



Mantis Q40 and an iOS Device

A Productive Combination.

All of Apple's iOS devices, (iPod touch, iPhone and iPad,) have built-in braille access when using the VoiceOver screen reader. Utilizing this braille access allows a user to receive braille output on a supported braille display, and if the display has input keys, one can actually control the iOS device without ever touching the device's touch screen. For simplicity, the term iPhone will be used throughout this document to represent the line of Apple's iOS devices. It is important to ensure that you have ios version 14.4 installed. If you are unable to install the update due to an older model, it will not be possible to connect the Mantis Q40 as a braille display, this is because the Mantis Q40 is using the latest type of connection from Apple.

The Mantis Q40 is the perfect combination if your primary input is qwerty. The Mantis Braille display brings a sleek, ergonomic, productive and portable design to its user's fingertips.

Once the two tools are paired, the Mantis Q40 can be used to produce braille output, along with providing control over the iPhone without using the touch screen. Users have the capability to:

- Wake up the ios device from your braille device
- Navigate applications, home screens, and other elements using the onboard Standard Keyboard
- Select items
- Enter text into any editable applications such as text messages, emails, note files, etc, using the Mantis Standard keyboard.
- Read in braille from all accessible applications, including reading books from the iBooks application.
- In short, anything that could be accomplished with VoiceOver via the touch screen can be accomplished using the Mantis Standard keyboard

The Mantis Q40 can be paired with all iPhones running iOS 14.4 + as a Bluetooth Braille display. To connect the two devices, the pairing must be initialized from the Mantis, just as you would pair with any other keyboard or Bluetooth device.

To make the connection, do the following:

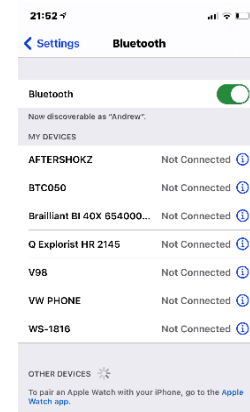
1. From the Mantis Menu, press the letter **T**, you will be prompted “Terminal”.
2. Now Press **Enter**.
3. Use your **Up** and **Down** keys to move to “Add Bluetooth device”
4. Then press **Enter**.
5. You will be prompted “activate your device in your host device’s Bluetooth settings”, followed by the model and serial number of your device.

Note: The Mantis will now be in a discovery mode state for 5 minutes. Once it exceeds this time the Mantis will not be found, so it is recommended to perform the above actions again.

6. On your iPhone, open the Settings application from the home screen.



7. In settings, move to the Bluetooth Item and **double tap** to open.
8. Your Mantis should be listed at the bottom section under “other devices”
9. Select the “APH Mantis xxxxx” by **Double tapping** on the Mantis Braille display.



The Mantis will prompt you with “xxx connected”, where xx is the name of the iphone.

On the Mantis you will be positioned in the connected devices. Use your **Up** and **Down** keys to move through the list of connected devices.

Press **Enter** on the device you wish to connect to.

The Mantis will now be connected as a braille display

Mantis Q40 iPhone commands

This guide highlights some of the most common shortcuts available with VoicOver using Gesture and Keyboard commands.

When connecting the Mantis to ios or macOS the keyboard will be configured to include the VO key and the following keys will be mapped as the option key.

(VO) key = Ctrl + Win key

Option key = Win key

The below Keyboard shortcuts assume Quick Nav is turned off.

Command	Gesture	Keyboard
Activate Item	Double Tap or Split Tap	VO + Spacebar
Adjust Value	Swipe Up or Down	Up or Down Arrow
App Switcher	Double-Click Home	VO + H + H
Back/Escape	Two-Finger "Z"	Escape
Change Item's Label	Two-Finger Double Tap and Hold	VO + /
Change Rotor Item	Two-Finger Rotate	Up Arrow + Left or Right Arrow
Copy Spoken Text	Three-Finger Quadruple Tap	VO + Shift + C
Home	Click Home	VO + H
Item Chooser	Two-Finger Triple Tap	VO + I
Magic Tap (Pause Music)	Two-Finger Double Tap	VO + -
Mute VoiceOver	Three-Finger Double Tap	VO + S
Next/Previous Rotor Item	Swipe Up or Down	Up or Down Arrow
Pause Speech	Two-Finger Tap	Control
Quick Navigation On/Off *	(Keyboard Only Feature)	Left Arrow + Right Arrow
Read All From Current Position	Two-Finger Swipe Down	VO + A
Read All From Top	Two-Finger Swipe Up	VO + B
Screen Curtain	Three-Finger Triple Tap	VO + Shift + S
Scroll	Three-Finger Swipe	Option + Arrow Keys

Select First Item	Four-Finger Tap Top of Screen	Control + Up Arrow *
Select Item	Tap	VO + Right or Left Arrow
Select Last Item	Four-Finger Tap Bottom of Screen	Control + Down Arrow *
Select Next/Previous Item	Swipe Right or Left	VO + Right or Left Arrow
Show Keyboard		Eject
Switch Apps	Double-Click Home	Command + Tab or Shift Tab
Turn Off VO Help	Two-Finger "Z"	Escape
VO (VoiceOver Keys)		Control + Option
VoiceOver Help		VO + K

Single-Key Quick Nav VO + Q

Navigation Item	Key
ARIA Landmark	W
Button	B
Form Control	C
Heading	H
Heading Level 1	1
Heading Level 2	2
Heading Level 3	3
Heading Level 4	4
Heading Level 5	5
Heading Level 6	6

Image	I
Link	L
List	X
Previous Nav Item	Shift + Key
Static Text	S
Table	T
Text Field	R