

Assistive Listening Systems

***RX-6***

*User's Guide*



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Information** 

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*RX-6 User's Guide, February 1996 (Rev. 2.00)*

## **Contents**

Introduction	1
Controls	2
Installing Batteries	3
Operation	3
Tuning the RX-6	4
Changing Preset Channels	4
Correcting Interference	6
Specifications	7
Notice	8
Compliance	9
Warranty	10

**Introduction** 

The RX-6 Assistive Listening Receiver is designed to provide the highest quality hearing assistance when used with the matching Gentner Assistive Listening transmitters. Whether in church or school, movies or opera, the RX-6 will provide excellent sound quality at almost any level desired.

The RX-6 has six preset channels allowing the user to quickly change from one channel to another (i.e. when moving between school classes, attending meetings in different languages and/or using it in multiroom movie theaters). Channels 1–3 are tunable to 72.1–72.95MHz, 4–6 from 74.7–75.9MHz. No crystals or plug-in modules are needed, and any or all of the channels can be quickly retuned, if necessary.

The RX-6's state-of-the-art circuitry runs on standard low-voltage batteries for much longer battery life than older designs that require less efficient nine-volt batteries. The case is attractive, comfortable to hold or place in a pocket, and is durable enough to withstand daily use.

A wide range of accessories to suit almost every hearing need is available for the RX-6, ranging from a rechargeable battery system to a variety of earphones and neck loops.

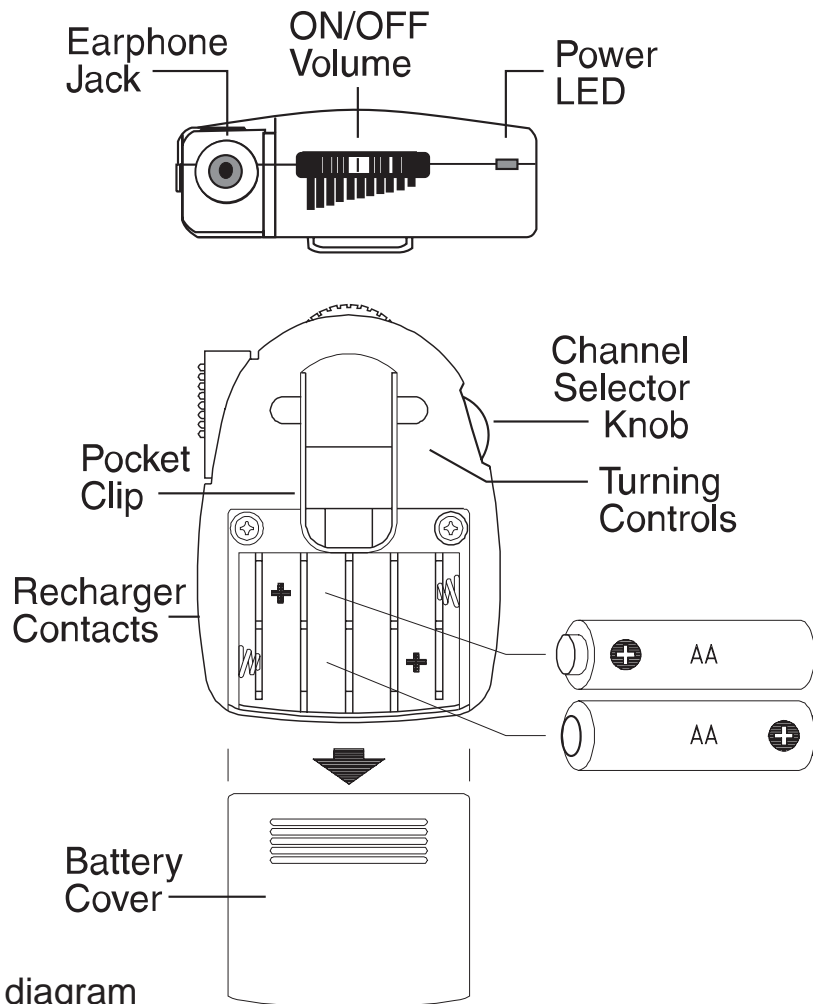


Figure 1. RX-6 diagram

## **Controls**

*Earphone Jack.* Plugs any of the available earphones into the recessed jack to prevent damage to the earphone plug during use or carrying. This is a 32Ohm mono output.

*ON/OFF Volume.* Turns the RX-6 on/off, and sets the volume.

*Power LED.* Indicates that the power is on, and that the

batteries are properly charged.

*Pocket Clip.* Holds the RX-6 securely in a pocket or over a small belt. Can also be used with the supplied wrist loop or the optional neck cord for easy, secure carrying.

*Channel Selector Knob.* Switches the RX-6 to any of six pretuned channels. Channels can be retuned to other frequencies without changing crystals or modules.

*Tuning Controls* (inside case, above battery compartment). Comes factory set to six well-spaced channels. Retuning of the RX-6 should be done by a qualified technician.

*Recharger Contacts.* Enable the RX-6 to be used with the optional rechargeable batteries and the BC-10 drop-in trickle charger for easy recharging when not in use.

*Battery Cover.* Conceals the battery compartment.

## **Operation**

### **Installing Batteries**

Before use, install two AA-size batteries in the RX-6. For longest life, Alkaline types are preferred, but the RX-6 will operate properly on standard types as well. The RX-6 can also operate on rechargeable Ni-Cad batteries, available optionally. To install the batteries, place your thumbs on either side of the pocket clip and slide the battery door off. Note the polarity markings and insert the two AA cells.

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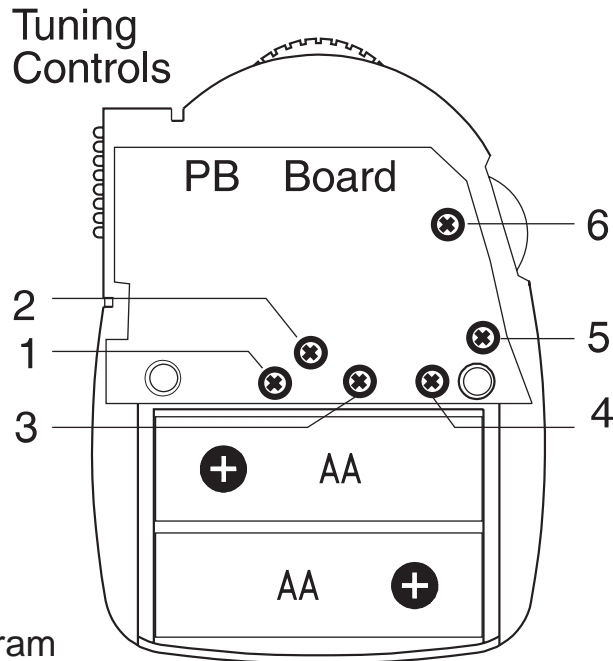
### ***Tuning the RX-6***

The RX-6's six channels come factory set to frequencies across the Assistive Listening Band, selected for best overall performance: position 1 is Channel 2 (72.1MHz); position 2 is Channel 10 (72.5MHz); position 3 is Channel 19 (72.95MHz); position 4 is Channel 21 (74.7MHz); position 5 is Channel 28 (75.5MHz); and position 6 is Channel 36 (75.9MHz).

Should retuning become necessary, the six channels can be quickly and easily set to almost any combination of the 37 channels available on the Gentner Assistive Listening System. Since opening the case is necessary to retune the RX-6, tuning is best left to a qualified technician.

### ***Changing Preset Channels***

1. Set TX-37A transmitter to the first desired channel. Turn power on and switch on the test tone.
2. Open the RX-6 case by removing the two Phillips case screws on the rear. Remove the back panel. Near the bottom and right side of the printed circuit board (See Figure 2, next page.) are six tuning holes that correspond to the six channels.
3. Set the RX-6 thumb wheel switch to the channel number on which you want to change the channel assignment.



**Figure 2.** Tuning diagram

4. Plug in an earphone and turn on the RX-6. You must be at least 10 feet from the transmitter antenna for best tuning accuracy.

5. Using an alignment tool, rotate the tuning control until the test tone is heard clearly. Rotate the tuning control back and forth until the tone is as clear as possible, without any buzzing or distortion. This will make sure that the frequency is set clearly in the center of the channel. The RX-6 will then lock in on the channel and hold it until you wish to change it again.

6. Set the rest of the channels the same way, if desired,

changing the channel transmitted by the TX-37A and the channel thumb wheel on the RX-6 each time.

***Please Note:** To aid tuning, tuning-control range has been limited to half of the total band. Tuning control 1, 2 and 3 cover channels 01 to 19. Controls 4, 5 and 6 cover channels 20–37. (More than one tuning control can be set to a single channel.) Please keep this in mind as you select the channels to be used in your system.*

7. When finished, turn the TX-37A transmitter's test tone off .

8. Test the RX-6 by plugging the supplied or any optional earphone into the jack, making sure that it is fully seated, and rotate the volume knob to turn on the receiver.

9. Check to see that your channel selector is set for the channel to be transmitted by the TX-37A Your program should now come through loud and clear. When off, the LED will be off, so you can be sure you are not unnecessarily discharging the battery.

### ***Correcting Interference***

With any type of RF device, other RF sources can interfere with reception. Even the Assistive Listening Band is occasionally subject to use by other types of devices.

Interference can take the form of rising-and-falling audio. To verify on-channel interference, take the receiver to the place where the interference is worst and turn off the transmitter. The interfering signal should now come in stronger. Since the TX-37A is frequency-agile, you can set it to another channel and retune the receivers to move away from the interference.

If more than one TX-37A is to be operating in the same location, try to keep the channels used as far apart from each other as possible. Transmitters should never be set to the same frequency in the same location.

## **Specifications**

### **RX-6**

Dimensions:	3 1/2"H x 2 5/8"W x 3/4"D
Weight:	2.2 oz. (4.5 oz. w/ earphone, batteries)
Frequency Range:	100–10,000Hz
Output Level:	140 mW into 32Ohms at 10 percent thd
Signal-to-Noise Ratio:	60dB at 1mV

Transmission Type: FM, medium bandwidth (60kHz)

Distortion: < 2 percent

RF Frequency Range: Six selectable channels:  
CH 1-3 tunable 72–74MHz;  
CH 4-6 tunable 74–76MHz

Preset Channels: Position 1: CH 2 (72.1MHz);  
2: CH 10 (72.5MHz);  
3: CH 19 (72.95MHz);  
4: CH 21 (74.7MHz)  
5: CH 28 (75.5MHz);  
6: CH 36 (75.9MHz)

Sensitivity: 0.6 uV typical, 1mV max for  
12dB SINAD

Controls: On-Off/Volume, Tuning (hidden)

Earphone Jack: Standard 3.5mm Mono

Power Requirements: 2xAA batteries

Battery Life: 60 hours with Alkaline types

**Notice** 

Gentner Communications Corporation assumes no liability for improper use or operation of this equipment. The user is cautioned to operate the volume controls at the lowest acceptable level, and in a manner that will not cause damage to hearing. Ear pieces and accessories should be worn using good judgment and for their intended purpose. To avoid entanglement, the ear pieces and neck loops should be removed and stored promptly after use, and always before sleeping.

Users are cautioned that changes or modifications not expressly approved by Gentner Communications Corporation could void the user's authority to operate the equipment.

If you experience problems with this equipment, contact Gentner Communications Corporation.

**Compliance** 

**FCC Registration Number: FBI910402006**

The RX-6 complies with Part 15 of the FCC Rules. 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,

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including interference that may cause any undesired operation.

This device also complies with the requirements of the Department of Communications (DOC) of Canada. This device complies with the RSS-210 of Industry and Science Canada. Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device, as specified in document RSS-210. The device is permitted only on a no-interference basis; that is, it must cease operation if it is causing harmful interference to services authorized by DOC, as listed in the Canadian Table of Frequency Allocations.

### **Warranty**

Gentner Communications Corporation (Manufacturer) warrants that this Assistive Listening System (ALS) product is free of defects in both materials and workmanship. Should any part of this equipment be defective, Manufacturer agrees, at its option, to:

A. Repair or replace any defective ALS product, free of charge (except transportation charges), for a period of one year from the date of the original purchase, provided the owner returns the equipment to the Manufacturer at the address set forth below. No charge will be made for parts or labor during

this period;

B. Furnish replacement for any defective ALS product parts in the equipment for a period of one year from the date of original purchase. Replacement parts shall be furnished without charge, except labor and transportation;

C. Repair or replace any defective ALS accessory, free of charge (except transportation charges), for a period of 60 days from the date of the original purchase, provided the owner returns the equipment to the Manufacturer at the address set forth below. No charge will be made for parts or labor during this period.

This Warranty excludes assembled products not manufactured by Manufacturer whether or not they are incorporated in a Manufacturer product or sold under a Manufacturer part or model number.

**THIS WARRANTY IS VOID IF:**

A. The equipment has been damaged by negligence, accident, act of God or mishandling, or has not been operated in accordance with the procedures described in the operating and technical instructions; or,

B. The equipment has been altered or repaired by other than Manufacturer or an authorized service representative of Manufacturer; or,

C. Adaptations or accessories other than those manufactured or provided by Manufacturer have been made or attached to the equipment which, in the determination of Manufacturer, shall have affected the performance, safety or reliability of the equipment; or,

D. The equipment's original serial number has been modified or removed.

**NO OTHER WARRANTY, EXPRESS OR IMPLIED, INCLUDING WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR USE, APPLIES TO THE EQUIPMENT,** nor is any person or company authorized to assume any warranty for Manufacturer or any other liability in connection with the sale of Manufacturer's products.

Manufacturer does not assume any responsibility for

1) consequential damages, 2) expenses or loss of revenue or property, 3) inconvenience or interruption in operation experienced by the customer due to a malfunction in the purchased equipment. No warranty service performed on any product shall extend the applicable warranty period.

In case of unsatisfactory operation, the purchaser shall promptly notify Manufacturer at the address set forth below in writing, giving full particulars as to the defects or unsatisfactory operation. Upon receipt of such notice, Manufacturer will give instructions respecting the shipment of the equipment, or such other matters as it elects to honor this warranty as above provided. This warranty does not cover damage to the equipment during shipment and Manufacturer assumes no responsibility for such damage. All shipping costs shall be paid by customer.

This warranty extends only to the original purchaser and is not assignable or transferable.

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1825 Research Way, Salt Lake City, UT, 84119**

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For Technical Assistance Dial: **800-945-7730** or **801-975-7200**



*“Our vision is to provide our customers with  
the total audio solution for conferencing.”*



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