

AirLink

owner's manual



Wireless Line Level Router

TeachLogic 

AirLink

owner's manual



notes

Date of Purchase: _____

Model Number: _____

Serial Number: _____

Notes:




thank you

Thank you for purchasing the AirLink, a stationary line level audio transmission system. Whether the need is to distribute audio to a distant location, to an overflow crowd at a special event, or send the announcer's voice across the football stadium, AirLink can get the message across with ease. Tests have been performed through multi-story buildings from basement to upper conference room, from press box to a remote concession stand, and to multiple locations using several receivers. Transmission distance in excess of 500 feet has been achieved in direct line of sight with absolute clarity and rock solid connectivity.

This manual contains helpful information and instructions for setting up and operating the AirLink system. The system is comprised of a stationary transmitter and remote receiver. You simply plug a line level program signal into the transmitter and it will transmit the program to the remote receiver.

TeachLogic appreciates your confidence with your purchase of our AirLink system. Be assured that TeachLogic products are built to very high quality standards, incorporate state of the art technology, and employ the most advanced manufacturing methodology.

Brian Van Waay



President

contact

Hopefully this manual will provide all the information needed, however: our customer service department is readily available for assistance.

☎ 1-800-588-0018

✉ sales@teachlogic.com

☎ 1-760-631-1283

🌐 www.teachlogic.com



**RISK OF ELECTRIC SHOCK:
DO NOT OPEN**

Caution: To Reduce The Risk Of Electric Shock Do Not Remove Cover (Or Back)
No User-serviceable Parts Inside
Refer Servicing To Qualified Personnel

certifications



US



CA

Listed



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

caution

Recycle—Do not dispose rechargeable batteries in trash. Actually it is unlawful to do so in CA, NY & ME.

Contact: Earth911.com

1-800-CLEANUP

Save our resources and don't contaminate.

Go Green

safety instructions

Read Instructions

All safety and operation instructions should be read before operating this TeachLogic product.

Retain Instructions

Safety and operating instructions should be kept for future reference.

Water & Moisture

This product should not be operated near water.

Heat Environment

Do not subject this product to excessive heat conditions.

Power Source

This product must be connected to an AC power source per the voltage input specified and marked on the power supply.

Power Cord Caution

Power cable should be routed clear of foot traffic and supported clear of kinking or abrasion.

Object Protection

Locate the operating unit so it will not be subjected to falling objects or water entry.

Internal Service

User should not attempt to service this product. All internal service must be accomplished by a qualified technician.

Electric Shock

Do not adapt or modify the AC power plug thus lifting the earth ground connection.

table of contents

Product Description.....	1
Transmitter Panel Components.....	2
Receiver Panel Components.....	3
Transmitter Setup Instructions.....	4
Receiver Setup Instructions.....	5
Operating the AirLink Router System.....	6
Troubleshooting.....	7-9
Specifications.....	10
Five Year Limited Warranty.....	11

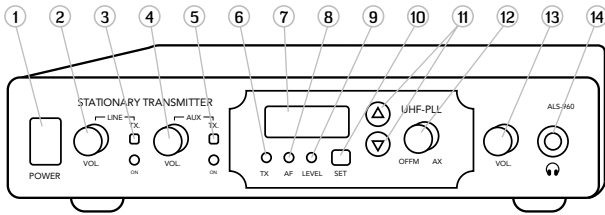


product description

The AirLink system is a wireless audio router that transmits audio via an RF signal to a receiver. The system is comprised of a transmitter base station that transmits to a diversity receiver. The system operates in the UHF range (640–664 MHz). The system has 96 selectable preset channels. Transmitter RF output is 40 mW.

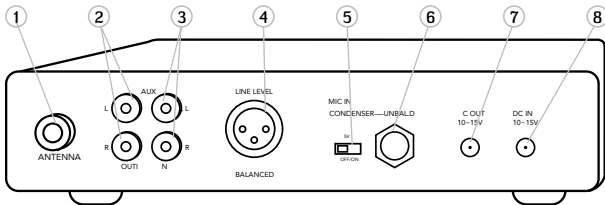
The input to the transmitter is line level audio. Two line level audio signals can be input and mixed in the transmitter for a composite signal transmission. The output level of each input can be adjusted and turned “on/off”. The output of the unbalanced line input can be monitored with a headset.

The receiver is a diversity receiver, meaning the signal will be received by either of two receivers; whichever has the best reception. Each receiver has a half-wave antenna for extra sensitive reception. The output of the receiver is either a balanced (XLR) or unbalanced (RCA) and is adjustable from 0–700 mV.



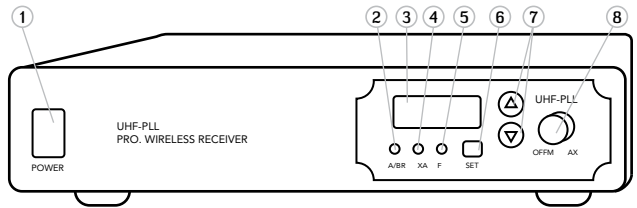
front of ALS-960 transmitter

- | | |
|--|--|
| <ul style="list-style-type: none"> 1 Power Switch and LED 2 Output Gain Control for Balanced Input 3 Transmit "on/off" for Balanced Input 4 Output Gain Control for Unbalanced Input 5 Transmit "on/off" for Unbalanced Input 6 RF Transmission Indicator (Yellow LED) | <ul style="list-style-type: none"> 7 LCD Display: Channel # or Frequency Readout 8 AF Transmission Indicator (Orange LED) 9 Signal Peak Indicator (Red LED) 10 Channel Set: Lock/Unlock 11 Channel "Up/Down" Selector 12 Transmitter Module: "on/off" and Master Gain 13 Headphone Volume 14 Headphone Output for Unbalanced Input |
|--|--|



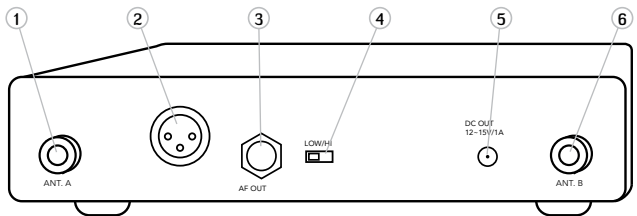
back of ALS-960 transmitter

- | | |
|--|---|
| <ul style="list-style-type: none"> 1 TNC Antenna Connector 2 Unbalanced Line Output (Pre Fader) 3 Unbalanced Line Input (Stereo RCA) 4 Balanced Line Level Input (XLR) | <ul style="list-style-type: none"> 5 Phantom Mic Power "on/off", 5v 6 Microphone Input: Hi-z/ Condenser 7 DC Output: 10–15 volt 8 Power Input: 10–15 volt |
|--|---|



front of DR-701 receiver

- | | |
|---|--|
| <ul style="list-style-type: none"> 1 Power Switch and LED 2 RF Reception: Diversity A/B Antenna (Red/Green LED) 3 LCD Display: Channel # or Frequency Readout 4 AF Signal Present Indicator (Green LED) | <ul style="list-style-type: none"> 5 Signal Peak Indicator (Red LED) 6 Channel Set: Lock/Unlock 7 Channel "Up/Down" Selector 8 Receiver Module: "on/off" and Master Gain |
|---|--|



rear of DR-701 receiver

- | | |
|---|---|
| <ul style="list-style-type: none"> 1 TNC connector for swivel antenna "A" 2 Balanced Line Level Output: 0-700 mV (XLR) 3 Unbalanced Output: Switchable mic/line level (1/4" phone) | <ul style="list-style-type: none"> 4 Mic/Line Level switch for unbalanced output 5 DC power input: 12-15 volt, 1A 6 TNC connector for swivel antenna "B" |
|---|---|

TRANSMITTER setup instructions

- Locate transmitter (ALS-960) in vicinity of mixer or other audio source.
- Plug power supply into AC power outlet
- Connect output from primary audio source to transmitter to either:
 - Balanced Input: Shielded cable with XLR
 - Unbalanced Input: Shielded cable with RCA connector (Mono or Stereo)
- Connect alternate audio source to other input

antenna installation



Screw antenna into TNC connector loosely.



Adjust antenna to straight up vertical position.

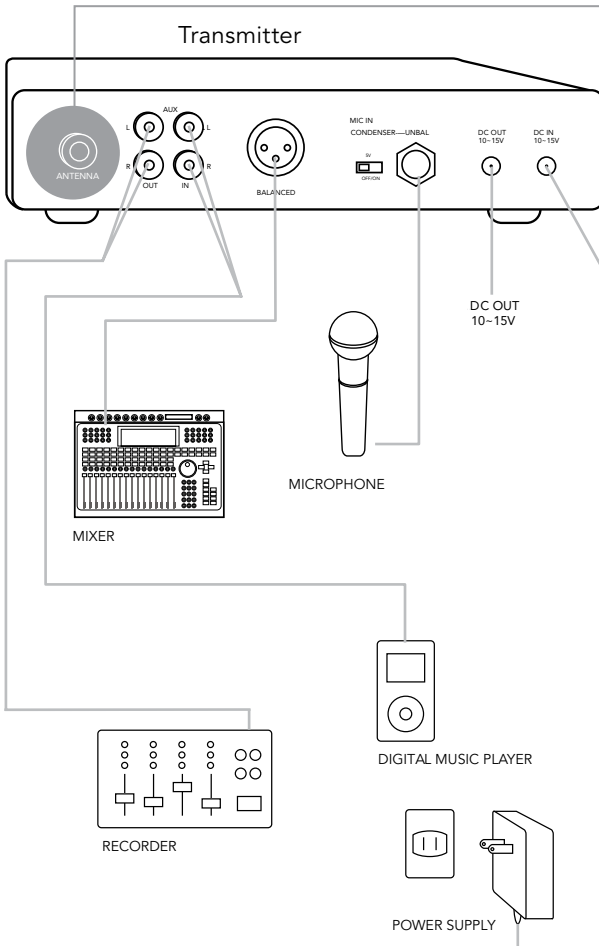
Tighten connector to snug fit.

caution

Do not attempt to change antenna orientation while in tightened condition.

note

To extend the range of the AirLink AR-960 system, replace the antenna of the transmitter with a periodic-log antenna oriented in the horizontal position.



RECEIVER setup instructions

- Locate receiver at remote location
- Plug power supply into AC power outlet
- Connect audio output from receiver to input of auxiliary sound system

antenna installation



Screw antenna into TNC connector loosely.

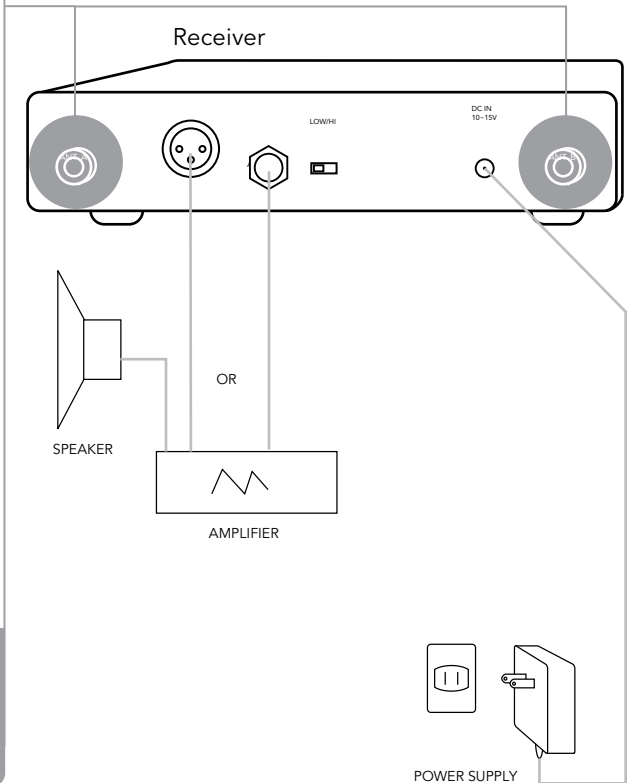


Adjust antennas to 45° outward position.

Tighten connector to snug fit.

caution

Do not attempt to change antenna orientation while in tightened condition.



operating the AirLink router system

- Initially have all controls at minimum level
- Turn on transmitter and receiver units
- Turn on transmitter and receiver modules
 - LCD window will light and channel # display
 - Tx LED (Yellow) on transmitter will light (indicating transmission)
 - Rx LED (Yellow) on receiver will light (receiving transmission)
 - A/B LED (Red or Green) diversity ant. receiving
- Select transmission channel
 - Press and hold "SET" button for one second
 - Number in LCD will start flashing
 - Press UP or DOWN arrow to select desired channel
 - Press "SET" button to lock channel selected
 - Repeat procedure on receiver
 - ***Transmitter and receiver must be on same channel***
- Insert an audio signal into either input of transmitter
- Push in respective mute switch (Small square red button)
 - Tx (Red LED) indicates audio is being passed to transmitter
 - Adjust input gain until AF (Green LED) transmitter module flashes
- Adjust master volume on transmitter module until AF (Green LED) on receiver starts flashing
- Adjust gain control of receiver for desired output level
- Headphone Output
 - Monitors the auxiliary input (RCA) only
- Line out
 - Dual RCA jack: Line level output—Pre-fader
- Microphone Input (1/4" phone)
 - Low level line or condenser microphone input (1/4" phone)

troubleshooting

Problem	Solution
No Power	<ul style="list-style-type: none">• Be sure unit is plugged in• Be sure you are using the correct connector• Check if power switch is turned on• Verify proper power supply• Verify AC power
Failed Receiver Signal	<ul style="list-style-type: none">• Be sure that transmitter and receiver are tuned to the same frequency• Be sure the receiver is turned on• Be sure the volume is turned up• Be sure the distance between transmitter and receiver are within range
Short Transmission Range	<ul style="list-style-type: none">• Check that antennas are connected firmly• Be sure that transmitter and receiver are tuned to the same frequency• Try another channel to avoid interference from other RF products <p>Verify Antenna Position:</p> <ul style="list-style-type: none">• Receiver—45°• Transmitter—vertical

Channel Frequency Allocation

640–664 MHz LCD

CHANNEL	FREQ	CHANNEL	FREQ	CHANNEL	FREQ
CH 1	640.1	CH 17	640.9	CH 33	640.4
CH 2	641.6	CH 18	642.4	CH 34	641.9
CH 3	643.1	CH 19	643.8	CH 35	643.3
CH 4	644.5	CH 20	645.3	CH 36	644.8
CH 5	646.1	CH 21	646.9	CH 37	646.4
CH 6	647.6	CH 22	648.4	CH 38	647.9
CH 7	649.1	CH 23	649.8	CH 39	649.3
CH 8	650.5	CH 24	651.3	CH 40	650.8
CH 9	651.7	CH 25	652.6	CH 41	652.1
CH 10	653.3	CH 26	654.1	CH 42	653.6
CH 11	655.2	CH 27	656.0	CH 43	655.5
CH 12	656.7	CH 28	657.5	CH 44	657.0
CH 13	658.2	CH 29	658.9	CH 45	658.4
CH 14	659.6	CH 30	660.4	CH 46	659.9
CH 15	661.2	CH 31	662.0	CH 47	661.5
CH 16	662.7	CH 32	663.4	CH 48	662.9

UHF TV Frequencies

TV Channel	MHz
42	638–644
43	644–650
44	650–656
45	656–662
46	662–668

CHANNEL	FREQ	CHANNEL	FREQ	CHANNEL	FREQ
CH 49	641.1	CH 65	640.6	CH 81	641.4
CH 50	642.6	CH 66	642.1	CH 82	642.9
CH 51	644.0	CH 67	643.5	CH 83	644.3
CH 52	645.5	CH 68	645.0	CH 84	645.8
CH 53	647.1	CH 69	646.6	CH 85	647.4
CH 54	648.6	CH 70	648.1	CH 86	648.9
CH 55	650.0	CH 71	649.5	CH 87	650.3
CH 56	651.5	CH 72	651.0	CH 88	651.9
CH 57	652.8	CH 73	652.3	CH 89	653.1
CH 58	654.3	CH 74	653.8	CH 90	654.6
CH 59	656.2	CH 75	655.7	CH 91	656.5
CH 60	657.7	CH 76	657.2	CH 92	658.0
CH 61	659.1	CH 77	658.6	CH 93	659.4
CH 62	660.6	CH 78	660.1	CH 94	660.9
CH 63	662.2	CH 79	661.7	CH 95	662.5
CH 64	663.6	CH 80	663.1	CH 96	663.9

transmitter specifications

96 Selectable Channels from 640–664 MHz	
Maximum Deviation	80 kHz, with Level Limiting
Dynamic Range	110 dB
THD	Less Than 0.5%
Pre/De-Emphasis	50 μ s
Frequency Response	70 Hz–17kHz
RF Output	30 mW
Spurious Emissions	Less than 250 nW
Inputs	Balanced Line Level (Unbalanced Line Level (Stereo Phone Jack or Dual RCA) Inputs blended to mono output)
Headphone Output	1/4" Phone Jack
AC Power Requirement	100–240 VAC
Switchable Supply Output	12 VDC, 1 A
Dimensions	8" D x 8.5" W x 1.75" H
Weight	2.75 lbs

receiver specifications

Oscillation Type	PLL Synth, Control OSC
Operating Frequency Bands	640–664 MHz (96 Switchable Channels)
Selectable Channels	Pre-Programmed (96 Switchable Channels)
Dynamic Range	110 dB
THD	Less than 0.5%
Sensitivity	4 μ V @ 30 dB SINAD
Squelch	Tone Key and Noise Lock Dual-Squelch
Frequency Response	70 Hz–17kHz
Operating Range	In Excess of 500ft with Half-Wave Antenna
Audio Output Level	XLR Balanced—700mV @ 10k ohms
Power Requirements	100–240 VAC/12VDC 1A Switching Supply
Dimensions	8" D x 8.5" W x 1.75" H
Weight	1.2 lbs

three year limited warranty

TeachLogic RF products are guaranteed to be free of defects in workmanship or material for a period of three (3) years from date of original purchase, subject to the following conditions:

1. Warranty excludes defects caused by normal use and wear, any abuse, or failure to use the product in accordance per instructions.
2. Warranty is void if damage occurred because of misuse, or attempted repair or modification by unauthorized personnel.
3. Warranty on batteries, cables, and cable connections are limited to one (1) year.
4. Warranty on microphones and microphone elements are limited to one (1) year.
5. Warranty does not extend to finish or appearance past ninety (90) days.
6. All warranty service will be provided by TeachLogic or authorized service center
7. Warranty is made to the original purchaser and may not be transferred another user.
8. Warranty service rendered will be on a repair or replacement basis, whichever TeachLogic deems to be most prudent for customer satisfaction and economic feasibility.

TeachLogic will only accept warranty shipments accompanied by Return Authorization Number previously assigned by TeachLogic personnel. Advance warranty replacements will be made per the discretion of TeachLogic personnel.

TeachLogic will pay return shipping cost on all warranty repairs or replacements.

contact

TeachLogic, Inc.
Customer Service Dept.
1688 Ord Way
Oceanside, CA 92056

☎ 1-800-588-0018

✉ sales@teachlogic.com


☎ 1-760-631-1283


🌐 www.teachlogic.com


TeachLogic


FOR SOUND LEARNING 

1688 Ord Way
Oceanside, CA 92056

 1-800-588-0018

 sales@teachlogic.com

 1-760-631-1283

 www.teachlogic.com