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User Guide Dot Pocket (DPK12A)

Dot Incorporation

POF

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1. About the Dot Pocket (DPK12A)

Dot Pocket (DPK12A) is a small braille display that can be connected to screen readers of PCs and mobile devices to read braille. It consists of 12 braille cells, which mainly feature small size and lightweight enough to carry in your pocket.

2. Dot Pocket Appearance

2.1. Dot Pocket Top View

There are six keys placed on the top of the Dot Pocket. Starting from the left to the right, it consists of the Previous panning Key, Function keys (F1 through F4), and the Next panning key. These keys are used when connected to screen readers on your PC and mobile devices.

Under the previous and next panning keys, an embossed single protrusion is placed which can help you to find the keys. Down between the F2 and F3 keys, an embossed down arrow mark is placed which can help you to find the keys. Once you follow the embossed down arrow, there are 12 braille cells. Once you connect the Dot Pocket with a screen reader on your PC and mobile device, you can control the braille with keys and read the braille.

There are 12 braille cells on the bottom of the product. The device number is displayed in braille, which is the device number is the Dot Pocket device number that is searched when connecting to a PC or mobile device. When connected to a PC and mobile device, this device outputs text read by a screen reader as Braille in 12 braille cells.

There are two LEDs just below one embossed protrusion under the Previable Key to the previous braille string. From the left, it consists of an LED that displays the state of charge and an LED that displays the state of communication. The LED indicating the charging status operates when connecting a USB-C type charging cable regardless of the power on/off status. When charging, the green light will flash, and when charging is complete, the green light will stop flickering and continue to turn on. The communication LED operates in the power-on state. When you are not connected to your PC and mobile device via Bluetooth, the blue light flashes, and as soon as you are connected to Bluetooth, the flash stops and continues to turn on. If the Bluetooth connection is disconnected, the blue light will flash again.

2.2. Dot Pocket Left Side

Below the left side of the Dot Pocket is a power slide switch. The switch can be raised or lowered. A down switch means the power is off, and an up switch means the power is on.

There is a USB-C type charging port on top of the power slide switch, which does not support On-The-Go (OTG) because it is a charging-only port.

3. Specification

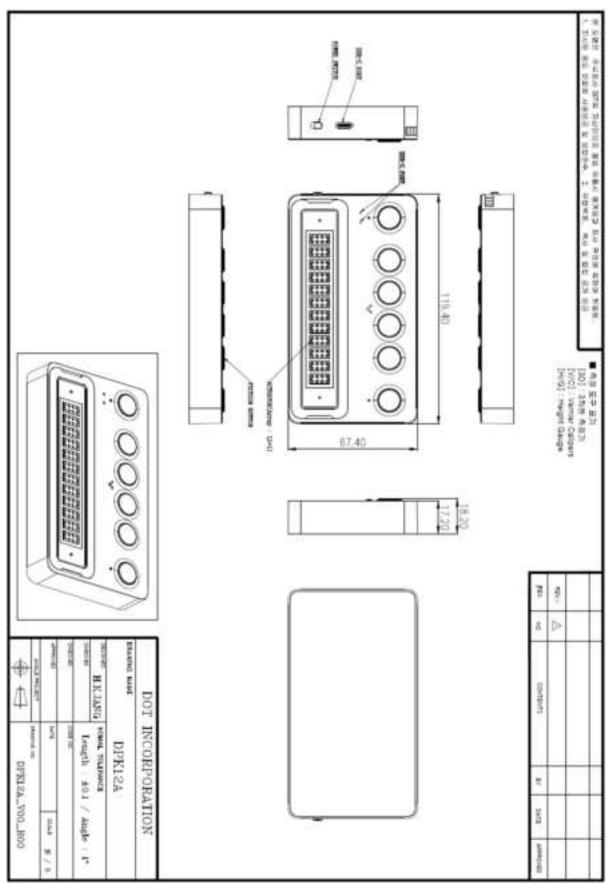
3.1 Hardware Specification

Model Name	DPK12A
Processor	ARM Cortex-M4 32-Bit 120MHz
Flash Memory	Flash:128Kbyte / RAM:64Kbyte
Battery	Lithium Polymers (Integrated), 2,200mAh / DC3.7V
Charge	DC5V / 3A
Scroll Keys	Scroll Keys 2ea
Function Keys	Function Keys 4ea
Power Switch	Power ON/OFF 1ea
Braille Display	12 cells
Size (Length x Width x height, mm)	???(W)mmX??(D)mmX???(H)mm
Weight (g)	???g
Communication (Bluetooth)	Bluetooth Classic 5.0 Bluetooth Low Energy(BLE) 5.0
Charging Port	USB-C Port for battery charging 1ea (QC2.0 or higher, PD DC5V/3A) *Requires a separate certified adapter
LED	LED Lamp 2ea (One for charging/Once for communication)
Operating Temperature	$0^{\circ}C \sim +50^{\circ}C$
Operating Humidity	20 ~ 75% R.H.
Storage Temperature	$-20^{\circ}C \sim +60^{\circ}C$
Storage Humidity	10 ~ 80% R.H.

3.2 Power Specifications

Division	Details	Min.	Typ.	Max.	Unit
Power	Input Supply Voltage (Adapter DC5V/3A)	4.8	5.0	5.4	V
Grounding	Ground	-	-	-	-

5. Dot Pocket Dimensions



6. Dot Pocket Basic Functions

6.1. Turning On and Off

The initial state of the Dot Pocket is that the power slide switch is down, which means the power is off. The power slide switch is turned on when it is raised. A long vibration will sound once and display 'le: XXXX(4 characters)' in English Grade 1 braille. The 'le' means that the Dot Pocket is connected to your PC and mobile devices via Bluetooth Low Energy (BLE). The Four letters mean the device numbers in the Dot Pockets that appear when searching for Bluetooth devices on your PC and mobile. If you turn the power slide switch down again, all 12 braille cells will go down and power off.

6.2. Mode Change

If you briefly press and then release function keys 2 and 3 above the embossed downward arrow among the product's 6 keys, a short vibration will sound twice and 'bt: 4-character English Grade' will appear in the 12 braille cells. 1 Displayed in Braille. bt means connecting with PC and mobile devices using Bluetooth Classic, and the 4-character letter refers to the device number of the Dot Pocket that appears when searching for Bluetooth devices on PC and mobile.

If you briefly press function keys 2 and 3 at the same time again and then release them, a short vibration will sound once and the 12 braille cells will change to 'le: 4-digit letter.' You can change between the two operating modes, Bluetooth Low Energy and Bluetooth Classic, by briefly pressing and releasing function keys 2 and 3 at the same time. When changing to Bluetooth Low Energy, you will hear one short vibration, and when changing to Bluetooth Classic, you will hear a short vibration. Vibration occurs twice and you can see through vibration and Braille how the operating mode has changed. The operating mode can only be changed when not connected to a PC or mobile device. Changes cannot be made while connected. Even if you turn off the power by lowering the power slide switch and then turn it on by lifting the power switch, the last changed operating mode is maintained.

6.3. Charging

6.3.1. Charging the Battery

Just above the power slide switch on the lower left side of the Dot Pocket is a USB-C-type charging port. When you connect the charging cable to the port, it starts charging and uses 12 braille cells and vibration feedback to inform you of the battery status. The battery status is divided into levels 1 to 5. The lower level means that fewer batteries are left. If the level is less than level 2, recommended to use after charging.

6.3.1.1. Charging while the power is off

When you connect the charging cable to the USB-C type charging port while the power is off, it starts charging and 12 braille cells indicate the battery status.

Number of	12 out of 12	9 out of 12	7 out of 12	5 out of 12	2 out of 12
printing Cell	braille cells				
Battery Level	5	4	3	2	1

While charging is in progress, 12 braille cells will continue to display battery status and they will also be refreshed to match the current battery level. When you remove the charging cable connected to the USB-C type charging port, all 12 braille cells go down and stop charging. When the power slide switch is turned on while charging, a long vibration rings once, and the 12 braille cells print the device number in the braille.

6.3.1.2. Charging while the power is on and it is not connected to PCs and mobile devices with Bluetooth.

When the power is on and there is no Bluetooth connection to a PC or mobile device, connecting the charging cable to the USB-C type charging port begins charging. It uses 12 braille cells and vibration feedback to let you know the battery status.

Number of printing Cell	12 out of 12 braille cells	9 out of 12 braille cells	7 out of 12 braille cells	5 out of 12 braille cells	2 out of 12 braille cells
Number of Vibrations	5	4	3	2	1
Battery Level	5	4	3	2	1

The 12 braille cells display the battery level for 7 seconds and then display the device number in braille. If you remove the charging cable connected to the USB-C type charging port during the 7-second battery level display period, the 12 braille cells will stop charging while displaying the device number in braille.

If you turn off the power by pushing the power slide switch down during charging, the 12 braille cells will rise to match the current battery level and remain charged.

6.3.1.3. Charge when powered on and connected to a PC or mobile device via Bluetooth When the battery is turned on and connected via Bluetooth to a PC or mobile device, connecting the charging cable to the USB-C charging port begins charging and provides vibration feedback to let you know the battery status.

	F	4	2	2	1
Number of Vibrations	5	4	3	2	1

Battery Level 5	4	3	2	1
-----------------	---	---	---	---

When the power slide switch is turned off while charging, the 12 braille cells will rise up to the current battery level and remain charged.

6.3.2. Full Charge Notification

When the battery is fully charged, it will quickly give two short vibrations to indicate that charging is complete. When charging is completed both when the power is on and when the power is off, the charging completion notification works the same way.

6.4. Checking the Charging Status

Among the six keys on the top of the product, you can check the current battery status by simultaneously pressing and holding the Previous Key and the Next Key on both ends.

6.4.1. Checking battery status when the power is off

When the power is off, all six keys are disabled, so you cannot press them to check the battery status. To check the battery status, turn on the power by lifting the power slide switch, then press and hold the Previous Key and the Next Key at the same time. Charge it through the USB-C type charging port. When you connect the cable, charging begins and you can check the battery status of the 12 braille cells.

6.4.2. Check battery status when powered on and not connected via Bluetooth to PC or mobile device

When the power is on and there is no Bluetooth connection to a PC or mobile device, if you simultaneously press and hold the Previous Key and the Next Key on both ends of the six keys on the top of the product, 12 It uses braille cells and vibration feedback to let you know the battery status.

Number of printing Cell	12 out of 12 braille cells	9 out of 12 braille cells	7 out of 12 braille cells	5 out of 12 braille cells	2 out of 12 braille cells
Number of Vibrations	5	4	3	2	1
Battery Level	5	4	3	2	1

The 12 braille cells display the battery level for 7 seconds and then display the device number in braille.

6.4.3. Checking the Battery status when the Dot Pocket is turned on and is connected to PCs and mobile devices

When the Dot Pocket is powered on and is connected to PCs and mobile devices, you can check the battery status by pressing and holding the previous panning key and the next panning key simultaneously.

Number of Vibrations	5	4	3	2	1
Battery Level	5	4	3	2	1

6.5. Low Battery Notification

If the battery condition of the product is at the first level, two mid-length vibrations occur every five minutes. Low battery notification vibrations occur every five minutes until the battery becomes completely discharged and unusable. Once the charging starts by connecting a charging cable to a USB-C type charging port, the low battery notification will stop.

6.6. Reprinting the Device Number

When the Dot Pocket is not connected to any PCs and mobile devices via Bluetooth, it can reprint the device number. To reprint the device number in braille, press and hold the previous panning key and the next panning key simultaneously for 1 second, then release.

7. Usage of Dot Pocket with Voice Over

7.1. Checking the iOS Version

The Dot Pocket is available in conjunction with VoiceOver, the screen reader of iPhone/iPad/MacBook. Before connecting the Dot Pocket to your iPhone/iPad, you must have an operating system of iOS 18.0. Here's how to check your operating system version:

- Go to [Settings] > [General] > [Software Update]
- Make sure the iPhone/iPad is running a version of iOS 18.0/iPadOS 18.0.
- If you have an operating system below iOS 18.0 installed, click the Software Update button that appears at the bottom of the screen to proceed with the operating system update.
- If the update doesn't appear, make sure your iPhone/iPad supports los 18.0.

7.2. Prepare for connection

 To connect the Dot Pocket with VoiceOver, it need to be set to Bluetooth Low Energy mode. If it displays 'le:XXXX(unique code for each device)' in braille, it means it is set to Bluetooth Low Energy mode. If it displays 'bt:XXXX(unique code for each device)', it means it is set to Bluetooth Classic mode.

 If it is set as Bluetooth Classic mode, you need to change the mode to Bluetooth Low Energy mode by pressing and releasing the F2 and F3 buttons simultaneously, a short vibration will sound once and the operation mode will change to Bluetooth Low Energy. It is going to display the 'le:XXXX(unique code for each device) in braille.

7.3. Connecting with Voice Over

- Turn the Dot Pocket on and check whether the mode is set to Bluetooth Low Energy.
- Go to [Settings]>[Accessibility]>[Voice Over]>[Braille]
- At the bottom of the screen, you'll see a list of braille displays that you can connect to. (Use the four-finger tab to move to the end of the screen).
- Use the one-finger upward or downward swipe gesture to locate and select the "DotPocket12A_XXXX(unique code for each device)". This is the device number of the DotPocket.
- When connected, VoiceOver on your iPhone or iPad will indicate that you're connected to a braille display, and the Dot Pocket will vibrate two times.
- The Dot Pocket is connected successfully.

Function Key	Click Length	동작
Previous Panning Key + Next Panning Key	Short	Reprint the previous information (Cell Refresh) : Reprint the last voiceover command.
Previous Panning Key	Short	Move to the previous braille line
F1	Short	Go to the previous object
F2	Short	Go to Home
F3	Short	Activate the currently focused object
F4	Short	Move to the next object
Next Panning Key	Short	Move to the next braille line
Previous Panning Key + F1	Short	Select the previous rotor object
F1+F2	Short	Go to the first object on the current screen
F3+F4	Short	Go to the last object on the current screen
F4 + Next Panning Key	Short	Select the next rotor object

7.4. Using Function Key

7.5 Disconnecting with Voice Over

- Go to [Settings]>[Accessibility]>[Voice Over]>[Braille]
- Scroll to the bottom of the screen and find the "DotPocket12A_XXXX(unique code for each device)".
- Use the voiceover's rotor function by rotating two fingers clockwise or anticlockwise to go through options, to find [action]. (By default, the rotor value is automatically placed as "action".)
- Swipe one finger up or down to select [More Information].
- Double-tap with one finger to activate [More Information].
- Find and run [Forget this Device].
- When disconnected, VoiceOver on your iPhone or iPad will indicate that you're disconnected from a braille display, and the Dot Pocket will vibrate two times.

8. Handling and Safety Precautions

The contents of this manual may differ from the actual product, depending on the firmware 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 Pocket dry. If used in a humid place or becomes wet, the product may not work properly.
- The Dot Pocket 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 Pocket 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.
- 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.
- When charging the Dot Pocket, 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.
- Since the Dot Pocket has the possibility of radio interference during use, it cannot perform services related to human safety.

Use with safety in the following situations:

1. Do not use the Dot Pocket 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 Pocket in prohibited areas.

Do not use the Dot Pad 320 in areas where the 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 the 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 a charging failure.

5. Avoid high temperatures 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 it. 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.

6. Do not use any chemicals.

Never use chemicals such as alcohol or benzene to clean the Dot Pocket. 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 Pocket 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 get in your mouth or are 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 it 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 Pocket 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 Pocket in a safe storage place.

When not in use for a long time, disconnect the charger from the Dot Pocket 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 Pocket 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 Pocket 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 Pocket.
- 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 on 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.

9. Product Certifications

Asia-Pacific

The National Integrated Certification Mark indicates that the product qualifies for Korea's product safety requirements for electrical and electronic equipment.

Certification Number	his mark indicates compliance with the technical and design requirements of Japan's communication terminal devices.		
Europe and North Ar	nerica		
CE	The products bearing the CE mark conform to all Community regulations applicable to the European Economic Area.		
FC Certification Number	The FCC mark certifies that the electromagnetic interference of the devices is below the limits approved by the U.S. Federal Communications Commission.		

[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.

[FCC]



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

a. Rule Part 15.19(a)(3): 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.

b. Rule Part 15.21: The users manual or instruction manual for an intentional or unintentional radiator shall caution the user that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital

NOTE: 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

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 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 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 20cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

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[CE]



"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.



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 the 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 if 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 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.

08507

146, Gasan Digital 1-ro, Geumcheon-gu, Seoul, Korea

Room 403 (Daeryung Techno Town 22nd)

Phone Number: +82) 2-864-1113

Fax: +82) 2-864-1989

Email: dot@dotincorp.com

Homepage: www.dotincorp.com

• dot ::