# WIR TX7 Transmitter Instructions 250 kHz, Small Area Infrared Transmitter

## OVERVIEW

Thank you for purchasing the WIR TX7 Infrared Transmitter from Williams Sound Corp. Anyone needing auditory assistance to overcome background noise, reverberation, or distance from the sound source can benefit from the WIR TX7.

You can use the WIR TX7 for hearing assistance in conference rooms, listening to the TV, or other audio equipment. The TX7 Transmitter features an Automatic Level Control to adjust for different audio signal levels and to maintain a comfortable listening level.

If you have problems at anytime with the WIR TX7, do not hesitate to call us toll-free at 1-800-843-3544.

## System Components

- WIR TX7 Transmitter
- TV Microphone (MIC 070)
- Audio Cable with two 3.5 mm plugs (WCA 073)
- AC to DC Adaptor (TFP 021)
- RCA Plug Adapter (CNA 008)

# Setting Up

## STEP 1: SET UP THE TX7 TRANSMITTER

The WIR TX7 Transmitter has an adjustable base that allows it to be mounted on a wall or cabinet, or placed on top of a TV or shelf. If you will be mounting it on a wall, use the keyed mounting holes on the bottom of the transmitter.

The two horizontal mounting holes are 2-1/4" (5.7 cm) apart and the two vertical holes are 3" (7.6 cm) apart.

Place the TX7 Transmitter where it is clearly visible from your listening position. (See Fig 1.)

Infrared light behaves like visible light, so it is blocked by solid objects. This confines the signal to the room where the transmitter is located. The Transmitter cannot be placed inside or behind anything except glass. The maximum operating distance is approximately 30 feet (9 m).





Ideally, the TX7 Transmitter should be at ear-level height or above. The infrared light pattern is cone-shaped as it leaves the transmitter, with the best reception inside the cone.



Sunlight can cause infrared interference in the form of a buzz, hiss, or static. Thus, the system cannot be used outdoors and may not work properly inside if a lot of direct sunlight is present. Closing drapes or blinds will help if sunlight is a problem.

Any number of receivers may be used with the TX7 Transmitter, but use only one transmitter in a room at the same time. Otherwise, interference will occur.

### STEP 2: CONNECT THE TRANSMITTER POWER SUPPLY

Plug the AC to DC Adaptor cord into the "DC 12V" jack on the base of the TX7. Then plug the Adaptor into an outlet. The red power indicator light on the TX7's front will go on. This indicator light goes on when an audio signal of sufficient strength (approx. 10 mV) is sent to the TX7. It will go off 2–3 minutes after the audio signal is removed.



#### STEP 3: CONNECT THE TRANSMITTER TO THE AUDIO SOURCE

Plug the blue-banded end of the Audio Cable into the TV Microphone as shown in Figure 4. The microphone has a velcro clip that can be attached near the loudspeaker of your TV.

The Audio Cable's blue end can also be connected directly into an audio output from a VCR or TV with the RCA Plug Adaptor supplied.



*Note:* When using the RCA Plug Adaptor, make sure to connect the adaptor to the Audio Cable's blue-banded plug. This will ensure a good electrical contact. See Figure 4.

#### STEP 4: INSTALL THE RECEIVER BATTERIES

Load two AA batteries into the RX7 Receiver. Be sure to insert the battery "plus" and "minus" terminals correctly. DO NOT force them in backwards.

#### STEP 5: USING RECEIVERS

The TX7 Transmitter works with Williams Sound's WIR TX5 and WIR TX7 receivers. To use the WIR TX7, first make sure your TV or Audio Source is turned ON. Plug in the earphone or headphone and rotate the Volume Control to turn the receiver on and adjust the volume to a comfortable level.

The infrared receiver "eye" is located on the front of the receiver. Do not cover it up or you will lose reception.

Be sure to turn the receiver OFF when it is not in use.



## IN CASE OF DIFFICULTY

If the system does not seem to be functioning:

- 1. Make sure that your television is plugged in and turned on.
- 2. Make sure that the TX7 Transmitter is plugged in and correctly connected to the TV or VCR's audio output.
- 3. If you're using the TV Mic and not getting a signal, try turning the TV volume up slightly. Also, try positioning the TV Mic directly over the TV speaker.
- 4. Make sure that the RX7 Receiver has working batteries.
- 5. Make sure you are not covering the RX7's infrared "eye". Remove any objects obstructing the line between the TX7 Transmitter and the RX7 Receiver.
- 6. If you've installed the TX7 Transmitter other than on top of the TV, make sure that its front panel is facing the RX7 Receiver.
- 7. If the system still does not function, call Williams Sound at 1-800-843-3544.

## WARRANTY

The WIR TX7 carries a five year parts and labor warranty. The TV microphone, earphones, headphones, rechargeable batteries, adaptors, and AC to DC Power Adaptor carry a 90 day warranty. Be sure to fill out and mail the Warranty Card to register your warranty.

# WIR TX7 LISTENING SYSTEM SPECIFICATIONS

#### **TX7 TRANSMITTER:**

Size and Weight:	8.5 cm W x 12.5 cm H x 10.5 cm D (3.4" x 4.2" x 4.1"), 177 g (6.2 oz.)
Power Input:	12 VDC from 115 VAC, 60 Hz, 200 mA Class II wall transformer (UL-Listed) center is positive on DC connector
Subcarrier Frequency:	250 kHz FM
Auto On/Off Indicator:	Illuminates when12 VDC power and an audio signal are applied, Transmitter shuts off 2-3 minutes after audio signal is removed.
Microphone Input:	3.5 mm jack connects to either MIC 070 Microphone or to Direct Audio Input with 5 k $\!\Omega$ impedance.
Automatic Level Control:	30 dB compression range: 25 mV to 750 mVrms max. at 1 kHz
Frequency Response:	100 Hz to 10 kHz, ± 3 dB
Distortion:	1% Max. THD

## INFRARED RECEIVER, MODEL WIR RX7

Size and Weight:	3-5/8" L x 2-3/8" W x 7/8" H (9.2 cm x 6 cm x 2.4 cm) 4.48 oz. (127 g)
Color and Material:	Gray, shatter-proof polypropylene
Battery Type:	1.5V (AA) x 2, Alkaline (BAT 001) or Rechargeable AA Ni-Cad (BAT 026)
Battery Life:	30 hours with BAT 001, 15 hours/charge with BAT 026, 25 mA, nom. current drain
Modulation Frequency:	250 kHz FM, 50 μS de-emphasis
Signal to Noise Ratio:	60 dB with WIR TX7
Controls:	Combination volume/On-Off knob, Switched Low-Cut tone control (Lo: 20 Hz / Mid: 120 Hz / Hi: 700 Hz)
Audio Output:	3.5 mm mono mini phone jack, 35 mW maximum into 16 $\Omega$
Acoustic Output:	130 dB MAX SSPL90 with EAR 013
Note:	The RX7 Infrared Receiver can be used with a Neckloop TeleCoil Coupler (NKL 001) to magnetically couple into a hearing aid that has a telephone pick-up coil.
Add'I Compatible Receivers:	WIR RX5: Selectable Channel Infrared Receiver, operates at either 95 kHz or 250 kHz

#### ACCESSORIES

CHG 200 Multi-Charger

This charger is designed to store and charge one or two receivers simultaneously overnight. 110 VAC. Use with Williams Sound BAT 022 rechargeable AA Ni-Cad batteries only.

