

specifications:

frontrow™ tempo

wireless FM active learning system



description

Wireless FM active learning system designed to clarify the teacher's voice for all students.

application & benefits

For use in general and special education classrooms. Fosters a successful learning environment; increases student attentiveness, participation, comprehension and test scores; significantly reduces behaviour referrals; helps non-native students; reduces teacher absenteeism due to vocal fatigue.

key features

Full, natural, clear sound quality; exclusive OptiVoice™ speech clarity; multiple channels; second channel, team-teaching adaptable; high-performance speakers; transmitter mute; three-band equalizer; one-plug, fail-safe charging; simple, clean user controls; aux-in, aux-out capabilities; attractive compact design; strong interference rejection.

transmitter options

- Student hand-held transmitter
- Teacher bodyworn transmitter with separate microphone

receiver

Base-station; 2-channels

speakers

Compact wall; distributed ceiling

frequency

216MHz

installation

Mounting and wiring of base-station receiver and speakers

u.s.a. **800.227.0735**, then press **5** • canada **800.263.8700** • international **+45 3917 7101**

))))))PhonicEar®



what is active learning?

Active learning systems (also called sound field systems) are a widely accepted tool for academic success. By slightly amplifying the teacher's voice and dispersing it evenly throughout the classroom, active learning systems help ensure that every child, regardless of seating location, consistently hears and understands what the teacher is saying.

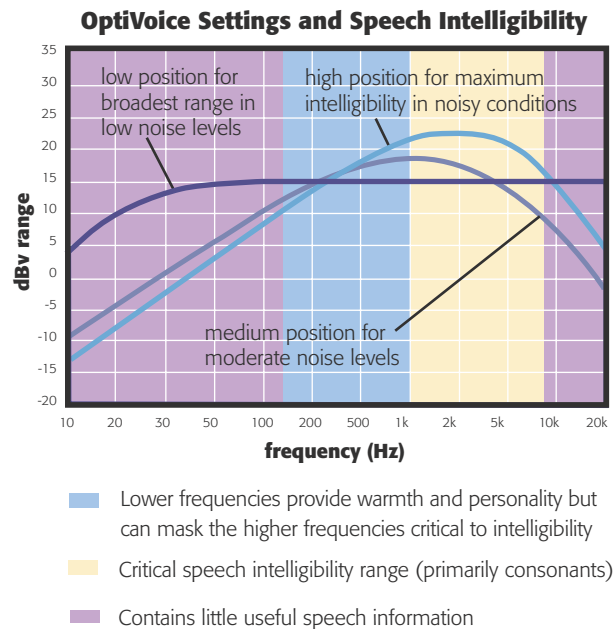
active learning is:

- a proven way to improve literacy, behavior, attentiveness, and teacher vocal health
- the best way to overcome the negative effects that noise, distance, and echo have on student comprehension
- an effective tool for keeping kids focused and "on-task"
- a natural, cost-effective way to address AD/HD or auditory processing disorders, and increase phonetic recognition for ELL students
- supported by over 25 years of research and more than 50 studies proving that sound field helps all students succeed
- easy to use—and easy to see the results!

OPTIMIZED FOR SOUND QUALITY, SPEECH CLARITY, AND SIMPLICITY

Unique Speech Clarity Optimizer

It takes more than great sound to create the best listening environment—speech intelligibility is just as important. Even in moderate noise, an emphasis on higher-frequency speech sounds can greatly improve the listener’s ability to understand. That’s where our exclusive OptiVoice™ feature comes in. Just one switch does the work of a sophisticated 12-band equalizer, allowing teachers to instantly optimize FRONTROW TEMPO for the best possible intelligibility. Use the **low** position in low-noise situations or for the most natural voice reproduction; **medium** in moderate noise or to minimize reverberant tones; and the **high** position to help cut through air conditioning or traffic noise, ensuring top comprehension during critical tasks such as test-taking.



Simplicity

Easy for teachers: A clean user interface and a carefree one-plug charging system ensure ease of use and protect against accidental recharging of alkaline batteries. OptiVoice helps students better understand, even in the presence of noise.

Easy for administrators: Easier than ever to help improve student test scores and behavior while reducing teacher absenteeism from vocal fatigue.

Easy for installers: The installation ease of an FM system with reduced channel management. Strong adjacent channel rejection ensures that signals won’t get crossed — even when using all available channels! “Drop-n-click” speaker brackets offer maximum mounting and positioning ease.

Impeccable Service

FRONTROW TEMPO is built for years of flawless operation. With Phonic Ear’s renowned customer support and over 40 years’ experience working with schools, you can rest assured: For excellence in teaching tools, FRONTROW TEMPO is the easy choice!

Superior Sound Quality

Listening and learning is so much easier for students when their teacher’s voice is audible, clear, and natural-sounding. The new FRONTROW TEMPO provides that sound quality and clarity with an extremely low-noise amplifier, high-performance speakers that support the receiver’s wide audio bandwidth, and rock-solid interference rejection. The result is full, and more faithful voice reproduction that students will find easy to listen to all day, without straining.

base station receiver: 230R



one-plug charging

The transmitter charges directly off the receiver — only one power source needed

outstanding performance

Numerous audio refinements, including improved signal-to-noise ratio, and broader audio bandwidth, make this system a top performer

channel freedom

19 user-selectable 216MHz channels — just scroll to match the frequency of your transmitter. Works with your 330T, 300TS, and other 216MHz products

OptiVoice™ speech clarity

Don't just turn up the volume — shape your voice for improved intelligibility under low, medium, and high noise conditions

interference resistant

Improved filtering for strong adjacent channel rejection; higher front-end dynamic range for better intermodulation rejection

specifications

Receiving frequency: 216MHz, synthesized (U.S./Canada)

Frequency stability: $\pm 500\text{Hz}$ 0° to 50°C

Modulation: FM narrow-band

AF frequency response: 20Hz - 20kHz, -3dB (Aux in)
70Hz - 10kHz, -3dB (FM in)

Power output: 14W into 8Ω /28W into 4Ω

Auxiliary input level: 300mVrms (-10dBV) 0.25in stereo

Auxiliary output: 0-1Vrms adjustable via rear panel, RCA

Aux input impedance: $47k\Omega$

FM signal-to-noise: $>63\text{dB}$, A weighted

THD: $< 3\%$ @ 1kHz maximum output

Nominal deviation: $\pm 5\text{kHz}$

Maximum deviation: $\pm 10\text{kHz}$

Squelch: RSSI-type

Squelch level: Adjustable via rear panel

Power supply: 20VDC @ 3A

Charge port: 5VDC, 200mA

User controls (front): on/off; FM volume; Aux volume; OptiVoice; channel up/down

Installer controls: 3-band equalizer, squelch, speaker configuration selector

Displays: 2 digit channel LED display and LED for "FM signal"

Dimensions (WxHxD): 21.9 x 5.4 x 16.2 cm/
8.6 x 2.1 x 6.4 in

Weight: 1.11kg/2.45lb

Case: steel, powder coat finish

available channels: 41-49, 51-60

aux-in options

Plug in another FM receiver for team-teaching, or broadcast CD, VCR, TV, computer, or other audio

optimize the power

Ensures the best power distribution for optimal system performance

easier school-wide installations

Squelch lets you adjust the receiver sensitivity so you can install more systems closer together



total control

Recessed 3-band EQ lets sound professionals fine-tune the sound to fit the room

compatibility

Universal aux-out port with simple level adjustment lets you plug in any personal FM transmitter for rebroadcasting to hearing impaired students on other channels

smart 3-way light

Red indicator light glows to indicate power on, blinks when battery is low, and brightens to indicate the batteries are charging

no worries

Fail-safe system prevents accidental charge of alkaline batteries while offering the convenience and savings of in-unit recharging

ergonomic design

Sleek yet sturdy with easy-to-grip sides and a tenacious clip that won't slip



long-lasting power

AAA rechargeable NiMH batteries provide up to 12 hours of life between charges

specifications

Transmitting frequency: 216MHz, crystal controlled (U.S./Canada)

Modulation: FM narrow-band

Operating range: Up to 50m/160ft

User controls: off/on; push button mute switch

Inputs/outputs: 3.5mm auxiliary input jack
2.5mm microphone input jack
1.3mm charge jack

Battery life: 15Hr (AAA alkaline)/12Hr (AAA NiMH)

Dimensions (w×h×d): 5.9 x 8.2 x 2.0 cm/
2.3 x 3.3 x 0.8 in

Weight: 74.8g/2.64oz (with batteries)

Case: ABS plastic, painted

Battery/power/charge LED/mute: on (dim) power on
flashing: low battery – 1 hour life remaining
on (bright): charging

input options

Auxiliary input jack lets you transmit audio from a second source, such as a TV, VCR, DVD or computer

quiet time

A convenient mute switch allows for private conversations



the right fit

Four different mic designs are available to suit your style and comfort preferences (see back page)

compact wall speaker option (for optimal room sound coverage use four compact wall speakers)

easy connections

Spring-loaded quick-connect inputs



more power handling

80 watts of peak power – twice as much as our original mini speaker!

full range

Wider, smoother frequency response (65Hz-20kHz @ -10dB) for faithful reproduction of the human voice and music

versatile

Exceptional, natural sound quality for both speech and music

specifications

Speaker type: Bass reflex; 8.9cm/3.5in woofer; 2.5cm/1in soft-dome tweeter

Impedance: 8Ω nominal

Continuous power: 30W

Peak power: 80W

Frequency response: 65Hz to 20kHz - 10dB

Dimensions (WxHxD): 12.7 x 22.2 x 14 cm / 5 x 8.75 x 5.5 in

Weight: 1.75kg/3.86lbs

Mounting: Wall mounting brackets provided (tabletop/floor stands also available)

Speaker wire: AT0581 7.3m/24ft, 14.6m/48ft, and 18.3m/60ft lengths available

Sensitivity: 88dB, 1W @ 1m

completely adjustable

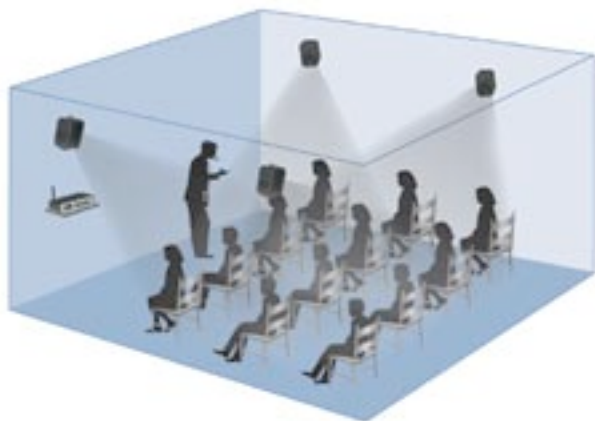
A rotating ball joint allows for customized speaker positioning – no tools needed!



easy mounting

1. Attach mounting plate to wall
2. Screw ball joint on to speaker
3. Drop and click ball joint into plate
4. Position and tighten

example of speaker placement



Based on your classroom acoustics and seating arrangement, speaker placement will vary. Download our **sound field wizard** software from our web site at www.phonicear.com for help determining the best arrangement for your room.

four distributed ceiling speakers option

great sound dispersion

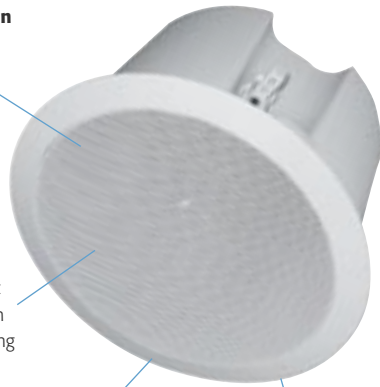
Offers the same even sound dispersion as our compact wall speaker

discreet

The speaker that's meant to be heard and not seen – mounts flush with ceiling tiles for a clean look

a permanent solution

Install these speakers and forget about them! The perfect solution for a permanent installation



sound stays in your room

Enclosed baffle prevents sound from traveling through plenum to other classrooms

specifications

Speaker type: coaxial: 6in woofer, .5in tweeter

Impedance: 8 Ω nominal

Sensitivity: 90dB, 1W @ 1m

Continuous power: 35W

Peak power: 70W

Frequency response: 65Hz to 20kHz

Dimensions (DIAxD): 203 x 5.7 cm/9 x 2.25 in

Weight: 1.1kg/2.4lbs

Mounting: acoustic ceiling metal tile bridge
(470-7347-106)

Speaker wire: AT0581 7.3m/24ft, 14.6m/48ft,
and 18.3m/60ft lengths available

Min ceiling height: 3m/10ft

frontrow™ system package

tempo



330T transmitter
230R receiver



Your choice of microphone –
see below for style options



Three different speaker packages from which to choose
(470-2865-119 compact wall speaker shown here)



841-6440-101
accessory/transmitter case



AT0831
230R receiver antenna



040-7402-105
power supply/charger & cord
230R receiver



310-2544-1342
aux-in adaptor plug
(dual RCA-to-1/4")
for plugging in external
audio sources



310-2544-1341
aux-out adaptor plug
(3.5mm(F)-to-2.5mm(M))



AT0712
black elastic transmitter
waist belt



374-30-310-09
rechargeable NiMH
AAA batteries
(2 each)



300-6497-105
charging cord,
receiver-to-transmitter
1.3mm(M)-to-1.3mm (m)



AT0805
aux-out adaptor cord,
230R receiver
(RCA-to-3.5mm)

additional system accessories

transmitter accessories



AT0529A
antenna (for use with
auxiliary input only)
(5m/15ft)



AT0749
330T wall charger



AT0512 - BK
lavalier cord
(for wearing 330T around
the neck)



AT0702-25
aux in adaptor cord
(dual RCA - dual RCA)
230R to external audio:
TV, VCR, DVD, etc.



384-01-210-08
aux in adaptor cord
(3.5mm - 3.5mm)
330T to external audio:
TV, VCR, DVD, computer, etc.



300-6332-107
aux in adaptor cord
(3.5mm - dual RCA)
330T to external audio,
or team teaching

microphone styles and compatibility rating



AT0655
behind-the-neck
boom microphone
rating: ★★★★★



AT0814
earhook microphone
rating: ★★★★★



AT0816
collar microphone with mute
rating: ★★



AT0291-L
lapel microphone
with lavalier cord
rating: ★★

receiver options



AT0801
aux-box (adds four
additional A/V inputs)



211 System
wireless microphone
system for team-teaching
and student pass-around
use

★★★★ = most compatible ★ = least compatible