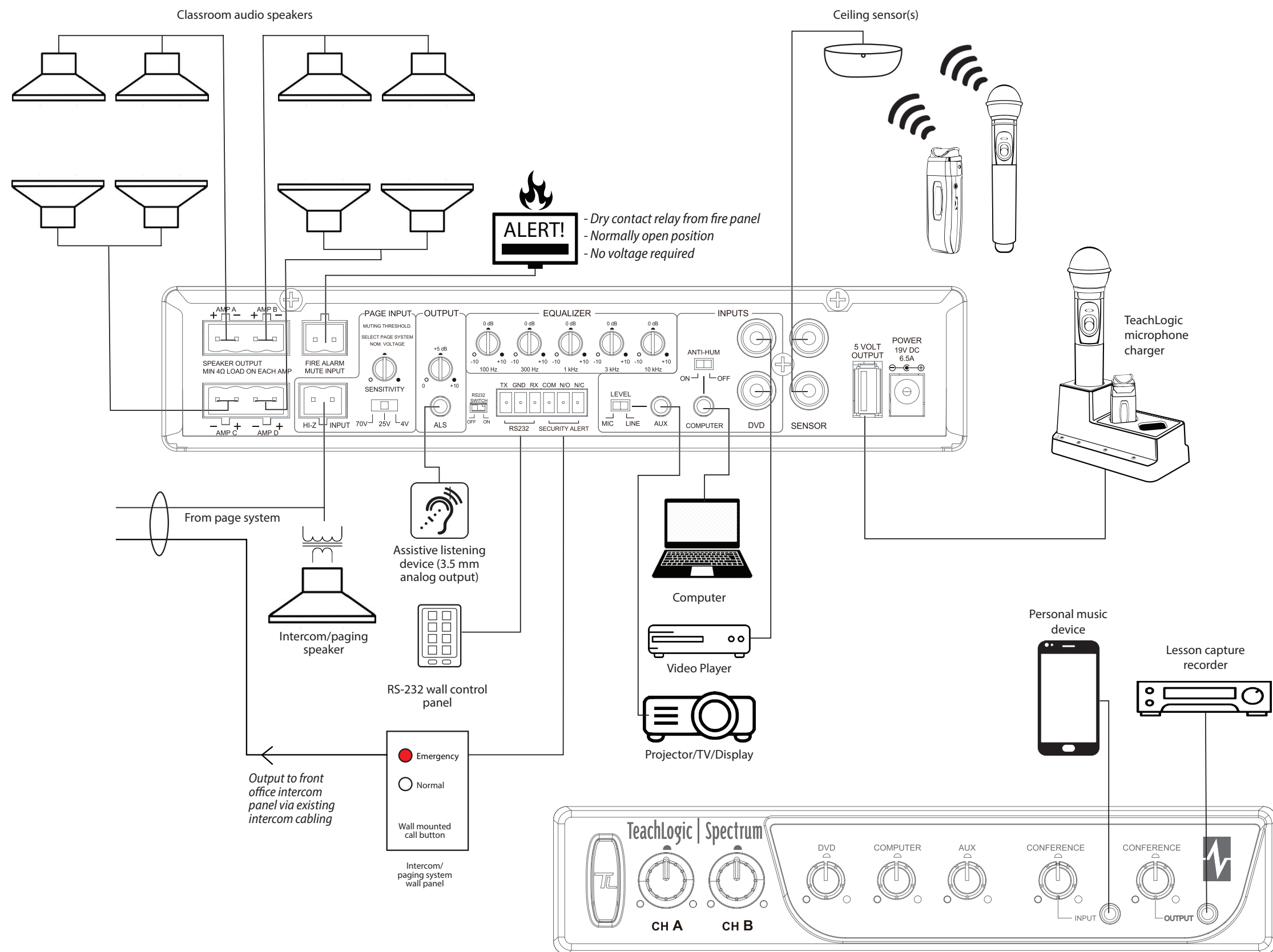


Spectrum™

Amplifier | Infrared Microphone Receiver | Audio Mixer
IMA-840



TeachLogic Spectrum™ Wiring Diagram



- Amplifier: digital hybrid class D
- Powers up to eight (8 Ω) classroom speakers
- Video Conference Sync w/ EchoGuard™
- Front panel "Conference" input & output: connects to host computer to synchronize classroom audio w/ video conference application
- EchoGuard™ prevents remote audio from being looped back into conference audio
- 4 line inputs:
 - Rear panel: 3.5 mm auxiliary input (mic or line level switch)
 - Rear panel: 3.5 mm computer input w/ anti-hum (On/Off switch)
 - Front panel: 3.5 mm auxiliary (Conference) input
 - Rear panel: DVD input, dual RCA
- Assistive Listening System (ALS) output with level control on rear panel (3.5mm)
- Connection to building paging system
- Mutes all audio inputs to allow page to be heard (Page Muting)
- Passes page signal to classroom speakers (Page Pass Through)
- Feature can be turned off w/ a selector switch. Note: not intended as a life-safety audio transmission feature
- Pages pass through to Assistive Listening System and Conferencing outputs
- Supports teacher security alerting function from wireless microphone (IRT-60)
- Fire Alarm connection: mutes all audio sources when fire alarm sounds
- May be controlled by third-party RS-232 devices for all input levels (volume up, down, and mute)
- Digital Feedback Guard (DFG): reduces chances for audio feedback
- Remote teacher control over line inputs (enabled by Sapphire microphone)
- Low-power standby mode (both automatic and manual activation)
- Drop-in microphone charger connection 5VDC USB

Spectrum™ Specifications

| | |
|---------------------------------------|--|
| Amplifier Output Power | 100 W RMS, 4 x 25 W channels |
| Receiver Input | Infrared FM, 2 wireless mic channels |
| Modulation | Wide-band FM |
| Reception Frequencies | Ch. A: 2.08 MHz Ch. B: 2.54 MHz |
| Deviation | 10 kHz Nominal, 25 kHz Maximum |
| De-emphasis | 50 µs |
| Tone Key | 32.768 kHz |
| Infrared Wavelength | 850 nm |
| External Sensor Input | 2, RCA, powered ports |
| Connectivity Coverage | 1,600 sq ft per sensor, up to 3 sensors supported |
| Total Harmonic Distortion | <1% @ 1 kHz |
| Frequency Response | 20 Hz - 20 kHz, ± 3 dB |
| Line Level Inputs | 4: 1 x dual RCA, 3 x 3.5 mm |
| Anti-Hum Balun | Present on 1 Aux input for computer |
| Wired Mic Input | 1 aux input switchable to mic input |
| Line Outputs | Conferencing: 3.5 mm with gain control - front panel |
| Assistive Listening System: | |
| 3.5 mm with gain control - rear panel | |
| Page Input | 2-pin Phoenix; 4 V, 25 V or 70 V normal |
| Page Input Sensitivity | 51 mV min |
| Security Alert | Contact Closure (COM, N/O, N/C) |
| Fire Alarm | Contact Closure by fire panel mutes audio |
| Output Impedance | Rated Load: 4 Ω minimum impedance |
| Equalization | 5-band, ±10 dB |
| S/N Ratio | 65 dB |
| Speaker Connection | 4-pin Phoenix Connectors |
| Charger Output | 5 VDC, USB |
| Power Supply | 19 VDC / 6.3 A CE, CSA and UL Listed |
| Dimensions | 8 1/2" W x 1 3/4" H x 7 1/2" D |
| Weight | 1.95 lb |