



User Guide

Dot Pad 320 (DPA320A)

Dot Incorporation

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1. About the Dot Pad 320 (DPA320A)

1.1. What Is the Dot Pad 320?

The Dot Pad 320 is a tactile graphic and Multi line display that can simultaneously represent braille text and tactile graphics. It can be connected to screen readers such as Apple VoiceOver and NVDA to display tactile information in real-time.

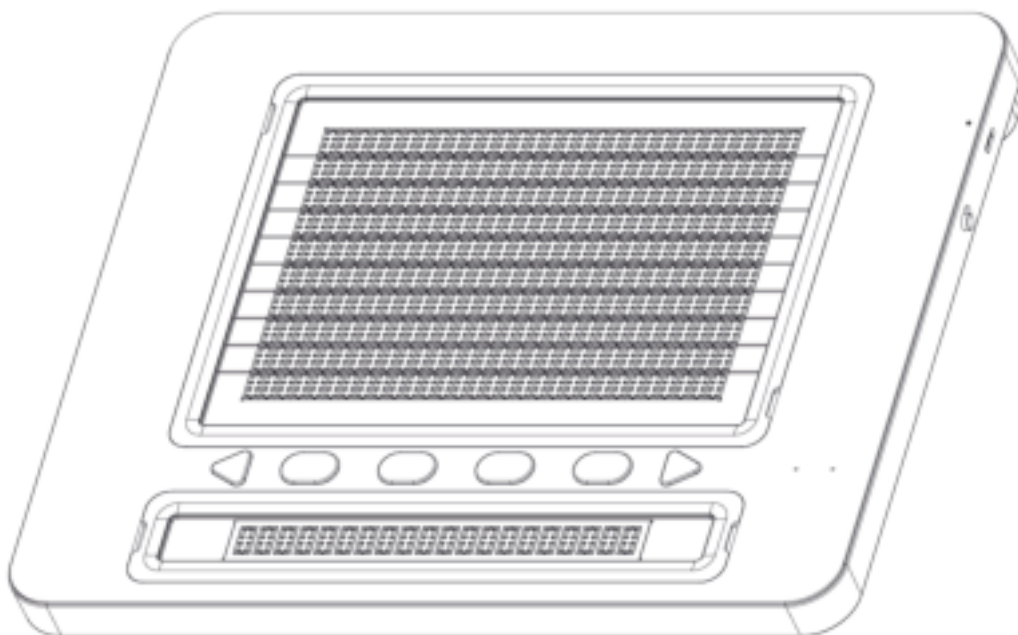
Additionally, the Dot Pad 320 can connect to Dot's services or third-party applications developed using the Dot Pad SDK (Software Development Kit), making it versatile for use across various fields such as education, rehabilitation, and daily life activities.

1.1.1. Components of the Dot Pad 320

When you purchase a Dot Pad 320, it includes the following components:

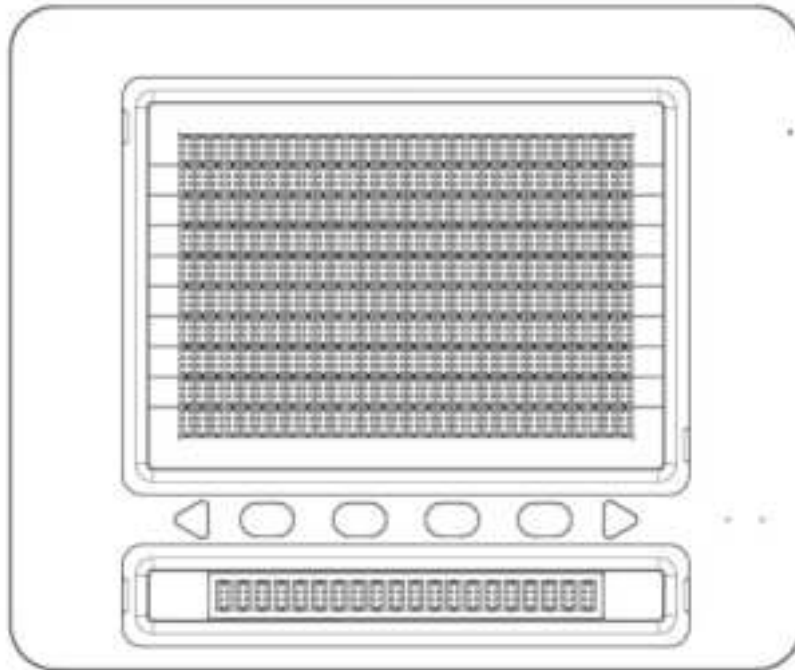
Configuration and Warranty	Body and Battery	1
	300-cell Protection Skin	3 each
	20-cell Protection Skin	3 each
	Braille Quick Guide	1
	USB Cable	1
	Warranty Period	2 years

1.2. Dot Pad 320 Appearance



When the Dot Pad 320 is removed from the box and placed on the desk, it is in the correct position when the square body is slightly inclined away from the user.

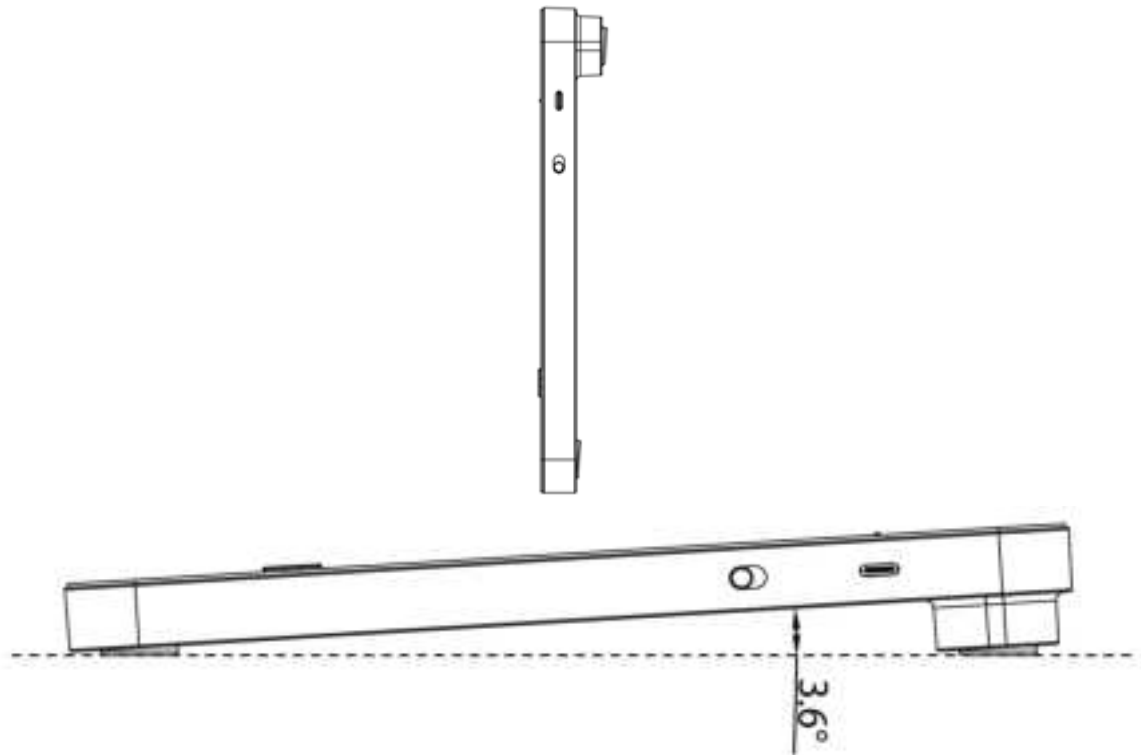
1.2.1 Dot Pad 320 Top View



When the Dot Pad 320 is correctly oriented, the upper surface of the Dot Pad 320 consists of the following parts from nearest to farthest from the user:

- Braille Text Display Area: 20 braille cells are placed at standard braille intervals within a horizontally long rectangular frame, allowing the expression of 20 alphabets simultaneously.
- The Keyboard Area: Starting from the left to the right, the keyboard area consists of the Previous panning key, Function keys (F1 through F4), and the Next panning key. The shape of the panning keys are triangular, which distinguishes them from the other Function keys which are ovals.
※ *Note: The panning keys are buttons that move the text display area to the previous or next line based to accommodate the 20 braille cells.*
- Status Indicator (LED) Area: Located at the far right of the keyboard area, displays the connection and charging status of the device.
※ *For more information, see "[2.1. Understanding Dot Pad 320 Status Indicator \(LED\) Information](#)" section.*
- The Graphic Area: The graphic area takes up the most space from the bird's eye view with a total of 300, 8-pin cells (30 horizontal cells x 10 vertical cells). It is more compact compared to the braille text area and has equal spacing between the pins allowing clear representations of graphics.

1.2.2. Dot Pad 320 Right Side



On the right side of the Dot Pad 320, starting from the rear to the front, there is a USB C type power charging port, followed by a power switch. A USB C type power port is a power only port. Keep in mind that there is no option of data transfer from this port.

The power switch powers on the Dot Pad when pushed up to the far side of the body. A long vibration feedback occurs when turned on.

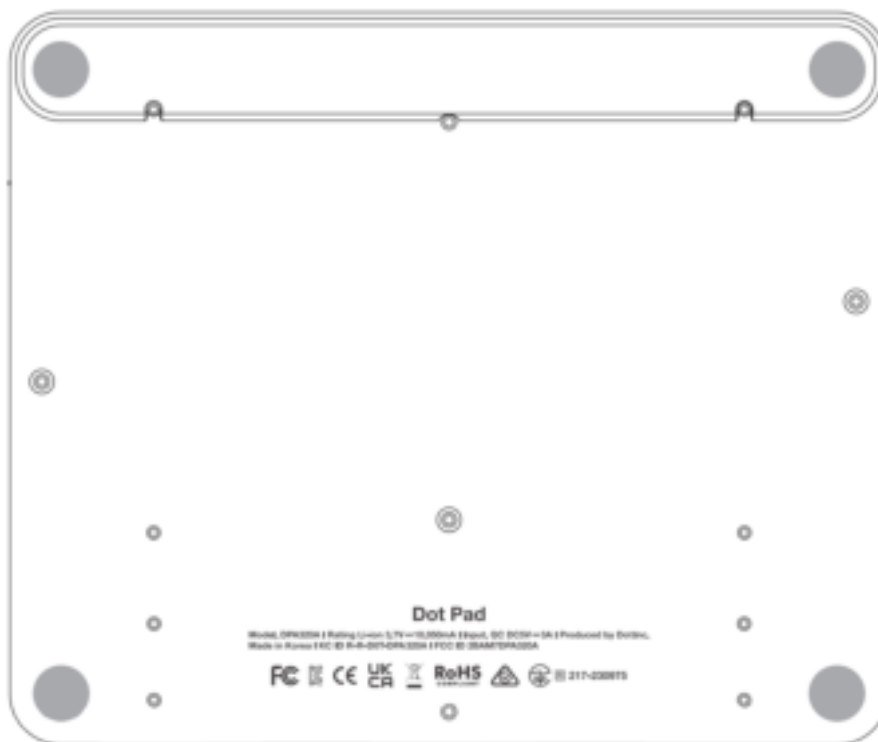
※ *For more information on the vibration pattern, see section [“2.2 Understanding Device Information Through the Dot Pad 320’s Vibration Signal.”](#)*

1.2.3. Dot Pad 320 Left Side



On the left side of the Dot Pad 320 is a USB C type port specifically for data transfer. You can use the Dot Canvas Web, a web service provided by Dot Inc. by connecting your PC to the Dot Pad 320 with a USB C cable.

1.2.4. Dot Pad 320 Bottom Surface



The bottom surface of the Dot Pad 320 has multiple screws that can be loosened when replacing the protective skin over the braille cells or replacing the battery of the Dot Pad 320. The batteries provided in the Dot Pad 320 are not detachable, so when replacing the batteries, be sure to replace them through Dot Inc. or a company authorized by Dot Inc. Please contact Dot Inc.'s customer service for more information.

1.3. Hardware Specifications

Hardware Specifications	Tactile Display	300 cells
	Braille Display	20 cells
	Protective Skin	Graphics area (300 cells) / Text area (20 cells)
	Processor	ARM Cortex-M4 32-Bit 120MHz
	RAM	64 Kbyte
	Flash Memory	128 Kbyte
	External Memory Support	None
	Wireless Connection	Bluetooth LE V5.0
	Sensor	None
	Camera	None

Exterior Specifications	Size (length x width x height, mm)	273.5(W) x 228.5(D) x 31.0(H)
	Weight (g)	1,200 g
Keyboard and Buttons	Function Keys	Function Key 4ea
	Panning Keys	Left, Right
	Power Switch	Power ON/OFF 1ea
	Keyboard	None
USB Interface	USB-C (left)	Data
	USB-C (right)	Power and Charging
Audio and Video Interface	Speaker	None
	Microphone	None
	HDMI Video Output	None
Temperature	Operating Temperature	0°C ~ +40°C
	Storage Temperature	-20°C ~ +70°C
Charging and Battery	Battery	LI_ION, INR18650 35E, 10.05A, 36.18W[1S3P]
	Charge	DC 5V 3A

1.4 Software Specifications

Communication (Bluetooth)	Specification	Bluetooth V5.0 (LE up to 10Kbps)
	Output Power	0 dBm
	Data Rate	10 kbps
	Profile	GAP, GATT, SM, L2CAP and Integrated Public Profiles
	Sensitivity	-90 dBm
	Frequency Band	2.402GHz ~ 2.480GHz

2. Basic Functions

In this section, you will get to know the different vibration patterns to test the Dot Pad 320's state and ways to check the battery level.

2.1. Understanding Dot Pad 320 LED Signals

- 1) When Connecting the Dot Pad 320 to a Device After Powering On

LED Color / State	Explanation
Blue / Blinking	Searching for device
Blue / Turned on	Connected to device

- 2) When Charging the Dot Pad 320

LED Color/State	Explanation
Red / Blinking	Charging error
Red / Turned on	Charging
Red / Turned off	Fully charged or device is in low battery

2.2. Understanding Device Information Through the Dot Pad 320's Vibration Signals

The vibration pattern of the Dot Pad 320 informs the user regarding the Dot Pad 320's battery level, Bluetooth connection status, power status, etc.

Status	Vibration Pattern
Power On	One long vibration
Power Connection	Once the power cable is connected successfully, vibration will indicate the battery status
Battery Level	1~5 vibrations (according to the battery level)
Bluetooth Connected	Two long vibrations

2.3. Checking the Battery Level

To check the battery level of the Dot Pad 320, you can press and hold the previous and next panning keys at the same time for at least 1.5 seconds while powered on, and then release them. The levels for displaying the remaining battery are divided into 5 levels and are notified by vibration feedback.

Number of Vibrations	5	4	3	2	1
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Battery Level	Above 80%	60% ~ 80%	40% ~ 60%	20% ~ 40%	Below 20%
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※Please connect the power cable if the battery level is below 20%

2.4. Checking the Charging Status

When the Dot Pad 320 is charging successfully, there will be a delayed vibration feedback of the battery level indicating that the Dot Pad 320 is charging. Please take note that there will be no vibration feedback if you plug in the charger while the device is turned off.

※If you have plugged the charging cable in while the device is turned off, please turn the Dot Pad 320 on to check the charging status.

3. Using Dot Canvas App

3.1 Introduction to Dot Canvas App

The Dot Canvas App is an iPhone/ iPad application that can be used in connection with the Dot Pad 320, enabling users to create and display tactile information such as dots, lines, shapes, images, and text. This app empowers visually impaired and blind users to design and modify their own tactile graphic content. Users can simply save the contents to “My Drawing”, “Personal Drive”, or share on the “Public Drive”. The tactile graphics, whether saved or shared, can be easily accessed and displayed on the Dot Pad 320.

※ While the Dot Canvas app can be used on an iPhone, for an optimal drawing experience, it is recommended to use it on an iPad.

3.1.1. Screen layout of Dot Canvas App

The main screen of Dot Canvas App consists of the following sections:

- 1) Create Canvas
 - Create and edit tactile graphic contents using various drawing tools.
 - As your draw on the Dot Canvas App, the content is automatically displayed in real-time on the Dot Pad 320.
- 2) My Drawing
 - Save the content you create directly to your device.
 - Content saved in “My Drawing” can be printed on the Dot Pad 320 without requiring an internet connection.
- 3) Dot Cloud
 - Dot Cloud is a cloud storage service where you can save and access your content in an Internet-connected environment.
 - You can save the content you create in your Personal Drive or share them in the Public Drive.
- 4) Settings
 - Connect or disconnect from the Dot Pad 320.
 - Select the braille language to be displayed on 20 cells of the Dot Pad 320
- 5) Profile
 - View the user's registered name and username.
 - Log out of Dot Canvas App.

3.2. Starting Dot Canvas App

3.2.1. Downloading Dot Canvas App

Search for “Dot Canvas” in the Apple App Store and download it

※ *Dot Canvas App is an application developed by Dot Incorporation*

3.2.2. Creating an Account

Dot Canvas is provided as an app and a website. Users can create one account to access both versions and experience the same tactile graphic contents stored in their Personal Drive. Account registration is available through both the app and the website. Account registration method through the Dot Canvas App is as follows.

- After launching Dot Canvas App, select the [Create Account] button.
- When the “Create A New Account” page comes up, fill in the required information.
- Enter the verification code issued through the email you entered.
- Complete account registration after entering the required additional information.

3.2.3. Logging In

After completing the account registration, you can log in to Dot Canvas App by entering your registered username and password.

- When Dot Canvas App is launched, the login screen appears, and the username input window is focused.
- Enter your username and password you created and select the Login button to move to the main screen.
※ *If you enter your username and password and select the Remember ID button, the entered username information is maintained when you log in again.*

3.2.4. Finding Forgotten Username/Password

If you lost your username or password, you can reset your password in the following steps.

- If you lost your username, select the [Forgot Username?] button and enter the name and registered email address.
- If you lost your password, select the [Forgot Password?] button and enter your username.
- Check the verification code sent to the registered email and enter it.
- Check the username or reset your password with a new one.

3.3. Connecting Dot Canvas App with Dot Pad 320

After logging in to Dot Canvas App, you will be directed to the main screen. Users can connect the Dot Canvas App to the Dot Pad 320 via Bluetooth. To connect the Dot Pad 320, please follow the steps below.

- From the main screen, go to [Setting] > [Connect]
- Select the DotPad 320 Bluetooth number you wish to connect to.
- When the connection is successful, the Dot Pad 320 will vibrate twice.

3.3.1. Troubleshooting Connection Issues

If the Dot Pad 320 you wish to connect to does not appear in the connection list, please check 3 things below.

- 1) Make sure the Dot Pad 320 is turned on.
: If The Dot Pad 320 is turned off, turn it on and select the [Refresh] button in the connection list.
- 2) Make sure the device's Bluetooth running Dot Canva App is turned on.
: If the device's Bluetooth is turned off, please turn it on and select the [Refresh] button in the connection list.

- 3) Check whether VoiceOver is paired with the Dot Pad 320.
 : If the Dot Pad 320 is paired with VoiceOver braille display, please disconnect the Dot Pad 320 with VoiceOver braille display in the following order.
 - Apple [Settings] > [Accessibility] > [VoiceOver] > [Braille]
 ※ *You can go to [Settings] > [Accessibility] > [VoiceOver] by selecting the Apple Settings button in the pop-up window.*
 - Focus the connected Dot Pad 320 at the bottom of the screen and swipe up to go to More Information.
 - Select [Forget this Device] to disconnect the Dot Pad 320.

3.3.2. Disconnecting the Dot Pad 320

To disconnect the currently connected Dot Pad 320, please follows the steps below.

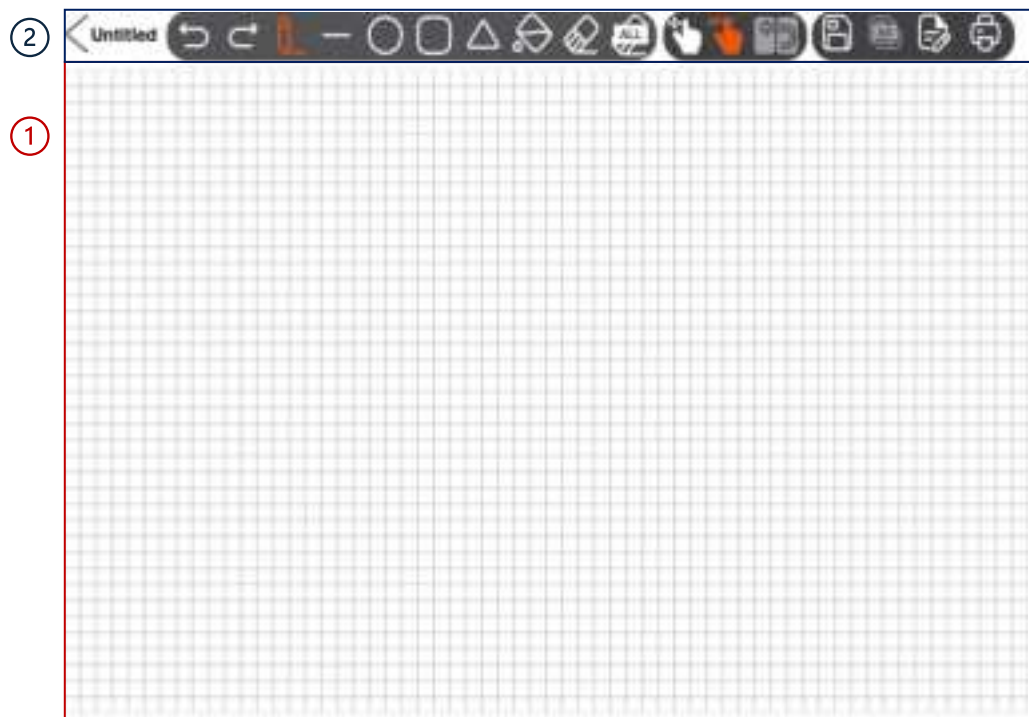
- From the main screen of Dot Canvas APP, navigate to [Setting]
- Select the [Connect] button
- The disconnection will be confirmed by the Dot Pad 320 vibrating twice.

3.4. Using Dot Canvas App Features



















3.4.1. Create Canvas

Using various drawing tools, you can freely create pictures by drawing shapes and add textual descriptions for the picture. The graphics created through Dot Canvas App are displayed on the 300-cell part of the Dot Pad 320 in the form of tactile graphics, and the text descriptions are displayed in braille on the 20-cell part of the Dot Pad 320.

The layouts of the Create Canvas screen are as follows:



- 1) Canvas: Occupying the largest area of the screen, the Canvas is where users can draw tactile content.
- 2) Drawing Menu bar: Located at the top of the screen, it is a collection of various drawing tools that can be used for creating and modifying tactile graphics.

	<p>Back</p> <p>Exit the Canvas Creation screen and return to the main screen.</p> <p>If you press the Back button while creating tactile graphics, a warning window will prompt you to save your progress. Choosing [No] closes the window, while selecting [Save] allows you to name the file and choose a save location. The file will be saved in either My Drawings or Dot Drive, based on your selection.</p>		<p>File Name</p> <p>Displays the file name you are working on.</p>
	<p>Undo/Redo</p> <p>Undo or redo the latest work.</p>		<p>Pen</p> <p>Draw freely, just as you draw with a pen.</p>
	<p>Line</p> <p>Select and adjust the desired length with one finger on the screen to draw a line.</p>		<p>Square/Rectangle</p> <p>Select and adjust the desired size with one finger on the screen to draw a square or rectangle.</p>
	<p>Circle</p> <p>Select and adjust the desired size with one finger on the screen to draw a circle.</p>		<p>Right Triangle</p> <p>Select and adjust the desired size with one finger on the screen to draw a right triangle.</p>
	<p>Fill</p> <p>Fill an area made up of lines to be blacked out with dots.</p>		<p>Erase</p> <p>Erase the area you want to clear.</p>
	<p>Clear All</p> <p>Erase all the paintings on the canvas at once.</p>		<p>Save</p> <p>Save your work by pressing the Save button, which opens a pop-up to choose a storage location. The file will be saved in My Drawings or Dot Drive after you select the location and enter a file name.</p>
	<p>Canvas Navigation Mode</p> <p>This mode allows users to explore the position of their fingers on the screen before starting to draw.</p>		<p>Drawing Mode</p> <p>This mode allows users to draw on the canvas.</p>
	<p>Menu Navigation Mode</p> <p>This mode is used to navigate and select drawing tools in the Dot Canvas app.</p>		<p>Save As</p> <p>If you modify an existing saved file, you can change the file name and save it.</p>
	<p>Pages</p> <p>Displays a pop-up where you can create or delete a page and add a page description. The bottom of the pop-up</p>		<p>Print</p> <p>Prints the picture you worked on to Dot Pad 320.</p>

	shows arrow buttons and current page details for navigation. ※ Page descriptions are automatically saved and translated into DotPad 320 cells when the pop-up is closed.		
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3.4.2. My Drawings

Dot Canvas App enables users to create or modify tactile graphic content and save it to their device's internal storage. In the "My Drawing" section, users can view a list of files stored internally. If many files are saved, the search bar allows users to quickly locate specific files by entering the file name. Each file contains the file name and the date it was created.

After selecting the file name, a pop-up window is displayed, and the first picture of the file is displayed on the Dot Pad 320.

- Open: Run the selected file. When the file runs, the picture on the first page and the description of the picture are displayed on the Dot Pad 320. Users can go to the previous/next page and modify the picture and description by clicking the [Modify] button.
- Delete: Deletes the selected file.
- Rename: Modify the saved file name.
- Exit: Exit the pop-up window.

3.4.3. Dot Cloud

Users can save personal content and open various public content through the Dot Drive, a cloud-based tactile graphic content storage service provided by Dot Inc.

- 1) Personal Drive
 - Users can upload tactile graphic content created in Dot Canvas App to their Personal Drive. This cloud-based personal storage allows access to content across multiple devices without restrictions.
- 2) Public Drive
 - Users can explore various shared tactile graphic content organized by themes and share their own drawings to the Public Drive for others to access.

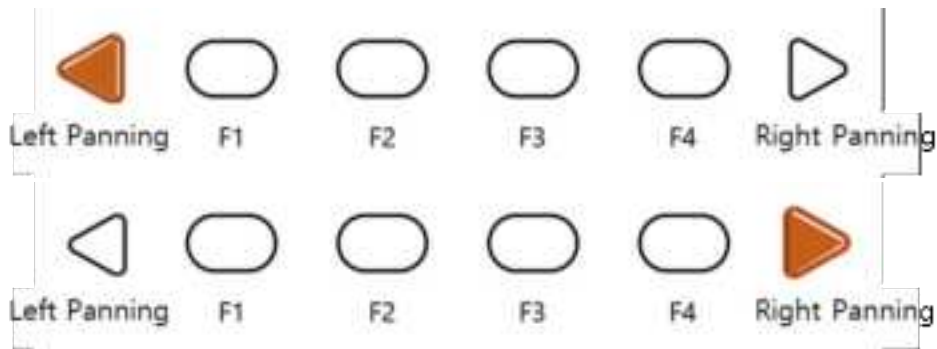
3.4.4. Settings

Set up the Dot Pad 320 connection or select a braille language supported by Dot Canvas App

- 1) Connect or Disconnect Dot Canvas App with the Dot Pad 320
- 2) Select the braille language
 - Select the braille language to be displayed on the 20-cell display of the Dot Pad 320.
 - Braille language must be in correspondence with input language.
 - The 23 braille languages currently supported by Dot Canvas App are as follows:
Korean, English, Chinese, Japanese, Vietnamese, Thai, Arabic, French, Italian, Spanish, Catalan, German, Czech, Polish, Norwegian, Russian, Portuguese, Danish, Greek, Swedish, Finnish, Kazakh, Khmer.

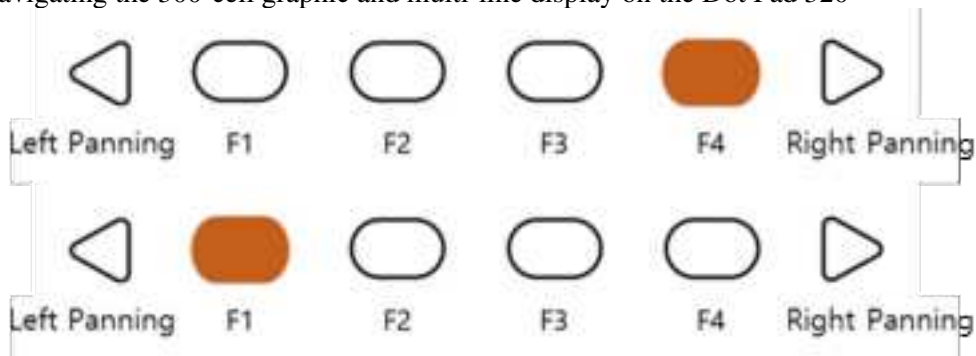
3.4.5 Using the Dot Pad 320 buttons in Dot Canvas App

- 1) Navigating the 20-cell text display on the Dot Pad 320



- If the content in the 20-cell text area becomes lengthy, users can navigate through the content using the panning key buttons.
- Right panning key button: Move to the next line (20 cells)
- Left panning key button: Move to the previous line (20 cells)

2) Navigating the 300-cell graphic and multi-line display on the Dot Pad 320



- If the content in the 300-cell graphic/multiline area becomes lengthy, users can navigate through the content using the F1 and F4 buttons.
- F4 button: Move to the next page (300 cells)
- F1 button: Move to the previous page (300 cells)

3) Dot Pad 320 Shortcut buttons for drawing tools

When connecting the Dot Pad 320 to the Dot Canvas app, users can easily use various functions by using the Dot Pad 320 buttons.

- Select Pen Tool



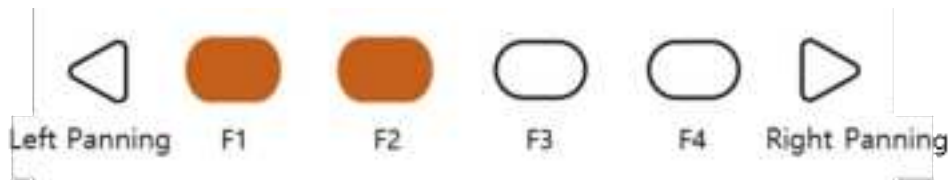
In the Create Canvas, pressing the F2 button will select the 'Pen Tool' among the drawing tools.

- Undo



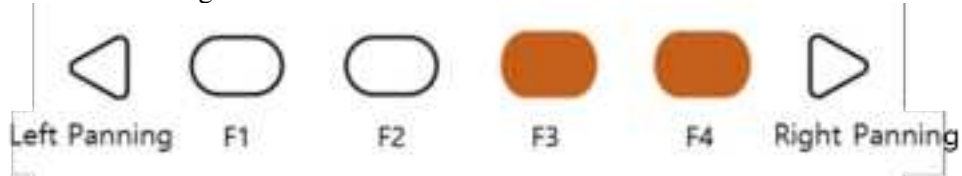
Users can undo their drawing with the F3 button. When the visually impaired user accidentally draws a wrong line, they can easily undo their latest stroke and redraw.

- Add a New Page



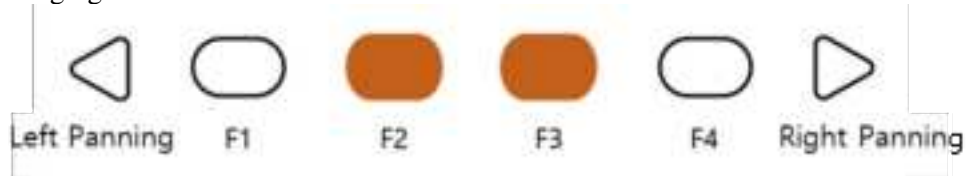
Users can press F1 and F2 together to add a new page to the canvas. Users can move to the next page by pressing the F1 and F4 buttons.

- Delete Current Page



Users can delete their current canvas by pressing the F3 and F4 button together. After deleting the page, users can move pages with buttons F1 and F4.

- Changing Canvas Mode



As a user-friendly application, Dot Canvas provides a mode that allows visually impaired users to draw and use the tools easily. Users can press F2 and F3 together to change the mode.

※ Types of Canvas Mode

1. Canvas Navigating Mode

: Before drawing on the iPad, users can identify the position of their finger.

If they touch the iPad screen on navigating mode, the Dot Pad 320 will display the Position of the finger with a crosshair cursor. When the finger stops at a certain position, the cursor will start to blink.

2. Draw Mode

: After deciding their position to start the drawing with the navigating mode, users can start drawing with draw mode by pressing F2 and F3 at the same time.

3. Menu Navigation Mode

: In Menu Navigation Mode, users can pan around the drawing tool menu located on the top of the canvas. When the mode is at menu navigation mode, the canvas becomes deactivated, and the users will not be able to draw on the canvas even when they tap the canvas area.

4. Using Dot Canvas Web

4.1 Introducing Dot Canvas Web

The Dot Canvas Web is a Dot Pad 320 optimized web graphic editing tool where users can create, save, and share digital tactile graphics. With the tools available, non-experts can also create and save their own tactile graphics and use and edit the tactile graphics that are saved on the Dot Cloud.

Users can upload image files onto Dot Canvas Web to convert it into tactile graphics automatically. With Dot's braille translator, it is possible to print braille from texts on the Dot Pad 320 in real time. Dot Canvas Web allows multiple units of Dot Pad 320 to be connected and displayed at once.

※ *Dot Canvas Web is available only with PC that supports Bluetooth.*

4.1.1. Screen Layout of Dot Canvas Web

The screen layout of Dot Canvas Web is as follows.

- 1) Dot Canvas
 - Create or edit tactile graphics using various drawing/editing tools.
 - Print the content that you have created onto the Dot Pad 320.
- 2) Dot Cloud
 - Upload and save the tactile graphic that you have created onto your Personal Drive.
 - Users can share your Personal Drive content to the Public Drive, and they are able to access and edit other people's content and save it to the Personal Drive.
 - Print the contents uploaded from your Personal Drive and Public Drive onto the Dot Pad 320.
- 3) Dot Support
 - Update the firmware of your Dot Pad 320 to the latest version.
 - Submit an inquiry or leave feedback

4.2. Starting Dot Canvas Web

- Go to apps-dotincorp.com
- Create an account by signing up and log into Dot Canvas Web.
 - ※ *Dot Canvas (Web) and Dot Canvas (App) shares the same account*
 - ※ *Chrome is the recommended browser.*
- If you have forgotten your username or your password, use the e-mail address code verification method to find your username or reset your password.

4.3 Connecting Dot Canvas Web to Dot Pad 320

To connect the Dot Pad 320 to Dot Canvas Web, follow these steps:

1. Open Dot Canvas and click the [Dot Pad] icon located at the top-right corner of the screen.
2. Click [Search Device] to search for nearby Dot Pad 320 devices.
3. Select your desired Dot Pad 320 from the list and click [Pair] at the bottom.
4. If you wish to connect multiple devices, repeat the steps.

When the Dot Pad 320 is successfully connected, the Dot Pad 320 vibrates twice.

4.3.1 Troubleshooting Connection Issues

If the Dot Pad 320 that you want to connect is not in the list of available devices, please check the following.

- 1) Check the power status of the Dot Pad 320:
 - If the power of the Dot Pad 320 is turned off, turn it on and click [Search].
- 2) Check the Bluetooth status of the PC:
 - If the Bluetooth of the device is turned off, turn Bluetooth on and click [Search].
- 3) Check if the Dot Pad 320 is connected to iOS VoiceOver. If paired with VoiceOver, follow the steps below and unpair the device:
 - Apple [Settings] > [Accessibility] > [VoiceOver] > [Braille]

- Scroll all the way down and select the Dot Pad 320 that is connected and go to [More Information]
- Click [Forget this Device] and unpair the Dot Pad 320.

4.3.2 Disconnecting the Dot Pad 320

Go into the Dot Pad 320 Connect pop-up screen and select [Disconnect]. The Dot Pad 320 will be disconnected with two long vibrations.




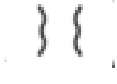




4.4. Using Dot Canvas Web Features












4.4.1. Create Canvas

Use various drawing/editing tools to create any shapes and images freely and insert multiline Braille text.

Use various drawing/editing tools to create any shapes and images freely and insert multiline braille text. The Dot Canvas screen layout is as follows:

- 1) Top Right
 - Profile Button: Users can check the account's profile, connect/disconnect the Dot Pad 320, and log in/out of the account.
 - Language Button: Users can select the default language as Korean or English.
- 2) File Management Menu:
 - New: New canvas is created for the user to create new drawings.
 - Open: Users can open contents from their Personal Drive or Public Drive.
 - Add: Users can add tactile image files that are in a DTMs format.
※ *DTMs is a file format that the Dot Pad 320 supports.*
 - Export: Users can save the currently created canvas as a DTMs file.
 - Save: Users can save the current canvas onto the Dot Drive.
 - Save As: Users can save the current canvas onto the Dot Drive with a different file name.
 - File Name: The current file name of the canvas will be shown. If there is no file name, it will be shown as "Untitled."
- 3) Drawing/Editing Menu
 - It is located on the left side of the Dot Canvas Web screen.
 - It is used to create or edit tactile graphics on the canvas.
 - Drawing/Editing Menu are as follows:

	Undo/Redo <ul style="list-style-type: none"> • Undo or redo the latest work 		Pen Size <ul style="list-style-type: none"> • Choose the thickness of the pen
	Pen <ul style="list-style-type: none"> • Draw freely 		Vertical Mirror Pen <ul style="list-style-type: none"> • Draw a symmetrical image
	Move <ul style="list-style-type: none"> • Recognize and move images on the current page as one object 		Paint Bucket <ul style="list-style-type: none"> • Fill in the selected area • Used for closed shapes and lines
	Erase <ul style="list-style-type: none"> • Delete the area you want to modify <ul style="list-style-type: none"> • The size of the eraser is proportional to that of the pen. 		Clear <ul style="list-style-type: none"> • Delete everything from the current page

	Line <ul style="list-style-type: none"> • Draw straight lines, diagonal lines, etc. • Press [Shift] while drawing with this tool to create a straight line 		Square/Rectangle <ul style="list-style-type: none"> • Draw squares/rectangles • Press [Shift] and drag to create a square
	Circle <ul style="list-style-type: none"> • Draw circles/ovals • Press [Shift] and drag to create a perfect circle 		Triangle <ul style="list-style-type: none"> • Draw triangles, right triangles, etc. • Press [Shift] and drag to create an acute triangle
	Text Box <ul style="list-style-type: none"> • Creates a text box within the graphic area and translates any text inside into braille 		Image <ul style="list-style-type: none"> • Automatically converts tactile graphics by reading stored image files and setting the minimum and maximum value. • Click [Insert] to convert the image into tactile graphic onto the canvas
	Templates A repository that organizes a variety of shapes in one location		Multi Braille Allows users to create multi-line braille by typing or by importing PDF files and converting them into multi-line braille
	Rectangle Selection <ul style="list-style-type: none"> • Use shortcut keys to copy, cut and paste, or delete the selected area within the selection 		Lasso Selection <ul style="list-style-type: none"> • Use shortcut keys to copy, cut and paste, and delete the selected area within lasso tool
	Tactile Letters Converts typed text into tactile graphic representations of the letters		

※ Drawing/Editing Shortcuts

Keys	Edit Tool	Keys	Edit Tool
Top bar			
Ctrl+O	Open	Ctrl+S	Save
Ctrl+Shift+S	Save As		
Page Description			
Alt+P	Print		
Multi-Page			
Ctrl+G	On/Off Grid		
Editing Tool			
P	Pen	V	Vertical Mirror Pen
Ctrl	Horizontal Axis (while using vertical mirror pen)	Shift	Horizontal and vertical axis (while using vertical mirror pen)
M	Move	B	Paint Bucket
E	Eraser	Ctrl+E	Eraser All

L	Line	R	Rectangle
C	Circle	T	Triangle
X	Text Box	I	Image
S	Rectangle Selection	H	Lasso Selection
Selection			
Ctrl + X	Cut Selected Area	Ctrl + C	Copy Selected Area
Ctrl + V	Paste	DEL	Delete Selected Area

4) Presentation Mode

- Presentation Mode offers a dynamic learning experience by utilizing Dot Pad and digital tactile graphics in classroom settings.
- select the Presentation Mode button located in the upper right corner of the Dot Canvas Web screen.
- (Auto Print) When DotPad is connected to Dot Canvas Web, users can utilize the auto print feature.
- With the auto print feature enabled, every time users specify an area using the presentation mode pointer, the selected area will automatically be displayed on the DotPad.
- (Pointer) Highlight a specific area on the current canvas page using the three types of pointers, and the selected area will be displayed on DotPad.

Multi-Page Management Bar

- This is located on the left side of the canvas. Users can select to show/unshow grid, arrange the order of the pages, delete pages, and add pages.
※ Grid: Users can choose to show the grid on the drawing area using the grid on/off button.
- Up/Down Button: User can rearrange the order of the pages.
- [-] button: User can delete the page.

5) Canvas

- The Canvas is a white drawing screen that takes up the biggest part on the screen.
- Users can create new contents using the drawing/editing tool or open existing contents from the drive.

6) Page Description

- It is located on the right side of the canvas.
- Users can add descriptions to the images they are creating.
- The input description will be translated into braille automatically but will be viewed in the input language while in Dot Canvas.

7) Add Voice

- Users can insert an MP3 file into a specific page. When the file is opened in Dot Cloud, the audio information will play along with the corresponding page output.

8) Print

- It is located below Page Description.
- Once the user clicks [Print], the image on the canvas and the accompanying description will be printed on the Dot Pad 320.

4.4.2. Dot Cloud

Users can save their created contents onto the Dot Drive or share it with other people. Users can also print various tactile graphics onto the Dot Pad 320 that are saved on the Public Drive.

Dot Drive is separated into a Personal Drive and the Public Drive. The Personal Drive is the default selected drive when the user first clicks on [Dot Drive]. The Dot Drive screen layout is as follows:

1) Personal Drive ([User's Name]'s Drive)

- Files saved or folders created on Dot Canvas will be saved here.
- Folders are displayed first before files.
- Users can open files, share, download, rename, copy, cut, paste, or delete by right clicking the file and then selecting the desired option.
- Click [+] to create a new file, new folder, or upload a file. Users can also right click on the empty space in the drive.
- Users can share the files in their Personal Drive to the Public Drive.
 - ※ *Right click on the file you want to share and click [Share]. If you edit a shared file, the shared file will be edited as well.*
 - ※ *The shared file from the personal drive will show the creator's icon on the thumbnail.*

2) Public Drive

- Shared folders and files are saved here.
- The shared files can be displayed onto the Dot Pad 320.
- Users can download the shared files onto the computer or open the file to edit them on Dot Canvas.

3) Search

- Users can locate folders and files.
- If users type in the search box, files or folders with matching names will be listed.

4) Back and Forth Buttons

- If you click the back button, the page will be redirected to the previous directory.
- If you click the forward button, the page will be redirected to the next directory.

5) Gallery View Button

- The default mode of the Dot Drive is gallery view mode.
- The list of folders and files are displayed in the form of a gallery where icons are visible.

6) List View Button

- The files will be displayed in a list mode.

4.5. Updating Firmware Through Dot Support

You can update the firmware of the Dot Pad 320 without logging in to Dot Canvas (Web).

Here's how to update the Dot Pad 320 firmware:

- Select the Dot Support tab in Dot Canvas (Web).
- Connect the Dot Pad 320 to your PC via the USB C port on the left side of your Dot Pad 320. After connecting, turn on the Dot Pad 320 and press the Connect Device button on the Dot Support page.
 - ※ *Be careful to not turn off the power or disconnect the cable during the update.*
- Connect the Dot Pad 320 by selecting one of the wired port options that appears in the pop-up. If a connection failure notice is displayed, turn the Dot Pad 320 off and on again and try again. After connecting, you can check the device information on the Dot Support page and update to the latest firmware.
- Select the [Update] button at the bottom of the Dot Pad 320 Firmware Version Information to proceed with the firmware update. The update takes about 3 to 5 minutes depending on the Internet speed.
 - ※ *If the firmware is in the latest version, an "Already the latest version of firmware" notice will be displayed.*

5. Handling and Safety Precautions

The contents of this manual may differ from the actual product, depending on the software version of the product, the specifications of the model, and the user's settings. Do not use the product for any purpose other than the intended purpose. Use with caution as the product may be damaged if impacted.

- Keep the Dot Pad 320 dry. If used in a humid place or becomes wet, the product may not work properly.
- The Dot Pad 320 has a built-in magnet. Do not place it close to other magnetic products or metals. There is a risk of damage to the product.
- Use the Dot Pad 320 on a table away from the body and when used in a dusty area, foreign objects may get inside and interfere with the device's operation.
- Only use accessories provided by Dot Inc. Use of other third party accessories may cause the product to malfunction and may result in the user not receiving the warranty services provided by Dot Inc.
- The Dot Pad 320 has passed the EMC (Electromagnetic Compatibility) test. Situational or environmental variables may still cause interference or affect signals via surrounding products. Heat generation and malfunction issues may occur.
- The Dot Pad 320's wireless conducting power follows the RF (Radio Frequency) standard. However, if the voltage and temperature are not within the standard range, the product's wireless conducting power may be unstable and could impact the performance.
- The Dot Pad 320 has passed the RSE (Radiated Spurious Emission) test. However, if the Dot Pad 320 is used with non-component accessories, it may cause malfunction.
- The Dot Pad 320's Short Range Wireless Communication function satisfies the data transfer security standards. However, if the software or firmware is modified or changed without authorization, the product's data transfer security may operate abnormally.
- The Dot Pad 320's wireless communication antenna has passed the SAR (Specific Absorption Rate) test measured by qualified equipment. If any abnormal operating method is applied, the product's antenna performance may change.
- The Dot Pad 320 has passed all qualification tests mentioned above by qualified laboratories. However, if the product is placed in different conditions that could cause functional errors or is applied to atypical operation methods, the product may operate abnormally. It is advised to turn off the device, disconnect the power, stop using the device, and contact customer service.
- If pressure is applied while the braille cells are moving, the product may not function normally. In this case, it is not a breakdown, so we suggest you remove your hand and try to print the desired image again.
- If the product is used in the opposite direction, it may not be able to represent the image or braille correctly.
- Some product specifications are subject to change without notice to better serve you.
- If the Dot Pad 320's firmware provided by Dot Inc. is changed or applied to the product through an unofficial channel, it may cause damage to the product or cause errors. In this case, the warranty service is voided.
- Since the Dot Pad 320 has the possibility of radio interference during use, it cannot perform services related to human safety.
- When charging the Dot Pad 320, the product temperature may rise, and if the temperature of the battery rises above a certain level, the charging may be automatically stopped for safety reasons.

Use with safety in the following situations:

1. Do not use the Dot Pad 320 in a severe lightning storm.

During severe lightning and thunder, refrain from using the product and disconnect the charger from the power source. Continuing its use can cause injury, fire, or device malfunction.

2. Do not use the Dot Pad 320 in prohibited areas.

Do not use the Dot Pad 320 in areas where use of the product is prohibited, such as in airplanes or hospitals. Electronics and communication products can be affected by electromagnetic waves.

3. Never disassemble and modify.

Do not disassemble or shock the product. There is a risk of electric shock, short circuit, or fire. Warranty services do not cover disassembly of the product. If your device needs servicing, contact customer service at your local distributor or contact Dot Inc. Do not use it in a damaged or broken state as it may cause fires, burns, and electric shock. In this case, please stop using the product and contact customer service.

4. Use only the correct power cable and an appropriate power outlet.

Please connect and use the USB cable correctly to avoid the charging cable from loosening. Do not bend, pull, heat, cut, or loosen the cables as it may cause fire or electric shock. When not in use, disconnect the charger's cable. There may be a risk of electric shock if the device is used while charging. When removing the adapter, hold the adapter and remove it. If you remove the adapter by pulling the cable, a disconnection within the cable may cause charging failure.

5. Avoid high temperature and humid environments.

Do not use the product in a hot and humid place. If the product gets wet, turn it off and dry it thoroughly before reusing. Do not place it on duvets, carpets, household electric appliances, or in direct sunlight (such as car seats) for extended periods. The exterior may become deformed, broken, or explode. If the temperature of the product sharply rises, stop using the product and contact customer service.

*Operating Temperature: 0°C ~ +50°C, Storage Temperature: -20°C ~ +60°C

6. Do not use any chemicals.

Never use chemicals such as alcohol or benzene to clean the Dot Pad 320. This may start a fire. If any foreign objects get on the product or charger, wipe it with a soft cloth.

7. Avoid metal and magnetism.

Do not keep the charging ports close to any metal such as necklaces, keys, coins, nails, watches, etc. If a metal object is short circuited with the charging port, there is a risk of explosion. Do not store your Dot Pad 320 near magnetic fields. Magnetic fields can impact your device. It may cause a malfunction from exposure to magnetic fields.

8. Use special caution for children and pets

Store products, chargers, parts, etc. out of reach of children or pets. If the product, charger, or parts gets in your mouth or is struck, you may be at risk of electric shock or exposure to electromagnetic waves. Be careful not to allow children or pets to swallow products, chargers, parts, etc. There is a risk of suffocation, explosion, and fire.

9. Do not use in an explosive atmosphere.

Do not use the product in explosive areas. This may affect high-frequency devices. Do not place the product on an unstable surface, such as on a shaky or sloping area. The device's fall may cause injury or damage to the product.

10. Be aware of fire risks.

Do not cover or wrap the Dot Pad 320 with fabric materials such as a blanket during use or when charging. Do not dispose of the device with general waste. It can cause fires, explosions, and environmental pollution.

11. Avoid excessive contact under heated conditions.

Avoid using the product when the temperature on the surface of the product rises above the appropriate level. If you come into contact with the product in this state for a long time, there is a risk of burns or disturbing skin pigmentation. If the external protective cover comes off or you experience an allergic reaction to the material of the product, stop using the product immediately and consult a physician.

12. Keep the Dot Pad 320 in a safe place for storage.

When not in use for a long time, disconnect the charger from the Dot Pad 320 and store it in a safe place. When storing the charger, be careful not to severely fold or twist the USB cable. If the USB cable is stored or used with an excessive fold or twist, the silicone coating of the cable can be stripped off or the cable may break and cause a failure or accident.

13. Be careful in handling the battery.

In hot and humid places, the battery may not charge well or may drain quickly. Do not expose it to direct sunlight or use the device in a humid place, such as a bathroom.

- If you want to use the Dot Pad 320 after a long period of unuse, please use it again after fully charging.
- Please note that it may explode if the battery is forcibly removed.
- Do not change, modify, or expose the Dot Pad 320 to liquids. Once the device is fully charged, disconnect the charger from the outlet and the device to avoid unnecessary power consumption.
- Please bring your product and charger with you when you visit a service center due to battery problems.
- If the product gets heated while charging, please wear gloves or use a tool other than your body to separate the charger and the Dot Pad 320.
- Overheating may cause damage to the product. If the device overheats while charging, please unplug the USB charging cable and contact a Dot Inc. licensed service center.

14. Do not give any shock or impact.

If you apply strong force to the device, place heavy objects on top, etc., it may cause an impact to the product. This may damage your device, cause malfunction, or shorten its lifespan. This may also cause overheating, combustion, or fire. When not in use, store it in a safe place to avoid shock and damage to the device.

15. Do not use chargers that have not been approved.

Avoid using unapproved chargers as it may lead to damage of the battery causing injury to the user or the device.

6. Customer Support

Dot Email: inquiry@dotincorp.com

Dot Phone Number: +82) 2-864-1113

Dot Homepage: <https://www.dotincorp.com/>

7. Product Certifications

South Korea: KC (KC ID: R-R-D0T-DPA320A)

United States: FCC (FCC ID:2BAM7DPA320A)

Europe: CE

United Kingdom: UKCA

Japan: Japan MIC (ID: 217-230975)

Australia: RCM



1. KC: Korea Certification

- ※ The wireless equipment in use may cause radio interference.
- ※ The manufacturer and installer cannot provide services related to human safety as the wireless equipment may cause radio interference.

2. FCC: Federal Communications Commission



FCC Class A

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

FCC Class B

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 or television reception, which can be determined by turning the equipment off and back 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 in a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Caution

The manufacturer is not responsible for any radio or TV interference caused by unauthorized changes or modifications to this equipment. Such changes or modifications could void the user's authority to operate the equipment.

This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

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3. CE: European Conformity



“CE” mark indicates that this product complies with the European requirements for safety, health, environment, and customer protection. “CE” mark devices are intended for sales in Europe.

4. WEEE: Waste from Electrical and Electronic Equipment



This symbol [crossed-out wheeled bin WEEE Annex IV] indicates separate collection of waste electrical and electronic equipment in the EU countries. Please do not throw the equipment into the domestic refuse. Please use the return and collection systems available in your country for proper disposal of this product.

Disclaimer

No warranty or representation, either expressed or implied, is made with respect to the contents of this documentation, its quality, performance, merchantability, or fitness for a particular purpose. Information presented in this documentation has been carefully checked for reliability; however, no responsibility is assumed for inaccuracies. The information contained in this documentation is subject to change without notice. In no event will Dot Inc. be liable for direct, indirect, special, incidental, or consequential damages arising out of the use or inability to use this product or documentation, even when advised of the possibility of such damages.

[FCC and CE Compliance Statement]

These limits are designed to provide reasonable protection against frequency interference in residential installation. This equipment generates uses and can radiate radio frequency energy, and if not installed or used in accordance with the instructions, may cause harmful interference to radio communication. However, there is no guarantee that interference will not occur in television reception, which can be determined by turning the equipment off and on.

The user is encouraged to try and correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected to.

