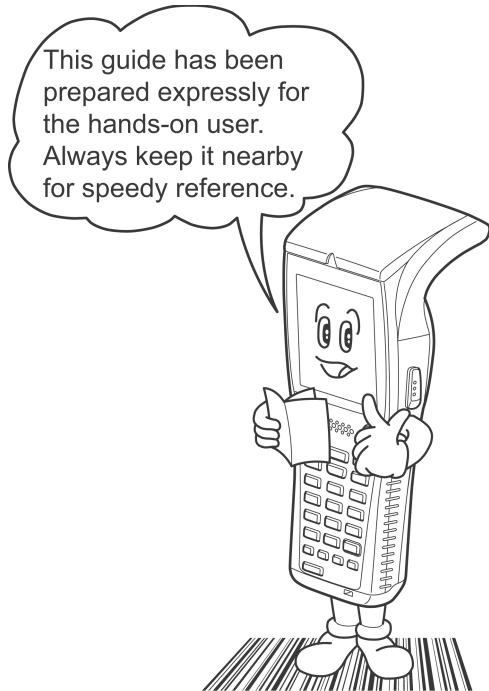


DENSO

BHT-805BW
Barcode Handy Terminal

Operator's Guide



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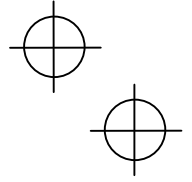
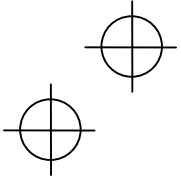
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Troubleshooting



Thank you for using the BHT-805BW DENSO WAVE Barcode 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.

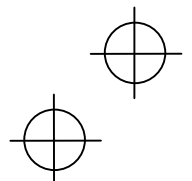
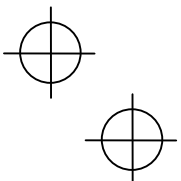
This manual contains only the basic details required for operation.

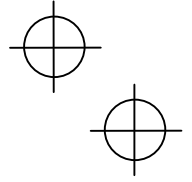
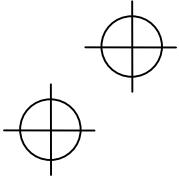
Please refer to the User's Manual for further details on general operation.

The User's Manual can be downloaded free of charge from the DENSO WAVE Web site (QBdirect).

The latest precision manufacturing technology yields LCD panels with an effective resolution of 99.99% or higher. The downside, however, is that up to 0.01% of the pixels can remain permanently dark or lit on today's state-of-the-art panels.

Furthermore, please be aware that individual differences may occur in the screen color and brightness due to the characteristics of the white LEDs used in the LCD display backlight.





About this Manual

- Due to improvements and so on, 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 that any questionable content, mistakes, or omissions be reported to DENSO WAVE.

Related Manuals

The following manuals can all be downloaded free of charge from the DENSO WAVE Web site (QBdirect).

<http://www.qbdirect.net>

- **BHT-805BW User's Manual**

Instructions for using the handy terminal (BHT-805BW) and optical communication unit (CU-800)

- **BHT-BASIC Application Development Manual (For Beginners)**

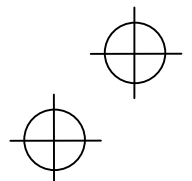
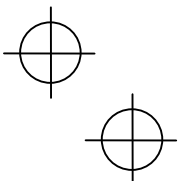
Description of commonly used functions intended for those developing applications with BHT-BASIC for the first time

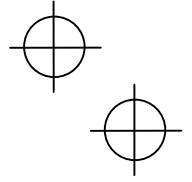
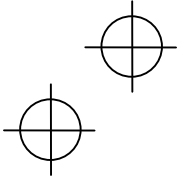
- **BHT-BASIC Programmer's Manual (For BHT-800 Series)**

Description for developing application programs of the handy terminal in BHT-BASIC

- **BHT-BASIC 4.0 Transfer Utility User's Guide**

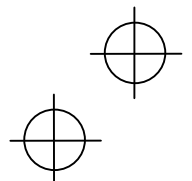
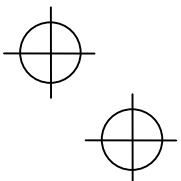
Description about software that transmits data and programs between the handy terminal and computer

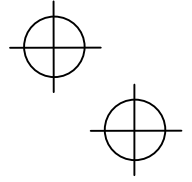
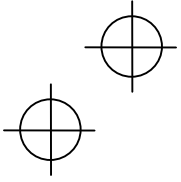




■ Liability Limitations

- DENSO WAVE INCORPORATED 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 INCORPORATED (“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 INCORPORATED 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.





Customer Registration

To allow us to provide our customers with comprehensive service and support, we request that all customers complete a Member Registration Form. Registered members will be offered the following privileges.

- The latest upgrade information
- Free exhibition and event information for new products
- Free Web-information service “QBdirect.”

QBdirect Service Contents

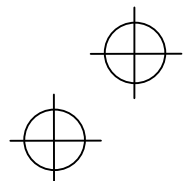
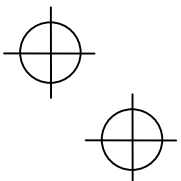
Information searching service (FAQ)	Offers detailed information on each product.
Download service	Offers download of repair modules for the latest BHT Series systems or software, and sample programs.
E-mail inquiries	Product related queries can be sent in by e-mail.

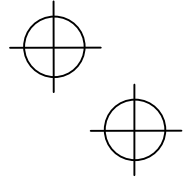
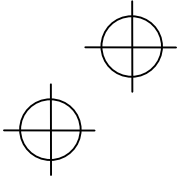
* Please note that these privileges may be subject to change without prior notice.

How to Register

Access the URL below and follow the instructions provided.

<http://www.qbdirect.net>







SAFETY PRECAUTIONS

Be sure to observe all these safety precautions.

Strict observance of these warning and caution indications are a **MUST** for preventing accidents which could result in bodily injury and substantial property damage. Make sure you fully understand all definitions of these terms and related symbols given below, before you proceed on to the text itself.

 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.

Meaning of Symbols



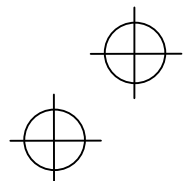
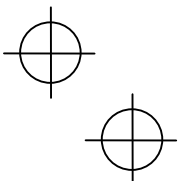
A triangle (Δ) with a picture inside alerts you to a warning of danger. Here you see the warning for electrical shock.



A diagonal line through a circle (⊘) alerts you to something you should not do; it may or may not have a picture inside. Here you see a screwdriver inside the circle, meaning that you should not disassemble.



A black circle (\bullet) with a picture inside alerts you to something you **MUST** do. This example shows that you **MUST** unplug the power cord.





⚠ WARNING

To System Designers:



- When introducing BHTs in those systems that could affect human lives (e.g., medicines management system), develop applications carefully through redundancy and safety design which avoids the feasibility of affecting human lives even if a data error occurs.

Handling the battery cartridge



- Never disassemble or heat the rechargeable battery cartridge, nor put it into fire or water; doing so could cause battery-rupture or leakage of battery fluid, resulting in a fire or bodily injury.
- Do not carry or store the battery cartridge together with metallic ballpoint pens, necklaces, coins, hairpins, etc.
Doing so could short-circuit the terminal pins, causing the batteries to rupture or the battery fluid to leak, resulting in a fire or bodily injury.
- Never put the battery cartridge into a microwave oven or high-pressure container.
Doing so could cause the batteries to break, generate heat, rupture or burn.
- Avoid dropping the battery cartridge or letting it undergo any shock or impact.
Doing so could cause the batteries to break, generate heat, rupture or burn.
- Never charge the rechargeable battery cartridge where any inflammable gases may be emitted; doing so could cause fire.



- Only use the dedicated charger for charging the rechargeable battery cartridge.
Using a different type of charger could cause battery-rupture or leakage of battery fluid and result in a fire, bodily injury, or serious damage to property.

Handling the BHT



- Never put the BHT into a microwave oven or high-pressure container.
Doing so could cause the BHT to break, generate heat, rupture or burn.

⚠ CAUTION

Handling the battery cartridge



- Never charge a wet or damp rechargeable battery cartridge. Doing so could cause the batteries to break, generate heat, rupture or burn.

Handling the BHT



- If smoke, abnormal odors or noises come from the BHT, immediately turn off the power, pull out the battery cartridge, and contact your nearest dealer.
Failure to do so could cause smoke or fire.
- If foreign material or water gets into the BHT, immediately turn off the power, pull out the battery cartridge, and contact your nearest dealer.
Failure to do so could cause smoke or fire.
- If you drop the BHT so as to damage its housing, immediately turn off the power, pull out the battery cartridge, and contact your nearest dealer.
Failure to do so could cause smoke or fire.
- Do not use batteries or power sources other than the specified ones; doing so could generate heat or cause malfunction.
- 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.

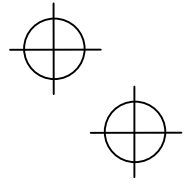
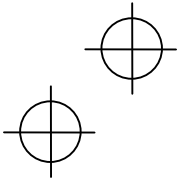





Never disassembly

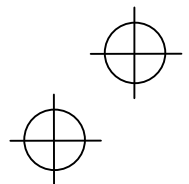
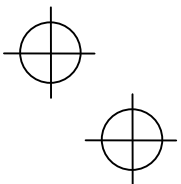
- Never disassemble or modify the BHT; doing so could result in an accident such as breakage or fire.

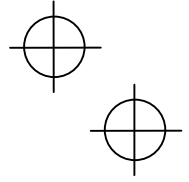
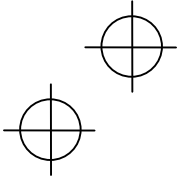


- Never put the BHT in places where there are excessively high temperatures, such as inside closed-up automobiles, or in places exposed to direct sunlight.
Doing so could affect the housing or parts, resulting in a fire.
- Avoid using the BHT in extremely humid or dusty areas, or where there are drastic temperature changes.
Moisture or dust will get into the BHT, resulting in malfunction, fire or electrical shock.



 CAUTION	
	<ul style="list-style-type: none">• In environments where static electricity can build into significant charges (e.g., if you wipe off the plastic plate with a dry cloth), do not operate the BHT. Doing so will result in malfunction or machine failure.• When connecting or disconnecting the direct-connect interface cable to/from the BHT, do not plug or unplug it at an angle, and do not pull the cable strongly. Doing so will result in a machine failure.• Do not place magnetic cards or the like near the BHT speaker. Doing so may result in the loss of magnetic data from cash cards, credit cards, etc.• Do not place your ear near the speaker when tones are being emitted. Doing so may result in hearing loss.
	<ul style="list-style-type: none">• If the BHT has been stored in a hot (50°C to 60°C, 122°F to 140°F) and humid place, allow it to sit at room temperature and humidity for at least one day before use. Using the BHT with the inside being hot will result in a scanning or machine failure.





FCC and IC Regulations

This device complies with Part 15 of the FCC Rules, Canada ICES-003, RSS-210 and RSS-Gen of IC 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.

FCC WARNING : Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

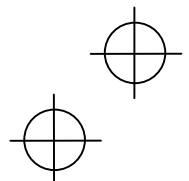
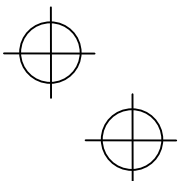
NOTE : This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment 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.

FCC Radiation Exposure Statement

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

FCC/ IC Radiation Exposure Statement

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 to 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 Barcode Handy Terminal (BHT-805BW) that is installed DWWL001 (FCC ID: PZWDWWL001/ IC: 1551C-DWWL001) has been tested and found to comply with FCC/ IC radiation exposure limits set forth for an uncontrolled equipment and meets the FCC radio frequency (RF) Exposure Guidelines in Supplement C to OET65 and RSS-102 of the IC radio frequency (RF) Exposure rules.



ICES-003 Regulation


This Class A digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

Labeling

For USA and Canada

BHT-805BW 32MB +3.7V ---0.7A
CONTAINS MADE IN JAPAN
FCC ID : PZDWWL001
IC : 1551C-DWWL001
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.
THIS CLASS A DIGITAL APPARATUS COMPLIES WITH CANADIAN ICES
-003. CET APPAREIL NUMÉRIQUE DE LA CLASSE A EST CONFORME À
LA NORME NMB-003 DU CANADA.

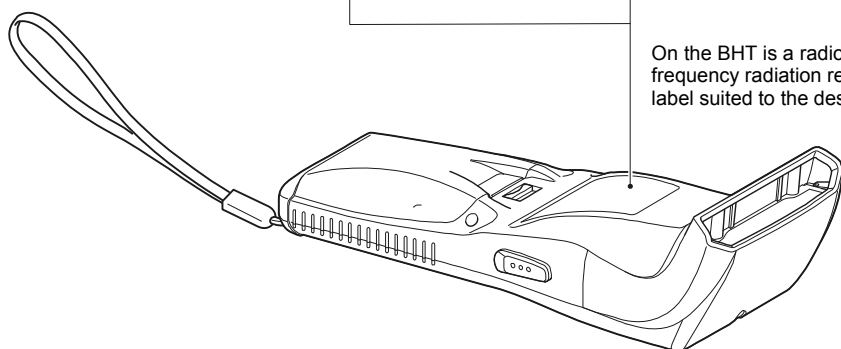


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DENSO WAVE INCORPORATED

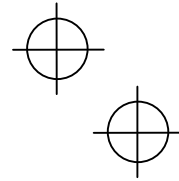
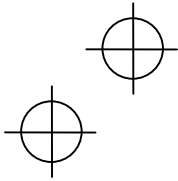
For European Union

BHT-805BW 32MB
+3.7V ---0.7A
MADE IN JAPAN 
 


4963105160900000
DENSO WAVE INCORPORATED



On the BHT is a radio frequency radiation related label suited to the destination.



Declaration of Conformity

For European Union

English: Hereby, DENSO WAVE INCORPORATED, declares that this BHT-805BW contains Wireless LAN Module (type: DWWL001) that is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

Česky: Firma DENSO WAVE INCORPORATED tímto prohlašuje, že její radio- a telekomunikační terminál BHT-805BW obsahuje bezdrátový síťový (LAN) modul (typ DWWL001), který se shoduje se základními požadavky a dalšími příslušnými ustanoveními směrnice 1999/5/ES.

Dansk: Undertegnede, DENSO WAVE INCORPORATED, erklærer herved, at følgende udstyr, BHT-805BW, indeholder en trådløs netværkskomponent (type: DWWL001), som overholder de væsentlige krav og øvrige relevante krav i Rådets direktiv 1999/5/EF.

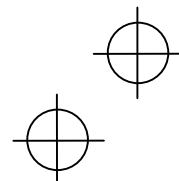
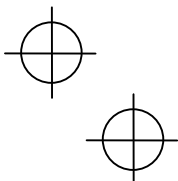
Deutsch: Hiermit erkläre der Hersteller, DENSO WAVE INCORPORATED, dass sich das Gerät: BHT-805BW (mit Wireless LAN Modul „Typ: DWWL001“), in Übereinstimmung mit den grundlegenden Anforderungen und den übrigen einschlägigen Bestimmungen der Richtlinie 1999/5/EG befindet.

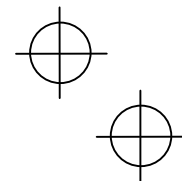
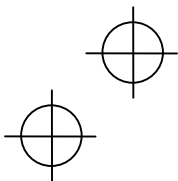
Eesti: Käesolevaga kinnitab DENSO WAVE INCORPORATED, et seade BHT-805BW sisaldab traadita kohtvõrgu moodulit (tüüp: DWWL001), mis vastab direktiivi 1999/5/EÜ põhinõuetele ja nimetatud direktiivist tulenevatele muudele asjakohastele sätetele.

Español: Por medio de la presente, DENSO WAVE INCORPORATED, declara que el BHT-805BW incluye módulo de red inalámbrica (tipo: DWWL001), el cual cumple con los requisitos esenciales y otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE.

Ελληνική: Με το παρόν η DENSO WAVE INCORPORATED, δηλώνει ότι αυτή η συσκευή BHT-805BW περιλαμβάνει μονάδα ασύρματου τοπικού δικτύου Wireless LAN (τύπος: DWWL001), η οποία πληροί τις βασικές απαιτήσεις και τις λοιπές σχετικές διατάξεις της Οδηγίας 1999/5/EK.

Français: Par la présente DENSO WAVE INCORPORATED déclare que le terminal BHT-805BW est doté d'un module de connexion à un réseau local sans fil (type: DWWL001) conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE.





Italiano: Con la presente, DENSO WAVE INCORPORATED, dichiara che questo BHT-805BW contiene il modulo wireless LAN (modello: DWWL001), che è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.

Latviski: Ar šo DENSO WAVE INCORPORATED deklarē, ka BHT-805BW satur bezvadu LAN moduli (tips: DWWL001), kas atbilst Direktīvas 1999/5/EK būtiskajām prasībām un citiem ar to saistītajiem noteikumiem.

Lietuvių: Šiuo „DENSO WAVE INCORPORATED“deklaruoja, kad šis BHT-805BW įrenginys su bevielio LAN moduli (tipas DWWL001) atitinka esminius reikalavimus ir kitas 1999/5/EB Direktyvos nuostatas.

Nederlands: Hierbij verklaart DENSO WAVE INCORPORATED dat het toestel BHT-805BW een draadloze LAN Module (type: DWWL001) bevat, die in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG.

Malti: Hawn hekk, DENSO WAVE INCORPORATED tiddikjara li dan il- BHT-805BW fih Wireless LAN Module (tip: DWWL001), li hu konformi mal-kondizzjonijiet essenzjali u provvedimenti rilevanti oħra tad-Direttiva 1999/5/KE.

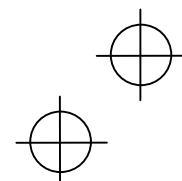
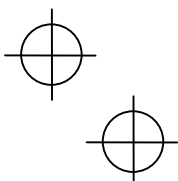
Magyar: Alulírott, DENSO WAVE INCORPORATED, nyilatkozom, hogy a BHT-805BW típusú készülék vezeték nélküli helyi hálózati (Wireless LAN) modul (DWWL001 típus) tartalmaz, amely megfelel a vonatkozó alapvető követelményeknek és az 1999/5/EK irányelv egyéb előírásainak.

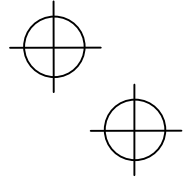
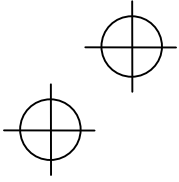
Polski: Niniejszym, DENSO WAVE INCORPORATED, oświadczam, że ten BHT-805BW zawiera moduł łączności bezprzewodowej dla sieci LAN (typu: DWWL001) i jest zgodny z zasadniczymi wymogami oraz pozostałymi stosownymi postanowieniami Dyrektywy 1999/5/EC.

Português: DENSO WAVE INCORPORATED declara que este BHT-805BW inclui um Módulo LAN sem fios (tipo: DWWL001), o qual está conforme aos requisitos essenciais e a outras disposições da Directiva 1999/5/CE.

Slovensko: Podjetje DENSO WAVE INCORPORATED izjavlja, da ta BHT-805BW vsebuje brezžični modul LAN (tip: DWWL001), ki je v skladu z bistvenimi zahtevami in drugimi pripadajočimi določili direktive 1999/5/ES.

Slovensky: Firma DENSO WAVE INCORPORATED týmto vyhlasuje, že jej rádio- a telekomunikačný terminál BHT-805BW obsahuje bezdrôtový sieťový (LAN) modul (typ DWWL001), ktorý spĺňa základné požiadavky a všetky príslušné ustanovenia Smernice 1999/5/ES.





Suomi: Täten DENSO WAVE INCORPORATED vakuuttaa, että tämän tuotteen BHT-805BW sisältämä langaton WLAN-moduli (tyyppi DWWL001) on direktiivin 1999/5/EY oleellisten vaatimusten ja sen tätä tuotetta koskevien muiden ehtojen mukainen.

Svenska: Härmed intygar DENSO WAVE INCORPORATED att denna BHT-805BW innehåller en trådlös LAN-modul (type: DWWL001), som står i överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG

Íslenska: Hér með lýsir DENSO WAVE hf. því yfir að þetta BHT-805BW inniheldur þráðlaus staðarnetseiningu (tegund: DWWL001), sem er í samræmi við grundvallarkröfur og önnur viðeigandi ákvæði reglugerðar 1999/5/EB.

Norsk: DENSO WAVE INCORPORATED erklærer med dette at denne BHT-805BW inneholder trådløst LAN-nettverksmodul (type: DWWL001), som er i samsvar med regelverk og øvrige bestemmelser i direktiv 1999/5/EC.

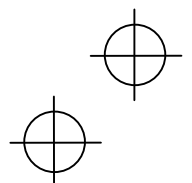
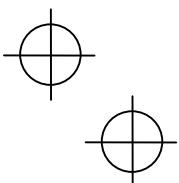
CE marking

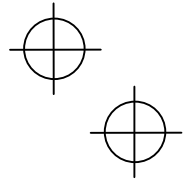
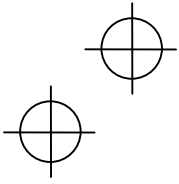


For Australia and New Zealand

This BHT-805BW contains Wireless LAN Module (type: DWWL001) .

C-tick marking





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, explosion, or fire.)

* When the BHT is stored in a high-temperature, high-humidity environment of 50 to 60° C, let the BHT 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 scanning 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.

- **In the vicinity of the following devices operating on a 2.4GHz frequency band**

(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 personal or 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.)

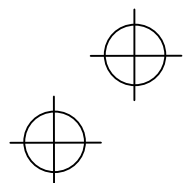
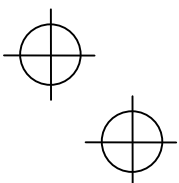
Avoid light interference.

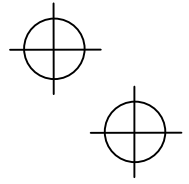
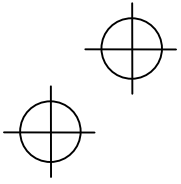
Infra-red communication may not be possible due to light interference.

Ensure to observe the following when performing infrared communication.

- **Do not operate remote control units for televisions and so on nearby.**

- **The BHT should not be exposed to light interference such as strong illumination (especially the inverter fluorescent lamp) or sunlight.**





Wireless Equipment

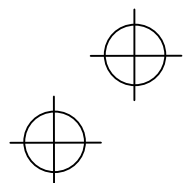
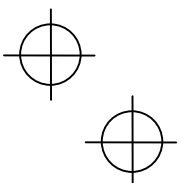
- **Precautions relating to the frequency used by this device**

In addition to industrial, scientific, and medical equipment such as microwave ovens, static wireless stations (permit required) used for mobile identification in places such as plant manufacturing lines and specified low-power wireless stations (no permit required) operate on the same frequency band as this device.

1. Before using this device, ensure that no static wireless stations or specified low-power wireless stations for mobile identification are being used in the vicinity.
2. In the event of instances of electromagnetic interference from this device to a static wireless station being used for mobile identification, either promptly alter the usage frequency, or halt the electromagnetic discharge
3. If other problems arise due to reasons such as electromagnetic interference from this device to a specified low-power wireless station being used for mobile identification, please contact DENSO WAVE through QBdirect (see page iv).

- **Requests to system designers**

- Communication may not be possible depending on the environment in which the device is being used. Ensure that problem-free communication is possible prior to use.
- Use a program capable of retransmitting data if communication fails.
- If the BHT is introduced into an environment in which a device using the 2.4GHz frequency band is operating, or if a another device using the 2.4GHz frequency band is introduced following introduction of the system, run all devices and ensure that communication with the BHT is possible prior to use.
- Check communication once again prior to use if any changes are made to the usage environment (addition of household appliances, movement or addition of shelves, equipment and so on) following introduction of the system.



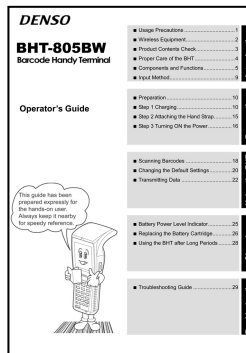
Product Contents Check

Ensure you have all of the following items prior to use. Contact your dealer in the event that any items are missing or damaged.

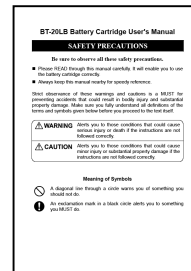
Handy terminal
(BHT-805BW)



Operator's guide
(this manual)

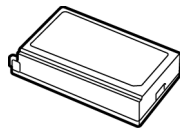


User's manual
(for BT-20LB)



Introduction

Rechargeable battery cartridge:
BT-20LB (Lithium-ion battery) (1)



Hand strap



◆ Option

Please refer to the DENSO WAVE Web site for details.
(<http://www.denso-wave.com/>)

Software : BHT-BASIC 4.0 Development Pack,
BHT Advanced Pack II etc.

Communication units : CU-801, CU-811, CU-821

Battery chargers : CH-201A, CH-851, CH-854

Rechargeable battery cartridge : BT-20LB

Other : Soft case etc.

Refer to page ii for details of related manuals such as the User's Manual.

Proper Care of the BHT

Ensure to turn OFF the BHT before cleaning.

• BHT terminal, charger terminal dirt

Periodically wipe any dirt from the BHT or battery terminals with a cotton swab or the like.

• 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 neutral detergent) and wrung out thoroughly.

Never use substances such as benzene or alcohol, as this may cause the housing to be marred or paint to peel 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.

• Keypad dirt

When cleaning the keypad, do not scrub the surface too hard or pull on the keys, as this may break the keys.

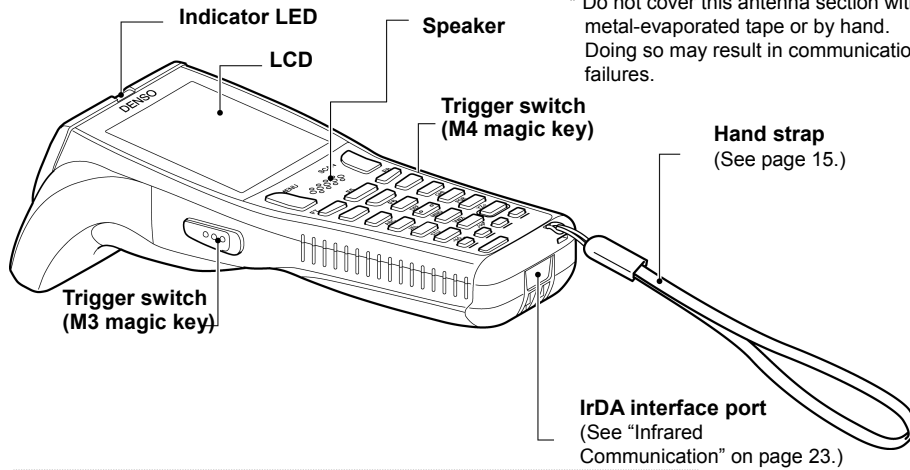
• Barcode reading window dirt

Any dirt or dust adhering to the clear plate of the barcode reading window will adversely affect reading performance.

When using in dusty areas, perform periodic inspections to check whether any dust has accumulated on the clear plate of the barcode 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.

Components and Functions

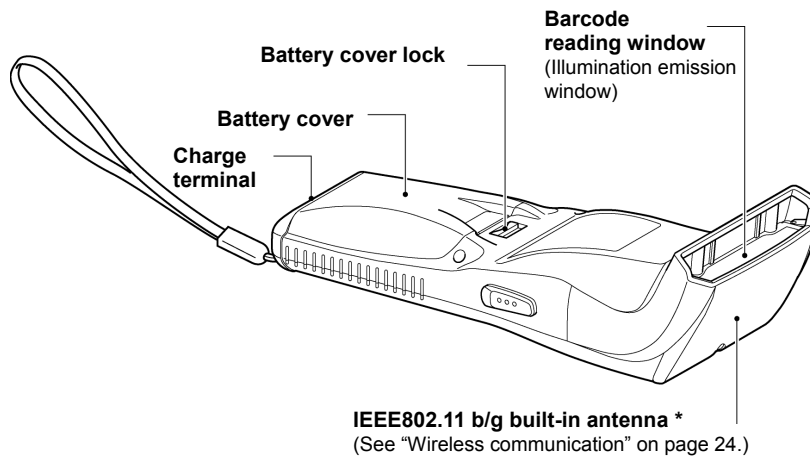


* Do not cover this antenna section with metal-evaporated tape or by hand. Doing so may result in communication failures.

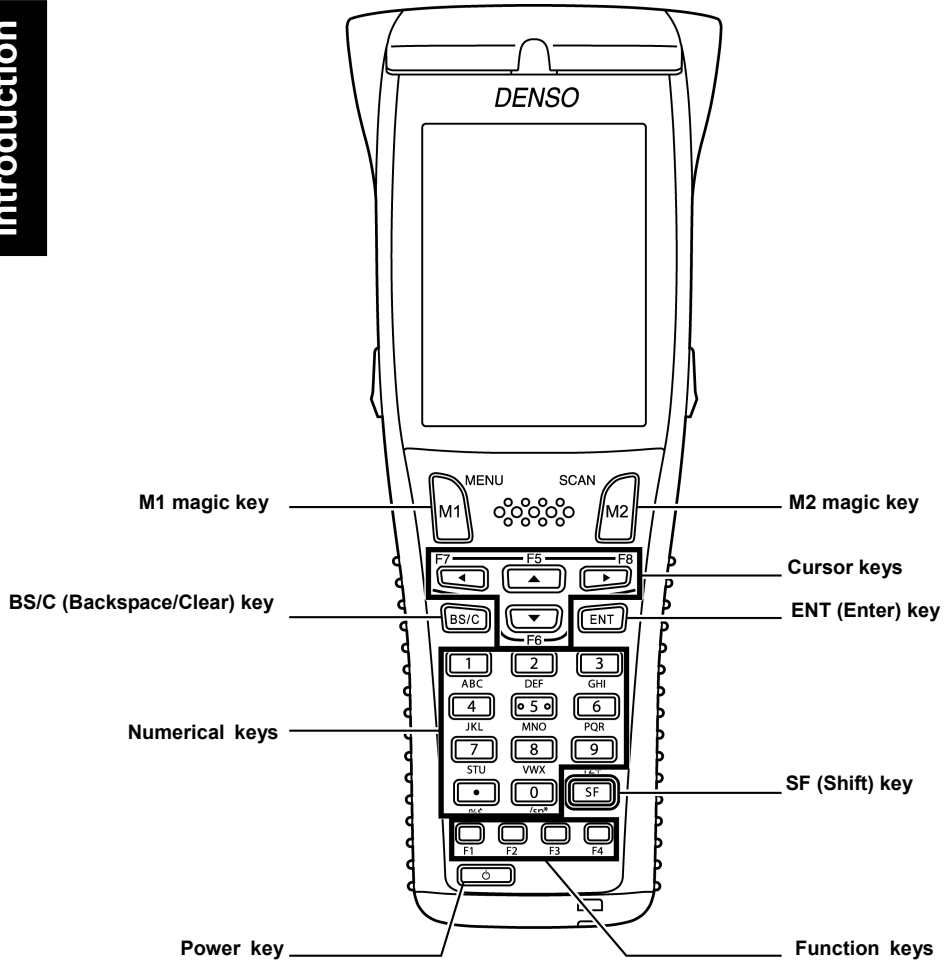
Trigger switch (M3, M4 magic keys):

- Press when scanning a barcode.
- The **SF** and **ENT** key functions can be assigned by making settings at the SYSTEM MENU ^(Note).
- Character strings can be assigned at user programs.








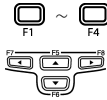

Note: Refer to the User's Manual for details of the SYSTEM MENU operation method.



Components and Functions



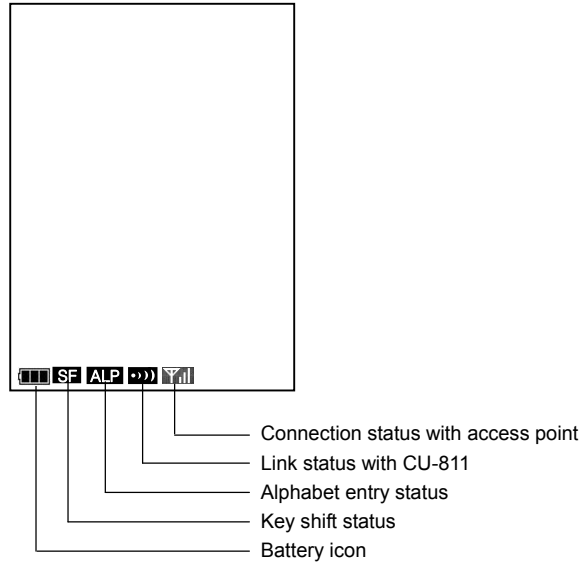
Components and Functions

	M1 magic key	<ul style="list-style-type: none"> The SF and ENT key functions can be assigned to this magic key by making settings at the SYSTEM MENU. Character strings can be assigned at user programs. <p>* The MENU screen (page 20) displays when held down for one second or longer.</p>
	M2 magic key	<ul style="list-style-type: none"> The SF and ENT key functions can be assigned to this magic key by making settings at the SYSTEM MENU. Character strings can be assigned at user programs.
	Cursor keys	Used to move the cursor and select menus.
	Enter key	Press to finalize entered data or execute operations.
	Backspace/clear key	Deletes the last entered character (backspace). When pressed and held for 0.5 seconds or more, cancels entry and returns the LCD display to the previous screen (clear.)
	Shift key	Used in combination with other keys such as the numerical keys, BS key, or power key [] for special input procedures.
	Function keys	Used to select functions. * Function key functions are assigned at user programs. Refer to the " BHT-BASIC Programmer's Manual (For BHT-800 Series) " for further details.
	Numerical keys	Used to enter data.
	Power key	Turns the BHT power ON and OFF.

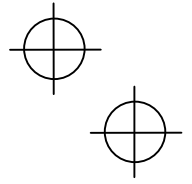
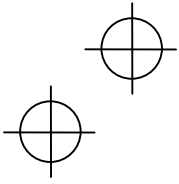
* Refer to the User's Manual for details on how to operate the SYSTEM MENU.

Components and Functions

Screen Display



	<p>This is the battery icon. Indicates the current battery power level. (See page 25.)</p>
	<p>Displays when the key is pressed and the keys are in the shift status.</p>
	<p>When the key is pressed while set to alphabet entry mode at the user program, the entry mode changes from “numeric entry” to “alphabet entry” and ALP displays. Alphabet entry is used when performing FTP settings. Refer to the User’s Manual for details.</p>
	<p> displays when a link is established with the CU-811. When an attempt is made to perform communication with the CU-811 when no link has been established, the icon flashes. When there is no response from the CU-811, when waiting for the link with the CU-811 to be established, or when waiting for the link to be disengaged, the icon displays in the order .</p>
	<p>Displays when the BHT is connected to the access point. The radio field intensity status displays as follows. Strong Weak displays when the BHT is not connected to the access point.</p>



Input Method

Numeric Data Entry

Enter numeric data such as product volume with the numeric keys and the Enter (**ENT**) key.

If numeric data is entered incorrectly, use the backspace key (**BS/C**) to delete the data and then reenter with the numeric keys.

When Entering "120"	Key Operation
Press numeric keys 1 , 2 , and 0 followed by the Enter key.	1 2 0 ENT

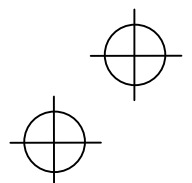
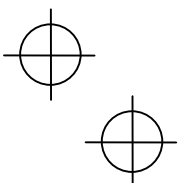
Task Selection

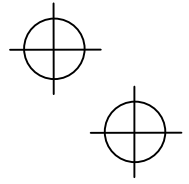
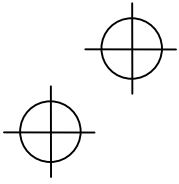
If a selection item such as "1:XXX 2:XXX" with numeric values displays, enter the values with the numeric entry keys and then press the Enter key.

When Selecting Task 2:XXX	Key Operation
Press numeric key 2 followed by the Enter key.	2 ENT

If a YES/NO selection screen such as "1:YES 2:NO" displays, press numeric key [1] to select "YES", and [2] to select "NO".

When Selecting "1:YES"	Key Operation
Press numeric key 1 followed by the Enter key.	1 ENT





Preparation

Follow the steps below to prepare the BHT for use.

Step 1 Charging (Page 10)

First charge the battery.



Step 2 Attaching the Hand Strap (Page 15)

Attach the hand strap to prevent the BHT from being dropped.



Step 3 Turning ON the Power (Page 16)

Preparation is now complete.

Preparation

Step 1 Charging

The BHT battery is not charged when purchased and must therefore be charged prior to use.

The following chargers can be used with the BHT.

Communication units: CU-801, CU-811, CU-821

Battery chargers: CH-201A, CH-851, CH-854

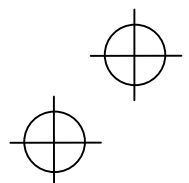
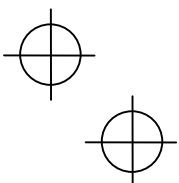
* The CH-201A charger is used for charging individual batteries, and the CH-851, CH-854 are stand-type chargers.

The charge time is approximately 3 hours.

- The charge time is approximately 7 hours using the CU-821 with power supplied via the USB port.
- An almost completely discharged battery cartridge should take this time to become fully charged.

Charging Precautions

- Do not touch the BHT, battery, or charger terminals by hand or stain them. Doing so could result in a contact failure or prevent charging.
- Never charge the battery near fire or in a high-temperature environment. High-temperatures may activate the charger's protective device, preventing charging, and lead to protective device damage, overheating, blowout or combustion.
- Terminate charging if not completed even after the specified time has elapsed.
- Do not use battery cartridges other than that specified by DENSO WAVE.

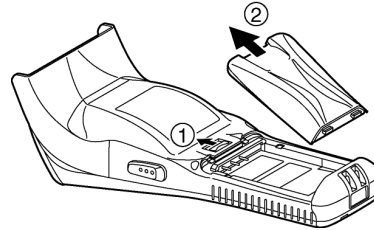


Step 1 Charging

Charging with the communication unit (CU-801, CU-811, CU-821) or battery charger (CH-851)



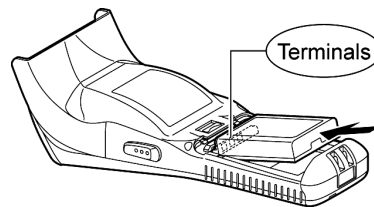
- 1** Slide the battery cartridge cover release button (1) in the direction indicated by the arrow and remove the battery cartridge cover (2).



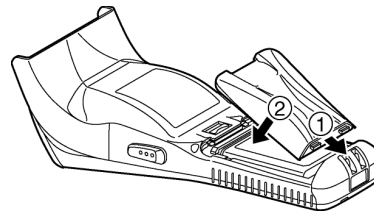
- 2** Check the battery cartridge terminals and indication on the BHT unit, and then insert the cartridge in the direction indicated by the arrow.

Point

Do not use battery cartridges other than those specified by DENSO WAVE.

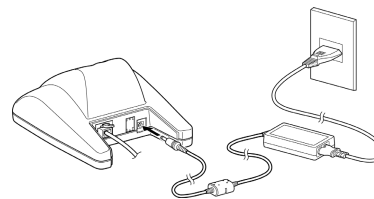


- 3** Insert the battery cartridge cover tab (1), and then close the battery cartridge cover (2) to lock the cover in position. Press the battery cover into place until a click is heard.



- 4** Connect the dedicated AC adapter to the DC input connector on the charger and plug the adapter into the wall socket.

The charger Power LED (green) turns ON.



Note:

Power for the CU-821 can be obtained from a USB connection port (host computer or hub), however, charging is not possible while the host computer is in suspend mode. Charging is resumed when suspend mode is exited. This can be avoided using a dedicated AC adapter to supply power. Suspend mode is a power saving function used to temporarily put the computer on standby when not in use.

Preparation

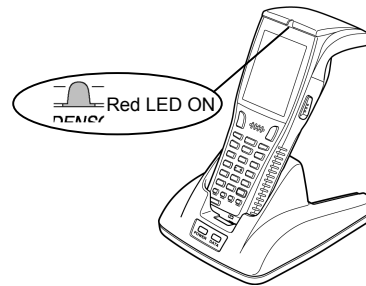
Step 1 Charging**5**

Place the BHT on the charger.

The LED illuminates in Red and charging begins.

Point

After placing the BHT on the charger when using the BHT for the first time or when left unused for long periods of time, do not remove from the charger for approximately 10 minutes.

**Note:**

The BHT is equipped with a back-up battery used to back-up the internal memory and calendar clock. The internal back-up battery is charged first when charging is commenced.

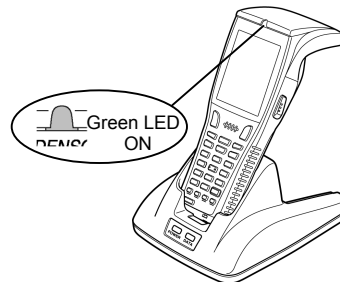
Do not remove the BHT from the charger for at least 10 minutes when using the BHT for the first time or when using after long periods of time.

6

The BHT indicator LED will change to green when charging is complete.

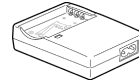
Point

- Charging takes approximately 3 hours.
- Charging takes approximately 7 hours when using the CU-821 with power supplied via the USB port.
- An only slightly discharged battery cartridge should take this time to become fully charged.



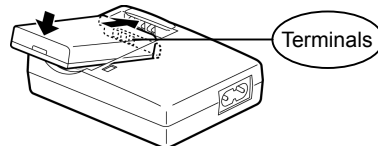
Step 1 Charging

Charging with the battery charger (CH-201A)



1

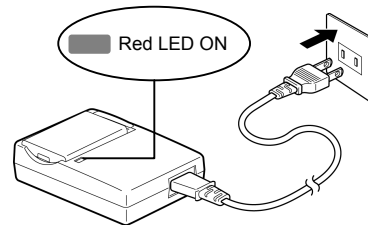
Check the battery cartridge terminals and insert the cartridge.



2

Connect the power cable to the CH-201A and connect the plug to a commercial AC power source (100 V AC).

The LED will turn red when charging is commenced.

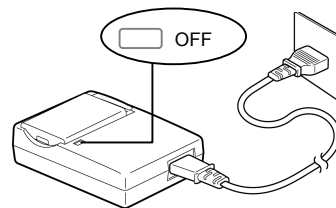


3

The LED will turn OFF when charging is complete.

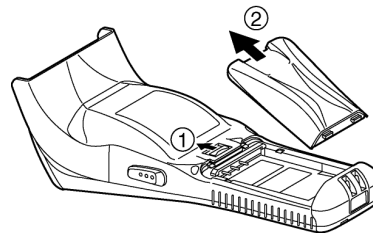
Point

- Charging takes approximately 3 hours.
- An only slightly discharged battery cartridge should take this time to become fully charged.

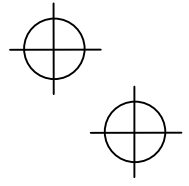
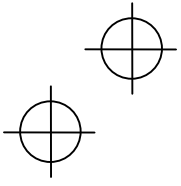


4

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



Preparation



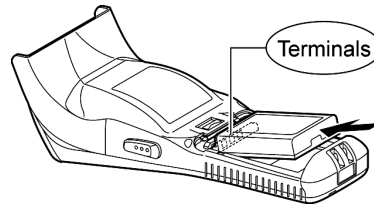
Step 1 Charging

5

Check the battery cartridge terminals and indication on the BHT unit, and then insert the cartridge in the direction indicated by the arrow.

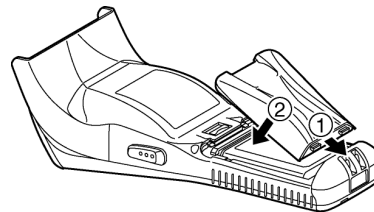
Point

Do not use battery cartridges other than those specified by DENSO WAVE.



6

Insert the battery cartridge cover tab (1), and then close the battery cartridge cover (2) to lock the cover in position. Press the battery cover into place until a click is heard.



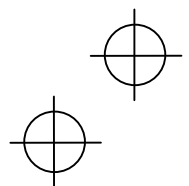
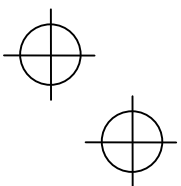
Note:

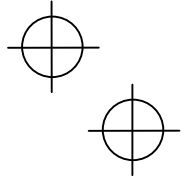
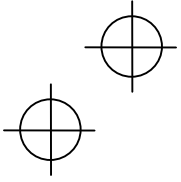
The BHT is equipped with a back-up battery used to back-up the internal memory and calendar clock.

The internal back-up battery is charged first when a charged battery cartridge is inserted.

Do not remove the BHT from the charger for at least 10 minutes when using the BHT for the first time or when using after long periods of time.

Preparation



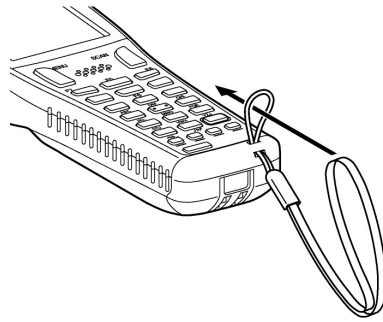


Step 2 Attaching the Hand Strap

Attach the hand strap to prevent the BHT from being accidentally dropped when performing operation.

Hand Strap Attachment

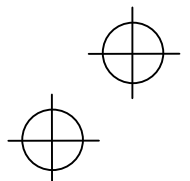
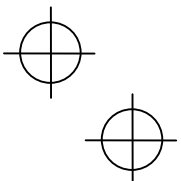
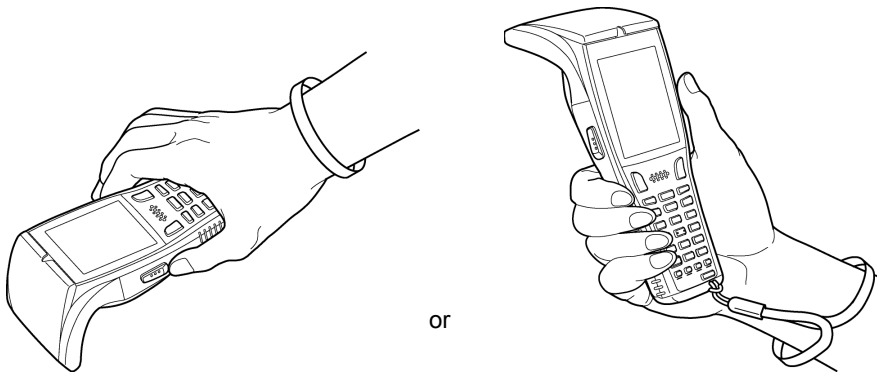
Attach the hand strap as shown below.

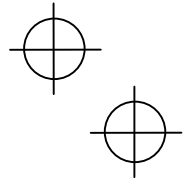
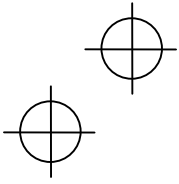


Preparation

Holding the BHT

Attach the hand strap to your wrist and hold the BHT as shown below.





Preparation

Step 3 Turning ON the Power

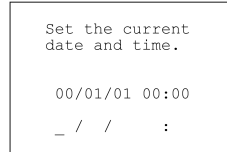
Turn ON the power after inserting the fully charged battery cartridge into the BHT.

The clock will not have been set at the time of purchase, and therefore it is necessary to set the date and time when turning ON the power for the first time.

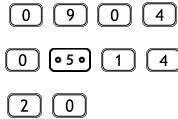
1 Press the **power** key to turn ON the BHT power.



The screen below displays.



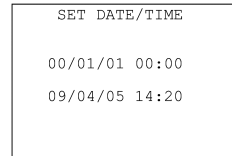
2 Enter the date and time using the numeric keys.



[Ex.]: April 5, 2009, 14:20

Point

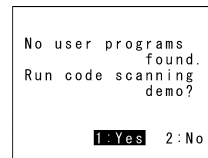
Enter the last two digits for the year, and enter the time in 24-hour clock format.



3 Press the Enter key to set the date and time.



The screen below displays when the date and time are set.



4 Press numeric key [1] followed by Enter and select [1:Yes].



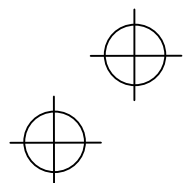
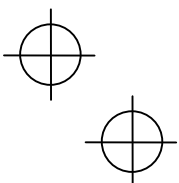
A scanning demo commences.

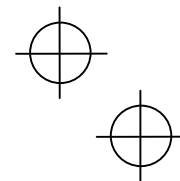
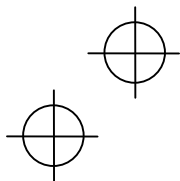
Point

By selecting [2:No], the power turns OFF.

The scanning demo is a program that allows barcodes to be scanned without a user program. Press the trigger switch to enable barcode scanning.

Refer to "Scanning Barcodes" on page 18 and scan a barcode .





Step 3 Turning ON the Power

Turning the Power OFF

Use one of the following three methods to turn OFF the BHT power.

- (1) Normal power OFF: Press the **power** (⏻) key.
- (2) Turning the power OFF after data back-up: Hold down the **power** (⏻) key for at least 3 seconds.
- (3) Auto power OFF: The power turns OFF automatically when the BHT is not used for a set length of time.

(1) Normal power OFF

Press the **power** (⏻) key.

The BHT power turns OFF after the message to the right displays.

```
Shutdown
in progress.

Do not remove the
battery.
```

Point

Do not remove the battery cartridge while the message to the right is displayed.

When the power is next turned ON, there are times when a message (2XXX) displays asking the user to contact the administrator.

(2) Turning the power OFF after data back-up

Hold down the **power** (⏻) key for at least 3 seconds.

The message to the right displays and data back-up is commenced.

The power turns OFF automatically when the back-up is complete.

```
Now saving data.
Do not remove
batteries until
saving process
complete.
```



Point

Do not remove the battery cartridge while the message to the right is displayed.

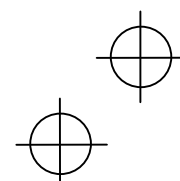
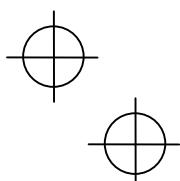
The back-up process may take several tens of seconds depending on the amount of data.

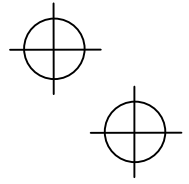
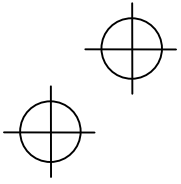
(3) Auto power OFF

The power turns OFF automatically when the BHT is not used for the length of time set by the user program. The default time is set to 3 minutes when the BHT is shipped from the factory.

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

Preparation



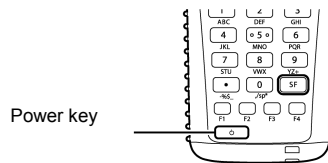


Scanning Barcodes

Follow the procedure below to scan barcodes.

Procedure

1 Turn the BHT power ON.

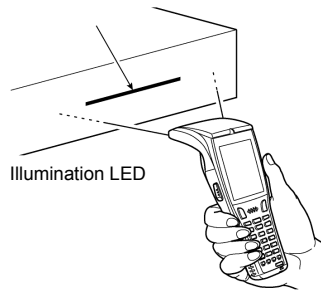


2 Press the trigger switch.

Point

The trigger switch is assigned to magic keys **M3** and **M4** when shipped from the factory.

The BHT emits an illumination LED to indicate the scanning range.

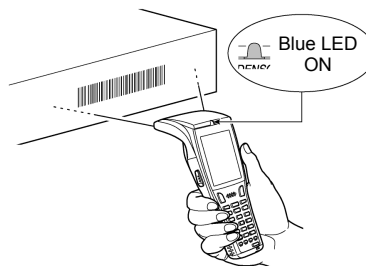


3 Hold the BHT close to the barcode to align the illumination LED.

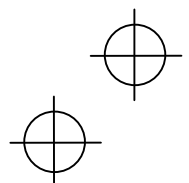
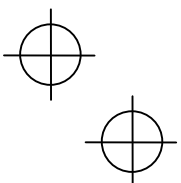
Point

The barcode scanning method may differ depending on the application. Perform scanning in accordance with the instructions provided in the application User's Manual.

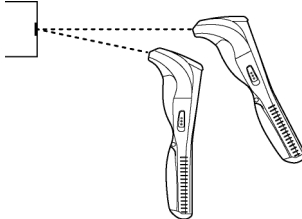
When the BHT has read the barcode successfully, the indicator LED will illuminate in blue.



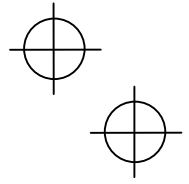
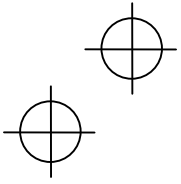
Using the BHT



When Unable to Successfully Read Barcodes

	Cause	Countermeasure
Specular reflection	When the illumination LED is focused on the printed surface of the barcode from directly above, there are times when scanning is unsuccessful due to specular reflection.	Change the BHT scanning angle and try again. 
Distance from barcode	Scanning may be unsuccessful if the BHT is too close to a bar code that is wider than the reading window.	Move the BHT slowly away from the barcode and try again. Bar code reading is possible from a maximum distance of 62 cm (24.4").* * Under the following conditions: <ul style="list-style-type: none"> • Ambient illuminance: 500Lux (fluorescent lamp) • ITF conforming to the UPC Shipping Container Code • PCS value: 0.9 or more • Minimum narrow bar width: 1.2 mm min(47.2 mils min.)
Barcode surface curvature	Scanning may be unsuccessful if the barcode surface is curved.	Scan the barcode at the center of the barcode reading window.
Barcode surface dirt	Scanning may be unsuccessful if the barcode surface is dirty.	Wipe the dirt from the barcode and try again.
Barcode reading window dirt	Scanning may be unsuccessful if the barcode 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	Barcode scanning may be adversely affected by direct sunlight or the brightness of the surrounding light.	Perform barcode scanning away from direct sunlight. Try adjusting the brightness of the surrounding light when scanning indoors.

Using the BHT



Changing the Default Settings

The volume, vibrator, LCD display brightness and power save settings can be changed at the MENU screen.

Item	Details	Setting
VOLUME	Used to set the volume of the speaker that notifies the user when barcode scanning is complete. The volume can be adjusted in 4 levels: Hi, Lo, Mid and Mute.	Mute→Lo→Mid→Hi
VIBRATOR	Used to turn the vibrator that notifies the user ON/OFF when barcode scanning is complete.	ON, OFF
BRIGHTNESS	Used to set the backlight brightness of the LCD display. The brightness can be adjusted in 5 levels.	Levels 1 to 5
BRIGHTNESS (PS)	Used to set the backlight brightness of the LCD display during power save mode. The brightness can be adjusted in 6 levels.	Levels 0 to 5
POWER SAVE	Used to set the time until the LCD display backlight is dimmed when not in use in order to save power.	1-second units (max. 30 seconds)

Using the BHT

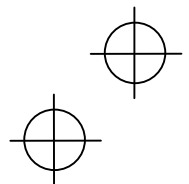
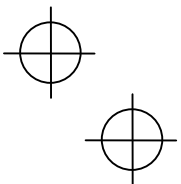
Procedure

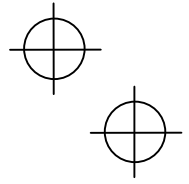
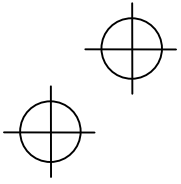
- 1 Hold down magic key **M1** for at least 1 second.



The MENU screen displays.

VOLUME	3
VIBRATOR	ON <input type="checkbox"/> OFF <input checked="" type="checkbox"/>
BRIGHTNESS	4
BRIGHTNESS (PS)	1
POWER SAVE	5 s





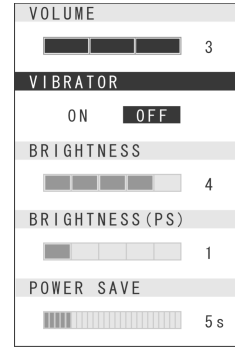
Changing the Default Settings

2

Use the “▲” and “▼” cursor keys to select the item to be changed.



The selected item is highlighted.



3

Use the “◀” and “▶” cursor keys to select the setting.



4

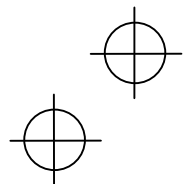
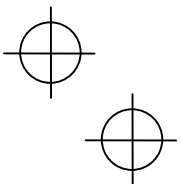
Press any of the following keys to exit the settings screen.

- M1 key long press
- Backspace/clear key
- Enter key



The settings screen is exited.

Using the BHT



Transmitting Data

Data gathered by the BHT can be transmitted to the host computer or peripheral devices by infrared communication or wireless communication*.

Infrared communication is used to transmit data to and from BHT units.

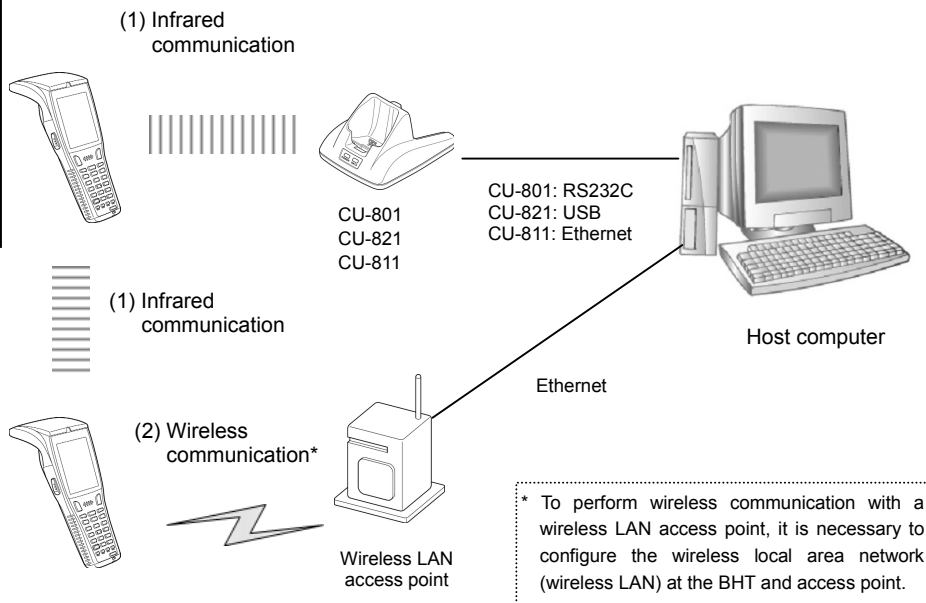
The data transmission method and BHT setting method will differ depending on the system used, and therefore the system administrator should be contacted for details of operation.

Refer to the User's Manual for details of each communication method.

Request

Data gathered by the BHT should be promptly uploaded to the host computer.

Using the BHT

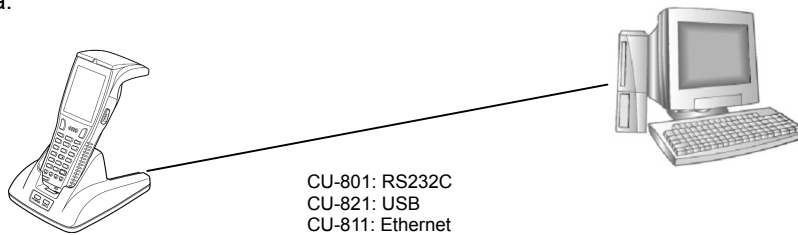


(1) Infrared Communication

Point the BHT infrared communication ports toward each other and perform communication.

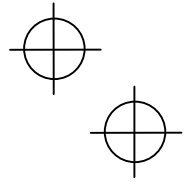
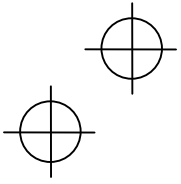


Place the BHT on the communication unit (CU-801, CU-811 or CU-821) and transmit data.



Requests

- Ensure that the light path between the BHT and any target stations is not obstructed.
- Perform communication within the effective infrared emission range (15 cm).
- Do not operate remote control units for televisions and so forth in the vicinity of infrared communication. This may result in communication failure.
- Perform communication in locations where the BHT units will not be exposed to light interference from sources such as intense ambient lighting (inverter-driven fluorescent lighting, in particular) or direct sunlight. This may result in communication failure.

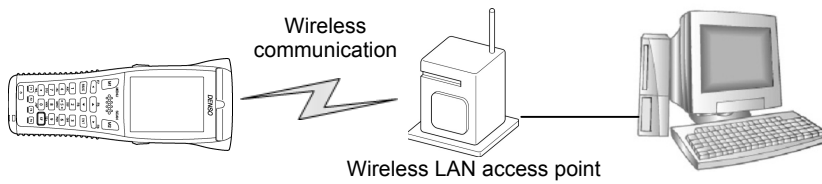


Transmitting Data

(2) Wireless Communication

Transmit data to host computer via the wireless LAN access point.

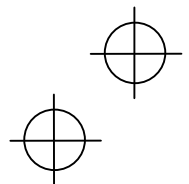
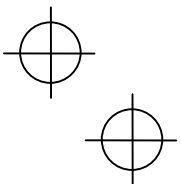
To perform wireless communication, it is necessary to configure the wireless local area network (wireless LAN) at the BHT and access point.

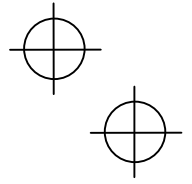
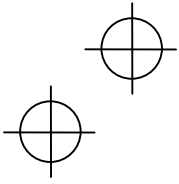


Using the BHT

Requests


- Point the antenna on top of the BHT toward the access point to improve communication performance.
- Communication may not be possible at the following locations.
 1. In the vicinity of devices operating on the same 2.4GHz frequency band as the BHT such as microwave ovens, industrial heating equipment, or high-frequency medical equipment.
 2. In the vicinity of computers or household appliances such as refrigerators that emit electromagnetic noise.
 3. In the vicinity of metallic objects, in places with high levels of metallic dust, in rooms surrounded by metal walls (metallic influence), or places where the BHT may be subject to strong impact.









Battery Power Level Indicator

Confirming at the Power Level Icon


The battery power level can be confirmed at the battery icon () that displays in the bottom left of the LCD display. The battery power displays in four levels.

The battery power level indicator is a guideline to notify the operator to charge the battery promptly when discharged.

-  : Sufficient battery power remains.
-  : The battery power is partially depleted. Charge promptly.
-  : The battery power is almost fully depleted. Charge immediately.
-  : The battery power is fully depleted.
Charge immediately or replace with a fully charged battery cartridge.

Confirming at the BATTERY VOLTAGE Screen

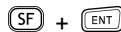
The battery power level can also be confirmed at the “BATTERY VOLTAGE” screen.

The BATTERY VOLTAGE screen displays the battery power level in more detail than the battery icon () that displays on the LCD display.

Display the “BATTERY VOLTAGE” screen using the following procedure.

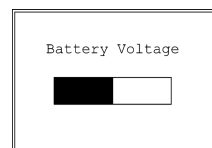
1

Hold down the Shift key while pressing the Enter key.



Press simultaneously.

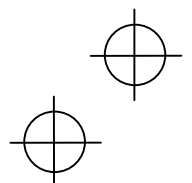
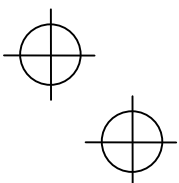
The “Battery Voltage” screen displays while the keys are pressed.

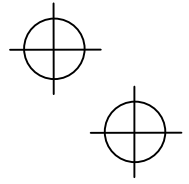
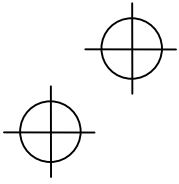


Charging

About the Battery Level

- The battery power level indicator does not accurately reflect the battery residual power and should only be used as a guideline.
- The battery power level will fluctuate due to BHT operation, and therefore disparities may occur between the actual battery voltage and the display indicator.
- Ensure to charge the battery as soon as possible before the battery power is depleted.





Replacing the Battery Cartridge

Battery Cartridge Service Life

The battery cartridge is a consumable part and should be replaced after being charged approximately 300 times.

The performance of the battery cartridge's lithium-ion battery will deteriorate gradually with repeated charging and discharging, even during normal use. When the battery operation time becomes shorter even after charging for the specified length of time, replace the battery with a new one.

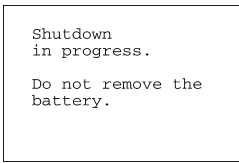
Battery Cartridge Replacement Method

1 Press the **power** key to turn OFF the BHT power. The screen on the right displays.

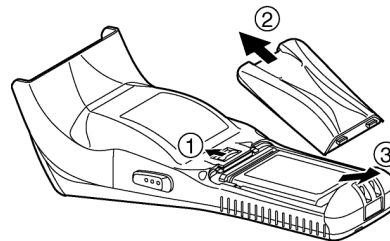
Turn OFF the power after the message below displays.

Point

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



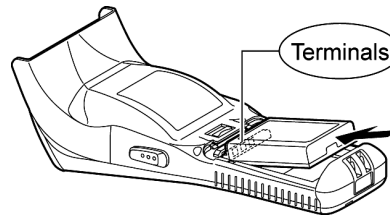
2 Slide the battery cartridge cover release button (1) in the direction indicated by the arrow, remove the battery cartridge cover (2), and then remove the battery cartridge (3).



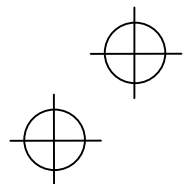
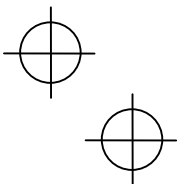
3 Check the terminals on the new battery cartridge and then insert in the direction indicated by the arrow. (See "Step 1 Charging" on page 10.)

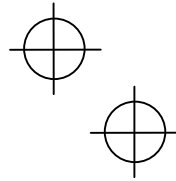
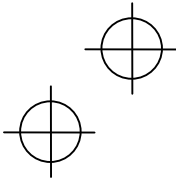
Point

- Do not use battery cartridges other than those specified by DENSO WAVE.
- Insert the new battery cartridge within **3 minutes** of removal to avoid data loss.



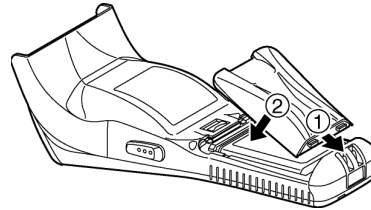
Charging





Replacing the Battery Cartridge

4 Insert the battery cartridge cover tab (1), and then close the battery cartridge cover (2) to lock the cover in position. Press the battery cover into place until a click is heard.



Battery Cartridge Recycling Request

- This product uses a lithium-ion battery that contains scarce, recyclable resources. We kindly ask for your cooperation in recycling to ensure reuse of these resources.



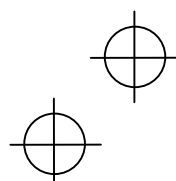
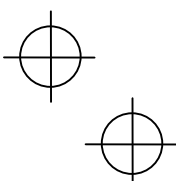
The crossed-out wheeled bin is applicable for EU member status only.

- Used battery cartridges must not be disposed of as combustibles.
- Contact your nearest rechargeable battery recycling center or local sales office for information on disposal procedures.
- When disposing of used battery cartridges at your nearest recycle center, cover the terminals with vinyl tape to insulate and protect from overheating or causing a fire due to a short-circuit.
- Never disassemble battery cartridges.

If the Screen Below Displays Following Replacement...

Display	Handling
The "Set the current date and time." screen displays.	When the BHT power is turned ON after a long period of no use, it may be necessary to reset the date and time. If this message displays, set the current date and time. (See page 16.)
The "Contact your administrator.(XXXX)" screen displays.	If this message displays, reboot the BHT. If this error persists, take a note of the error displayed and contact the system administrator.

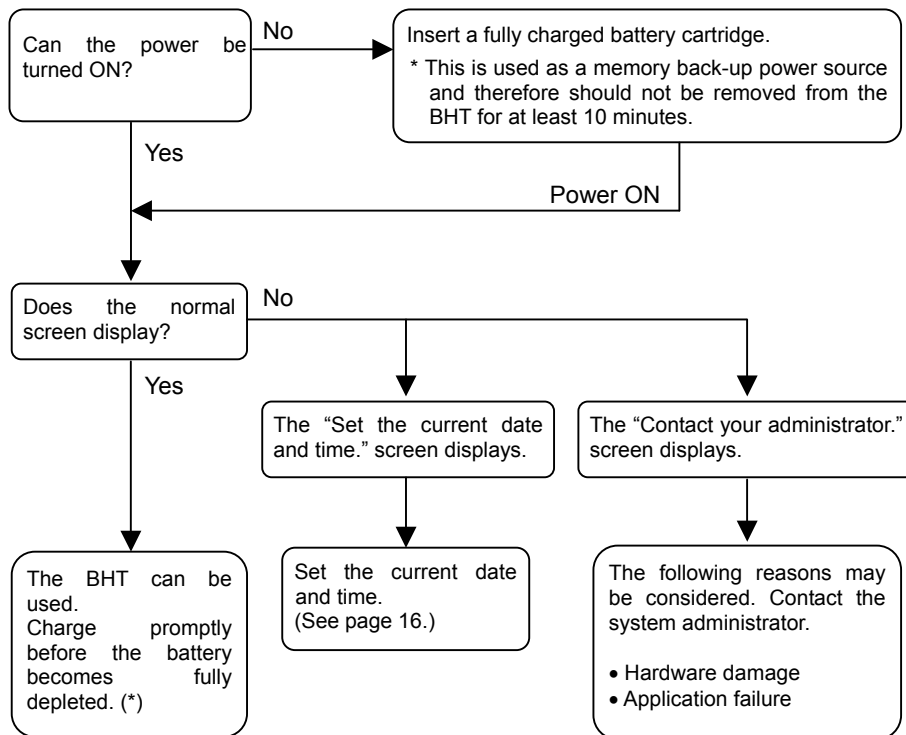
Charging



Using the BHT after Long Periods

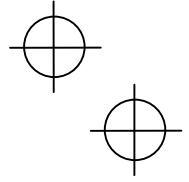
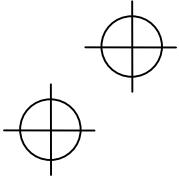
Data stored in the BHT may be lost and the calendar clock may stop if the BHT is left unused for long periods of time.

Take appropriate measures in accordance with the procedure below.



Charging

- Point - *: Files may become corrupt if left for a long period of time without replacing the battery cartridge.



Troubleshooting Guide

Problem The BHT power does not turn ON.

- Ensure that the battery cartridge has been properly inserted into the BHT. (See page 11.)
- Check the battery power level (see page 25.) and charge if necessary.
- Wipe any dirt from the battery cartridge and BHT terminals. (See page 4.)

If the power still does not turn ON after taking the above measures, there is a possibility that the BHT may be broken. Notify the system administrator.

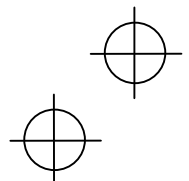
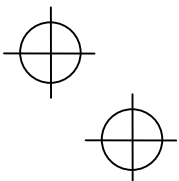
Problem Unable to charge the BHT.

- Ensure that the dedicated battery charger is being used. (See page 10.)
- Ensure that the battery cartridge has been properly inserted into the BHT. (See page 11.)
- Ensure that the BHT has been properly placed on the charger.
The BHT LED will turn red when properly placed on the charger.
- Wipe any dirt from the battery cartridge and BHT terminals. (See page 4.)
- When using an old battery cartridge that has been repeatedly charged 300 times or more, replace with a new one. (See page 26.)

If still unable to charge the BHT after taking the above measures, there is a possibility that the charger may be broken. Notify the system administrator.

Problem The BHT power turns OFF immediately.

- Ensure that the battery cartridge has been charged (see page 25) and charge if necessary.
- If set to auto power OFF, the BHT power will automatically turn OFF if not used for the set length of time. (See page 17.)
The auto power OFF setting can only be changed at user programs.



Troubleshooting Guide

Problem Unable to read barcodes.

It may not be possible to read barcodes at the following times. Refer to page 19 and take appropriate measures.

- The barcode surface is dirty or curved.
- The barcode reading window is dirty.
- The scanning distance from the barcode is unsuitable.
- The BHT is unable to read barcodes due to specular reflection.
- Scanning is performed in a place where the direct sunlight or ambient lighting is too bright, or in a place that is too dark.

If still unable to read barcodes after taking measures to remedy the above problems, notify the system administrator.

Problem An error message displays.

If an error message displays at the BHT during operation, refer to the table below and take appropriate measures.

Message	BHT Response	Problem	Solution
NO System!	If this error occurs, the warning tone beeps five times and then turns itself off.	A System Program error has occurred.	Contact your system administrator.
Battery voltage has lowered.	If low battery is detected, the warning tone beeps three times. After that, it will resume previous regular operation.	The battery output level has dropped below a specified lower limit.	Replace or recharge the battery cartridge.
Charge the battery!	If lower battery is detected, the warning tone beeps five times and then turns itself off. Depending upon the battery level, the warning tone may not sound five times.	The battery output level has lowered so that the BHT no longer operates.	Replace or recharge the battery cartridge.
Set the current date and time. 00/01/01 00:00 / / : :	The date and time settings screen displays, awaiting entry.	The calendar clock integrated in the BHT has stopped because: - the battery cartridge had been removed for a long time, - the battery cartridge had not been recharged for a long time.	Set the current date and time. (See page 16)

Troubleshooting Guide

Message	BHT Response	Problem	Solution
Your terminal was not shut down properly the last time it was used. Unsaved data was lost.	The message continues to display.	After being shut down abnormally, the BHT has been left without the battery cartridge loaded, or with discharged battery cartridge loaded, so unsaved data was lost.	Contact your system administrator.
Reload the battery to restart! XXXXXXXX 01	If this error occurs, the warning tone beeps five times.	During execution of System Program, the System Program has attempted to write onto the write-protected area of the memory. (xxxxxxx: Error address)	Unload and reload the battery cartridge, then turn the BHT on. If this error occurs frequently, make a note of the displayed message and codes and contact your system administrator.
Reload the battery to restart! tskid : XXXXXXXX ercd : XXXXXXXX addr : XXXXXXXX	If this error occurs, the warning tone beeps five times.	During execution of System Program, the System Program has received an invalid command code. (xxxxxxx: Error address)	Contact your system administrator.
No user programs found. Run code scanning demo? 1:Yes 2:No	The message continues to display.	When the BHT is turned on, no user programs are found.	Contact your system administrator. You can run the code scanning demo without user programs. Pressing "1:Yes" runs the code scanning demo. Press the trigger switch to start the code scanning demo. Selecting "2:No" turns the power off.
Contact your administrator. Note the error number. (XXXX)	If this error occurs, the warning tone beeps five times and then turns itself off.	A hardware error, memory error, execution program error, etc. has occurred. (xxxx: Error code)	Turn the BHT on again. If this error occurs frequently, make a note of the displayed code and contact your system administrator.
No resume info. has been retained. Program restarts automatically.	The BHT displays this error message and automatically runs the execution program from the point of start-up.	Operation was terminated without turning OFF the power normally with the resume function set, and therefore resume info has been lost.	If this error occurs frequently, make a note of the displayed code and contact your system administrator.

Troubleshooting

Troubleshooting Guide

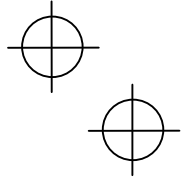
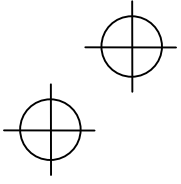
Message	BHT Response	Problem	Solution
Your settings in System Mode have been lost. Will reset to defaults.	After displaying this error message, the BHT may start a user program other than the preset auto-start execution program or display the message "No execution program loaded."	Your settings made in System Mode contain an error.	Contact your system administrator. If this error occurs, the System Mode settings revert to the factory defaults.
Reload the battery to restart!	If this error occurs, the warning tone beeps five times.	An error has occurred during execution of System Program.	Unload and reload the battery cartridge, then turn the BHT on. If this error occurs frequently, contact your system administrator.

The following messages display when a problem occurs while in System mode. Refer to the User's Manual for details of the System mode operation method.

Message	Problem	Solution
NO FILE EXISTS	You attempted to execute a user program in the EXECUTE PROGRAM menu, but no user program files have been stored in the memory.	Press the "BS/C" key to return to the SYSTEM MENU, then download user programs.
XXXXXXXX.XXX Out of memory Retry? 1:Yes 2:No	The memory is insufficient for storing files to be downloaded.	Press the 2 key to return to the SYSTEM MENU, then delete unnecessary files in the memory, or decrease the size of the file to be downloaded.
XXXXXXXX.XXX File mismatch Retry? 1:Yes 2:No	In the SYSTEM PARAMETER transfer menu, you attempted to download a file other than the BHT system parameter file. Or in the SYSTEM MESSAGE transfer menu, you attempted to download a file other than the system message file.	Check the file you attempted to download and then download the file in the appropriate menu (DOWNLOAD menu, SYSTEM PARAMETER transfer menu, or SYSTEM MESSAGE transfer menu).
XXXXXXXX.XXX Too many files Retry? 1:Yes 2:No	The current download will exceed the maximum allowable number of files (420 files) in the memory.	Press the 2 key to return to the SYSTEM MENU, then delete unnecessary files in the memory (or decrease the number of files to be downloaded if you attempted to download more than one file in the DOWNLOAD menu.)

Troubleshooting Guide

Message	Problem	Solution
XXXXXXXX.XXX Communication error Retry? 1:Yes 2:No	Downloading has failed. Uploading has failed.	To retry downloading/uploading, press the 1 key. To return to the SYSTEM MENU, press the 2 key. Check the interface port, communications parameters, and communications protocol in the SET SYSTEM menu or perform the communications test in the TEST menu.
XXXXXXXX.XXX Program File error Retry? 1:Yes 2:No	You attempted to download an invalid program file.	Check whether the program file you attempted to download is available to the BHT-800 model. If it is not available, download the appropriate program.
XXXXXXXX.XXX File error Retry? 1:Yes 2:No	The file you attempted to upload is damaged.	To upload the damaged file as is, press the 1 key.
Out of memory	The memory is insufficient for setting up the BHT system parameter file or system message file to be uploaded.	Press the "BS/C" key to return to the SYSTEM MENU and delete unnecessary files.
Too many files	The memory already contains 420 files, so the BHT system parameter file or system message file cannot be set up.	Press the "BS/C" key to return to the SYSTEM MENU and delete unnecessary files.



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