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Service Manual

Touch Keyboard



D-0136854-D 2026/04



Interacoustics

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1 Introduction

1.1 About this manual

This manual is for our Touch Keyboard. The manual content covers instrument related data, such as disassembly and maintenance. Parts and accessories list can be found as appendices in the back of the manual.

1.2 About warnings and cautions

The below warnings, cautions and notices are applied throughout the manual, indicating the level of attention required for a given action:



WARNING

The **WARNING** label identifies conditions or practices that may present danger to the patient and/or user.



CAUTION

The **CAUTION** label identifies conditions or practices that could result in damage to the equipment.

NOTICE

NOTICE is used to address practices not related to personal injury.

1.3 General information

We continuously strive to improve our products and their performance, hence the specifications in this service manual are subject to change without further notice.

The performance and specifications of our products can only be guaranteed if technical maintenance is conducted routinely every year. Technical maintenance should be carried out by qualified personnel authorized by Interacoustics.

We are happy to receive any inquiries about our products. Our contact details are:

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2 General maintenance

2.1 Maintenance



WARNING



WARNING

Make sure that the instrument is disconnected from the power supply before starting this procedure.

To maintain electrical safety during the lifetime of the instrument, a safety check must be made regularly according to IEC 60601-1, Class II, Type B applied parts; e.g. when yearly calibration is done.

2.2 General instrument maintenance

The performance and safety of the instrument will be maintained if the following recommendations for care and maintenance are observed:

1. To ensure that the acoustical, electrical, and mechanical properties are correct, we recommend an annual service of the instrument. To guarantee proper service and repair, this should be carried out by an authorized technician.
2. Observe that no damage is present to the insulation of the mains cable or the connectors and that it is not exposed to any kind of mechanical load that could involve damage.
3. To ensure that the reliability of the instrument is maintained, we recommend that the operator at short intervals, for instance once a day, performs a test on a person with known data. This person could be the operator.
4. If the surface of the instrument or parts of it is contaminated, wipe it with a soft cloth moistened with a mild solution of water and detergent or similar. Always disconnect the mains power adaptor and battery while cleaning and be careful that no fluid enters the inside of the instrument or accessories.
5. After each patient examination, ensure that no contamination between the parts and the patient has taken place. General precautions must be observed to avoid cross-contamination of disease from one patient to another. If ear cushions are contaminated, it is strongly recommended to remove them from the transducer before they are cleaned. Water should be used for frequent cleaning, but in the case of severe contamination it may be necessary to use a disinfectant. Read more in the paragraph [Cleaning procedure](#).



3 Cleaning procedure

Precautions:

- Do not autoclave, sterilize, or immerse the instrument or accessory in any fluid
- Do not use hard or pointed objects to clean any part of the instrument or accessory
- Do not let parts that have been in contact with fluids dry before cleaning

Recommended cleaning and disinfection solutions:

- Warm water with mild, nonabrasive cleaning solution (soap)
- Normal hospital bactericides

Procedure

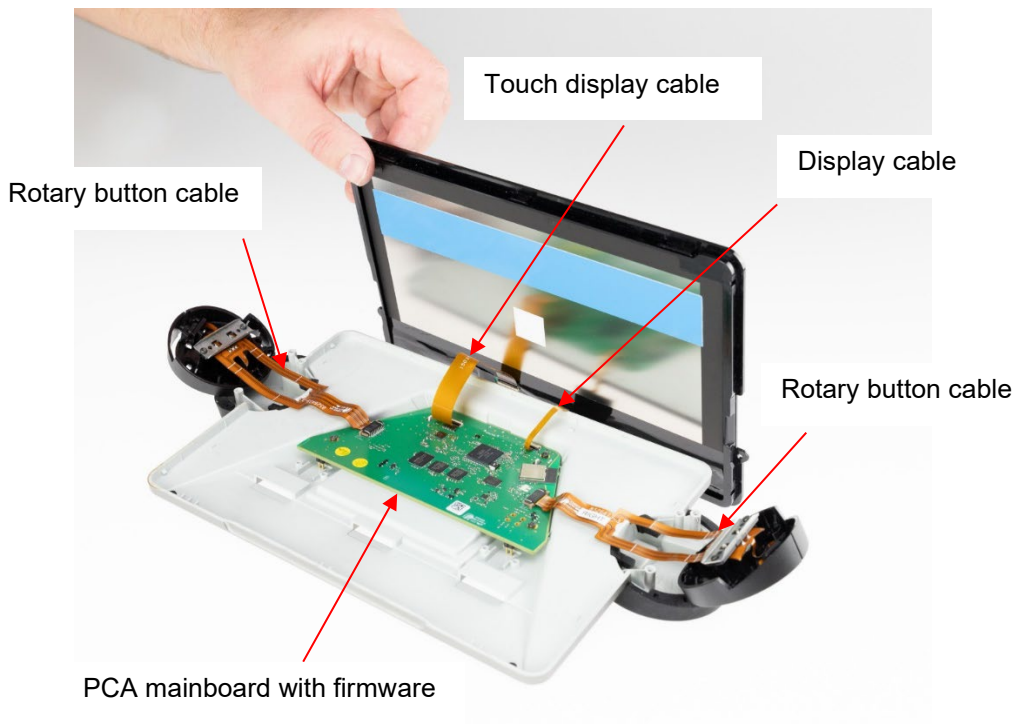
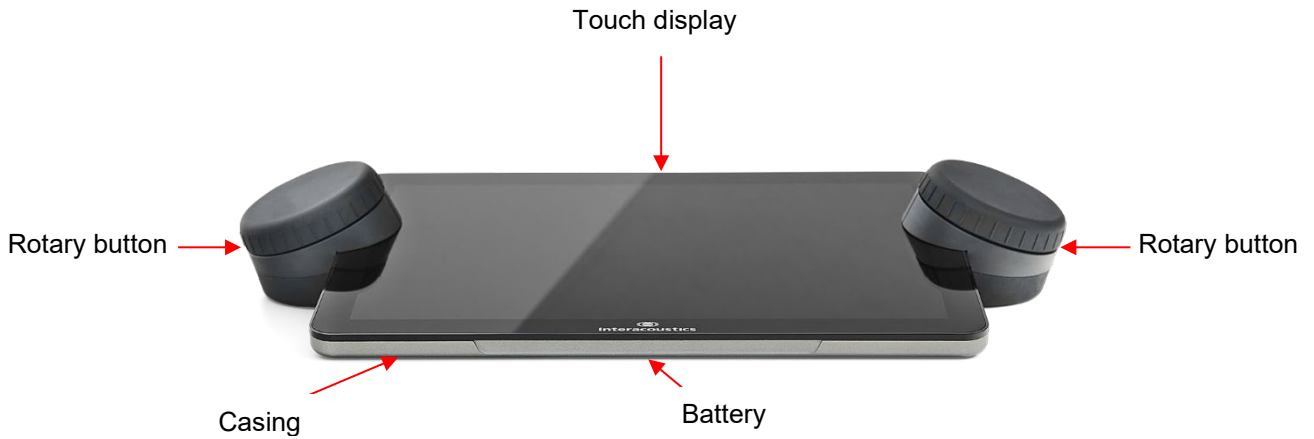
- Remove dust: Use a soft cloth lightly dampened with cleaning solution to clean all exposed surfaces.
- Clean the instrument by wiping outer case with a lint free cloth lightly dampened in cleaning solution.
- The keyboard must be dry before use



4 Disassembly

The following paragraphs describe and illustrate how to disassemble the Touch Keyboard and replace parts of the keyboard.

4.1 Serviceable parts of the Touch Keyboard





4.2 Tools required for disassembly

For disassembly instruction, these following tools have been used. Similar sizes should be used.

- A Plectrum (or similar tool)
- B Torx T8
- C Allen key 1.5



Note: A pair of nonconductive tweezers can be helpful in the disassembly.



4.3 Disassembly procedure

Please refer to [Appendix A – Exploded View](#) and [Appendix B - Parts & Accessories](#) in the back of this manual.

4.3.1 Battery



Before further disassembly, remove the battery.

Remove the two screws on the bottom part of the keyboard.
Use the torx screwdriver.



Flip the cover up and slide it out of the slot.



From the bottom side of the battery: Use a plectrum or a similar tool to lift the battery out.

CAUTION: There is a risk of damaging the terminals for battery if the battery is removed from the top side of the battery. Remove the battery from the bottom side.

The battery can now be replaced.



4.3.2 Removing the rotary button



Pull the rubber lid off the rotary button.



The rotary buttons must be dismantled by removing the screw holding it in place, as illustrated.

Use Allen key 1.5 key for this purpose.
Screw is tightened with 46 cNm of torque.



Lift metal disc out.



The keyboard is now ready for next step.



Use the screwdriver to remove the screw in the button tower.



Lift the wheel slightly to the side to create space.

Note that the wheel cannot come off completely, as there is a cable inside the rotary button.



Let the wheels rest on the sides.



Use the screwdriver to remove the screws inside the tower.

4.3.3 Display



Use a plectrum or a similar tool to remove the display.

Insert the plectrum in the side between the display and the casing.



Work the length of the display with the tool to loosen the display.



Remove the display.

Note: Leftover glue from the bottom part may have glued the sides slightly together.

Be careful when opening to not damage the ribbon cables between the display and mainboard.



4.3.4 Mainboard

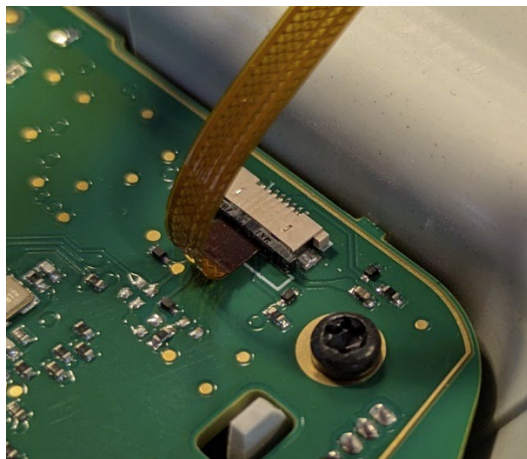


The display is attached to the mainboard with cables.

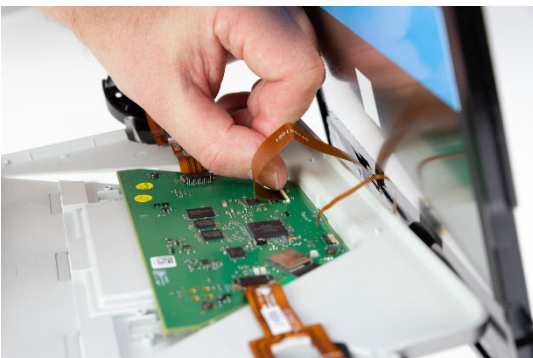
Note: For easy serviceability the screen can be held in an upright position as shown on the image.



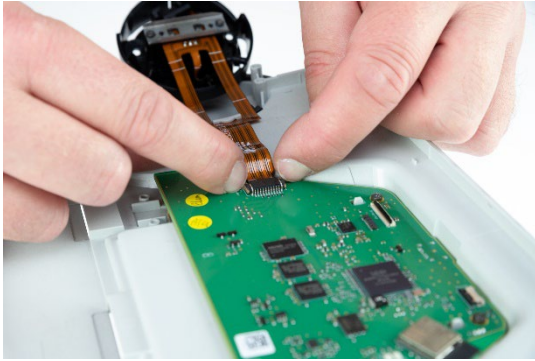
Click the black switch to release the cable for the touch display.



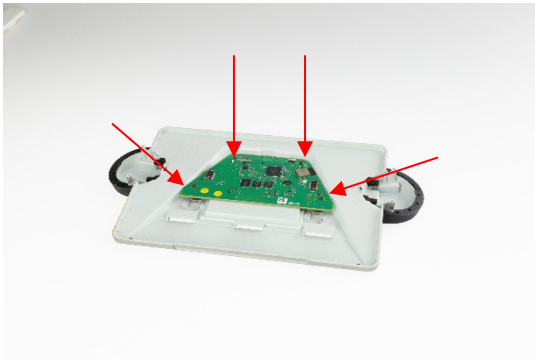
When assembling the device again the cable for the touch display need to be placed correctly in the socket.



Click the connector and lift out the display cable.



Click out the cables for the rotary button.
Press on each side of the cable to release.



There are four screws in each corner of the
mainboard.



Use the torx screwdriver to remove the
screws.



Mainboard can now be replaced.



5 Troubleshooting

ERROR MESSAGE OR PROBLEM	WHAT TO DO
No connection – Using cable	Check USB cable, replace if necessary.
No connection – Using wireless	Check that keyboard is paired to the suite. Check that Wireless connection is turned on for the keyboard. Check the PC settings
Dial does not turn	Cable inside can be loose: Open the rotary button and check. Put in place, if loose. Cable in rotary wheel defect: Replace. If dial rotation is noisy, replace rotary switch including flat cable.
No light on in keyboard	Cable to mainboard can be loose: Open the keyboard and check. Put in place, if loose. Cable is defect: Replace the cable. Check connection. Replace battery.
Casing broken	Replace casing.



5.1 Testing the functionality after the service

This chapter contains a quick guide to testing the Touch Keyboard functionality.

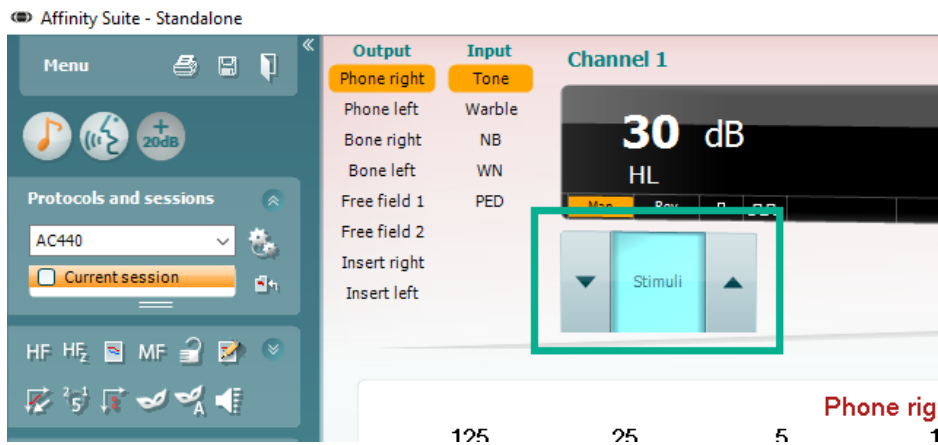
Hold down the top two buttons and verify that the keyboard turns on.

Connect the keyboard and verify that this shows up in the Suite as connected. When the keyboard is connected, an image of the keyboard will show up as seen below:

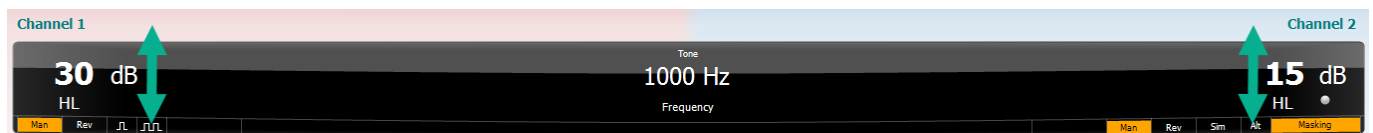


Move to the Tone test screen.

Press the left tone switch and verify that the stimuli indicator under Channel 1 turns on.



Rotate the left and right dial to verify that the intensities are changing.



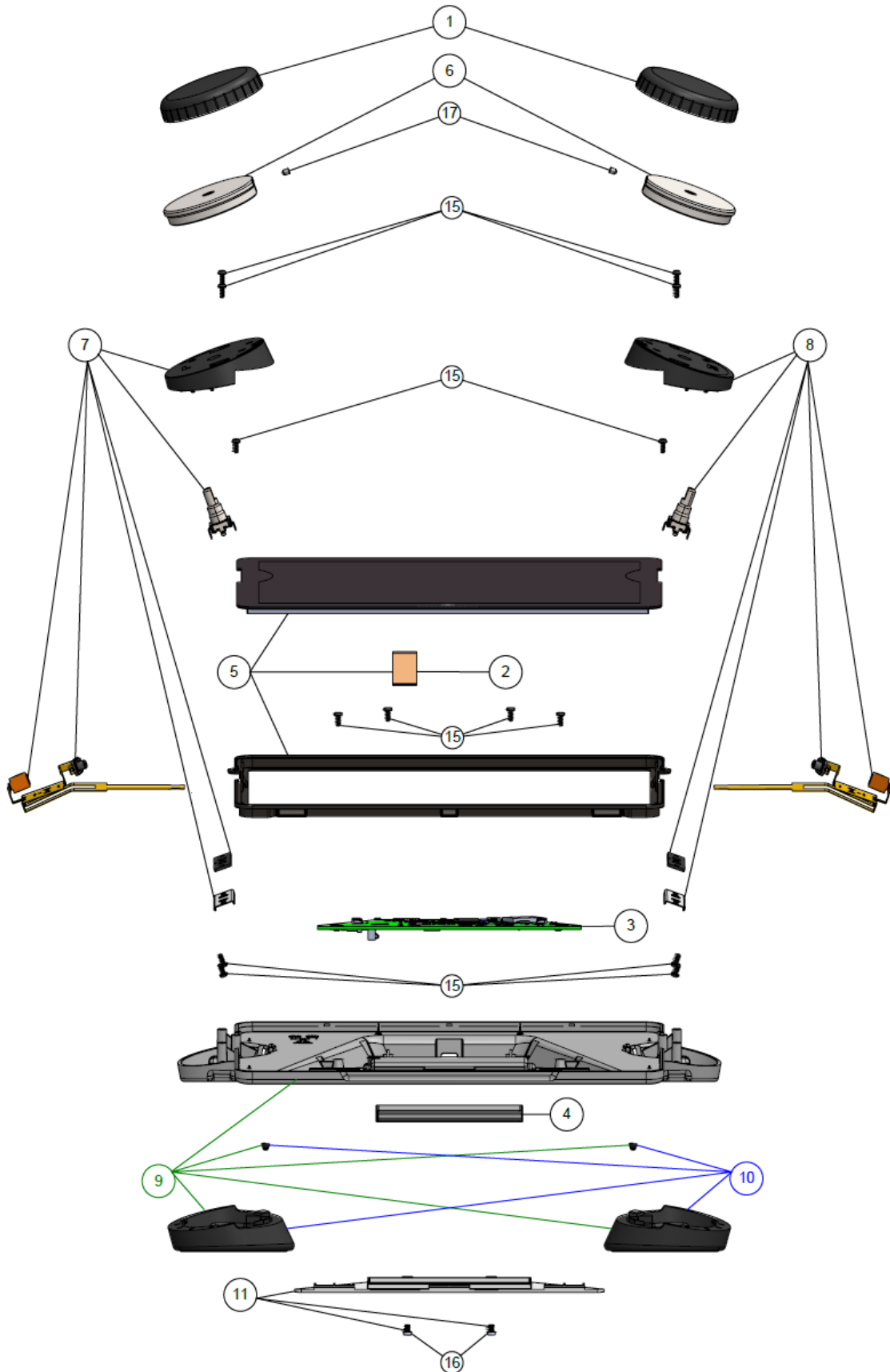
Press the left lower button and make sure Talk forward is activated.

The Keyboard is now ready for use.



Appendix A – Exploded view

Touch Keyboard
Exploded view



















Item no.	Part no.	Description
1	8529423	Rubber lid
2	8538570	Display cable
3	8527413	PCA mainboard with firmware
4	8603540	RRC1130-GR 3.8V 3880 mAh battery
5	8539179	Display incl. frame and display cables
6	8529434	Steel dial
7	8538477	Tower top left
8	8538478	Tower top right
9	8539180	Casing incl. rubber foot and two small feet
10	8539181	Right and left rubber feet and two small feet
11	8539182	Battery cover incl. screws
15	8003140	PT2.5x6 torx head screw
16	8536466	M2.5x4 mm screw
17	8002958	4 M3x4 screws



Appendix B – Parts & accessories

SPARE PARTS	PART NUMBER	DESCRIPTION
	8529423	Rubber lid 1118 black silicone
	8603540	Battery (note: model varies)
	8539208	PCA Mainboard with firmware
	8538570	Display cable
	8539179	Kit: Display incl. frame and display cables (shown front and back)
	8538478	Kit: Right tower top with encoder, two tactile buttons, encoder bracket and encoder spacer
	8538477	Kit: Left tower top with encoder, two tactile buttons, encoder bracket and encoder spacer
	8539180	Kit: Casing incl. large rubber foot and two small feet
	8539181	Kit: Right and left rubber feet and two small feet
	8539182	Kit: Battery cover incl. two screws



SPARE PARTS	PART NUMBER	DESCRIPTION
	8605691	USB cable 2000mm black C-C
	8535879	PSU 5-20V 3A 60W USB-C UES60LCP-200300SPC
	8536291	USB-A to USB-C adapter
	8605691	USB-C Power deliv. split cable 1980mm black



Appendix C – Update history

The following modifications have been made to the instrument and/or the manual:

DATE	ACTION	REMARKS
2026/04	Revision of service manual	Appendix B Parts and Accessories: added 8534491, 8535879 , 8536291 and 8605691
2025/04	Revision of service manual	Section 4.3.2 Removing the rotary button: Updated with “Screw is tightened with 46 cNm of torque”.
2025/01	Release of service manual	