

User's Guide

AudiSee

AudiSoft™ Technologies Inc.

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THE AUDISEE SYSTEM

The AudiSee™ system allows deaf and hearing-impaired students to see their teacher's face at all times while using existing hearing abilities to the greatest degree possible. The AudiSee system takes advantage of the fact that combined audio and visual cues provide at least 30% more information to students than audio cues alone.

This guide is written for users. It explains how to operate AudiSee's different modules. Some sections have been written specifically for audiologists.

The system is simple. The teacher wears a headset equipped with a camera and microphone. The image is displayed via wireless transmission on a small monitor on the student's desk, on a larger monitor in front of the class, or on a computer screen. Sound is transmitted directly to the student's FM system.

The AudiSee system benefits both student and teacher.

AudiSoft™ Technologies' system can also be used in conferences, again providing many benefits for both speaker and participant.

The following table presents the different components required for your preferred configuration.

Configuration	Required elements
Reception on the AudiSee monitor-receiver 	👤 AudiSee headset 👤 AudiSee transmitter with battery 👤 AudiSee monitor-receiver with battery 👤 Battery charger 👤 Carrying case
Reception on a television screen 	👤 AudiSee headset 👤 AudiSee transmitter with battery 👤 AudiSee receiver with an AC adapter 👤 Battery charger 👤 Television monitor (not included)
Reception on a portable computer 	👤 AudiSee headset 👤 AudiSee transmitter with battery 👤 AudiSee receiver with battery or AC adapter 👤 Battery charger 👤 Carrying case 👤 Personal computer with video capture card (not included)

1. THE HEADSET-CAMERA

- 1) The headset (for assembly)
- 2) Right side of the head with headset

The [headset-camera](#) captures the teacher's face and voice via the camera ❶ and microphone ❷. It is connected by wire ❸ to the transmitter.

a) Assembling the AudiSee headset-camera:

The arm ❹ may have been detached from the headset for transportation or storage purposes. To assemble it, hold the junction piece located close to the ear contour ❺ and slide the arm down along the connection axis ❻ designed specially for this purpose.

b) Using the AudiSee headset-camera:

1. Place the ear contour ❺ behind the left ear while ensuring the ear remains unobstructed. The ear contour is designed to fit around the ear and ensure maximum comfort for the person wearing the headset.
2. Adjust the extendable band ❷ from bottom to top so it rests lightly on top of the head. It is important for the band to be well positioned on the center of the head to ensure optimum headset stability.

-
- 1) Right side of the head
 - 2) Pivoting the camera

-
3. The support pads ❶ should be located just above the right ear.
 4. The camera ❷ can pivot in all directions. Position the camera so it points to a spot between the nose and mouth. When the camera is positioned correctly, the student should be able to see most of the teacher's face, from the bottom of the chin to the middle of the forehead.



You don't need to adjust the camera's focus. AudiSoft has made the adjustment during production.



It is important to place the camera perpendicular to its arm to ensure that students get all the information.

Positioning the camera

1) Demo – Disconnecting the microphone wire

2) Microphone wire disconnected

c) Microphone calibration by an audiologist:

If necessary, an audiologist can couple the microphone ❶. **AudiSoft Technologies** has designed a simple mechanism for quickly removing the microphone to make any required adjustments.

1. Remove the screw from the microphone's support piece ❷ using the screwdriver provided with the device.
2. Remove the microphone ❶ from the support piece.
3. Gently pull the microphone to free the wire ❸ from its protector ❹.

To replace the wire:

4. Insert the wire ❸ into its socket ❹ using your finger.



Do not use the screwdriver to reinsert the wire. You might damage the wire, affecting the system's sound quality.

5. Replace the microphone ❶ in the support piece ❷ and screw it into place.

2. THE AUDISEE TRANSMITTER

- 1) Pulling the battery out of the transmitter
- 2) Plugging the headset-camera wire to the transmitter

The transmitter is connected to the headset via a wire . The transmitter is worn on the teacher's belt. A battery ❶ feeds both the camera and the audio/video transmitter.

a) Inserting battery into the AudiSee transmitter:

1. Open the transmitter's battery case ❷.
2. Insert the battery ❶ into the receptacle.
3. Make sure the battery is properly positioned inside the receptacle.
4. Close the case by pressing firmly on the lid.



Is the transmitter battery fully charged?

b) Connecting the headset to the AudiSee transmitter:

Plug the headset wire ❶ into the socket ❷ located on the top of the transmitter. Align the white dots on the plug and the socket.



Is the headset-camera wire well connected to the transmitter socket?



Disconnect the AudiSee headset wire by pulling only on the plug — Do not pull on the wire!

-
- 1) Transmitter from above
 - 2) Back of transmitter – Audio adjustment and screwdriver

c) Activating the AudiSee transmitter:

Press the ON button ❶ to activate the transmitter. The indicator light (LED) ❷ should illuminate. The light will change color as the battery loses its charge.

Color	Time remaining	
Green	Fully charged	About 7 hours
Orange	Medium charge	Less than an hour
Red	Weak charge	Less than 15 minutes

d) Adjusting the AudiSee transmitter's audio channel and compatibility with FM systems:

Select the audio channel using the rotating dial ❶ and the screwdriver provided with the device. Three channels are available. These channels are compatible with most conventional FM systems. Refer to the correspondence table (see page 16).



The AudiSee transmitter, the student's FM system and the AudiSee monitor-receiver must be set to the same channel.



The AudiSee transmitter can be used with a variety of FM systems or monitor-receivers as long as they are all set to the same channel.

1) Back of transmitter – Video adjustment and screwdriver

e) Adjusting the video channel on the AudiSee transmitter:

Select a video channel using the rotary dial  and screwdriver provided with the device. Two channels are available, A and B .



Both the AudiSee transmitter and the AudiSee monitor-receiver must be set to the same channel.



The transmitter can be used with other monitor-receivers as long as they are all set to the same video channel.

1) Transmitter clip

2) Wearing the transmitter

f) Fastening and unfastening the AudiSee transmitter clip:

To fasten the clip , slide the transmitter hook into the clip. Then attach the clip to the belt. You can use a conventional belt or the AudiSee elasticized belt provided with the system.

If you need to unfasten the clip from the transmitter, simply press the release button  on the top of the clip, then slide the transmitter hook toward the top of the clip.



The clip is attached to the transmitter when the device is delivered.



The clip works like a clothespin: open it by squeezing firmly on the open ends .

g) Wearing the AudiSee transmitter:

Wear the transmitter on your left side for optimal signal transmission.



For ease of movement, run the headset wire along the teacher's back, behind the shoulder and arm, and connect it to the transmitter.

3. THE AUDISEE MONITOR-RECEIVER

- 1) Monitor-receiver screen
- 2) Taking out the battery from the monitor-receiver

The AudiSee monitor-receiver is placed on the student's desk, showing the teacher's face on a small screen ❶. A battery ❷ powers the monitor-receiver.

a) Inserting the battery:

Insert the battery ❷ (slide panel towards the bottom) into the receptacle at the back of the monitor-receiver and push it firmly into place. Make sure the battery-holding mechanism ❸ is properly engaged.

Removing the battery: Slide the battery-holding mechanism ❸ upwards. Pull the battery ❷ out of the receptacle.



Make sure the battery is charged first.

-
- 1) Raising the antenna
 - 2) Monitor-receiver

b) Using the AudiSee monitor-receiver:

1. Open the monitor-receiver by pressing the safety button ❶ on the side of the device. Gently raise the flat screen ❷.
2. Raise the antenna ❸ for better reception.
3. Press the ON button to activate the monitor-receiver.
4. Press OFF to turn it off.

The indicator light (LED) should illuminate. The light will change color as the battery loses its charge.

Color		Time remaining
Green	Fully charged	About 7 hours
Orange	Medium charge	Less than an hour
Red	Weak charge	Less than 15 minutes

c) Using the audio outputs:

The monitor-receiver is equipped with two audio sockets located at the front of the device.

3.5-mm socket ❹: Allows connection to conventional headphones (Walkman style).

2.5-mm socket ❺: Allows connection to hearing aids.*

* An extension can be ordered from AudiSoft Technologies.

1) Monitor-receiver screen settings

2) Monitor-receiver adjustment buttons

d) Adjusting the monitor-receiver screen:

Several adjustments can be made to the image  on the monitor-receiver. Screen adjustment options resemble those of a conventional television.

Except for volume, other adjustments made will be kept in memory and remain the same until you change them again.

Brightness

Increase brightness by pressing the “+” button  and decrease it by pressing “-” . A gauge will appear on the screen to make adjustment easier; it will disappear automatically after five (5) seconds.

Tint, Contrast, Color, Volume

Press the SELECT button  to illuminate the indicator on the right hand side of the screen. Press SELECT as many times as necessary to choose the desired parameter. Press the “+” or “-” button to make the necessary adjustments.

1) Audiologist adjustment

e) Adjustment of the monitor-receiver volume by an audiologist:

An audiologist can adjust the volume to a recommended level and save the parameter in memory. To do so, the audiologist must:

1. Choose VOLUME using the SELECT button ❶.
2. Press the “+” or “-” button to make the desired adjustment.
3. Press SELECT  to register the change in memory and, while pressing that button, press the “+” button .



Students can always adjust the monitor-receiver volume. However, the next time they use their device, the audiologist's predetermined volume parameters will return as the default setting.

f) Returning to initial factory settings:

To change all settings back to those established at the factory, press the SELECT and ON keys simultaneously.

1) Back of the monitor-receiver – channel selection dials

g) Adjusting the AudiSee monitor-receiver's audio channel:

Select the AudiSee monitor-receiver's audio channel using the two rotary dials. The AudiSee transmitter and the monitor-receiver must be set to the same channel.

Select the channel chosen on your AudiSee transmitter. Using the small screwdriver provided with the system, choose the first channel digit on the left-hand dial ❶ and the second digit on the right-hand dial ❷. For channel 04, for example, choose 0 on the left dial and 4 on the right dial.

h) Adjusting the monitor-receiver's video channel:

Using the video selector, choose the same channel for the monitor-receiver and the transmitter (A or B) ❸.



Channel C on the monitor-receiver cannot be used with the AudiSee transmitter at the moment.



For transmission and reception of the audio/video signal, the transmitter and monitor-receiver must be on the same channel.

4. THE AUDISEE RECEIVER



**Under development
Available Summer 2001**

The AudiSee receiver transmits the teacher's image to a television screen or a portable computer. It is powered either by a battery or an AC adapter.



Under development. Available in Summer 2001.
Please contact an AUDISOFT sales representative for more details.

5. BATTERIES AND CHARGER

- 1) Recharging module
- 2) AC adapter of the recharging module

The charger  can be used for all of the AudiSee transmitter and monitor-receiver batteries .

Battery charger: This module provides two slots for batteries. Both slots can be used either for the AudiSee monitor-receiver battery or the transmitter battery.



Batteries do not recharge simultaneously, but in the order they were inserted in the battery charger.

AC adapter  for the battery charger: To plug the charging unit into an electrical outlet, you must use the specifically designated AC adapter provided with the system. Plug the adapter into the battery charger, then into the electrical outlet.



A green light (LED) will illuminate on the adapter box if the attachment has been made correctly.



Use only the AudiSee battery charger AC adapter otherwise you may damage the unit.

1) Batteries

The AudiSee transmitter and monitor-receiver must be used with their own set of batteries.

These batteries do not have “memory” and can be recharged at any time regardless of their charge level.

The charge level does not affect transmission, image or sound quality. The batteries are powering the system at a consistent level. The system will simply shut down when the batteries can no longer do so.



Batteries used with the AudiSee system can be recharged even if they are not completely drained. This will not affect the life of the batteries.

1) View of charger – status lights

a) Recharging the transmitter and monitor-receiver batteries:

Insert the battery into the slot ❶ in such a way that contact is made between the batteries' connectors and the charge unit's connectors. The indicator light (LED) ❷ will illuminate on when contact is established. It takes approximately two (2) hours to fully charge the batteries.

b) Charge status indicator:

The charger's indicator light (LED) ❷ provides information on a battery's charge level.

Indicator light	Charge status
Red	The battery is waiting to be recharged. The charger only recharges one battery at a time.
Blinking Red	The battery is recharging.
Green	The battery is completely charged.
Blinking Green	There has been a problem with the charging (see the troubleshooting section)



The monitor-receiver module's battery has a life of over 3 hours.



The transmitter battery will last the equivalent of a full classroom day (approximately 7 hours).

6. TRANSPORT AND STORAGE

Carrying case

The carrying case ❶ helps protect the device from shocks, sun and liquid exposure.

Always remember to put the module in the carrying case provided with the system.

Store your AudiSee system in a dry, well-ventilated, area that is kept at a normal temperature (20-22 °C) .

a) Short-term storage (e.g., weekends) :

Store batteries in the charger so they will be fully charged when you return. Store the AudiSee system in a safe place.

b) Long-term storage (e.g., summer vacation):

Recharge the batteries one last time. Remove them from the charger and store the system in a safe place. Upon your return recharge the batteries before using the system again.



Recharge the batteries at least three times a year to avoid a significant decrease in the battery's power. A longer recharging time period may be needed if the battery has been empty for a long time.



You can easily carry around with you your FM system by placing it inside the carrying case.

CHANNEL CORRESPONDENCE TABLE

TROUBLESHOOTING

See document « Troubleshooting »

MAINTENANCE

General Maintenance

The AudiSee system is designed to work indoors. Avoid conditions of extreme heat or intense cold. Places of use must not be too dusty or humid.

The system should not be exposed to wide fluctuations in temperature. This could cause condensation, which could damage the internal components of the system. To avoid this, place the modules in a plastic bag and let them adapt slowly to temperature changes before removing them from the bag.

Avoid placing AudiSee close to devices or objects that create intense magnetic fields; these could interfere with its operation.

Avoid injuring yourself and damaging the system; protect it from impacts and violent shocks.

We recommend turning the unit off if it will not be used for a long time.

We also recommend that the headset cord be unplugged from the AudiSee transmitter by pulling only on the plug, never the cord.

Cleaning

- 👤 Clean the camera lens and monitor-receiver screen once a week with the packaged lens cloths available from AudiSoft, or with cloth made especially for lenses.
- 👤 Clean the headset support pads, when necessary, with the moist, antiseptic towelettes available at AudiSoft.
- 👤 Clean the AudiSoft system modules, when necessary, with a clean, slightly damp cloth.

SAFETY INFORMATION

The following precautions are intended to avoid injury to yourself or to others and to prevent damage the system.

- 👤 Stop system use if it begins to smoke. Turn off the unit's power, taking out the battery.
- 👤 Stop using the AudiSee system if it has been damaged due to a violent shock or fall. Otherwise, you could cause a short circuit or do further damage to the unit.
- 👤 The system is not waterproof. Avoid all contact with liquids or immersion in water. If water works its way into the unit, turn the system's power off immediately, taking out the battery.
- 👤 Never touch the inner components of the device that have been exposed due to damage.
- 👤 Do not attempt to disassemble or modify the system. Inspections, repairs and modifications must be done by a trained AudiSoft maintenance technician.
- 👤 Do not touch the electric cord for the adapter or any other wires if you have wet hands. This could cause an electric shock.
- 👤 When you unplug a cord or wire, you must always pull on the plug, or you risk damaging the cord or wire.
- 👤 Using any power source (batteries or other equipment) not expressly recommended for this system could cause overheating or damage.
- 👤 Keep the device and its batteries out of reach of young children.
- 👤 Misuse of batteries can cause overheating, an explosion or fire.
- 👤 Do not puncture batteries with a nail or any other object.
- 👤 Do not hit or step on the batteries.
- 👤 Avoid getting the batteries wet or placing them in liquid.
- 👤 Never put batteries in a microwave or on a cooking surface.

- ⚠ To avoid battery damage, corrosive liquid leaks, explosions or serious injuries, never place the batteries close to a heat source.
- ⚠ Do not attempt to modify the batteries. Do not let them fall or expose them to severe shocks.
- ⚠ Do not short-circuit the battery terminals with a metal object or any other object. This could result in overheating and injuries.
- ⚠ Do not dispose of batteries with household garbage.
- ⚠ Do not store the batteries with metal objects.
- ⚠ To avoid overheating, explosions or fires, do not recharge the batteries for longer than necessary.
- ⚠ Contact an AudiSoft Technologies representative if a battery changes color or shape, or performs strangely.
- ⚠ Thoroughly rinse in water any body part or article of clothing that comes in contact with the internal contents of a battery.

APPLYING THE GUARANTEE

You can return the device according to the terms of the guarantee.

To avoid any delays, inconvenience or refusal, ask AudiSoft Technologies for a [return authorization number](#). Return the device immediately, in its original packaging or similar packaging, to the address given to you by AudiSoft Technologies.

ADDRESS AND CONTACT INFORMATION

If you have any questions, comments or difficulties, please contact our [technical support](#) or our after-sales service by [telephone](#) or [fax](#) at the numbers below:

Telephone: (450) 641-8436

Toll free : 1-877-641-8436

Fax: (450) 641-3659

You can also visit our [Web site](#) or write us at:

www.audisoft.net

info@audisoft.net

BASIC GUARANTEE

The AudiSee system is guaranteed for a one year period, including parts and labor, starting from the date written on the invoice.

If the AudiSee system is not returned with an authorization number in its original packaging or in similar packaging and the system is damaged during shipping, this guarantee becomes null and void.

This guarantee does not cover:

- ⚠ Circumstances beyond the control of AudiSoft Technologies;
- ⚠ Devices that have been opened, modified or altered without the express authorization of AudiSoft Technologies;
- ⚠ Devices that have been used with parts and accessories supplied by AudiSoft Technologies;
- ⚠ Devices that have been neglected, ill-maintained or misused;
- ⚠ Lack of respect for use, maintenance and/or storage instructions.

The obligation of AudiSoft Technologies Inc. regarding this guarantee is limited to the free repair or replacement of the defective AudiSee module(s).

AudiSoft Technologies Inc. declines all responsibility in the case of particular, indirect or accidental damages resulting from the purchase, use or malfunction of this device, regardless of its cause. For example, AudiSoft Technologies Inc. is free of all responsibility for loss of revenue or benefits, capital costs, equipment loss of use, equipment substitution costs, installation, service or claims from your clients pertaining to damages incurred.

AudiSoft Technologies Inc. offers no other guarantee, express or implicit.

AudiSoft Technologies Inc. assumes no obligation or responsibility for any other oral or written statement or guarantee by any third party that deals with the AudiSee system, including authorized distributors or their agents, employees or representatives.

Certain restrictions and exclusions may not apply, depending on your location.

NOTICE OF COMPLIANCE: FCC AND INDUSTRY CANADA

This equipment has been tested and found to comply with the limits for a class B and C devices, pursuant to part 15 of the FCC rules and Industry Canada RSS 210 Issue 3.

Operation is subject to the following two conditions: (1) The device may not cause any harmful interference; and (2) this device must accept any interference received, including interference that may cause undesired operation.

Any modification not expressly authorized by responsible authorities may result in the suspension of the right to use this system.

PARTS AND ACCESSORIES

Transmitter		
Part	Description	Part no.
Micro-camera arm	Arm supporting the camera and microphone. The arm attaches to the headset.	HD01A
Headset	Headset attached to an adjustable band, which supports the micro-camera arm.	HD01B
Transmitter	Audio/video transmitter worn at the waist.	TX01
Transmitter battery	Rechargeable battery with a charge lasting approximately one classroom day.	BT01
Belt	Elastic belt for attaching the transmitter to the waist.	AC01
Clip	Clip with push-button allowing rapid transmitter attachment to and release from the belt.	AC02

Monitor-receiver		
Part	Description	Part no.
Monitor-receiver	Integrated monitor-receiver allowing sound reception and display of images from the transmitter. The flat color screen measures 14 cm or 5.5 inches.	RX01
Receiver battery	Rechargeable battery with a autonomy of approximately half a day of class day. In most cases, two batteries are needed for one full class day.	BT02

Accessories		
Part	Description	Part no.
Battery charger	Double slot charger allowing the recharging of both types of AudiSee batteries.	CH01A
Screwdriver	Allows selection of video and audio channels, among other things.	AC04
Carrying case	Case used for storing and transporting the AudiSee system.	AC10
Hearing aid extension cord	This extension cord allows greater ease of movement when hearing aids are connected directly to the receiver or monitor-receiver.	AC08
Towelettes for lens and LCD screen	Individually packaged towelettes for damage-free cleaning of the AudiSee lens and screen.	AC05
Antiseptic towelettes	Individually packaged towelettes for the antiseptic cleaning of system components.	AC06