1.13 kg	0.62 kg	0.65 kg	
Finish	ABS resin, Off-white and Light-blue	ABS resin, Red	ABS resin, Off-white		ABS resin, Off-white and Gray		ABS resin, Red
Antibacterial Treatment	Grip and Microphone		Microphone		Grip and Microphone		

For more information, please contact:



TOA Corporation

URL: [www.toa.jp/](http://www.toa.jp/)

\* Specifications are subject to change without notice.  
Printed in Japan (0205) 833-61-370-5B 8