TOA

IR-842

Portable Speaker Voicelift System

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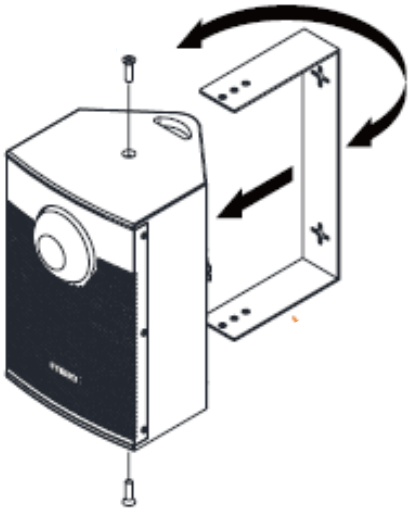
Building upon the success of our IR-800 Infrared Classroom Voicelift system, the IR-842 Portable Speaker Voicelift System works just as the name implies. This new system can be set up and packed away in moments, meaning educators are no longer limited to traditional classroom spaces or rooms with installed audio systems. With the IR-842, almost any indoor space can become a classroom that any educator would be proud to teach in.

TOA understands that not all classrooms are equal, and that a Classroom Voicelift system installed into the ceiling may not be the correct fit for all spaces. Recognizing the need for flexibility in many modern classrooms, we started on the journey that would culminate in the creation of our newest education solution.

Turn any space into an education space, with TOA.



While primarily designed to be a stow-and-go style system, the IR-842 has also been designed with multiple mounting options for longer-term placements.

Users can utilize either the supplied c-bracket mount for wall mounting or the optional pole-mount adapter.

The Importance of a Portable Voicelift System

Sound volume and intelligibility in the standard classroom falters heavily based on proximity to the speaker. Students who sit at the front of the class can hear the teacher better than those who sit further back, which is even more apparent when the teacher is facing the chalkboard.

The Portable IR Speaker system—akin to the more permanently affixed IR-800 series—provides a solution for both the issue of proximity and that of sound direction, now with the added benefit of mobility.

With this new option, every space can benefit from the advantages of a TOA Voicelift system, without the need to affix the system directly into the ceiling.

With this new system, students can always have access to clear, intelligible instruction in any space. Not only that, but the IR-842 can also be connected to the classroom's projector or multimedia system using either direct connection or Bluetooth, providing amplification for those systems as well.

And with the control panel on the rear of the main unit, configuring your setup takes mere moments, allowing the system to be uniquely configured

TOA

IR-842 Portable Voicelift System

With TOA, every student gets the opportunity to learn, irrespective of the space or setup.

IR-842PMU (Main Unit)
& IR-842PSU (Sub Unit)

The IR-842PMU is our new compact, portable infrared classroom soundfield system. It is designed for use in conjunction with TOA's IR-200 (handheld) or TOA's IR-300 (hands-free) infrared microphones. The system boasts high sensitivity and clear sound for mounting. This system can also utilize additional IR-842PSU (sub-units) to enhance the reception and coverage of this portable infrared classroom soundfield system.

IR-842PMSU (Main Unit) & IR-842PSU (Sub-unit)	
Power Source	100 – 240 V AC, 50/60 Hz (use of the supplied AC adapter)
Rated Output	40 W (80 W max. including sub-unit speaker output)
Power Consumption	60 W (120 W max. including sub-unit speaker output)
Infrared Receiver	
Wavelength	850 nm
Carrier Frequency	Teacher (CH-A): 3.1 MHz Student (CH-B): 3.350 MHz
Communication Area	Approx. 15m (49.21ft) in a space without any obstacles and visible between mic and receiver
Communication Terminal for External IR Receiver	RJ-45

IR-842PMSU (Main Unit) & IR-842PSU (Sub-unit)

Audio Input	Mic: -42 dBV, 2.2. kΩ, electronic balanced, female XLR connector Aux: -10 dBV, 10 kΩ, stereo pair, unbalanced, headphone jack Bluetooth input: Ver. 5.0, Max. 10m SUB UNIT: main unit speaker OUT: 23.8 dBV, unbalanced, 40W/6Ω, lever terminal
Audio Output	Sub unit speaker OUT: 23.8 dBV, unbalanced, level terminal AUX OUT: -10 dBV, 10kΩ, stereo pair, unbalanced, headphone jack
Frequency Response	20 – 20,000 Hz, ±3 dB
Total Harmonic Distortion	0.1% (LPF 20 kHz)
S/N Ratio	Over 70 dB (A weighted)
Phantom Power	+ 24 VDC, switchable, MIC input
Indicators	Power(green) ...1, IR CH-A(green) ...1, IR CH-B(green) ...1, IR CH-A Priority(red) ...1, Bluetooth(blue) ...1, Phantom power (green) ...1
Operation	IR CH-A volume control, IR CH-B volume control, MIC volume control, AUX IN volume control, AUX OUT volume control, Bluetooth volume control
Operating Temperature	0°C to +40°C (32°F to 104°F)
Operating Humidity	Under 90% RH (no condensation)
Finish	Enclosure: MDF, white paint Punched net: surface-treated steel plate, white, paint
Dimensions	218(w) x 339.6(h) x 254(d) mm (8.6" x 13.37" x 9.99")
Weight	MAIN UNIT: 4.97kg (10.96 lbs) SUB UNIT: 4.52 kg (9.96 lbs)
Accessory	MAIN UNIT: AC power adapter ...1, Wall mounting bracket ...1 SUB UNIT: Wall mounting bracket ...1

IR-842R (External Infrared Receiver)

The IR-842R is an external infrared receiver for the IR-842PMU, also used to enhance the reception of the system when a sub unit is not necessary. Prime use cases include irregularly shaped spaces or when multiple lines-of-sight to a receiver is required.

IR-842R infrared Receiver	
Wavelength	850nm
Carrier Frequency	Teacher (CH-A): 3.1 MHz Student (CH-B): 3.350 MHz
Communication Area	Approx. 7m (22.97ft) in radius from the point underneath the unit (Ceiling Height: 2.5-3m (8.2 – 9.84ft), in a space without any obstacles and visible between the infrared microphone and receiver)
Communication Terminal for External IR Receiver	RJ-45
Operating Temperature	0°C to +40°C (32°F to 104°F)
Operating Humidity	Under 90% RH (no condensation)
Finish	Enclosure: ABS, Black
Dimensions	110.4(w) x 110.4(h) x 49(d) mm (4.35" x 4.35" x 1.92")
Weight	136g (0.3lbs)

IR-842BAG (Carrying Bag)

This Carrying bag consists of 1 large storage compartment and 6 smaller storage compartments. Each bag can store one main unit (or sub unit), as well as AC adapter, microphones, additional receivers/ cables, etc.

IR-200M, IR-300M, & IR-310M (Compatible Mics)

Users have the option of three IR-842 compatible microphones to pair with the portable speaker voicelift system, with two channels allowing for up to two separate mics to be used at a time.

IR-842 Compatible Mics

	IR-200M	IR-300M	IR-310M
Battery	Rechargeable battery for the infrared wireless microphone (option) or AA alkaline dry cell battery (2 pieces).		One piece of rechargeable battery for the infrared wireless microphone (option)
Battery Life	Approx. 8 h (when the IR-200BT rechargeable battery for the infrared wireless microphone is used, Power selector switch: N), Approx. 6 h (when the alkaline battery is used, Power selector switch: N)		Approx. 8 hours (when used with one piece of IR-200BT-2 rechargeable battery)
Current Consumption	Typ. 250 mA (2.4 V, Power selector switch: N) Typ. 340 mA (2.4 V, Power selector switch: H)		Typ. 215 mA (1.2 V)
Infrared Emitter			
Wavelength	870 nm (AM: Brightness modulation)	850 nm (AM: Brightness modulation)	870 nm (AM: Brightness modulation)
Modulation Method	Frequency modulation		
Carrier Frequency	Channel A: 3.100 MHz Channel B: 3.350 MHz		
Transmission Distance	Approx. 20 m (65 ft) (Power selector switch: H, in an unobstructed space) Approx. 15 m (50 ft) (Power selector switch: N, in an unobstructed space)		Approx. 15 m (50 ft) (in an unobstructed space)

IR-842 Compatible Mics

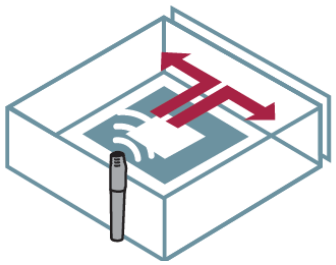
	IR-200M	IR-300M	IR-310M
Tone Signal	32.768 kHz		
Modulation Sensitivity	±4.8 kHz (1 kHz, when SPL of 84 dB is input)		
Microphone Element	Unidirectional electret condenser microphone		
Maximum Input Sound Pressure Level	120 dB SPL		
input Sensitivity Adjustment	N/A	Adjustment range: -9 dB to 0 dB (factory preset: 0 dB)	Adjustment range: 2 levels (High, Low)
Audio Frequency Response	100 Hz - 12 kHz		
Pre-emphasis	300 µs		
Input	N/A	External microphone input (#3.5 monaural mini jack)	External microphone input (%%1293.5 monaural mini jack, phantom powered)
Switch	N/A		Power Switch, Channel selector Switch, Microphone sensitivity selector switch, Function button
Indicator	N/A		Power LED (Combined with battery life indicator)
Operating Temperature	0 °C to +40 °C (32 °F to 104 °F)		
Operating Humidity	30 % to 85 %RH (no condensation)		90 %RH or less (no condensation)
Finish	Control section: ABS resin, metallic gray, paint, 50% gloss. Filter section: Polycarbonate, optical cut filter		Control section: ABS resin, White Filter section: Polycarbonate, optical cut filter
Dimensions	Ø37 x 241.8 (H) mm (Ø1.46" x 9.52")	64 (W) x 91.3 (H) x27.3 (D) mm (2.52" x 3.59" x 1.07")	54.2 (W) x 109 (H) x 27 (D) mm (2.13" x 4.29" x 1.06")
Weight	170 g (0.37 lb) (with battery)	130 g (0.29 lb) (with battery and strap)	95 g (0.21 lb) (with battery and strap)
Included Accessories	Screw driver (for setting) ...1, Color label (6 colors) ...1		Neck strap ...1
Optional Accessories	Battery charger: IR-200BC. Ni-MH battery: IR-200BT-2 (containing 2 pieces)		Battery charger: IR-310BC Ni-MH battery: IR-210BT-2 (containing 2 pieces)

IR-842HY (Pole Mounting Bracket)

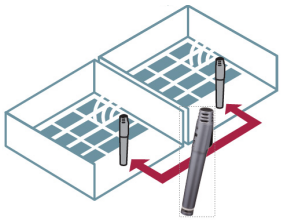
For added versatility and configuration options, users can mount main and sub units using this speaker stand adapter in as little as two steps. First attach the adapter to either the main unit or extension unit via the two screw holes on the underside of the unit, then place the unit onto that pole and tighten the bracket fixing screw to secure the adapter to the stand.

IR Wireless Solutions For Larger Spaces

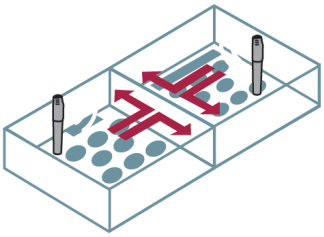
Wireless capabilities are a big factor for convenience, and as such should be at the forefront of considerations for any modern system. From classroom sessions to presentations and performances in halls and auditoriums, TOA offers a wide range of IR systems fit for every application. The wireless advantage of our IR systems allows for more dynamic presentations, free of the hassles of cable tangling and length limitations, whilst still delivering the high quality of sound that is synonymous with TOA. Our Infrared Wireless Microphone Systems incorporates functions fit for a wide range of applications, including communication enhancing features. Because the microphones use infrared signals, lessons and matters being discussed won't leave the room, and the wireless microphones can be used in several adjacent classrooms simultaneously without interference. In this way, this infrared microphone system can meet communication needs in educational environments perfectly.



Devote a single system to a large space



Utilize mics in multiple spaces via channel



configure unique systems for each large space within the school or on campus

TOA

We supply sound, not equipment.

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