Atlas Learn



Classroom Security & Sound Reinforcement System



AL-MYNA Wireless Microphone / System Control Unit

Features

- Works in Conjunction with Secondary Systems to Provide Enhanced Classroom Security
- Provides Excellent Infrared Wireless Sound Reinforcement
- Easily Integrates Into Any Classroom
- Keeps Teachers' Voices Healthy and Sustainable

General Description

The Atlas Learn system is an in-classroom sound reinforcement solution designed for use in K-12 and higher education facilities or where a room constrained public address system is required. Atlas Learn solutions include amplifiers/receivers, wireless microphones, docking stations, and related accessories that are designed to allow teachers and students to walk freely around the classroom. The infrared microphones connected to the amplifier/receiver allow them to project their voices through installed speakers allowing everyone in the classroom to hear clearly.

Classrooms equipped with sound reinforcement solutions benefit teachers, students, and the education system as a whole. With even sound distribution, lessons are easily heard no matter where students are seated. Attention and concentration are raised, especially in the back of the room. Teachers no longer strain their voices and the system can easily integrate with existing in-classroom multimedia teaching tools such as computers and DVD players for a single source audio control. The Atlas Learn system additionally provides priority paging and emergency notification capabilities that fulfill the needs of any education facility.





IR Receiver / Amplifier Front





AL2430 Receiver / Amplifier

The AL2430 coordinates all of the functions of the Atlas Learn system and brings all of the features together for a single unit control center. The AL2430 is loaded with features that not only enhance the quality of audio generated by the system but that are also easy to use and understand. Physically the AL2430 is very compact making it easy to install on a desk or in a small rack. The unit features Atlas Sound's patent pending through chassis design which allows the unit to be mounted to a pole in conjunction with a projector or other equipment if security is a concern. The front of the unit features a main power switch as well as volume controls for two microphones (A and B), as well as four other external audio sources like Computer, TV, CD, or Auxiliary audio.

The rear panel of the AL2430 has all of the connections and adjustments needed to set up the Atlas Learn system to maximize it efficacy in any size classroom. The AL2430 can support up to three infrared (IR) domes that receive the signal from the wireless microphones and transmit that signal back to the amplifier for playing through the speakers in the classroom. Additionally the AL2430 has equalization adjustments for the microphones to optimize their sound quality, a priority page input that allows the local audio to be overridden when a page is initiated by the administration, and a line output for connection to an external amplifier, recording device, or hearing assistance system based on the classroom requirements. The versatility of the AL2430 receiver/amplifier is what sets it apart from other classroom amplification systems.

AL-MAGPIE

The Atlas Learn AL-MAGPIE infrared wireless microphone delivers high quality audio that helps increase student engagement and ensures that every student has the chance to be the best that they can be. Each Atlas Learn Amplified Learning system can support up to two wireless microphones. The microphones can be set to either "A" or "B", additionally one can be locked out to function as a student microphone with limited functionality if needed. Each wireless microphone has a volume control for adjusting the volume of that microphone relative to the user's voice allowing it to be adjusted up or down so that the speaker can be clearly heard and understood.

One of the most unique features of the Atlas Learn wireless microphones is their incorporation of a "PANIC" feature. This panic feature allows a teacher to signal the administration or security office in the event that an emergency situation arises in the classroom. On the MAGPIE microphone, the two red PANIC buttons can be depressed for three seconds to initiate the emergency signal. Both models can be used with optional wearable microphones and both models also include rechargeable batteries.

AL-MYNA

The Atlas Learn AL-MYNA is an in-classroom sound reinforcement solution designed for use in K-12 and higher education facilities or where a room constrained public address system is required. When used in conjunction with the AL-2430, amplifier/receiver, it allows the teacher and students to walk freely around the room with the infrared microphones/ system control units and project their voices through installed speakers.

The versatile AL-MYNA microphone performs the functions of a wireless microphone and a system remote control. It can be used as a handheld microphone, a lapel microphone with included lanyard, or a belt pack microphone with optional headset microphone. Each AL-MYNA has a switch located under the battery door used to set it's IR Channel to either A or B. One AL-MYNA must be set to Channel A and the other AL-MYNA must be set to Channel B. The system will not function properly if there are two AL-MYNAs set to the same IR channel. The AL-MYNA includes Mode, Volume, and Panic controls that are fully functional in teacher mode, but will be locked out when configured for student mode.

AL-DOCK

AL2430 charging station includes a dock section to charge two pendant transmitters and four additional AA rechargeable batteries simultaneously. Unit may be wall mounted via integral key hole slots or shelf mounted for easy accessibility.

AL-IRDS

Up to three infrared dome sensors may be utilized with the AL2430 receiver/amplifier. Two are included with the system along with two 10 meter sections of UL listed RG6 coaxial cable terminated with professional "F" connectors.

AL2430-RMK

Optional rack ears (AL2430-RMK) may be used for rack mounting the receiver / amplifier.



Specifications

AL2430 Receiver / Amplifier

Amp Controls - Front Panel C

Amp Controls - Rear Panel

Multimedia Input Connector Type Multimedia Input Sensitivity

Priority Page Input Connector Type

Priority Page Input Sensitivity
Computer Input Impedance
Multimedia Input Impedance

AUX4 Front Input Connector Type 3.5
Line Output Impedance 1k
Line Output Voltage 1.3

Line Output Connector Type

Mic EQ Adjustment

IR Input Impedance

IR Connector Type

Panic Output Connector Type

Panic Output Contact Rating

Speaker Connector Type Speaker Output

In Line PSU Type

Frequency Response

Signal to Noise Ratio Height

Width Depth Weight

Dimensions

Optional Rack Mount Kit

Channel A, Channel B, Computer, TV/VCR, CD/DVD, AUX

Three Band Mic EQ, Priority Page Gain, Priority Page Sensitivity

4 Stereo Summing RCAs

-10dBm**

Two Pole Phoenix Connector

14dBm** 56KΩ 22kΩ 3.5mm 1kΩ 1.3V

Dual RCA

±10dB (100Hz, 3kHz, & 10kHz)

 75Ω

F Connectors (x3)

Two Pole Phoenix Connector

5A@36V

Four Pole Phoenix Connector

30W RMS @ 8Ω, 25V, or 70.7V

100V-240V Input, 24VDC / 2.5A Output

40Hz – 15kHz (±3dB)

75dB 1¾" (45mm) 8½" (216mm) 13½" (343mm) 5.75lbs (2.6kg) PA702-RMK

AL-MAGPIE Pendant Handheld Transmitter / Wireless Microphone

IR LED's

Aux Input 1, 3.5mm Phono Jack,

Mic Level

External Controls Power, Panic, Mic Volume
Internal Controls Lockout, Mic A/B Channel

1.15" x 1" x 3.8"

(29mm x 25mm x 97mm)

Weight With Battery .14lb (65g)
Weight Without Battery .08lb (36g)

AL-MYNA Pendant Handheld Transmitter / Wireless Microphone

IR LEDs 6

Aux Input 1, 3.5mm Phono Jack,

Mic Level

External Controls Power, Panic, Mic Volume
Internal Controls Lockout, Mic A/B Channel
Indicator LEDs Mode (2 Blue), Lockout (1Red),

PWR/BATT (1 Green/ Red)

Dimensions 5.25" x 1.75" x 1.15" (133mm x 44mm x 29mm)

Weight With Battery 4.23oz (120g)
Weight Without Battery 2.1oz (60g)

AL-IRDS IR Receiver Dome

Receiver LEDs 6

Mounting Screw Type

Cable 32.8' (10m) UL Listed, "F" Style

Termination, RG6 Type 150' – Line of Sight

(Depending on Ambient Light)

120°

Typical Coverage Area Recommended for System

Receiving Distance

Receiving Angle

with (2) AL-IRDS Receiver Domes

2000 ft²

AL-MYNA-NEST Charging Station

AL-MYNA Ports Two Charging Ports
Charge Indicator LEDs 4 (Red-Charging, Green-

Charged)

PSU Type 120V Input, 9VDC, 1A Output

Dimensions 4.17" x 7.44" x 2.75" (106mm x 189mm x 70mm)

AL-MAGPIE-NEST Charging Station

AL-MAGPIE Ports
Charge Indicator LEDs

PSU Type

Dimensions

Two Charging Ports
Two Charge Indicator LEDs
100VAC – 240VAC, 50/60Hz,

0.2A, 5VDC, 1A 1.75" x 6.5" x 2.75"

(45mm x 165mm x 70mm)



Architect & Engineer Specifications

The Amplified Learning[™] System shall be the Atlas Learn Model AL2430-2PH.

The Amplified Learning System shall be a self contained sound reinforcement apparatus (speakers and wiring not included) for use in K-12 and higher education facilities or where a room constrained public address system shall be required.

The Amplified Learning System shall be a 3 part construct.

Part 1 of the Amplified Learning System shall consist of an integrated mixer amplifier with a minimum of 30 watt output available as 80, 25V, and 70.7V outputs to local loudspeaker systems. The dimensions of the unit shall not exceed ½ rack width and 1RU tall. The CRS Metal enclosure shall be powder coated and be capable of rack mounting or mounting by way of a through chassis hole and included mounting bracket 3" x 3" (76.2mm x 76.2mm). The included adaptor bracket shall accommodate a standard projector ceiling mounting pole.

The audio input section of the Amplified Learning System shall have the ability to support 5 separate line level, audio only, input devices labeled Computer, TV/VCR, CD/DVD, Aux, and Priority Page. Each input shall be comprised of dual summed RCA inputs that feature an independent level control feeding a common bus. The Aux input shall be dual summed RCA connectors and also include a front panel mounted 3.5mm TRS input that bypasses the Aux RCA inputs if used. A level control is included on the AUX input in order to set the level relative to the other sources. The ALS shall include a page priority override that shall be capable of muting all local audio inputs when a page is detected via a connection to the paging system and by converting the speaker level of 80, 25V, or 70.7V into an input on the integrated mixer amplifier to drive the local speakers connected to the ALS. The priority page input shall include a level control and a separate input trim control labeled from 1V - 100V for proper matching to the distributed speaker line. The ALS rear panel shall have 3 coaxial inputs marked "Infrared" for connection to Infrared Sensors (2 are included with the ALS) to energize two separate input channels (A & B) that provide the ability to deploy a teacher microphone and a second classroom microphone for student response (if required). Channels A & B each are configured with separate level controls and a common feedback suppression filter set with individually adjustable frequencies of 100Hz (LF), 3kHz(MF), and 10kHz (HF). The rear panel shall provide a Phoenix type plug in connector which is the access point to the internal relay output which shall be configured as normally open or normally closed switch contacts suitable for connection to an emergency or panic enunciator.

The integrated mixer amplifier will also be equipped with a line output to drive an optional slave amplifier. The ALS will be powered by an external 24VDC UL listed power supply.

Part 2 of the Amplified Learning System shall consist of an infrared Microphone / System Control Unit with safety breakaway lanyard and ID mounting clip. The Microphone / Control Module will have provision for an external microphone to be used with the system. The Microphone / Control Unit shall be capable of transmitting on one of two dedicated IR channels to allow two Microphone / Control Units to be deployed in the same user space without interference. Channel selection shall be via internally mounted A / B switch concealed in the battery compartment along with a separate lockout control switch to disable the external control functions on the Microphone/System Control unit. Lockout Mode is indicated by a single red illuminated LED. The ALS microphone control interface is to be equipped with user selectable functions to include Unit On / Off switch, Microphone Level Up / Down, and Mute Microphone control. The Control Unit Interface functions shall consist of a separate mode selection switch with a provision to allow for multiple functions to be accomplished from a single control. A single push on shall engage a single blue LED indicating the default operation mode where the volume control sets the teacher's microphone level. A double push of the Mode button shall illuminate two blue LED indicators engaging the secondary control mode where by all other inputs (other than the teacher's microphone) can be adjusted as a group to control overall system volume. In the event of a situation requiring outside assistance, a simultaneous engagement of the Mode and Panic buttons will send a signal to engage a relay that alerts a predetermined location to a need for attention.

Part 3 of the Amplified Learning System shall be comprised of a combination docking and automatic charging station that can be orientated vertically or horizontally and accommodate two infrared Microphone / System Control Units. The docking and recharging station will automatically recharge and maintain batteries in the microphone / system control units and accommodate up to 4 additional AA rechargeable batteries as spares. The docking and recharging appliance shall be powered by an external UL listed power supply appropriate for the country of use.

