

TeachLogic Ovation™

Classroom Audio System

OA-50-1880-1880 USER MANUAL



Contents

| | |
|--|----|
| Safety Warnings..... | 3 |
| System Overview | 4 |
| OA-50-1880 Placement..... | 6 |
| Speaker Location | 8 |
| Connection of Speakers | 9 |
| Page Mute | 9 |
| Page Pass Through | 10 |
| Fire Alarm Mute Input..... | 11 |
| RS-232 Control Feature..... | 11 |
| Anti-Hum Feature | 12 |
| Security Alert Feature..... | 12 |
| Setting Security Alert pulses with slide switch | 13 |
| Final Setup..... | 13 |
| Power Button / Logo Indicator Operation | 16 |
| System Standby Function..... | 16 |
| Interior Switch Reference..... | 17 |
| Recycling Instructions..... | 17 |
| Troubleshooting..... | 18 |
| Specifications - Ovation™ Amplifier (OA-50-1880) | 19 |
| Specifications - Pendant OM-10 microphone/transmitter..... | 20 |
| Specifications - Handheld (OM-20) microphone/transmitter specs..... | 21 |
| 5-Year Warranty | 22 |

Safety Warnings

ELECTRICAL SHOCK SAFETY WARNING

CAUTION!

1. Risk of electrical shock. Do not open!
2. To reduce the risk of electric shock, do not remove cover (or back). No user-serviceable parts inside. Refer servicing to qualified personnel.

HEARING SAFETY

CAUTION!

This product is designed to amplify sounds to a high volume level which could potentially cause hearing damage if used improperly. To protect your hearing and the hearing of others:

1. Turn the volume down before putting on the earphone or headphone, and then adjust the volume to a comfortable level.
2. Set the volume level at the minimum setting that you need to hear.
3. If you experience feedback (a squealing or howling sound), reduce the volume setting and move the microphone away from the earphone or headphone.
4. Do not allow children or other unauthorized persons to have access to this product.

MEDICAL DEVICE SAFETY

CAUTION!

1. Before using this product with an implantable or other medical device, consult your physician or the manufacturer of your implantable or other medical device.
2. If you have a pacemaker or other medical device, make sure that you are using this product in accordance with safety guidelines established by your physician or the implantable device manufacturer.

ADDITIONAL SAFETY INFORMATION

CAUTION!

1. This product should not be operated near water.
2. Do not subject this product to excessive heat conditions.
3. This product must be connected to an AC power source per the voltage input specified and marked on the power supply.
4. Do not insert any power cable not provided by the manufacturer into the product. Long prongs can penetrate inside electrical components or current charging conductors.
5. Power cable should be routed clear of foot traffic and supported clear of kinking or abrasion.
6. Locate the operating unit so it will not be subjected to falling objects or water entry.
7. Do not drill hole in or screw objects into the product except as specified by manufacturer.
8. User should not attempt to service this product. All internal service must be accomplished by a qualified technician.
9. Do not adapt or modify the AC power plug. Do not remove thus lifting the earth ground connection (3rd prong) or use power supply without a connector to a 3-prong grounded outlet.

System Overview

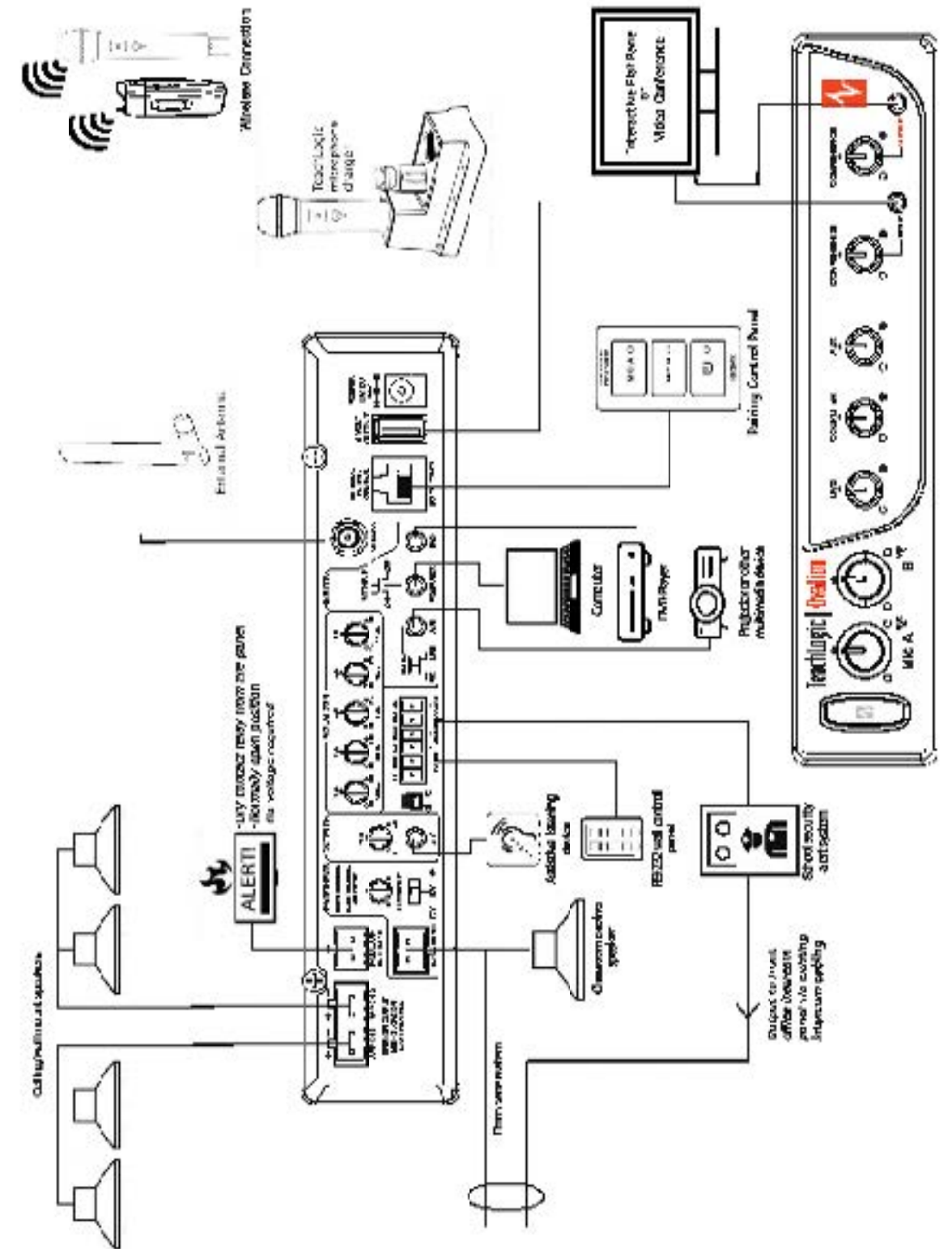
Front Panel

- | | |
|---|--|
| 1. Power Button/ Logo Indicator Light | 8. Aux Input Volume Control |
| 2. MIC A Microphone Volume Control | 9. Video Conference Input Volume Control |
| 3. MIC A Pairing Button and Indicator Light | 10. Video Conference Input Port (3.5 mm) (Also suitable for Lesson Capture) |
| 4. MIC B Microphone Volume Control | 11. Video Conference Output Volume Control |
| 5. MIC B Pairing Button and Indicator Light | 12. Video Conference Output Port (3.5 mm) Also suitable for Lesson Capture) |
| 6. DVD Input Volume Control | |
| 7. Computer Input Volume Control | |



Back Panel

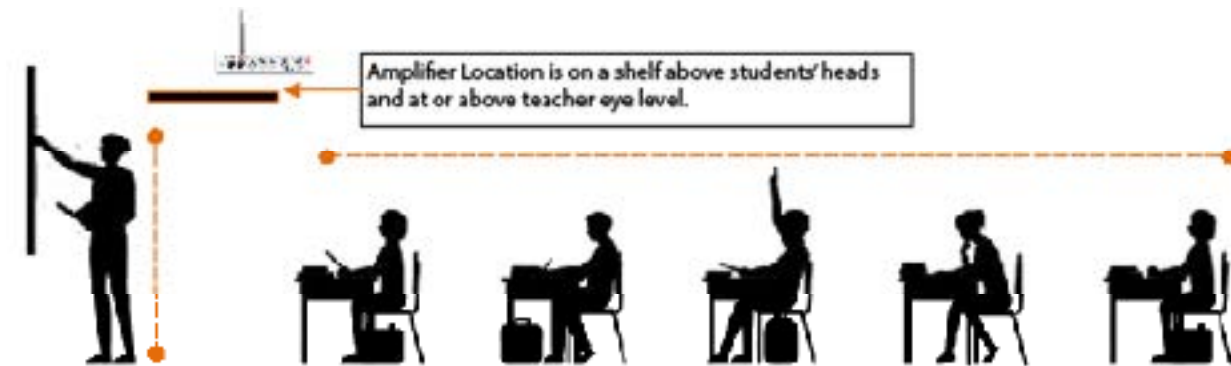
- | | |
|---------------------------------------|--|
| 1. Speaker Output | 10. Aux Input Port (3.5 mm) & Mic/Line Level Selector; Mic: -40 dB/Line: -10 dB |
| 2. Fire Alarm Mute Input | 11. Computer Input Port (3.5 mm) / Computer Anti-Hum ON/OFF Switch |
| 3. Page Input | 12. DVD Input Ports (3.5 mm) |
| 4. Page Sensitivity Control | 13. External Pairing Control for OP-10 Wall Mount Control Panel |
| 5. Page Input Voltage Selector | 14. 5 Volt, 1 Amp USB Output for chargers |
| 6. ALS Output (3.5 mm) & Gain Control | 15. Power Input: 19 VDC, 3.5 A |
| 7. Five Band Equalizer Controls | |
| 8. RS-232 Input & OFF/ON Switch | |
| 9. Security Alert Interface | |



OA-50-1880 Placement

The OA-50-1880 should be placed in an open area with no obstructions between the mic and antenna. Ideally, the amp would be placed on a shelf at eye level (about 5 feet) or higher, above students' heads when seated. A location close to the front of the room or where the teacher spends most of their time would be best for reception.

You should be careful that obstructions such as cubicles, metal filing cabinets, desks, and other large objects are not blocking the antenna or the OA-50-1880 from microphone use locations.



Other Mounting Options

If it is not possible to secure the OA-50-1880 at a sufficient height or in an unobstructed area and you are experiencing poor reception, a remotely mounted magnetic antenna extension cable can be used.

In conjunction with the ANT-501 extension antenna, the remote microphone pairing control panel is encouraged for ease of pairing commands as well as amplifier ON and OFF control.



ANT-501 - antenna extension cable

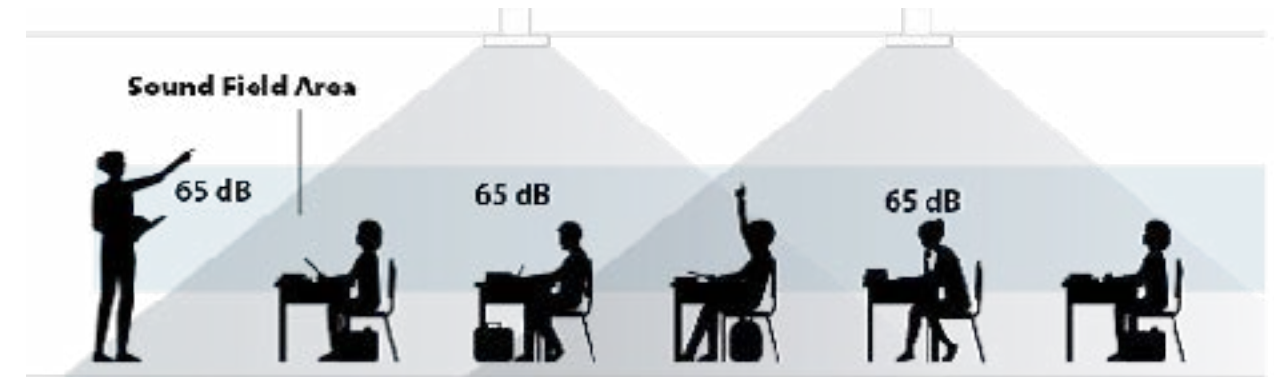


OP-10 - remote control panel

⚠ CAUTION!

According to FCC rules, changing the antenna on the OA-50-1880 must be done by a factory approved installer, not by an end user or other party. The antenna threaded connector is secured with a semi-permanent adhesive.

The goal of a classroom audio system is to evenly distribute sound throughout the listening area.



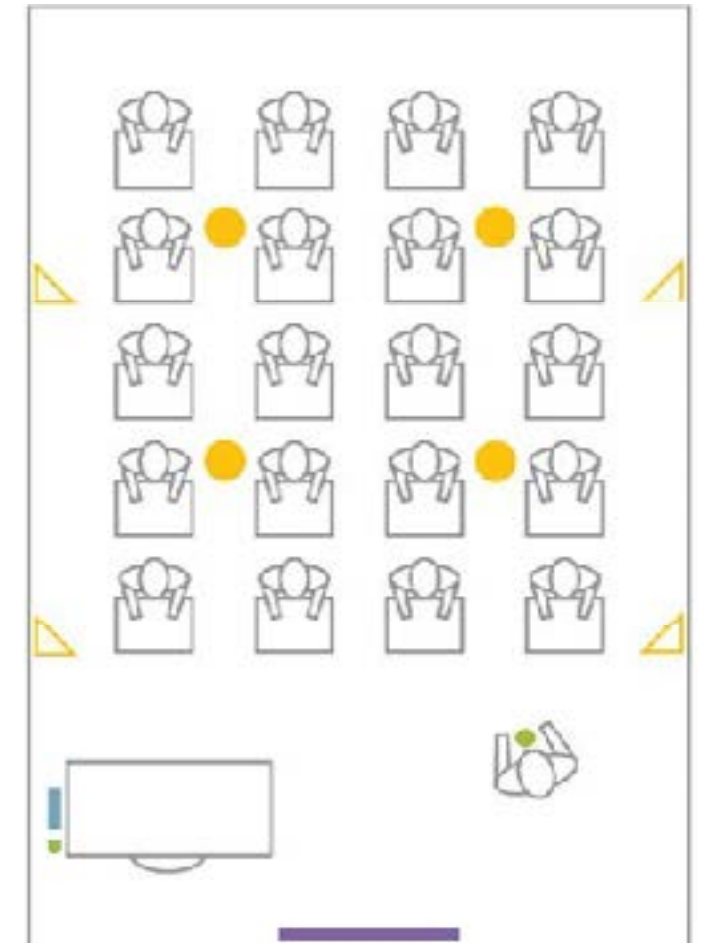
Component Placement

Amplifier: Choose location that supports accessibility requirements and wiring constraints for power, speakers, ceiling sensor, and audio devices connecting to the amplifier.

Speakers: The OA-50-1880 can power 4 classroom speakers. Mark location for wall mount or ceiling mount and confirm wiring run to the amplifier. Ensure speakers evenly cover the listening area.

Integrations/Connections: Confirm location of other systems you plan to connect to the amplifier such as audio devices, flat screens, projectors, intercom connections, and fire alarm, noting how the wiring needs to run.

Charger: Confirm microphone charging location for daily use/charging.

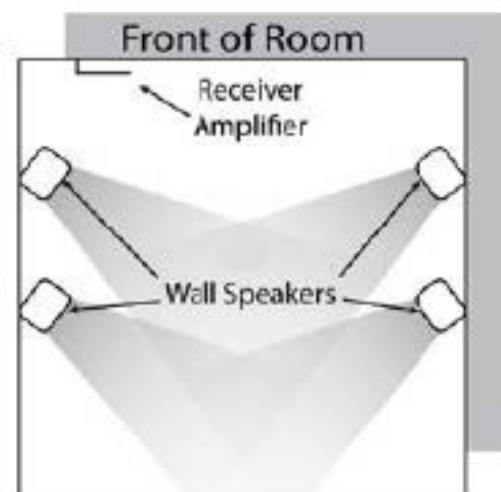
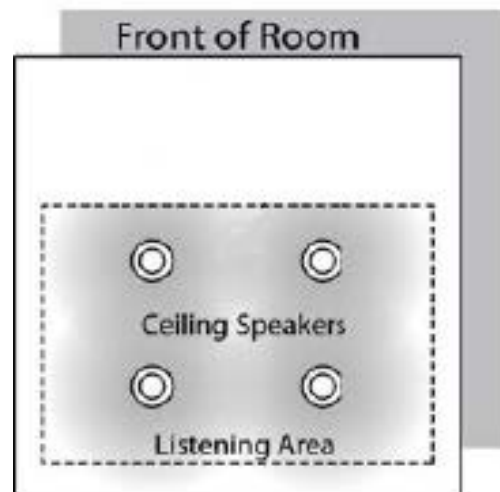
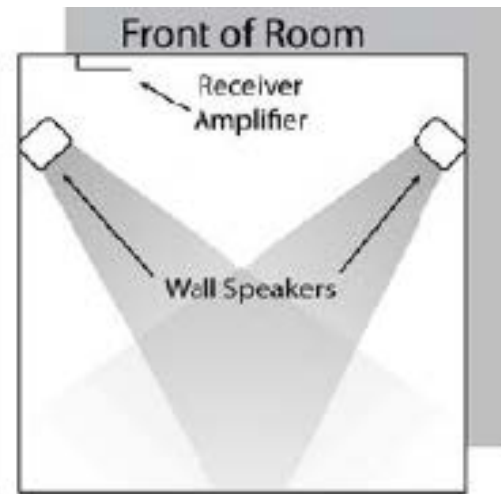
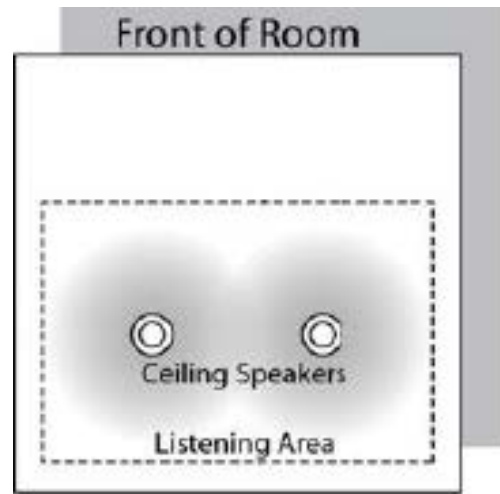


Speaker Location

Below are examples of room coverage for two and four speaker installations.

Ceiling Speakers: Locate and identify the center most tile in each quadrant.

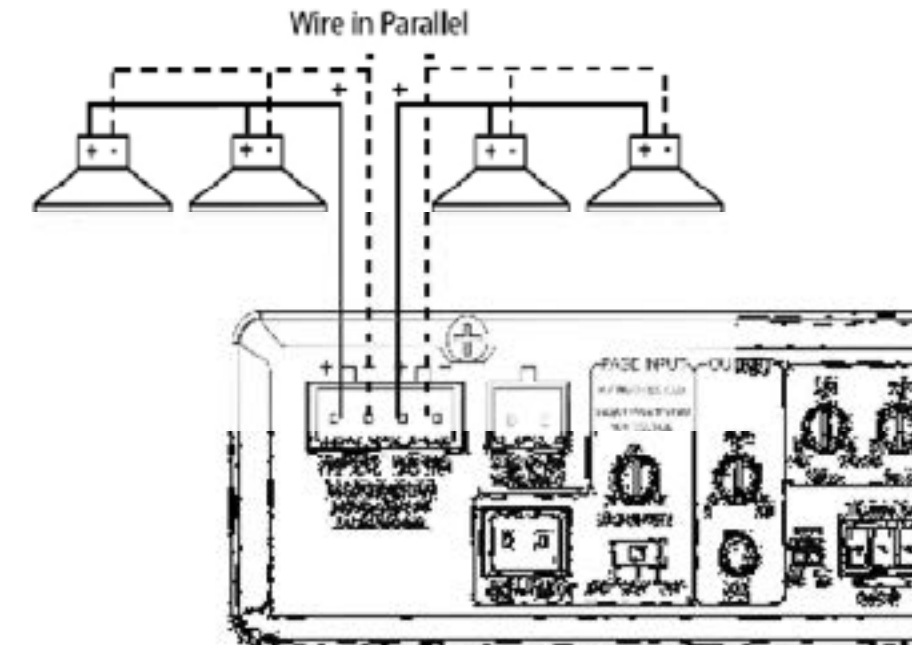
Wall Speakers: First observe the shape of the room: ceiling height, door locations, windows, mounting surface, and seating area. Ordinary installation would be to locate the speakers on each side wall beginning at the front row of listeners, approximately 6–7 feet above the floor.



Connection of Speakers

The OA-50-1880 has two channels of amplified audio, rated for a minimum 4-ohm speaker load (two 8-ohm speakers each, connected in parallel provide 4 ohms impedance).

There is one blue Phoenix-style speaker connector on the back panel, providing two pairs of speaker terminals.



Page Mute

System behavior for Page Mute

Page Muting causes the amplifier to silence the microphones and audio sources connected to the amplifier when a page signal is detected on the Page Input terminal. When muted, the only audio allowed to pass through is from the paging system, i.e. Page-Pass-Through Function (PPT).

The amplifier can integrate with constant voltage analog paging systems (70V and 25V) as well as low power VOIP amplifiers (as low as 1/8 watt).



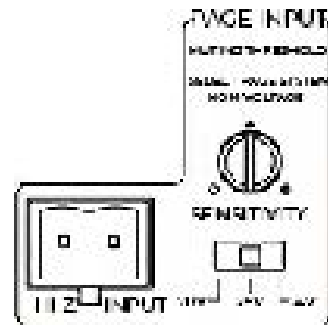
Connecting the Paging System

Before connecting, the installer is responsible for determining that the TeachLogic amplifier impedance is compatible with the paging system.

1. Unplug the 2-pin green Phoenix-style connector.
2. Connect a cable from the paging system driving its speakers to the 2 pin Phoenix-style connector of the Page input.
3. Reconnect the 2-pin green Phoenix-style connector.
4. Determine the signal level of the paging system (4V, 25V, or 70V [also works with 100V systems]).
5. Set the Page Mute slide switch to the appropriate setting.
6. With the Ovation™ amplifier turned ON, send a page to test the mute function.
7. Adjust the sensitivity control to ensure the amplifier senses the page signal, noting that some pages with quiet voices will require greater sensitivity settings. The system will maintain its mute until about 11 seconds after the page signal falls below the threshold for sensing. Thereupon, the wireless mics are unmuted, and other audio levels are ramped up smoothly to their prior volume (before mute).

Impedance of Page Input interface and Sensitivity for Page Mute function

| 12.6 V Switch Position | Nominal Impedance / Power Draw | Maximum Sensitivity (minimum threshold for muting) | Minimum Sensitivity |
|------------------------|--------------------------------|--|---------------------|
| 4V | >50 kΩ / 0.01 W | 50 mV | 700 mV |
| 25V | >50 kΩ / 0.01 W | 500 mV | 4.6 V |
| 70V | >50 kΩ / 0.01 W | 1.2 V | 12.6 V |



Page Pass Through

Page-Pass-Through (PPT) is a feature that passes an audio paging signal through the amplifier and to the connected loudspeakers. This may be switched on or off by a side panel switch. See the table in the "Interior Switch Reference" on page 17 or on the bottom of the device.

IMPORTANT: The system does not pass-through paging audio signal to the speakers when the amplifier is powered off (or no power is available).

PPT on ALS output

The amplifier routes the paging input signal by passing it through to the assistive listening system (ALS) output (and Conference Output) so that students using ALS products will hear broadcast paging announcements.

Reference the label on the bottom of the amplifier for the settings or see the Center-Right Switch column in the "Interior Switch Reference" on page 17.

Fire Alarm Mute Input



The 2-pin orange Phoenix-style connector labelled Fire Alarm Mute Input provides a connection to mute the Ovation™ amplifier.

SYSTEM BEHAVIOR

- When interfaced to the fire alarm panel relay contact output, all audio inputs (microphones, DVD, etc.) will MUTE.
- In the event of a fire, this will help to lower the overall decibel levels and help students and staff hear the audible fire alarm tones/ instruction within the classroom.
- Audio resumes at original volume 11 seconds after closure ceases being detected.

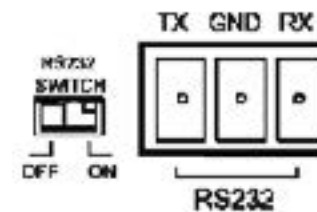
CONNECTION

- This feature requires a contact closure from the Fire Alarm Panel and the terminal is for a normally open connection.
- Fire alarm system connects to a 2-pin Phoenix-style connector on back of amplifier.
- Refer to fire alarm system manual or manufacture's spec to confirm proper wire connection.

KEY SPECS

- Dry contact closure
- Connect to normally open circuit
- No voltage required

RS-232 Control Feature



The RS-232 control feature allows the user to remotely adjust the volume (or gain) of all the audio sources connected to the amplifier. Such control may be exercised from a separate wall panel controller or other device. The third-party RS-232 device is connected via three wires to the back panel connector shown to the right: TX/GND/RX.

This allows the receiver/amplifier to be placed in an area or compartment that is not easily accessed by the user.

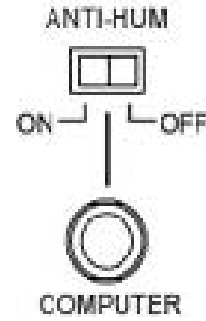
Audio levels very often need to be adjusted when switching from computer audio to DVD players and other audio sources. Such operations as level UP, DOWN and MUTE are easily accomplished via a typical eight button controller.

Connecting the Control Panel

1. Connect the control panel wires to the provided 3-pin Phoenix-style connector.
2. Turn RS-232 SWITCH to ON position. This will disable the function of the input volume/gain control knobs on the front of the amplifier.

IMPORTANT: When any remote panel is connected, RS-232 switch must be in "ON" position. When panel is not connected, RS-232 switch must be in "OFF" position for amplifier controls to function.

Anti-Hum Feature



The rear panel input port labeled “Computer” has a switchable feature to eliminate or reduce hum sounds often present when computers are connected to external amplifiers. The hum is known as a ground loop hum and may be present if the computer and amplifier have electrical grounding differences. The telltale characteristic is that it is 60 hertz (a somewhat low tone.) Inside the amplifier is a ground isolating balun that may reduce or eliminate the hum when switched ON. If not needed, it is better to leave switched OFF as the sound quality for the connected device will be slightly better in this case

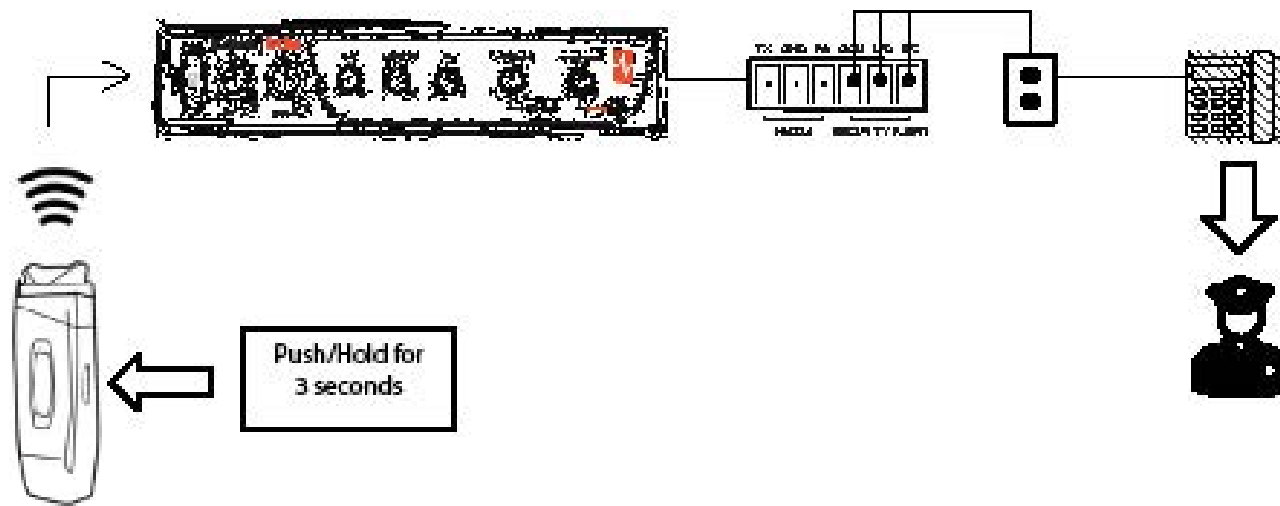
Security Alert Feature



The Security Alert feature allows a user with a TeachLogic wireless microphone to summon help or indicate to administration personnel of an urgent situation in the room of that user.

Connection

- Uses wire from paging manufacturer’s wall-mounted call button panel to connect to amplifier via 3-pin Phoenix-style connector: COM | NORMALLY OPEN (NO) | NORMALLY CLOSED (NC)



System Behavior

- When the OM-10 Pendant Mic “Talk Over” button is pushed/held for 5 seconds, it sends a signal to the ceiling sensor which passes through the amp to the security alert interface (an electric relay).
- The relay contacts opens or close (depending on the normal status) to pass the signal through the paging system as if the paging system’s wall-mounted button was being pressed.
- The amplifier functions normally during the alert, e.g. there is no change to audio input/output volume change nor does the system produce any sound

Setting Security Alert pulses with slide switch

The pulse change can be made with a dedicated switch to select either 1-pulse or 4-pulse mode as required by different security systems. Reference the label on the bottom of the amplifier for the settings or see the Center-Left Switch column in the “Interior Switch Reference” on page 17.

Testing the Security Alert function

To test security alert, you will need an OM-10 (Ovation™) pendant microphone.

- Turn on an OM-10 pendant microphone by tapping the logo button once.
- Your OM-10 pendant microphone must be on and connected to your OA-50-1880. Once the TeachLogic logo button is illuminated solid blue (indicating a connection), locate the AUDIO VOLUME spring switch on the side of the microphone.
- While looking at the amplifier’s power button, press & hold the microphone’s AUDIO VOLUME spring switch for 3 seconds after which time the amplifier’s power button and microphone’s logo button will rapidly flash green. There will be an audible clicking sound from the amplifier when flashing.



Final Setup

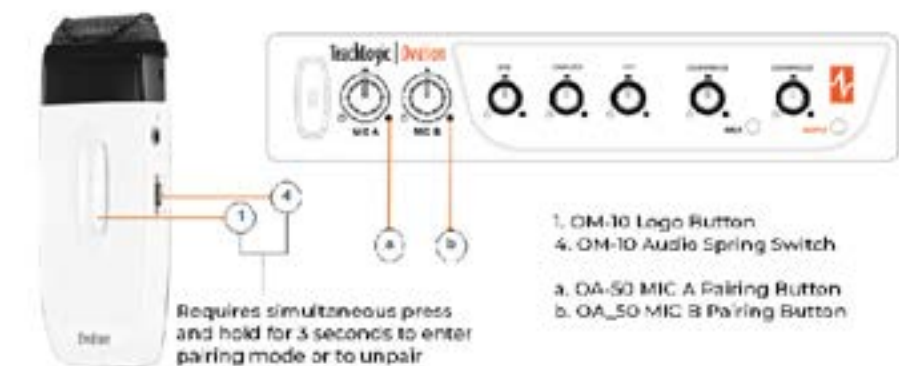
Once the system is installed and connected, turn the system “ON” and test its performance.

The testing will be done using a DECT Ovation™ Microphone (Pendant or Handheld) to confirm good connectivity.

AMPLIFIER

- Connect power supply to amplifier, then plug into outlet.
- Turn the amplifier ON by pushing the power button. The logo button illuminates solid blue when the amplifier is powered ON.
- Set all gain/volume dials to mid-scale (12 o’clock position)

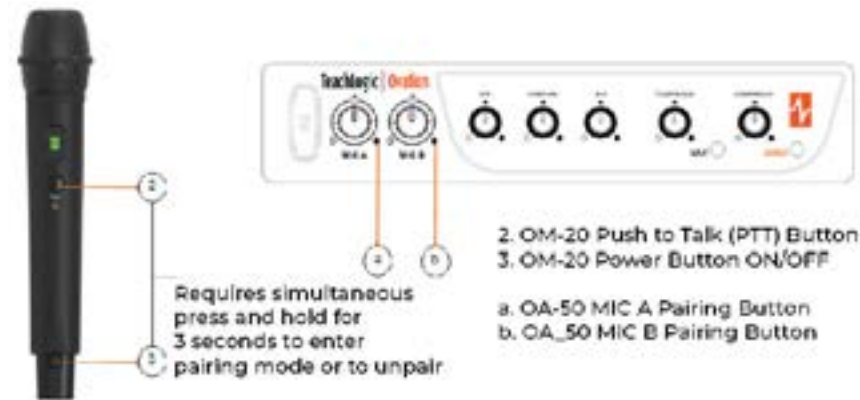
OM-10 PENDANT MICROPHONE SETUP



- Confirm “MIC A” volume dial is at mid-scale (12 o’clock position)
- Slide the MIC VOLUME control switch on OM-10 to “Normal” setting.
- Tap mic power/ logo button once, the light will illuminate.
- Observe microphone logo button light. Solid yellow indicates power is on and mic is unpaired. Solid blue indicates power is on and mic is connected.
- Observe amplifier MIC A pairing button/ indicator light. It should be green, indicating a connection between the microphone and amplifier.

- If not already paired:
 - Press the AUDIO VOLUME spring switch on the left side of your mic and the logo button at the same time and hold both for 3 seconds.
 - This will initiate the pairing mode for your microphone, and it will begin to fast-flash green. It will stay in this pairing mode for 1 minute or until paired.
 - During this time, press and hold the pairing button on the OA-50-1880 next to the MIC channel you want to pair with (or on the OP-10 wall panel if installed) for 3 seconds.
 - This pairing button will illuminate and start fast-flashing green indicating it has entered the pairing mode. It will stay in this pairing mode for 1 minute.
 - While both units are in pairing mode, they will find each other and become paired. Once the pairing has been established, the mic logo button will turn solid blue and the OA-50-1880 pairing button changes to solid green. Your mic is now paired and connected, ready to be used with your classroom audio system.
 - If using two OM-10 microphones in the same room, one must be paired to the MIC B channel to avoid interference.

IRH-35 HANDHELD MICROPHONE SETUP



- Confirm "MIC B" volume control is set to mid-scale (12 o'clock position)
- Power on microphone by tapping the ON/OFF button.
- Observe light in the logo window. Solid yellow indicates power is on and mic is unpaired. Solid blue indicates power is on and mic is connected.
- Observe amplifier MIC B indicator light. It should be green, indicating a connection between the microphone and amplifier.
- If not already paired:
 - Press both the center Push to Talk (PTT) button below the logo window and the power button at the same time and hold both for 3 seconds.
 - This will initiate the pairing mode for your microphone, and it will begin fast-flashing green. It will stay in this pairing mode for 1 minute or until paired.
 - During this time, press and hold the pairing button on the OA-50-1880 next to the MIC channel you want to pair with (or on the OP-10 wall panel if installed) for 3 seconds.
 - This pairing button will illuminate and start fast-flashing green indicating it has entered the pairing mode. It will stay in this pairing mode for 1 minute.
 - While both units are in pairing mode, they will find each other and become paired. Once the pairing has been established, the mic logo button will turn solid blue and the OA-50-1880 pairing button will change to solid green. Your mic is now paired and connected, ready to be used with your classroom audio system.

- Note: Next steps should be performed with a second person as the listener.
 - Stand under or in front of a speaker.
 - Hold the microphone with the top at your collarbone and observe the speaker volume in the room by speaking in a natural voice.
 - Raise the volume on MIC A until feedback begins, then reduce volume to an acceptable level and until indications of feedback have stopped.
 - Walk around the room while talking into microphone to confirm good connectivity and sound levels and lack of feedback under/in front of each speaker.
 - Repeat the above steps for MIC B.

HOW TO CHARGE YOUR MICROPHONES

- **Battery Life:** The Ovation™ microphones have a battery life of approximately 8 hours of active use on a full charge. If your mic battery is low, it will display a solid red light when it has 10% battery life remaining. When critically low (last 5% of battery life) the logo light will blink red. Both indicate that it is time to charge your mic.
- **Battery Replacement:** If you notice your mic is no longer holding a sufficient charge, it may be time to replace your battery.
- Note: Instructions for battery replacement are the same for both the Sapphire and Ovation™ Microphones.

There are two ways to charge your Ovation™ mics, either use the TeachLogic Charging Stand (OC-20) or use the TeachLogic micro-USB charging block and cable (BRC-15 for Pendant mic or BRC-25 for Handheld mic).



1. OC-20 USB-C Charging Dock
2. OM-10 Micro-USB Charging Dock
3. OM-10 Micro-USB Charging Dock
4. Micro-USB Power Port for OC-20
5. OC-20 Power Indicator Light
6. Charging Dock Indicator Lights

- If using the Charging Stand (OC-20), ensure your mic is facing forward and gently lower it into the charging port. Gently press down on the mic until it clicks into place and the mic logo button begins to blink green. The charging dock indicator light will slowly blink blue under the mic that is charging, indicating that the OC-20 is providing charging power to the mic.
- The mic must be properly lined up in the charging port before exerting any "plug in" force. Forcing the mic into a charger when misaligned can break either the mic, the charger, or both. Very little force is needed when the mic is lined up properly.
- The mic will be fully charged within a few hours. The logo button on the mic will be solid green to indicate when the mic is charged. Sixteen hours after starting charging, the charger will stop providing power and the slow blinking blue light on the OC-20 charger will turn off. One hour later, the mic will power off automatically.



- You can also charge your mics with a separate USB charging cable by inserting the cable's plug into the charging port on the bottom of your mic. If using this method, do not leave the cable plugged in for more than two days at a time or you will risk shortening your battery's life. If able, unplug it when fully charged, which should take no more than six hours.

Note: The microphone will be powered on anytime it is connected to charging power, but it cannot be used to transmit audio while charging.



- If using the TeachLogic BRC-15's micro-USB charging cable, ensure the charger is oriented correctly before you insert the cable's plug into the charging port
- It is helpful to add a distinguishing mark on your charger plug to indicate the correct orientation for plugging it in (white side up).

Power Button / Logo Indicator Operation

The main power button on the amplifier's front panel has multiple indications as shown in the table below.

| Light Color and Pattern | Meaning |
|-------------------------|---|
| Red Solid | Off Note that power is still supplied to USB port on back panel. |
| Red Blinking | Muted by Fire Alarm Mute Input |
| Blue Solid | On |
| Blue Blinking | Page received and audio sources muted |
| Blue Slow Blinking | In Standby (or "Sleep") mode. See below |
| Purple Solid | In Talkover mode. All line inputs are lowered in volume ("ducked") to allow microphones to be better heard. "Talkover" mode can be triggered by pressing the spring switch on the left side of the OM-10 pendant mic. |
| Yellow Blinking (3x) | Radio subsystem reset. Requires 6 sec power button press (when blue) to reset. Note that both pair lights (pictured in "System Diagram" on page 5 as #3 and #5 on the front panel) will also flash green 3x |
| Green Blinking | Security Alert activated. Also indicates whether in Security Alert 1- or 4- pulse mode. |

System Standby Function

Standby Mode is a feature that reduces power consumption after the amplifier has not been used to amplify audio signal for a period of two hours. After entering the automatic standby mode, the amplifier displays a slow blinking blue light at power button.

Normal ON mode may be resumed by

1. speaking into a microphone that is on,
2. sending an audio signal into one of the line inputs (such as a projector or flat panel audio signal), or
3. pressing the power button once.

It may take a few seconds for the normal mode to resume after one of these actions is taken. A page signal can also "wake" the amplifier, but to hear the full first page of a morning, be sure to wake it first with one of the methods above, or the initial several seconds may be missed if there are no other paging speakers provided to deliver the page audio.

Interior Switch Reference

Some settings are configured using internal switches. The switches are on left side of device, visible behind ventilation grill. These switches can be accessed without opening the device.



| | Left Switch | Center-Left | Center-Right | Right Switch |
|----------|-------------|----------------------------|---------------------------------|-----------------------|
| Position | Antenna | Security Alert # of Pulses | Paging Pass Through to Speakers | Conference Echo Guard |
| Up | External | 1 | Off | On |
| Down | Internal | 4 | On | Off |

Recycling Instructions

Battery Safety and Disposal

Help Williams AV protect the environment! Please take time to dispose of your equipment properly. Please do NOT dispose of batteries in the household trash. Please take the batteries to a retail or community collection point for recycling.

Product Recycling:



Please do NOT dispose of your Williams AV equipment in the household trash. Please take the equipment to an electronics recycling center or return the product to the factory for proper disposal.

Do not dispose rechargeable batteries in trash. It is unlawful to do so in numerous states. Go Green. Save our resources and do not contaminate.

Contact: Earth911.com 1-800-CLEANUP

Troubleshooting

| Problem | Solution |
|---|---|
| System will not power "ON" | <p>Verify AC power; the power button will illuminate Blue when turned ON.</p> <p>Check if system has been unplugged; reconnect to power outlet or use another device to ascertain power available at outlet.</p> <p>Check circuit breaker.</p> |
| System is turned "ON" but there is no sound | <p>Turn "ON" microphone/ transmitter; the logo power button will illuminate to solid Blue when turned ON.</p> <p>If the mic power button is illuminated red, the battery is low.</p> <p>If the mic power button is illuminated yellow, the mic is not paired to the amplifier. Follow pairing instructions above in "Final Setup" section.</p> <p>Ensure the mic is not muted (blinking blue light on mic indicates it is muted).</p> <p>On amplifier/receiver, ensure a green light is illuminated just below MIC A or MIC B knob (depending on the microphone used).</p> <p>If no light is illuminated, re-pair the mic to the amplifier. There should be a solid blue light on microphone, solid green light on amp.</p> |
| System is in standby and does not "wake up" -or- System goes into standby while playing non-mic audio | <p>The mic must be paired to wake up the amplifier.</p> <p>Ensure gain/volume control knob on amplifier/receiver is turned up to mid-scale (12 o'clock position) or greater, if required.</p> <p>Ensure the audio volume on your external device (computer, interactive display, projector, cell phone, etc.) is set sufficiently high. Then adjust the volume down to an appropriate level on the system. If the volume on the external device is set too low, the signal may not be strong enough to keep the system awake.</p> |
| Mic signal drop-out occurs or voice is distorted | <p>Verify that the amplifier antenna is not being covered.</p> <p>Verify there is no obstruction or metal object between microphone and antenna.</p> <p>Place amplifier at higher location or consider antenna extension cable available from TeachLogic (P/N: ANT-501).</p> |
| Volume knobs on front of amplifier are not working | <p>If not using an external control panel, ensure the switch on the back of your amplifier labeled "RS-232" is the "OFF" position.</p> |

Specifications - Ovation™ Amplifier (OA-50-1880)

| | |
|---------------------------|--|
| Dimensions | 213 x 196 x 43mm (8.5 x 7.5 x 1.75") |
| Weight | 0.79 kg (1.75 lb) |
| Color | White (front) Black (back) |
| Power Supply | 19 Vdc / 3.5 A CE, CSA and UL Listed |
| Charger Output | 5 Vdc, 1 A, USB-A |
| Radio Receiver Input | DECT 6.0 Radio, 2 mic channels |
| Modulation | DQPSK (Differential Quadrature Phase Shift Keying) |
| Reception Frequencies | 1.92-1.93 GHz DECT 6.0 (USA, Canada, Latin America) 1.88-1.90 GHz DECT (Europe, Australia/NZ, Middle East, India) |
| Frequency Planning | Automatic; actively avoids interference for high density use; 60 talk channels |
| Antenna Options | Full diversity; back panel or 10' extension with magnetic mount to remote external |
| Mic Pairing Controls | Front panel and remote, with optional OP-10 remote panel |
| Connectivity Coverage | 2000 sq ft. |
| Amplifier Output Power | 50 W RMS at 4Ω, 2 x 24.5 W channels |
| Total Harmonic Distortion | < 0.1% @ 1 kHz |
| Frequency Response | 15 Hz - 22 kHz, ± 3 dB |
| Line Level Inputs | 4: 3.5 mm. |
| Anti-Hum isolation balun | Switchable (off/on) at computer input |
| Equalization | 5-band, ±10 dB |
| S/N Ratio | 70 dB |
| Wired Mic Input | 1 aux input switchable to dynamic mic |
| 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 nominal; fully isolated (also works with 100V systems) |
| Page Input Sensitivity | 50 mV to 12.6V |
| VOIP page integration | Interfaces with all VOIP system at analog level with highly sensitive low power page interface |
| Security Alert | Contact closing/opening, 1 or 4 pulse selectable |
| Fire Alarm | Contact closure by fire panel mutes audio |
| Approvals | FCC, CE, RCM |
| Warranty | 5 years |

TeachLogic systems are manufactured using lead-free processes and are free of materials harmful to the environment. They conform to European RoHS guidelines for consumer products.

NOTE: SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

Specifications - Pendant OM-10 microphone/transmitter

| | |
|--------------------------|--|
| Dimensions | 92 x 30 x 22mm (3.60"mm x 1.17" x 0.87") |
| Weight | 40g (1.4 oz) with battery |
| Color | White |
| Wireless Technology | Radio, DECT 6.0 |
| Frequency Band | 1.92-1.93 GHz DECT 6.0 (USA, Canada, Latin America) 1.88-1.90 GHz DECT (Europe, Australia/NZ, Middle East, India) |
| Interference Avoidance | Dynamic Frequency Hopping |
| Number of Channels | 60 talk channels |
| Antenna System | Diversity, 2 antennae |
| Max RF power | 20 dBm (100 mW) |
| Operating Range | 91m (300') open space |
| Frequency resp., mic | 50Hz – 12,720 Hz |
| Frequency resp., line in | 50Hz – 15,000 Hz |
| Latency | 15 ms, fixed |
| Pairing | 1:1 fixed pairing, auto-reconnect to paired receiver |
| Audio Input | 3.5mm port for line level audio or external electret condenser mic: auto-detection |
| Audio Distortion | <0.8% THD, calc with 11 harmonics |
| Mic bias, external | 1.6 Vdc |
| Battery Chemistry | Lithium polymer |
| Battery life | >8 hours |
| Battery management | Managed entirely onboard mic |
| External Power Charger | 5 Vdc micro USB connector; or OC-20 charger, cable not supplied. Cable and supply orderable as BRC-16. |
| Approvals | FCC, CE, RCM |
| Warranty | 5 years |

NOTE: SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

Specifications - Handheld (OM-20) microphone/transmitter specs

| | |
|------------------------|--|
| Dimensions | 259 x 48mm (10.2" x 1.9") max DIA Mid-section DIA 35mm (1.4") |
| Weight | 204 g (7 oz) with battery |
| Frequency Band | 1.92-1.93 GHz DECT 6.0 (USA, Canada, Latin America) 1.88-1.90 GHz DECT (Europe, Australia/NZ, Middle East, India) |
| Wireless Technology | Radio, DECT 6.0 |
| Interference Avoidance | Dynamic Frequency Hopping |
| Number of Channels | 60 talk channels |
| Antenna System | Diversity, 2 antennae |
| Max RF power | 20 dBm 100 mW |
| Operating Range | 91m (300') open space |
| Frequency response | 50Hz – 12,280 Hz |
| Latency | 15 ms, fixed |
| Pairing | 1:1 fixed pairing, auto-reconnect to paired receiver |
| Audio Distortion | <0.5% THD |
| Battery | Lithium Ion, 14500 package, 3.7 Vdc |
| Battery life | 8 hours |
| Battery management | Managed entirely onboard mic |
| External Power Charger | 5 Vdc USB-C Connector; or OC-20 charger, cable not supplied. Cable and supply orderable as BRC-25. |
| Approvals | FCC, CE, RCM |
| Warranty: | 5 years |

NOTE: SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

5-Year Warranty

Williams AV products are engineered, designed, and manufactured under carefully controlled conditions to provide you with many years of reliable service.

Williams AV warrants the Ovation™ system against defects in materials and workmanship under normal use and conditions for 5-years from the product's date of purchase.

This warranty is available to the original end purchaser of the product and CAN BE transferred to subsequent purchasers of the product.

The internal battery for wireless microphones carries a one year warranty. Microphones, earphones, headphones, alkaline batteries, chargers, cables, carry cases, and most other accessory products carry a 90-day warranty.

Williams AV has no control over the conditions under which this product is used. Williams AV, therefore, disclaims all warranties not set forth above, both express and implied, with respect to the purchased system, including but not limited to, any implied warranty of merchantability or fitness of use of such equipment including, without limitation, any warranty that the use of such equipment for any purpose will comply with applicable laws and regulations. Williams AV shall not be liable to any person or entity for any medical expenses or any direct, incidental or consequential damages caused by any use, defect, failure or malfunctioning of the product, whether a claim for such damages is based upon warranty, contract, tort or otherwise.

The sole remedy for any defect, failure or malfunction of the products is replacement of the product. No person has any authority to bind Williams AV to any representation or warranty with respect to the purchased system. Unauthorized repairs or modifications will void the warranty. This warranty is void if damage occurred because of misuse, or if the product has been repaired or modified by anyone other than a factory authorized service technician. Warranty does not cover normal wear and tear on the product or any other physical damage unless the damage was the result of a manufacturing defect. Williams AV is not liable for consequential damages due to any failure of equipment to perform as intended. Williams AV shall bear no responsibility or obligation with respect to the manner of use of any equipment sold by it.

This warranty does not cover reimbursement for your costs of removing and transporting the product for warranty service evaluation or installation of any replacement product provided under this warranty.

The exclusions and limitations set out above are not intended to, and should not be construed so as to contravene mandatory provisions of applicable law. If any part or term of this Disclaimer of Warranty is held to be illegal, unenforceable, or in conflict with applicable law by a court of competent jurisdiction, the validity of the remaining portions of this Disclaimer of Warranty shall not be affected, and all rights and obligations shall be construed and enforced as if this warranty did not contain the particular part or term held to be invalid. The terms of the warranty are governed by the laws of the State of Minnesota.

Prices and the specifications of the products are subject to change without notice.

For Complete Warranty Statement go to: www.williamsav.com/warranty-statement

NOTICE: Williams AV products are NOT designed for use in extreme temperature, humidity or chemical environments. The introduction of chemicals such as chlorine, salt water or human sweat into the product will cause damage to the circuitry. Damage due to these causes is NOT covered under the Product Warranty.

If you experience difficulty with your system, call Toll-Free for Customer Assistance

1-800-843-3544 (U.S.A.) or +1 952 943 2252 (Outside the U.S.A.)

If it is necessary to return the system for service, your Customer Service Representative will give you a Return Authorization Number (RA) and shipping instructions.

Pack the system carefully and send it to:

Williams AV
Attn: Repair Dept.
10300 Valley View Road
Eden Prairie, MN 55344