

# Product Specifications

learning systems

## Which system fits your needs?

### Juno

Capture & share content more easily



### ToGo

Portable audio anywhere



### Pro Digital

Digital voice clarity

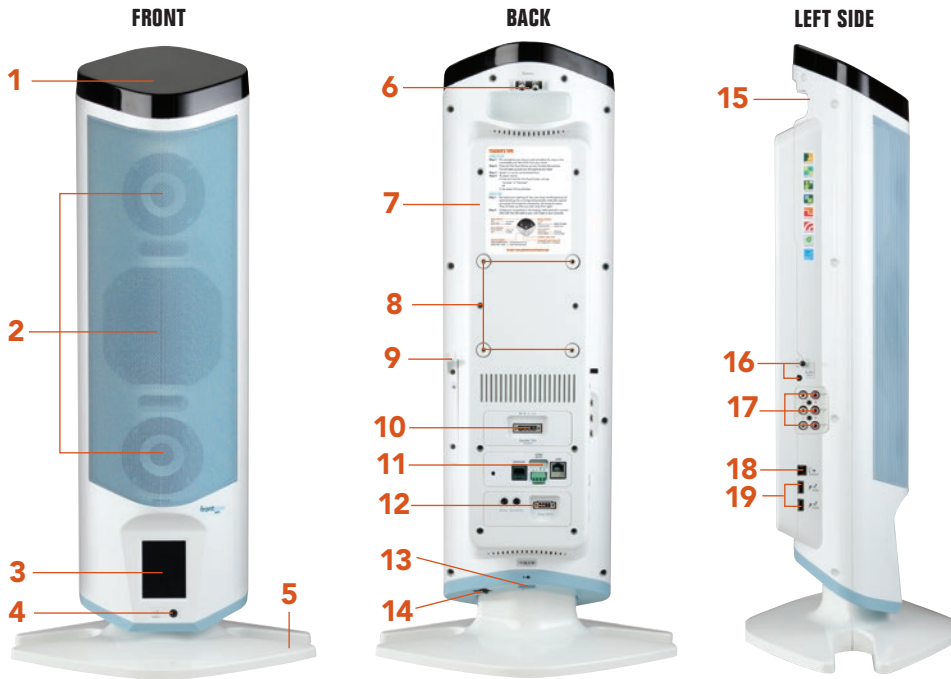


	Juno	ToGo	Pro Digital
<b>Flipped Classrooms &amp; Digital Content</b>			
Automatic Lesson Capture & Sharing	✓	✓	✓
Class2Class™ Distance Learning Support	✓		
Adapto™ Digital Feedback Suppression	✓		✓
Voice Command	✓		
<b>AV Control &amp; Two-way Communication</b>			
Networkable	✓*		
Voice Activated Intercom	✓*		
Paging	✓*		
Digital Page Override	✓*		
Bells/Alerts	✓*		
Network/Serial Device Control	✓*		
Voice Activated AV Control	✓*		
<b>Installation-Free &amp; Portable Voice Amplification</b>			
Indoor Use	✓	✓	✓
Outdoor Use (not weatherproof)		✓	
Integrated Speaker Line Array	✓	✓	
Battery Power Option		✓	
Installation-Free	✓	✓	
Carry-Case Available		✓	
<b>Installed Amplification (Emphasizing Voice Clarity)</b>			
OptiVoice™ Speech Clarification	✓	✓	✓
PrioriTeach™ Teacher Voice Priority	✓		
Integrated Infrared Sensor	✓	N/A	✓
<b>Installed Amplification (Emphasizing Media Clarity)</b>			
Audio Inputs	4	1	2
Speaker Expansion Module	✓		
Audio Output (PFM/Podcasting)	1	1	1
Stereo Sound	✓		✓
<b>Features</b>			
Number of Systems per School	Unlimited	16**	Unlimited
Energy savings	✓		✓
Directly Compatible with...	PFM devices (rebroadcast)	PFM devices (direct transmission, rebroadcast)	Mics used in Symbio; PFM devices (rebroadcast)
One-touch Operation	✓		✓
Touch-Screen Interface	✓		
Lead Free/RoHS Compliance	✓	✓	✓
SmartCharge Fail Safe Battery System	N/A (Li-Ion)	✓	✓
Simultaneous Microphone Channels	5	2	2
Microphone Channel Choices	7	16	2
External Sensor Inputs	2	N/A	3
Optional Student Microphone	✓	✓	✓
Transmission Technology	Infrared	FM	Infrared
Platform	Digital	Analog	Digital
Warranty	5 Years	5 Years	5 Years

\*Available with Juno Connect

\*\*More systems possible with channel separation

## ITR-01 JUNO TOWER RECEIVER



### SPECIFICATIONS

**Transmission type:** Infrared

**Receiving frequencies:** 2.1MHz, 2.4MHz; (2.8MHz, 3.3MHz, 3.6MHz with Channel Expansion Module)

**Frequency response:** 50Hz – 20kHz

**Signal-to-noise:** >70dB

**THD:** <1% @ 1kHz

**Maximum audio output power:** 40W, peak program

**Power supply:** 18VDC @ 3.3AMP

**Size (wxhxd):**

**Tower without base:** 19.7 x 68.6 x 16.5cm/  
7.75 x 27 x 6.5in

**Tower with base:** 35.6 x 71.8 x 26.7cm/  
14 x 28.25 x 10.5in

**Weight:**

**Tower without base:** 5.7kg/12.5lbs

**Tower with base:** 6.4kg/14lbs

**Operating range:** 18.3m/60ft, line of sight (typical)

**Reception area:** 274m<sup>2</sup>/900ft<sup>2</sup> (typical)

### USER CONTROLS

- Power
- Master volume
- Microphone volume (5)
- Auxiliary audio volume (4)
- Audio out volume
- Tower settings

### INPUTS/OUTPUTS

- Input power jack
- (2) RCA jacks for external sensor connection
- 3.5mm audio out jack
- (3) RCA stereo audio in jacks (with stereo sound output)
- (1) 3.5mm stereo audio in jack (with stereo sound output)
- (2) serial microphone charging/programming jacks
- (1) serial communications port

### ITR-01 ACCESSORIES



receiver power supply



AC power cord (for power supply)



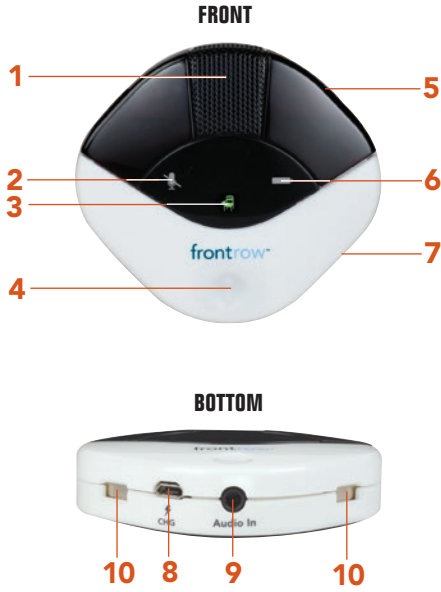
USB cable



Teacher Edition Software (Windows or Mac OS)

- 1 Integrated Sensor**  
Integrated high sensitivity infrared diode array.
- 2 Digital, 3 Speaker 2.1 Array**  
Two mid-range HF drivers and one woofer provide full, rich stereo sound.
- 3 LCD touch screen**  
Lockable full-color touch screen control.
- 4 Stereo Quick Connect**  
Easily and quickly connect an MP3 player or other audio device.
- 5 Table/desk Stand**  
Sturdy desk stand is easily removed for wall mounting.
- 6 Additional Sensor Ports**  
Two ports for additional sensors.
- 7 Channel Expansion Module Bay**  
Add the optional Channel Expansion Module to use up to five microphones with the Juno Tower.
- 8 100mm VESA Wall Mount Screw Taps**
- 9 Transmitter/USB Cable Hook**  
Hang your transmitters while charging from the tower. When not charging, the USB cable hangs from the center of the hook.
- 10 Speaker Expansion Module Bay**  
Optional module for adding extra speakers for expanded audio coverage.
- 11 Juno Connect™ Module Bay**  
Optional module for adding software and voice control of AV devices plus, in conjunction with Conductor, two-way communication between classroom and front office.
- 12 Page Override Module Bay**  
The optional module mutes all audio whenever an announcement is made over the school's public address system.
- 13 Power Jack**
- 14 Power Switch**
- 15 Easy Grip Handle**  
Integrated ergonomic handle makes carrying or moving the Juno Tower easy.
- 16 Auxiliary Output**  
Output with volume control for capturing lectures or to connect personal FM systems.

- 17 Stereo Inputs for External Audio**  
Connect other classroom A/V equipment such as a DVD player, television or VCR.
  - 18 Serial Port**  
Using the included USB cable, connect to a computer running the FrontRow Desktop software application for remote control of the Juno Tower.
  - 19 Integrated Serial Hub**  
Two ports for charging or programming microphones.
- Custom Naming**  
Name is displayed on the LCD touch screen for easy identification.
- Feedback Suppression**  
The next-generation Adapto™ digital engine actively scans audio 375 times per second to suppress feedback squeal before it starts.
- Optimized Speech Clarity**  
FrontRow's patented OptiVoice™ technology is designed to emphasize critical speech sounds, so kids comprehend even more.
- Easy Lesson Capture**  
The Juno lesson capture system records screen and audio, then automatically titles and prepares the recordings for upload.
- Class2Class**  
Supports distance learning by removing audio echo when using Skype™ and other tools.
- Voice Command**  
Control Juno and other devices, or control recording by speaking simple voice commands into the teacher microphone.
- Teacher Priority**  
PrioriTeach™ gives priority to the teacher microphone by reducing the volume of all other devices and microphones when the teacher microphone is used.
- Advanced Software Control**  
Volume, 12-band EQ, speaker balancing, and more are controllable via Teacher Edition Software while keeping the daily user interface neat and simple.



**1 Amazing Sound Quality**

Superb pick up and audio quality thanks to a high-isolation microphone suspension, broad frequency response, and low-distortion direct digital synthesis.

**2 Mute Indicator**

OFF . . . . . Un-muted  
SOLID RED . . . . . Muted

**3 Power Indicator**

SOLID GREEN . . . . . Power On  
OFF . . . . . Standby

**4 One-Touch Button**

Controls all of the features of the Pendant Microphone. Use with voice command to activate the Juno lesson capture software and control your Juno Tower.

**When the Pendant Microphone is in standby mode:**

PRESS MOMENTARILY . . . . . Awaken

**When the Pendant Microphone is active:**

PRESS MOMENTARILY . . . Mute / Un-mute  
PRESS AND HOLD . . . Issue Voice Command

**5 Superior Comfort**

Lightweight (just 73.7g/2.6oz) with soft backing that provides comfort and reduces friction noise from contact with clothing, buttons or jewelry. Ergonomic lanyard suspension points keep the mic stable and help keep it from swinging away from the body when leaning over to help a student.

**6 Battery Indicator**

**In Use**

OFF . . . . . Battery Charged  
FLASHING RED . . . . . Battery Low

**When Charging**

SOLID RED . . . . . Charging  
SOLID GREEN . . . . . Fully Charged

**7 Lithium Ion Battery**

3-year life expectancy, lightweight and rechargeable.

**8 Charging/Programming Jack**

For charging via USB cable or for configuring settings.

**9 Portable Audio Interface**

3.5mm audio input jack for wireless transmission from any secondary audio source such as a computer or MP3 player.

**10 Charge Contacts**

For use with the optional IMC-01 microphone charger.

**Adjustable Power**

Factory set to achieve complete coverage in a typical classroom with 7 hours of talk time. Increase talk time or expand coverage for very large rooms with a quick software adjustment.

**Programmable Channels**

Program the switch positions to 2 of 7 available channels.

**Digital Naming**

Assign custom names to microphones for easy identification on the Tower LCD and Desktop Software.

**Data Transmission**

Reports battery status to Desktop Software, visible from an interactive whiteboard.



**SPECIFICATIONS**

**Transmission type:** Infrared

**Transmitting frequency:** 2.1MHz, 2.3MHz, 2.4MHz, 2.8MHz, 3.3MHz, 3.6MHz programmable

**Frequency response:** 70Hz – 8kHz

**Microphone:** Unidirectional cardioid

**Battery life:** 7 hours (typical)

**Battery type:** Li-Ion, 3.7V, 850mAH

**Operating range:** 18.3m/60ft, line of sight (typical)

**Size (wxhxd):** 7.4 x 6.6 x 1.3cm/2.9 x 2.6 x 0.5in

**Weight:** 73.7g/2.6oz (with battery and lanyard)\*

**USER CONTROLS**

- wake/mute/voice command button
- channel select

**INPUTS/OUTPUTS**

- 3.5mm aux input
- charge/programming jack

\*Competitor models report weight without lanyard

**ITM-01 ACCESSORIES**



Li-Ion battery



audio cable

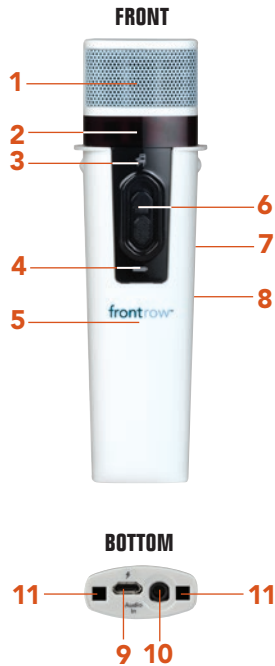


micro USB cable



Teacher Edition Software (Windows or Mac OS)

## ISM-01 JUNO PASS-AROUND MICROPHONE



- 1 Amazing Sound Quality**  
Superb pick up and audio quality thanks to a high-isolation microphone suspension, broad frequency response, and low-distortion direct digital synthesis.
- 2 360° Emitter Diodes**  
Lets students hold the Pass-Around Microphone the way it's most comfortable for them without worry of dropout.
- 3 Power Indicator**  
SOLID GREEN.....Power On  
OFF.....Power Off
- 4 Battery Indicator**  
**In Use**  
OFF.....Battery Charged  
FLASHING RED.....Battery Low  
**When Charging**  
SOLID RED.....Charging  
SOLID GREEN.....Fully Charged
- 5 Small and Lightweight**  
At less than 15cm/6in tall and just 2.5 oz, the microphone is much easier for students to use.

- 6 Power/Push-to-talk Switch**  
PRESS AND HOLD.....Push-to-talk  
PRESS AND SLIDE UP.....Power On
- 7 Name Plate**  
For adding a name or room number for easy identification.
- 8 Lithium Ion Battery**  
3-year life expectancy, lightweight and rechargeable.
- 9 Charging/Programming Jack**  
For charging via USB cable or for configuring settings.
- 10 Portable Audio Interface**  
3.5mm audio input jack for wireless transmission from any secondary audio source such as a computer or MP3 player.
- 11 Charge Contacts**  
For use with the optional IMC-01 microphone charger.
- 12 Comfortable Hands Free Option**  
Easy, comfortable lavalier clip makes reading in front of class simple and lets the Pass-Around Microphone double as a lightweight teacher microphone.

### Adjustable Power

Factory set to achieve complete coverage in a typical classroom with 7 hours of talk time. Increase talk time or expand coverage for very large rooms with a quick software adjustment.

### Programmable Channels

Program the switch positions to 2 of 7 available channels.

### Digital Naming

Assign custom names to microphones for easy identification on the Tower LCD or in the optional FrontRow Desktop Software.



## SPECIFICATIONS

- Transmission type:** Infrared
- Transmitting frequency:** 2.1MHz, 2.3MHz, 2.4MHz, 2.8MHz, 3.3MHz, 3.6MHz programmable
- Frequency response:** 70Hz – 8kHz
- Microphone:** Unidirectional cardioid
- Battery life:** 7 hours (typical)
- Battery type:** Li-Ion, 3.7V, 850mAh
- Operating range:** 12.2m/40ft, line of sight (typical)
- Size (wxhxd):** 3.8 x 14.7 x 2.2cm/1.5 x 5.8 x 0.85in
- Weight:** 70.8g/2.5oz

## USER CONTROLS

- on/off
- push-to-talk
- channel select

## INPUTS/OUTPUTS

- 3.5mm aux input
- Charge/programming jack

## ISM-01 ACCESSORIES



Li-Ion battery



micro USB cable

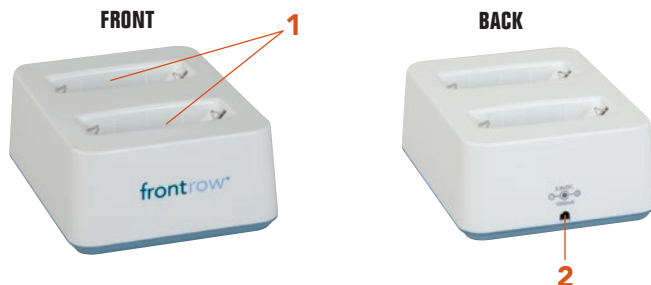


lavalier clip



Teacher Edition Software  
(Windows or Mac OS)

## IMC-01 JUNO PENDANT AND PASS-AROUND MICROPHONE CHARGER



- 1 Charging pockets**  
Both charging pockets can be used to charge either the Juno Pendant Microphone or Pass-Around Microphone
- 2 Power jack**



## SPECIFICATIONS

- Size (wxhxd):** 8.9 x 4.6 x 11.4cm/3.5 x 1.8 x 4.5in
- Weight:** 226.7g/8oz
- Power supply:** 5.9V dc

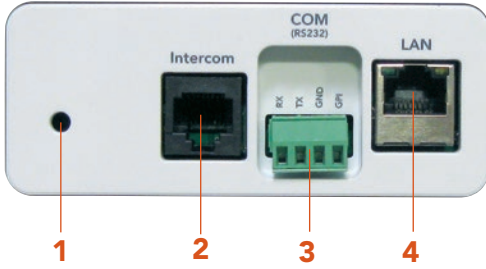
## IMC-01 ACCESSORIES



power supply

## EXPANSION MODULES

### JUNO CONNECT™ COMMUNICATION MODULE



- 1 Onboard Microphone**  
Communicate with front office even without the Juno mic
- 2 Intercom Input (optional)**  
Connect the CB75 intercom panel ceiling mic for communication with front office when push-to-talk is required (can also be used with CB85)
- 3 Serial Control**  
Send RS232 commands to serial projectors and other AV devices via voice or Teacher Edition Software
- 4 Network Connection**  
Sends commands to IP addressable devices via voice or Teacher Edition Software. Connect to front office via Conductor software. Communicates over standard 10/100Mb/s networks (auto sensing) using either TCP/IP or UDP protocols.
- 5 Display Shows Active Page or Intercomm Call**
- 6 Clearer, Easier Communication with Front Office**  
Use the Juno microphone to call the office; hear higher quality paging and intercom audio through the tower

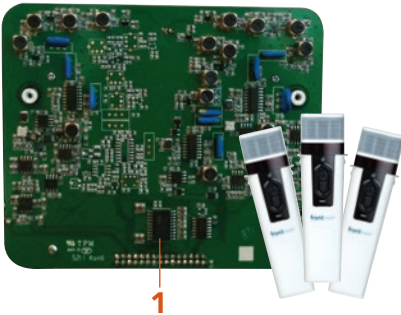


### SPECIFICATIONS

**Network Support:** 10/100 Mb/s (Auto Sensing)  
**Baud Rate:** 2400 – 115,000 baud



### CHANNEL EXPANSION MODULE



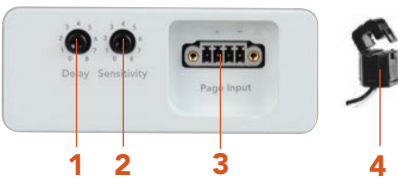
- 1 Three additional IR channels**  
Add up to 3 additional microphones (total of 5)



### SPECIFICATIONS

**Receive Frequencies:** 2.8MHz, 3.3MHz, 3.6MHz  
**Signal-to-noise:** >70dB  
**THD:** <1% @ 1kHz

### PAGE OVERRIDE MODULE (FOR ANALOG PAGING SYSTEMS)



- 1 Time Delay Control**
- 2 Sensitivity Control**
- 3 Captive Screw Terminal**
- 4 Inductive Coupler**



### SPECIFICATIONS

**P.A. Input:** Captive screw terminal magnetic coupling  
**Sensitivity:** 70mVrms (minimum)  
**Delay:** <500mSec to >5Sec

### SPEAKER EXPANSION MODULE



- 1 Captive Screw Terminal**



### SPECIFICATIONS

**Frequency response:** 50Hz – 20kHz  
**THD:** <1%  
**Maximum audio output power:** 2 x 8w (8Ω), 2 x 16w (4Ω)

## Windows



### Lesson Capture

Teacher Edition Capture is the basic version of Teacher Edition. It makes lesson capture and sharing effortless so students are always prepared. Records screen and audio, then automatically titles the recording based on instructor's schedule and saves it to a pre-determined location. Teacher Edition is available with any FrontRow classroom audio system including Juno, Pro Digital, and ezRoom.

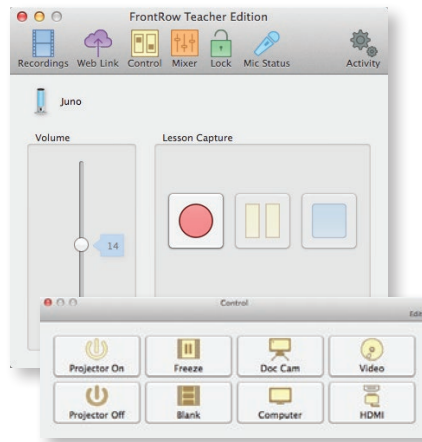
### AV Control

Teacher Edition Control is a plug-in for Teacher Edition for use with ezRoom or Juno Connect. Teacher Edition Control enables teachers to control projector, audio setup, and lesson capture within the same application. Program up to eight buttons to turn display on and off, change input sources and more.

### Juno Control

When used with a Juno system, Teacher Edition also makes controlling Juno settings easy. Control volume and other audio settings right from the desktop.

## Mac OS



## SPECIFICATIONS

**Recording types:** Screen and audio, screen only, audio only

**File format:** mp4, m4a

**Recording length:** Unlimited

## SYSTEM REQUIREMENTS

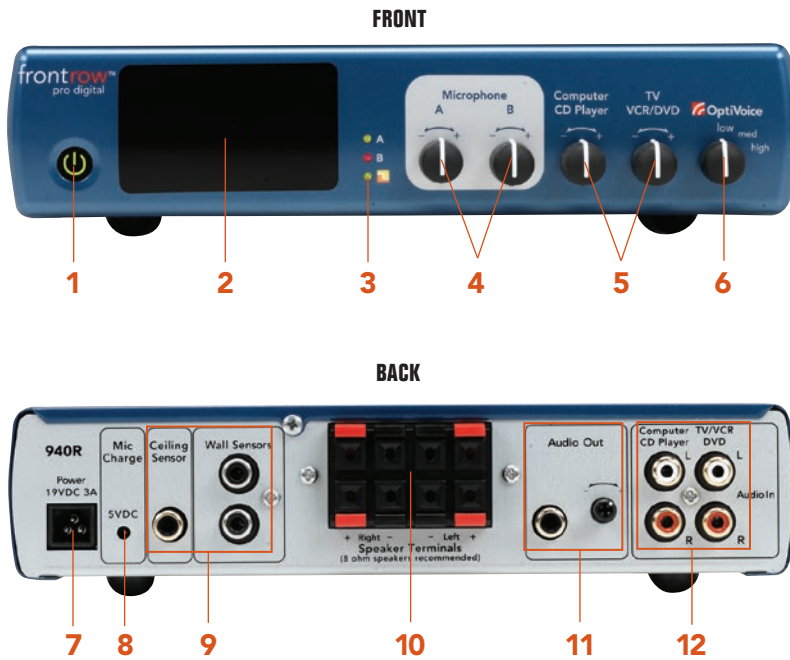
### Windows

- Windows XP SP3, Windows Vista, Windows 7, Windows 8
- 2GHz Processor or faster
- 1 GB of RAM
- 90 MB of hard disk space for the application (recordings will require additional hard disk space)

### Mac OS

- Mac OSX - 10.6 (Snow Leopard) or later
- 64-bit Processor (Core 2 Duo or later)
- 150 MB of hard disk space for the application (recordings will require additional hard disk space)

# PRO DIGITAL 940R RECEIVER/AMPLIFIER



## SPECIFICATIONS

- Transmission type: Infrared
- Receiving frequency: 2.3MHz & 2.8MHz
- Frequency response: 50Hz to 20kHz
- Signal-to-noise: >65dB (system)
- THD: <1% @ 1kHz into 8Ω
- Maximum audio output power: 2 x 10w (8Ω), 2 x 20w (4Ω)
- Power supply: 19VDC at 3.16A
- Size (wxhxd): 21.5 x 4.75 x 19cm/8.5 x 1.75 x 7.5in
- Weight: .94kg/2.11lbs
- Operating range: 18.5m/60ft line-of-sight (typical)
- Reception area: 139m<sup>2</sup>/1500ft<sup>2</sup> (typical) with ceiling sensor

## USER CONTROLS

- Power
- Microphone A volume
- Microphone B volume
- Two auxiliary audio volume
- OPTIVOICE™

## INPUTS/OUTPUTS

- Input power jack
- 1.3mm mic charge jack
- 3 RCA jacks for external sensor connection
- 4 quick-connect speaker terminals
- RCA aux out jack
- 2 RCA stereo aux in jacks (with stereo sound output)

## 940R ACCESSORIES



receiver power supply



AC power cord (for power supply)



transmitter charge cord aux-out cord



Aux-in cord



receiver wall mount



Teacher Edition Software (Windows or Mac OS)

### 1 One-Touch operation

Teachers need only turn on the mic to start teaching. The receiver automatically wakes up from its energy-saving sleep mode and goes to sleep when the mic is turned off.

### 2 Talk without dropout

Built-in sensor with advanced optics ensure consistent signal pick-up

### 3 Feedback suppression

The ADAPTO light reassures you it is automatically suppressing feedback – before it starts

### 4 Two channels for more dynamic teaching

Encourage student participation with a pass-around mic; or amplify two teachers at the same time

### 5 Easy audio control

Quickly and easily adjust the volume level of streaming audio and video content, CDs and MP3 files

### 6 Optimize speech clarity

OPTIVOICE, FrontRow's patented technology, is specially designed to emphasize critical speech sounds, so kids comprehend even more

### 7 Power jack

### 8 Easy recharging

Up to two transmitters can be charged directly from the receiver

### 9 External sensor ports

Get great signal pickup in almost any classroom with convenient ceilings or wall sensors

### 10 Simple speaker hook-up

Color-coded stereo push terminals make speaker connection quick and easy

### 11 Auxiliary output and volume control

Connect to computer to record all audio content for podcasting, or connect personal FM systems for the hearing impaired

### 12 Complete tech integration

Easily connect a computer or other technology to integrate true stereo audio into lessons

## 950H PASS-AROUND MICROPHONE AND DROP-IN CHARGER



### 950H MICROPHONE

#### 1 Fits kids' small hands

Less than 15cm/6in tall, this durable kid-sized mic is much easier for students to use

#### 2 Comfortable hands-free option

Easy, comfortable lavalier clip makes reading in front of class simple and lets the 950H double as a very lightweight teacher mic

#### 3 3-way indicator light

#### 4 On/off switch

#### 5 Smart charge security

SMARTCHARGE technology protects against charging incompatible batteries. Alkaline batteries may be used in an emergency, but the microphone will only charge the "silver-sleeve", auto-sensing battery that comes with your microphone.

#### 6 A/B channel and mic gain selectors

(inside battery compartment)

#### 7 Name plate

#### 8 Optional charge input jack

**9 Portable audio interface**  
A 3.5mm auxiliary input jack lets you use the transmitter/microphone to transmit audio from any secondary source, such as a TV, DVD, CD, computer, or MP3 player

### 950C CHARGER

#### 10 Energy efficient drop-in charging

Charges both the 940TM and 950H microphones neatly and securely. Powered by an ENERGY STAR® qualified battery charger.

#### 11 3-way charging indicator lights



Powered by an ENERGY STAR qualified battery charger for a better environment



### SPECIFICATIONS

**Transmission type:** infrared

**Transmitting frequency:** 2.3MHz & 2.8MHz (switchable)

**Battery type:** single AA, 2300mAh rechargeable NiMH

**Battery life:** minimum 5 hours

**Operating range:** 12.2m/40ft, line of sight (typical)

**Size (wxhxd) (mic):** 3.5 x 14.6 x 2.8 cm/1.4 x 5.7 x 1.1 in

**Weight (mic):** 74g/2.6oz (with battery)

### USER CONTROLS (MIC)

- On/off
- Channel A/B
- Mic gain – 3 settings

### INPUTS/OUTPUTS (MIC)

- 3.5mm aux input, stereo summing
- 1.3mm DC charge jack

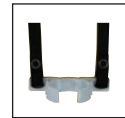
### 950H ACCESSORIES



SMARTCHARGE NiMH rechargeable battery



charger power supply



lavalier clip

## 940TM TRANSMITTER/MICROPHONE



#### 1 Totally wireless

Combination transmitter/microphone design eliminates the need for any cords

#### 2 Amazing sound quality

Patented dual-mic system ensures natural sound quality

#### 3 Maximum comfort

Efficient single-cell battery design is 25-40% lighter than competitor models

#### 4 A/B channel selector

Conveniently switch between microphone channels

#### 5 Portable audio interface

A 3.5mm auxiliary input jack lets you use the transmitter/microphone to transmit audio from any secondary source, such as a TV, DVD, CD, computer, or MP3 player

#### 6 Audio mute switch

A convenient mute switch allows for private conversations

#### 7 Auxiliary microphone input

For teachers who prefer boom mics

#### 8 smart charge security

SMARTCHARGE technology protects against charging incompatible batteries. Alkaline batteries may be used in an emergency, but the microphone will only charge the "silver-sleeve", auto-sensing battery that comes with your microphone.

#### 9 4-way indicator light

#### 10 On/off switch



### SPECIFICATIONS

**Transmission type:** Infrared

**Transmitting frequency:** 2.3MHz & 2.8MHz (switchable)

**Frequency response:** 100Hz – 6kHz

**Microphones:** dual uni-directional cardioid

**Battery life:** minimum 8 hours

**Battery type:** single AA, 2300mAh rechargeable NiMH

**Operating range:** 18.5m/60ft line-of-sight (typical)

**Size (wxhxd):** 11 x 6 x 2.5 cm/4.5 x 2.5 x 0.9 in

**Weight:** 85g/3.0oz (with battery)

### USER CONTROLS

- On/off
- mute
- channel A/B

### INPUTS/OUTPUTS

- 2.5mm mic input
- 3.5mm aux input
- 1.3mm DC charge jack

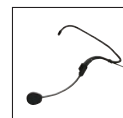
### 940TM ACCESSORIES



SMARTCHARGE NiMH rechargeable battery



aux-in cable



boom mic



## SPEAKERS

### IR SPEAKER



- 1 Integrated sensor
- 2 Two 4" woofers, one 1" tweeter
- 3 Cut installation time in half

### SENSOR SPECIFICATIONS

**Operating frequency:** 2.3MHz & 2.8MHz  
**Operating range:** 18.5m/60ft line-of-sight (typical)  
**Signal/Power interface:** RCA female jack  
**Number of IR photodiodes:** 3  
**Power indicator LED:** Green  
**Reception area:** 139m<sup>2</sup>/1500ft<sup>2</sup> (typical with receiver sensors)



### SPEAKER SPECIFICATIONS

**Speaker type:** Two 10cm/4in woofers; 2.5cm/1in tweeter  
**Impedance:** 4Ω nominal  
**Continuous power:** 20W  
**Peak power:** 30W  
**Frequency response:** 150Hz to 20kHz  
**Dimensions (wxhxd):** 355x130x230mm/14x5x9in  
**Weight:** 3.4kg /7.5lbs  
**Mounting:** Wall mounting brackets provided  
**Combo cable incorporates:**  
**Speaker wire:** 18 AWG 2 conductor UL listed CL3P Plenum-rated  
**Sensor wire:** 15.25m/50ft RG59/u coaxial cable CL3P shielded, UL listed Plenum rated jacket available

### DISTRIBUTED CEILING SPEAKER (REQUIRES SEPARATE SENSORS)



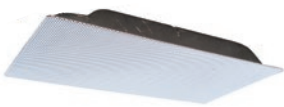
- Full range for faithful reproduction of voice and music
- Great sound coverage
- Separate back enclosure, designed for plenum spaces, prevents sound from traveling to other classrooms
- Mounts flush with ceiling for neat installation



### SPECIFICATIONS

**Average sensitivity:** 86dB-SPL 1W/1M  
**Speaker type:** coaxial: 10cm/6.5in woofer, 2.5cm/1in tweeter  
**Impedance:** 8Ω nominal  
**Continuous power:** 30W  
**Peak power:** 45W  
**Frequency response:** 60Hz to 20kHz  
**Dimensions (Dia x d):** 21.7 x 7 cm /8.5 x 2.75 in  
**Weight:** 1.1kg/2.5lbs  
**Mounting:** Metal tile bridge, steel back enclosure, built for Plenum spaces  
**Speaker wire:** 18 AWG 2 conductor UL listed CL3P Plenum-rated

### LAY-IN CEILING SPEAKER (REQUIRES SEPARATE SENSORS)



- Great sound coverage
- Cable clamp is included
- Mounts flush with ceiling for neat installation
- Rated for plenum spaces
- No assembly required



### SPECIFICATIONS

**Average sensitivity:** 92dB-SPL 1W/1M  
**Speaker type:** 8in full range cone  
**Impedance:** 8Ω nominal  
**Loudspeaker power rating:** 12W-RMS EIA 426A Standard  
**Calculated maximum system output:** 103dB-SPL, 12W/1M  
**Magnet type:** 4.8oz BeFe Ceramic  
**Size (WxHxD):** 32.5 x 9.7 x 29.9cm/12.81 x 3.81 x 11.81in  
**Frequency response:** 65Hz – 17kHz EIA 426A standard  
**Nominal coverage angle:** 100° included angle -6dB/2kHz half space  
**Audio connection:** Pre-cut 17.8cm/7in  
**Mounting:** Replaces existing ceiling tile, mounts in tile grid, built for Plenum spaces

## SENSORS (NOT NEEDED WITH IR SPEAKER)

### CEILING SENSOR



- Easy-to-install bracket allows quick and easy installation
- LED power indicator lets you know when unit is connected properly
- 360 degree 'full-sweep' signal coverage helps prevent signal dropout



### SPECIFICATIONS

**Operating frequency:** 2.3MHz & 2.8MHz  
**Operating range:** 18.5m/60ft line-of-sight (typical)  
**Signal/Power interface:** RCA-female jack, 8" lead  
**Number of IR photodiodes:** 6  
**Power indicator LED:** Green  
**Reception area:** 139m<sup>2</sup>/1500ft<sup>2</sup> (typical with receiver sensors)  
**Dimensions (Dia x h):** 13.5 x 3.3 cm /5.1 x 1.3 in  
**Weight:** 224g/7.9oz (with bracket)  
**Mounting:** Drop ceiling acoustic tile or sheetrock ceiling  
**Sensor wire:** 15.25m/50ft RG59/u coaxial cable CL2P double shielded, UL listed Plenum rated jacket available

### WALL SENSOR



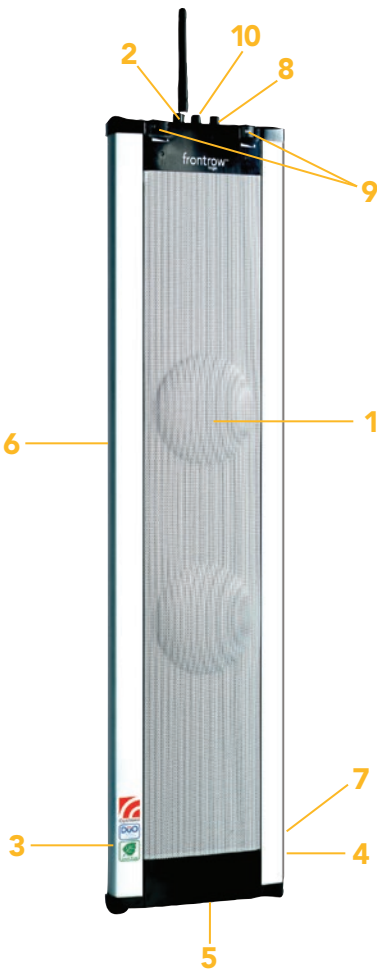
- Easy-to-install bracket allows proper angling for optimum room coverage
- LED power indicator lets you know when unit is connected properly
- Great for covering rooms with high ceilings, hanging student art, projector mounts, or other challenging obstructions
- Corner-compatible mounting bracket



### SPECIFICATIONS

**Operating frequency:** 2.3MHz & 2.8MHz  
**Operating range:** 18.5m/60ft line-of-sight (typical)  
**Signal/Power interface:** RCA-female jack  
**Number of IR photodiodes:** 3  
**Power indicator LED:** Green  
**Reception area:** 139m<sup>2</sup>/1500ft<sup>2</sup> (with 2 wall sensors)  
**Dimensions (wxhxd):** 7.5 x 3.9 x 6.0 cm /2.9 x 1.5 x 2.4 in  
**Weight:** 80g/2.5oz  
**Mounting:** Wall mount bracket provided  
**Sensor wire:** Two 15.25m/50ft RG59/u coaxial cables CL2P double shielded, UL listed Plenum rated jacket available

# TOGO 925RS COMBINATION RECEIVER/SPEAKER ARRAY



- 1 Room-filling sound quality in a single unit**  
The precision-mounted two-speaker line array reinforces and spreads more sound energy throughout the listening zone, making it able to cover an entire classroom.
- 2 Optimize speech clarity**  
The simple 3-position OptiVoice switch controls a sophisticated 12-band equalizer, pre-programmed to optimize speech clarity by emphasizing speech frequencies most critical to comprehension
- 3 Power cable socket**
- 4 On/off power switch**
- 5 Table stand attachment**
- 6 Integrated handle for transport**
- 7 Optional built in battery for outdoor amplification**
- 8 Auxiliary audio input for computer, MP3 players**
- 9 Two channels for more dynamic teaching**
- 10 Auxiliary output**

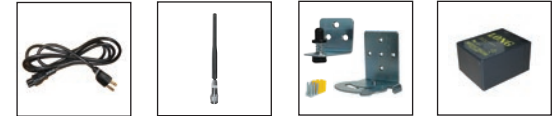
## SPECIFICATIONS

**Transmission type:** FM (F3E)  
**Receiving frequency:** 216.025 - 216.875 MHz  
**Frequency response:** 100Hz-9kHz (at rated output)  
**THD:**<1% (at rated output) @ 1kHz  
**Signal-to-noise:** >70db at rated output (system)  
**Maximum audio output power:** Maximum 36W RMS @ 4Ω x 2  
**Power supply:** AC 110-200V ~50-60Hz, 1A max  
**Battery:** NiMH rechargeable  
**Battery life:** 6.5 hours (rechargeable)  
**Recharging time:** 8 hours  
**Input:** 1 x aux-in, 3.5mm mono  
**Output:** 1 x aux-out, 3.5mm mono  
**Size (wxdxh):** 183 x 85 x 750 mm / 7.2 x 3.4 x 29.5 in  
**Weight:** 5.7kg / 12.5lbs.

## USER CONTROLS

- Channel A/B on/off/volume
- Channel A/B channel selector
- aux-in volume
- aux-out volume
- OptiVoice
- main power

## 925RS ACCESSORIES



Power cord 300-7402-110  
 Antenna AT0831  
 Wall bracket kit 890-88-322-00  
 Rechargeable Battery 374-88-010-00



Table stand 890-88-320-00  
 Cable kit 392-88-108-00  
 Carry bag 895-88-025-00



Teacher Edition Software (Windows or Mac OS)

### Channel/frequencies for U.S. and Canada

Channel#	Channel A	Channel#	Channel B
41	216.025 MHz	51	216.525 MHz
42	216.075 MHz	52	216.575 MHz
43	216.125 MHz	53	216.625 MHz
44	216.175 MHz	54	216.675 MHz
45	216.225 MHz	55	216.725 MHz
46	216.275 MHz	56	216.775 MHz
47	216.325 MHz	57	216.825 MHz
48	216.375 MHz	58	216.875 MHz

### Channel/frequencies for e.g. Denmark, Norway, Sweden, Germany, Finland and Iceland

Channel#	Channel A	Channel#	Channel B
15	173.400 MHz	26	173.640 MHz
91	173.8125 MHz	94	173.8625 MHz
93	173.9625 MHz	92	173.9125 MHz
84	174.0750 MHz	87	174.275 MHz
77	174.175 MHz	90	174.5250 MHz
78	174.325 MHz	55	174.6000 MHz
89	174.425 MHz	63	174.8500 MHz
59	174.7000 MHz	67	175.0000 MHz

### Channel/frequencies for e.g. England, New Zealand, Australia and The Netherlands

Channel#	Channel A	Channel#	Channel B
13	173.350 MHz	30	173.750 MHz
15	173.400 MHz	32	173.800 MHz
17	173.450 MHz	34	173.850 MHz
21	173.500 MHz	35	173.900 MHz
24	173.550 MHz	36	173.950 MHz
25	173.600 MHz	37	174.000 MHz
27	173.650 MHz	38	174.050 MHz
29	173.700 MHz	40	174.100 MHz

## TOGO 925C CHARGING STAND



- 1 Convenient drop-in charging
- 2 3-way indicator lights



### SPECIFICATIONS

**Power supply:** AC adaptor (DC 12V / 0.5A)

**Recharging time:** NiMH (1600mA), 6 hours

**Size (wxhxd):** 230 x 47 x 135 mm / 9 x 1.9 x 5.3 in

**Weight:** 360g/12.7oz

## TOGO 925T BODY-WORN TRANSMITTER

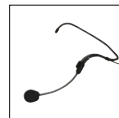


- 1 **Your choice of mics**  
Connect wind-resistant boom or earhook mics or inconspicuous lapel mics
- 2 **Easy to locate on/off/standby switch**
- 3 **2-way indicator light**
- 4 **Belt clip**
- 5 **Channel selector**

### 925T ACCESSORIES



NiMH rechargeable battery  
AT0807



boom mic



### SPECIFICATIONS

**Carrier frequency range:** 216.025 - 216.875 MHz

**Modulation:** FM (F3E)

**Operating range:** > 34m / 110ft

**RF output:** <15mW

**THD:** <0.5%

**Dynamic range:** 100dB

**Size (wxhxd):** 65 x 90 x 25 mm / 2.5 x 3.5 x 1 in

**Weight:** 51g / 1.8oz

**Controls:** on/mute/off/channel selector

**Input/output:** 2.5mm microphone input jack

**Battery type:** 2 AA NiMH rechargeable (1600mA) or 2 AA alkaline disposable

**Battery life:** NiMH rechargeable typically 12 hours, disposable alkaline typically 15 hours

**Recharging time:** 6 hours

## TOGO 925H HANDHELD MICROPHONE/TRANSMITTER



- 1 **2-way indicator light**
- 2 **On/off switch**
- 3 **Channel selector**

### 925H ACCESSORY



NiMH rechargeable battery  
AT0807



### SPECIFICATIONS

**Carrier frequency range:** 216.025 - 216.875 MHz

**Modulation:** FM (F3E)

**Operating range:** > 34m / 110ft

**RF output:** <15mW

**THD:** <0.5%

**Dynamic range:** 100dB

**Dimensions (dia x h):** 54 x 237mm / 2.1 x 9.3 in

**Weight:** 230g / 8.1 oz

**Controls:** on/mute/off/channel selector

**Battery type:** 2 AA NiMH rechargeable (1600mA) or 2 AA alkaline disposable

**Battery life:** 12 hours (rechargeable), 15 hours (alkaline)

**Recharging time:** 6 hours

## LOCATIONS

### Australia

Phonic Ear  
629 Nudgee Road  
Nundah QLD 4012  
Australia  
Freecall: 1 800 PHONIC  
fax: 1300 737 983  
web: www.gofrontrow.com.au

### Canada

FrontRow  
6950 Creditview Road, Unit 1  
Mississauga, ON L5N 0A6  
toll-free: 800.340.9894  
tel: 905.461.5300  
fax: 905.677.7760  
web: www.gofrontrow.com

### Scandinavia

Phonic Ear A/S  
Kongebakken 9  
2765 Smørum  
Denmark  
tel: +45 3917 7101  
fax: +45 3927 7900  
web: www.gofrontrow.com  
www.phonicear.com

### New Zealand

Oticon New Zealand Ltd.  
142 Lambton Quay  
P.O. Box 9128  
Te Aro, Wellington  
toll-free: 800 OTICON  
toll-free fax: 00800 FAX OTICON  
web: www.oticon.co.nz

### United Kingdom

PC Werth Limited (UK Distributor)  
Audiology House  
45 Nightingale Lane  
London SW12 8SP  
tel: 020 8772 2700  
web: www.soundfield.info

### USA/Global

FrontRow  
Corporate Headquarters  
1690 Corporate Circle  
Petaluma, CA 94954-6712  
toll-free: 800.227.0735  
tel: 707.769.1110  
fax: 707.769.9624  
web: www.gofrontrow.com



## TECHNOLOGY FOR STUDENT ACHIEVEMENT



Lesson Capture

**Lesson Capture.** Using simple voice commands, Teacher Edition software records screen and audio then automatically titles and prepares recordings for upload so students can review the video at night.



Class2Class

**Class2Class.** Using FrontRow with tools like Skype™ and Adobe® Connect™, you can easily set up a real-time audio/video connection between your class and any location – one that's clearly heard by everyone without echo.



PrioriTeach

**PrioriTeach.** PrioriTeach gives priority to the teacher microphone by reducing the volume of all other devices and microphones when the teacher microphone is used. Control how quickly and to what level the volume is reduced, how quickly the audio resumes, or turn the feature on and off.



VoiceChoice

**VoiceChoice.** Increase talk time or expand coverage for very large rooms with a quick software adjustment.



Voice Command

**Voice Command.** A teacher's voice is a powerful educational tool – now more than ever. The Juno digital sound system listens as attentively as students do, so teachers can control important functions simply by talking to it.



OptiVoice

**OptiVoice™ clarity.** FrontRow's patented, powerful tool for test-taking, directions, and ELL instruction. Fragile consonant sounds carry about 75% of the meaning in speech but are easily destroyed by background noise. OptiVoice strengthens these critical sounds, doing the work of a 12-band equalizer with a single switch.



SonicSuffusion

**SonicSuffusion™ provides intelligent sound distribution.** JUNO has three digitally-controlled drivers in a single unit that evenly fills the room with the kind of exciting, multi-layered stereo sound you'd expect from a much larger installed system.



PFM Friendly

### Fast, proper connection to Personal FM systems

Audiologists can quickly and confidently connect students' personal FM transmitters and maintain excellent transparency. Teacher and fellow-student voices plus media audio are delivered directly to the child's personal receiver.



Adapto

**Adapto Digital Platform.** Faster than the speed of thought – a blistering 375 times per second on the VC5502™ processor by TEXAS INSTRUMENTS – the ADAPTO platform automatically adjusts sound quality, power usage, and other complex details. ADAPTO adapts so teachers can teach.



DSP



SmartCharge

**SmartCharge™ peace of mind.** The greatest killer of electronics is accidental recharging of alkaline batteries. SMARTCHARGE technology only charges batteries that are safe to charge – protecting your investment for years to come.



Energy Smart

**Save money (and maybe the planet).** FrontRow products use significantly less energy – up to 63% less – than other systems. They're a smart choice for schools and the environment.



Lead Free

**Earth-friendly design.** FrontRow's design and manufacturing practices keep lead, mercury, PBDE and other toxins out of its products – and out of the environment.



frontrow™  
your school. connected.