

AirLine

UHF Wireless System Owners Manual

- AX1 Handheld Transmitter
- AL1 Presentation Transmitter
- AH1/QE Aerobics Headset Transmitter
- AH1/QV Vocal Headset Transmitter
- AH1/35X Wind Instrument Transmitter
- AR1 Receiver

SAMSON®



Handheld Transmitter



Presentation
Transmitter



Wind
Instrument
Transmitter



Headset Transmitter

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ENGLISH

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Produced by *On The Right Wavelength* for Samson Technologies Corp.
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Printed March 2000

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Welcome to Samson AirLine—the wireless system for the new millenium! Wireless microphone and instrument systems were originally developed to eliminate cables, providing unparalleled freedom of movement. AirLine takes this concept to a new level with transmitters so small, lightweight and aerodynamic, they are nearly invisible, providing a completely “hassle-free” user experience. To create the world’s smallest wireless transmitters, we developed new proprietary technology. Featuring miniaturized circuitry and the ability to operate on a single tiny AAA battery (with 14 hours typical battery life), these transmitters also feature significantly improved wireless reception and sound quality. What’s more, the AR1 micro receiver developed for the AirLine systems is actually smaller than the typical wireless transmitter.

There are five different Samson AirLine systems detailed in this manual. All operate in the 801 - 805 MHz UHF frequency range and all contain either an AR1 micro receiver or a UR1 true diversity receiver (from our acclaimed Series One system). The AirLine UHF Microphone System contains an AX1 hand-held transmitter, which plugs into any standard wired dynamic microphone. The AirLine UHF Presentation System contains an AL1 transmitter, which contains a built-in electret condenser microphone and connection for an optional lavalier microphone. The AirLine UHF Performance System combines a feather-light AH1 headset transmitter with a Samson QV headset microphone, while the AirLine UHF Fitness System combines the AH1 with a Samson QE headset microphone. Finally, the AirLine UHF Wind Instrument System combines the AH1 with an Audio-Technica Pro 35X horn microphone.

In this manual, you’ll find a more detailed description of the features of all AirLine systems, as well as a guided tour through all components, step-by-step instructions for setting up your system and full specifications. If your AirLine system was purchased in the United States, you’ll also find a warranty card enclosed—don’t forget to fill it out and mail it! This will enable you to receive online technical support and will allow us to send you updated information about this and other Samson products in the future. If your AirLine system was purchased outside of the U. S., contact your local distributor for warranty details. Also, be sure to check out our website (<http://www.samsontech.com>) for complete information about our full product line.

SPECIAL NOTE for U.S. purchasers: Should your AirLine system ever require servicing, a *Return Authorization* number (RA) is necessary. Without this number, the unit will not be accepted. If your AirLine system was purchased in the United States, please call Samson at 1-800-372-6766 for a Return Authorization number prior to shipping your system. If possible, return the unit in its original carton and packing materials. If your AirLine system was purchased outside of the U. S., contact your local distributor for information.

If you've had some prior experience using wireless systems, these QuickStart instructions will get you up and running with your AirLine system in a matter of minutes! Detailed instructions for setting up and using your AirLine system can be found on page 14 of this manual, and the "Guided Tour" sections on pages 4 - 13 provide full descriptions of all AirLine component controls and displays.

1. Make sure that the supplied AR1 receiver and AX1, AL1 or AH1 transmitter are factory preset to the same channel.
2. Physically place the AR1 where it will be used (if desired, it can be wall-mounted using the supplied holder) and extend its antenna vertically.
3. Set the power switch to your transmitter to the "off" position (away from the arrow) and place a fresh battery in it. Then turn the transmitter back on momentarily; its LED will flash once and then go off if the battery is sufficiently strong. Once battery strength is verified, turn the transmitter off.
4. If you are using an AX1, plug its XLR connector into a wired dynamic microphone; make a good tight connection, using the supplied rubber gasket if necessary. If you are using the AL1 with an external lavalier microphone, make the physical connection between its input connector and the microphone.
5. Turn the Volume knob on the AR1 completely counterclockwise. Connect the supplied AC adapter to the AR1 receiver and plug it in, but leave its power off for the moment.
6. Turn your audio system off and make the physical cable connection between the AR1 balanced or unbalanced output jack (if necessary, both can be used simultaneously) and a mic level audio input of your amplifier or mixer.
7. Turn on the AR1 receiver; its "Power/ RF" LED will light steadily red.

8. Turn on your transmitter. The “Power/ RF” LED on the AR1 should change color from red to green, indicating that it is receiving valid RF signal and is placed and positioned correctly.
9. Turn on your connected amplifier and/or mixer but keep its volume all the way down. If you are using an AL1 or AH1 transmitter, make sure that it is unmuted. Set the Volume knob on the AR1 fully clockwise; this is unity gain. If you are using an AL1 transmitter with the built-in microphone, correct placement is critical to sound quality. It should be unobstructed by clothing and either clipped to a shirt pocket or lapel, or worn around the neck on the supplied lanyard.
10. Speak or sing into your mic at a normal performance level while slowly raising the audio input control of your amplifier or mixer until the desired level is reached. If necessary, use the supplied plastic screwdriver to adjust the transmitter’s Gain trimpot in order to increase or decrease its signal level.
11. Do a walkaround through the intended area of coverage while observing the AR1’s “Power/RF” LED; it should be lit steadily green in all areas of coverage. Reposition it (or its antenna) as necessary. If extended range coverage is required, a Samson UR1 true diversity receiver (set to the same channel) can be substituted.
12. If you hear any spurious noise from the AR1 output when the transmitter is turned off, use the supplied plastic screwdriver to adjust the AR1 Mute (squench) level control, slowly turning it clockwise until the point at which the noise disappears.

Guided Tour - AR1 Receiver



1: Antenna - This swivel mounting allows full rotation for optimum placement of the antenna. In normal operation, the antenna should be placed in a vertical position. It can be folded inward for convenience when transporting the AR1. See the "Setting Up and Using Your AirLine System" section on page 14 in this manual for more information about antenna positioning.

2: Power On / RF LED - This lights red whenever the AR1 is powered on and green whenever the AR1 is receiving RF signal from a transmitter.

3: Peak LED - This LED lights red when output signal from the AR1 is at the onset of clipping (that is, when it is on the verge of being distorted). If you see this light during operation, move the microphone further away or lower the volume level of your instrument or transmitter. For more information, see the section entitled "Setting Up and Using Your AirLine System" on page 14 in this manual.

4: Power switch - Move this switch in the direction of the arrow to turn power to the AR1 on; move it away from the arrow to turn power off.

5: Volume control - This knob sets the level of the audio signal being output through both the AR1 balanced and unbalanced output jacks (see #6 and #7 on the following page). Reference level is obtained when the knob is turned fully clockwise.

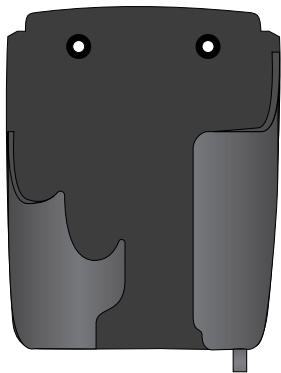
Guided Tour - AR1 Receiver

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6: Unbalanced output* - Use this unbalanced high impedance (5 - 10 K Ohm) 1/4" jack when connecting the AR1 to consumer (-10) audio equipment. Wiring is as follows: tip hot, sleeve ground.

7: Balanced output* - Use this electronically balanced low impedance (600 - 2500 Ohm) XLR jack when connecting the AR1 to professional (+4) audio equipment. Pin wiring is as follows: Pin 1 ground, Pin 2 high (hot), and Pin 3 low (cold).



Wall-mount AR1 receiver holder

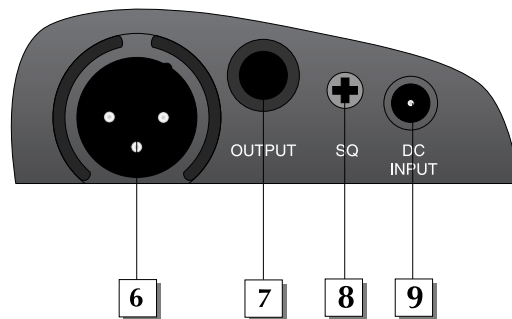
8: Mute (squelch) control -

This control determines the maximum range of the AR1 before audio signal dropout. Although it can be adjusted using the supplied plastic screwdriver, it should normally be left at its factory setting. See the "Setting Up and Using Your AirLine System" section on page 14 in this manual for more information.

9: DC input - Connect the supplied 12 volt 200 mA power adapter here.

WARNING: Do *not* substitute any other kind of power adapter; doing so can cause severe damage to the AR1 and will void your warranty.

As shown in the illustration on the left, the supplied AR1 receiver holder can be used to wall-mount the AR1 in fixed installations.



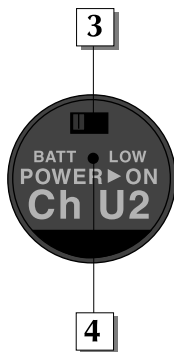
** If required, both the balanced and unbalanced outputs can be used simultaneously.*

Guided Tour - AX1 Handheld Transmitter

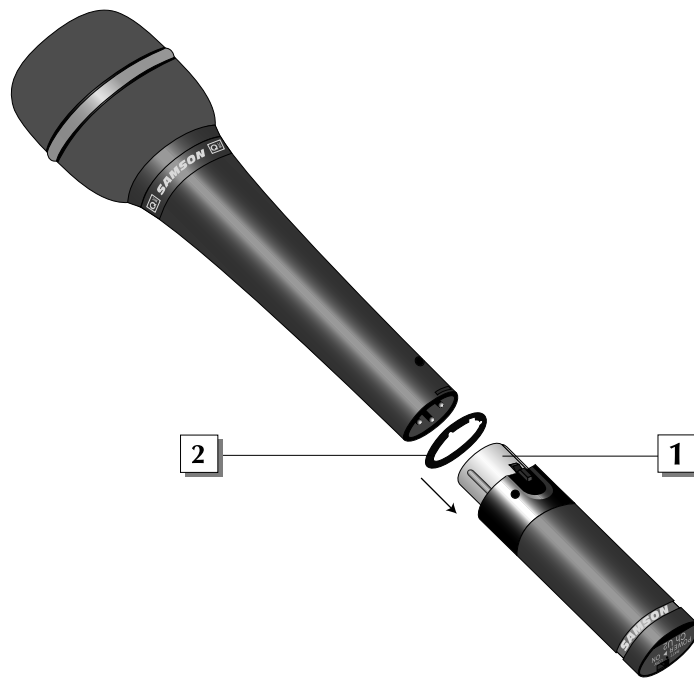
1: XLR connector - Connect this standard female XLR connector into any standard wired dynamic microphone in order to make it a wireless mic.

2: Rubber gasket - If necessary, use this provided rubber gasket in order to make a solid connection between the AX1 XLR connector and your microphone (note that not all microphones require its use).

3: Power on-off switch - Move this switch in the direction of the arrow to turn power to the AX1 on; move it away from the arrow to turn power off. (to conserve battery power, be sure to turn the AX1 off when not in use). Be sure to mute the audio signal at your external mixer or amplifier before turning the AX1 power on or off, or an audible pop may result.



4: Power / Battery LED - This LED flashes once when the AX1 is first turned on and lights steadily red when there is less than 2 hours of battery power remaining, indicating that the battery needs to be



Guided Tour - AX1 Handheld Transmitter

Samson AirLine

changed.

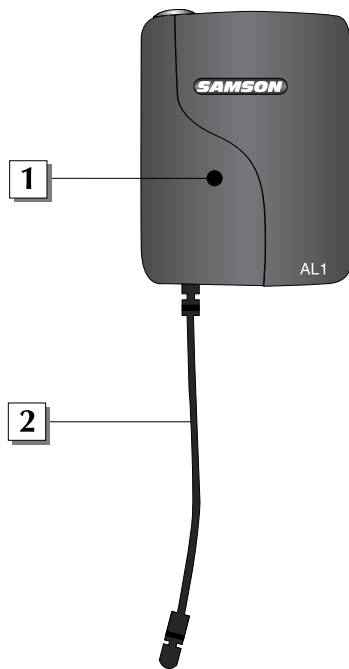
5: Battery compartment - Insert a standard AAA alkaline battery here, being sure to observe the plus and minus polarity markings shown. We recommend the Duracell type battery. Although rechargeable Ni-Cad batteries can be used, they do not supply adequate current for more than four hours. **WARNING:** Do not insert the battery backwards; doing so can cause severe damage to the AX1 and will void your warranty.

6: Microphone Input Level control (trimpot) - Use the supplied plastic screwdriver to raise or lower the input level sensitivity of the AX1 as required. See the "Setting Up and Using Your AirLine System" section on page 14 in this manual for more information.



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Guided Tour - AL1 Body Pack Transmitter

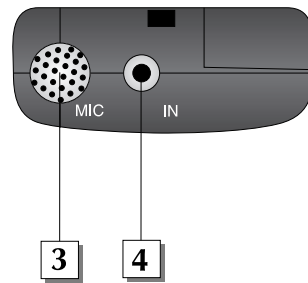


1: Power / Battery LED - This LED flashes once when the AL1 is first turned on and lights steadily red when there is less than 2 hours of battery power remaining, indicating that the battery needs to be changed.

2: Antenna - This permanently attached flexible antenna should be fully extended during normal operations. See the “Setting Up and Using Your AirLine System” section on page 14 in this manual for more information about antenna positioning.

3: Electret condenser microphone - This high- quality unidirectional electret condenser microphone with metal windscreen is optimized for clear, crisp reproduction of speech. It is active whenever the AL1 is powered on, as long as there is no connection made to the lavalier microphone input connector (see #4 below). When a plug is inserted into the lavalier microphone input connector, this built-in microphone is muted.

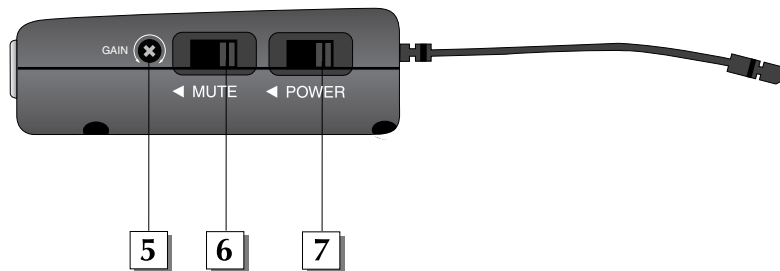
4: Lavalier microphone input connector - Use this standard 2.5 mm mini-jack if you want to connect an external lavalier microphone to the AL1. Note that, because the AL1 has a built-in electret condenser microphone (see #3 above), the use of an external lavalier mic is optional and not required. The AL1 provides 2.7V of phantom power, so condenser mics can be used if desired.



Guided Tour - AL1 Body Pack Transmitter

Samson AirLine

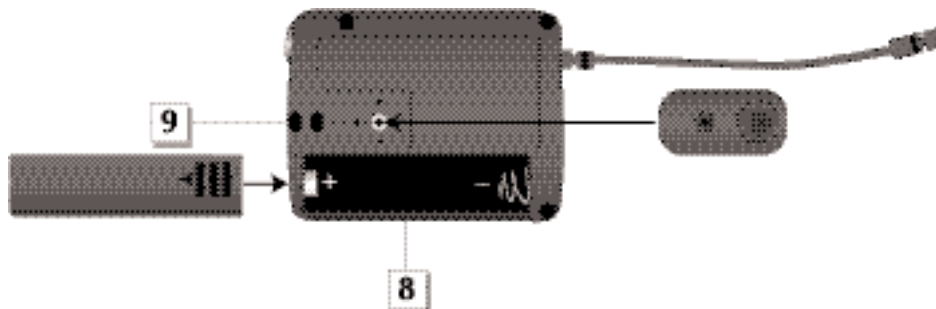
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5: Gain control (trimpot) - Use the supplied plastic screwdriver to raise or lower the input level sensitivity of the AL1 as required. See the “Setting Up and Using Your AirLine System” section on page 14 in this manual for more information.

6: Mute switch - Move this switch in the direction of the arrow to mute the AL1; move it away from the arrow to unmute it and transmit audio signal. Because the carrier signal remains during muting, no “pop” or “thud” will be heard. Note that turning this off does *not* turn off the transmitter power—it is simply a way to temporarily mute the transmission of audio signal. If you don’t plan on using the AL1 for extended periods, turn it off power by using the power on-off switch (see #7 below). Be sure to mute the audio signal at your external mixer or amplifier before turning the AL1 power on or off, or an audible pop may result.

7: Power switch - Move this switch in the direction of the arrow to turn power to the AL1 on; move it away from the arrow to turn power off. (to conserve battery power, be sure to turn the AL1 off when not in use).

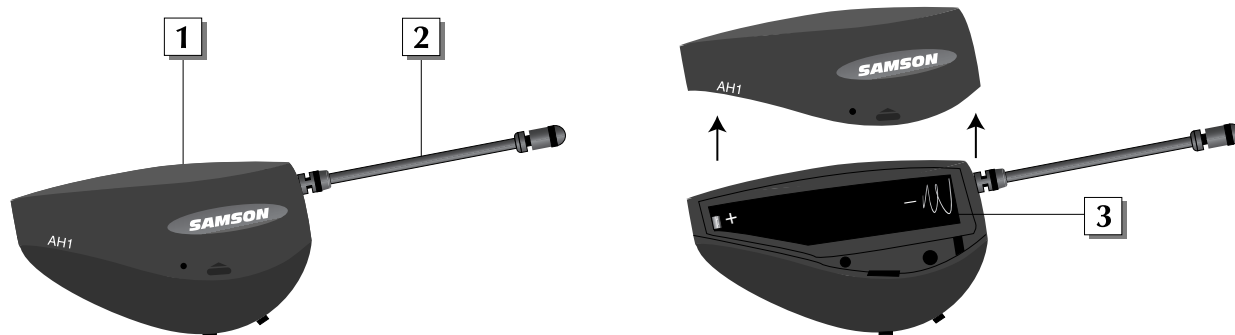


8: Battery compartment - Insert a standard AAA alkaline battery here, being sure to observe the plus and minus polarity markings shown. We recommend the Duracell type battery. Although rechargeable Ni-Cad batteries can be used, they do not supply adequate current for more than four hours. **WARNING:** Do not insert the battery backwards; doing so can cause severe damage to the AL1 and will void your warranty.

9: Clip connector - This clip can be used to fasten the AL1 to a lapel or shirt pocket or to the supplied lanyard. The position of the clip can be rotated to the desired position after loosening its center screw or can be removed entirely by removing the center screw. For more information on positioning the AL1, see the "Setting Up and Using the AirLine System" section on page 14 in this manual.

Guided Tour - AH1 Headset Transmitter

Samson AirLine

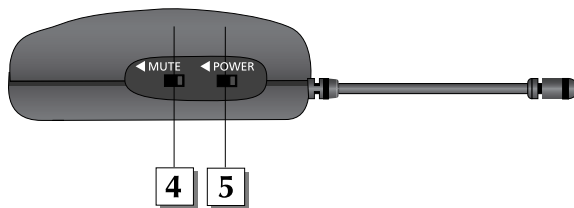


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1: Power / Battery LED - This LED flashes once when the AH1 is first turned on and lights steadily red when there is less than 2 hours of battery power remaining, indicating that the battery needs to be changed.

2: Antenna - This permanently attached flexible antenna should be fully extended during normal operations. See the "Setting Up and Using the AirLine System" section on page 14 in this manual for more information about antenna positioning.

3: Battery compartment - Insert a standard AAA alkaline battery here, being sure to observe the plus and minus polarity markings shown. We recommend the Duracell type battery. Although rechargeable Ni-Cad batteries can be used, they do not supply adequate current for more than four hours. **WARNING:** Do not insert the battery backwards; doing so can cause severe damage to the AH1 and will void your warranty.



4: Mute switch - Move this switch in the direction of the arrow to mute the AH1; move it away from the arrow to unmute it and transmit audio signal. Because the carrier signal remains during muting, no “pop” or “thud” will be heard. Note that turning this off does *not* turn off the transmitter power—it is simply a way to temporarily mute the transmission of audio signal. If you don’t plan on using the AH1 for extended periods, turn it off power by using the power on-off switch (see #5 below).

5: Power switch - Move this switch in the direction of the arrow to turn power to the AH1 on; move it away from the arrow to turn power off. (to conserve battery power, be sure to turn the AH1 off when not in use). Be sure to mute the audio signal at your external mixer or amplifier before turning the AH1 power on or off, or an audible pop may result.

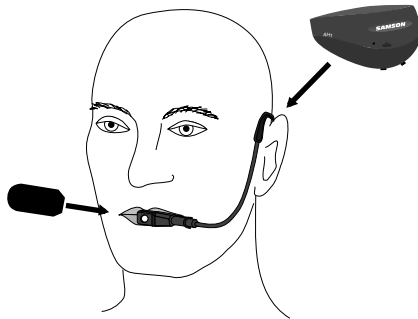
Guided Tour - AH1 Headset Transmitter

Samson AirLine

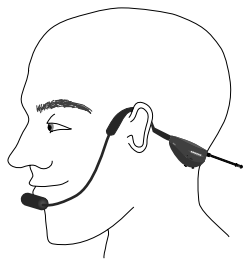
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AH1 transmitter with Samson QV Headset Mic (UHF Performance System) or Samson QE Headset Mic (UHF Fitness System)



As shown in the illustration above, the correct way to wear your QV / QE Headset is over the ears, as you would wear a pair of eyeglasses. Because the QV / QE Headset is specially designed to be used up close, be sure to mount the microphone directly in front of your lips. To avoid feedback problems, take care not to cover the mic capsule with your hand.



Right way



Wrong way

IMPORTANT NOTE: As shown in the illustration on the left, the rear band of the headset should be positioned down at the base of the neck, not high up on the back of the head.

The basic procedure for setting up and using your AirLine System takes only a few minutes:

1. For your AirLine system to work correctly, both the receiver and transmitter must be set to the same channel. Remove all packing materials (save them in case of need for future service) and check to make sure that the supplied AR1 receiver and AX1, AL1 or AH1 transmitter are set to the same channel (page 71 in this manual presents a complete channel plan). If these channels do not match, contact your distributor or, if purchased in the United States, Samson Technical Support at 1-800-372-6766.
2. Physically place the AR1 receiver where it will be used (the general rule of thumb is to maintain “line of sight” between the receiver and transmitter so that the person using or wearing the transmitter can see the receiver). The supplied wall-mount holder allows the AR1 to be mounted on a wall if desired. Extend the AR1 antenna and place it in a vertical position.
3. Make sure the Power on-off switch in your transmitter is set to “Off.”
- 4a. If your system contains an AX1 handheld transmitter, unscrew the bottom section by turning it counterclockwise and then slide it off.
- 4b. If your system contains an AL1 body pack transmitter, turn it over and slide off the battery door.
- 4c. If your system contains an AH1 headset transmitter, gently pry off the battery cover and slide it upwards and off to open the battery compartment. Please use care when opening this cover as undue force will destroy the hinge.
5. Place a fresh AAA alkaline battery in the transmitter battery compartment, taking care to observe the polarity markings. If you are using an AX1 handheld transmitter, replace the bottom section by sliding it on and then screwing it back on. If you are using an AL1 body pack transmitter, replace the battery door by sliding it in until it clicks. If you are using an AH1 headset transmitter, replace the battery cover and gently press down on it until it clicks. Whichever transmitter you are using, leave it off for the moment.
6. Make the physical cable connection between the AR1 output jack and a mic level audio input of your amplifier or mixer. The balanced XLR jack is preferable, since it will deliver an electromagnetically cleaner signal. If required, both the balanced and unbalanced outputs can be used simultaneously. Leave your amplifier (and/or mixer) off at this time.
7. Turn the Volume knob on the AR1 completely counterclockwise. Connect the supplied AC adapter to the DC Input on the side of

Setting Up and Using Your AirLine System

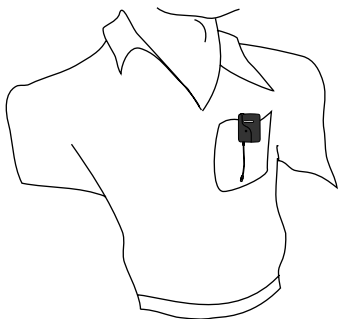
Samson AirLine

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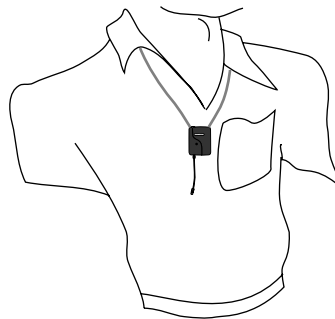
the AR1, then plug the adapter into any standard AC outlet. Slide the Power switch in the direction of the arrow to turn on the AR1; the “Power/ RF” LED will light steadily red.

8. Turn on the power to your transmitter (using its Power on-off switch); the “Power/Battery” LED will flash if the battery is sufficiently strong (if it lights steadily, the battery has less than 2 hours of power remaining and should be replaced). At this point, the “Power/ RF” LED on the AR1 should change color from red to green, indicating that it is receiving valid RF signal and is placed and positioned correctly.

9. Now it’s time to set the audio levels. Turn on your connected amplifier and/or mixer but keep its volume all the way down. If you are using an AL1 or AH1 transmitter, make sure that it is unmuted (its Mute switch should be positioned away from the arrow). Then set the Volume knob on the AR1 fully clockwise; this is unity gain. If you are using an AL1 transmitter with the built-in microphone, note that correct placement is critical to sound quality. We recommend that you place it as shown in the illustrations on this page—unobstructed by clothing and either clipped to a shirt pocket or lapel, or worn around the neck on the supplied lanyard.



10. Speak or sing into your mic at a normal performance level while slowly raising the volume of your amplifier and/or mixer until the desired level is reached. Note that *Unidirectional* microphones (mics which pick up signal from just one direction) such as the built-in AL1 electret condenser are less prone to feedback than other types of mics. Any feedback problems you encounter can be minimized by being sure not to use the microphone directly in front of a PA speaker or by using an equalizer to attenuate those high- or mid-range frequencies which are causing the feedback “squealing”.



11. If you hear distortion at the desired volume level, first check to see whether the red “Peak” LED on the AR1 is lit. If it is not, make sure that the gain structure of your audio system is correctly set (consult the owners manual of your mixer and/or amplifier for details). If the red “Peak” LED is lit, do the following:

- If you are using an AX1 handheld transmitter, use the supplied plastic screwdriver to turn its Microphone Input Level control (trimpot) slowly counterclockwise (towards the “Min” position) until the distortion disappears.
- If you are using an AL1 body pack transmitter with its internal electret condenser microphone or an AH1 headset transmitter, simply move the microphone further from your mouth. If you are using an AL1 with an external lavalier microphone, use the supplied plastic screwdriver to turn the Gain control (trimpot) slowly counterclockwise until the distortion disappears.

Note that, following this setup procedure, you can always lower the Volume knob of the AR1 in order to attenuate the output signal if necessary.

12. Conversely, if you hear a weak, noisy signal at the desired volume level, again make sure that the gain structure of your audio system is correctly set (consult the owners manual of your mixer and/or amplifier for details) and that the Volume control of the AR1 is fully clockwise. If it is and the signal coming from the AR1 is still weak and/or noisy, do the following:

- If you are using an AX1 handheld transmitter, use the supplied plastic screwdriver to turn its Microphone Input Level control (trimpot) slowly clockwise (towards the “Max” position) until the signal reaches an acceptable level.
- If you are using an AL1 body pack transmitter with its internal electret condenser microphone or an AH1 headset transmitter, simply position the microphone closer to your mouth. If you are using an AL1 with an external lavalier microphone, use the supplied plastic screwdriver to turn the Gain control (trimpot) slowly clockwise until the signal reaches an acceptable level.

Setting Up and Using Your AirLine System

Samson AirLine

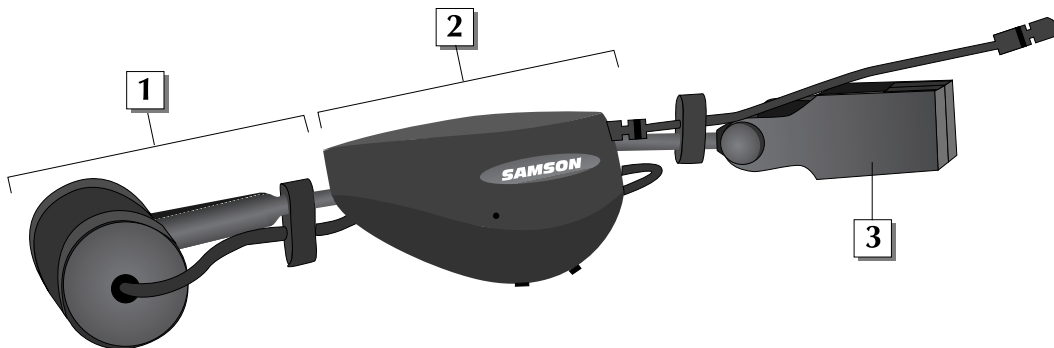
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13. Temporarily turn down the level of your mixer/amplifier system and turn off the power to your transmitter, leaving the AR1 on. Then restore the previously set level of your mixer/amplifier. With the transmitter off, the receiver output should be totally silent—if it is, skip ahead to the next step. If it isn't (that is, if you hear some noise), you may need to adjust the AR1 Mute (squellch) control. When the Mute control is at its minimum setting, the AirLine system always provides maximum range without dropout; however, depending upon the particular environment your system is used in, you may need to reduce that range somewhat in order to eliminate band noise when the transmitter is turned off. To do so, use the provided screwdriver to rotate the Mute control completely counterclockwise (to the "Min" position), then slowly turn it clockwise until the noise disappears. If no noise is present at any position, leave it at its fully counterclockwise "Min" position (so as to have the greatest overall range available).

14. When first setting up your AirLine System in a new environment, it's always a good idea to do a walkaround in order to make sure that coverage is provided for your entire performance area. Accordingly, turn down the level of your audio system and turn on both the transmitter and receiver. Then, with the transmitter unmuted, restore the level of your audio system and while speaking or singing, walk through the entire area that will need to be covered. As you do so, observe the "Power On / RF" LED on the AR1 receiver; it should always remain lit steadily green, indicating that it is receiving sufficiently strong RF signal. Always try to minimize the distance between transmitter and receiver as much as possible so that the strongest possible signal is received from all planned transmission points. In fixed installations such as A/V or corporate conference rooms, you may find it handy to mount the AR1 in the supplied wall-mount holder. In certain environments, it may be desirable to angle the receiver antenna differently from its vertical position. Where extended range coverage is required, a Samson UR1 true diversity receiver (set to the same channel) can be substituted.

If you have followed all the steps above and are experiencing difficulties, contact your local distributor or, if purchased in the United States, call Samson Technical Support (1-800-372-6766) between 9 AM and 5 PM EST.

Appendix A: AirLine Wind Instrument System *Samson AirLine*



ENGLISH

The AirLine UHF Wind Instrument System is the first wireless system designed for brass and reed instruments that eliminates the need for a body pack and unwieldy microphone cables that limit your movement. Here is a guided tour of its features:

1: Audio-Technica Pro 35X horn microphone - This microphone is “hard-wired” to a Samson AH1 headset transmitter (see #2 below). See the supplied Audio-Technica owners manual for microphone positioning instructions.

2: Samson AH1 headset transmitter - See pages 11 - 12 in this manual for more information.

3: Horn bell clamp - Use this to attach the entire assembly to the bell of your horn. See the supplied Audio-Technica owners manual for instructions.

Specifications

Samson AirLine

AR1 Receiver

Receiving Frequencies:	USA 801-805MHz (U1-U6), One frequency in Channel Plan
Frequency Type:	F3E
Modulation Type:	FM
Type of Reception:	Single superheterodyne
OSC (Oscillator) System:	Crystal controlled OSC (oscillator)
Local Oscillator Frequency:	79MHz Range
Intermediate Frequency:	10.7 MHz
A/B Antenna:	1/4 wave length rod antenna
Operating Distance:	50m (164 ft) receiver in sight
Noise Reduction:	Comander type
Deemphasis:	50μ/sec
Output Connector:	6.3mm / 1/4 in diameter phone jack (unbalanced output, XLR connector (balanced output)
Power Input Jack:	5.5mm/.21in diameter
Controls:	Audio level volume (front) Squelch level volume (rear)
Display:	2-color LED/Red – Power On, Green – RF receiving, PEAK – Red LED x 1
Operating Temperature:	0°C – +50°C
Storage Temperature:	-20°C – +70°C
Receiving Sensitivity:	More than S/N60 dB (less than 2%) at 21 dBuV input
Squelch Sensitivity:	17dBuV ±4dBuV
S/N Ratio:	More than 95dB (IHF-A) More than 90dB (IHF-A)
(when comparing to S=0dBv)	
Audio Output Level at div. f15 kHz	Unbalanced output 0dBv, Balanced output –30 dBv
Maximum Output Level:	Audio OUT +8dBv ±3dB at 3% distortion div. f36kHz
Audio Frequency Response:	50Hz – 15kHz (at –30dBv ±4dB output)
THD (at SG output 56 dBuV):	less than 1% (at div. f20kHz AF 1 kHz)

Specifications

Output Impedance:	Unbalanced output 5K – 10K ohms, Balanced output 600K – 2.5K ohms
Power:	AC adapter (12DVC/more than 200mA)
Current Consumption:	Less than 70mA Max
Peak LED Lighting div. frequency:	Div. f23kHz $\pm$ 3kHz (at AF output approx. +7dBv)
Size:	73mm wide x 28mm high x 92mm deep (w/out extrusions) 2.8in wide x 1.1in wide x 3.6in deep (w/out extrusions)
Weight:	Approximately 90g/3.1 oz

Transmitters (AX1, AL1, AH1)

Operating Power Voltage:	1.5V Typical, 1.05V Minimum, 2V Maximum
Current Consumption:	60mA Typical
Battery Life:	14 Hours (AAA size battery)
RF Output Power (5mW):	-4dB Minimum, +3dB Maximum
Frequency Stability:	-40kHz Minimum, 40kHz Maximum
Spurious:	1 μ W
Modulation Factor:	13kHz Minimum, 15kHz Typical, 17kHz Maximum, Input 1kHz-20dBv
Input Impedance (Mic):	2K ohms
THD:	< 2% (1 kHz deviation 15kHz)
Audio Frequency Response:	50Hz - 15kHz ($\pm$ 3.5 dB)
Controls:	
AX1	Power Switch, Volume
AL1, AH1	Power Switch, Mute Switch Volume
Input:	
AX1	XLR (female)
AL1, AH1	2.5mm Stereo Jack
Indicators:	Power On (LED Flash), Low Battery (LED On)

AirLine Channel Plan

Samson AirLine

Mid frequencies:

Channel	Frequency
U1	801.375 MHz
U2	801.875 MHz
U3	803.125 MHz
U4	803.750 MHz
U5	804.500 MHz
U6	804.750 MHz

FCC Rules and Regulations

**Samson wireless systems are type accepted under
FCC rules parts 90, 74 and 15.**

**Licensing of Samson equipment is the user's
responsibility and licensability depends on the user's
classification, application and frequency selected.**

**This device complies with RSS-210 of
Industry & Science Canada.**

Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference
and (2) this device must accept any interference
received, including interference that may cause
undesired operation.**