

AP-SERIES V2.0

BASIC PA SYSTEM



- AP-200P 70W MIXER AMPLIFIER
- AP-300P 130W MIXER AMPLIFIER
- AP-600P 260W MIXER AMPLIFIER
- AP-1000P 360W MIXER AMPLIFIER
- AP-9811P 9-INPUT MIXER PRE-AMPLIFIER
- AP-1500 360W POWER AMPLIFIER
- AP-2000 460W POWER AMPLIFIER
- AP-2500 660W POWER AMPLIFIER
- AP-3000 1000W POWER AMPLIFIER
- AP-3500 1500W POWER AMPLIFIER
- AP-9810P PAGING SELECTOR
- AP-9821M 5-CHANNEL AMPLIFIER SWITCH
- AP-9813B 2 X 5-ZONE SPEAKER SELECTOR
- AP-9848S AUDIO MATRIX
- AP-9812M 10-CHANNEL MONITOR PANEL
- AP-9815E EMERGENCY PANEL

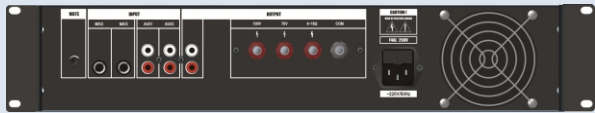
Cost Effective Mixer Amp

5-INPUT MIXER AMPLIFIERS

Highly flexible mixer amplifiers for a wide variety of voice and background music applications such as retail shops, restaurants and bars, service centers, houses of worship, warehouses and many more. Main features are:

- 3 microphone and 2 auxiliary inputs
- 1 line output
- 100V, 70V and 4-16 Ohms transformer-isolated speaker outputs
- Automatic mute function for paging and announcements
- Individual input gain controls with master volume control
- Bass and treble tone controls
- LED level meter
- Speaker output short circuit protection
- Fan works when temperature higher than 35 °C

AP-200P/300P/600P/1000P



REAR PANEL

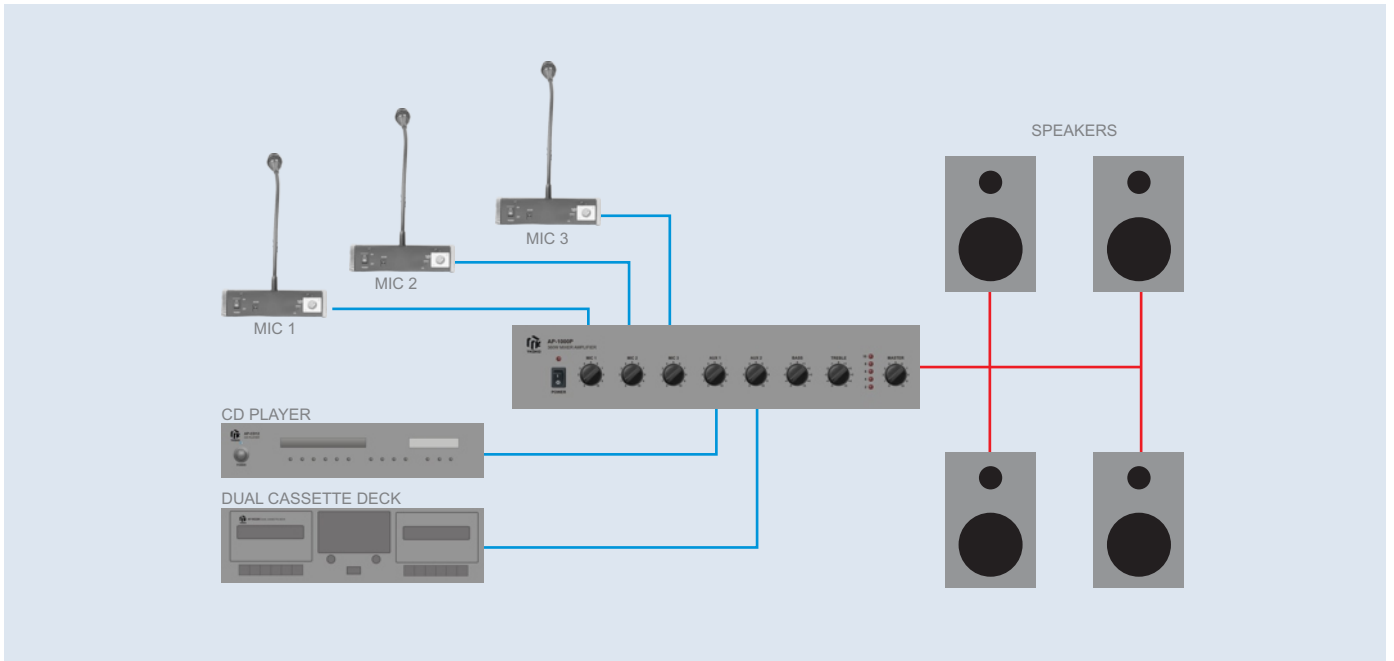
AP-200M/300M/600M/1000M

Tuner, Mp3 and USB port included



REAR PANEL

SPECIFICATIONS	AP-200P/M	AP-300P/M	AP-600P/M	AP-1000P/M
Rated Power Output	70W	130W	260W	360W
Output Regulation	Less than 3 dB (no load to full load)			
Speaker Output	70 ohms (70V)	38 ohms (70V)	19 ohms (70V)	14 ohms (70V)
	143 ohms (100V)	77 ohms (100V)	39 ohms (100V)	28 ohms (100V)
	Low impedance: 4-16 ohms	Low impedance: 4-16 ohms	Low impedance: 4-16 ohms	Low impedance: 4-16 ohms
Input	MIC 1, 2, 3: 600 ohms, 5mV, unbalanced, phone jack; AUX 1, 2: 10k ohms, 300mV, unbalanced, RCA jack			
Output	600 ohms, >1.3V, RCA jack			
Frequency Response	60 - 18,000 Hz, +/- 3dB			
THD	Less than 0.5% at 1kHz (1/3 Rated Power); <=2% (Rated Power)			
S/N Ratio	Line: 76dB, Mic: 68dB			
Tone Controls	BASS: 100 Hz (+/- 10dB), TREBLE: 12k Hz (+/- 10dB)			
Controls	5 input gain, 1 treble, 1 bass, 1 mute, and power switch			
Cooling	Internal 12VDC fan, extensive heat sinking			
Indicators	Power indicator LED, LED output level meter 0, 1, -5, -10, -13, -17dB			
Protection	AC Fuse: 4A	AC Fuse: 4A	AC Fuse: 8A	AC Fuse: 8A
	Current limiter, short circuit and thermal protection circuits			
Power Consumption	85W	175W	350W	485W
Power Requirments	Ac220 +/-10%, 50 Hz			
Dimensions	89(H) x 483(W) x 366(D) mm			
Built-in Dimensions	2 U rack 19 inch			
Carton Dimensions	185(H) x 520(W) x 435(D) mm			
Net Weight	10.04kg	11.36kg	13.68kg	14.08kg
Gross Weight	11.72kg	13.02kg	15.32kg	15.70kg
Finish	Panel: steel plate, black Case: steel plate, black			



AP-9811P

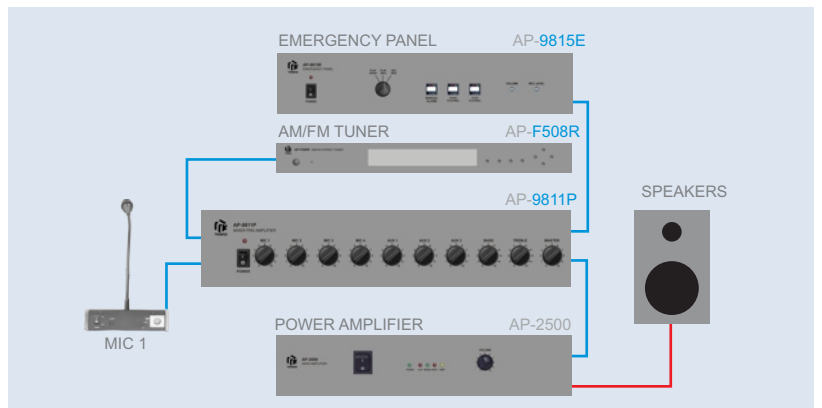
9-INPUT MIXER PRE-AMPLIFIER

The AP-9811P is a versatile mixer pre-amplifier with 5 microphone inputs, 3 auxiliary inputs, 2 emergency inputs (high priority) and mute function.

MIC1, EMC1, EMC2 are priority inputs, automatically muting all other signal inputs. MIC1 has the highest priority, able to suppress all other inputs.

Output from the AP-9815E emergency panel to EMC1 provides for alarm siren or emergency announcement to be broadcast over the public address system.

- 10 inputs, 4 outputs
- Automatic mute function for paging and announcements
- Individual input gain controls with master volume control
- Bass and treble tone controls



REAR PANEL

SPECIFICATIONS

AP-9811P

Input	MIC 1, 2, 3, 4, 5 : 600 ohms, 5mV, unbalanced, phone jack AUX 1, 2, 3: 10k ohms, 330mV, unbalanced, RCA jack EMC 1, 2: 10k ohms, 330mV, unbalanced, phone jack
Output	600 ohms, 1V, RCA jack
Frequency Response	20Hz - 20kHz (+/- 3dB)
S/N Ratio	Better than 70dB
THD	Less than 0.1% at 1kHz
Tone Controls	BASS: 100 Hz (+/- 10dB), TREBLE: 12k Hz (+/- 10dB)
Muting Function	MIC1 overrides other input signals with 0~30 dB attenuation EMC1 overrides other input signals except MIC 1
Power Requirements	AC220V +/-10%, 50Hz
Dimensions	89(H) x 483(W) x 366(D) mm



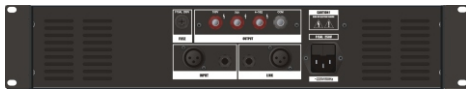
AP Power Amp Series

SINGLE CHANNEL POWER AMPLIFIERS

These commercial-grade power amplifiers efficiently deliver up to 660 watts of clean, reliable audio for the most demanding public address applications.

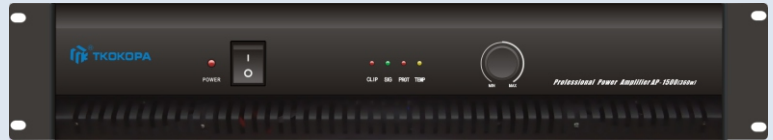
Rugged and over-built to give years of dependable service, they are equipped with massive toroidal power transformers, extensive heat-sinking and fan cooling, protective circuits such as over-temperature, short circuit, RFI and soft start.

- 100V, 70V and 4-16 Ohms transformer-isolated speaker outputs
- Combination XLR/RCA Line In and Line Out connectors
- LED status indicators
- Speaker output short circuit protection
- Fan works when temperature higher than 52 °C

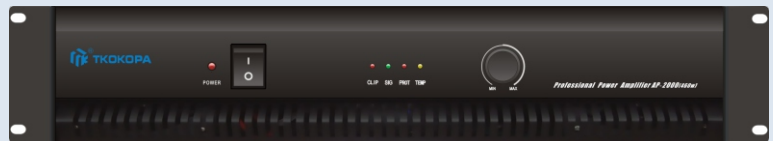


REAR PANEL

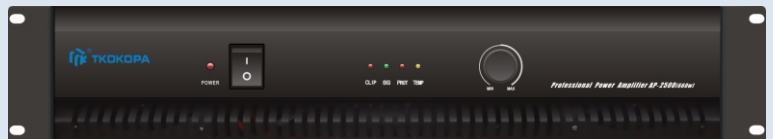
AP-1500



AP-2000

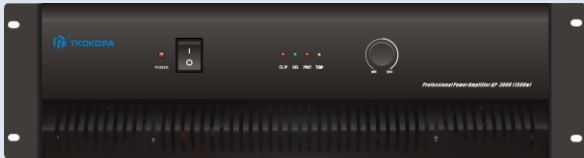


AP-2500

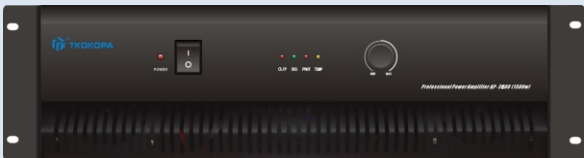


SPECIFICATIONS	AP-1500	AP-2000	AP-2500
Rated Power Output	360W	460W	660W
Output Regulation	Less than 3 dB (no load to full load)		
Speaker Output	13.6 ohms (70V), balanced 27.8 ohms (100V), balanced Low impedance: 4-16 ohms, balanced	10.7 ohms (70V), balanced 21.7 ohms (100V), balanced Low impedance: 4-16 ohms, balanced	7.4 ohms (70V), balanced 15.1 ohms (100V), balanced Low impedance: 4-16 ohms, balanced
Input	Less than 1V, unbalanced, XLR and phone jack		
Output	1V, 0dB, XLR and phone jack		
Frequency Response	60 - 18,000 Hz, +/- 3dB		
THD	Less than 0.5% at 1kHz (1/3 Rated Power); <=2% (Rated Power)		
S/N Ratio	Better than 79dB		
Slew Rate	15V/uS		
Controls	Volume control and power switch		
Cooling	Internal 12VDC fan, extensive heat sinking		
Indicators	Power, Clip, Signal, Protect, and Temp LEDs		
Protection	AC Fuse: 10A Current limiter, short circuit and thermal protection circuits	AC Fuse: 12A	AC Fuse: 15A
Power Consumption	485W	620W	880W
Power Requirements	AC220V +/-10%, 50Hz		
Dimensions	89(H) x 483(W) x 366(D) mm		
Built-in Dimensions	2 U rack 19 inch		
Carton Dimensions	185(H) x 520(W) x 435(D) mm		
Net Weight	15.12kg	17.66kg	20.8kg
Gross Weight	16.76kg	19.30kg	22.3kg
Finish	Panel: steel plate, black Case: steel plate, black		

AP-3000



AP-3500

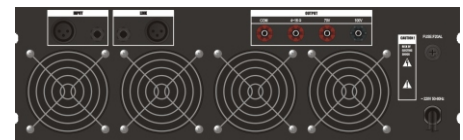


AP High Power Amps

SINGLE CHANNEL POWER AMPLIFIERS

All the great features of the AP power amp series but when even more power is required, these AP-series high power amps provide up to 1500 watts into low impedance or 70/100V constant voltage speaker loads.

- 100V, 70V and 4-16 Ohms transformer-isolated speaker outputs
- Combination XLR/RCA Line In and Line Out connectors
- LED status indicators: power, clip, signal, protect and high temperature
- Speaker output short circuit protection



REAR PANEL

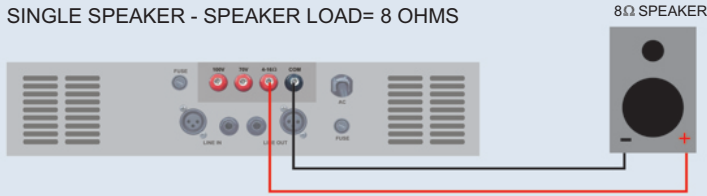
SPECIFICATIONS

	AP-3000	AP-3500
Rated Power Output	1000W	1500W
Output Regulation	Less than 3 dB (no load to full load)	
Speaker Output	4.9 ohms (70V), balanced 10.0 ohms (100V), balanced Low impedance: 4-16 ohms, balanced	3.3 ohms (70V), balanced 6.7 ohms (100V), balanced Low impedance: 4-16 ohms, balanced
Input	Less than 775mV, unbalanced, XLR and phone jack	
Output	775mV, 0dB, XLR and phone jack	
Frequency Response	50 - 18,000 Hz, +/- 3dB	
THD	Less than 0.5% at 1kHz (1/3 Rated Power); <=2% (Rated Power)	
S/N Ratio	Better than 85dB	
Slew Rate	40V/uS	
Controls	Volume control and power switch	
Cooling	Internal 12VDC fan, extensive heat sinking	
Indicators	Power, Clip, Signal, Protect, and Temp LEDs	
Protection	AC Fuse: 20A Current limiter, short circuit and thermal protection circuits	
Power Consumption	1836W	2654W
Power Requirements	AC220V +/-10%, 50 Hz	
Dimensions	133(H) x 483(W) x 366(D) mm	
Built-in Dimensions	3 U rack 19 inch	
Carton Dimensions	185(H) x 520(W) x 435(D) mm	
Net Weight	25.0kg	27.0kg
Gross Weight	27.5kg	30.0kg
Finish	Panel: steel plate, black Case: steel plate, black	

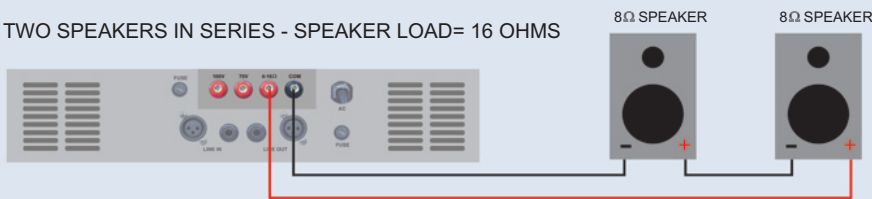
Amplifier/Speaker Connections

LOW IMPEDANCE (CONSTANT IMPEDANCE) - 4-16 OHMS

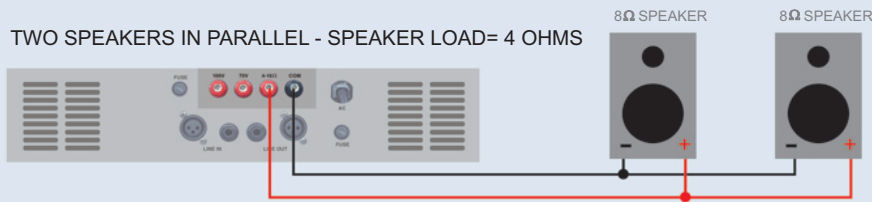
SINGLE SPEAKER - SPEAKER LOAD= 8 OHMS



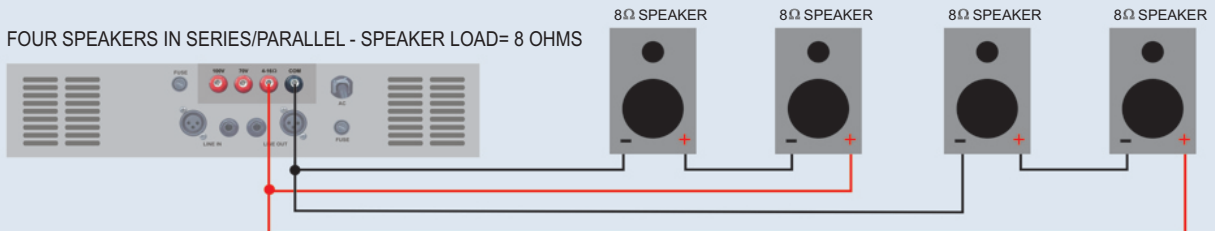
TWO SPEAKERS IN SERIES - SPEAKER LOAD= 16 OHMS



TWO SPEAKERS IN PARALLEL - SPEAKER LOAD= 4 OHMS

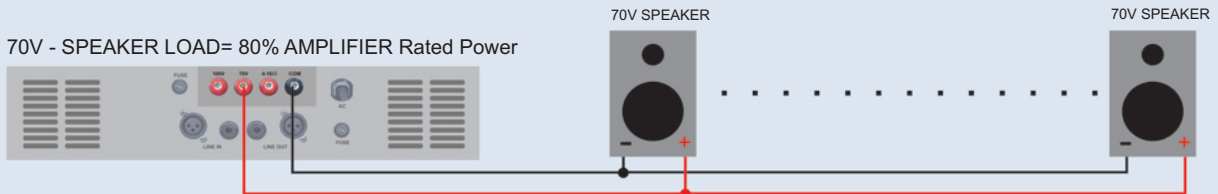


FOUR SPEAKERS IN SERIES/PARALLEL - SPEAKER LOAD= 8 OHMS

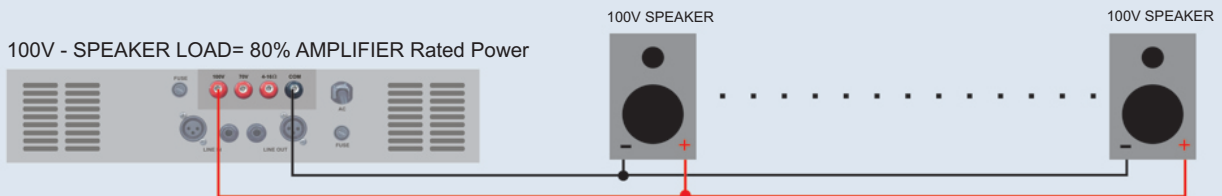


HIGH IMPEDANCE (CONSTANT VOLTAGE) 70/100V

70V - SPEAKER LOAD= 80% AMPLIFIER Rated Power



100V - SPEAKER LOAD= 80% AMPLIFIER Rated Power



10-Zone Paging Microphone • Paging Selector

AP-9810R



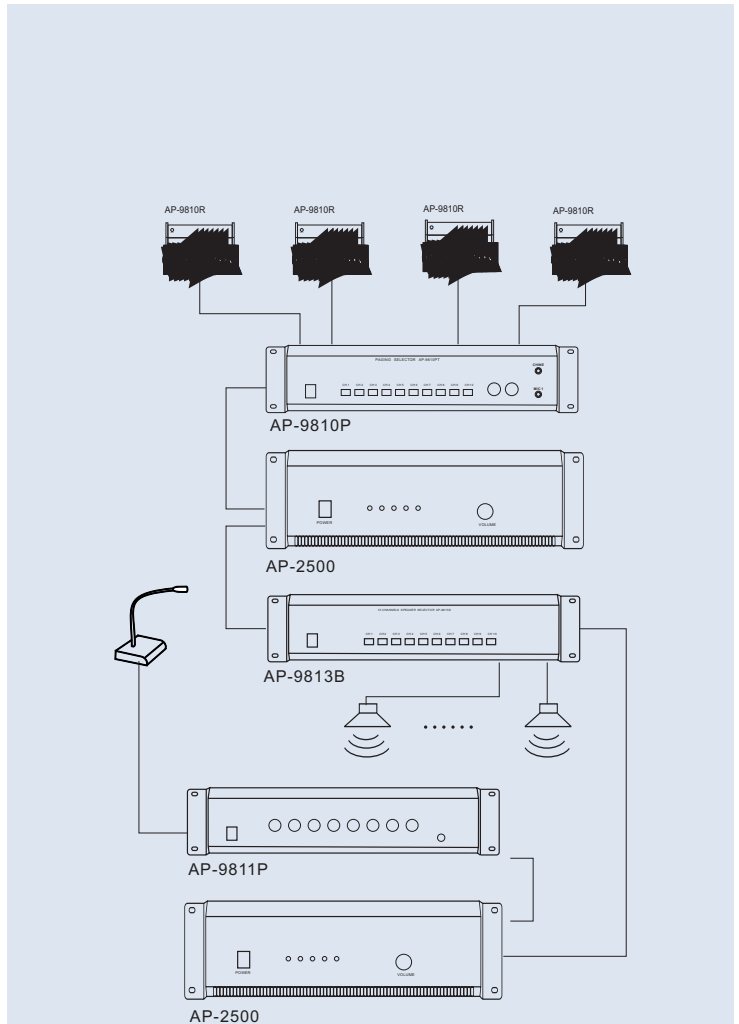
- 10-zone paging
- Link 5 remote control page mic
- page up to 8 AP-9810P
- With 1 speaker and 1 external line input
- Built-in chime alarm
- Mute function



REAR PANEL

SPECIFICATIONS AP-9810R

Input	MIC: 600 ohms 5mV, unbalanced
Line Input	LINE: 330mV, unbalanced
Line Output	10k ohms 3V RSM, unbalanced
Freq. Response	LINE: 20 Hz~20k Hz (+-3dB)
S/N Ratio	>60dB
Power Requirements	AC 220 V+-10% 50~60Hz
Dimensions	68(H) x 312(W) x 160(D) mm



AP Paging Selectors

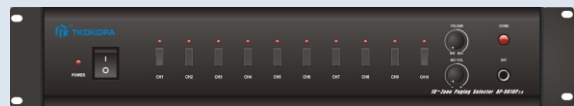
10-ZONE PAGING SELECTOR

A ten zone paging selector that is able to select ten paging zones and has ten alarm channels with input/output activation. It has two microphone inputs and two auxiliary inputs, remote paging feature, internal chime and priority channel mute.



REAR PANEL

AP-9810P



SPECIFICATIONS AP-9810P

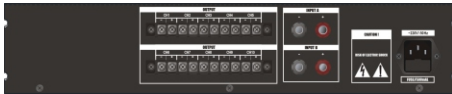
Input	MIC, MIC2, 600ohms, <5m V, unbalanced LINE1, EMC: 330mV, LINE2:10K ohms, 330Mv, unbalanced RMIC 1-4, 10k OHM, 10V, balanced
Output	330mV unbalanced
Freq. Response	50Hz~16kHz (-3dB)
S/N Ratio	MIC input: >70dB; LINE input: >70dB
THD	<0.01 at 1kHz
Alarm Level	Low electric signal is valid, U in <0.3V
Protection	AC FUSE (0.5A) X 1
Power Requirements	AC 220 V+-10% / 50~60Hz <10VA
Power Consumption	10 ~ 15 W
Dimensions	89(H) x 483(W) x 366(D) mm

Amplifier Switch • 2 x 5-Zone Speaker Selector • Audio Matrix

2 X 5-ZONE SPEAKER SELECTOR

With 2 amplifier inputs and 2 groups of speaker outputs, the AP-9813B can be used as two 5-zone speaker selectors with separate audio sources or as a 10-zone selector with a single audio source.

- Use as two 5-zone selectors or as one 10-zone selector
- Supports up to two audio sources



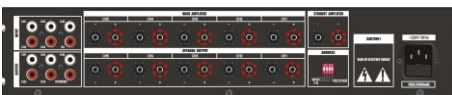
REAR PANEL

AP Amplifier Switch

5-Channel Amplifier Switch

The AP-9821M monitors up to five main power amplifier which will be switched automatically to the spare amplifier should any one fail. With five independent channel, it can also be operated manually for power amplifier upgrades and maintenance. Each channel has a volume control, manual switch, and status indicator.

- 3 indicator for normal, fault, back up status
- Can connect up to 5 apm, with 1 back up apm

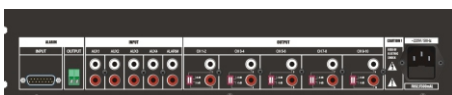


REAR PANEL

AP AUDIO MATRIX

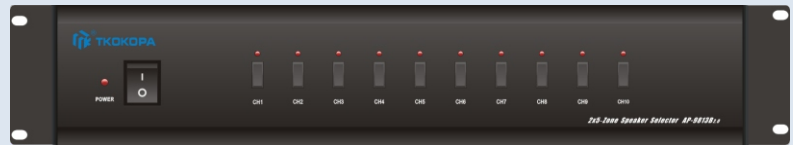
Multi-channel sound source input/output selector, provides 4 sound source inputs and 10 audio outputs. Each output channel can select from any of the 4 sound input.

- LED for each channel audio source
- Sound source (CD player, cassette deck, AM/FM tuner)
- Ability to automatically send an alarm
- Output level: -6dB / 0dB



REAR PANEL

AP-9813B



SPECIFICATIONS	AP-9813B
Input	2 program channels, 70/100V audio signal
Speaker Output	2 groups of 5 zones, 70/100V audio signal
Priority Bus	N/A
Power Handling	1.5kW total capacity, 150W per zone, 1.5kW only connect to one zone
Alarm Output	N/A
Controls	10 pushbutton zone selectors, 1 power switch
Power Requirements	AC 220 +/- 10%, 50Hz
Power Consumption	10 ~ 20 W
Dimensions	89(H) x 483(W) x 366(D) mm

AP-9821M



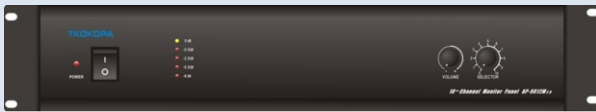
SPECIFICATIONS	AP-9821M
Input	6 audio source channels; 5 main amplifier channels
Output	5 speaker channels
Input	0.775V(0dB) 10K OHM, unbalanced
Channel Switching Cap	100V/20A, audio signal
Controls	1 power switch, 1 reset button, 1 mute button, 1 mode button, 5 volume controls
Indicators	POWER, CH1-CH5 normal indicators, ch1-ch5 Fault Indicators, ch ~ ch5 Switch indicators
Protection	AC FUSE:0.5A
Power Requirements	AC 220V +/- 10% 50Hz
Dimensions	89(H) x 483(W) x 366(D) mm

AP-9848S



SPECIFICATIONS	AP-9848S
Mic Input	600 OHM, 5mV, unbalanced
Input Level	10K OHM, 330mV unbalanced
Output Level	10K OHM, <=775mV, RSM (0dB) 10K OHM, <=330mV, RSM (-6dB)
Frequency Response	60-16,000HZ (+-3dB)
THD	<0.5% at 1KHz
Power Requirements	AC 220V +/-10% 50Hz
Power Consumption	10 ~ 15 W
Dimensions	89(H) x 483(W) x 366(D)mm

Monitor Panel • Emergency Panel



AP-9812M

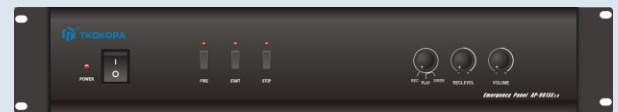
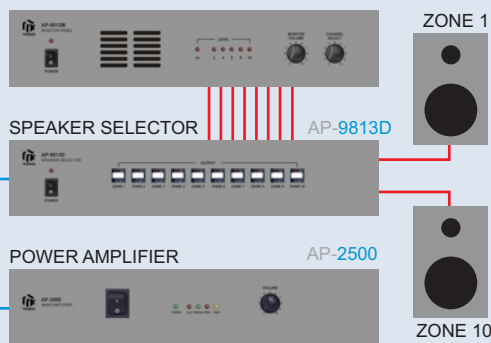
10-CHANNEL MONITOR PANEL

Monitor up to 10 speaker channels audibly by using the built-in loudspeaker. 5-LED dB level meter visually indicates the channels signal level.

- Built-in high fidelity loudspeaker
- 5-element LED signal level meter
- Monitor volume control
- 10-position channel selector switch



REAR PANEL



AP-9815E

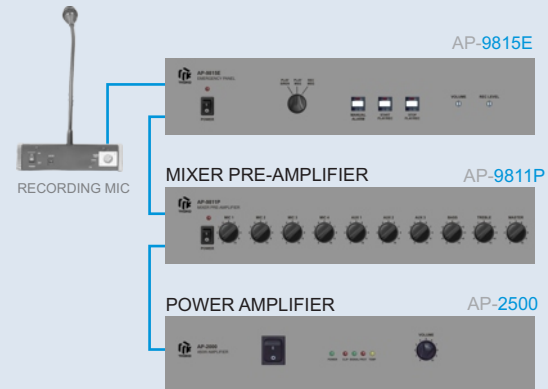
EMERGENCY PANEL

Outputs siren or user-recorded announcement automatically or manually in the event of an emergency. With the built-in 60-second digital IC, it can record and playback a voice message or alarm sound.

- Playback either built-in siren or pre-recorded message
- Triggered by external signal or manual pushbutton
- MIC and LINE inputs for recording messages
- Audio output for amplifier or other PA equipment



REAR PANEL



SPECIFICATIONS AP-9812M

Input	70/100V audio signal
Monitored Channels	10 channels
Audible Monitor	Full-range loudspeaker 5W
Visual Monitor	5-element LED display, infinite, -8, -5, -2.5, -0.5, 0 dB
Controls	Monitor volume, channel select and power switch
Indicators	Power LED
Protection	AC Fuse: 0.5A
Power Consumption	10-15 watts
Power Requirements	AC 220V +-10%, 50Hz
Dimensions	89(H) x 483(W) x 366(D) mm
Built-in Dimensions	2 U rack 19 inch
Net Weight	6.1kg
Gross Weight	7.88kg
Finish	Panel: steel plate, black Case: steel plate, black

SPECIFICATIONS AP-9815E

Input	MIC: <15mV, 600 ohms; LINE: <330mV, 10k ohms
Output	>775mV, siren or pre-recorded voice message
THD	Less than 0.01% at 1kHz
Controls	Play/rec controls, volume, rec level and power, Alarm in/out
Protection	AC Fuse: 0.5A
Power Consumption	10-15 watts
Power Requirements	AC 220V +-10%, 50 Hz
Dimensions	89(H) x 483(W) x 366(D) mm
Built-in Dimensions	2 U rack 19 inch
Net Weight	6.1kg
Gross Weight	7.78kg
Finish	Panel: steel plate, black Case: steel plate, black

AP-9821M • AP-9813B • AP-9848S Examples

