

# Fitness Entertainment Solutions

900 MHz Analog Transmitter

Model: ARG-900AT

Manual and User Guide



User Guide Part # ARG-OM017 – Rev B  
Updated: 1/5/2017

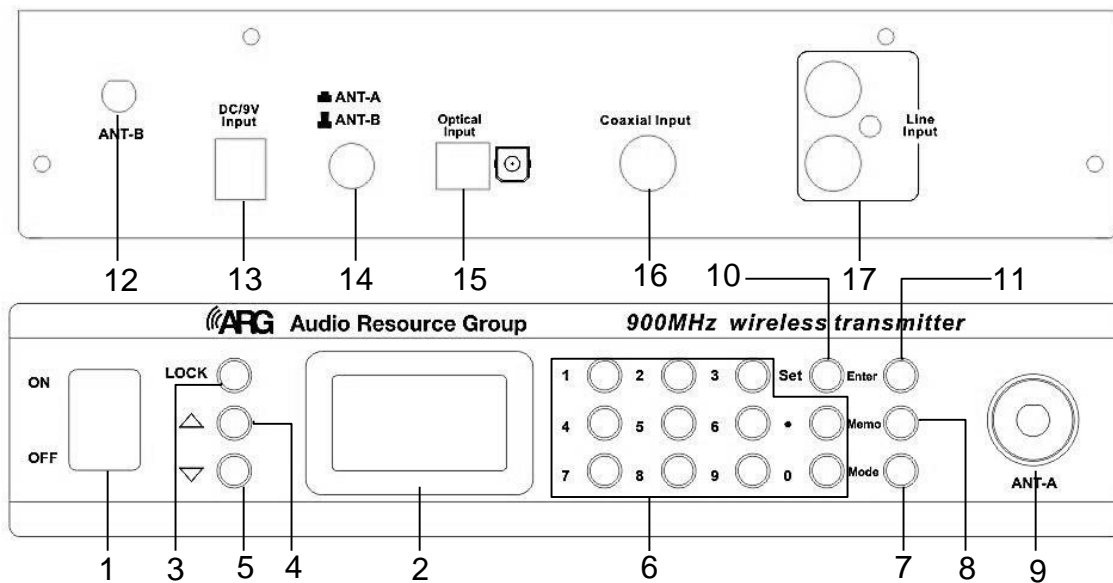
**Unpacking the box** – Inside the box of your new transmitter you will find the following items.

1. The 900MHz Radio transmitter housing
2. A rubber ducky antenna (ARG-AN3)
3. The user manual
4. The 9VDC power supply (ARG-PS017)
5. A “tune to” sign to place on the tv. (ARG-CS001 and ARG-CS002)
6. A wall mounting kit for the transmitter.
7. A rack mounting kit for the transmitter(ARG-RP1)
8. Two analog audio cables (ARG-CA023 and ARG-CA024)

**Optional Accessories:**

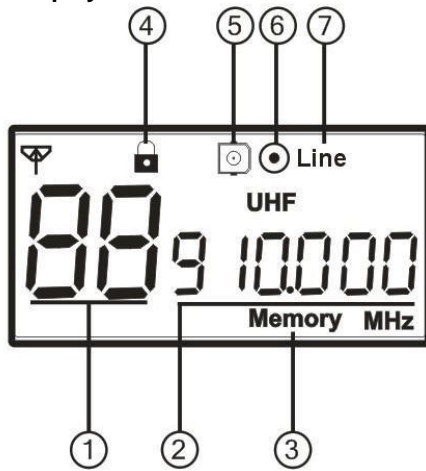
1. 6' Digital Coaxial Cable (ARG-CA016)
2. 6' Digital Optical Cable (ARG-CA017)
3. Right Angle Digital Optical adaptor (ARG-CA30)
4. Digital audio to analog audio converter (ARG-DD1)
5. Dual rack panel kit for half rack space (ARG-RP2)

**Configuration**



1. ON/OFF Switch
2. LCD Display
3. Lock button
4. Up button
5. Down button
6. Digit 0-9 & Decimal button
7. Mode Button
8. Memo Button
9. ANT-A (front antenna)
10. Set Button
11. Enter Button
12. ANT-B (rear antenna)
13. DC/9V power input jack
14. Antenna selection switch
15. Digital optical input jack
16. Digital coaxial input jack.
17. Analog line input jack

## LCD Display



1. Volume (the volume icon flashes when there is no audio input or the input source mode selection is incorrect)
2. Frequency
3. Memory icon
4. Lock icon
5. Digital optical input icon (TOSLINK)
6. Digital coaxial input icon
7. Analog stereo line input icon

## INSTALLATION INSTRUCTIONS:

**Mounting the Transmitter** - The ARG 900MHz transmitter is a universal unit designed to be compatible with most makes and models of televisions or audio devices. The transmitter can be mounted anywhere within the range of the length of cable being used for the audio connection including on the TV/audio device. If mounting the transmitter to a device, make sure not to cover ventilation grates or interfere with the functionality of the equipment. The transmitter is designed with detachable mounting plates that screw to the side of the assembly. The mounting plates have a keyhole bracket for easy mounting to screws mounting to the wall. The unit can also be zip tied to a tv using these same brackets and sticky back pads or to the bracket on the TV its self. There is also a rack mounting kit included as well. This uses a half rack space in an equipment rack.

**Attaching the Antenna** – Place the rubber antenna into the receptacle marked “ANT-A” on the front of the transmitter or the receptacle marked “ANT-B” on the back of the transmitter and hand tighten the screw until it seats into place. (Be careful not to over-tighten the antenna screw as this can cause damage to the antenna assembly or the transmitter.) The antenna can be set to any angle or rotated 360 degrees to fit into available space. On the back of the unit there is a toggle switch to select the appropriate antenna. Only one antenna needs to be attached for the unit to function properly.

**Powering the Unit** - Plug one end of the 9VDC power supply (included with the unit) into a 110V power outlet. Plug the other end into the terminal on the back of the transmitter marked “DC/9V Input”. When both ends of the cord are plugged in, flip the power switch on the front of the housing to the on position.

**Connecting the Transmitter to an Audio Source** - The transmitter has three types of audio input options. The type of cable used to connect the transmitter to the TV or other audio source will depend on the type of audio output terminals of the signal source device. You **MUST** also set the transmitter to read the input source you have chosen. This will be discussed in the next section of this manual. The connection options are as follows:

Analog Stereo Line Input: This type of input source allows connection to the audio device with either the RCA analog audio output jack or a headphone mini-jack/3.5mm stereo audio output jack.

**IMPORTANT:** Make sure to connect to terminals on your TV/audio device marked as audio **OUTPUTS**. Both audio input and audio output connections can be made using these types of connectors/cables. Many newer televisions **DON'T** have audio **OUTPUT** connections of this type and **CANNOT** be connected to the transmitter using this method.

If connecting to the RCA audio output jacks, use a cable (included) with stereo RCA jacks (usually one red and one white or black) on one end and a 3.5mm stereo mini-jack on the other. If connecting to a headphone jack or 3.5mm stereo mini-jack, use a cable that has 3.5mm stereo plugs on both ends. (A conversion cable is included. Connect the male/female RCA jacks to each other. This will leave 3.5mm stereo plugs on either end of the combined cables to connect to TV/audio device.) After the connection has been made to TV/audio device, plug the other end of the cable into the port on the transmitter marked "Line Input" (Diagram #9). **NOTE: Do Not** connect the transmitter to an amplified audio source. The transmitter is manufactured with sensitive components that are designed to work with line-level voltages **Only**. Connecting the transmitter to an amplified audio source will damage the unit and void the warranty.

Digital Optical Input: This input selection can be used if TV/audio device has a digital optical audio output or S/PDIF or TOSLINK jack. This connection allows for the highest quality audio transmission and is the preferred method if available. This connection requires the use of a fiber-optic or TOSLINK cable made specifically for this type of connection. (This cable is NOT included but is available from ARG, order #ARG-CA017 or purchase from local electronics retailer.) One end of the cable is inserted into the jack marked "Optical Audio Output", "S/PDIF" or similar description on TV/audio device. Insert the other cable end into the port on the transmitter marked with "Optical Input" and the symbol that looks like this: XXXXX (Diagram #10). Make sure the ends of the cable are securely connected to the ports on both ends. Usually these plugs will "click" into place when they are inserted properly. (NOTE: these cables are usually shipped with clear plastic protective covers on the ends. Be sure to remove these covers before connecting the cable.)

Digital Coaxial Input: Choose this selection if audio device is equipped with a digital coaxial audio output. The output terminal for this connection looks like a standard RCA-type jack and will be orange in color. A cable that is specifically designed to transmit digital audio signals is needed. (This cable is NOT included but is available from ARG, order #ARG-CA016 or purchase from local electronics retailer.) DON'T use a standard RCA cable as it is NOT equipped with the proper shielding and may cause interference with other electronic devices located in close proximity to the cable. Plug one end of the cable into the orange terminal on TV/audio device labeled "Digital Audio Output" or similar. The other end plugs into the white RCA jack on the top of the transmitter marked "Coaxial Input".

**Note – DO NOT connect more than one audio source to the transmitter at a time. Connecting multiple cables can cause permanent damage to the unit.**

**Setting the Audio Input Source** - You **MUST** set the input source on the transmitter to correspond to the input you have chosen as the connection. This directs the transmitter to determine the type of audio signal to "read" and where to find it. Failure to set the input source to match the connection will result in poor or no audio being sent from the transmitter. Press the "SET" button (Diagram #1) while it is in the "LOCK" mode to set the input source on the transmitter. (The "LOCK" icon will be illuminated on the display.) Each time the "MODE" button is pressed, the transmitter will toggle between the three input sources: Analog line, Digital coaxial, Optical, then repeat. Again, make sure the setting corresponds to the cable type used to connect the transmitter to the audio source.

**Confirming Signal Acquisition** – When properly connected to the TV/audio source (assuming the output for that device has been set correctly) and the corresponding input source has been selected; the transmitter will detect the audio signal. Make sure the transmitter is receiving and has detected a usable audio signal from the TV/audio source by observing the digits in the display that represent the volume level (Diagram #2). If the digits are steadily lit and NOT flashing, the transmitter is receiving and has detected a good audio signal from the device. If the digits are flashing, the transmitter has detected either a weak signal or no audio signal at all. If weak/no signal, check connections and the input setting on the transmitter and verify that the TV/audio device is generating a usable signal. If the device is not sending a good signal, check to see if the volume level on the TV/audio source is adjusted too low. The level should be set to approximately 75% of the maximum. Turn up the volume, then turn off the speakers on the device by changing the setting through the on-screen menus. (See the owner's manual for the device for instructions.) If the problem persists, contact the technical service department for your TV/audio device or ARG for assistance.

**Setting the Broadcast Frequency** - Unlock the transmitter by pressing the “LOCK” button till the lock icon disappears. Since all Frequencies start with ‘9’, the cursor defaults to the second digit. As you enter a digit for the new Frequency the cursor automatically moves to the right until you have entered all 5 digits after the ‘9’. Then press “Enter”. The last digit is always zero, so it does not need to be changed. The decimal point is placed automatically. If you make a mistake, you can start again or use the “UP”/ “Down” buttons to correct. Once you press “Enter”, the cursor will go away, and if you need to change, press “SET” and start again. After inserting the desired frequency, press “Enter” and then “Memory” to save the selected Frequency. Finally, lock the transmitter by pressing the “LOCK” button till the lock icon appears.

Commonly Used Frequencies – The table below contains commonly used frequencies for reference:

**900MHz Frequency to Channel Reference by Company**

Channel	Cardio Theater		MYE/Fantaay/True	Broadcast Vision	Old ARG/Cardiovision
	XTV-9T	XTV-9TM			
1	905.000	905.400	905.000	911.450	902.750
2	906.200	907.400	906.200	911.950	920.450
3	923.600	909.000	907.400	912.950	921.300
4	924.400	910.400	908.600	914.450	918.650
5	925.600	911.200	909.800	914.950	914.850
6	910.600	912.600	911.000	916.450	917.450
7	911.800	914.200	912.200	917.450	914.250
8	913.400	915.400	913.400	918.950	915.800
9	914.200	916.200	914.600	919.450	915.250
10	915.400	917.400	915.800	920.450	906.300
11	917.000	918.000	917.000	921.950	905.050
12	917.800	919.400	908.200	922.950	903.550
13	919.000	920.200	909.400	923.450	918.000
14	920.600	922.400	920.600	924.950	903.250
15	921.400	924.000	921.800	925.950	905.600
16	922.600	925.000	923.000	926.450	927.850
17	905.600	906.400	924.200	905.450	924.350
18	906.600	908.400	925.400	927.950	926.300
19	907.600	909.800	926.600	906.450	913.750
20	908.800	912.000	927.800	923.950	923.850
21	910.000	913.000	906.800	907.450	925.550
22	911.200	913.800	908.000	920.950	919.750
23	912.400	915.000	909.200	908.450	922.750
24	913.800	916.600	910.400	919.950	917.150
25	915.000	922.000	911.600	909.450	921.000
26	916.200	923.600	912.800	918.450	909.600
27	917.400	924.400	914.000	910.450	912.800
28	918.400	926.200	915.200	916.950	911.450
29	919.600	920.600	916.400	913.450	910.900
30	921.000	921.600	917.600	915.950	902.350
31	921.800	923.200	918.800	913.950	907.850
32	923.000	925.800	920.000	915.450	904.050
33		915.800	921.200		
34		917.000	922.400		
35		918.400	923.600		
36		919.800	924.800		
37		919.000	926.000		
38		921.000			
39		922.800			
40		924.400			
41		910.800			
42		911.600			
43		913.400			
44		914.600			
45		903.600			
46		904.400			
47		905.800			
48		907.000			
49		904.000			
50		905.000			
51		907.800			
52		909.400			

## OTHER FUNCTIONS:

**Changing the Output (Volume) Level** - This setting controls the loudness of the transmitter's audio signal. Use this as an auxiliary volume control in the event the TV/Audio device has a **fixed** audio output that is either too high or too low. The output level setting is shown on the left side of the display as the two large numbers, ranging from zero to 15. Adjust the output level when the transmitter is in the "LOCK" mode (Lock icon shows in the display). Lower the output level by pressing the "OUTPUT DOWN" arrow (Display #6) and raise it by pressing the "OUTPUT UP" arrow (Display #7). (Note: The factory set output level is "08". If the level is set too low it will be difficult to hear the sound being transmitted from the device; if set too high, the sound will become distorted and hard to understand. Set it to a level that is comfortable for your environment.) This setting is also useful for evening out the volumes of different televisions in a multiple device system since TV channels often broadcast at different volume levels.

# Warranty Statement

Audio Resource Group, Inc. (ARG) develops, designs and distributes only high quality products that will provide users with many years of trouble-free service. Some of the products we distribute are sold exclusively by ARG. The following Warranty Statement defines the warranty periods for each product line and model of equipment distributed by Audio Resource Group, Inc.

### **Talk and Listen™ Systems**

ARG warrants the following transmitters and receivers (TX72BP, TX72M, TX900BP, TX900HH, TX900M, RX72BPS, RX72BPM, RX72BP, RX72M, RX900BP, RX900M) to be free from defects in workmanship and material under normal use and conditions for five years from date of purchase.

ARG warrants the following charging systems (CHGR12, CHR24) to be free from defects in workmanship and material under normal use and conditions for two years from date of purchase. Rechargeable batteries in the TX72M, TX900M, RX72M, and RX900M are warranted for 2 years. Power Supplies are warranted for 90 days.

All other parts and accessories are warranted for 90 days from date of purchase.

### **Fitness and Cardio Entertainment Products**

ARG warrants the following transmitters (ARG-CV-FMT, ARG-CV-900T, ARG-900AT, and ARG-CV-2.4T) to be free from defects in workmanship and material under normal use and conditions for four years from date of purchase.

ARG warrants the following receivers (ARG-CV-FMR, ARG-CV-900R, ARG-900AR, ARG-CV-2.4R and ARG-2.4R) to be free from defects in workmanship and material under normal use and conditions for two years from date of purchase.

ARG warrants the following personal viewing screens and accessories (ARG-PVS15LED, ARG-PVS19LED, ARG-PVSC) to be free from defects in workmanship and material under normal use and conditions for two years from date of purchase.

All other parts and accessories are warranted for 90 days from date of purchase.

### **VoiceAmp® Portable Amplifiers**

ARG warrants the following VoiceAmp portable amplifiers (VA20WB, VA20T, and VA30SE) to be free from defects in workmanship and material under normal use and conditions for five years from date of purchase. Batteries for these listed products are warranted for two years from date of purchase.

All other parts and accessories are warranted for 90 days from date of purchase.

The Warranty is only available to the original end purchaser of the product and cannot be transferred. Warranty is void if damage occurred because of deliberate or accidental physical damage, neglect, misuse or if the product has been repaired or modified by anyone other than a factory authorized service technician. Warranty does not include normal wear and tear on the product or any other physical damage unless the damage was the result of a manufacturing defect. ARG is not liable for consequential damages due to any failure of equipment to perform as intended.

The above stated warranty is exclusive and replaces all other warranties express or implied, including those of merchantability and fitness for a particular purpose. ARG will not be held liable for any other damages or loss including incidental or consequential damages and loss of profit or revenues from whatever cause including breach of warranty or negligence.

The terms of the warranty are governed by the laws of the state of North Dakota. This warranty, prices, and the specifications of products are subject to change without notice.

Revised 1/4/2017

## Repairs and Returns Statement

If you are experiencing difficulty with your system please review the Troubleshooting section of your manuals and user guides for tips and techniques to correct your issues. If you continue to experience problems with your equipment, please call Audio Resource Group, Inc. (ARG) toll-free Customer Service Assistance number at (888) 468-4552.

If it is necessary to return your system for service, you must first be issued a Return Authorization Number (RMA) by our Customer Service Technician prior to sending the system to ARG. All returns must be prepaid by the sender (no freight collect shipments will be accepted). Make sure to clearly mark the RMA number on the outside of the package and ship to:

### **Ship To:**

Audio Resource Group, Inc.  
Attn: Repair Department  
405 Main Ave W Unit 3A  
West Fargo, ND 58078

### **Out-of-Warranty Repairs:**

We can service/repair most Out-of-Warranty products. These repairs will be charged in accordance with our Flat Rate Repair Schedule. Please contact your sales representative or customer service for a repair quotation under our Flat Rate Repair Schedule.

### **Repair Quotes:**

In some cases, if your product is not listed on the Flat Rate Repair Schedule, we can provide you with a repair price based on an individual repair cost estimate.

### **Warranty Repairs:**

The ARG warranty period begins from date of purchase. Warranty is only available to the original end purchaser of the product and cannot be transferred. We will, at our option, repair or replace any part or product found to be defective in workmanship or material under normal use and condition. Warranty is void if damage occurred because of deliberate or accidental physical damage, neglect, misuse or if the product has been repaired or modified by anyone other than a factory authorized service technician. Warranty does not include normal wear and tear on the product or any other physical damage unless the damage was the result of a manufacturing defect.

**Returns for Credit:**

Items returned for credit, in “like new” condition (unopened, or original packaging intact), will be issued a full credit (minus applicable shipping charges). Items returned for credit after 30 days are subject to a restocking fee. We are unable to issue credit for any items after 90 days from the date of purchase. Additional fees or partial credit may occur due to missing or damaged items.

**Ship To:**

Audio Resource Group, Inc.  
405 Main Ave W Unit 3A  
West Fargo, ND 58078  
Phone: (888) 468-4552 Fax: (888) 373-4819  
repairs@argaudio.com

ARG Repairs and Return policies, programs, and pricing are subject to change without notice.