

BRIEF USER GUIDE
Sci-Voice Talking LabQuest 2
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IMPORTANT: USB Keyboard

A user who is blind must connect a USB keyboard to the Talking LabQuest 2. The USB connector is on the left edge of the device at the top.

Audio and Screen Contrast Adjustment

It is possible to make changes to the audio output and visual display. Go to the Desktop and select the Preferences folder. The Audio is controlled in the Audio menu. The contrast and brightness is controlled within the Light and Power menu.

Orientation

The Talking LabQuest 2 has a touch panel on its face with three buttons along one edge of the display. Orient the Talking LabQuest 2 so that the buttons are on the right side of the display. Users who are blind should avoid touching the front panel. Doing so may have unintended consequences.

Buttons

There are four buttons on the LabQuest device, which are named as follows:

- Power
- Collect
- Home
- Back

The Power button

The Power button is recessed and is located on the top edge of the device near the left end. To power up the Talking LabQuest, Press the Power button for two seconds. Be patient, the Talking LabQuest will not provide audible feedback for about a minute.

When the Talking LabQuest is operating; If the user presses and releases the power button quickly, it will suspend the device. Similarly, pressing it while the device is suspended, will cause the Talking LabQuest to resume

operations. If the user holds down the power button for a few seconds, it will shut the device down.

Front Panel

The front panel consists of the touch screen and three buttons on the right.

The Collect Button

The top button is the collect button. The collect button is used to **begin** and **end** data collection when in one of the main Panels of the LabQuest Application. (See section on panels)

The Back Button

The bottom button is the back button. The back button closes apps, and returns the user to one screen up from where they were.

The Home button

The center button is the home button. The home button toggles the user between the current active app, and the main desktop.

PANELS

From the main desktop of the Talking LabQuest several panels are available. These Panels are the Sensor Panel, the Graph Panel, the Data Table Panel, and the Notes Panel. Use the left and right arrows on the USB keyboard to access the desired panel.

Basic navigation

The TLQ supports the use of an external USB keyboard. Users who are blind must use a keyboard to navigate the features of the Talking LabQuest.

Navigate with tab and back tab to move from widget to widget. To navigate within a widget, the arrow keys are the most effective navigation.

There are also several buttons on the keyboard that have specific functions:

- F1 Turn volume down.
- F2 Turn volume up.
- F3 Start and stop data collection. Does not work from the Desktop.
- F4 Toggles between the Desktop and the LabQuest Application.
- F5 Speak slower.
- F6 Speak faster.
- F10 File menu.
- F12 Move forward one page. Shift-f12 moves back one page. See the section on Labquest Application.

Types of widgets and how to interact with them:

Static text or generic Focus-point:

Static Text or Focus Points are best tabbed through. Problems arise when the user attempts to left or right arrow through text. This will cause the device to try to navigate within the widget by arrowing through letter by letter without reading any information to the user. Text is not announced as what it is, so chances are if the user doesn't hear a role associated with something the device speaks, they're in text. Text is best Tabbed through. There is no other function associated with text, it's merely informative to the user.

Text-entry-boxes and Numeric-entry-boxes:

Text-entry-boxes have some of the most complex behaviors of a single widget, and demand their own section for explanation. Arrowing left and right will change the cursor position on existing letters just as it would with any word-processing software. At the end of an entry, the device will notify the user by saying "Blank."

Arrowing up and down within an entry-box will allow the user to change the character they're currently positioned on. It will edit based on the currently selected character set. Arrowing up or down when on the "Blank" character will insert a new character at the end of an entry.

Pressing the O.K. key will change the character set currently selected. For Numeric-entry-boxes there's only one character set, and that's numbers. For Text-entry-boxes there are 4 entry modes: Lower case letters, upper case letters, symbols, and numbers.

Pressing the Menu button will bring up the Clipboard menu, where users can delete a character, insert a character into the middle of an entry, select all, copy, cut, or paste their entries.

Combo-box

Combo-boxes are simple, and pretty unchanged from what one might expect. Pressing up and down on a Combo-box will allow the user to change the option selected within the combo-box without opening it. It will also announce itself in shorthand, without corrected units, meaning that it will say 's' instead of 'seconds' when it isn't open. The user can press O.K. on the combo-box to open it, then up and down navigate through it with fully spoken units. This is the recommended method of using combo boxes. Pressing O.K. again will close the combo-box, then the user is free to Tab away.

Push-button

There is no special navigation associated with Push-buttons. They are simply a widget that a user navigates to, and presses O.K. on to confirm their selection. Each Push-button on a page is treated as its own widget, and is not skipped by Tab or Back Tab.

Radio-button

Radio-buttons come in sets, and are treated as a single widget by Tab and Back Tab. However there is never a single Radio-button all by itself. If the user encounters a Radio-button, arrowing left and right will reveal all the other Radio-button options available. The default button that a user will fall on with Tab and Back Tab is whichever Radio-button is currently selected, meaning that the user is not always dropped on the left most button, or the right most button. Other than that, the only other navigation is pressing O.K. on an unselected Radio-button will select it, and deselect all others within the set of Radio-buttons.

Check-box

Check-boxes do not come in sets. They will tell the user whether they are checked or not. Pressing O.K. on a Check-box will change whether it is checked or not checked. No other special navigation is required for Check-boxes.

Expandable Section

Expandable Sections conceal and reveal information. When they are opened, all their information is navigable, and revealed. Conversely, when they are closed, the information within them is inaccessible, and hidden. Opening and closing an Expandable Section is done by simply pressing the O.K. button on it.

There is only one other piece of information on Expandable Sections. Navigating within them is the same as navigating anywhere else, except where the left arrow key is concerned. If the user left arrows all the way to the left side of inside of the Expandable Section, they will be returned to the Expandable Section's header.

Menu

When the user encounters a Menu, it means that arrowing Right will reveal new Menu Items. Subsequently, if the user has arrowed right to get to the items inside a Menu, they can then arrow Left to get back out. Arrowing up and down will take the user to other Menus and Menu Items within the current Menu.

Menu Item

Menu Items are aptly named, as they are items within a Menu. Pressing O.K. on a Menu Item will mean the associated action will be taken.

Slider

Sliders range from 1 to 100, and by left and right arrowing on them, the user can change the value. Left lowers the value, while right raises it.

Page-tab

Page-tabs are at the top of some dialogues. Page-tabs come in sets of two or more, meaning that to Tab they are treated as a single widget. Arrowing left and right when on a page-tab will reveal the other Page-tabs available. Once arrowed to, the page below the tab will have changed, and options will be different.

Graph Panel

The Graph Panel is something that shows up within the LabQuest Application Graph Panel Menu dialogues. There is no navigation associated with it, no information to be collected from it. It merely informs the user that there is a Graph displayed on the dialogue.

Toggle-button

Toggle buttons are used exactly like Check-boxes. They have two states, and pressing O.K. on them will change the state. There is no other navigation associated with them, and they do not come in sets.

Button

Buttons only exist in one place on the Talking LabQuest. Inside the Calculator Application there are Buttons. These act exactly like Push-buttons, but when you press O.K. on them they give slightly different feedback. There is no special navigation associated with these widgets, and they will accept Tabbing, Back Tabbing, and arrowing through them without any difficulty.

LabQuest Application

The LabQuest Application is used to collect data, graph the results, look up elements in the Periodic Table, make notes and read instructions for performing a variety of labs. The F12 key is used to cycle through the following pages:

- Sensor page. Displays current sensor readings.
- Graph page. Used to create graphs. This is not usable by those who are blind.
- Data Table. Used to review collected data.
- Lab Instructions page. This page contains labs developed by Vernier Technologies.
- Notes page. Used for creating notes.

Lab Instructions Page

The Lab Instructions Page is a folder containing various labs. At the top level is a brief note. To access the labs do the following:

- Press the F10 key. This opens the File menu.
- Press the right arrow. This selects the View which displays a list of the available files and folders.
- Press the Down arrow until the desired file or folder is reached.
- Press Enter to open the file or folder.
- Once a file is opened, the arrow keys can be used to review the text. The text review functions are very basic.
- Press F4 to return to the Desktop

End User License Agreement

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Software License agreement for Talking LabQuest2 ("TLQ2") device

Please read this software license agreement ("license") before using the Independence Science TLQ2 device ("device"). By using the device, you (or the purchasing organization) agree to be bound by the terms of this license. If you do not agree to the terms of this license, do not use the TLQ2 device.

Important note: This device may be used within a school district or school region for educational purposes only. Each device is licensed on a per unit basis for use by an individual within the purchasing organization.

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