

## Hand Held Terminal Operator's Guide

Model  
S1635-01/01A/01B/01U

Thank you for using the Hand Held 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.

Bundled Item

- Hand Held Terminal
- Battery
- Hand Strap
- Stylus
- Operator's Guide
- Safety Precautions

1

### To System Designers:

- When introducing HHTs 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 HHT

- Incorrect handling of the HHT could cause electric shock, impaired vision, skin problems, injury, burns and generation of heat and smoke from the HHT. Be sure to observe the following to use the device correctly.
- Never put the HHT into a microwave oven or high-pressure container.  
Doing so could cause the HHT to break, generate heat, rupture or burn.
- Never put the HHT 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 HHT in extremely humid or dusty areas, or where there are drastic temperature changes.  
Moisture or dust will get into the HHT, resulting in malfunction, fire or electrical shock.
- If smoke, abnormal odors or noises come from the HHT, immediately turn off the power, pull out the battery, and contact your nearest dealer.  
Failure to do so could cause smoke or fire.
- If you drop the HHT so as to damage its housing, immediately turn off the power, pull out the battery.  
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 HHT; doing so could result in an accident such as break or fire.
- Do not insert foreign materials in the HHT.
- If foreign material or water gets into the HHT, immediately turn off the power, pull out the battery, and contact your nearest dealer.  
Failure to do so could cause smoke or fire.
- If the LCD breaks and the liquid leaks from the LCD by mistake, do not swallow, inhale or touch it.
- Do not use in places where pharmaceutical drugs or chemical substances are treated.
- If the device becomes wet, dry it off with a dry cloth.
- When storing the device, make sure that there is no dust, metals, or other foreign substances attached to it.
- Do not place heavy objects on the device, twist it, or apply strong amounts of pressure to it such as the case of sitting down on it after placing it in a pants pocket.

### CAUTION

- Incorrect handling of the HHT could cause generation of heat and smoke from the HHT, and malfunction. Be sure to observe the following to use the device correctly.
- When using the hand strap or neck strap, exercise due care to avoid getting them caught in other objects or machinery.  
Failure to do so could result in accident or injury.
- Do not use the HHT in the vicinity of wireless devices such as personal radios and ham radios. This could cause malfunction of the HHT.
- Do not use the HHT in the vicinity of magnetic objects. This could cause malfunction or failure of the HHT.
- Do not place magnetic cards or the like near the HHT speaker or battery cover.  
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 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 HHT.  
Doing so will result in malfunction or machine failure.
- Do not drop the HHT on the floor or apply strong shock to it.
- Doing so could cause malfunction of the HHT.

5

No.	Key	Name	Function and Description
①	BKSP	Backspace key	Moves back one character.
②	SCAN	Scan key	Press to scan barcodes. (This key performs the same function as a Trigger key.)
③	SHIFT	Shift key	Used in combination with other keys such as the numerical keys or power key for special input procedures.
④	Trigger keys	Trigger keys	Press to scan barcodes. (This key performs the same function as the Scan key.)
⑤	Cursor keys	Cursor keys	Used to move the cursor and select menus.
⑥	7 8 9 4 5 6 1 2 3 , 0 . -	Numerical keys	Used to enter data.
⑦	ENT	Enter key	Press to finalize entered data or execute operations.
⑧	TAB	Tab key	Used to enter a tab character.
⑨	CTRL	Control key	Used to modify the function of the next key pressed.
⑩	ALPHA	Alphabetical mode key	Switches to alphabet entry mode.
⑪	ESC	Escape keys	Cancels the operation.
⑫	FUNK	Function mode key	Switches to Function mode.
⑬	F1 F2 F3 F4 F5 F6 F7 F8 F9 F10	Function keys	Used to select functions.
⑭	*	Backlight key	Turns the LCD backlight ON and OFF.
⑮	Power key	Power key	Turns the HHT power ON and OFF.

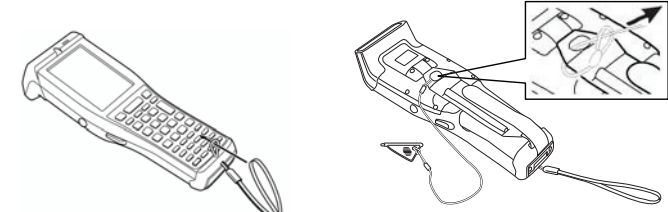
9

## Step 2 Attaching stylus and hand strap

Attach the stylus to the hand belt to prevent it from being lost.  
Attach the hand strap to prevent from dropping the HHT accidentally.

### Attachment

Attach the stylus and hand strap as shown below.



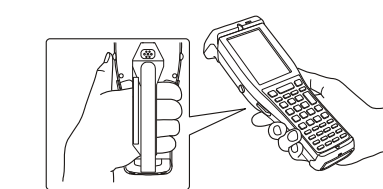
### Holding the HHT

Put your hand through the hand strap and hold the HHT as shown below. This will prevent you from dropping the HHT accidentally.



### Holding the HHT

Insert your hand into the hand belt and hold the HHT as shown below.



13

Some of the pixels on the LCD touch screen may not illuminate or stay permanently illuminated. Furthermore, there may also be inconsistencies in color and brightness. None of these aspects represent an LCD defect.  
A thin Newton's ring (rainbow-like patterns) may appear on the touch panel. This does not necessarily indicate a problem with the touch panel.

## About This Manual

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

## Liability Limitations

- NEC Platforms 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 HHT system software or related manuals.
- NEC Platforms takes reasonable precautions to ensure its products do not infringe upon any patents or other intellectual property rights of other(s), however, NEC Platforms 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 NEC Platforms' products in connection or in combination with other components, products, devices, data processing systems or software not supplied by NEC Platforms.  
(2) The use of NEC Platforms' products in a manner for which they were not intended nor designed.  
(3) The modification of NEC Platforms' products by parties other than NEC Platforms.
- If it is judged by NEC Platforms 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.
- This product is intended for use in the country/region where you purchased the product, and prohibited to export to other countries/regions.

2

- Do not use batteries other than the specified ones.
- Risk of explosion if battery is replaced by an incorrect type.
- Dispose of used batteries according to the instructions.
- Avoid using the product near persons with implantable medical device, such as a cardiac pacemaker.
- If a leakage occurs to the rechargeable battery pack, make sure to wipe down the leakage from the battery installation part of the device.
- If carrying the device in a shirt or pants pocket, make sure that the device is not placed for a prolonged period of time near any other equipment or devices that generate heat (such as a pocket warmer). Failure to observe the above could result in low-temperature burns if the device overheats inside of the pocket.

## 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.

- 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.
- 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.
- 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 our sales office.

### Requests to system designers

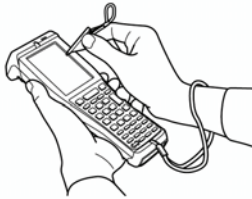
- Communication may not be possible depending on the environment in which the device is being used. Ensure that problem-free communication is possible prior to use.
- Use a program capable of retransmitting data if communication fails.
- If the HHT is introduced into an environment in which a device using 2.4/5 GHz waveband electromagnetic waves is operating, or if another device using 2.4/5 GHz waveband electromagnetic waves is introduced following introduction of the system, run all devices and ensure that communication with the HHT 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.

6

## Input Method

### Using the Stylus

The HHT liquid crystal display (LCD) is a touch screen.  
Buttons, menus and so displayed on the screen can be selected using the stylus provided.



## Touch Screen Operation

Select the LCD touch screen buttons and menus and so on using the stylus provided.

Action	Description
Tap	This involves tapping the touch screen once. This function is the equivalent of a "click" with a mouse on a computer.
Double-tap	This involves tapping the touch screen twice in quick succession. This function is the equivalent of a "double-click" with a mouse on a computer.
Drag	This involves moving the stylus to an object while pressing the touch screen. This function is the equivalent of "dragging" with the mouse on a computer.
Long-tap	This involves tapping the touch screen for several seconds. This function is the equivalent of a "right-click" with the mouse on a computer.

- Always use the stylus provided to operate the touch screen. Never use fingernails or any pointed or hard objects, or apply strong pressure or impact to the touch screen. This may result in damage or a malfunction.
- If dirty, clean the touch screen and stylus tip prior to operation. Failure to observe this may result in scratches to the LCD screen or hinder smooth movement of the stylus.

10

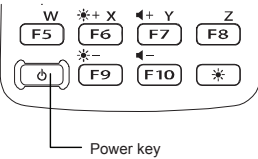
## Step 3 Turning ON the Power

Press the **power** key to turn ON the HHT power.

When turning ON the HHT power for the first time or when using after long periods of time, if the dialog box does not display, first perform a "full reset."

### Point

It may take time to display the screen after pressing the **power** key, but it is not malfunction of the HHT.  
Therefore, do not keep pressing the power key more than needed or press it hard. Doing so may cause breakage or malfunction of the **power** key.



Power key

## Usage Precautions

### Usage environment restrictions

- Use the HHT in following environment.**  
Operating Temperature Range : -10° to 50°C  
Operating Humidity Range : 20% to 85% RH
- Do not use the HHT 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 HHT is stored in a high-temperature, high-humidity environment of 50° to 60°C, leave to sit in a location at room temperature and normal humidity for at least 1 day prior to use.  
Failure to observe this may cause a reading failure or damage the HHT.
- Do not use the HHT in places with extreme temperature variations.**  
(Failure to observe this may lead to HHT malfunction due to condensation.)  
\* Leave the HHT for a short while prior to use when moved from a cold to a warm environment.
- Do not use the HHT in places where it may be exposed to strong impact or significant static electricity**
- Do not use the HHT at the place which flammable gases generate.**
- Do not use the HHT at the place where it may be subjected to oily smoke or steam, e.g., near a cooking range or humidifier.**

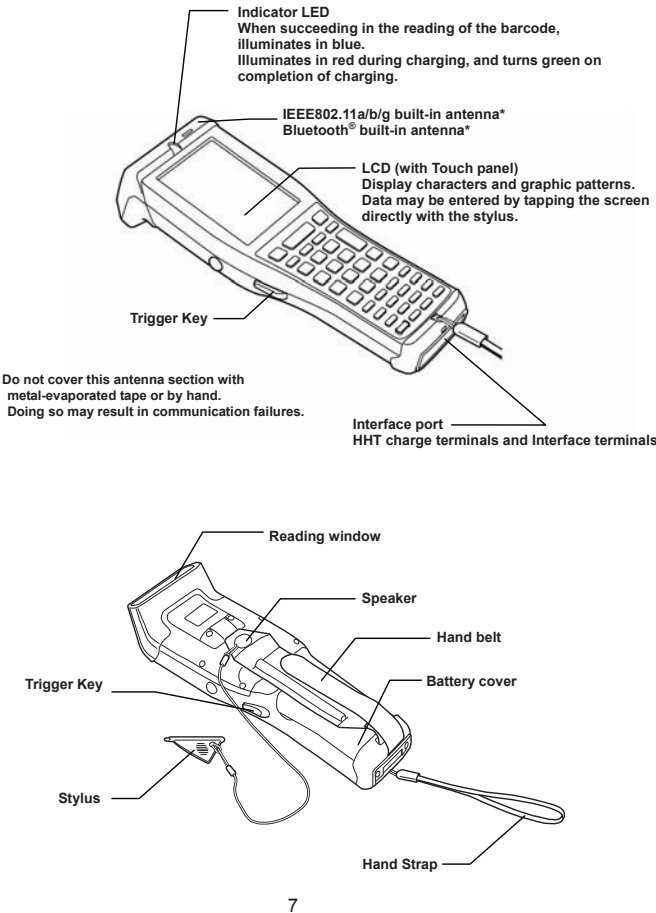
### Keep the HHT away from electromagnetic waves and metallic objects.

Wireless communication may not be possible in the following locations.

- In the vicinity of the following devices operating on a 2.4/5 GHz waveband**  
(Communication may not be possible due to electromagnetic interference.)
  - Industrial, scientific, or medical equipment such as microwave ovens
  - Wireless LAN devices
  - Logistics systems in places such as plants or warehouses
  - Wireless devices such as 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.)

3

## Components and Functions



7

## Proper Care of the HHT

Make sure to turn OFF the HHT before cleaning.

- Terminal dirt on the HHT and battery**  
Periodically wipe any dirt from the terminals of the HHT and battery with a cotton swab or similar soft object. The terminal should be treated with the utmost care so as not to be scratched or bent during a cleaning.  
Never use organic solvents such as benzene or alcohol, as this may cause the coated surface to come off.
- Housing dirt**  
Wipe any dirt from the housing with a dry, soft cloth.  
If excessively dirty, wipe with a soft cloth that has been soaked in soapy water (always use neutral detergent) and wrung out thoroughly.  
Never use organic solvents 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.
- Code reading window dirt**  
Any dirt or dust adhering to the clear plate of the code reading window will adversely affect reading performance.  
When using in dusty areas, perform periodic inspections to check whether any dust has accumulated on the clear plate of the code reading window, and if so, first blow the dust away with an airbrush, and then gently wipe the plate with a cotton swab or similar soft object.  
If sand or hard particles have accumulated, rubbing the plate will result in scratches. Blow the particles away with an airbrush or wipe with a soft brush.

## Preparation

Follow the steps below to prepare the HHT for use.

<b>Step 1 Charging the Battery</b>	Charge the battery.
<b>Step 2 Attaching the Stylus and the Hand Strap</b>	Attach the stylus to prevent it from being lost. Attach the hand strap to prevent from dropping
<b>Step 3 Turning ON the Power</b>	Preparation is now complete.

11

### Turning the Power OFF

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

### (1) Normal power OFF

Press the **power** key.  
The HHT power turns OFF after the message right displays.

### Point

Do not remove the battery while the message on the right is displayed.  
Failure to observe this may result in data stored in the HHT being lost.

Shutdown in progress.  
Do not remove the battery.

### (2) Turning the power OFF after registry back-up

Hold down the **CTRL** key and press the **power** key.  
The message right displays and registry back-up is commenced.  
The power turns OFF automatically when the back-up is complete.

### Point

Do not remove the battery while the message on the right is displayed.  
Failure to observe this may result in data stored in the HHT being lost.

Now saving Registry.  
Do not remove the battery.

### (3) Auto power OFF

The power turns OFF automatically when the HHT is not used for the length of time set at the user program. The default time is set to 3 minutes when the HHT is shipped from the factory.  
\* Refer to the User's Manual for further details of auto power OFF.

### Point

Do not remove the battery while Auto power OFF is processing.  
Failure to observe this may result in data stored in the HHT being lost.

## SAFETY PRECAUTIONS

Be sure to observe all these safety precautions.

### Meaning of Symbols



### 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.

### WARNING

#### Handling the battery

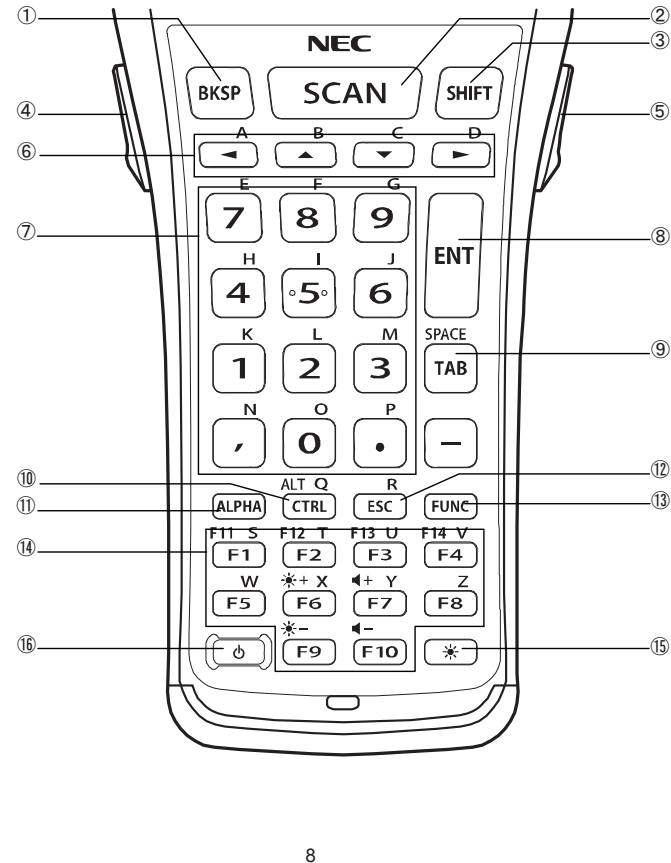
- Incorrect handling of the battery could cause the batteries to generate heat or smoke, or to rupture or burn. This is DANGEROUS. Be sure to observe the following.
- Never disassemble or modify the battery.
- Never connect the positive and negative terminals of the battery with a wire or other metallic 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 (60°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 fully charged. Or it may break the protector, resulting in the battery to overheat, blowout, or combustion.
- Never charge the 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 batteries that are deformed, scratched or cracked remarkably.
- Solder nothing to the battery directly.
- The battery is exclusively for the HHT. Do not use the battery for purposes other than charging the HHT.
- 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 HHT or HHT Station and avoid further use.
- Only use the HHT Station for charging the battery.
- The battery may be warm immediately after charging or use.
- Do not use in places where pharmaceutical drugs or chemical substances are treated.
- If the device becomes wet, dry it off with a dry cloth.
- In the event that a leakage of the rechargeable battery pack occurs and battery acid comes in contact with skin or clothing, please make sure to quickly remove the leakage with water. Damage to the skin may occur if the leakage is not cleaned off the skin or clothing.
- 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 HHT or HHT Station and avoid further use.
- When storing the device, make sure that there is no dust, metals, or other foreign substances attached to it.

4

### Key pad

The HHT key functions can be set at user programs.

The diagram below shows an example of settings for each key function.



8

## Step 1 Charging

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

The following HHT Station can be used with the HHT.

HHT Station: S1635-03, S1635-03B, S1637-03

**Full charging takes approximately 3 hours.**

\*A slightly discharged battery takes less than 3 hours to fully charge.

- Charging with the HHT  
Make sure that the Power LED illuminates in green and the HHT station is powered on.

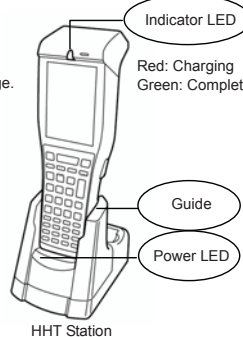
Insert the HHT along the guide and push it in the HHT station.  
The LED illuminates in red (and a beeper sounds) and charging begins.  
The HHT Indicator LED will change to green when charging is complete.

The indicator LED flashing in red indicates the following causes. The proper action stated below must be taken.

- Abnormal temperature of the battery is detected.
- Charge the battery under the proper temperature (10° to 40°C).
  - Avoid places where there are objects generating heat nearby or exposed to direct sunlight.
  - Terminate charging and replace the battery if there are no objects generating heat nearby.
- The charge terminals contact failure
- Wipe any dirt or dust from the charge terminals.
- Charging is not completed even after the specified time has elapsed.
  - Terminate charging and use a dedicated AC adapter to charge the battery.
- The battery is broken or the battery life has ended.
- Replace the battery.

\* Refer to "How to Replace the Battery" for how to insert the battery into the HHT main body.  
\*\* When charging does not begin, refer to "Proper placing in the HHT Station" and place the HHT in the HHT station properly. When a main battery is completely discharged, a few seconds elapse before the indicator LED illuminates and a beeper sounds.

- Remove the battery from the HHT main body or the HHT Station and store at cool and dry place, when you don't use your HHT for an extended period of time.
- Check the condition of battery on the following points before you store it for a long time:
  - If the battery is fully charged (a state right after charge is completed), and
  - If the remaining battery level is very low (there is not enough power left to activate the HHT).Long-term storage under these conditions may deteriorate the performance and life of the battery. You are recommended to ensure that the battery is at least at the **100%** charge level required for long-term storage. In addition, even you don't use the battery for a long term, keep this power level by recharging once a year in order to maintain the battery performance.
- The battery may swell over the years. This is a natural characteristic of a lithium-ion battery and is not safety hazard.

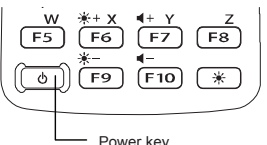


HHT Station

## Scanning Barcodes

Follow the procedure below to scan barcodes.

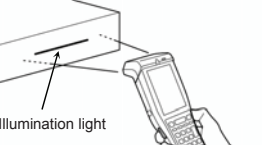
### 1 Turn the HHT power ON.



Power key

### 2 Press the trigger key.

The HHT emits an illumination LED.



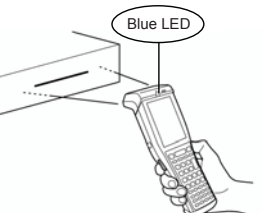
Illumination light

### 3 Hold the HHT close to the barcode to align the illumination LED.

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

Barcodes can be read also by pressing the Scan key.

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



Blue LED

16



