DENSO

Operator's Guide

RF Tag Handy Scanner

SE1-BUB-C

This Operator's Guide sets forth the procedures for handling, connecting, and operating your RF tag handy scanner. Before use, read through this guide carefully to make sure that you use the scanner both correctly and effectively. Also keep it handy for ready reference.
For more details on using this scanner, see the User's Manual that is available as a free download from our website "QBdirect" at https://www.denso-wave.com/en/.

■ 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.

● 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 scanner is introduced into an environment in which a device using 2.4 GHz waveband electromagnetic waves is operating, or if another device using 2.4 GHz waveband electromagnetic waves is introduced following introduction of the system, run all devices and ensure that communication with the scanner 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.

Care and Maintenance

Dust and other foreign matter on the clear plate of the reading window can impede code input, so regularly check for it and remove it as the usage environment warrants.

· To clean the plate, first blow the dust away with an airbrush. Then gently wipe the plate with a cotton swab or the similar soft one.
· If sand or hard particles have accumulated, never rub the plate; doing so will scratch or damage it. Blow the particles away with an airbrush or a soft brush.

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

This equipment complies with ISED radiation exposure limits set forth for an uncontrolled environment and meets RSS-102 of the ISED radio frequency (RF) Exposure rules as this equipment has very low levels of RF energy.

Cet équipement est conforme aux limites d'exposition aux rayonnements énoncées pour un environnement non contrôlé et respecte les règles d'exposition aux fréquences radioélectriques (RF) CNR-102 de l'ISDE puisque cet appareil a une niveau tres bas d'energie RF.

■ Troubleshooting

Problem: Unable to power on the SE1-BUB-C

- Make sure that the batteries are correctly installed in the SE1-BUB-C.
- Check for the remaining battery power. You should charge the batteries if not much power is left. Replace the batteries with new ones if using alkaline batteries.
- Wipe off the battery terminals or the main unit battery charging terminals if any dirt or crud has accumulated.

Problem : Unable to charge the battery

- Charging is not possible if the LED indicator flashes in red or orange.
  The red flashing indicates that the wrong types of batteries are used. Only the rechargeable nickel-metal hydride (NiMH) batteries can be used. Check if any other types of batteries have been used.
  Stop charging if the LED flashes in orange then turn the SE1-BUB-C off. Retry charging with the SE1-BUB-C turned off. If the LED flashes in orange during the retry charging, the charging circuit may be broken. Stop using the SE1-BUB-C immediately then contact our sales department.
  Refer to User's manual for details of battery charging.
- Make sure that the batteries are correctly installed in the SE1-BUB-C.
  The LED indicator illuminates in red when charging starts with the batteries correctly installed.
- Wipe off the battery terminals or the main unit battery charging terminals if any dirt or crud has accumulated.
- Replace the old batteries repeatedly charged with the new ones.

Problem : The SE1-BUB-C is unintentionally turned off.

- Make sure that charged batteries are used.
- The SE1-BUB-C may be set in the Auto-off mode. The SE1-BUB-C automatically turns itself off if it is out of operation for the specified period of time. The Setting software Scan Tune App is available from our website for free of charge.
  https://www.denso-wave.com/

Thank you for having you purchase DENSO WAVE product.

SAFETY PRECAUTIONS

Be sure to observe all these safety precautions.

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

Handling the Scanner

Incorrect handling of the battery could cause the scanner to generate heat or smoke, or to rupture or burn. Be sure to observe the following.

- Never bring any metals into contact with the terminals in connectors. Doing so could produce a large current through the scanner, resulting in heat or fire, as well as damage to the scanner.
- Never use the scanner on the line voltage other than the specified level. Doing so could cause the scanner to break or burn.
- Do not use the scanner where any inflammable gases may be emitted. Doing so could cause fire.
- Do not subject the reading window of the scanner to direct sunlight for extended periods. Doing so could damage the scanner, resulting in a fire.
- If smoke, abnormal odors or noises come from the scanner, immediately turn off the power, pull out te batteries, and contact your nearest dealer. Failure to do so could cause fire or electrical shock.
- If foreign material or water gets into the scanner, immediately turn off the power, pull out the batteries, and contact your nearest dealer. Failure to do so could cause smoke or fire.
- If you drop the scanner so as to affect the operation or damage its housing, turn off the power, pull out the batteries, and contact your nearest dealer. Failure to do so could cause fire or electrical shock.
- Never put the scanner into a microwave oven or high-pressure container. Doing so could cause the scanner to break, generate heat, rupture or burn.
- Never put the scanner 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 scanner in extremely humid or dusty areas, or where there are drastic temperature changes. Moisture or dust will get into the scanner, resulting in malfunction, fire or electrical shock.
- If smoke, abnormal odors or noises come from the scanner, immediately turn off the power, pull out the batteries, and contact your nearest dealer.
- Failure to do so could cause smoke or fire.
- If you drop the scanner so as to damage its housing, immediately turn off the power, pull out the batteries. 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.
- Never disassemble or modify the scanner; doing so could result in an accident such as break or fire.
- Do not insert foreign materials in the scanner.
- Please do not get the battery wet in water or seawater.
- Do not spill liquids including water, juice and coffee on the scanner. Doing so could cause fire or electric shock.

Handling the battery

Incorrect handling of the battery could cause the scanner to generate heat or smoke, or to rupture or burn. Be sure to observe the following.

- Never disassemble or modify the battery.
- Never connect the positive and negative terminals of the battery with a wire or other metallic materials.
- Do not carry or store the battery together with ballpoint pens, necklaces, coins, hairpins, or anything else metallic.
- Never burn or heat the battery.
- Do not use or leave the battery anywhere there is excessively high temperature (50°C or higher), such as near fire or stoves.
- Do not put the battery into water of any kind or moisten it.
- Never charge the battery near a fire or anywhere exposed to direct sunlight. Failure to do so could activate the protector due to high temperature and thus prevent the battery from being full charged. Or it may break the protector, resulting in the battery to overhead, blowout, or combustion.
- Never charge the rechargeable battery where any inflammable gases may be emitted. Doing so could cause fire.
- Do not stick a needle into the battery, hammer at it, or tread on it.
- Do not let the battery undergo any shock or impact or throw it at something hard.
- Do not use battery that are deformed, scratched or cracked remarkably.
- Solder nothing to the battery directly.
- Do not recharge alkaline batteries. Doing so could cause battery breakage, or fluid leakage.

- If battery fluid leaks from the battery and it gets into your eyes, rinse them with clean water thoroughly without rubbing and consult a doctor as soon as possible. Otherwise, you may damage your eyes.
- If the battery does not finish recharging within the specified time, stop recharging.
- Never place the battery in a microwave oven or high-pressure container.
- If abnormal odor, heat, discoloration, deformation or any other abnormal conditions are noticed when the battery is in use, being charged, or is in storage, remove it from the scanner or charger and avoid further use.
- Only use the dedicated charger for charging the rechargeable batteries.
- The battery may be warm immediately after charging or use.
- Do not mix different types of batteries or use spent batteries.

To System Designers

- When introducing the scanner 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.

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

Handling the Scanner

- Never disassemble or modify the scanner; doing so could result in an accident such as break or fire. Doing so could result in a fire or electrical shock.
- Do not put the scanner on an unstable or inclined plane. The scanner may drop, creating injuries.
- Never put the scanner 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 scanner in extremely humid areas, or where there are drastic temperature changes. Moisture will get into the scanner, resulting in malfunction, fire or electrical shock.
- Do not place the scanner anyplace where it may be subjected to oily smoke or steam, e.g., near a stove or humidifier. Doing so could result in a fire or electrical shock.
- Never cover or wrap up the scanner in a cloth or blanket. Doing so could cause the unit to heat up inside, deforming its housing, resulting in a fire. Always use the scanner in a well-ventilated area.
- Do not insert or drop foreign materials such as metals or anything inflammable through the openings (vents or reading window) into the scanner. Doing so could result in a fire or electrical shock.
- Do not scratch or modify the scanner. Doing so could damage the scanner, creating a fire hazard.
- Do not put heavy material on the scanner, or allow the cable to get pressed under heavy material.
- Do not look into the light source from the reading window or do not point the reading window at other people's eyes. Eyesight may be damaged by direct exposure to this light.
- Do not use the scanner if your hands are wet or damp. Doing so could result in an electrical shock.
- Never use chemicals or organic solvents such as thinner to clean the housing. Do not apply insecticide to the scanner. Doing so could result in a marred or cracked housing, electrical shock or fire.
- Do not use the scanner with anti-slip gloves containing plasticizer. The scanner housing may be broken, creating injuries, electrical shock, or fire.
- If you are not using the scanner for a long time, be sure to unplug the battery from the wall socket for safety. Failure to do so could result in a fire.
- Do not drop the scanner. The scanner housing may be broken, creating injuries.
  Using the scanner whose housing is broken could result in smoke or fire.
- 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.
- Do not use the Scanner in the vicinity of wireless devices such as personal radios and ham radios. This could cause malfunction of the Scanner.
- Do not place magnetic cards or the like near the Scanner speaker/beeper.
  Doing so may result in the loss of magnetic data from cash cards, credit cards, etc.
- Do not place your ear near the speaker/beeper when tones are being emitted. Doing so may result in hearing loss.
- Do not apply excessive force when inserting or removing the rechargeable battery. Doing so will result in damage.
- 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 Scanner.
  Doing so will result in malfunction or machine failure.
- Do not drop the Scanner on the floor or apply strong shock to it. Doing so could cause malfunction of the Scanner.
- Do not use batteries other than the specified ones.

FCC Regulation (for United States of America)

FCC CAUTION

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

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures;

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment and meets the FCC radio frequency (RF) Exposure Guidelines as this equipment has very low levels of RF energy.

- Responsible Party – U.S. Contact Information

Company Name: DENSO PRODUCTS AND SERVICES AMERICAS, INC.
Address: 3900 Via Oro Avenue, Long Beach, California 90810, U.S.A.
Tel: +1-310-834-6352

- FCC Compliance Statement

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

ISED Regulation (for Canada)

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:
1. This device may not cause interference.
2. This device must accept any interference, including interference that may cause undesired operation of the device.

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

Appendix 1 SPECIFICATIONS

Item			Specification
Scanning specifications	RFID	Frequency	915.25-927.5 MHz
		Readable and writable RF tag	ISO/IEC 18000-63 (GS1 Gen2) -supported Tag
	Barcode	Readable codes	EAN-13, EAN-8, UPC-A, UPC-E, UPC/EAN with add-on, Interleaved 2 of 5, Standard 2 of 5, Code 39, Codabar (NW-7), Code 93, Code 128, GS1-128(EAN-128), GS1 DataBar Omnidirectional (RSS-14), GS1 DataBar Truncated (RSS-14 Truncated), GS1 DataBar Stacked (RSS-14 Stacked), GS1 DataBar Stacked Omnidirectional (RSS-14 Stacked Omnidirectional), GS1 DataBar Limited (RSS Limited), GS1 DataBar Expanded (RSS Expanded), GS1 DataBar Expanded Stacked (RSS Expanded Stacked), Code 32, MSI, Plessey
		Scanning resolution	0.125 mm min. for bar codes
		Elevation angle	±50°
		Tilt angle	±50°
		Light source	LED (red)
	Reading confirmation		Blue LED and beeper
Interface	Bluetooth®		Built-in Bluetooth® wireless device compliant with Bluetooth® Specification Ver. 2.1+EDR
		Profile	SPP (Serial Port Profile), HID (Human Interface Device Profile)
Input power requirements	Main power		AA rechargeable NiMH battery (× 2), ("eneloop®" with 1900 mAh battery capacity is recommended for rechargeable NiMH battery.)
Operating time			12 hours (if RF tag scanning is repeated every 5 seconds)
Environmental conditions	Operating temperature range		-5° to 50°C (23° to 122°F)
	Operating humidity range		10% to 90% RH (No condensation allowed, wet-bulb temperature 30°C max.)
Dimensions (W) × (D) × (H)			100 × 41 × 27 mm (3.9 × 1.6 × 1.1 inches)
Mass			Approx. 70 g (excluding the batteries)
Body color			White

Appendix 2 Barcode Parameter Menu

■ Adjusting the beeper volume

The beeper volume can be set by scanning the following Barcode symbol only. No "Start setting" or "End setting" Barcode symbol is required to be scanned. But a Bluetooth® wireless link should be enabled beforehand.

Beeper volume

■ Easy connection setup

The easy connection setup can be set by scanning the following Barcode symbol only.
To set the connection corresponding to the connected device, simply scan the Barcode below.
(Connected device should be equipped with Bluetooth® module that is compatible with Bluetooth® Specification Ver. 2.1+EDR.)
The 1st connection waits for the connection from a connection partner, the next connection is connected only by pushing the trigger switch of the scanner. (Only when connecting with the same device)

iPhone, iPad (HID Profile)
Android (HID Profile)
Android, Windows PC (SPP Profile)
Windows PC (HID Profile)

NOTE: Please read the easy connection setup barcodes after the completion of other parameter setups. If other parameters are setup after the easy connection setup, these parameters may be overwritten.

■ Menu control (Starting/Ending the Setting Procedure and Reverting to Defaults)

Start setting
End setting
All defaults
Cancel

■ Enabling Bluetooth® interface

Scanning the "End operation" Barcode disables the scanner to scan codes except the "Start setting," "Start operation," and "End setting" Barcode.

End operation
Start operation (Default)
Break Bluetooth® wireless link

■ Scanning with Bluetooth® wireless link broken

Scanning the "Scan w/ Bluetooth® link broken" enables the scanner to scan codes when the Bluetooth® wireless link is broken. During that, no data communication with the host computer is possible.

Scan w/ Bluetooth® link broken
Cancel "Scan w/ Bluetooth® link broken"(Default)

■ Configuring the scanner as slave

Scanning the "Configure as slave" Barcode configures the scanner as a slave.

Configure as slave (Default)

■ Specifying the keyboard type (Only HID profile)

U.S. English (default)
German
French
U.K. English

■ Transmission format

Header (Only SPP profile)

None (Default) / STX

Terminator (Only SPP profile)

None / ETX / CR (default) / LF / CR LF

Transmission of code ID mark

Disable (default) / Enable

Transmission of the number of digits

Enable 2-digit transmission / Disable (default)

■ Batteries

Battery level check

Enable (default) / Disable

■ Other settings

Trigger switch control (Barcode)

Auto-off mode (default) / Alternate switching mode / Momentary switching mode

Trigger switch control (RFID)

Auto-off mode (default) / Alternate switching mode / Momentary switching mode

Beeper control

Disable / Enable (default)

LED indicator

Disable / Enable (default)

Chapter 1 Packing List and Names and Functions

■ Packing list

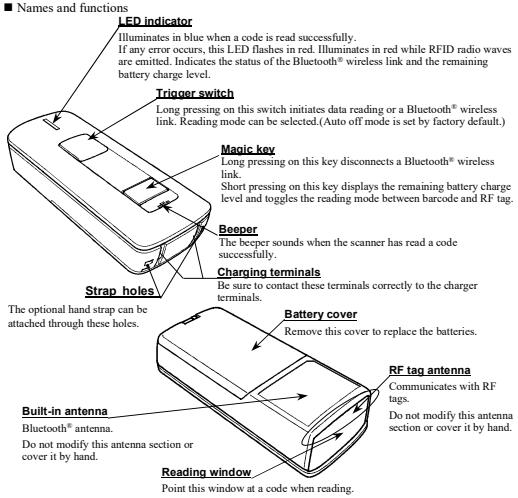
The base package contains the following.

- RF Tag Handy Scanner: one
- Operator's guide (this sheet): one

Available separately are the following options.

- Communications adapter (BA series)
- Interface cable for communications adapter
- Charger
- AC adapter
- Silicone cover
- Hand strap

■ Names and functions

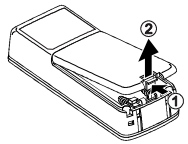


To turn off the SE1-BUB-C, press the trigger switch and the magic key together at the same time for more than three seconds. The beeper is sounded and the scanner is turned off.

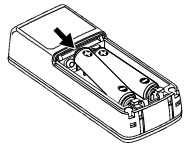
Chapter 2 Inserting the Batteries

Insert batteries, in order to use the SE1-BUB-C.
Ensure that the SE1-BUB-C is turned off before replacing the batteries.
You should select the battery type to get to know the remaining battery power level.

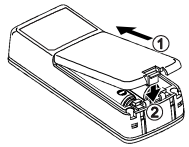
SE1-BUB-C uses an AA rechargeable NiMH batteries (HR6). You should insert batteries correctly in the following processes.
Slide the battery cover lock (1) in the direction indicated by the arrow and remove the battery cover (2).



Make sure that the new batteries are in the correct orientation when inserting them.
Insert the new batteries in the direction indicated by the arrow.
The SE1-BUB-C does not function if its polarity is reversed.



Insert the battery cover tab (1), and then close the battery cover (2). The battery cover is now locked in position.



NOTE: If you do not use the SE1-BUB-C for a long time, remove the batteries from the scanner and keep them in storage.
NOTE: When rechargeable NiMH batteries are used, the operation manual of batteries should be read, and AA rechargeable NiMH batteries should be correctly used according to the directions. "eneloop®" with 1900 mAh battery capacity is recommended for rechargeable NiMH batteries.
NOTE: The batteries cover should be attached when using the scanner.

Chapter 3 Bluetooth® connecting

Connecting to Communication adapter, iPhone, iPad, Android device and Windows PC etc.

●Connecting to BA11/BA20 communication adapter (Connecting with SPP profile.)

(1) Connect the BA11/BA20 to the Windows PC.
When the driver installation is complete, please confirm that the USB-COM port has been recognized.
(2) Set to "Start operation" of the scanner.
Scanning the order of the "Start setting" > "Start operation" > "End setting" the Barcoded Parameter Menu. Bluetooth® is now available. (The factory default is "Start operation".)
(3) Scanner setting to Communication adapter of BA11/BA20.
Read the barcode on the reverse side of the BA11/BA20.
[The beeper will sound three times.]
(4) Connect to the BA11/BA20.
LED indicator will blink in blue, The Bluetooth® wireless link is ready. The beeper will sound twice.]
(5) Future connections, you can connect by pressing the trigger switch. (Only when connecting to the identical BA11/BA20)

● Connecting to iPhone, iPad, Android device, Windows PC,etc.

iPhone and iPad can be connected at the HID profile. Android device and Windows PC can be connected at the profile HID or SPP.
(1) Turn ON the power of connected devices, Bluetooth® communication function to ON.
(2) Set to "Start operation" of the scanner.
Scanning the order of the "Start setting" > "Start operation" > "End setting" the Barcoded Parameter Menu. Bluetooth® is now available. (The factory default is "Start operation".)
(3) Scanner setting to Communication adapter.
Scanning the order "Easy connection setup" the Barcoded Parameter Menu.
[The beeper will sound three times. Communication adapter registration has been completed.]
(4) Wait for the connections from each other.
(5) Search the scanner from the connected device, Connect to select the connection profile.
[The Bluetooth® wireless link is ready for use. The beeper will sound twice.]
(6) Future connections, you can connect by pressing the trigger switch.
(Only when connecting to the identical device)

To set up the connection method and a detailed, please refer to the manual or help of equipment to be used.

NOTE: Communication may be disconnected depending on the radio wave conditions. If the communication is broken, the data being transmitted may be lost or corrupted. If this happens, you are recommended to take either of the following methods according to the profile type.
SPP profile: Use the ACK/NAK or the data-packing protocols for data transmission.
HID profile: On the connected device, check the input data, such as the number of input digits or integrity, provided from the SE1-BUB-C. Take appropriate measures for your application if the input data is incorrect.
Refer to the User's Manual for further details on the communication control.

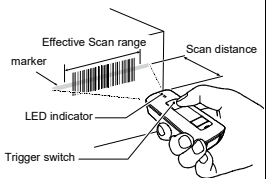
Chapter 4 Scanning Codes and Tags

Be sure to insert the batteries into the scanner before using the scanner for the first time or after an extended period of disuse.

■ Operating procedure

● Scanning Codes

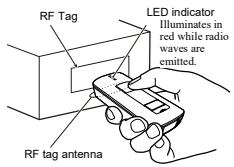
(1) Bring the reading window to a target code and press the trigger switch. The scanner turns the marker beam and the illumination on to indicate the scanning range and scans the code respectively. Align the center of the marker beam with that of the target code.



(2) Wait for the LED indicator to turn blue, and the beeper to sound to operate, indicating a successful read.

● Scanning Tags

(1) Bring the RF tag antenna area close to an RF tag then press the trigger switch.
Radio waves are emitted to read and write tag data while the LED indicator illuminates in red.



(2) Wait for the LED indicator to turn blue, and the beeper to sound to operate, indicating a successful read.

Notes for code scanning
NOTE: The scan distance is approximately 10 cm (3.9").
NOTE: Flatten the barcode surface as much as possible.
NOTE Reading may fail in direct sunlight or extremely bright places.
NOTE: Left and right reversed barcodes can be read.
NOTE: A barcode inside a vinyl bag may not be read. Take out the barcode label from the bag if failed to read.

Notes for RF tag scanning
NOTE: The scan distance is approximately 3 cm.
(The scan area varies depending on the RF tag type and the ambient environment.)
NOTE: Radio waves are used to read RF tags. Reading performance may decrease if metal objects or radio equipment such as a cellular phone, personal radio equipment, or a microwave oven exists near the scanner. Use the scanner away from metal objects or radio equipment.
NOTE: Do not cover the RF antenna area by hand. This may result in reading failures.
NOTE: Reading may not be possible if other RFID device exists near the scanner, or is placed side by side.
NOTE: Reading performance may decrease due to the resonance frequency shift depending on the material that the tag is adhered. Select the RF tag with smaller resonance frequency shift, and make sure that the scanner communicates properly with tags before actual use.

Chapter 5 Battery level check

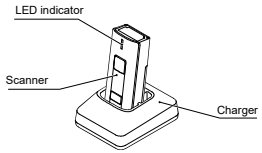
When the magic key is pressed, a battery level will be indicated on the LED indicator.
The battery level is shown in the LED indicator color.

- 40% or more: Green
- 10% – 40%: Orange
- Less than 10%: Red

Chapter 6 Charging the Batteres

Some heat generation in the scanner unit or charger during charging is perfectly normal.

(1) Connect the AC adapter to the charger and then plug it into an electrical outlet.
(2) Place the scanner in the charger.
The scanner's LED indicator turns red, indicating the start of charging.
When charging is complete, the charge goes off and the LED indicator turns off.
(3) Remove the scanner from the charger and unplug the AC adapter from the electrical outlet.



Charging time is approximately 10 hours for the recommended rechargeable batteries. (Charging time varies depending on the battery usage conditions.
Charging is not possible if the LED indicator flashes in red or orange. Refer to the Troubleshooting section to solve the problem.
Refer to User's Manual for details of battery charging.

NOTE: When using the optional silicone cover, attach the cover correctly to the scanner as instructed in the manual that comes with the cover.
NOTE: When using the optional strap, place the strap until it fits into the strap guide groove on the charger. Charging may fail if the strap contacts with the charging terminals. Refer to the charger Operator's Guide for details of the strap guide.
NOTE: The scanner is capable of charging the commercial rechargeable NiMH batteries, but does not guarantees that all types of batteries can be charged. A genuine charger for each battery manufacturer is recommended in order to get the best performance of the battery. eneloop® (1900 mAh battery capacity) is recommended for the rechargeable NiMH battery.
NOTE: Do not use or charge the AA alkaline batteries with the scanner.

■ Battery Service Life

The batteries are consumable part. Battery service life varies depending on the usage conditions and the battery type.
The performance of the NiMH battery will deteriorate gradually with repeated charging and discharging, even during normal use. When the batteries operation time becomes shorter even after charging for the specified length of time, replace the battery with a new one. Refer to the battery manual for details.

■ 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 information for exhibitions, event, and new products
- Free web-information service "QBdirect."

QBdirect Service Contents

Information searching service (FAQ)	Offers detailed information on each product.
Download service	Offers downloads of update modules with the latest OS systems for the RF Tag Handy Scanner Series , 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.
https://www.denso-wave.com/

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RF Tag Handy Scanner
SE1-BUB-C

Operator's Guide
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DENSO WAVE INCORPORATED

https://www.denso-wave.com/en/
1 Yoshiike Kusagi Agui-cho, Chita-gun, Aichi 470-2297, Japan
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