

# Product Specifications

campus communication system

## Conductor

### Flexible IP Paging & Alerts

- Paging (one-way)
- Intercom (two-way)
- Bell schedules
- Emergency alerts
- Custom maps and images
- Touch screen for easy access
- Classroom, hallway, and common area coverage
- Streaming music
- Page from mobile or VoIP phones
- Email and text notifications
- Integrates with digital signage, door locks and more
- Fully integrates with FrontRow ezRoom and Juno classroom audio systems





**1 CB65 Push-to-talk all-call mic with pre-amp**

**2 19" All-in-one touch PC**

Capacitive touch PC with Windows 7 (includes Windows 8.1 license). VESA mountable, removable stand. SSD drive for fast performance. Built-in speakers for intercom communication. Runs Conductor software for paging, intercom, bells, and emergency alerts. Includes computer lock for safety. Includes USB to audio adapter.

**3 Keyboard and mouse**

**4 Uninterruptible Power Supply**

**5 CM3000 master controller**



## SPECIFICATIONS

### PUSH-TO-TALK MICROPHONE

**Input power:** +12V (ITC port on CM-3000)

**Connector:** RJ45

**Microphone Modes:**

- PTT (push-to-talk)
- PTM (push-to-mute)
- On-Off toggle

**Sensitivity:** 5.6 Mv/Pa (millivolt/Pascal)

**Size (WxHxD):** 4.49 x 13.54 x 7.01 in  
(114 x 344 x 178 mm)

**Weight:** Net 24.34oz (690g)

### UPS BATTERY BACKUP

**Input voltage:** 120 Vac Normal

**Outlets:** 10 (5 on battery)

**Output:** 750 VA, 450 Watts

**Dimensions (LxWxH):** 14 x 7 x 4 in  
(36 x 18 x 9 cm)

**Weight:** 11 lb (5kg)



**1** 1U Rackmount server  
Includes attachable rack ears. Network and USB ports. VGA and serial ports for connecting external monitor and keyboard (not required).

**2** Supports Conductor, Maestro, Encore licensing and update, and time synchronization with FrontRow control panels

**3** Backup and restore capability to USB drive (included) or to any mounted virtual or local drive.

## SPECIFICATIONS

**Operating System:** Linux Ubuntu

**Remote Admin:** Webmin

**Dimensions (LxWxH):** 10 x 15.27 x 1.73 in  
(48.3 x 38.8 x 4.4 cm)

**Weight:** 20 lbs (9.07 kg)

**Bandwidth/stream:** <1% of a typical 100 Mbps network (during audio streaming)

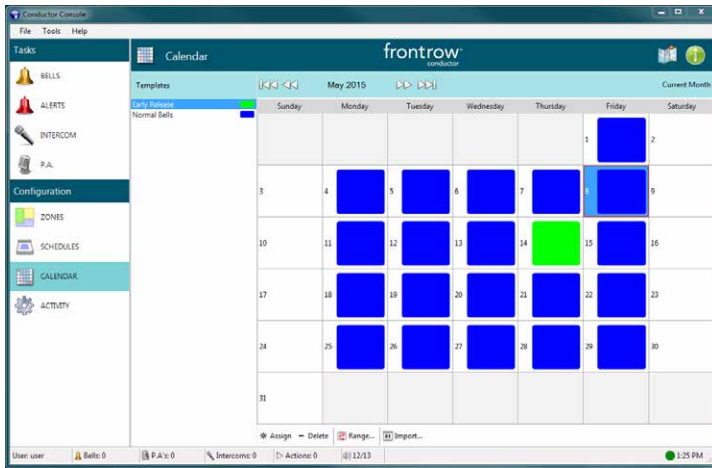
### NETWORK REQUIREMENTS

**Streaming Devices with Conductor:** 253 (static IP addresses recommended)

**Controllable Devices with Maestro:** 16M+

**Subnet:** Requires 255.255.255.0 Class C subnet (Conductor only)

**Internet access:** Optional - only required if using outside domain for network time



**SPECIFICATIONS**

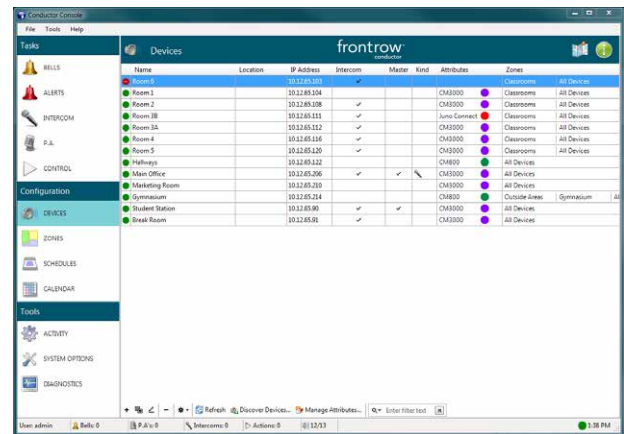
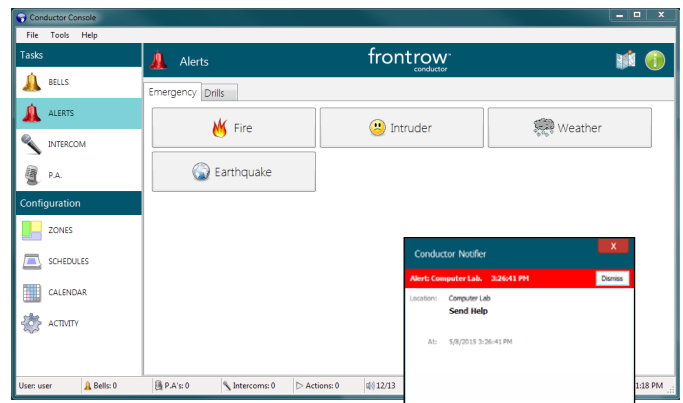
**System requirements:** Windows 7 or later, .NET Framework 4.5 (included in the installer). 100MB hard disk space. Requires DRS-5000 server and a master CM3000 controller.

**Device requirements:** Works directly with FrontRow networked devices. Third party devices supported directly via network commands or via RS-232, IR, GPO, or GPI when used with a FrontRow networked device.

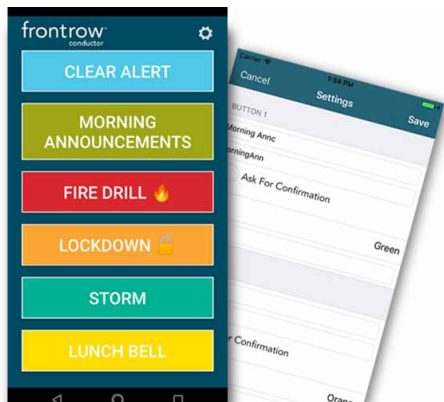
**Effortless Communication**

Conductor allows office managers and administrators to make announcements, intercom calls, trigger emergency alerts, set bell schedules, stream music, create zones, and more.

- Create customize bells, tones, and music sequences
- Create alert buttons to play audio and simultaneously control devices
- Page (one-way) to any zone, multiple zones, or to the entire campus
- Intercom (two-way) communication with FrontRow network equipped classrooms
- Import maps and custom images
- Page or intercom via maps and images
- At-a-glance device status
- Create unlimited zones and zone groups
- Color coded bell schedules and calendar
- Control buttons for shutting projectors off, locking doors, sending emails, and more.
- Programmable bell or control action schedules
- Automatic or manual email actions
- Assign schedules to the entire calendar year at once
- Easily change the daily bell schedule for any day
- Control third party devices via FrontRow networked hardware
- Stream music live from the admin station
- Full screen mode creates kiosk style interface
- FrontRow device discovery for fast configuration
- Receive calls and alerts on any PC or Mac with the Conductor Notifier application
- Convert and record custom audio with Conductor Audio Tools application



**CONDUCTOR MOBILE APP** (optional)



**Remote Triggers**

Conductor Mobile allows you to trigger up to 6 pre-configured Conductor Scripts from your fingertips. Simply add the script name from Conductor to the app in the Settings.

**Geolocation**

Conductor Mobile will automatically try to connect to the Conductor server when you enter a predefined range around campus.

**SPECIFICATIONS**

**Size:** 8.6 MB

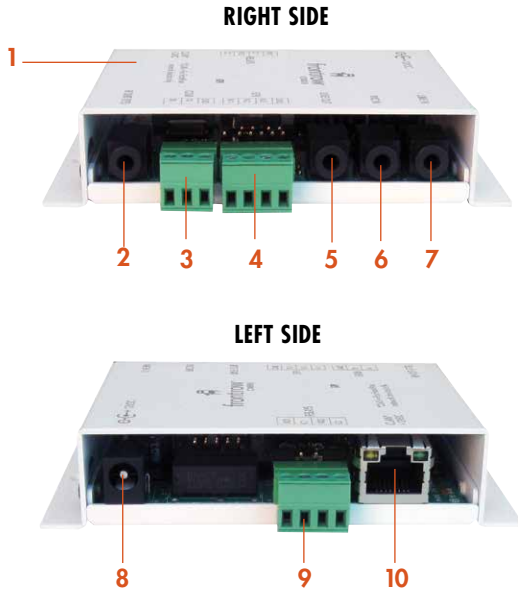
**SYSTEM REQUIREMENTS**

**iOS:** iOS 10.3 and up

**Android:** Android 4.1 and up



Available on the App Store.



**SPECIFICATIONS**

**Network support:** 10/100Mb/s (auto sensing)

**Serial Baud rate:** 2400 to 115200 baud

**Power supply:** 9V 500mA

**Size (wxhxd):** 9.8 x 6.4 x 2.3cm/3.84 x 2.5 x .913in

**Weight:** 0.35kg/0.77lbs

**INPUTS/OUTPUTS**

- (1) input power jack
- (1) Network jack (RJ45)
- (1) Unbalanced stereo audio input jack (3.5mm)
- (1) Mic input jack (3.5mm)
- (1) Amplifier balanced/unbalanced stereo/mono line output jack (3.5mm)
- (2) 4-pin captive screw general purpose output (GPO) relay terminals
- (3) 4-pin captive screw general purpose input (GPI) relay terminals
- (1) Infrared control output jack (3.5mm)
- (1) 3-pin captive screw RS232 serial control input/output terminal

**1 Brings Conductor IP-based paging to 70V amps and speakers**

This audio decoder accepts streaming audio input and delivers line level audio output. Makes it easy to connect a Conductor™ IP-based paging platform to standard 70v amplifier/speaker infrastructure in common or outdoor areas.

**Converts your analog PA system to an IP-based streaming solution**

Mixes and samples line-level audio and plays it over the network.

**Puts even non-networked devices on the network**

Accepts network-based “pass through” commands — so FrontRow’s Encore™, Maestro™, and Conductor™ network software can control and help you manage devices that are not directly networkable.

**Easier configuration and update**

Onboard GUI software makes it easy to set IP address and adjust other settings. Remotely updatable as needed.

**Triggered actions**

You can program the CM800 to execute actions based on relay/GPI or streamed events.

**Secure**

Password-protected for network access.

**2 IR control output**

**3 Serial control input/output**

**4 General purpose input (GPI) relay**

**5 Amplifier line out**

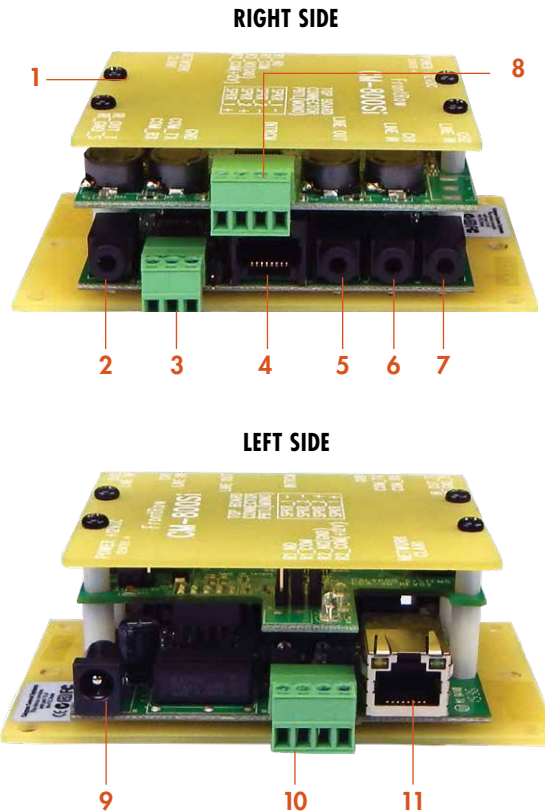
**6 Mic audio in**

**7 Line audio in**

**8 Power jack**

**9 General purpose output (GPO) relay**

**10 Network jack**



**SPECIFICATIONS**

- Network support:** 10/100Mb/s (auto sensing)
- Serial Baud rate:** 2400 to 115200 baud
- Power supply:** 12VDC at 3.5A
- Size (WxHxD):** 9.8 x 6.4 x 3.7cm/3.84 x 2.5 x 1.5in
- Amplifier Type:** Class D
- Maximum output power:** 2 x 8w (8 Ω), 2 x 16w (4 Ω)
- Weight:** 0.14kg/0.30lbs

**INPUTS/OUTPUTS**

- (1) input power jack
- (1) Network jack (RJ45)
- (1) Audio input jack (stereo, Line 2) (3.5mm) (port shared with RJ45 mic input jack)
- (1) Audio input jack (mono, Line 1) (3.5mm)
- (2) 4-pin captive screw general purpose output (GPO) relay terminals
- (1) Infrared control output jack (3.5mm)
- (1) 3-pin captive screw RS232 serial control input/output terminal
- (1) captive screw loudspeaker terminal left and right, (mono output)
- (1) Audio output (3.5mm)
- (1) Intercom jack for CB75/CB85 (RJ45) (port shared with Line 2 input jack)

**1 Brings Conductor IP-based paging and intercom to small common areas and office spaces**

This audio decoder accepts 8kHz streaming audio input and drives up to four 8-ohm speakers, and includes an intercom jack for a FrontRow intercom microphone (CB75 or CB85), conveniently bringing IP paging and intercom to small common areas and shared office spaces.

**IP Stream Detect** - when used with an amplifier with an RS232 interface - in a multi-purpose room or gymnasium, for example - can be programmed to mute local audio when an audio stream from FrontRow Conductor is detected.

**Converts your analog PA system to an IP-based streaming solution**

Mixes and samples line-level audio and plays it over the network.

**Easier configuration and update**

Onboard GUI software makes it easy to set IP address and adjust other settings. Remotely updatable as needed.

**Triggered actions**

You can program the CM800Si to execute actions based on relay or streamed events — for example, shutting down all projectors at 8pm.

**Secure**

Keep out hackers by setting up passwords for network access.

**2 IR control output**

**3 Serial control input/output**

**4 Intercom input**

Connect the CB75 intercom panel or CB85 ceiling mic to build two-way communication with the front office. (Shared with line audio in 2)

**5 Amplifier line out**

**6 Line audio in 1**

**7 Line audio in 2**

Shared with intercom input

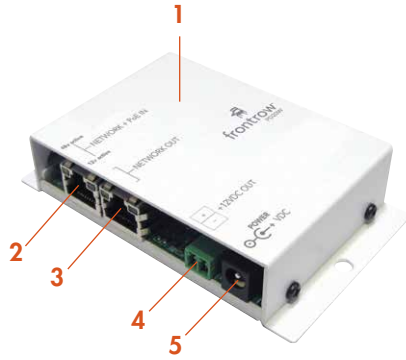
**8 Simple speaker hookup**

Captive screw terminals make speaker connection quick and easy.

**9 Power jack**

**10 General purpose output (GPO) relay**

**11 Network jack**



**1 Keeps paging and other emergency alert functions running during a power outage**

Unlike typical POE extractors, the PD-20W supplies amplifiers with the higher peak power levels they require. Offers 12VDC pass-through power for amplifier support when POE is not required, then automatically and instantly switches to POE if mains power fails.

**Works with any qualified third-party POE midspan injector and POE-enabled network switch**

Supports variable POE requirements and network connectivity for CM3000, CM800 and CM800S. Installs as a bridge between the POE cable and the network endpoint, and breaks out both network and power signals from the incoming cable, sending them on as needed for amplifier support.

- 2 Network power/data input**
- 3 Network pass-through output**
- 4 11.2V / 1.34A (15W) output**
- 5 12VDC input**



**SPECIFICATIONS**

**Network support:** 10/100Mb/s (auto sensing)

**Power supply:** 12VDC at 3.5A

**Size (wxhxd):** 10.8 x 6.4 x 2.3cm/4.25 x 2.5 x .91in

**INPUTS/OUTPUTS**

- (1) 12V Network input jack (RJ45)
- (1) 1.77A Network output jack (RJ45)
- (1) 18V power input jack (2.1mm)
- (1) Corded plug (2.1mm)
- (1) power input jack input/output terminal

**MIDSPAN INJECTOR REQUIREMENTS**

**POE Type:** High Power Midspan Injector

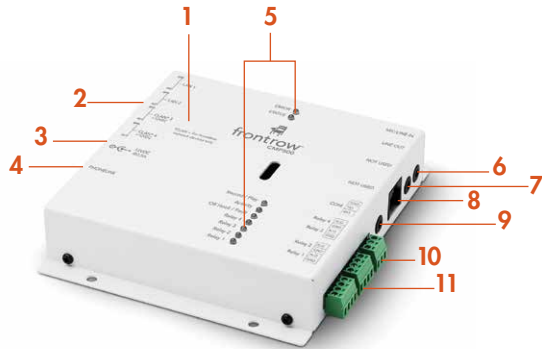
**POE Standard:** POE IEEE 802.3af

**Device Pin-out:** 1 pins 4,5 DC power (+), pins 7, 8 DC power (-)

**POE Protection:** Over Temp, Over Current, Over/Under Voltage

**Shielded RJ-45 Ports:** 16 or 24 Ports

**Power:** > 16.8W per Port (e.g., Tycon 16.8E, 350mA @48V)



### 1 Adds all-call, zone paging and individual room paging from any phone

Users dial an extension and enter the designated touch tone buttons to access the required paging function. The CMP500 can be set with a security code for extra protection.

#### Dial-in device control and automated actions

In addition to paging, the CMP500 can be set up to initiate actions such as triggering a sequence which locks doors, plays pre-recorded emergency announcements, changes digital signage display information, etc.

#### Universal phone compatibility

Works with cell phones, analog PBX, and any SIP phone system via a standard ATA bridge.

#### No programming required

An onboard browser-based interface lets you easily assign actions to key codes, set up custom outbound messaging and ring delays, and define passwords.

#### Built-in intelligence

Includes essential features like telephone line fault monitoring, Calling Party Control/Open Loop Disconnect detection, and silence timeout.

- 2 4-port network switch
- 3 12VDC input
- 4 RJ11 telephone line input
- 5 Monitoring LEDs
- 6 Mic/line audio input
- 7 Line audio output
- 8 Intercom
- 9 IR remote output
- 10 Serial control
- 11 Relay terminals



## SPECIFICATIONS

**Network support:** 10/100Mb/s (auto sensing)

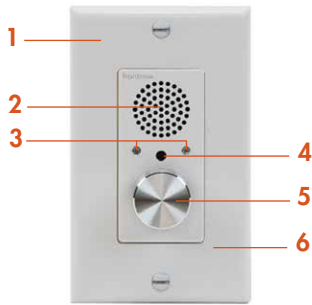
**Compatibility:** Analog (PBX) with DTMF tone decoding, SIP (via ATA bridge), mobile

**Power supply:** 12VDC at 3.5A

**Size (wxhxd):** 13 x 14.9 x 2.86cm/  
5.125 x 5.875 x 1.125in

## INPUTS/OUTPUTS

- (4) Network input jacks (RJ45)
- (1) Power jack (12VDC)
- (4) Phone jack (RJ11)
- (1) Mic/line audio input jack (3.5mm)
- (1) Line audio output jack (3.5mm)
- (1) Intercom input jack (RJ45)
- (1) Infrared remote output jack (3.5mm)
- (1) 3-pin captive screw serial control terminal
- (4) 4-pin captive screw relay terminals



**SPECIFICATIONS**

**Power supply:** +12V, 100mA, over UTP Cat 5e from CM3000

**Size (wxhxd):** Fits standard North American single-gang electrical boxes

**INPUTS/OUTPUTS**

- (1) Input jack (RJ45)

- 1 Fits standard single-gang enclosure**  
Easy to add to hallways, gymnasiums or auditoriums for emergency communications where phones are not always available. Can also be used in outdoor areas with a standard weather proof enclosure case. Compatible with Leviton Decora® plates.
- 2 Integrated speaker**
- 3 Status LEDs for power and mic activity**
- 4 Integrated mic**
- 5 Push-to-talk button with rotary volume**
- 6 Easy RJ45 power/signal connection to CM3000**



**SPECIFICATIONS**

**Power supply:** +12V, 20mA, over UTP Cat 5e from CM3000

**Size (wxhxd):** Fits standard North American single-gang electrical boxes

**INPUTS/OUTPUTS**

- (1) Input jack (RJ45)

- 1 Fits standard single-gang enclosure**  
Ceiling-mounted, hands-free, talk-back microphone that allows a teacher to answer an intercom call from anywhere in the classroom. Compatible with Leviton Decora® plates.
- 2 Integrated omnidirectional mic**
- 3 Easy RJ45 power/signal connection to CM3000**



## LOCATIONS

### USA/Global

1690 Corporate Circle  
Petaluma, CA 94954-6712  
United States  
toll-free: 800.227.0735  
tel: 707.769.1110  
fax: 707.781.9415  
web: www.gofrontrow.com

### Australia

629 Nudgee Road  
Nundah QLD 4012  
Australia  
tel: 1 800 746 642  
fax: 1300 737 983  
web: www.gofrontrow.com

### Canada

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

### Scandinavia

Kongebakken 9  
2765 Smørum  
Denmark  
tel: +45 3917 7101  
fax: +45 3927 7900  
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 title and prepare 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 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

TEXAS INSTRUMENTS TECHNOLOGY



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.