

# tobii dynavox TD I-110 SGD AAC Communication Device User **Manual**

Home » tobii dynavox » tobii dynavox TD I-110 SGD AAC Communication Device User Manual



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# TD I-110 User's Manual





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#### **Contents**

- 1 Introduction
- 2 Safety
- 3 Overview of the TD I-110
- 4 Batteries in the TD I-110
- 5 Using the TD I-110
- **6 Product Care**
- 7 Appendix A Support, Warranty, Training

**Resources** 

- 8 Appendix B Compliance Information
- 9 Appendix C Maximum Allowed Temperature
- 10 Appendix D Technical Specifications
- 11 Appendix E Approved Accessories
- 12 Appendix F Local Certification Partners
- 13 Documents / Resources
  - 13.1 References

#### Introduction

Thank you for purchasing a TD I-110 device from Tobii Dynavox!

To ensure the optimal performance of this product, please take the time to read this manual carefully.

The TD I-110 device is a Tobii Dynavox Speech Generating Device (SGD) intended for use as an augmentative communication aid for those with speech, language, physical, and cognitive disabilities.

## 1.1 Explanation of Admonitions

In this manual we use four (4) levels of admonitions as follows:



Is used for notifying the user of something important or of something that needs special attention.



Is used to inform of something that could cause harm to, or malfunction of, the equipment.



Is used to inform of something in which there is a conceivable risk of harm to the user if the Warning is ignored.



Is used to inform of something that can cause damage to hearing.

## 1.2 Symbols and Markings

This section provides information about the symbols that are used on the TD I-110, its accessories, or packaging.

| Symbol or Markings | Description   |  |  |
|--------------------|---|--|--|
|                    | Safety Class II double insulated equipment.   |  |  |
| RoHS               | Dispose of in accordance with your country's requirements.  |  |  |
| CE                 | CE is the abbreviation of the European Communities and this mark tells customs officials in the European Union that the product complies with one or more of the EC Directives.   |  |  |
| UK                 | The UKCA (UK Conformity Assessed) marking is a UK product marking that is used for goods being placed on the market in Great Britain (England, Wales and Scotland). It covers most goods which previously required the CE marking.  |  |  |
| F©                 | This mark is a certification mark employed on electronic products manufactured or sold in the United States which certifies that the electromagnetic interference from the device is under limits approved by the Federal Communications Commission.  |  |  |
|                    | Australian Electrical Equipment Safety System Regulatory Compliance Mark.   |  |  |
| (VI)               | Mark indicating a power supply meets the level V requirements at both 115 V/60 Hz and 230 V/50 Hz, if designed to operate at multiple input voltages. Products with a nameplate marked for only one voltage and frequency should also use this mark assuming the product meets the performance requirements; in other words, manufacturers do not have to indicate the voltage with the mark. |  |  |
| A PS               | Japanese certification for electrical/electronic appliances and components.   |  |  |

| Symbol or Markings                                  | Description   |
|---|---|
| <b>(W)</b>  | China Compulsory Certificate.   |
| 100   | China RoHS compliance.  |
| (A)   | Fulfils relevant and applicable safety requirements for the US and Canada.  |
|   | Indoor use only.  |
| Energy Verified<br>Rendement<br>Énergétique Vérifié | The UL Energy Verified Mark shows buyers that the energy claims have been verified by a trusted source.   |
| SS  | USB 3.0 Port  |
| 4   | DC Power connector  |
| $\cap$  | Head phone jack 3,5 mm  |
| Ф   | Stand-by.   |
| SW1   | 3.5 mm Switch port 1  |
| SW2   | 3.5 mm Switch port 2  |
| <b>(3)</b>  | Follow instructions for use.  |
| $\sim$  | Alternating Current   |
|   | Direct Current  |
| IP55  | Ingress Protection (with I/O cover protecting the connectors)  IP5x = Dust-protected  IPx5 = Protected against water jets from a nozzle of 6.3 mm   |
|   | Belgium (BE), Netherlands (NL), Denmark (DK), Austria (AT), Switzerland (CH), Luxembourg (LU), Liechtenstein (LI), Republic of Ireland (IE), Portugal (PT), Spain (ES), Finland (FI), Germany (DE), Poland (PL), Estonia (EE), Croatia (HR), Norway(NO), Italy (IT), Iceland(IS), France (FR), Sweden (SE), Slovenia (SI) |

## 1.3 Intended Use

The TD I-110 is intended primarily as a speech generating device. The TD I-110 is intended to provide, and act as, a compliment for everyday communication for people who have challenges in their ability to speak due to injury, disability or illness.



**Contraindication:** The TD I-110 device should never be, for the user, the only means of communicating important information.

In case of failure of the TD I-110 device, the user cannot communicate using it.



Intended use is both indoor and outdoor conditions.

#### 1.3.1 Intended User Profile

The Primary Users of the TD I-110 are those individuals who, due to physical, language, and/or cognitive conditions, require an AAC device for Speech. It is appropriate for users of all ages.



The patient is not an intended operator.

#### 1.3.2 Additional Information

The target users for TD I-110 are individuals with physical and/or cognitive conditions affecting their ability to speak, communicate and participate in everyday activities. TD I-110 provides these users with a way to communicate that is appropriate for their age, cognitive level, language skills, and physical abilities. This might be through Visual Scene Displays (VSDs), grid-based symbol pages, keyboards, or a combination of the above. Composed messages are communicated through recorded voice or synthesized speech.

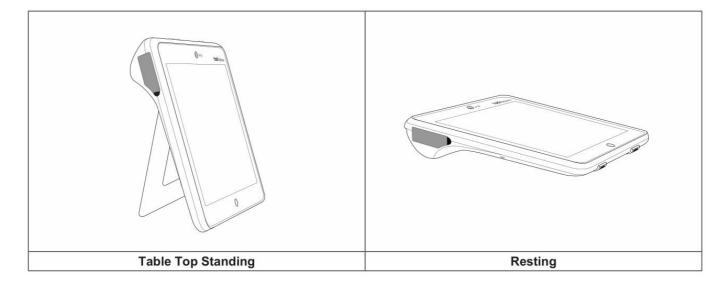
TD I-110 is built to serve a wide range of input method needs and use cases. The typical user will be ambulatory and interact with the device through touch. The device is also appropriate for physically disabled users that require alternative access methods, such as switch scanning, or wheelchair mounting. TD I-110 is based on Windows and is available both in dedicated and open configurations. In the dedicated configuration, TD I-110 will restrict the users from access to features that are not seen as communication functionality.

In addition to providing users with face-to-face communication possibilities, TD I-110 also facilitates alternative access to a number of computer access and long distance communication features. The device has built-in WLAN and cellphone connectivity through Bluetooth. TD I-110 also has built-in infrared transmitters enabling the user to control TV, lights, blinds and other IR-compatible devices in their environment.

TD I-110 is a medical device designed to meet the requirements of EN-60601 and all other regulatory requirements in the markets where it is sold. TD I-110 is significantly more rugged than typical consumer tablets, and comes with an IP55 ingress protection, enabling use in most conditions. TD I-110 is not intended to be the user's sole means of communication. Users should have an alternative, low-tech communication method in the event that the device is malfunctioning or otherwise inaccessible.

#### 1.3.3 Portable Use

A portable TD I-110 can be used hand-held or in a table top standing or resting position.



Through the built-in stand, the TD I-110 can be used standing on a flat surface. By collapsing the stand, the device can also be used in a resting position, either resting on a surface or handheld. By utilizing the included carry strap, the device can also be carried around the user's neck. Both positions allow for touch input, scanning or other

alternative input methods.

#### 1.3.4 Mounted Use

The TD I-110 can be mounted on to several mounting systems.

- ConnectIT
- REHAdapt
- Daessy
- IDEAS

#### 1.4 Package Contents

It is recommended to keep the original packaging materials for the TD I-110.

If the device needs to be returned to Tobii Dynavox for warranty-related issues or repair, it is beneficial that the original packaging or equivalent is used for shipping. Most shipping carriers require at least 2 inches of packing material around the device.

Note: Due to Joint Commission regulations, any shipping materials (including boxes) sent to Tobii Dynavox must be discarded.

#### 1.4.1 TD I-110

The items below are included with your TD I-110 package:

- 1 TD I-110 Device
- 1 Device Shoulder Strap
- 1 TD I-110 Protective Case
- 1 Power Adapter
- 1 AC Power Cord
- 1 USB-C Charging Cable
- 1 Carry Case with attached Shoulder Strap
- 1 Screwdriver
- 1 Windows license (license sticker on device)
- The following Tobii Dynavox Communication software:
  - TD Snap (pre-installed)
  - Communicator 5 (pre-installed depending on market)
- 1 TD I-110 User's Manual (on the device as a PDF document)
- 1 TD I-110 Getting Start Guide (printed)
- 1 Safety and Compliance document (printed)

## Safety

The TD I-110 device has been tested and approved as compliant to all the Specifications and Standards listed in Appendix B Compliance Information, page 24 of this manual and in the Appendix D Technical Specifications, page 28

Nevertheless, in order to ensure safe operation of your TD I-110 device, there are a few safety warnings to bear in mind:



#### No modification of this equipment is allowed



Repairs to a Tobii Dynavox device must only be performed by Tobii Dynavox or a Tobii Dynavox authorized and approved repair center.



The TD I-110 is not to be used as a life supporting device, and it shall not be relied on in case of loss of function due to power loss or other causes.



The TD I-110 device is designed to meet a high ingress protection rating, meaning it will withstand light rain or snow. However, it shall not be submerged in water, exposed to or used in heavy rain, or weather conditions outside the Technical Specification of the TD I-110 device.



The TD I-110 device is designed to be rugged and durable. It shall still be handled and used with care when moving around.



There could be a choking hazard risk if small parts detach from the TD I-110 device.



The TD I-110 device shall only be used with TD I-110 specific Accessories that have a mounting instruction included with the accessory.



Young children or people with cognitive disabilities should not have access to, or use, the TD I-110 device, with or without carry strap or other accessories, without parental or guardian supervision.



The strap and charging cable could present strangulation hazards to young children. Never leave small children unattended with the strap or charging cable.

#### 2.1 Avoiding Hearing Damage

Permanent hearing loss may occur if earphones, headphones or speakers are used at high volume. To prevent this, the volume should be set to a safe level. You can become desensitized over time to high sound levels which may then sound acceptable yet still could damage your hearing. If you experience symptoms such as ringing in your ears, please lower the volume or stop using the earphones/headphones. The louder the volume, the less time is required before your hearing could be affected.

Hearing experts suggest the following measures to protect your hearing:

- Limit the amount of time you use earphones or headphones at high volume.
- Avoid turning up the volume to block out noisy surroundings.
- Turn the volume down if you cannot hear people speaking near you.

To establish a safe volume level:

- Set your volume control at a low setting.
- Slowly increase the sound until you can hear it comfortably and clearly, without distortion.

The TD I-110 device can produce sounds in decibel ranges that may cause hearing loss for a normal hearing person, even when exposed to for less than a minute. The maximum sound level of the unit is in parity with the sound levels that a healthy young person can produce while screaming. Since the TD I-110 device is intended as a voice prosthetic, it shares the same possibilities and potential risks of causing harm to hearing. The higher decibel ranges are offered to enable communication in a noisy environment and should be used with care and only when needed in noisy environments.

#### 2.2 High Temperature

If used in direct sunshine or in any other hot environment, the TD I-110 device may have hot surfaces. The TD I-110 devices have built-in protections to prevent overheating. If the interior temperature of the TD I-110 device exceeds the normal operating range, the TD I-110 device will protect its internal components by attempting to regulate its temperature.

If the TD I-110 device exceeds a certain temperature threshold, it will present a temperature warning screen. To resume use of the TD I-110 device as quickly as possible, turn it off, move it to a cooler environment (away from direct sunlight), and allow it to cool down.

#### 2.3 Power Supply and Batteries



The TD I-110 device contains a rechargeable battery. All rechargeable batteries degrade over time. Thus the possible usage times for the TD I-110 after a full charge can become shorter over time than when the device was



The TD I-110 device uses a Li-ion Polymer battery.

If you are in a hot environment, be aware that it can affect the ability to charge the battery. The internal temperature has to be between 0 °C/32 °F and 45 °C/113 °F for the battery to charge. If the internal battery temperature raises above 45 °C/113 °F, the battery will not charge.

If this occurs, move the TD I-110 device to a cooler environment to let the battery charge properly.



Avoid exposing the TD I-110 device to fire or to temperatures above 60 °C/140 °F. These conditions may cause the battery to malfunction, generate heat, ignite or explode. Be aware that it is possible, in a worst case scenario, for temperatures to reach greater than those stated above, for example, the trunk of a car on a hot day. So, storing the TD I-110 device, in a hot car trunk could conceivably lead to a malfunction.



Only charge the TD I-110 battery in an ambient temperature of 0°C to 45°C (32°F to 113°F).



Use only the supplied power adapter to charge the TD I-110 device. Using unauthorized power adapters may severely damage the TD I-110 device.



The batteries are only to be changed by Tobii Dynavox personnel or specified designees. Replacement of lithium batteries or fuel cells by inadequately trained personnel could result in a hazardous situation.



Do not open, or modify, the casing of the TD I-110 device or the power supply, since you may be exposed to potentially hazardous electrical voltage. The device contains no serviceable parts. If the TD I-110 device or its accessories are mechanically damaged, do not use them.



If the battery is not charged or the TD I-110 is not connected to the power supply, the TD I-110 device will shut



If the equipment is not used for a long time, disconnect it from the power source to avoid damage by transient over-voltage.



If the Power Supply Cord is damaged, it needs to be replaced by Service Personnel only. Do not use the Power Supply Cord until replaced.



Only connect the TD I-110 to the Power adapters shipped with this device.



The appliance coupler of the power supply or separable plug is used as the Mains Disconnection Device, please do not position the TD I-110 device so that it is difficult to operate the disconnection device.



Special regulations apply to shipping Lithium-ion batteries. If dropped, crushed, punctured, thrown, abused or short-circuited, these batteries can release dangerous amounts of heat and may ignite, and are dangerous in fires.

Please reference IATA regulations when shipping lithium metal or lithium-ion batteries or cells: http:// www.iata.org/whatwedo/cargo/dgr/Pages/lithium-batteries.aspx

## http://www.iata.org/whatwedo/cargo/dgr/Pages/lithium-batteries.aspx



The Power adapter shall not be used without an adult or caregiver supervision.

#### 2.4 Mounting

The TD I-110 should be mounted according to the instructions of the approved mounts used. Tobii Dynavox or its agents are not liable for damage or injuries to a person or its property due to a TD I-110 falling from a mounted configuration. The mounting of a TD I-110 is done entirely at the user's own risk.

#### 2.5 Emergency

Do not rely on the device for emergency calls or banking transactions. We recommend having multiple ways to communicate in emergency situations. Banking transactions should only be carried out with a system recommended by, and approved according to the standards of your bank.

#### 2.6 Electricity

Do not open the casing of the TD I-110 device, since you may be exposed to potentially hazardous electrical voltage. The device contains no user serviceable parts.

## 2.7 Child Safety

The TD I-110 devices are advanced computer systems and electronic devices. As such they are composed of numerous separate, assembled parts. In the hands of a child certain of these parts, including accessories, have the possibility of being separated from the device, possibly constituting a choking hazard or another danger to the child.

Young children should not have access to, or the use of, the device without parental or guardian supervision.

#### 2.8 Software

Windows comes with Windows Defender included, providing protection from viruses, malware, and other potential threats. Regardless of whether you use Windows Defender or a third party anti-virus software, we recommend that you always keep your antivirus software up-to-date.

Software other than that which is pre-installed on the TD I-110 is installed at the user's own risk. External software could cause the TD I-110 to malfunction and might not be covered by the warranty.

## 2.9 Magnetic Field

The TD I-110 device contains magnets. Magnetic fields may interfere with pacemakers, defibrillators, or other medical devices. As a general rule, maintain a minimum distance of 6 inches (15 centimeters) between any item with magnets and your heart device.

If you suspect that the TD I-110 device is interfering with your pacemaker or any other medical device, stop using the TD I-110 device and consult your physician for specific information about that affected medical device.

#### 2.10 Third Party

Any use of the TD I-110 outside the intended use and together with any third party software or hardware that changes the intended use is a risk and nothing that Tobii Dynavox can take any responsibility for.

External equipment intended for connection to signal input/output or other connectors, shall comply with relevant UL /IEC standard (e.g. UL/IEC 62368 for IT equipment, and IEC 60601, ANSI/AAMI ES 60601-1,

#### CAN/CSA-C22.2

No. 60601-1 for medical equipment). Equipment not complying with IEC 60601, ANSI/AAMI ES 60601-1, CAN/CSA-C22.2 No. 60601-1 shall be kept outside the patient environment, as defined in the standard. Any person who connects external equipment to signal input, signal output, or other connectors has formed a system and in the standard IEC 60601.1 sefety requirement.

Any person who connects external equipment to signal input, signal output, or other connectors has formed a system and is therefore responsible for the system to comply with the standard IEC 60601-1, safety requirements for medical electrical systems.

## 2.11 Environmental Control

The Programmable IR Remote Control — Environmental Control Unit (ECU) is not to be relied on as the only method of interaction with IR controlled devices.

#### Overview of the TD I-110

#### 3.1 Key Features

The TD I-110 has several built-in features.

- 2 × Cameras
- 1 × IR Camera for Windows Hello
- 1 × Internal microphone
- 1 × USB—A (full size) 3.0 connector
- 1 × USB-C Power Connector
- 2 × 3.5 mm Switch ports
- 1 × Audio jack
- 2 × Internal speaker
- 1 × Bluetooth®
- 1 × WLAN (Wireless Local Area Network)
- 4 × IR transmitters and 1 × IR receiver

#### 3.2 Product Layout

A TD I-110 device has a color Capacitive touch, LED Backlight screen. The TD I-110 has an 10.1" screen with a 1920 ×1200 pixel resolution.



3.2.1 Ports, Sensors and Device Buttons

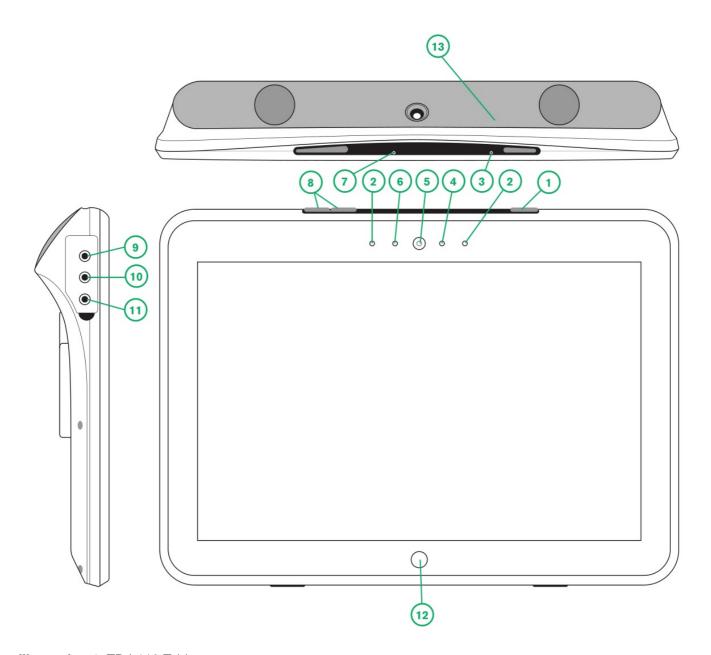


Illustration 1: TD I-110 Tablet

| Position | Description                         | Position | Description         |
|----------|-------------------------------------|----------|---------------------|
| 1        | Power Button                        | 8        | Volume Buttons      |
| 2        | Windows Hello Camera IR Transmitter | 9        | Switch port 1       |
| 3        | Charge LED                          | 10       | Switch port 2       |
| 4        | Camera in use LED                   | 11       | Audio Jack Port     |
| 5        | Front Camera                        | 12       | Windows Home Button |
| 6        | Ambient Light Sensor                | 13       | IR Remote Control   |
| 7        | Microphone                          |          |                     |

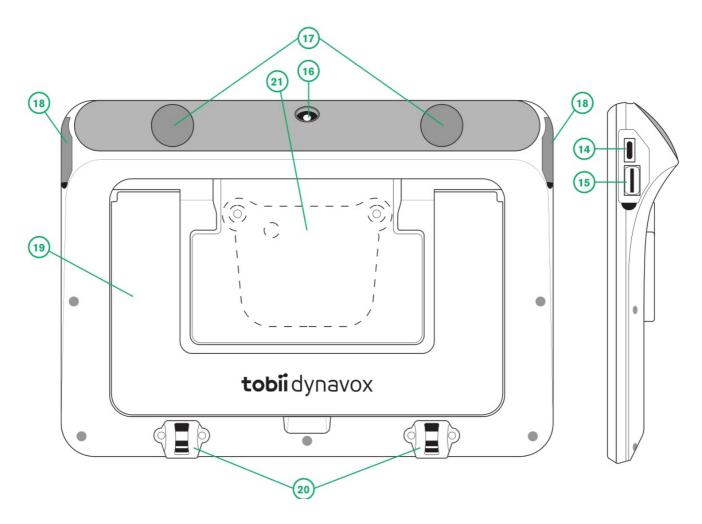


Illustration 2: TD I-110 Tablet

| Position | Description           | Position | Description                |
|----------|-----------------------|----------|----------------------------|
| 14       | USB-C Power Connector | 18       | I/O Covers                 |
| 15       | USB 3.0 Connector     | 19       | Stand                      |
| 16       | Back Camera           | 20       | Shoulder Strap Connectors  |
| 17       | Speakers              | 21       | Mount Plate (not included) |

Never force a connector into a port. If the connector and port do not join with reasonable ease, they probably do not match. Make sure that the connector matches the port and that you have positioned the connector correctly in relation to the port.

Be extra careful with the USB connectors.

#### 3.3 Preinstalled Software

The TD I-110 device is delivered with all pre-ordered and required software installed and ready to use. Should a reinstallation become necessary at any stage, perform a factory reset using Windows built in factory restore options.

#### Batteries in the TD I-110

#### 4.1 Batteries

The TD I-110 device has one built-in battery and a battery indicator. The battery indicator will send out a warning of Low battery when the battery drops below 10% of its capacity. If the TD I-110 device is not powered up by the power supply for charging, the TD I-110 device will shut down automatically. For more information, see Technical Specifications.

#### 4.2 Charging the TD I-110

- 1. Connect the Power cable to the Power Connector on the device.
- 2. Connect the Power adapter to an electrical outlet and charge the tablet until the battery is fully charged. For device storage and battery charging temperatures, see Safety.

#### 4.2.1 LED Behavior

The LED will shine or blink with five (5) different states:

- Green
- Solid Fully charged (Ready to use)
- Flickering Device Chassis overheated
- Blue
- Solid Charging
- Blinking Low battery
- Amber
- Solid Battery fault or device overheating

Attempting to start a device in an overheated condition by pressing the power button, will result in the flickering green light, and the device WILL NOT start up until cooled down. For temperature states, see table, Maximum Allowed Termerature.

## Using the TD I-110

No skill other then reading is necessary for setting up the TD I-110 device. Follow this User's Manual and the Getting Start Manual.

#### 5.1 Starting the Device

Press the power button on the top of the device. (Position 1 in Illustration 1: TD I-110 Tablet, page 14) to start the TD I-110. Alternatively, a switch plugged into switch port 1 or 2 can also power on or wake the device. Press and hold the connected switch for 3–4 seconds.

#### 5.1.1 Password Information

The TD I-110 device is configured to start up without a password. Though unusual, there are situations in which the password window could pop up; for example, when creating a new user in the operating system, when returning from the operating system's sleep mode or when downloading software updates from the internet.

If you decide to use a password for your user account on your TD I-110 device, be sure to write it down in a safe place for later use. Without the operating system's access password, Tobii Dynavox Support may be unable to assist you until you have recovered it through Microsoft.

The password is case sensitive.

Should the password window pop up, requiring a password, you need to know the password or where to find it. In order to type in the password use the Windows on-screen keyboard or an external USB keyboard (not included).

## 5.1.2 First Start-Up

When starting the TD I-110 device for the first time, follow the information in the Getting Started Guide that was delivered together with the TD I-110 device in the same box.

## 5.2 Shutting Down the TD I-110

The device should be shut down using the following:

• Use the start menu in Windows (recommended when possible).

Should you be unable to shut the device down using the above, you can hold the power button on the top side of the device down for more than ten (10) seconds. The device will consequently shut down immediately, without waiting for open applications to close.

This is not considered a "clean" Windows shut down and is thus not recommended unless completely necessary because it can harm you device.

## 5.3 Power Saving

The Power saving settings in the TD I-110 device are preset to optimize the battery run-time. If needed, the time setting for sleep mode can be adjusted in Windows Power Options.

#### 5.3.1 Turn Off/On the Screen

Turn Off Screen

• A single press of the power button will turn off the screen and the device will be idle.

#### Turn On Screen

- A single press of the power button and you should be back where you left off.
- Alternatively you can long hold the home button to wake up the device

#### 5.4 Using the Cameras

The two built-in cameras allows you to take snapshots of items facing the backside of the TD I-110 device and also from the display side.

Use Tobii Dynavox Communication Software or other relevant software to operate the cameras.

#### 5.5 Adjusting the Volume

To adjust the volume use the Volume Up and Down buttons (Position 2) on top side of the TD I-110 device. For position references, see Illustration 1: TD I-110 Tablet, page 14.



Volume adjustments can also be done in Tobii Dynavox Communication Software and in Windows.

## 5.6 Adjusting the Sound

You can configure the speakers using the Windows Settings > System > Sound.



We refer to Microsoft's information on how to configure the sound in the Windows Settings.



Sound adjustments can also be done in Tobii Dynavox Communication Software.

## 5.7 Setup Windows Hello

- 1. Open the Windows Start menu.
- 2. Select your Account.
- Select Change Account Settings.
- 4. Select Sign-in options.
- 5. To proceed, set up a PIN code.
- 6. Select the Add button under PIN and follow the next steps.

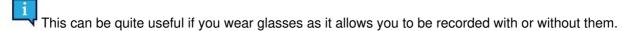


Make a note of the PIN code and keep it in a safe place.



Once you've done that the options to set up Windows Hello will unlock.

- 7. After successfully selecting a PIN, you'll be able to select Set Up under Windows Hello and Face Recognition.
- 8. If you'd like to get some more detailed background information on Windows Hello select Learn more about Windows Hello. Or just select Get Started to continue.
- 9. The camera in the eye tracker will now help you position yourself in front of the screen by showing a livestream through the camera. After positioning yourself successfully in front of the camera, the face recognition setup will begin automatically.
- 10. Once you've successfully completed the set up, an option to Improve Recognition will be available.



#### 5.8 Reset the Device

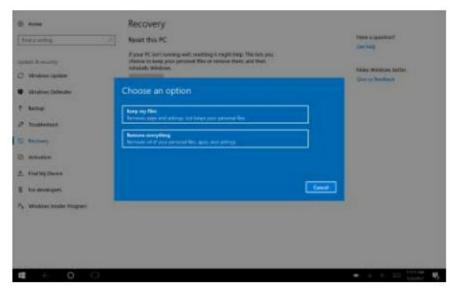
If you have made a lot of different changes to the TD I-110 and would like to start over, perform a Recovery from within Windows.

The TD I-110 uses 100% native Windows recovery/reset functionality.

- 1. Access the Windows Settings icon from the Windows desktop.
- 2. Select Updates and Security (you may need to scroll down in the Windows Settings window).
- 3. Select the Recovery option in the left column.
- 4. Select the Get Started under the heading of Reset this PC.



5. Select one of these options:



- Keep my files
- Reinstalls Windows and keeps your personal files.
- Removes apps and drivers you installed.

- Removes changes you made to settings.
- Removes any apps your PC manufacturer installed. (If your PC came with Windows, apps from your PC manufacturer will be reinstalled.)

The Configuration Manager app that runs at first login (prompting for the QR code) will restore any licensed Tobii Dynavox applications which are removed.

- Remove everything
- Reinstalls Windows and removes all your personal files.
- Removes apps and drivers you installed.
- Removes changes you made to settings.
- Removes any apps your PC manufacturer installed. (If your PC came with Windows, apps from your PC manufacturer will be reinstalled.)

The Configuration Manager app that runs at first login (prompting for the QR code) will restore any licensed Tobii Dynavox applications which are removed.

Remove everything has two data erasure options:

- Without Clean the drive (default) — This option will take about one hour to perform.

To continue without Clean the drive, select Next.

With Clean the drive — This option will take many hours to perform.

To enable the Clean the drive option, select Change settings, set Data erasure to ON, then select Confirm.

This option will also present the user with a BIOS message about resetting BitLocker encryption. The actual message occurs at reboot and looks like this: A configuration change was requested to Clear this computer's TPM (Trusted Platform Module) WARNING: Clearing erases information stored on the TPM: You will lose all created keys and access to data encrypted by these Keys.Press F12 to Clear the TPM.Press ESC to reject this change request and continue

Select F12 to proceed with cleaning the drive or ESC to reject this change request and continue.

- 6. Select Next to continue or Cancel to abort.
- 7. Select Reset to continue or Cancel to abort.

This will take several minutes. When finished, the TD I-110 will reboot and you will be presented with the Manual key entry menu.

Your Serial number and Product key will be auto filled with your information. You can also use the QR Code received with the original purchase.

Select the **Start** option.

#### **Product Care**

## **6.1 Expected Service Life**

The expected service life of the TD I-110 and power adapter is 5 years.

## 6.2 Temperature & Humidity

6.2.1 General Use - Operating Temperature

The TD I-110 is best kept in dry conditions at room temperature. The recommended range for temperature and the humidity value for the device is as follows:

- Ambient temperature: 0°C to 35°C (32°F to 95°F)
- Humidity: 20% to 80% (no condensation on the device)
- Atmospheric Pressure: 70 kPa to 106 kPa (525 mmHg to 795 mmHg)

#### 6.2.2 Transportation and Storage

For transportation and storage the recommended range for temperature and the humidity value for the device is as follows:

- Temperature: -30°C to 70°C (-22°F to 158°F)
- Humidity: 5% to 95% @40°C (104°F)(no condensation on the device)
- Atmospheric Pressure: 70 kPa to 106 kPa (375 mmHg to 795 mmHg)

The TD I-110 is not waterproof. The device should not be kept in excessively humid, damp or otherwise wet conditions. Do not submerge the device in water or in any other liquid. Be careful not to allow liquids to be spilled upon the device, especially in the connector areas.

#### 6.2.3 Charging

For charging, the recommended range for temperature and the humidity value for the device is as follows:

- Temperature: 0°C to 45°C (32°F to 113°F)
- Relative humidity: 5% to 90% (no condensation on the device)

#### 6.3 Cleaning

Before cleaning the TD I-110 device, shut it down and unplug all cables. Use a soft, slightly damp lint-free cloth. Avoid getting moisture in openings on the device. Don't use window cleaners, household cleaners, aerosol sprays, solvents, alcohol, ammonia, bug spray, or abrasives to clean the device. It can void the warranty.

#### 6.3.1 Cleaning of the Speakers

If the openings for the speakers are clogged, carefully use cotton sticks and/or a toothbrush to avoid damaging the TD

I-110 speakers.

#### 6.4 Placement

Only use the recommended mounts specified by your local reseller or sales representative and make sure that they are mounted and fastened correctly according to the instructions. Do not place the device on unstable and uneven surfaces.

## 6.5 Transporting the Device

Disconnect all the cables from the TD I-110 while carrying the device.

When you transport the device for repair, shipment, or traveling, use the original casing and packaging materials.

It is recommended to keep the original packaging materials for the TD I-110.

If the device needs to be returned to Tobii Dynavox for warranty-related issues or repair, it is beneficial that the original packaging or equivalent is used for shipping. Most shipping carriers require at least 2 inches of packing material around the device.

**Note**: Due to Joint Commission regulations, any shipping materials (including boxes) sent to Tobii Dynavox must be discarded.

#### 6.6 Disposing of the Device

Do not dispose of the TD I-110 device in general household or office waste. Follow your local regulations for the disposal of electrical and electronic equipment.

## Appendix A Support, Warranty, Training Resources

## **A1 Customer Support**

For support, please contact your local representative or Support at Tobii Dynavox. In order to receive assistance as quickly as possible, make sure you have access to your TD I-110 device and, if possible, an Internet connection. You should also be able to supply the serial number of the device, which you will find on the back of the device under the leg.

For further product information and other support resources, please visit the Tobii Dynavox website <a href="https://www.tobiidynavox.com">www.tobiidynavox.com</a>.

#### **A2 Warranty**

Please read the warranty located here: <a href="https://www.tobiidynavox.com/pages/warranties">https://www.tobiidynavox.com/pages/warranties</a>.

Tobii Dynavox does not warrant that the Software on the TD I-110 will meet your requirements, that the operation of the software will be uninterrupted or error-free, or that all software errors will be corrected.

Tobii Dynavox does not warrant that the TD I-110 will meet Customer requirements, that the operation of the TD I-110 will be uninterrupted, or that the TD I-110 is free from bugs or other defects. Customer acknowledges that the TD I-110 will not function for all individuals and in all light conditions.

Please read this User's Manual carefully before using the device. The warranty is only valid if the device is used according to the User's Manual. Opening/disassembling the TD I-110 device will void the warranty.

It is recommended to keep the original packaging materials for the TD I-110.

If the device needs to be returned to Tobii Dynavox for warranty-related issues or repair, it is beneficial that the original packaging or equivalent is used for shipping. Most shipping carriers require at least 2 inches of packing material around the device.

**Note**: Due to Joint Commission regulations, any shipping materials (including boxes) sent to Tobii Dynavox must be discarded.

#### **A3 Training Resources**

No specific training is required for the safe and effective use of the primary operating functions of the TD I-110.

Tobii Dynavox offers a range of training resources for the TD I-110 products and related communication products. You can find them on the Tobii Dynavox website, www.tobiidynavox.com, including Getting Started Guides, and extensive training materials. The TD I-110 Getting Started Guide is delivered with and stored on the device. The training cards are stored on the TD I-110 device.

#### Appendix B Compliance Information

## **B1 FCC Statement**

This device 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, including interference that may cause undesired operation.

Modifications not expressly approved by Tobii Dynavox could void the user's authority to operate the equipment under FCC rules.

#### B1.1 For P15B Equipment

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.

#### **B1.2 For Portable Devices**

FCC RF Radiation Exposure Statement:

- 1. This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
- 2. This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This device was tested for typical hand held operations with the device contacted directly to the human body to the sides of the device. To maintain compliance with FCC RF exposure compliance requirements, avoid direct contact to the transmitting antenna during transmitting.

#### **B2 Antenna Frequency and Compliance with Limit EIRP**

| Technologies | Frequency range (MHz) | Max. Transmit Power | Note |
|--------------|-----------------------|---------------------|------|
| Bluetooth    | 2402-2480 MHz         | 11.84               | EIRP |
| BLE          | 2402-2480 MHz         | 9.27                | EIRP |
| WLAN 2.4 GHz | 2412-2472 MHz         | 18.93               | EIRP |
| WLAN 5 GHz   | 5180-5240 MHz         | 19.88               | EIRP |
| WLAN 5 GHz   | 5260-5320 MHz         | 19.90               | EIRP |
| WLAN 5 GHz   | 5500-5700 MHz         | 20.12               | EIRP |
| WLAN 5 GHz   | 5745-5825 MHz         | 10.98               | EIRP |
| WLAN 5 GHz   | 5955-6385 MHz         | 19.82               | EIRP |

#### B3 Radio Wave Exposure and Specific Absorption Rate (SAR) Information

The TD I-110 device has been tested as a Class 1 Medical Device. Medical electrical equipment such as this requires special caution regarding Electro-magnetic Compatibility (EMC) and thus needs to be installed and placed into service according to the information provided in this manual.

Using other cables and accessories other than those provided or that are integrated in the device may affect EMC performance.

The SAR (Specific Absorbtion Rate) limit as dictated by the FCC (in the USA) and by the IC (in Canada) is 1.6W/kg averaged over 1 gram of tissue. In Europe/EU (CE regulations) it is 2.0 W/kg averaged over 10 grams of tissue. The Devices, TD I-110 (FCC ID: 2AAOV-TD112), (IC ID: 5534A-TD112) have been tested against these SAR limits to maintain compliance with FCC/IC/CE RF exposure requirements.

This equipment complies with FCC/IC/EU RF radiation exposure limits set forth for an uncontrolled environment.

The highest SAR value for the TD I-110 device is 1.375 W/kg.

In order to maintain compliance as a Class 1 Medical device, the switches that are used in combination with the TD I-110 device must fulfill the isolation requirements of IEC/EN 60601-1 based on 15 V DC. They must be electrically floating switches (switches that are not grounded).

Tests for SAR are conducted using standard operating positions accepted by the FCC with the device transmitting at its highest certified power level in all tested frequency bands. For body worn operation, this device has been tested and meets the FCC RF exposure guidelines for use with an accessory that contains no metal and be positioned a minimum of 0 mm from the body. Use of other accessories may not ensure compliance with FCC RF exposure guidelines.

# **B4 Industry Canada Statement**

#### Caution

- (i) The device for operation in the band 5150-5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems;
- (ii) The maximum antenna gain permitted for devices in the bands 5250-5350 MHz and 5470-5725 MHz shall be such that the equipment still complies with the e.i.r.p. limit;
- (iii) The maximum antenna gain permitted for devices in the band 5725-5850 MHz shall be such that the equipment still complies with the e.i.r.p. limits specified for point-to-point and non-point-to-point operation as appropriate; and
- (iv) Users should also be advised that high-power radars are allocated as primary users (i.e. priority users) of the bands 5250-5350 MHz and 5650-5850 MHz and that these radars could cause interference and/or damage to LE-LAN devices.

This device (IC ID: 5534A-TD112) has been tested to the safety requirements for exposure to radio waves (SAR) in RSS-102 to the General Public (Uncontrolled Environment) limits (1.6W/Kg). The highest SAR value for the TD I-110 device is 1.375 W/kg. This device can be operated safely with a minimum distance 0 cm between the equipment and the user's body.

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following

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.

#### **B5 CE Statement**

This equipment complies with the requirements relating to electromagnetic compatibility, the essential protection requirement of Electromagnetic Compatibility (EMC) Directive 2014/30/EU on the approximation of the laws of the Member States relating to electromagnetic compatibility and Radio Equipment Directive (RED) 2014/53/EU to meet the regulation of the radio equipment and telecommunications terminal equipment.

The device is restricted to indoor use only when operating in the 5150 to 5350 MHz frequency range. This device meets the EU requirements (2014/53/EU) on the limitation of exposure of the general public to electromagnetic fields by way of health protection.

Hereby, Tobii Dynavox declares that the radio equipment type Speech generating device is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address:

#### www.tobiidynavox.com.

This equipment complies with EU radiation exposure limits set forth for an uncontrolled environment. The limits are part of extensive recommendations for the protection of the general public. These recommendations have been developed and checked by independent scientific organizations through regular and thorough evaluations of scientific studies. The unit of measurement for the European Council's recommended limit for mobile devices is the "Specific Absorption Rate" (SAR), and the SAR limit is 2.0 W/Kg averaged over 10 grams of body tissue. It meets the requirements of the International Commission on Non-Ionizing Radiation Protection (ICNIRP). For next-to-body operation, this device has been tested and meets the ICNRP exposure guidelines and the European Standard EN 50566 and EN 62209-2. SAR is measured with the device directly contacted to the body while transmitting at the highest certified output power level in all frequency bands of the mobile device.

#### **B6 Directives and Standards**

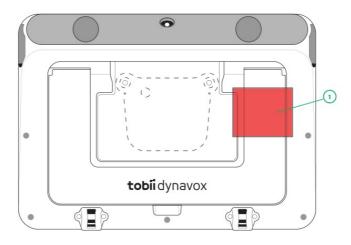
The TD I-110 complies with the following directives:

- Medical Device Regulation (MDR) (EU) 2017/745
- Electronic Safety IEC 62368-1
- Electromagnetic Compatibility (EMC) Directive 2014/30/EU
- Radio Equipment Directive (RED) 2014/53/EU
- RoHS3 Directive (EU) 2015/863
- WEEE Directive 2012/19/EU
- Reach Directive 2006/121/EC, 1907/2006/EC Annex 17
- Battery Safety IEC 62133 and IATA UN 38.3

## **Appendix C Maximum Allowed Temperature**

Table 1: Maximum Allowed Hotspot Temperature

| Allowable maximum temperature for skin contact of the TD I-110 metal   | Maximum Temperature °C/°F                      |  |
|--|--|--|
| surfaces.  | Hotspot <sup>1</sup> surface under stand.      |  |
|  | Not likely to be touched                       |  |
| Surface may feel warm if continued skin contact. 47/117 (55/131 is limit for ITE   |  |  |
| Surface temperature may start to feel uncomfortable if continued skin contact.   | 55/131 (70/158 is limit for ITE <sup>2</sup> ) |  |
| Temperature DEVICE SHUT OFF — not to cause risk of harm. 60/140 (device max lin  |  |  |
| <ol> <li>For Hotspot location, see <i>Illustration 3: Hotspot Temperature Area, page 27</i>.</li> <li>ITE refers to Information Technology Equipment, i.g. computers, tablets devices etc</li> </ol> |  |  |



#### **Illustration 3:** Hotspot Temperature Area

The TD I-110 device may get warm and to avoid discomfort there are three (3) temperature levels the device will be monitoring by itself. If the temperature reaches the first level in Table 1: Maximum Allowed Hotspot Temperature, page 27 a notification will be shown on the screen to inform the user. This is to avoid any risk of discomfort for the user due to the device being warm.

The second level notification will inform of the risk that the TD I-110 will shut down if it will become warmer. This temp level may also cause the user discomfort if holding the device for a longer time.

If reaching the third level, the TD I-110 device will shut down not to risk the temperature to cause any risk of harm to the user.

If the user tries to start the TD I-110 when the device temperature is above the third level, the device will not start up. The green LED will flicker when the power button is pressed, but the device will stay in the off condition. Let the TD I-110 cool down and try starting the device when the device temperature is below the third level.

#### **Appendix D Technical Specifications**

## D1 TD I-110 Device

| Standard  | TD I-110   |  |  |
|---|--|--|--|
| Screen  | 10.1", Aspect ratio: 16:10, LED Backlight Unit   |  |  |
| Screen Resolution                                 | 1920 × 1200  |  |  |
| Touch Panel                                       | Multi point Capacitive Touch   |  |  |
|   | Corning Gorilla Glass 5  |  |  |
| Dimensions (WxHxD)                                | 258 × 186 × 38 mm  |  |  |
|   | 10.2 × 7.3 × 1.5 inches  |  |  |
| Weight  | 1.4 kg   |  |  |
|   | 3.1 lbs  |  |  |
| Speakers  | 2 × 31 mm 4 ohm, 4 W   |  |  |
| Microphone  | 1× Digital MEMS Microphone   |  |  |
| Processor   | Intel N200Q – 4 cores, 6 MB cache, 3.7 GHz Ghz   |  |  |
| RAM   | 8 GB   |  |  |
| Operating system                                  | Microsoft® Windows   |  |  |
| Storage   | 256 GB   |  |  |
| Sensors   | 3-axis gyro, accelerometer, compass, ambient light sensor                                  |  |  |
| Connectors  | 1 × 3.5 mm Audi Jack Port (stereo) with jack detection (Headphone and microphone por       |  |  |
|   | 2 × Switch port, 3,5 mm  |  |  |
|   | 1 × USB 3.0  |  |  |
|   | 1 × Power USB-C connector  |  |  |
| Buttons   | 1 × Power On   |  |  |
|   | 1 × Volume Up  |  |  |
|   | 1 × Volume Down  |  |  |
| WLAN/Bluetooth                                    | IEEE 802.11 ac   |  |  |
|   | Bluetooth® 5.0   |  |  |
| IR Remote Control<br>(Environmental Control Unit) | Learning remote with integrated library of pre-programmed devices                          |  |  |
| Camera  | Rear-facing: 8.3 Mega pixels   |  |  |
|   | Front-facing: 2.1 Mega pixels  |  |  |
|   | Front-facing IR camera   |  |  |
| IP class  | IP 55 (Applies only for the main unit without accessory, and with the I/O covers in place) |  |  |
| RF out power                                      | BT 9.46 dBm, BLE 6.89 dBm, wifi 2.4G 16.55 dBm, wifi 5G 17.69 dBm                          |  |  |
| Power Supply                                      | 15VDC/3A, 45 W AC Adapter  |  |  |

## D2 Battery

| Item               | Specification               |  |
|--------------------|-----------------------------|--|
| Manufacturer       | Tobii Dynavox               |  |
| Model Name         | 9789OTG200                  |  |
| Battery Technology | Li-ion rechargeable battery |  |
| Battery Capacity   | 65 Wh                       |  |
| Battery Run Time   | > 10 hours. normal usage    |  |

| Item                       | Specification |
|----------------------------|---------------|
| <b>Battery Charge Time</b> | < 4 hours     |

## **D3 Power Adapter**

| Item         | Specification                    |
|--------------|----------------------------------|
| Trademark    | Tobii Dynavox                    |
| Manufacturer | MEAN WELL Enterprise Co., Ltd    |
| Model Name   | NGE60-TD                         |
| Rated Input  | 100-240Vac, 50/60Hz, 1.5-0.8A    |
| Rated Output | 5V/9V/12V/15V/20Vdc, 3A, 60W max |
| Output Plug  | USB type C                       |

## **Appendix E Approved Accessories**

| Description                        | Model                  | Tobii Dynavox Part No. |
|------------------------------------|------------------------|------------------------|
| TD I-110 AC Adapter (Power Supply) | Tobii Dynavox NGE60-TD | 1000769                |

For information about the latest approved Accessories for the TD I-110, please visit www.TobiiDynavox.com or contact your local Tobii Dynavox reseller.

## **Appendix F Local Certification Partners**

The listed companies are the partners for our local certifications in their countries.

#### **Contact Information:**

Link Assistive Pty Ltd 11B MAB Eastern Promenade Tonsley SA, 5042 Australia +61 8 7120 6002

SOLUCIONES EN TECNOLOGÍA ADAPTADA MEXICO S.A DE C.V Av. Rio Mixcoac 164 Col. Acacias Del Valle Deleg Benito Juarez. CP. 03240 Mexico +1-800-344-1778



## **Support for Your Tobii Dynavox Device**

Get Help Online

See the product-specific Support page for your Tobii Dynavox device. It contains up-to-date information about issues and tips & tricks related to the product.

Find our Support pages online at: <a href="https://www.tobiidynavox.com/pages/product-support">https://www.tobiidynavox.com/pages/product-support</a>

#### Contact Your Solution Consultant or Reseller

For questions or problems with your product, contact your Tobii Dynavox solution consultant or authorized reseller for assistance. They are most familiar with your personal setup and can best help you with tips and product training. For contact details, visit <a href="https://www.tobiidynavox.com/pages/contact-u">https://www.tobiidynavox.com/pages/contact-u</a>s.

## **Documents / Resources**



tobii dynavox TD I-110 SGD AAC Communication Device [pdf] User Manual TD I-110 SGD AAC Communication Device, TD I-110, SGD AAC Communication Device, Communication Device, Device

## References

- Tobii Dynavox Global: Assistive technology for communication
- Tobii Dynavox Global: Assistive technology for communication
- Contact us Tobii Dynavox Global
- Product Support Tobii Dynavox Global
- • TD Care 5-Year Warranty Tobii Dynavox Global
- User Manual

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