# Register your product and get support at www.philips.com/welcome

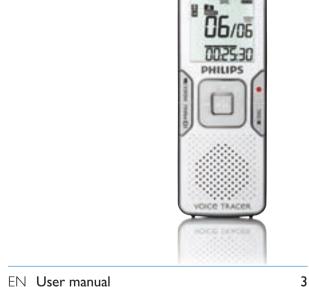
2001

# VOICE TRACER

LFH0865

LFH0884

LFH0898





3





# Table of contents

1	Important	4	5
1.1	Safety	4	5.1
1.2	Disposal of your old product	4	5.2
2	Your Digital Voice Tracer	5	6
2.1	Product highlights	5 5 6	
2.2	What's in the box	5	7
2.3	Overview	6	7.1
			7.2
3	Get started	7	7.3
3.1	Insert the batteries	7	7.4
3.2	Charge the batteries	7	7.5
3.3	Power on/off	8	
3.4	Keypad lock (HOLD function)	8	8
3.5	Set date and time	8	
3.6	Display information	8	9
3.7	Use the Voice Tracer with a computer		
3.8	Connect the remote control (LFH0898 only)	9	10
3.9	Connect and position the 360° meeting microphones		
	(LFH0898 only)	9	11
4	Record	10	
4.1	Record with the built-in microphone	10	
4.2	Record with an external microphone	10	
4.3	Edit a previously recorded file	10	
4.4	Add index marks	11	
4.5	Use the zoom function	11	

5	Playback	13
5.1	Playback functions	13
5.2	Play features	14
6	Delete	15
7	Radio mode (LFH0884, LFH0898 only)	16
7.1	Auto tune radio stations	16
7.2	Manually tune to a radio station	16
7.3	Play a preset radio station	16
7.4	Delete a preset radio station	16
7.5	Record from FM radio	17
8	Customize settings	18
9	Update the firmware	21
10	Troubleshooting	22
11	Technical data	23

## 1 Important

#### 1.1 Safety

- To avoid a short circuit, do not expose the product to rain or water.
- Do not expose the device to excessive heat caused by heating equipment or direct sunlight.
- Protect the cables from being pinched, particularly at plugs and the point where they exit from the unit.
- Back up your files. Philips is not responsible for any loss of data.

#### 1.1.1 Hearing safety

#### **Observe the following guidelines when using your headphones:**

- Listen at reasonable volumes for reasonable periods of time.
- Be careful not to adjust the volume higher as your hearing adapts.
- Do not turn up the volume so high that you can't hear what's around you.
- You should use caution or temporarily discontinue use in potentially hazardous situations.
- Do not use headphones while operating a motorized vehicle, cycling, or skateboarding, etc. It may create a traffic hazard and is illegal in many areas.

#### Important (for models supplied with headphones):

Philips guarantees compliance with the maximum sound power of its audio players as determined by relevant regulatory bodies, but only with the original model of provided headphones. If these headphones need replacement, we recommend that you contact your retailer to order a Philips model identical to that of the original.

#### 1.2 Disposal of your old product

- Your product is designed and manufactured with high quality materials and components that can be recycled and re-used.
- When this crossed-out wheeled bin symbol is attached to a product, it indicates that the product is covered by the European
   Directive 2002/96/EC.
- Become informed about your local separate collection system for electrical and electronic products.
- Act according to your local rules and do not dispose of old products with normal household waste. The correct disposal of old products will help prevent potential negative consequences for the environment and human health.
- Batteries (including built-in rechargeable batteries) contain substances that may pollute the environment. All batteries should be disposed of at an official collection point.

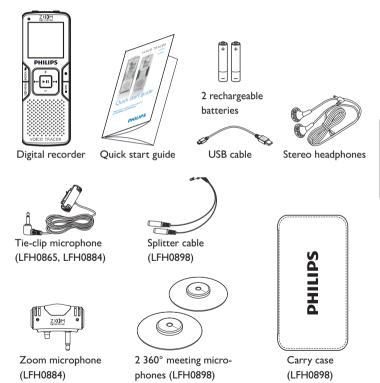
# 2 Your Digital Voice Tracer

Congratulations on your purchase and welcome to Philips! To fully benefit from the support that Philips offers, visit our Website for support information such as user manuals, software downloads, warranty information and more: www.philips.com/welcome.

#### 2.1 Product highlights

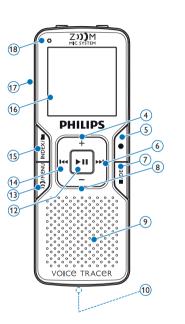
- · Low-noise microphone for utmost speech clarity
- · Stereo recording in MP3 for superior audio quality
- Zoom Mic System for capturing specific and clear audio from far away and eliminate background noise
- · ClearVoice for clear and vivid voice playback
- USB powered recording and battery charging for unlimited use
- · Index function for simply finding relevant passages
- USB plug & play in Windows, Mac OS and Linux
- · Enjoy MP3 and WMA music playback

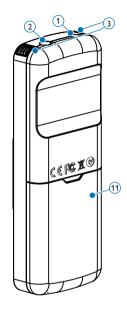
#### 2.2 What's in the box



#### 2.3 Overview

- (1) Headphone socket, remote control socket
- 2 Microphone socket, line-in socket
- 3 Built-in microphone
- (4) Volume up, select menu option (+)
- 5 Record, pause, power on ●
- 6 Fast forward, file selection ►►
- (7) Stop, display, delete ■/ DEL
- 8 Volume down, select menu option (-)
- 9 Speaker
- 10 USB socket
- (1) Battery compartment
- 12 Power on/off, play/pause, play speed, set menu option **>II**
- (13) Menu, FM radio, zoom function **D/MENU**
- 14 Fast rewind, file selection, return to previous menu item
- 15 Index, folder, repeat INDEX/
- 16 Display
- 17 Hold switch
- 18 Record/play indicator



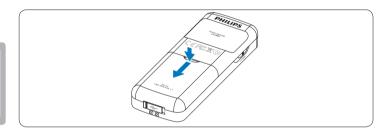


# 3 Get started

#### 3.1 Insert the batteries

The Voice Tracer can be operated with the rechargeable Philips batteries LFH9154 or AAA alkaline batteries.

#### 1 Slide open the battery cover.



2 Place the batteries in the correct polarity as indicated and close the cover.



#### Notes

- Do not mix batteries of different types and/or brands.
- Remove the batteries if you will not be using the Voice Tracer for an extended period. Leaking batteries may damage the Voice Tracer.
- If the Voice Tracer malfunctions, remove the batteries and re-insert them.
- Stop the recorder before replacing the batteries. Removing the batteries while the recorder is in use may corrupt the file.
- When the batteries are nearly empty, the battery indicator blinks.
- If it takes longer than 2 minutes to replace the battery, you may have to reset the time.

#### 3.2 Charge the batteries

The rechargeable Philips batteries LFH9154 can be charaged in the Voice Tracer. When the Voice Tracer is connected to a computer, the rechargeable batteries are automatically charged. A complete recharge cycle takes about 2.5 hours.

#### Notes

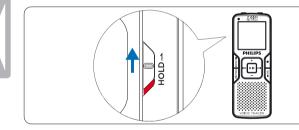
- Batteries other than the supplied Philips batteries LFH9154 cannot be charged.
- Fully charge the batteries before first use.
- The computer must be ON when charging the batteries.
- If the USB port of the computer does not supply enough power capacity, use an external battery charger.

#### 3.3 Power on/off

- 1 To power on, press the ►II button until the display shows a short animation [].
- 2 To power off, press the ►II button while the recorder is stopped until the display shows **BYE**.

#### 3.4 Keypad lock (HOLD function)

- 1 Slide the HOLD switch up into the Hold position to lock the keypad of the recorder.
  - The display briefly shows 'On Hold' and turns off.



2 Slide the HOLD switch down to the Off position to disengage the keypad lock.

#### 3.5 Set date and time

When the batteries are installed for the first time, you will be prompted to set the date and time.

- CLOCK will be shown on the display. Press the ►II button. The year indicator flashes.
- 2 Press the + or button to set the year.
- 3 Press the **II** button to advance to the settings for the month.
- 4 Repeat steps 2 and 3 to continue to set the month, day, 12/24hour system and the time in the same way.



#### Solution Note

The date and time can be changed at any time using the menu (see chapter 8, *Customize settings* on page 18 for more information).

#### 3.6 Display information

- Press the *I*/DEL button while the recorder is stopped to rotate the information on the display: elapsed playback/recording time of the current file > remaining total recording time > recording time of the current file > recording date of the current file.
- Press and hold **II** during recording to display the remaining recording time.

#### 3.7 Use the Voice Tracer with a computer

As a USB mass storage device, the Voice Tracer offers a convenient way to save, back up and move files. The Voice Tracer connects to a computer using a USB connection and does not require special software to be installed. The Voice Tracer is automatically displayed as a removable drive, allowing you to simply drag and drop files to and from the unit.

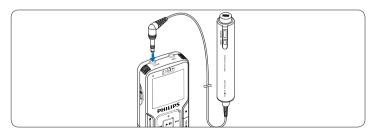
### B Notes

- Do not disconnect the Voice Tracer while files are transferred from or to the device. Data is still being transferred while the record/play indicator light is blinking in orange.
- Do not format the drive of the Voice Tracer on a computer. Formatting on the Voice Tracer uses the correct file system and automatically creates the required folders.

#### 3.8 Connect the remote control (LFH0898 only)

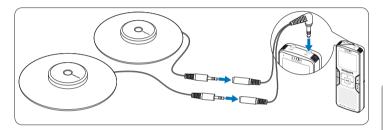
The remote control can be used to start and pause recording, to add a new file and to add an index mark.

1 Connect the remote control to the **EAR** jack of the Voice Tracer.

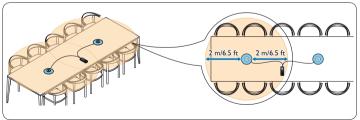


# 3.9 Connect and position the 360° meeting microphones (LFH0898 only)

- Make sure that the recorder is stopped.
- 2 Connect the plug of the splitter cable to the microphone socket of the recorder. Connect the plug of each microphone to one socket of the splitter cable.



**3** For optimal recording quality, position the microphones on the table so that all participants are not more that 2 meters or 6.5 feet away from the microphone.



# 4 Record

#### 4.1 Record with the built-in microphone

- Press the INDEX/Im button while the recorder is stopped to select the desired folder.
- Press the 
   button to start recording.
  - The record/play indicator lights red. Point the built-in microphone toward the sound source.
- 3 To pause recording, press the button.
  - The record/play indicator will blink, and PAUSE will flash on the display.
- 4 Press the button again to resume recording.
- 5 To stop recording, press the ■/DEL button.

#### Notes

- Set the desired voice activation function and recording mode before starting recording (see chapter 8, *Customize settings* on page 18 for more information).
- Make a test recording to make sure that the Voice Tracer settings are correct.
- Press and hold ▶II during recording to display the remaining recording time.
- Press ▶▶ during recording to create a new file.
- The maximum number of files in each folder is 99, for a total capacity of 396 files (99 files x 4 folders).
- If the recording time exceeds the available capacity or the number of files reaches 396, recording stops and **FULL** will be displayed. Delete a few recordings or move them to a computer.

- Do not remove the batteries during recording. This may cause the recorder to malfunction.
- If recording for a prolonged period of time, replace the batteries before beginning.
- The Voice Tracer can record while powered through a USB cable without draining the battery. Connect the recorder to a computer using the USB cable and press the 
   button for 1 second or longer to start recording.

#### 4.2 Record with an external microphone

To record with an external microphone, connect the microphone to the microphone socket and follow the same procedure as for the built-in microphone. The internal microphone is switched off when an external microphone is connected.

#### 4.3 Edit a previously recorded file

You can edit a previously recorded file by overwriting part of the recording or appending a recording at the end of the file.

- 1 Set the desired edit mode (overwrite or append) before starting recording (see chapter 8, *Customize settings* on page 18 for more information).
- 2 Press the **INDEX /** button while the recorder is stopped to select the desired folder.
- 3 Press the I or I button to select the file to which the addition

should be made (see chapter 5.1.1, Select a file / locate an index mark on page 13 for details about selecting a file).

- I Play or forward to the position where the addition should be made and press the ►II button to pause playback.
- 5 Press the 🛑 button.
  - The record/play indicator will blink, and OVER or APPEND will be shown on the display.
- 6 Press the button again to start recording.
  - The existing recording will be edited.
- 7 Press the I/DEL button to stop recording.

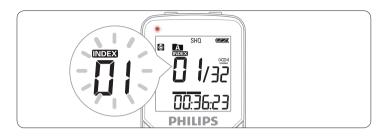
#### Notes

- The recording mode of the original file before is in effect when editing a recording.
- Edit recording is not available in the 🖬 (music) folder.

#### 4.4 Add index marks

Index marks can be used to mark certain points in a recording as points of reference.

 Press the INDEX / button during recording to add an index mark. The index number is displayed for one second.



#### Notes

- The INDEX icon indicates that the recording contains index marks.
- Up to 32 index marks can be set per file.

#### 4.5 Use the zoom function

When the zoom function is active, the microphones focus on sound directly in front of the Voice Tracer, while reducing the pickup of side and rear sounds. It is recommended for recording lectures, speeches, and other situations where the speaker is distant from your recording position.

1 Press the *ν***)**/**MENU** button during recording to activate the zoom mode.



#### Notes

- The zoom function can also be activated in the menu (see chapter 8, *Customize settings* on page 18 for more information).
- The zoom function is optimized for the internal microphone and the external zoom microphone (supplied with LFH0884).



# 5 Playback

- Press the INDEX / button while the recorder is stopped to select the desired folder.
- 2 Press the I◀◀ or ▶▶I button to select the file to play back (see chapter 5.1.1, Select a file / locate an index mark on page 13 for details about selecting a file).
- 3 Press the ►II button.
  - The playback time will be shown on the display, and the green LED will light.
- 4 Adjust the volume using the + and buttons.
- 5 To stop playback, press the ■/DEL button.
- 6 Press the ►II button again to continue playback from the previous position.

#### Notes

- The auto-backspace feature automatically replays the last 3 seconds of the recording each time playback is resumed.
- When headphones are connected to the **EAR** jack, the recorder speaker will be switched off.

#### Solution Notes on using the Voice Tracer as a music player

- The recorder supports music files in .wma and .mp3 formats that can be transferred from the computer to the music folder of the recorder. Files with copy protection (digital rights management) are not supported.
- The Voice Tracer supports up to two folder levels within the music folder. Each folder can hold up to 99 entries (files and folders).
- Press the ►II button to open a selected folder/file. Press the

**INDEX** / **button to return to the folder one level higher.** 

 Press the 
 button during music playback to change the equalizer mode (Normal > Classic > Jazz > Pop > Normal).

#### 5.1 Playback functions

#### 5.1.1 Select a file / locate an index mark

- Press the ►►I button once while the recorder is stopped to skip to the end of a file. Press the ►►I button again to skip to the beginning of the next file.
- Press the I button once while the recorder is stopped to skip to the beginning of a file. Press the I button again to skip to the end of the previous file.
- If the file contains index marks, the recorder will skip to the previous or next index mark when the I≪ or ►►I button is pressed.

#### 5.1.2 Slow, fast, normal playback

Press and hold the  $\blacktriangleright II$  button for 1 second or longer to switch between normal, slow and fast playback.

#### 5.1.3 Search

Press and hold the I << or >> I button during playback to scan backward or forward in the current file at a fast speed. Release the button to resume playback at the selected speed.

#### 5.1.4 Rewinding and forwarding

Press the  $I \leq 0$  or I > I button during playback to rewind to the beginning of the file being played or forward to the next file, respectively. If the file contains index marks, playback begins at that point.

#### 5.2 Play features

You can set the Voice Tracer to play files repeatedly or randomly.

#### 5.2.1 Repeat a sequence

- To repeat or loop a sequence in a song, press the INDEX / button at the chosen starting point.
  - A=B flashes on the screen.
- 2 Press the INDEX/ button again at the chosen end point.
  - The repeat sequence begins.
- Press the I/DEL button to stop playback or press the INDEX/Imbutton to return to normal playback.

#### 5.2.2 Repeat a file or folder / shuffle mode

Press and hold the INDEX / button for 1 second or longer during playback to switch between play modes (repeat file, repeat folder,

#### shuffle folder or normal playback).

lcon	Meaning
	Play one file repeatedly
FOLDER	Play all files within folder repeatedly
Folder 🔀	Play all music files within folder randomly

#### Solution Note

Shuffle mode is available only in the 🖬 (music) folder.

# 6 Delete

- 1 Press the **INDEX /** button while the recorder is stopped to select the desired folder.
- 2 Press and hold the ■/DEL button for 1 second or longer. DELETE appears on the screen.
- 3 Press the I or I button to select a delete option:

lcon	Meaning
FILE	Delete a single file
FOLDER	Delete all files in a folder
INDEX	Delete all index marks in a file

- 4 Press the ►II button.
- 5 Press the I or >> I button to select the file, the folder or the file containing the index marks to be deleted.

#### 6 Press the ►II button again.

- No is displayed.
- 7 Press the I or >> button to select Yes.
- 8 Press the ►II button to confirm.

#### B Note

Sequential file numbers are reassigned automatically.



# 7 Radio mode (LFH0884, LFH0898 only)

- Connect the headphones. The supplied headphones serve as a radio antenna.
- 2 Press and hold the **DJ/MENU** button for 1 second or longer to enter the radio mode.

#### B Note

The radio can also be turned on and off in menu (see chapter 8, *Customize settings* on page 18 for more information).

#### 7.1 Auto tune radio stations

- 1 Press the *v*)/**MENU** button to open the menu.
- Press the + or button to select a.
- 3 Press the ►II button to enter the sub-menu
- 4 Press the + or button to select AUTO.
- 5 Press the >II button to confirm. The radio automatically tunes radio stations and saves the frequencies to presets. The radio can store up to 20 radio stations to presets.

#### 7.2 Manually tune to a radio station

- 1 To fine-tune frequency, quickly press the I≪ or ►►I button.
- 2 To search for the next stronger signal, press and hold I or DI.
- 3 Press the ►II button to save the frequency under a preset.
- 4 Adjust the volume using the + and buttons.

5 To exit the radio mode, press and hold the v3/MENU button for 1 second or longer.

#### B Note

Press the  $\blacksquare/DEL$  button while the recorder is in radio mode to switch between stereo and mono reception.

#### 7.3 Play a preset radio station

- Press the INDEX / button while the recorder is in radio mode to switch between frequency and preset mode.
- 2 In preset mode, press the I ◄ or ►►I button to change to another preset radio station.
- 3 Adjust the volume using the + and buttons.
- 4 To exit the radio mode, press and hold the *mJ*/MENU button for 1 second or longer.

#### 7.4 Delete a preset radio station

- Press the INDEX / button while the recorder is in radio mode to switch between frequency and preset mode.
- 2 In preset mode, press the I◀◀ or ▶▶I button to select the preset radio station to be deleted.
- 3 Press and hold the ■/DEL button for 1 second or longer to delete the preset radio station.

#### 7.5 Record from FM radio

- 1 Manually tune to a radio station or play a preset radio station.
- 2 Press the button to start recording.
- 3 To stop recording, press the ■/ DEL button.

# 8 Customize settings

The menu is available while the recorder is stopped and during radio reception. The available menu items differ depending on whether you are in a voice folder, a music folder or in radio mode.

Press the *D*/MENU button while the recorder is stopped.
 Press the + or – button to select a menu item.



- 3 Press the ►II button to enter a sub-menu.
- 4 Press the + or button to change a setting.
- 5 Press the ►II button to confirm your selection.
- 6 Press the **D**/**MENU** button to exit the current settings screen without saving your changes.

Menu	Setting	Description
Recording	PCM	Choose among several recording modes,
mode	SHQ	from uncompressed PCM stereo recording
	HQ	for audio CD-like quality (LFH0884/0898),
	SP	two stereo modes including SHQ and HQ, or
	LP	three monaural modes including SP, LP and
	SLP	SLP for extended recording times. See chapter
		11, Technical data on page 23 for details about
		available recording modes and recording times.
<b>...</b> ,	HI	Adjust the recording sensitivity to avoid
	LO	recording background noises and to adjust to the
Recording		recording environment.
sensitivity		-
	On	Voice-activated recording is a convenience
V/~	Off	feature for hands-free recording. When voice-
Voice		activated recording is enabled, recording will
activation		start when you begin speaking. When you stop
		speaking, the recorder will automatically pause
		recording after three seconds of silence, and
		resume only when you begin speaking again.
	On	The ClearVoice feature adjusts quiet passages
V	Off	dynamically, thus improving the intelligibility of
ClearVoice		quieter voices.

Menu	Setting	Description
<b>ض</b> Timer	Off MIC FM	Schedule automatic recording to begin with the microphone (select MIC) or of a radio channel (select FM / LFH0884, LFH0898 only). Specify
		the start time, the duration of the recording (30/60/120 minutes/unlimited), a folder and the radio channel to be recorded
<b>Alarm</b>	Off BEEP FILE	Use the Voice Tracer as a mobile alarm clock. Choose the alarm mode (beep or file playback) and specify the start time and the file to be
	Off	played. The auto divide feature automatically records
	30 min.	into a new file every 30 or 60 minutes. This
Auto Divide	60 min.	makes it much easier to find, edit and archive long recordings such as meetings or lectures.
	Yes No	Split a large file into two separate files so that they can be easily archived or transferred via
File split		e-mail, or so that part of a file can be deleted. To split a file, play and stop at the position where the splitting should be made, then open the <b>SPLIT</b> menu.
$\odot$	On Off	Use ON setting when recording from external audio sources via the line-in jack of the recorder.
Line-in		
<b>ງງງ</b>	On Off	Activate the zoom function to capture specific and clear audio from far away and eliminate
Zoom		background noise.
function		

Menu	Setting	Description
<b>Ö</b> Backlight	On Off	The display will remain lit for a few seconds when a button is pressed.
Auto off	5 15	The Voice Tracer automatically turns off after 5 or 15 minutes of inactivity.
Веер	On Off	The recorder gives sound feedback about button operations or errors.
Clock	DD:MM:YY 12/24 H HH:MM	If the date and time is set, the information when the file is recorded is automatically stored with each file.
Equilizer	Off Pop Jazz Classic	This setting improves the listening experience when playing back music by custom frequency settings. Select the appropriate setting for your music.
Format	Yes No	Delete all files on the recorder including pro- grammed radio stations. Transfer any impor- tant files to a computer before formatting the recorder.
<b>i</b> Info		Display the firmware version and the release date.
Edit mode	APPEND OVER OFF	You can edit a previously recorded file by overwriting part of the recording or appending a recording at the end of the file. Set the desired edit mode (overwrite [=OVER] or append [=APPEND]) before editing a recording. See chapter 4.3, <i>Edit a previously recorded file</i> on page 10 for more information.

Menu	Setting	Description
Ē		
Radio		
FM	On	Turn the radio on and off.
	Off	
Auto-tune	Yes	Auto-tune a radio station and store up to 20
	No	stations to presets.
Output	EP	Switch between earphone (EP) and speaker (SP)
	SP	output in radio mode.





# 9 Update the firmware

Your Voice Tracer is controlled by an internal program called firmware. As a part of ongoing product maintenance, the firmware is revised and errors are corrected.

It is possible that a newer version (an "update") of the firmware has been issued since you purchased the Voice Tracer. In this case you can easily update your recorder to the latest version.

- 1 Connect the Voice Tracer to a computer using the supplied USB cable.
- 2 Download the firmware update for your Voice Tracer from *www.philips.com* onto your computer.
- 3 Copy the new firmware file to the root directory of the Voice Tracer.
- I Disconnecting the Voice Tracer from the computer automatically updates the firmware.

#### B Note

- Please note that the firmware file must be located in the root directory to allow automatic updating.
- The firmware file will be deleted automatically after the update has been carried out. The Voice Tracer will then switch off.



# 10 Troubleshooting

#### My recorder cannot power on

• The batteries may be out of power or not inserted correctly. Replace the batteries with new ones and verify that the batteries are inserted correctly.

#### My recorder does not record anything

- The recorder may be in **HOLD** mode. Slide the **HOLD** switch to the Off position.
- The maximum number of recordings may be reached or the recording capacity is full. Delete some recordings or move recordings to an external device.

#### I cannot hear anything from the speaker

- The headphones may be plugged in. Remove the headphones.
- The volume is at the lowest setting. Adjust the volume.

#### My recorder cannot play recordings

- The recorder may be in **HOLD** mode. Slide the **HOLD** switch to the Off position.
- The batteries may be out of power or not inserted correctly. Replace the batteries with new ones and verify that the batteries are inserted correctly.
- Nothing has been recorded yet. Check the number of recordings.

#### My recorder cannot stop, pause, play or record

• The recorder may be in **HOLD** mode. Slide the **HOLD** switch to the Off position.

#### I cannot hear anything through the headphones

- The headphones may not be plugged in properly. Plug in the headphones properly.
- The volume is at the lowest setting. Adjust the volume.

# 11 Technical data

- USB: High-speed 2.0 mini-USB
- Microphone: 3.5 mm impedance 2.2 k $\Omega$
- Headphone: 3.5 mm impedance 16  $\Omega$  or more
- Display: LCD/segment diagonal screen size: 39 mm/1.5 in.
- Microphone: Built-in: stereo External: stereo
- Built-in memory capacity: 8 GB
- Built-in memory type: NAND Flash
- Recording formats: MPEG1 layer 3 (MP3), PCM (LFH0884/ LFH0898)
- Recording modes: PCM (WAV/stereo), SHQ (MP3/stereo), HQ (MP3/stereo), SP (MP3/mono), LP (MP3/mono), SLP (MP3/mono)
- Bit rate: 1411 kbps (PCM mode), 192 kbps (SHQ mode), 64 kbps (HQ mode), 48 kbps (SP mode), 32 kbps (LP mode), 8 kbps (SLP mode)
- **Recording time:** 2250 hours (SLP mode), 572 hours (LP mode), 381 hours (SP mode), 286 hours (HQ mode), 95 hours (SHQ mode), 13 hours (PCM mode)
- Sample Rate: 44.1 kHz (PCM/SHQ mode), 22 kHz (HQ mode), 16 kHz (SP/LP/SLP mode)
- **Music playback:** Compression format: .mp3, .wma MP3 bit rates: 8 – 320 kbps • WMA bit rates: 8 – 320 kbps • No DRM support
- Tuner/reception (LFH0884/LFH0898): Tuner bands: FM stereo Frequency range: 87.5 – 108 MHz • Number of preset channels: 20 • Auto digital tuning
- **Speaker:** Built-in 30 mm round dynamic speaker Output power: 110 mW
- Operating conditions: Temperature:  $5^{\circ} 45^{\circ} \text{ C}/41^{\circ} 113^{\circ} \text{ F} \cdot$

Humidity: 10 % – 90 %

- **Battery type:** 2 Philips AAA alkaline batteries (LR03 or R03) or Philips rechargeable batteries LFH9154
- Battery life (SLP mode): 50 hours
- Product dimensions (W × D × H): 40 × 18.4 × 108 mm/ 1.6 × 0.7 × 4.3 in.
- Weight: 80 g/2.8 oz. incl. batteries
- System requirements: Windows 7 / Vista / XP / 2000, Mac OS X, Linux • Free USB port





Specifications are subject to change without notice. Trademarks are the property of Royal Philips Electronics or their respective owners. © 2011 Royal Philips Electronics. All rights reserved.

Document version 1.0, 30/07/2011