

DENSO

BHT-1336QWB Series

User's Manual

2D Code Handy Terminal

Thank you for using the DENSO WAVE 2D Code Handy Terminal.
Please read this manual thoroughly prior to operation to ensure full use of the product's functionality,
and store safely in a convenient location for quick reference even after reading.
This manual contains only the basic details required for operation.
Please refer to the Manual for further details on general operation.
The Manual can be downloaded free of charge from the DENSO WAVE Web site.
<https://www.denso-wave.com/en/>

496487-8690

SAFETY PRECAUTIONS

Be sure to observe all these safety precautions.

Meaning of Symbols



DANGER

Alerts you to those conditions that could imminently lead to serious bodily injury or death if the instructions are not followed correctly.



WARNING

Alerts you to those conditions which could cause serious bodily injury or death if the instructions are not followed correctly.



CAUTION

Alerts you to those conditions which could cause minor bodily injury or substantial property damage if the instructions are not followed correctly.



DANGER

Handling battery

Failure to follow all instructions listed below may cause electrical shock, overheating, smoking, fire, rupture, or leakage.

- Never disassemble or modify the battery.
- Do not stick a needle into the battery, hammer at it, or tread on it.
- Avoid dropping or throwing the battery or letting it undergo any shock or impact.
- Do not use significantly damaged or deformed batteries. Do not use batteries when they are subject to the impact, for example, a drop impact.
- Never connect the positive and negative terminals of the battery with a wire or other metallic materials.
- Do not carry or store the battery together with ballpoint pens, necklaces, coins, hairpins, or anything else metallic.
- Never burn or heat up the battery.
- Do not use or leave the battery in places where there is excessively high temperature (50°C or higher) such as near fire or heater.
- Do not use or store the battery in places exceeding the service or storage temperature.
- Never place the battery into or soak it in water or seawater.
- Use the communication unit or special charger to charge the battery. Charging the battery with a charger other than the specified charger may cause the battery to overcharge or charge with an abnormal current, causing an abnormal chemical reaction within the battery, resulting in overheating, smoke, rupture, or fire.
- If fluid leaks from the battery or smells, immediately move it away from fire.
- Do not get the BHT wet or put it in water or seawater.
- Never charge the battery near a fire or anywhere exposed to direct sunlight. If the battery becomes hot, protective device may be activated, which may cause the insufficient recharging, damage to the protective device, heat emission, rupture, or fire of the device.
- Never charge or use the battery where any inflammable gases may be emitted.
- If the battery is exposed to extremely low pressure, it may explode or leak flammable liquids or gases.
- Never apply solder directly to the battery.
- If the battery fluid leaked from the battery gets into the eyes, wash thoroughly with clean water such as tap water without rubbing and obtain medical treatment immediately. Failure to do so will result in eye injuries.
- Do not use batteries other than the specified ones. Use of any battery other than the specified battery can cause malfunction, explosion, etc.

WARNING

Handling the BHT

Incorrect handling of the BHT could cause electric shock, impaired vision, skin problems, injury, burns and generation of heat and smoke from the BHT. Be sure to observe the following to use the device correctly.


- Never disassemble or modify the BHT.
- Do not let the battery undergo any shock or impact or throw it at something hard.
- When the BHT is subject to the strong impact, for example, a drop impact, check the case for any damage and the battery for damage and leakage. Never use a damaged case. Never use a damaged or leaked battery. If battery fluid leaks from the battery and it gets into your eyes, rinse them with clean water thoroughly without rubbing and consult a doctor as soon as possible. Otherwise, you may damage your eyes.
- Do not insert any foreign materials into inside.
- Do not get the BHT wet or put it in water or seawater.
- Never put the BHT in a microwave oven or high-pressure container. Never put it on the induction cooktop.
- Never put the BHT in places where there are excessively high temperatures, such as inside closed-up automobiles, or in places exposed to direct sunlight.
- Avoid using the BHT in extremely humid or dusty areas, or where there are drastic temperature changes.
- If smoke, abnormal odor or noise comes from the BHT, immediately turn off the power and remove the battery cartridge from the BHT.
- If the LCD screen is broken by mistake, care must be taken not to get the liquid crystal into your eyes or mouth or drop it on your skin.
- Be careful of broken glass if the LCD screen is accidentally cracked or broken. It may cause bodily injury.
- If the LCD screen is broken by mistake, care must be taken not to get the liquid crystal into your eyes or mouth or drop it on your skin. Be careful of broken glass if the LCD screen is accidentally cracked or broken. It may cause bodily injury, if the liquid leaks out from the broken LCD,
- Do not look into the light source from the reading window or do not point the reading window at other people's eyes. Eyesight may be damaged by direct exposure to this light.

Handling battery

Failure to follow all instructions listed below may cause electrical shock, overheating, smoking, fire, rupture, or leakage.

- The battery is exclusively for the BHT. Do not use the battery for purposes other than charging the BHT.
- To charge the battery, be sure to use the specified charger, the charging cable.
- The battery may be warm immediately after charging or use.
- If abnormal odor, heat, discoloration, deformation or any other abnormal conditions are noticed when the battery is in use, being charged, or is in storage, remove it from the BHT or charger and avoid further use.
- If the battery does not finish recharging within the specified time, stop recharging.
- Battery life is when the BHT becomes available for less time even after a properly charged battery is loaded. Please purchase a new battery.

Storing the battery

- Remove the battery from BHT, or charger and store at cool and dry place, when you don't use your BHT for an extended period of time.
- Check the condition of battery on the following points before you store it for a long time:
 - If the battery is full charged (a state right after charge is completed), and
 - If the remaining battery level is very low (there is not enough power left to activate BHT).Long-term storage under these conditions may deteriorate the performance and life of the battery. You are recommended to ensure that the battery is at least at the  charge level required for long-term storage. In addition, even you don't use the battery for a long term, keep this power level by recharging once a year in order to maintain the battery performance.
- The battery may swell over the years. This is a natural characteristic of a lithium-ion battery and is not safety hazard. Nevertheless, replacing the battery sooner is recommended.

Main specifications

Battery type	Nominal voltage	Nominal capacity	Ambient temperature
Lithium-ion battery	3.7 VDC	1880mAh	During charging 0°C to 40°C (32°F to 104°F) During discharging -20°C to 50°C (-4°F to 122°F)

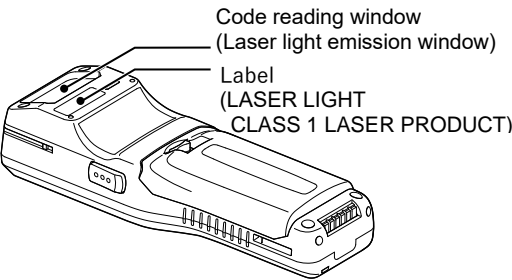
Specifications and external appearance are subject to change without notice.

Handling the BHT using a laser light

The BHT uses a laser light for indicating the scanning range. Though the intensity of the laser light is too low to inflict bodily injury, you must observe the following precautions when handling the BHT equipped with laser light.

- Never stare into the laser light.
- Never point the code reading windows at someone's eyes.

Caution – Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous laser light exposure.



※Detail of Label



Caution – Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous laser light exposure.

CAUTION

Handling the BHT

Incorrect handling of the BHT could cause generation of heat and smoke from the BHT, and malfunction. Be sure to observe the following to use the device correctly.

- When using the hand strap or neck strap, exercise due care to avoid getting them caught in other objects or entangled in rotating machinery. Failure to do so could result in accident or injury.
- Keep your ears away from the speaker when a loud sound comes out of it. Failure to do so could lead to hearing difficulty.
- Do not operate the BHT in environments where static electricity can build into significant charges. Doing so could result in malfunction or mechanical failure.
- Avoid dropping the BHT or letting it undergo any strong shock or impact. Doing so could result in malfunction or mechanical failure.
- Do not use the BHT near a wireless transmitter such as a ham radio. Doing so could result in malfunction or mechanical failure.
- Do not touch BHT with oily hands or gloves containing oil such as machine oil and grease. Doing so may cause the deformation and discoloration of a device.
- This product incorporates connectors for microSD card. Do not insert anything other than these cards. Do not insert a card inversely, diagonally and with twisted. If a card is inserted forcibly, this could damage a card or a connector.
- Do not attach a wet BHT or rechargeable battery cartridge to Battery Charger.
- Do not use excessive force when inserting or removing the battery cartridge. Doing so could result in malfunction or mechanical failure.
- Keep magnetic cards such as a cash card or a credit card away from the BHT. Failure to do so could cause loss of magnetic data.

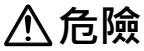
<To system engineers>

- If you use a WAV file that cracks the sound, the speaker in BHT may be damaged. Check the sound when playing the WAV file and make adjust so that sound cracking does not occur when using the speaker in BHT.

安全注意事項

請務必遵守以下安全注意事項。

標識的含義



危險

此標識表示如果無視此標識而進行錯誤操作，可能立即導致人員死亡或重傷。



警告

此標識表示如果無視此標識而進行錯誤操作，可能導致人員死亡或重傷。



注意

此標識表示如果無視此標識而進行錯誤操作，可能導致人員受傷及財物受損。



危險

電池的使用

不遵守下列所有指示可能會導致觸電、發熱、冒煙、起火或爆炸。

- 請勿拆解或改造電池。
- 請勿釘入釘子、用錘子敲打或踩踏。
- 避免電池掉落、投擲電池，或讓電池遭受任何形式的撞擊。
- 請勿使用嚴重破損或已經變形的電池。電池受到撞擊（例如掉落）時，請勿使用。
- 請勿用鐵絲或其他金屬材料連接電池之正（+）與負（-）端。
- 請勿將電池與原子筆、項鍊、硬幣、髮夾、或任何其他的金屬製品一起攜帶或存放。
- 請勿將電池放入或浸泡於水或海水中。
- 請勿把電池放入火中或加熱。
- 請勿在火邊、爐子附近等高溫場所（60°C及以上）使用或放置電池。
- 請勿在超過工作溫度範圍的場所使用電池，以及將電池放置在超過儲存溫度值之處。
- 請勿在火邊或烈日強光下為電池充電。電池受熱溫度升高可能導致電池液滲漏、爆裂或燃燒。
- 請勿在任何可能產生易燃氣體之處充電或使用電池。
- 請勿直接對電池進行焊接。
- 請勿使用本公司指定以外的電池。
- 若電池漏出之液體進入眼睛，應立即用清水沖洗乾淨，不要揉搓，並立即就醫。否則，會對眼睛造成傷害。
- 在電池的使用、充電或儲存過程中，如有異味、電池發熱、變色、變形或其他異常情況，請將電池從BHT或充電器上卸下，不要繼續使用。
- 已超過規定之充電時間，而充電仍不能完成時，請停止充電。

⚠ 警告

BHT 的使用

若 BHT 使用不當，BHT 燃燒產生的熱煙會導致觸電、視力受損、皮膚灼傷等問題。請務必按照以下安全注意事項正確使用機器。

- 請勿拆解或改造 BHT。
- BHT 受到強烈撞擊，如不慎掉落時，應檢查主機殼是否損壞，電池是否損壞和滲漏。
請勿使用破損的外殼。
請勿使用破損或滲漏的電池。
- 請勿將任何異物放入電池內。
- 請勿將 BHT 放入或浸泡於水或海水中。
- 請勿將 BHT 放入微波爐或高壓容器中。請勿把它放在電磁爐上。
- 請勿將 BHT 放置在車窗緊閉的汽車內或陽光直射等溫度過高的場所。
- 請勿在極端潮濕、多塵或溫度變化劇烈的場所使用 BHT。
- 如 BHT 冒煙、發出異味或噪音時，請立即關閉電源，並取出掃描器中的電池。
- 若不慎將液晶螢幕摔破，謹防液晶進入眼睛或口中，或滴到皮膚上。
- 若液晶顯示螢幕不慎摔破，請小心破碎的玻璃。它可能會導致人員傷害。
- 若不慎將液晶螢幕摔破，液體進入眼睛或口中，應立即用清水沖洗乾淨，然後就醫。
- 請勿直視讀取窗口。

電池的使用

不遵守下列所有指示可能會導致觸電、發熱、冒煙、起火或爆炸。

- 本電池是 BHT 專用電池。請勿將電池用於 BHT 充電以外的用途。
- 務必使用指定的充電器、充電電纜或推薦的無線充電器為電池充電。
- 電池在使用、充電、保管時，如果發現異臭、發熱、變色、變形等異常情況，請將電池從 BHT 或充電器中取出，不要再使用。

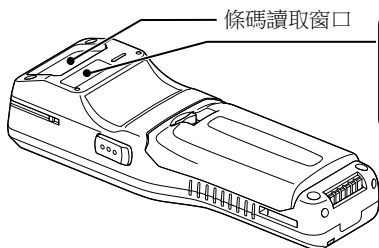
雷射掃描器的使用一些掃描器使用雷射光，指示掃描範圍。雖然雷射光的強度低，不會對人員造成傷害，但在使用裝有雷射掃描器的 BHT 時，仍需遵守下列注意事項。

- 1) 請勿直視雷射光。
- 2) 請勿將條碼讀取窗口朝向他人的眼睛。

激光扫描器的使用

- 一些扫描器使用激光来标识扫描范围。尽管激光强度低，不会对人的身体造成伤害，但在使用带有激光的 BHT 设备时仍需遵守下列注意事项。

- 1) 请勿直视激光。
- 2) 请勿将条码读取窗口朝向他人的眼睛。



條碼讀取窗口



系统设计人员须知

- 将 BHT 引入到可能影响人身安全的系统中时，应做好冗余设计和安全设计，谨慎地开发应用程序，避免出现数据错误危及他人生命安全。

注意

BHT 的使用

BHT 使用不當會導致 BHT 發熱冒煙，引發故障。請務必按照以下安全注意事項正確使用機器。

- 使用手提掛繩和頸帶時，請注意不要掛到其他物品上，或捲入旋轉物內。否則會引發事故或受傷。
- 蜂鳴器響起時，請勿將耳朵貼近揚聲器。否則會造成聽覺功能障礙。
- 請勿在產生靜電嚴重的環境中使用 BHT。否則會導致機器錯誤運行或發生故障。
- 避免電池掉落、投擲電池，或讓電池受到任何形式的撞擊。否則會導致機器錯誤運行或發生故障。
- 請勿在無線電發射機（如業餘無線電）附近使用 BHT。否則會導致機器錯誤運行或發生故障。
- 請勿使用沾有機油和油脂的手或手套接觸 BHT。此舉可能導致機器變形和變色。
- 本產品配備可使用 microSD 卡和 SIM 卡的連接器。請勿插入其他卡。請勿以反方向、對角線或扭轉的方式插入卡片。若強行插入卡片，則會損毀卡片和連接器。
- 請勿將濕的 BHT 或可充電電池連接到控制器上。
- 拆裝電池時，請勿施加太大壓力。否則會導致機器錯誤運行或發生故障。
- 請勿將銀行卡、信用卡等磁卡靠近 BHT，否則會導致磁卡內資料消失。

<致系統工程師>

- 如果您使用破解聲音的WAV文件，BHT中的揚聲器可能會損壞。
播放WAV文件時檢查聲音，並進行調整，使在BHT中使用揚聲器時不會出現聲音破裂。

Chapter 1 Please read me first

Please contact your nearest distributor, if using in other countries.

The LCD screen is made with high precision technology. Some dots on the screen may be always ON or always OFF though, this is not a malfunction.

The modification of the radio station is prohibited, and the violation is punished by the law.

The Customer shall not modify, reverse compile, reverse engineer, reverse assemble, and or otherwise tamper with our BHT's firmware.

1.1 About This Manual

- Due to changes and improvements, the content of this manual may be subject to change without prior notice.
- The reproduction or duplication of the whole or part of this manual is strictly prohibited without prior consent.
- Please contact DENSO WAVE if this manual is lost.
- Every attempt has been made to ensure that the content of this manual is thorough and up to date, however, we kindly ask you to report any questionable descriptions, mistakes or omissions, if any, to DENSO WAVE.

Liability Limitations

- DENSO WAVE INCORPORATED ("DENSO WAVE") does not assume any product liability (including damages for lost profits, interruption of operations, or the loss of business-related information) arising out of, or in connection with, the use of, or inability to use the BHT system software or related manuals.
- DENSO WAVE takes reasonable precautions to ensure its products do not infringe upon any patents or other intellectual property rights of other(s), however, DENSO WAVE cannot be responsible for any patent or other intellectual property right infringement(s) or violation(s) arising from any of the following.
 - (1) The use of DENSO WAVE's products in connection or in combination with other components, products, devices, data processing systems or software not supplied by DENSO WAVE.
 - (2) The use of DENSO WAVE's products in a manner for which they were not intended nor designed.
 - (3) The modification of DENSO WAVE's products by parties other than DENSO WAVE.
- If it is judged by DENSO WAVE that malfunction of the product is due to the product having been dropped or subjected to impact, repairs will be made at a reasonable charge even within the warranty period.
- DENSO WAVE will not bear any responsibility for data which customers have recorded and are received by DENSO WAVE for repair and analysis.

1.2 Free/Open source software (FOSS)

This product contains Free / Open Source Software (FOSS.) DENSO WAVE is ready to provide compliant source codes. For details, please contact our dealer or contact the site below.

<https://www.denso-wave.com/>

1.3 Product Contents Check

Ensure you have all of the following items prior to use.

In the event of missing or damaged item, please contact your dealer.

- Handy terminal (BHT) ×1
- User's Manual (this manual) ×1
- Wrist strap ×1
- Battery (BT-20LB) ×1
- Battery cover ×1

1.4 Customer Registration

To allow us to provide our customers with comprehensive service and support, we request that all customers complete a Member Registration Form.

You can register from QBdirect's new membership at the link.



Registered members will be offered the following privileges.

Various inquiries With our expert knowledge, we respond to your concerns at the site.



Download We provide a variety of software / firmware and manuals to ensure optimal use of products at all times.



Note: Please note that the contents and URL of privilege may be changed.

Please refer to the following for the latest FAQ.



Note: Register your product serial after logging in to view the relevant software / firmware content.

QBdirect Login



1.5 Repair Guidance

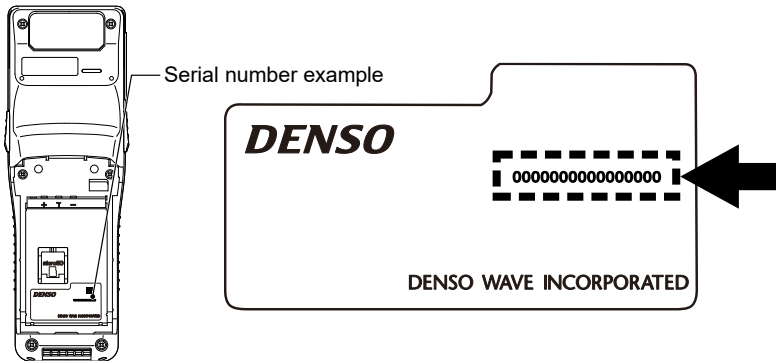
Please contact the dealer where you purchased the item for repair.

1.6 Warranty extension service

The manufacturer's ordinary no-cost warranty period (one year) is extended by two years to three years in total if you register the serial number of the product within one month after purchase. Please contact the site below.

<https://www.denso-wave.com/>

The serial number required for registration is displayed on the rating plate of the product.



1.7 Usage Precautions

Usage environment restrictions

- Do not use the BHT where it may be exposed to fire, high temperatures, or direct sunlight. (Failure to observe this may result in damage, overheating, rupture, or fire.)
- When the BHT is stored in a high-temperature, high-humidity environment of 50 - 60°C, leave to sit in a location at room temperature and normal humidity for at least 1 day prior to use. Failure to observe this may cause a reading failure or damage the BHT.
- Do not use the BHT in places with extreme temperature variations. (Failure to observe this may lead to BHT malfunction due to condensation.) Leave the BHT for a short while prior to use when moved from a cold to a warm environment.
- Do not use the BHT in places where it may be exposed to strong impact or significant static electricity.

Keep the BHT away from electromagnetic waves and metallic objects

Wireless communication may not be possible in the following locations and using.

- In the vicinity of the following devices operating on a 2.4 GHz waveband (Communication may not be possible due to electromagnetic interference.)
 - Industrial, scientific, or medical equipment such as microwave ovens
 - Wireless LAN devices
 - Logistics systems in places such as plants or warehouses
 - Wireless devices such as amateur radio stations
- In the vicinity of household appliances emitting electromagnetic waves such as computers or televisions (Communication may not be possible due to electromagnetic noise.)
- In the vicinity of metallic objects, in places with high levels of metallic dust, or in places surrounded by metal walls (Communication may not be possible due to the presence of metallic objects.)
- Putting on any metallic objects around the antenna. Placing your hand over the antenna

1.8 Proper Care of the BHT

Make sure to turn OFF the BHT before cleaning.

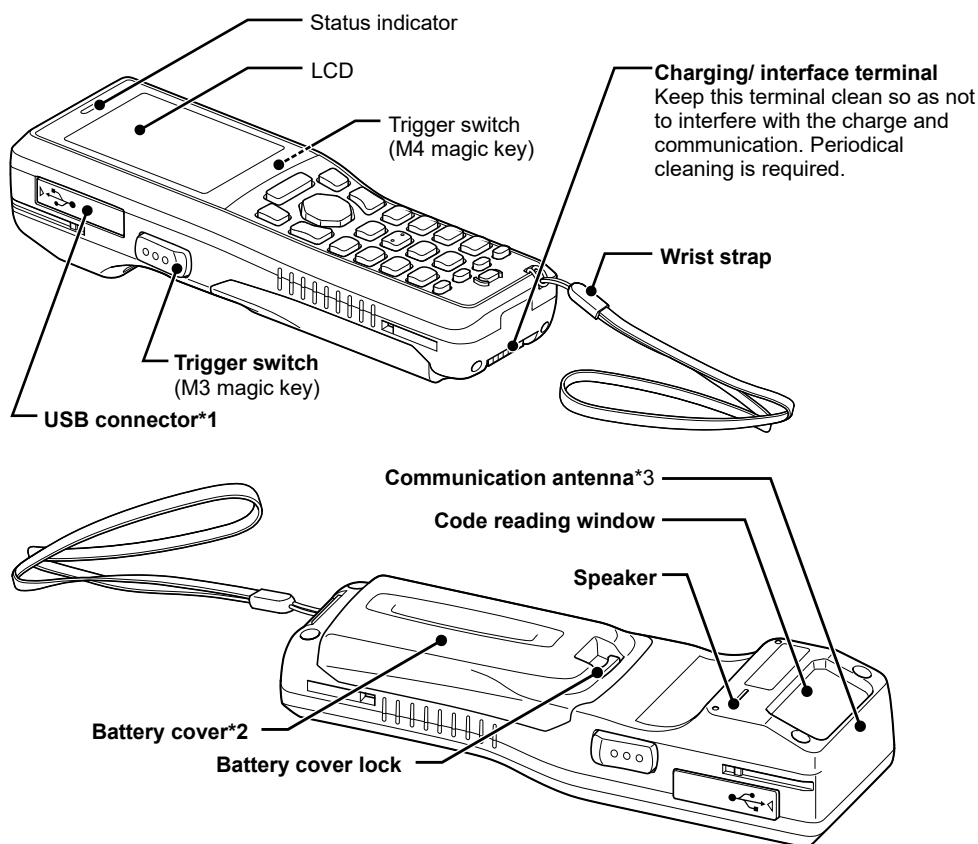
- Terminal dirt on the BHT and battery
Periodically wipe any dirt from the terminals of the BHT and battery with a cotton swab or similar soft object. Be sure not to scratch or deform the terminals while cleaning. Never use organic solvents such as thinner or alcohol, as this may cause terminal plating to be peeled off.
- Housing dirt
Wipe any dirt from the housing with a dry, soft cloth. If excessively dirty, wipe with a soft cloth that has been soaked in soapy water (always use a neutral detergent) and wrung out thoroughly. Never use organic solvents such as thinner or alcohol, as this may cause the housing to be marred or paint to be peeled off.
- LCD screen dirt
Never rub or strike the LCD screen with anything hard, as this may result in scratches on the screen or breakage.
- Code reading window dirt
Any dirt or dust adhering to the clear plate of the code reading window will adversely affect reading performance. When using in dusty areas, check regularly whether any dust has accumulated on the clear plate of the code reading window, and if so, first blow the dust away with an airbrush, and then gently wipe the plate with a cotton swab or similar soft object. If sand or hard particles have accumulated, rubbing the plate will result in scratches. Blow the particles away with an airbrush or wipe with a soft brush.

Important Notice of Disinfection and Maintenance for DENSO WAVE AUTO-ID Products

As described in the care and maintenance of the Operator's Guide contained in the package of regular AUTO-ID products, the usage of thinner and alcohol for cleaning is prohibited. In consideration of the global spread of the new coronavirus infection, DENSO WAVE performed the wiping test under its own test standards using 70% ethanol or 10 ppm to 80 ppm hypochlorous acid water in expectation of a certain disinfection effect.

<https://www.denso-wave.com/en/adcd/info/200622.html>

Chapter 2 Component and Functions



*1 USB connector cover is not provided for models without USB connector.

*2 The battery and battery cover are shown in the example when the BT-20LB is installed.

*3 Only available on Wireless LAN & Bluetooth® models.

Trigger switch (M3, M4 magic keys)

- Push this switch when scanning codes.
- The SF and ENT key functions can be assigned to these magic keys with the SYSTEM MENU.*4
- Characters and character strings can also be assigned to these magic keys with the user program.

*4 Refer to the Manual on how to use the SYSTEM MENU.

Scan key

Press to scan codes.
This key performs the same function as a Trigger key.

Trigger keys

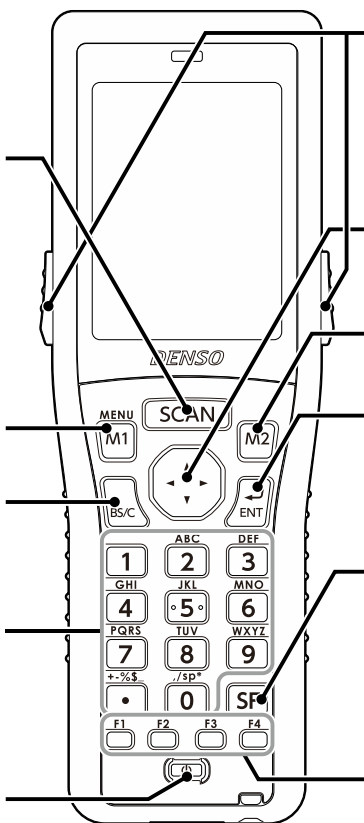
Press to scan codes.
This key performs the same function as a Scan key.






Cursor key**M2 magic key****Enter key**

Finalize entered data or execute operations.

M1 magic key**Backspace / Clear key****Numerical keys****Shift key**

Used in combination with other keys such as the numerical key or power key for special input procedures.

Power key**Function keys**

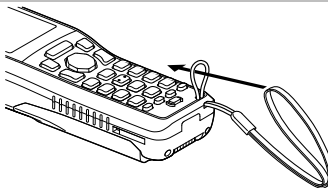
	The SF or ENT key function can be assigned with the SYSTEM MENU.* A character or character string can also be assigned with the user program.
	The MENU screen displays when held down for one second or longer. (Only M1 magic key)
	Used to move the cursor and select menus.
	Deletes the last entered character (backspace). When pressed and held for 0.5 seconds or more, cancels entry and returns the LCD to the previous screen (clear).
	Used to select functions. Function key functions are assigned with the user program. Refer to the "BHT-BASIC Programmer's Manual (for BHT-S30/S40 Series)" for further details.

* Refer to the Manual on how to use the SYSTEM MENU.

Chapter 3 Preparation before use

3.1 Fastening the wrist strap

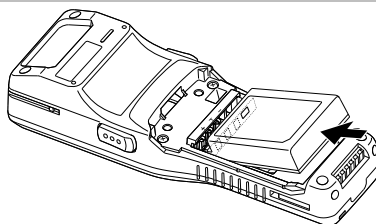
Fasten the wrist strap to the BHT-1336Q series as shown on the right.



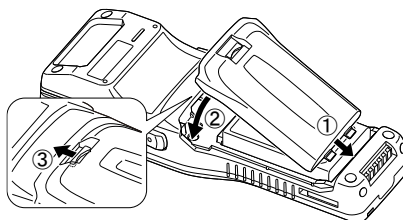
3.2 Inserting and removing the main battery

Inserting

Insert the battery securely from the battery terminal side.

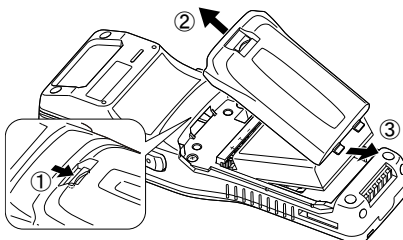


- ① Set the battery cover.
- ② Press from above in the direction of the arrow.
- ③ Press down and slide the battery cover lock in the direction indicated by the arrow to lock the cover.



Removing

- ① Push the battery cover lock in the arrow direction.
- ② Remove the unlocked cover.
- ③ Pull out the battery.



Note: The battery and battery cover are shown in the example when the BT-20LB is installed.

3.3 Charging

The main battery may not be fully charged for shipment. Please charge the main battery to full before using the handy terminal. You may use the Battery Charger. Please refer to the Battery Charger Operator's Guide for more information.

Charging time

Battery

Provides the power required for BHT operation. An empty battery takes approximately 3 hours to complete charging. The status indicator at the top of the screen will light red during charging, and will light blue when charging is complete.

Sub-battery

The sub-battery is installed inside the BHT. The sub-battery is used to hold data while the battery is being replaced and removed. After installing the battery and fully charging the empty sub-battery, it will take approximately 10 minutes to complete charging. To preserve the data correctly, do not remove the battery during this time.

Charging temperature

For efficient battery charging, we recommend charging at room temperature (18°C to 25°C). Charging stops when the product detects that the ambient temperature has fallen below 0°C or has exceeded 40°C. However, the temperature may differ from that in the actual operating environment.

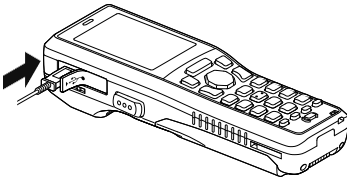
Operation on Battery Power

Prolonged use of the display and continued scanning of barcodes will affect battery level. For operations which take a large amount of battery power, we suggest that you keep a fresh battery for replacement at all times.

Charging with a USB Cable

Only models with a USB connector can be used.

- ① Connect the USB connector (Type-C side) to the USB connector on the side of the handy terminal.
- ② Connect the USB connector (Type-A side) to the USB power adapter.



The state of charge of the BHT is shown in the status display at the top of the screen.

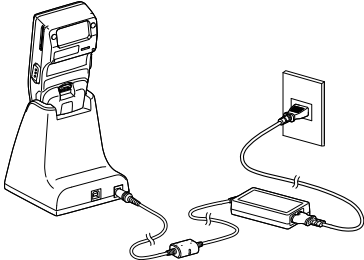
Status display	Description
Lit red	Charging
Flashing red	Charging error
Lit blue	Charging complete

Charge using the communication unit

The CU-1301 and CU-1311 can only be charged. The BHT-1336 series does not have an IrDA interface. The communication unit corresponding to the communication function and the charging function is CU-1301A, CU-1311A, CU-1321.

Connect the communication unit to the power source

When connecting the CU-1321 to a power source using the power adapter



Connect to the communication unit using a dedicated power adapter or USB cable and USB power adapter. Insert the AC plug or AC adapter into an electrical outlet.

Charging the BHT

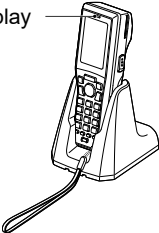
Place the BHT perpendicular to the communication unit.

Status display



Charging and interface terminals
Since charging and communication
will not be possible.
Don't get dirty. Clean regularly.

Status display



Note: When placing the BHT on the communication unit, be careful not to allow wrist strap to be caught between the BHT and the communication unit. Depending on the operating settings and operating environment of the BHT, certain areas may become warm during charging, but this is normal.

The state of charge of the BHT is shown in the status display at the top of the screen.

Status display	Description
Lit red	Charging
Flashing red	Charging error
Lit blue	Charging complete

Removing from the Communication Unit

Lift the BHT vertically



Notes on Communication Unit Power Supply

The CU-1321 with a USB interface can use a power adapter and a USB cable.

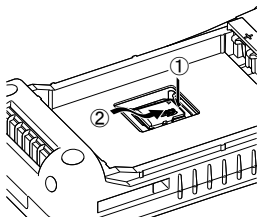
When using only the USB cable, the charging time may increase and the status may indicate a charging error under conditions such as operating the BHT during charging. Therefore, we recommend using a power adapter. In addition, replace the battery with a new one because a charging error may occur if the battery is degraded.

3.4 Inserting and Removing the microSD Card

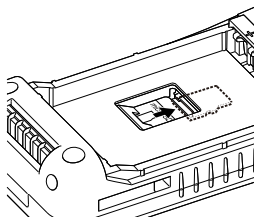
How to insert the microSD card

- Remove the battery.
- ① Place the microSD so that the electrodes are facing down.
- ② Slide the microSD card into the microSD card slot in the direction shown by the arrow.
Insert the card click into the place.
- Install the batteries.

microSD insertion direction

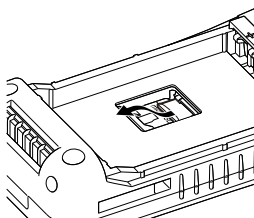
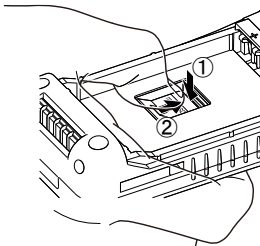


microSD lock status



How to remove the microSD card


- Remove the battery.
- ① Push the microSD card until it clicks while pressing down the stopper.
- ② The card pops out from the slot when release the pressure.
- Install the batteries.



- Use microSD up to 32GB in FAT32 format.
- Insert the microSD card directly into the slot along its lines. Do not push the card too hard when inserting the card. The microSD card or its card cover may be broken if excessive strength is applied.

Chapter 4 Using the BHT

4.1 Turning ON the Power


To power on the BHT, press and hold the power button  located on the upper side of the device. When you power on the BHT for the first time, the time setting is required.

1

Press the Power key.

Point

Press the Power key for at least 1 second after data back-up. Refer to page “Turning OFF the Power” on data back-up.



The screen below displays.

Set the current date and time.

20/01/01 00:00

_YY/MM/DD hh:mm


2

Enter the date and time using the numeric keys and press the enter key to set the date and time.

Point

As for a year, enter the last two digits.
As for time, enter it in the 24-hour clock format.

202303011420



Set the current date and time.

20/01/01 00:00


23/03/01 14:20_

3

The message-language-setting screen appears. Select the message language with a numeric key. Press the entry key to set the message language.

[Ex.] Set the message language to English.

1



After the date and time are set, the message-language-setting screen appears.

SELECT MESSAGE

1:English

2:Japanese

3:Chinese


4:Taiwanese

5:Thai

4

The application selection screen appears. Select “2: Code scanning demo” and press the enter key.

2



The screen below displays.

No user programs found.

Execute?

1:Easy Pack Ad

2:Code scanning demo

5

BHT starts Scanning Demo.

Note: In order to power on the handy terminal, the battery must be secured in place. When using the BHT under the low temperature environment such as inside the refrigerated room, power on the BHT at the ambient temperature and then take it to the low temperature environment. Powering on the BHT at the low temperature may not start up the BHT successfully. Operating the BHT under the low temperature environment may result in the delayed BHT operation or extremely reduced operating time due to the battery characteristics. Please verify the operating conditions prior to use.

Replace a battery within three minutes after ensuring that the power of BHT is turned OFF. If it takes more than three minutes, the data retention may not be secured.

If any of the following messages appears when the power is turned ON after the battery is replaced, take an appropriate action.

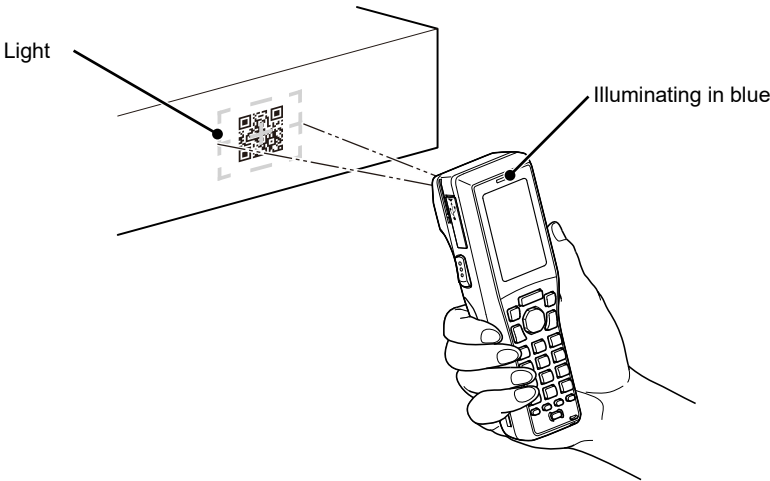
Displayed Message	Solution
"Set the current date and time".	When the BHT power is turned ON after a long period of non-use, you may need to reset the date and time. If this error message displays on the screen, you need to set the current date and time.
"Contact your administrator (XXXX)".	If this message displays on the screen, reboot the BHT. If this error persists, take a note on the error message and then contact the system administrator.

4.2 Scanning Codes

Follow the procedure below to scan codes.

Turn the BHT power ON.

Point the code reading window towards the barcode to scan and press a trigger key on the side of the BHT. Light for scanning is irradiated and the printed barcode is scanned. When the data is successfully scanned and displayed, or the time has elapsed, the light for scanning disappears.



4.3 Turning OFF the Power

You can turn off the BHT in one of the following three methods.

Methods	Operation	Data Backup Timing
①Normal power OFF	Press the Power key.	After 20 minutes from turning off
②Turning the power OFF after data backup	Hold down the Power key for at least 3 seconds.	When the power down
③Auto power OFF	The power turns OFF itself when the BHT is not used for the specified period of time set.	After 20 minutes from turning off

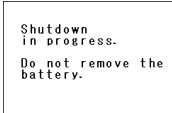
①Normal power OFF

Press the Power key.

Point

Never remove the battery while the message on the right appeared. Otherwise, a message requesting you to contact the administrator may appear when the power is turned ON next time.

The BHT is powered down after the message appears as below.



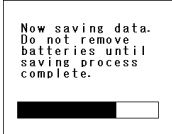
②Turning the power OFF after data backup

Hold down the Power key for at least 3 seconds. The power is turned OFF automatically when the backup is complete.

Point

It may take a few tens of seconds until the data backup is completed depending on the data amount.

he message shown below appears and data backup is commenced.



③Auto power OFF


The power turns OFF itself when the BHT is not used for the specified period of time set at the user program. This set to 3 minutes at default when the BHT is shipped from the factory.

* Refer to the Programmer's Manual for further details of auto power OFF.

4.4 Battery Power Level Indicator

The main-battery power level can be confirmed at the battery icon displayed in the top left of the LCD screen. Since the indicator shows only a rough estimate of main-battery power not an accurate remaining power level, please be charged early.

The main-battery power level indicator shows only a rough estimate of battery power not an accurate remaining power level. Please read Safety Precautions to ensure the proper use of the battery.

The battery power level can be confirmed at the battery icon  displayed in the bottom left of the LCD screen. The battery power is indicated in four levels.

The battery power level indicator tells you when to charge the battery.



Sufficient battery power remains.



The battery power is partially depleted. Charge promptly.



The battery power is almost depleted. Charge the batteries or insert new ones.



The battery power is totally depleted. Charge immediately or replace new ones.

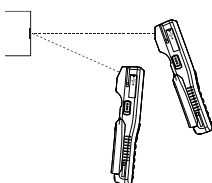
4.5 Using the BHT after Long Non-Use

Data stored in the BHT may be lost or damaged and the calendar clock may stop if the BHT is left unused for a long period of time.

- Keep a backup copy of important or critical information.
- Reset the calendar clock if it is stopped.
- The battery is also used as a memory back-up source. You should not remove it from the BHT for at least 10 minutes until the sub battery is fully charged.
- Keep the battery cover closed to prevent contamination.

Please refer to the Manual for more information on trouble shooting.

Chapter 5 When Unable to Successfully Scan Codes

Cause		Countermeasure
Specular refection	When the light is focused on the printed surface of the code from directly above, the BHT may not scan the code due to specular reflection.	Change the BHT scanning angle and try again. 
Distance from code	The code may not be scan if it is too close to or too far from the BHT reading window, even when the code is within the reading area.	Move the BHT slowly toward or away from the code and try again.
Code surface curvature	The code may not be scan if its surface is extremely curved.	Scan the code at the center of the code reading window.
Code surface dirt	The code may not be scan if its surface is dirty.	Wipe the dirt from the code and try again.
Code reading window dirt	The code may not be scan if the code reading window is dirty.	Blow any dust away with an airbrush, and then gently wipe the reading window with a cotton swab or similar soft object.
Direct sunlight, ambient light	Code scanning may be adversely affected by direct sunlight or the brightness of the surrounding light.	Scan the code away from direct sunlight. Adjust the brightness of the surrounding light when scanning indoors.

Chapter 6 Troubleshooting Guide

6.1 The BHT is not turned ON

- Make sure that the battery is properly inserted into the BHT.
- Check the battery power level and charge the battery if necessary.
- Wipe any dirt from the battery and BHT terminals.

6.2 The Battery cannot be charged

- Make sure that the dedicated battery charger is being used.
- Make sure that the battery has been properly placed on the BHT.
- Make sure that the battery has been properly placed on the battery charger. The Indicator LED will turn red when properly placed on the battery charger.
- Wipe any dirt from the battery and battery charger terminals.
- If the battery in use has been repeatedly charged three hundred times or more or it has been more than one year since the battery started to be used, replace it with a new one to avoid any trouble caused by the deteriorated battery.

6.3 Unable to communicate with host PC using communication unit

The BHT-1336Q series does not have an IrDA interface. The communication unit corresponding to the communication function is CU-1301A, CU-1311A, CU-1321.

- Check whether the CU model is compatible.
- Make sure that the BHT has been properly placed on the communication unit.

6.4 The BHT accidentally turns OFF

- Make sure that the battery has been fully charged. If not, charge the battery.
- The BHT may be set to auto power OFF. If so, the BHT will automatically turn OFF when it is not used for the specified period of time. The auto power OFF setting can only be changed with the user program.

If the BHT cannot be turned ON even after going through all the above measures, there is a possibility that the charger is broken. Notify the system administrator. Refer to the Manual for appropriate measures if an error message is displayed on the BHT during the operation.

FCC Regulation (for United States of America)

FCC CAUTION

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 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.

This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

The available scientific evidence does not show that any health problems are associated with using low power wireless devices. There is no proof, however, that these low power wireless devices are absolutely safe. Low power wireless devices emit low levels of radio frequency energy (RF) in the microwave range while being used. Whereas high levels of RF can produce health effects (by heating tissue), exposure of low-level RF that does not produce heating effects causes no known adverse health effects. Many studies of low-level RF exposures have not found any biological effects. Some studies have suggested that some biological effects might occur, but such findings have not been confirmed by additional research.

This BHT-1336QWB has been tested and meets the FCC RF exposure guidelines when used with the accessory, WHBHT-1300. Use of other accessories may not ensure compliance with FCC RF exposure guidelines.

- Responsible Party – U.S. Contact Information

Company Name: DENSO PRODUCTS AND SERVICES AMERICAS, INC.

Address: 3900 Via Oro Avenue, Long Beach, California 90810, U.S.A.

Tel: +1-310-834-6352

- FCC Compliance Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

- User Steps to Access Information Starting from “SYSTEM MENU”

SYSTEM MENU → 6: VERSION → [F2] REGULATORY INFO

ISED Regulation (for Canada)

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

1. This device may not cause interference.
2. This device must accept any interference, including interference that may cause undesired operation of the device.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

1. L'appareil ne doit pas produire de brouillage;
2. L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

The available scientific evidence does not show that any health problems are associated with using low power wireless devices. There is no proof, however, that these low power wireless devices are absolutely safe. Low power wireless devices emit low levels of radio frequency energy (RF) in the microwave range while being used. Whereas high levels of RF can produce health effects (by heating tissue), exposure of low-level RF that does not produce heating effects causes no known adverse health effects. Many studies of low-level RF exposures have not found any biological effects. Some studies have suggested that some biological effects might occur, but such findings have not been confirmed by additional research.

This BHT-1336QWB has been tested and meets the ISED RF exposure rules when used with accessory, WHBHT-1300. Use of other accessories may not ensure compliance with ISED RF exposure rules.

Les connaissances scientifiques dont nous disposons n'ont mis en évidence aucun problème de santé associé à l'usage des appareils sans fil à faible puissance. Nous ne sommes cependant pas en mesure de prouver que ces appareils sans fil à faible puissance sont entièrement sans danger. Les appareils sans fil à faible puissance émettent une énergie fréquence radioélectrique (RF) très faible dans le spectre des micro-ondes lorsqu'ils sont utilisés. Alors qu'une dose élevée de RF peut avoir des effets sur la santé (en chauffant les tissus), l'exposition à de faibles RF qui ne produisent pas de chaleur n'a pas de mauvais effets connus sur la santé. De nombreuses études ont été menées sur les expositions aux RF faibles et n'ont découvert aucun effet biologique. Certaines études ont suggéré qu'il pouvait y avoir certains effets biologiques, mais ces résultats n'ont pas été confirmés par des recherches supplémentaires.

Ce BHT-1336QWB a été testé et est conforme aux règles d'exposition aux fréquences radioélectriques (RF) de l'ISDE lorsqu'il est utilisé avec l'accessoire WHBHT-1300. L'usage d'autres accessoires ne garantit pas nécessairement la conformité aux règles d'exposition aux RF de l'ISDE.

- User Steps to Access Information Starting from "SYSTEM MENU"
SYSTEM MENU → 6: VERSION → [F2] REGULATORY INFO
- Étapes de l'utilisateur pour accéder aux informations à partir du "SYSTEM MENU"
SYSTEM MENU → 6: VERSION → [F2] REGULATORY INFO

NCC Regulation (for Taiwan)

低功率射頻器材技術規範

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如何顯示電子標籤。

SYSTEM MENU→ 6: VERSION→ [F2] REGULATORY INFO

BSMI Regulation (for Taiwan)

使用過度恐傷害視力。

a、使用30分鐘請休息10分鐘。

b、未滿2歲幼兒不看螢幕，2歲以上每天看螢幕不要超過1小時。

警告：為避免電磁干擾，本產品不應安裝或使用於住宅環境。

進口商: 台灣電綜股份有限公司

地址: 桃園市楊梅區梅獅路二段525號

電話: 03-4828001

台灣版的RoHS

1.相關的情報請參照下記連結

<https://www.denso-wave.com/en/adcd/download/category/document>

2.點擊" BHT with BHT-OS Series"。

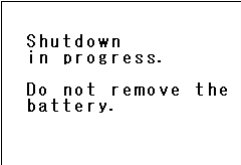
3.點擊"台灣 BHT-1336 系列 限用物質含有情況標示聲明書"

Appendix 1 How to check the rating name plate

This section explains how to check the rating name plate.

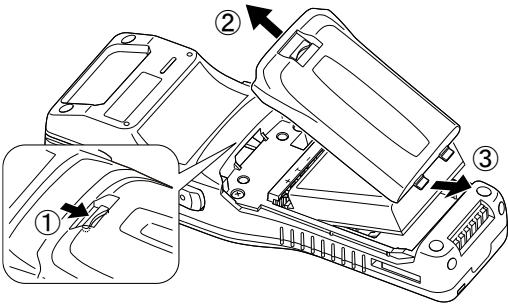
Press the power key (⏻) to turn OFF the BHT power.

The screen on the right displays.

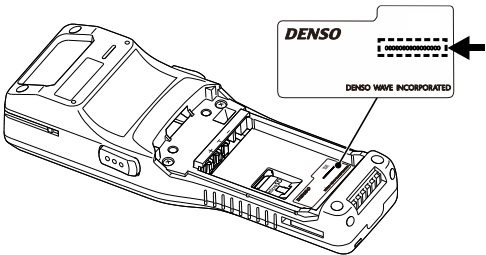


— Point — Do not remove the battery until the power turns OFF and the screen display clears.

- 1. Slide the battery cartridge cover release button (1) in the direction indicated by the arrow and remove the battery cartridge cover (2), and then remove the battery cartridge (3).



- 2. The Nameplate at the location shown in the figure below.
You can check the serial number and authentication information.



Digit	Contents
1-10	Part number
11	Year of manufacture
12-16	Serial number.

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- Every reasonable effort has been taken to prevent accidents that could result in bodily injury and substantial property damage. Make sure that you observe all instructions given in the Operator's Guide and User's Manual.
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User's Manual

2024年8月 August 2024

DENSO WAVE INCORPORATED

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<https://www.denso-wave.com/>

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