

340T Transmitter



user guide

))))))Phonic Ear®

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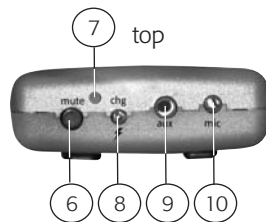
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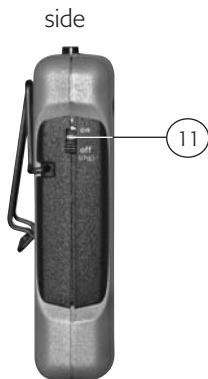
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340T transmitter features





- ① LCD channel display
- ② channel up/down buttons
- ③ belt clip
- ④ serial number/part number/operating band
- ⑤ battery compartment

⑥ mute button ( on  off)

⑦ LED power, mute, low battery and charging indicator light

 **power on** = Green light

 **mute on** = Blinking green light indicates that the microphone mute feature is on

 **low batt** = Blinking red light indicates approximately 1 hour of battery life remaining

 **batt charging** = Red light

 **improper charging** = no light (when charge cable is inserted)

⑧ charging input jack (1.3mm)

⑨ auxiliary input jack (3.5mm)

⑩ microphone input jack (2.5mm)

⑪ on/off(chg) switch

340T available accessories

1



2



3



4



5



6



7



8



- ① 340T carrying case
(841-6440-101 - U.S./Canada)
(895-88-008-00 - International)
- ② rechargeable NiMH AAA batteries
(374-30-310-09)
- ③ elastic belt
(AT0712)
- ④ wall charger
(040-7150-105 - US/Canada)
(890-88-051-00 - International, UK,
EU, NZ, AUS)
- ⑤ lavalier cord
(AT0512-BK)
- ⑥ aux-in adaptor cord
(384-01-210-08)
3.5mm - 3.5mm connects 340T to external audio,
CD player, stereo, computer, etc.
- ⑦ aux-in adaptor cord
(300-6332-107 - U.S./Canada)
(384-88-005-00 - International)
3.5mm- dual RCA connects 340T to external
audio, TV, VCR, DVD
- ⑧ antenna
(AT0529A)
For use during auxiliary input only.

340T microphone styles



AT0655
behind-the-neck
boom



AT0814
earhook

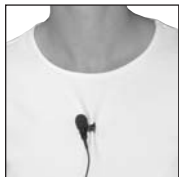


AT0816
collar



AT0291-L*
lapel with lavalier
cord

* Lapel microphones
are more prone to
feedback when
used with a sound
field system.



AT0668-L*
lapel mic with
lavalier



AT0164-L**
omni lapel with
lavalier cord



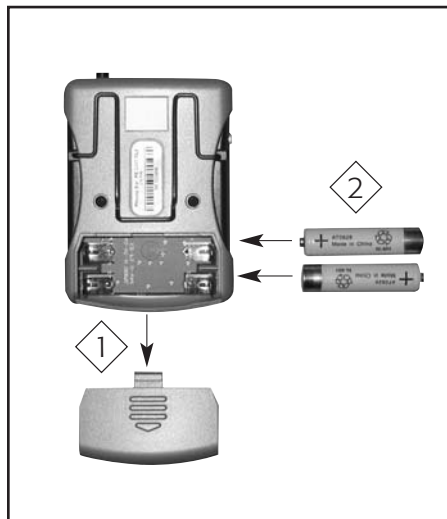
AT0667-L**
omni lapel with
lavalier cord

** Recommended for
use with personal
FM systems only

1

340T setup and operation

inserting batteries



1

Open battery compartment door by pressing  and sliding downwards.

2

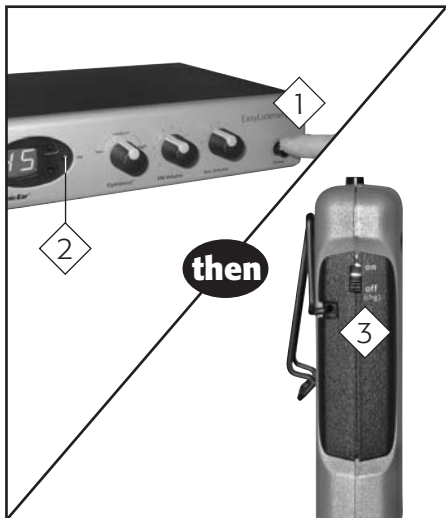
Insert rechargeable AAA NiMH batteries (or alkaline batteries) and replace door. **Check polarity markings to confirm batteries are positioned correctly.**

NOTE: The 340T uses high performance NiMH (nickel-metal hydride) batteries. To achieve maximum battery efficiency, charge batteries for 12 hours before first use. After daily use, charge unit overnight for at least 12 hours for up to 12 hours of battery life.

2a

charging batteries using 230R sound field system

**Do NOT attempt to charge alkaline batteries in the 340T.
Only Phonic Ear rechargeable batteries can be recharged.**



1

Push **power** button to turn 230R receiver off.

2

Sleep/standby power light on 230R receiver will remain lit during power off mode.

3

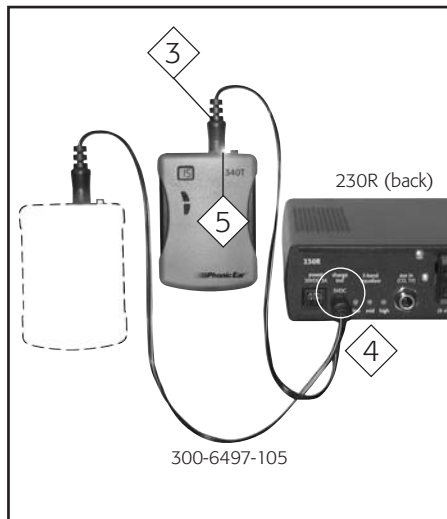
Turn 340T power switch to **off (chg)** position.

2b

charging batteries using 230R sound field system

Do NOT attempt to charge alkaline batteries in the 340T.

Only Phonic Ear rechargeable batteries can be recharged.



3

Plug any end of 300-6497-105 charge cord (included with 230R system) into 340T **charge/⚡** jack.

4

Plug any end of charge cord into **charge out** jack on back of 230R receiver.

5

Check indicator light on 340T for proper charge indication.

bright red = Battery charging

green light = Improper charge (turn power to **off(chg)** position)

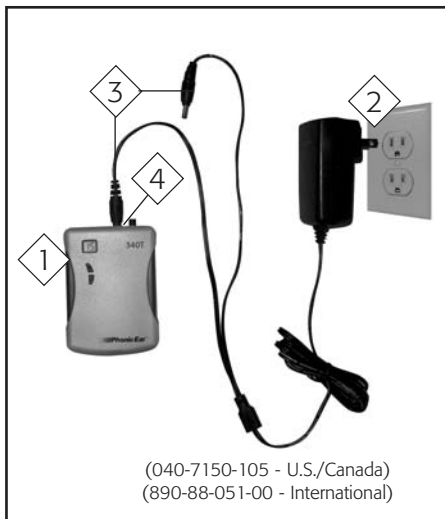
NOTE: Charge for 12 hours before first use. After daily use, charge unit overnight for at least 12 hours for up to 12 hours of battery life.

2c

charging batteries using wall charger

Do NOT attempt to charge alkaline batteries in the 340T.

Only Phonic Ear rechargeable batteries can be recharged.



1

Switch 340T power to **off (chg)** position.

2

Plug wall transformer into wall socket.

3

Plug either end of the wall transformer charge cord into 340T **charge** jack.

4

Verify 340T indicator light for proper charge indication

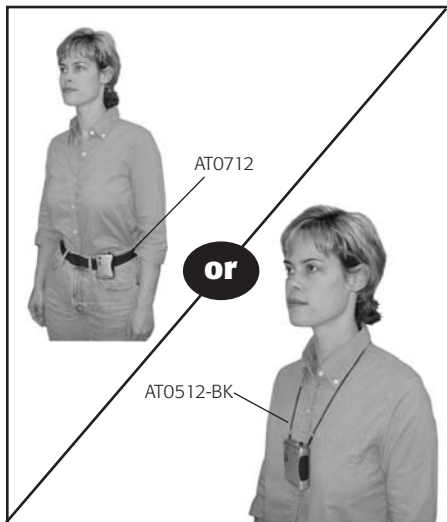
bright red = Battery charging

no light = Improper charge

IMPORTANT: Charge for 12 hours before first use. After daily use, charge unit overnight for at least 12 hours for up to 12 hours of battery life.

3

wearing 340T



Clip to elastic belt (AT0712), pocket, pants or clothes.

or

Attach transmitter to necklace-style lavalier cord (AT0512-BK).

4

plugging in and wearing microphone



1

Plug microphone into **mic** jack on 340T unit.

2

The microphone cord also acts as the antenna. To ensure consistent transmission, keep cord as straight as possible.

3

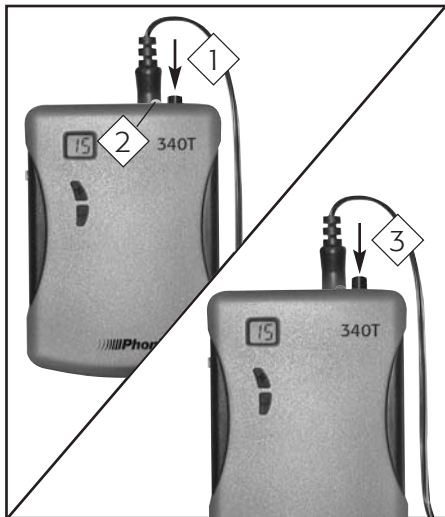
Position microphone approximately 3in/7.6cm from mouth.

4

To mute microphone, press down on 340T **mute** button

5

activating microphone mute feature



1

To mute microphone, press down on 340T **mute** button

mute switch positions:

(■ on ■ off)

2

The green “power on” LED indicator light will begin to blink when mute feature is activated

3

To deactivate mute, press down again on the mute button to restore button to “up” position and regain microphone sound.

6

turning on 340T



1

Push power switch up to turn transmitter power on.

2

Confirm green power on indicator light.

indicator light features:



on = Green light



mute on = Blinking green light



low batt = Blinking red light indicates approximately 1 hour of battery life remaining



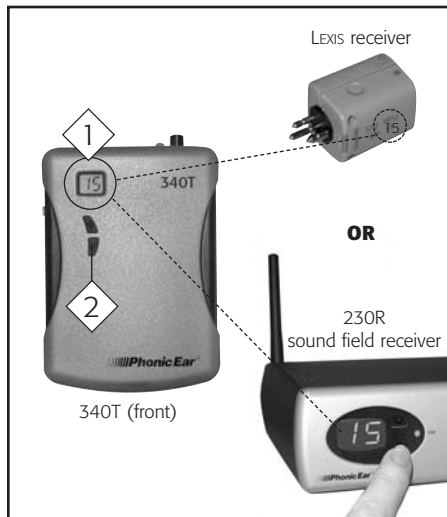
batt charging = Red light



improper charging = No light (when charge cable is inserted)

7

verifying channel setting



1

Set the channel number of the 340T to match the channel number of the receiver you are using.

Refer to the chart on pages 24 and 25 for a complete list of frequencies and corresponding Phonic Ear channel numbers by country.

8

changing channels

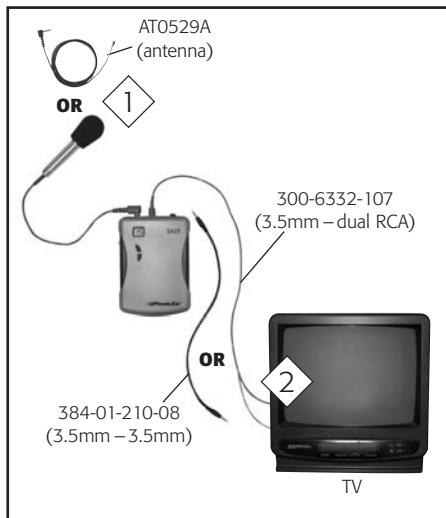


340T (front)

To change the channel number of the 340T transmitter to match the receiver channel number (230R, LEXIS, RADIUM or SPRITE):

- 1 Hold down the **CH+** or **CH-** button until numbers in display blink once. Now you're in channel-changing mode.
- 2 Using the **CH+** or **CH-** buttons, scroll to the desired channel that matches receiver channel number.
NOTE: Holding down the **CH+** or **CH-** button will allow quick-scrolling through channel numbers.
- 3 Channel number will "lock" in place after approximately 5 seconds of non-activity.

9

Using auxiliary inputs:
connecting CD, TV and other audio sources

The 340T auxiliary input jack (**aux**) allows transmission of an external audio source such as a CD player, TV, VCR, or computer.

- 1 Plug external antenna (AT0529A) or any microphone into 340T **mic** jack. (To ensure a consistent transmission, keep the microphone cord as straight as possible.)
- 2 Using appropriate auxiliary input cord, connect the 340T to the secondary sound source.

NOTE: Check the type of connection needed for the secondary sound source – refer to page 4 for available aux-in adaptor cord specs and usage descriptions.

340T part number cross-reference list

Description	part numbers	
	Phonic Ear, Inc. (USA)	Phonic Ear A/S (Intl.)
340T Transmitter • 173MHz • 216 MHz	340T-173 340T-216	202-01-001-00 NA
230R Sound Field Receiver • 173MHz • 216MHz	230R-173 230R-216USA	202-00-001-00 NA
Lexis Receiver • 173MHz • 216MHz	140-23-XXX-XX 140-23-XXX-XX	140-23-XXX-XX 140-23-XXX-XX
920SR Receiver • 216MHz	920SR216	NA
Behind-the-neck boom microphone	AT0655	-AT0655
Earhook microphone	AT0814	-5-300-400-110
FM Collar microphone	AT0816	-AT0816
Directional microphone w/lavalier cord (large)	AT0291-L	-AT0291-L
Directional microphone w/lavalier cord (small)	AT0668-L	630-15-500-03
Microphone clip for AT0291-L mic	AT0291-C	-AT0291-C
Microphone clip for AT0668-L mic	AT0668-C	-AT0668-C

340T part number cross-reference list (cont'd)

Description	part numbers	
	Phonic Ear, Inc. (USA)	Phonic Ear A/S (Intl.)
Windscreen for AT0291-L mic	AT0291-W	-AT0291-W
Windscreen for AT0668-L mic	AT0668-W	-AT0668-W
Windscreen for AT0655 mic	AT0655-W	-AT0655-W
Wall Transformer (for 340T charging) • USA/Canada • International (EU, UK, AU/NZ)	040-7150-105	890-88-051-00
Lavalier cord, black woven polyester (for transmitters)	AT0512-BK	-AT0512-BK
Lavalier cord, clear plastic (for lapel mics)	AT0076	-AT0076
AAA NiMH batteries (2 per pack)	374-30-310-09	374-30-310-09
Clamshell Tx carry case, black	841-6440-101	895-88-008-00
Belt clip, black	900-6495-101	890-88-060-00
Belt, elastic	AT0712	-AT0712
Aux-in adaptor cord (3.5mm - 3.5mm)	384-01-210-08	384-01-210-08
Aux-in adaptor cord (3.5mm - dual RCA)	300-6332-107	384-88-005-00
Antenna, auxiliary	AT0529A	-AT0529A
340T user guide/instructions for use	821-6442-101	921-00-010-00

troubleshooting

No Sound

- verify the mute switch on the top of the unit is in the off (up) position.
- verify the transmitter is operating on the same FM channel as the receiver
- verify the transmitter power is **on**
- verify the microphone cord is inserted properly into the **mic** jack
- if using the **aux** jack on the transmitter for external sound, verify the AT0529A antenna is plugged into the **mic** jack. If using a microphone cord as an antenna, make sure it is not coiled.
- verify an approved PE microphone is being used (AT0655, AT0814, AT0816, AT0291-L, AT0164-L, AT0669-L or AT0668-L)

Batteries NOT charging

- verify only Phonic Ear NiMH batteries are being charged. 340T unit will not charge disposable alkaline or other rechargeable batteries.
- check battery polarity markings to verify batteries are oriented properly
- verify the power switch is in the **off(chg)** position
- verify the charging cord is plugged in to the **chg** port and NOT the **aux** port
- verify the wall transformer is plugged into an operational electrical outlet

troubleshooting (cont'd)

340T won't turn on

- verify NiMH batteries are inserted properly and fully charged
- verify AAA alkaline batteries are inserted properly
- check battery polarity markings to verify batteries are oriented properly

Acoustic feedback (high-pitched squeal)

- make sure the user microphone is not too close to external speakers in the room
- make sure an omni-directional mic is not being used. Omni-directional mics should not be used with the 340T.

- lower the FM volume/gain control on the LEXIS, 230R or other receiver
- turn OPTIVOICE to medium, or low position
- have a sound professional adjust 3-band equalizer controls on the receiver, confirm they are not set to a high frequency setting

Static

- confirm microphone cord is not coiled
- verify approved PE microphones are being used (AT0655, AT0814, AT0816, AT0291-L, AT0614-L, AT0669-L or AT0668-L)

caring for your 340T

cleaning

Clean as needed, using a soft, damp cloth.

Do not immerse in water

storage

Clean with a soft damp cloth and remove the batteries from the transmitter.

other important notes

- Protect your 340T transmitter from excessive moisture, heat, and mechanical shocks.
- The 040-7150-105 or 890-88-051-00 wall transformer may get warm under normal operation.
- To protect the transmitter's case front, position it face down on a soft surface when removing or inserting the batteries.

battery warnings

Caution

- Remove all batteries when replacing.
- Do not mix new and used batteries.
- Do not mix alkaline and rechargeable batteries.
- Remove batteries from the unit if the unit is not going to be used for an extended period of time, such as during summer break.
- Do NOT dispose of batteries in fire.
- Do NOT charge Non-rechargeable batteries.
- Always dispose of old batteries in approved battery recycling bins. It may be illegal to dispose in the trash. If you are not sure of proper disposal method, please consult your local authority.

receivers that are compatible with the 340T transmitter

receiver	level of compatibility	comments
230R 	★★★★	
871R Lexis Pin 	★★★★	For a list of comparable 173MHz channels by country, contact Phonic Ear.
Phonak MLX & MLXS	★★★	- For a list of comparable Phonak channels, contact Phonic Ear. - Phonak offers custom receiver programming of receivers to allow operation on more channels.

★★★★= most compatible

340T channel numbers and corresponding frequencies

169-176MHz (EU)

United Kingdom

CH	FREQUENCY	CH	FREQUENCY
13	173.3500	50	174.4000
15	173.4000	52	174.4500
17	173.4500	53	174.5000
21	173.5000	54	174.5500
24	173.5500	55	174.6000
25	173.6000	57	174.6500
27	173.6500	59	174.7000
29	173.7000	60	174.7500
30	173.7500	62	174.8000
32	173.8000	63	174.8500
34	173.8500	65	174.9000
35	173.9000	66	174.9500
36	173.9500	67	175.0000
37	174.0000	71	175.0500
38	174.0500	total: 35	
40	174.1000		
42	174.1500		
44	174.2000		
45	174.2500		
47	174.3000		
48	174.3500		

New Zealand

CH	FREQUENCY
A1	173.0000
A2	173.0500
A3	173.1000
A4	173.1500
A5	173.2000
A6	173.2500
A7	173.3000
13	173.3500
15	173.4000
19	173.4650
23	173.5450
26	173.6400
28	173.6950
31	173.7550
91	173.8125
33	173.8250
35	173.9000
36	173.9500
93	173.9625
69	173.9900
37	174.0000
total: 21	

340T channel numbers and corresponding frequencies (cont'd)

169-176MHz (EU)

Australia

CH	FREQUENCY	CH	FREQUENCY
13	173.3500	55	174.6000
15	173.4000	57	174.6500
19	173.4650	59	174.7000
23	173.5450	61	174.7700
26	173.6400	63	174.8500
28	173.6950	65	174.9000
31	173.7550	66	174.9500
91	173.8125	67	175.0000
35	173.9000	94	175.5000
36	173.9500	95	175.6000
37	174.0000	2	175.7000
38	174.0500	9	175.8000
41	174.1200	97	175.8500
77	174.1750	10	175.9500
86	174.2250	11	176.0000
87	174.2750	total: 36	
78	174.3250		
88	174.3750		
89	174.4250		
79	174.4750		
90	174.5250		

340T channel numbers and corresponding frequencies (cont'd)

216 MHz (USA & Canada)

USA/Canada

CH	FREQUENCY
41	216.0250
42	216.0750
43	216.1250
44	216.1750
45	216.2250
46	216.2750
47	216.3250
48	216.3750
49	216.4250
51	216.5250
52	216.5750
53	216.6250
54	216.6750
55	216.7250
56	216.7750
57	216.8250
58	216.8750
59	216.9250
60	216.9750

total: 19

NOTE:

This product may only be used in countries in which the preset frequency range has been approved. The approved country's frequency range will be pre-set by the factory for the original destination country of each product. Please contact Phonic Ear to verify the frequency approvals before traveling with the product to a foreign country other than its original destination.

For a complete list of the available channels in each country, please contact Phonic Ear International.

product specifications

transmitter: 340T

transmitting frequency	169-176MHz, synthesized (International) 216MHz, synthesized (US/Canada)
modulation	FM narrow-band
operating range	up to 50m/160ft
user controls	off/on; push button mute switch; channel up/down
inputs/outputs	3.5mm auxiliary input jack 2.5mm microphone input jack 1.3mm charge jack
battery life	12Hr (AAA alkaline) 9Hr (AAA NiMH, 750mA-Hr cells)
size (WXHxD)	5.9 x 8.2 x 2.0 cm/2.3 x 3.3 x 0.8 in
weight	79.3g/2.8oz (with batteries)
case	ABS plastic, painted
battery/power/ charge LED/mute	on: green continuous mute: green flashing low batt: red flashing - 1/2 to 1 hour life remaining charging: red continuous

warranty

time period of warranty

This warranty will go into effect upon the date of purchase and will stay in effect as long as the instrument remains the property of the original owner. The 340T transmitter has a 3-year warranty.

what is covered by this warranty

Any electronic component, which because of workmanship, manufacturing or design defects, fails to function properly under normal use during the life of this warranty will be replaced or repaired at no charge for parts or labor, when returned to the factory service center. Transportation in and out is paid by the customer. If it is determined that repair is not feasible, the entire unit may be replaced with an equivalent unit upon mutual agreement of the manufacturer and customer.

what is not covered by this warranty

This limited warranty does not apply to:

- 1.** Malfunctions resulting from abuse, neglect or accident.
- 2.** Instruments connected, installed, used or adjusted in any manner contrary to instructions provided by the manufacturer.
- 3.** Consequential damages and damages resulting from delay or loss of this instrument. The exclusive remedy under this warranty is strictly limited to repair or replacement as herein provided.
- 4.** Products damaged in transit unless investigated by the shipper and returned to the warrantor with the investigation report.
- 5.** Peripheral accessories as itemized within the product specification sheet as applicable, when such items are returned within 90 days from original purchase.
- 6.** Batteries if applicable.

warranty (cont'd)

Phonic Ear Inc. reserves the right to make changes in the design or construction of any of its instruments at any time without incurring any obligation to make any changes whatsoever on units previously purchased.

This warranty is in lieu of all other expressed warranties. All expressed and implied warranties will terminate upon the expiration of this written warranty. No representative or person is authorized to represent or assume for us any liability in connection with the sale or use of our products other than as set forth above.

what to do if you have questions

If you have any questions about service, call the service department at **800.227.0735, then press 7.**

what to do if you need service

If you require service under the warranty terms, obtain a service order form either online at **www.phonicear.com/support.asp** or through our U.S. customer service department at **800.227.0735, then press 5** (or +1.707.769.1110 outside the U.S.). Fill the form out completely remembering to include:

- 1.** Description of the problem
- 2.** Your billing address
- 3.** Your shipping address (if different from billing address)
- 4.** Contact name and phone number
- 5.** A P.O. number if the equipment is not under a warranty or service contract

warranty (cont'd)

Then, carefully package the equipment in the original shipping container to prevent damage and send it postpaid to the service center near you:

USA

Phonic Ear Inc.

3880 Cypress Drive
Petaluma, CA 94954-7600
U.S.A.

In Canada:

Phonic Ear Ltd.

10-7475 Kimbel Street
Mississauga, Ontario
L5S 1E7 Canada

International:

Phonic Ear A/S

Strandvejen 58
2900 Hellerup
Denmark

what to do if you have questions

If you have any questions about service, call the service department at **800.227.0735, then press 7.**

about your batteries

To ensure that your batteries are as fresh as possible upon arrival, we have intentionally not installed them in your equipment.

battery replacement

It is recommended to reorder new rechargeable AAA NiMH batteries from Phonic Ear annually.

regulatory approvals and clearances

transmitter

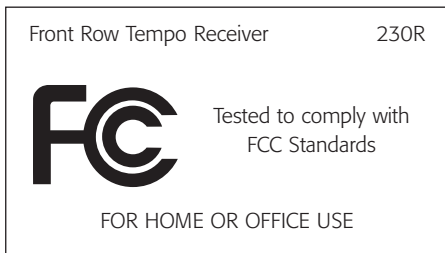
This transmitter is authorized by rule under the Low Power Radio Service (47 C.F.R. Part 95) and must not cause harmful interference to TV reception or United States Navy SPASUR installations. You do not need an FCC license to operate this transmitter. This transmitter may only be used to provide: auditory assistance to persons with disabilities, persons who require language translation, or persons in educational settings; health care services to the ill; law enforcement tracking services under agreement with a law enforcement agency; or automated maritime telecommunications system (AMTS) network control communications. Two-way voice communications and all other types of uses not mentioned above are expressly prohibited.

This device may not interfere with TV reception or federal government radar, and must accept any interference received, including interference that may cause undesired operation.

IMPORTANT NOTE: To comply with FCC RF exposure compliance requirements, only use supplied antenna that is sold with this transmitter. Use of any other antenna which has not been approved by the manufacturer will violate FCC rules and regulation and void the user's authority to operate this device. This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter.

regulatory approvals and clearances (cont'd)

receiver: part 15, subpart B



This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to

radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

regulatory approvals and clearances (cont'd)



This product conforms with the essential requirements of European Union Directive 1999/5/CE R&TTE Directive



*Waste from electronic equipment
must be handled according to
local regulations.*

My hearing care professional:



u.s.a. **800.227.0735**, then press **5** • canada **800.263.8700** • international **+45 3917 7101**
