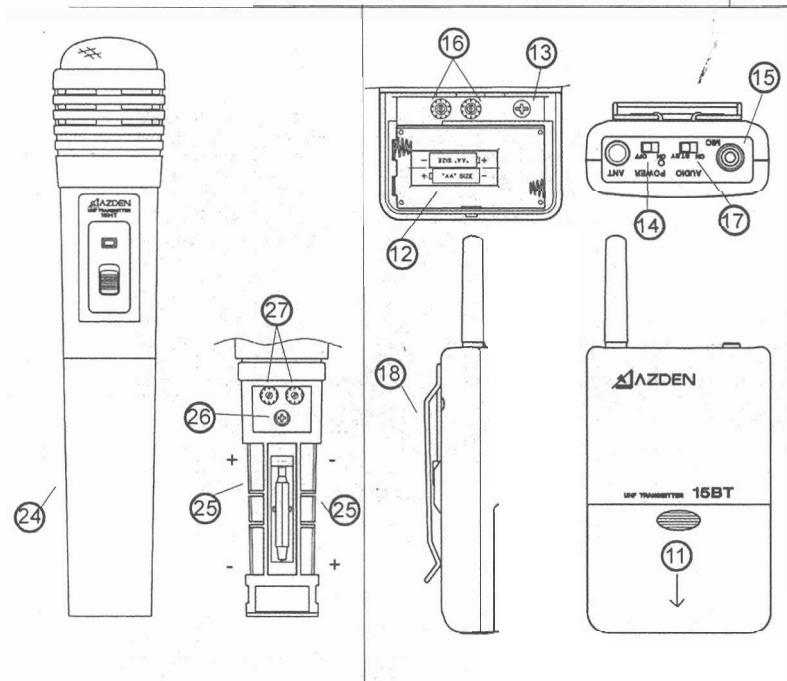
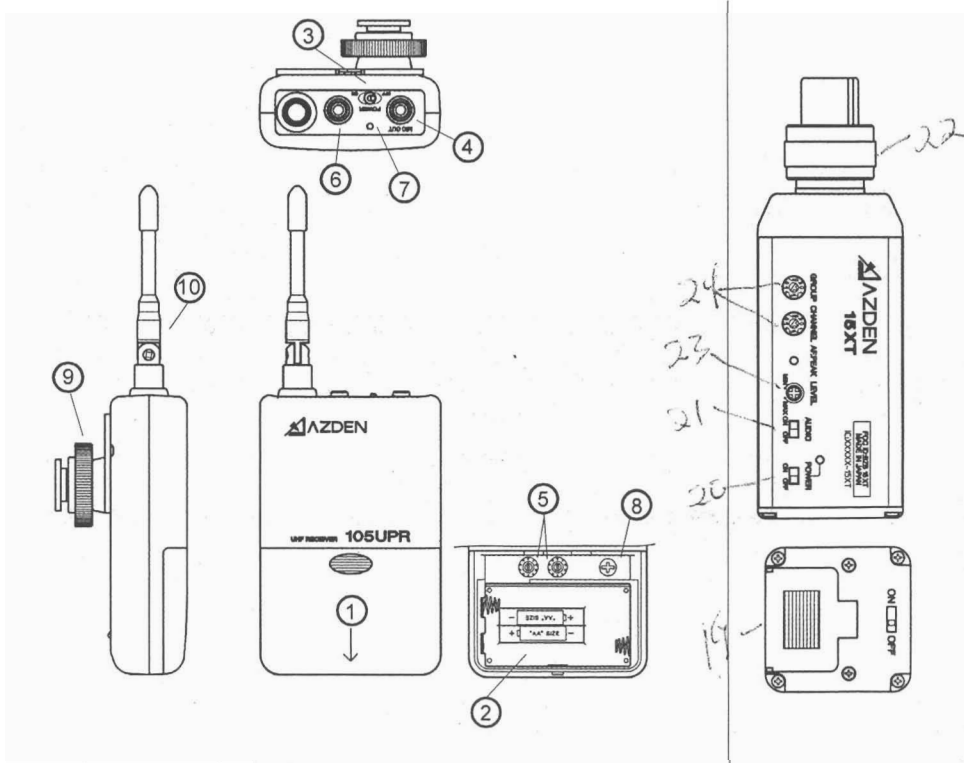

105 SYSTEM

User's Guide

105UPR • 15BT • 15HT • 15XT
ON-CAMERA
UHF WIRELESS MICROPHONE SYSTEM



 **AZDEN**[®]
QUALITY YOU CAN HEAR



Thank you for purchasing Azden's 105 wireless microphone system. Depending on which system you ordered this package will contain one or more of the following components: the 105UPR receiver, the 15BT body-pack transmitter with EX-503L lavalier microphone, the 15XT XLR plug-in transmitter and/or the 15HT handheld microphone transmitter. This equipment is designed primarily for video cameras but is usable with most electronic components having a microphone level input. The 105UPR allows you to "receive" audio from one transmitter at a time.

RECEIVER (105UPR)

(1) Remove the battery compartment lid by sliding it down.

(2) Insert two fresh Alkaline* "AA" batteries into the compartment. Make sure the battery polarity is correct as marked inside the battery compartment.

(3) POWER:
Switches the receiver "ON" or "OFF".

(4) MIC OUT jack:
The 105UPR is supplied with a mini-to-mini cable.

For mini jack microphone inputs: Use the supplied mini-to-mini cable. Plug one end of the cable into the receiver and the other end of the cable into the microphone input of the video camera.

For 3-pin XLR microphone inputs: Use the optional mini-to-XLR cable (MX-1). Plug the mini-plug end of the cable into the receiver (use the screw-down sleeve to secure it to the receiver) and plug the XLR end of the cable into the microphone input of the video camera.

(5) Frequency Selection:
Frequency adjustment is accomplished by setting the controls inside the battery compartment. With the frequency GROUP dial on the left (column A on the included chart) you can select any of 10 frequency groups (numbered 0-9). With the frequency CHANNEL dial on the right (column B on the included chart) you can select any of 10 frequency channels (numbered 0-9). There are 92 possible combinations.

(6) Phone Jack:
Plug an earphone into this jack to monitor the sound. The jack is wired to work with either mono or stereo headphones (you will hear mono in both ears).

(7) LED indicator:
This LED turns *RED* when the receiver is turned "ON" and *GREEN* when receiving a signal from the transmitter.

(8) Phone Output Adjustment: Using the supplied tool, turn the screw clockwise to increase earphone level and counterclockwise to decrease.

(9) Shoe-Mount:

Attach the 105UPR to the shoe-mount of the video camera by sliding it into place. Turn the thumbwheel clockwise to tighten. Reverse this procedure to remove.

(10) Antenna: For best reception the antenna should be pointed in an upward fashion. Use caution, and do not force it into this position.

BODYPACK TRANSMITTER (15BT)

(11) Remove the battery compartment lid by sliding it down.

(12) Insert two fresh "AA" Alkaline* batteries into the compartment. Make sure the battery polarity is correct as marked inside the battery compartment.

In addition to the battery, inside the battery compartment you will find:

(13) MIC Input LEVEL Control:

This control enables you to adjust the input level of the microphone. Using the supplied tool, turn the dial clockwise to increase, or counterclockwise to decrease the input level.

(14) POWER:

Switches the transmitter "ON" or "OFF".

(15) MIC Input Jack:

Plug the supplied EX-503L microphone into the MIC input jack and tighten the collar until snug (DO NOT OVERTIGHTEN). In addition to the EX-503L, other lapel and/or headset microphones with 3.5mm mini plugs can also be used with the 15BT.

(16) Frequency Selection:

Frequency adjustment is accomplished by setting the controls inside the battery compartment. With the frequency GROUP dial on the left (column A on the included chart) you can select any of 10 frequency groups (numbered 0-9). With the frequency CHANNEL dial on the right (column B on the included chart) you can select any of 10 frequency channels (numbered 0-9). There are 92 possible combinations.

(17) Audio Standby:

The Audio/Standby switch serves as a mute switch. In the STBY position the audio output from the 15BT is muted while in the ON position audio is transmitted.

(18) Belt clip

XLR PLUG-IN TRANSMITTER (15XT)

(19) Open the battery compartment lid and insert 2 fresh "AA" Alkaline batteries. Make sure the battery polarity is correct as marked inside the battery compartment

(20) POWER:
Switches the transmitter "ON" or "OFF"

(21) AUDIO:
Prior to first turning the 15XT "ON" it is best to set the AUDIO switch to "OFF". When you are ready to begin transmitting, switch to "ON". The "OFF" position acts as a "mute" that maintains the RF signal but turns off the audio.

(22) MIC Connector/Locking Ring:
This 3-pin XLR connector is the microphone input. Any low impedance microphone with a corresponding connector can be attached here. Once the microphone is plugged into the 15XT the locking ring should be rotated clockwise until snug. To remove the microphone, first rotate the locking ring counterclockwise and then, while pressing the XLR release, pull the microphone away from the 15XT.

(23) MIC Input LEVEL Control:
The MIC input LEVEL control enables you to adjust the input level of the connected microphone. Using the supplied tool, turn the dial clockwise to increase, or counterclockwise to decrease the input level.

(24) Frequency Selection:
Frequency adjustment is accomplished by setting the controls inside the battery compartment. With the frequency GROUP dial on the left (column A on the included chart) you can select any of 10 frequency groups (numbered 0-9). With the frequency CHANNEL dial on the right (column B on the included chart) you can select any of 10 frequency channels (numbered 0-9). There are 92 possible combinations.

HANDHELD MICROPHONE/TRANSMITTER (15HT)

(24) Remove the battery compartment cover by rotating it counterclockwise and sliding it down.

(25) Insert two fresh Alkaline* "AA" batteries* into the compartment. Make sure the battery polarity is correct as marked inside the battery compartment.

In the battery compartment you will also find #26 and #27:

(26) MIC LEVEL Control:

The MIC LEVEL control enables you to adjust the audio level of the microphone. Using the supplied tool, turn the dial clockwise to increase, or counterclockwise to decrease the microphone's audio level.

(27) Frequency Selection:

Frequency adjustment is accomplished by setting the controls inside the battery compartment. With the frequency GROUP dial on the left (column A on the included chart) you can select any of 10 frequency groups (numbered 0-9). With the frequency CHANNEL dial on the right (column B on the included chart) you can select any of 10 frequency channels (numbered 0-9). There are 92 possible combinations.

Operating the system

Because this is a frequency agile system, the receiver and transmitter must be on the same Receive/Transmit frequency. Follow the instruction #5, 16, 24 and 27. Make sure both the receiver and transmitter are on the same channel.

105UPR Receiver

After installing new batteries, mount the receiver to your video camera with the supplied shoe mount or hook & loop fastener. Connect the output cable to the receiver and to the microphone input on the video camera. Switch the 105UPR to "ON" and the power indicator (7) should come on Red. If it doesn't, check the batteries. When the 105UPR receives a signal from the transmitter the LED indicator will change to Green. If it does not, make sure both the receiver and transmitter are on matching channels.

15BT Transmitter

Plug in the supplied lapel microphone and clip it to your subject. The microphone should be placed 4-12 inches from your subject's mouth. Clip the transmitter to a belt using the supplied belt-clip or place it in a pocket. Switch the 15BT to "ON" and the power indicator should come on. If it does not, check the batteries. Have someone speak into the microphone as you monitor the sound through the receiver's phone output. If the sound is distorted lower the MIC input level on the transmitter. If there is not enough volume raise the MIC input level on the transmitter.

15XT Transmitter

Switch the transmitter to "ON" and the power indicator should come on. If it does not, check the batteries. Have someone speak into the microphone as you monitor the sound through the camera's monitor output. If the sound is distorted lower the level control on the transmitter. If there is not enough gain raise the level control on the transmitter.

35HT Transmitter

Switch the transmitter to "ON" and the power indicator should come on. If it does not, check the batteries. Have someone speak into the microphone as you monitor the sound through the camera's monitor output. If the sound is distorted lower the level control on the transmitter. If there is not enough gain raise the level control on the transmitter.

Important information

Licensing of this, or any Azden wireless equipment is the user's responsibility. The ability to receive a license depends largely on the user's classification, application and frequency. Contact the appropriate agency (FCC in the US) for further information.

These devices comply with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) These devices may not cause harmful interference, and (2) These devices must accept any interference received, including interference that may cause undesired operation.

NOTE: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

These devices and their antenna(s) must not be co-located or operated in conjunction with any other antenna or transmitter.

Specifications

105UPR	Receiver	
	Frequency Range	UHF 92 Selectable Frequencies (566.25-589.75MHz)
	Type of Reception	FM
	Oscillator	PLL Synthesized
	RF Squelch Level	-92dBm
	Frequency Response	50Hz – 12kHz
	S/N Ratio	>57dB (± 5 kHz) "A" Weighted
	Audio Out	MIC Level – Balanced – 3.5mm Mini-Jack -57 dBm – 600 μ @ ± 5 kHz deviation
	Batteries	2 "AA" Alkaline (2 x 1.5V) – 6-8 hours runtime 2 "AA" rechargeable Ni-MH (2 x 1.2V)
	Dimensions	2.48"W x 3.86"H x 1.06"D (63 x 98 x 27 mm)
	Weight	Approx. 6.35oz (180g) w/batteries
15BT	Body-pack Transmitter	
	Frequency Range	UHF 92 Selectable Frequencies (566.25-589.75MHz)
	Oscillator	PLL Synthesized
	RF Power	25mW
	Frequency Response	50Hz – 15kHz
	Max. Deviation	± 40 kHz @ 1kHz Modulation, MIC Input – 11dBm
	Batteries	2 "AA" Alkaline (2 x 1.5V) – 6-8 hours runtime 2 "AA" rechargeable Ni-MH(2 x 1.2V)
	Dimensions	2.48"W x 3.86"H x 1.06"D (63 x 98 x 27 mm)
	Weight	Approx. 5.64oz (160g) w/batteries
15XT	Plug-In Transmitter	
	Frequency Range	UHF 92 Selectable Frequencies (566.25-589.75MHz)
	Oscillator	PLL Synthesized
	Antenna	Internal
	RF Power	25mW
	Frequency Response	50Hz – 12kHz
	Reference Deviation	± 5 kHz (-60dBm - 1kHz input)
	Battery	2 "AA" Alkaline (2 x 1.5V) – 6-8 hours runtime 2 "AA" rechargeable Ni-MH(2 x 1.2V)
	Dimensions	1.57"W x 1.57"H x 4.49"L (40 x 40 x 114 mm)
	Weight	Approx. 6.35oz (180g) w/battery
15HT	Handheld Microphone/Transmitter	
	Frequency Range	UHF 92 Selectable Frequencies (566.25-589.75MHz)
	Oscillator	PLL Synthesized
	RF Power	25mW
	Frequency Response	50Hz – 12kHz
	Reference Deviation	± 5 kHz (-60dBm - 1kHz input)
	Batteries	2 "AA" Alkaline (2 x 1.5V) – 6-8 hours runtime 2 "AA" rechargeable Ni-MH (2 x 1.2V)
	Dimensions	$\Phi 1.73$ " x 9.05"L (44 x 230 mm)
	Weight	Approx. 4.58oz (130g) w/batteries

Due to constant improvements, specifications are subject to change without notice.

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105 Series Frequency Chart

CH	NO	
A	B	Rotary SW
0	1	566.250
0	2	566.500
0	3	566.750
0	4	567.000
0	5	567.250
0	6	567.500
0	7	567.750
0	8	568.000
0	9	568.250
1	0	568.500
1	1	568.750
1	2	569.000
1	3	569.250
1	4	569.500
1	5	569.750
1	6	570.000
1	7	570.250
1	8	570.500
1	9	570.750
2	0	571.000
2	1	571.250
2	2	571.500
2	3	571.750

CH	NO	
A	B	Rotary SW
2	4	572.250
2	5	572.500
2	6	572.750
2	7	573.000
2	8	573.250
2	9	573.500
3	0	573.750
3	1	574.000
3	2	574.250
3	3	574.500
3	4	574.750
3	5	575.000
3	6	575.250
3	7	575.500
3	8	575.750
3	9	576.000
4	0	576.250
4	1	576.500
4	2	576.750
4	3	577.000
4	4	577.250
4	5	577.500
4	6	577.750

CH	NO	
A	B	Rotary SW
4	7	578.250
4	8	578.500
4	9	578.750
5	0	579.000
5	1	579.250
5	2	579.500
5	3	579.750
5	4	580.000
5	5	580.250
5	6	580.500
5	7	580.750
5	8	581.000
5	9	581.250
6	0	581.500
6	1	581.750
6	2	582.000
6	3	582.250
6	4	582.500
6	5	582.750
6	6	583.000
6	7	583.250
6	8	583.500
6	9	583.750

CH	NO	
A	B	Rotary SW
7	0	584.250
7	1	584.500
7	2	584.750
7	3	585.000
7	4	585.250
7	5	585.500
7	6	585.750
7	7	586.000
7	8	586.250
7	9	586.500
8	0	586.750
8	1	587.000
8	2	587.250
8	3	587.500
8	4	587.750
8	5	588.000
8	6	588.250
8	7	588.500
8	8	588.750
8	9	589.000
9	0	589.250
9	1	589.500
9	2	589.750