



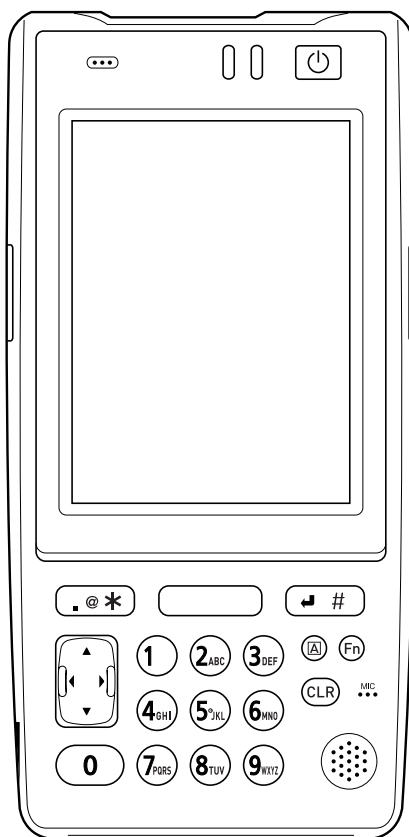
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**CASIO®**

# Handheld Terminal **IT-600** Series

## User's Guide

Be sure to read "Safety Precautions" inside this guide before trying to use your Handheld Terminal. After reading this guide, keep it in a safe place for future reference.



PN410399-001



# Handheld IT

## User's



Be sure to read the "Precautions" in the user's guide before using your Handheld IT. After reading this guide, keep it in a safe place for future reference.



- This Product is equipped with the Brycen BL-RAPPORE Stack and My Wirefree Network Bluetooth User Interface Application, the use of which is governed by a license granted by Brycen Co., Ltd.



- BLUETOOTH is a registered trademark owned by Bluetooth SIG, Inc. and licensed to CASIO COMPUTER CO., LTD.
- Microsoft and Windows are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.



## Safety Precautions

Congratulations upon your selection of this CASIO product. Be sure to read the following Safety Precautions before trying to use it for the first time.

### Markings and Symbols

The following are the meanings of the markings and symbols used in these Safety Precautions.



#### **Danger**

This symbol indicates information that, if ignored or applied incorrectly, creates the danger of death or serious personal injury.



#### **Warning**

This symbol indicates information that, if ignored or applied incorrectly, creates the possibility of death or serious personal injury.



#### **Caution**

This symbol indicates information that, if ignored or applied incorrectly, creates the possibility of personal injury or property damage.



- A diagonal line indicates something you should not do. The symbol shown here indicates you should not try to take the unit apart.



- A black circle indicates something you should do. The symbol shown here indicates you should unplug the unit from the wall outlet.

### Precautions During Use



#### **Warning**

##### **Disassembly and Modification**



- Never try to disassemble or modify the Handheld Terminal and its options in any way. High voltage inside creates the danger of electric shock.

##### **Abnormal Conditions**




- Should the Handheld Terminal and its options become hot or start to emit smoke or a strange odor, immediately turn off the power, and contact your original vendor or an authorized CASIO service provider. Continued use creates the danger of fire and electric shock.




### **Warning**


#### **Foreign Objects**

-  Should any foreign matter get into the Handheld Terminal and its options, immediately turn off the power and contact your original vendor or an authorized CASIO service provider. Continued use creates the danger of fire and electric shock.


#### **Dropping and Damage**

-  Should you drop the Handheld Terminal and its options and damage them, immediately turn off the power and contact your original vendor or an authorized CASIO service provider. Continued use creates the danger of fire and electric shock.

#### **Moisture**


-  Though the Handheld Terminal is water splash-resistant, its optional peripherals are not. Keep loose metal objects and containers filled with liquids away from your Handheld Terminal and the optional peripherals. Also, never connect or disconnect peripherals to the Handheld Terminal while they are wet. Water getting into the Handheld Terminal or its peripherals creates the danger of fire and electric shock.

#### **Laser Light**

-  This product scans bar codes using laser light. Never look directly into the laser light or shine the laser light into the eyes.

### **Warning!**

#### **Interference with the Operation of Other Equipment (Using Wireless Data Communication)**

-  Keep your Handheld Terminal at least 22 centimeters (8<sup>11</sup>/<sub>16</sub>" ) away from anyone wearing a pacemaker. Radio waves emitted by the Handheld Terminal can affect the operation of a pacemaker.
- In order to protect someone wearing a pacemaker from the risk of unintentional interference, turn off the Handheld Terminal before boarding a crowded train or entering any other crowded area.



### **Caution**

#### **Foreign Objects**



- Take care to ensure that metals or combustible objects are not inserted into the openings of the Handheld Terminal and its options. Such the objects inside of the Handheld Terminal create the danger of fire and electric shock.

#### **Location**



- Do not locate the Handheld Terminal and its options on a surface that is unstable or uneven. Doing so creates the danger of the Handheld Terminal falling, which can cause personal injury.
- Do not locate the Handheld Terminal and its options in an area subject to large amounts of humidity or dust. Doing so creates the danger of fire and electric shock.
- Do not leave the Handheld Terminal and its options for a long period in a car parked in direct sunlight.

#### **Heavy Objects**



- Never place heavy objects on top of the Handheld Terminal and its options. Doing so creates the danger of loss of balance and the objects falling, which can cause personal injury.

#### **LCD Screen**



- Never apply strong pressure to the screen or subject it to strong impact. Doing so can crack the screen or LCD panel glass, which can cause the danger of personal injury.
- Should the LCD panel glass break, never touch the liquid inside. Doing so can cause skin inflammation.
  - Should liquid from the LCD panel accidentally get into your mouth, immediately wash your mouth with water and then consult a physician.
  - Should liquid from the LCD panel accidentally get into your eyes or onto your skin, immediately rinse for at least 15 minutes with clean tap water and then consult a physician.


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## Optional Lithium-ion Battery Pack



### **Danger**





- Never allow the battery pack to become wet. Water can create the danger of battery pack heat emission, explosion, and fire.
- Never use or leave the battery pack next to open flame, near a stove, or any other area exposed to high heat. Doing so creates the danger of battery pack heat emission, explosion, and fire.
- Never use the battery pack with any device other than the Handheld Terminal. Doing so can create the danger of battery pack heat emission, explosion, and fire.
- Note that the battery pack's positive (+) and negative (–) polarities must be oriented correctly when it is loaded into battery charger or the Handheld Terminal. Connecting the battery pack with its polarities reversed creates the danger of battery pack fluid leakage, heat emission, explosion, and fire.
- Never dispose of the battery pack by incinerating it or otherwise expose it to heat. Doing so creates the danger of battery pack heat emission, explosion, and fire.
- Never allow the positive (+) and negative (–) terminals of the battery pack to become connected (shorted) by metal. Doing so creates the danger of battery pack heat emission, explosion, and fire.
- Never transport or store the battery pack together with a necklace, hair pins or other metal objects. Doing so can short battery pack terminals, creating the danger of battery pack heat emission, explosion, and fire. Be sure to place the battery pack in its case whenever transporting or storing it.
- Never throw the battery pack or otherwise subject it to strong impact. Doing so creates the danger of battery pack heat emission, explosion, and fire.
- Never pierce the battery pack with nails, hit it with a hammer, or step on it. Doing so can create the danger of battery pack heat emission, explosion, and fire.
- Never try to take apart the battery pack or modify it in any way. Doing so creates the danger of battery pack heat emission, explosion, and fire.
-  Use only the specified battery charger to charge the battery pack. Use of other type of battery charger creates the danger of battery pack heat emission, explosion, and fire.



### **Warning**

-  • Never place the battery pack in a microwave oven or any other high-voltage device. Doing so creates the danger of battery pack heat emission, explosion, and fire.
- Should the battery pack emit a strange odor or heat, change color or shape, or exhibit any other abnormal behavior, immediately stop using it. Continued use creates the danger of battery pack heat emission, explosion, and fire.
-  • If the amount of time period the battery pack can serve becomes considerably short, stop using it. It may indicate the possibility of a malfunction in the battery pack. Continued charging the battery pack creates the danger of heat emission, explosion, and fire.
- If the battery pack does not achieve full charge after the normal charging time has passed, stop charging it. Continued charging creates the danger of battery pack heat emission, explosion, and fire.
- Should the battery pack start to leak or emit a strange odor, immediately move it away from any nearby flame. Leaking battery fluid is combustible, and exposure to flame creates the danger of explosion and fire.
- Should fluid from the battery pack accidentally get into your eyes, do not rub them. Immediately rinse your eyes with clean tap water and then consult a physician immediately.

### **Caution**

-  • Never use or leave the battery pack in an area exposed to direct sunlight, in a car parked in direct sunlight, or any other very hot area. Doing so creates the danger of heat emission and fire, as well as deterioration of battery pack performance and shortening of its service life.
- Do not use the battery pack in areas where static electricity is being generated. Doing so creates the danger of battery pack heat emission, explosion, and fire.
-  • Danger of explosion if the battery pack is incorrectly replaced.  
Replace only with same or equivalent type recommended by CASIO.  
Dispose of used batteries according to the local regulation.
- Should fluid from the battery pack accidentally get onto clothing or your skin, immediately rinse it off with clean tap water. Prolonged contact with battery pack fluid can cause skin irritation.
- Keep the battery pack out of the reach of small children. Do not let small children remove the battery pack from battery charger or the Handheld Terminal while it is powered on.



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## AC Power Supply

### **Warning**

-  Do not use the Handheld Terminal at a voltage other than the specified voltage. Also, do not connect the Handheld Terminal to a multi-plug power strip. Doing so creates the danger of fire and electric shock.
- Avoid conditions that can cause damage or breaks in the power cord. Do not place heavy objects on the power cord and keep it away from sources of heat. Any of these conditions can damage the power cord, creating the danger of fire and electric shock.
- Never modify, sharply bend, twist, or pull on the power cord. Doing so creates the danger of fire and electric shock.
-  When using the battery chargers and the cradles, be sure to use the respective AC adaptors (sold separately). Use of other AC adaptor model creates the danger of fire and electric shock.
- Should the power cord become severely damaged (to the point that wires are exposed or broken), contact an authorized CASIO service provider about repair or replacement. Use of a damaged electrical cord creates the danger of fire and electric shock.

### **Caution**

-  Keep the power cord away from stoves and other sources of extreme heat. Heat can melt the covering of the power cord and create the danger of fire and electric shock.
-  Never pull on the power cord when unplugging it. Doing so can damage the cord and create the danger of fire and electric shock. (Always hold the plug when unplugging it from the wall outlet.)
- Never touch the plug while your hands are wet. Doing so can create the danger of electric shock.
-  Be sure to unplug the power cord from the wall outlet before moving the battery chargers and the cradles. Failure to do so can result in damage to the power cord caused by pulling it, which creates the danger of fire and electric shock.
- Be sure to unplug the power cord from the wall outlet before cleaning the battery chargers and the cradles.
- Be sure to unplug the power cord after use.
- Unplug the power cord from the wall outlet whenever leaving the battery chargers and the cradles unattended for a long period.

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## AC Adaptor

### Caution



- The housing of the AC adaptor can become warm during normal use.



- Take normal precautions against electric shock.



- At least once a year, unplug the AC adaptor from the wall outlet and clean any dust that builds up between the prongs of the plug.  
Dust built up between the prongs can lead to the danger of fire.

## Backup Copies of All Important Data

### Caution



- Note that CASIO Computer Co., Ltd. shall not be held liable to you or any third party for any damages or loss caused by deletion or corruption of data due to use of the Handheld Terminal, malfunction or repair of the Handheld Terminal or its peripherals, or due to the batteries going dead.
- The Handheld Terminal employs electronic memory to store data, which means that memory contents can be corrupted or deleted if power is interrupted due to the batteries going dead or incorrect battery replacement procedures. Data cannot be recovered once it is lost or corrupted. Be sure to make backup copies of all important data. One way to do this is to use the separately sold Cradles to transfer data to a computer.



## Operating Precautions

Your Handheld terminal and its options are precision. Improper operation or rough handling can cause problems with data storage and other problems. Note and observe the following precautions to ensure proper operation.

- **Do not continue operating the Handheld Terminal when battery power is low.**  
Doing so can cause data to be lost. When the battery goes low, charge it as soon as possible.
- **Do not leave dead battery pack in the Handheld Terminal for a long period.**  
Dead battery pack can leak, leading to malfunction and damage to the Handheld Terminal.
- **Use the Handheld Terminal and its options only within the specified temperature range.**  
Use outside of the specified temperature range creates the risk of malfunction.
- **Avoid using the Handheld Terminal and its options in areas subject to the following conditions.**  
The following conditions create the risk of damage to the Handheld Terminal.
  - Large amounts of static electricity
  - Extreme heat or extreme cold
  - High humidity
  - Sudden temperature extremes
  - Large amounts of dust
- **Use only the dedicated stylus that comes with the Handheld Terminal to operate its touch screen and reset switch.**
- **Do not use any tool other than the dedicated stylus to operate the touch screen.**  
Other tools can scratch the touch screen and lead to malfunction.
- **Never use thinner, benzene, cosmetic cleaning fluids, or other volatile agents to clean the Handheld Terminal.**  
To clean the Handheld Terminal, wipe it with a dry cloth, or a cloth moistened in a weak solution of water and a mild neutral detergent. Wring all excess moisture from the cloth before wiping.
- **Although the Handheld Terminal meets the IP54 level of the International Standard IEC529, pay your attention to the following when using it in the rain.**
  - After a large amount of rain or water falls on the Handheld Terminal, wipe off it immediately.
  - Do not use it in the rain for a long period of time.
  - Make sure the battery cover and connect cover are closed securely before using it.
  - Do not press on the touch screen or keys with excessive force when using it in the rain.

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## Important

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- The contents of this guide are subject to change without notice.
- Note that CASIO COMPUTER CO., LTD. shall not be held liable to you or any third parties for any losses or damages arising from the use of this guide.
- This guide does not include any information about programming and download procedures. See the applicable separate documentation for information about the procedures.

## After Service

- Should this product ever malfunction, contact your original retailer providing information about the product name, the date you purchased it, and details about the problem.



This mark applies in EU countries only.





We, the undersigned.

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<b>Country</b>	Germany
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certify and declare under our sole responsibility that the following equipments:

<b>Product description/Intended use</b>	
<b>EU/EFTA member states intended for use</b>	<b>EU:</b> Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, The Netherlands, Portugal, Spain, Sweden, United Kingdom, Czech Republic, Hungary, Poland, Slovenia, Slovakia, Estonia, Latvia, Lithuania, Cyprus, Malta <b>EFTA:</b> Switzerland, Iceland, Lichtenstein, Norway
<b>Member states with restrictive use</b>	NONE
<b>Manufacturer</b>	CASIO COMPUTER CO., LTD.
<b>Brand</b>	CASIO
<b>Type</b>	IT-600M30, IT-600M30C IT-600M30R, IT-600M30CR

are tested and found to conform with the essential requirements for protection of health and the safety of the user and any other persons and Electromagnetic Compatibility, as included in following standards:

<b>Standard</b>	<b>Issue date</b>
EN60950-1	2001
EN301 489-1 V1.4.1	2002.08
EN301 489-17 V1.2.1	2002.08

and are tested and found to conform with the essential radio test suites so that they effectively use the frequency spectrum allocated to terrestrial/space radio communication and orbital resources so to as to avoid harmful interference, as included in following standards:

<b>Standard</b>	<b>Issue date</b>
EN300328 V1.6.1	2004.11
EN50371 (only IT-600M30R/M30CR)	2002

and therefore comply with the essential requirements and provisions of the **Directive 1999/5/EC** of the European Parliament and of the council of March 9, 1999 on Radio equipment and Telecommunications Terminal Equipment and the mutual recognition of their conformity and with the provisions of Annex III (Conformity Assessment procedure referred to in article 10).

The technical documentation as required by the Conformity Assessment procedure is kept at the following address:

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<b>Country</b>	Germany
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Products are for distribution within  
all member states of the EU.

**CE 0984** ⓘ

France limited to 2446.5-2483.5 Mhz Indoor use.

Belgium limited to 2400-2483.5 Mhz Indoor, 2460-2483.5 Mhz Outdoor use.

The Netherlands limited to 2400-2483.5 Mhz Indoor use with no license, 2451-2471.0  
Mhz Outdoor use with license.

The information described above dates from January 2003 and may be subjected to future  
changes.



CASIO Europe GmbH  
Bornbarch 10,  
D-22848 Norderstedt, Germany

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## Checking in the Box

Please check the contents of the box before using the Handheld Terminal for the first time.

Open the box and make sure that all the items shown here are included.

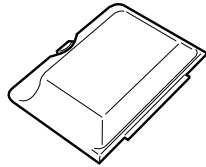
**Handheld Terminal**



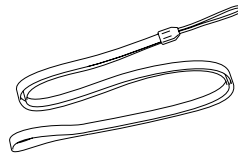
**Stylus**



**Large-capacity battery  
pack cover**



**Neck Strap**



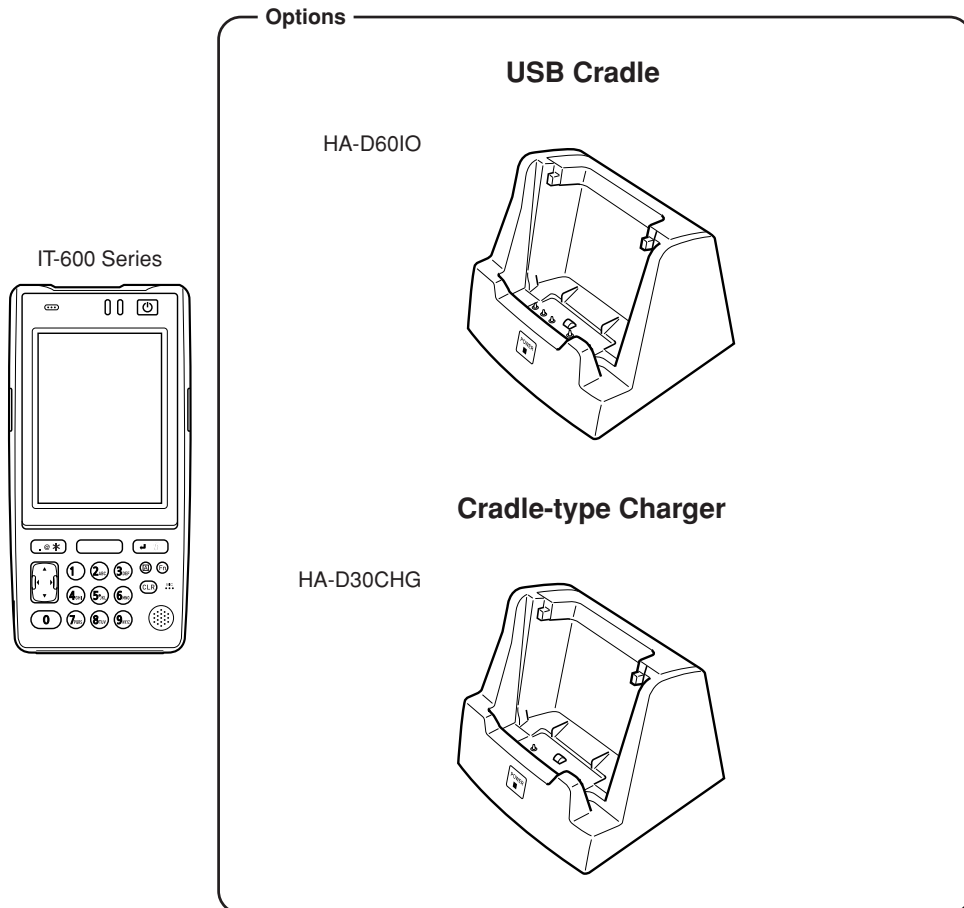
**User's Guide (this manual)**

**Touch Screen Protective Sheet**





## Handheld Terminal System Configuration



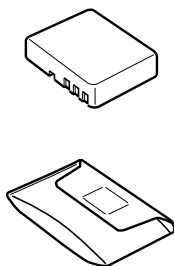
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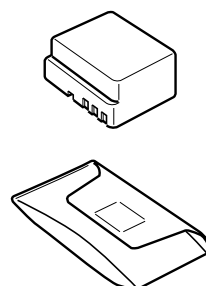
## Options

### Battery Pack

HA-D20BAT  
(Battery Pack)

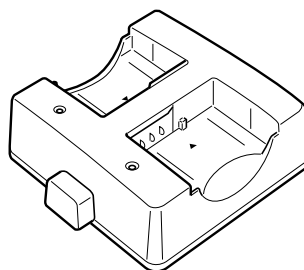


HA-D21LBAT  
(Large-capacity Battery Pack)



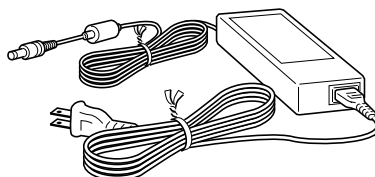
### Dual Battery Charger

HA-D32DCHG



### AC Adaptor for Dual Battery Charger/ USB Cradle

AD-S42120AE

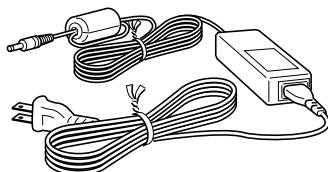




#### Options

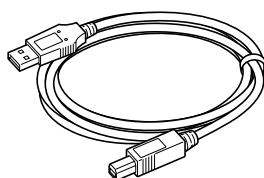
##### AC Adaptor for Cradle-Type Charger

AD-S15050AE

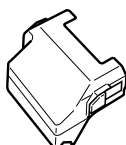


##### Cable

DT-380USB



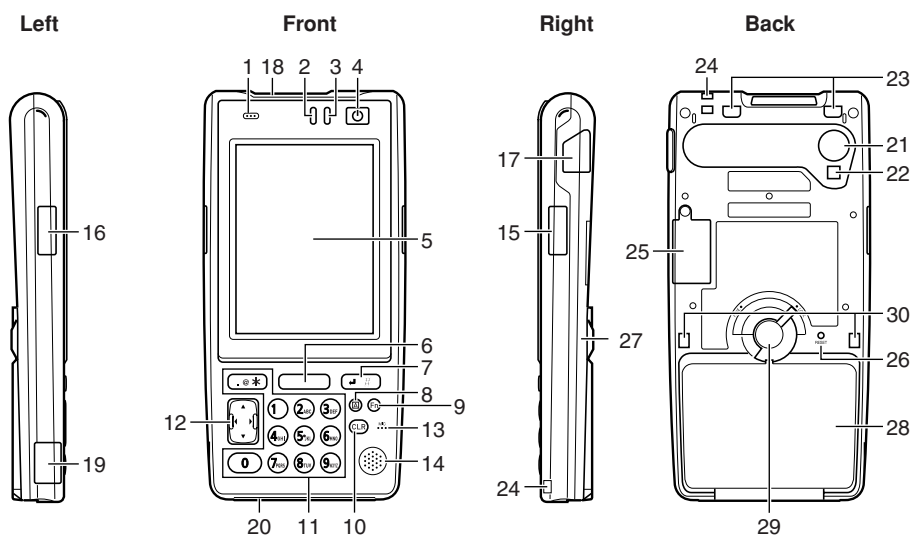
##### Laser Redirection Attachment



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## General Guide



1	Buzzer	Sounds a buzzer.
2	Indicator 1	Orange: Charging Green: Charging complete Red: Battery pack error or outside charging temperature range
3	Indicator 2	Flashes in blue when operating via Bluetooth or in orange when operating via WLAN. Lights in green when reading a bar code successfully.
4	Power Key	Turns the power on and off.
5	Touch Screen	Displays text and operating instructions. Also used to operate the Handheld Terminal and enter data using the stylus provided.
6	Center Trigger Key	Used to perform bar code reading. Can be assigned an arbitrary function.
7	Execute Key	Press when finishing entering numerical values or when moving to the next step.
8	Text Key	Press when switching to the text input mode.
9	Fn Key	Used to make various settings in combination with the numeric keys or when starting a pre-registered application.
10	CLR Key	Used to clear one letter to the left of the input key.
11	Numeric Keys	Used to enter numbers or letters.

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12	Cursor Key	Performs the same functions as the up, down, left and right arrow keys on a PC keyboard.
13	Microphone	Used to input a sound including voice.
14	Speaker	Alarms and voice messages are output here. Voice messages are not output from the speaker when a headset is connected to the headset jack. (The sound of the camera shutter is always output from the speaker.)
15	Trigger R Key	Used to perform bar code reading.
16	Trigger L Key	Used to perform bar code reading.
17	Headset Jack	A separately sold headset can be connected here.
18	Barcode Reader Port	Laser light is emitted from this window that reads barcodes.
19	IR Port	Used for communication with another Handheld Terminal.
20	USB Cradle Terminal	Used to communicate with and to receive power provided by the USB Cradle.
21	Digital Camera	Used to capture photographs, images.
22	LED Light	Used to light up an object when capturing with the Digital Camera.
23	Laser Redirection Attachment Mount Holes	Used to attach the separately sold laser redirection attachment.
24	Strap Holes	Used to attach the strap.
25	Expansion Port	Provided for future expansion.
26	Reset Switch	Used to reset the Handheld Terminal.
27	miniSD Card Slot	Provided for installing a miniSD card by removing the battery pack.
28	Battery Pack Cover	Used to cover the battery compartment that holds the battery pack inside.
29	Battery Pack Cover Lock Switch	Used to lock the battery cover and to release.
30	USB Cradle Mount Holes	Used to mount the Handheld Terminal to the separately sold USB Cradle.

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## Loading and Removing the Battery Pack

Your Handheld Terminal uses two types of battery: a battery pack and a memory backup battery.

The battery pack is used to power normal operations and to store data, while the memory backup battery provides the power required to maintain memory contents when the battery pack power is unable to supply power for some reason.

The operating power is supplied by a battery pack. You can choose between a battery pack (HA-D20BAT) and a large-capacity battery pack (HA-D21LBAT).

The backup battery is installed inside of the Handheld Terminal.

### **This guide uses the following terms to refer to the batteries.**

**Battery Pack:** Rechargeable battery pack (HA-D20BAT or HA-D21LBAT) for normal operations and data storage

**Backup Battery:** Built-in battery for memory backup

When the battery pack power goes low, immediately charge it or replace it with a charged battery pack.

You can use the Dual Battery Charger, the Cradle-type Charger, or the USB Cradle to charge a battery pack. See the sections of this guide that cover the Dual Battery Charger, the Cradle-type Charger, and the USB Cradle for information about how to use them for charging.

### **Important!**

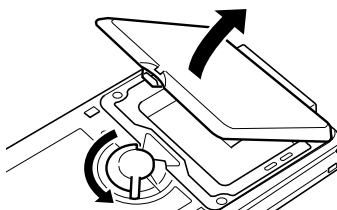
#### **Always keep backup copies of all important data!**

- The battery pack powers normal operation and also provides power required to maintain memory contents, while the backup battery provides backup power to maintain memory contents. Because of this, you should not remove the battery pack if the backup battery is dead. Removing the battery pack while the backup battery is dead causes data in the memory to be corrupted or lost. Note that once data is lost it cannot be recovered. Always keep separate backup copies of all important data.
- The charge of a battery pack when you purchase it may be depleted due to testing at the factory or natural discharge during shipment and storage. Be sure to charge the battery pack before you use it.
- The life of a battery pack is limited, and charging a battery pack causes it to gradually lose its ability to maintain the charge. If your battery pack seems to require charging very frequently, it probably means it is time to purchase a new one.
- A fully charged backup battery can maintain memory (RAM) contents for about 10 minutes, even when the battery pack is removed.
- The backup battery achieves a full charge in about four days when the battery pack is loaded.

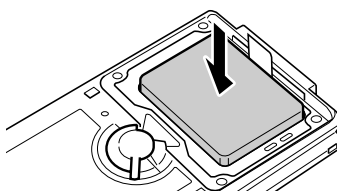


## Loading

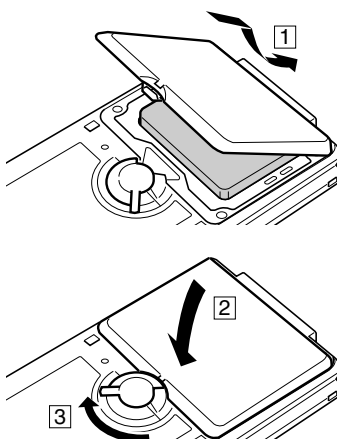
1. Turn over the Handheld Terminal.
2. Slide the battery pack lock switch to the "FREE" position, and then remove the battery pack cover.



3. Load a battery pack (HA-D20BAT) or large-capacity battery pack (HA-D21LBAT). Take care that the battery pack is oriented correctly when you load it. In addition, load the battery back while making sure that the end of the battery pack removal tape is protruding above the battery pack.



4. Put back the battery pack cover as shown in the diagram and then return the battery pack cover switch to the "LOCK" position. When loading a large-capacity battery pack, use the large-capacity battery pack cover instead of the battery pack cover.



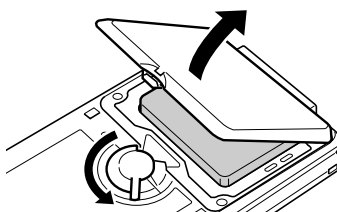
E-21



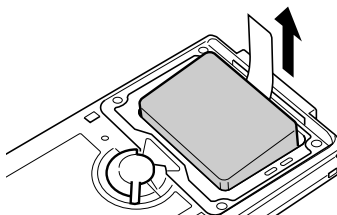


## Removing

1. Make sure that the Handheld Terminal is turned off.  
If the power is on, press the power key to turn it off.
2. Turn over the Handheld Terminal.
3. Turn the battery pack lock switch on the back of the Handheld Terminal to the "FREE" position, and then remove the battery pack cover.



4. Remove the battery pack by pulling up the removal tape as shown in the illustration.

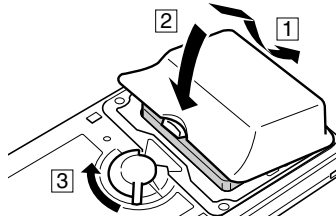




### Loading the large-capacity battery pack into the Handheld Terminal

After loading the large-capacity battery pack, you need to use the special large-capacity battery pack cover in place of the standard battery pack cover.

“Loading and Removing” of the large-capacity battery pack cover are the same as those for the standard battery pack cover.



#### Important!

- When removing the battery pack, make sure you do not leave the Handheld Terminal without a battery pack for more than about 10 minutes. Doing so can cause data in the memory to be deleted.
- When removing the battery pack, be sure you carefully follow the proper procedure as explained in this guide.
- Never try to use other type of battery than the ones that are specified for this product.
- When removing the battery pack, pull the removal tape straight up and remove the battery pack. Removing with excessive force can damage the battery pack.



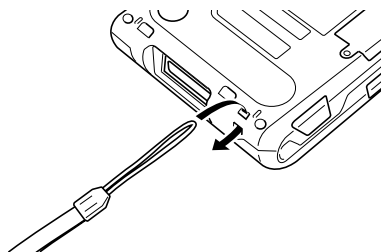
## Attaching the Neck Strap

---

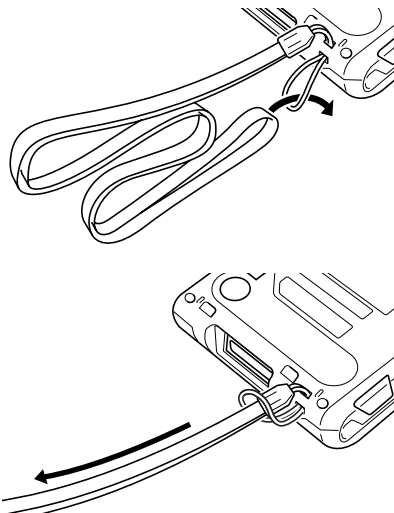
The neck strap can be used to prevent the Handheld Terminal from dropping when carrying it around. Since there are two strap holes where the neck strap can be attached, use the hole that affords the greatest ease of use. Attach the neck strap according to the procedure described below.

### To attach the neck strap

1. Pass the thin cord of the neck strap through the neck strap hole on the back of the Handheld Terminal.



2. Pass the other end of the strap (the part you put around your neck) through the loop formed by the thin cord.



### Important!

Do not swing the Handheld Terminal around holding the neck strap.

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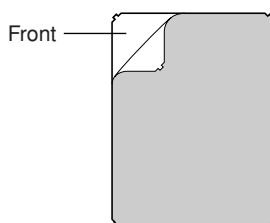
## Attaching the Touch Screen Protective Sheet

Attach the touch screen protective sheet according to the procedure described below.

### Important!

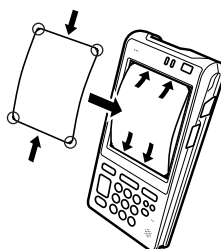
**Do not press on the touch screen with excessive force when attaching the touch screen protective sheet. This can damage the touch screen.**

1. Switch the power of this unit OFF and remove any dust or other debris from the touch screen.



2. Peel off the film (green) affixed to the front of the protective sheet.

- If you have difficulty in peeling off the film, use a piece of cellophane tape. (After cutting a piece of cellophane tape to a suitable length, hold onto one end of the piece of cellophane tape and press the adhesive side of the other end of the tape onto the green film. The film can be peeled off easily by pulling up the tape.)
  - The opposite of the surface where the film was affixed is the surface that is faced to the touch screen.
3. With its front side (the side to which the film was attached) towards you, fix the upper and lower sides of the protective sheet properly to the touch screen. If you encounter difficulties fixing it properly, carefully bend the slight projections at the four corners of the protective sheet to the front.



- Be careful so that dust and other debris is not allowed to get between the touch screen and the protective sheet. Using the Handheld Terminal with dust or other debris trapped between the touch screen and protective sheet can damage the touch screen.

**E-25**



## Configuring Handheld Terminal Settings

### Calibrating Touch Screen Alignment

Whenever the response of the touch screen is poor, or the operations being executed do not match with the location you are tapping on the touch screen, please recalibrate the alignment of the touch screen using the following method.

- Press the “Fn” key and then press the “4” key after confirming that “F” is displayed in the lower right corner of the screen. The following screen is displayed.
- \* The following screen can also be displayed by accessing the menus and tab in order of Start → Settings → Stylus → Calibration.

Carefully press and briefly hold stylus on the center of the target. Repeat as the target moves around the screen. Press the Fn key and then the CLR key to cancel.



- Press the stylus against the center of the target mark (+ mark) as indicated on the screen. The screen shown below appears after you press the stylus against the target at five different locations.

New settings have been measured. Press the Execute key to accept the new settings. Press the Fn key and then the CLR key to keep the old settings.

- Press the Execute key or tap anywhere on the touch screen.

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## Adjusting Display Brightness

You can use the following procedures to adjust display brightness to make it easier to read under different lighting conditions.

- Press the “Fn” key and then press the “5” key or “6” key after confirming that “F” is displayed in the lower right corner of the screen. Pressing the “5” key adjusts brightness for a darker display, while pressing the “6” key adjusts brightness for a lighter display.
- \* In order to continue to make adjustments, press the “5” key or “6” key after again first pressing the “Fn” key.
- \* Brightness settings can also be made by accessing the menus and tab in order of Start → Settings → Brightness → Brightness (Battery) or Brightness (External).

## Display Auto Dimmer

The display auto dimmer automatically lowers display brightness if you do not perform any operation for a specific period of time. This helps the battery power to be conserved.

You can use the following procedure to specify a period of time that should be allowed to elapse until when the auto dimming is initiated.

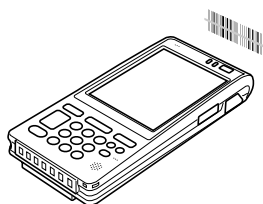
- Access the menus and tab in order of Start → Settings → Brightness → Backlight.



## Using the Laser Scanner

---

1. After turning on the power, position the laser scanner close to a bar code and then press the trigger key.



2. The laser emits light and scans the bar code. If scanning is completed normally, Indicator 2 displays a green light and a buzzer sounds.

### Important!

- If you are unable to scan a bar code, try changing the angle at which the scanner is held or distance from the scanner to the bar code, and then try scanning again.
- This Handheld Terminal is capable of scanning bar codes at a distance of about 40-300 mm ( $1\frac{9}{16}$ " -  $11\frac{13}{16}$ "). Furthermore, the distance at which scanning is possible may vary according to the bar code symbology.



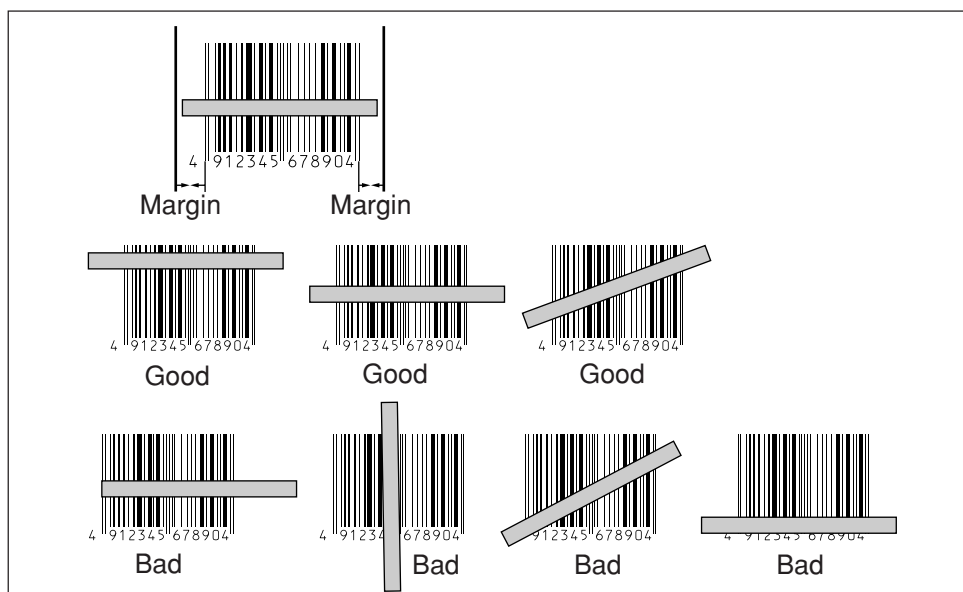
## Warning Label



- This label is a warning and caution label for Class 2 laser products that comply with IEC60825-1:1993+A1:1997+A2:2001.
- Although Class 2 laser light is only emitted momentarily, never look directly into the beam light.
- The laser light emitted by this laser scanner has a maximum output of less than 1 mW and a wavelength of 650 nm.
- Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

## Bar Code Scanning Position

Position the laser scanner close to the bar code when scanning small bar codes.  
Position the laser scanner at a distance from the bar code so that the bars enter the light when scanning large bar codes.



### Warning!

#### ■ Never look directly into the laser light.



- This product scans using laser light. Never look directly into the laser light or shine the laser light into the eyes.

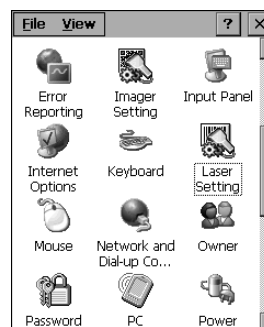
E-29



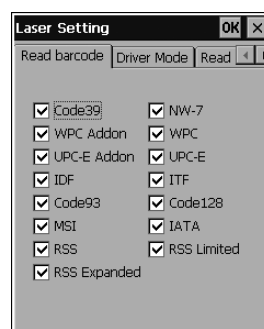
## Adjusting the Laser Light Emission Width

The emission width of the laser light emitted by the Handheld Terminal can be adjusted. Adjust the emission width when it has been changed.

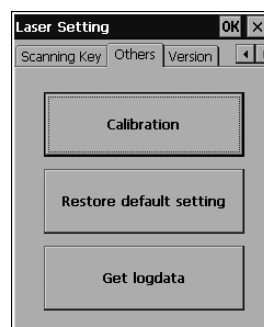
1. Tap the menus in order of Start ⇒ Set ⇒ Control Panel.  
The Control Panel appears as shown in the screen.



2. Double-click the [Laser Setting] icon. [Laser Setting] screen appears as shown in the screen.

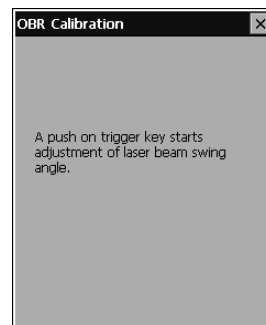


3. Tap the [Others] tab in the [Laser Setting] screen.

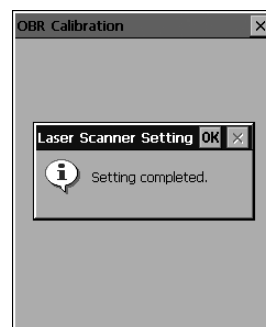




4. Tap the [Calibration] button. The display appears as shown at right.



5. Press the Trigger Key to emit laser light, and align the light with the barcode for adjusting emission width.
- Align the laser light with the narrow bars on both sides.
  - The display appears as shown at right when adjustment is completed.
  - Repeat setting if “Setting failed” is displayed.



### Emission Width Adjustment Bar code





## Handling miniSD Cards

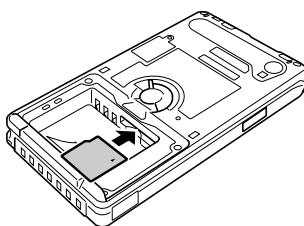
The Handheld Terminal supports miniSD card.

Since the miniSD card slot is located inside the battery pack compartment, first remove the battery pack when installing or removing a miniSD card.

Refer to p. 20-22 for information on “Loading and Removing the battery pack”. Install (or replace) a miniSD card according to the procedure described below.

### Installing

1. Check that the power is turned off. If the power is on, always make sure to turn it off by pressing the Power Key.
2. Remove the battery pack.
3. Insert the miniSD card with the top of the card (containing lettering) facing up by properly aligning with the slot.
  - Although some resistance may be felt when the card is inserted, gently insert the card all the way into the slot until it contacts the back of the slot.
  - Do not push in the card on the angle.

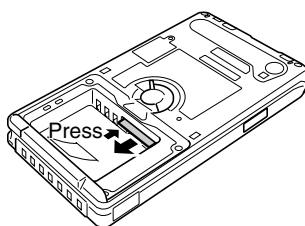


4. Load the battery pack.



## Removing

1. Check that the power is turned off.  
If the power is on, always make sure to turn it off by pressing the Power Key.
2. Remove the battery pack.
3. Push on the card. Slowly remove the card after it slightly pops out.



4. Load the battery pack.

### Important!

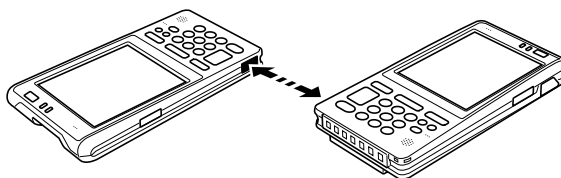
- A miniSD card must be inserted with the top and bottom properly aligned and in the proper direction. Attempting to insert it with an excessive force in the incorrect orientation can risk damage to the connectors and slot. Be careful when inserting a miniSD card.
- The battery pack will not be able to be properly installed if the miniSD card is not properly installed. Reinstall the miniSD card properly if this happens.
- Since data recorded in the Handheld Terminal may be lost if the battery pack is removed for more than 10 minutes, complete the installation (or removing) of miniSD card within 10 minutes.



## Performing Communication

### IR Communication

IR communication can be used to transfer data between two Handheld Terminals. When performing IR communication, orient the IR ports of both Handheld Terminals so they are pointing directly at each other. The ports can be in direct contact with each other, or they can be separated by up to 1 meter (3'3½") (up to 30cm (11<sup>13</sup>/<sub>16</sub>" for 4Mbps communication speed).



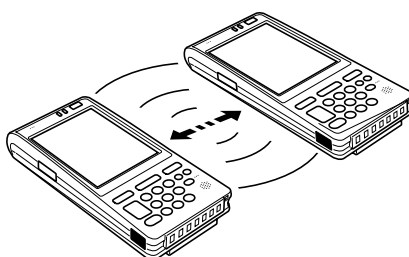
#### Important!

- A high-sensitivity communication element is used during IR communication.
- In order to ensure successful communication, avoid using cellular phones or other devices that emit radio wave in the area where you are performing IR communication.
- If you need to use such a device, move away from the communicating Handheld Terminals. In case of a cellular phone, keep it at least 30cm (11<sup>13</sup>/<sub>16</sub>" away.



## Bluetooth® Communication

Bluetooth® interface can also be used to transfer data between two Handheld Terminals. With Bluetooth® the two Handheld Terminals should be located within about three meters (9'10<sup>3</sup>/<sub>8</sub>"") from each other, as long as there is nothing blocking the path between them.



### Important!

Observe the following precautions to help ensure that Bluetooth communication is successful.

- Make sure two Handheld Terminals face each other within three meters (9'10<sup>3</sup>/<sub>8</sub>""). Surroundings (obstacles) between the Handheld Terminals may cause a shorter distance.
- Make sure there is at least two meters (6' 7") between the Handheld Terminal and other equipment (electrical appliances, audio-visual equipment, OA equipment, and digital cordless telephones, facsimile machines, etc.). (Take special care with microwave ovens. Allow at least three meters (9' 10<sup>3</sup>/<sub>8</sub>") between the Handheld Terminals in wireless operation and a microwave oven.) When approaching such a device when its power is turned on, proper communication may prove impossible while this may also cause interference with TV and radio reception (images produced by certain UHF and broadcast satellite channels may become blurry).
- Normal communication may not be possible in an area near a broadcast transmitter or wireless transmitter. If this happens, move to a different location. Normal communication may not be possible in areas exposed to strong radio waves.
- **RF Wireless LAN Interference**  
Because Bluetooth® and RF wireless LAN use the same frequency band (2.4GHz), radio interference can occur if there is a wireless LAN device nearby. This can result in lower communication speeds, or even make it impossible to establish a connection. If this happens, try the following countermeasures.
  - Move at least 10 meters (32'10<sup>3</sup>/<sub>4</sub>"") away from the wireless LAN device.
  - If you cannot keep the distance at least 10 meters (32'10<sup>3</sup>/<sub>4</sub>"") or more between the Handheld Terminal and a wireless LAN device, turn off the power of either the Handheld terminal or the wireless LAN device.
  - Although the Handheld Terminal enables wireless LAN and Bluetooth® communication to be used simultaneously as a result of being equipped with Bluetooth® Ver. 1.2, communication may not be possible depending on the surrounding radio wave environment.

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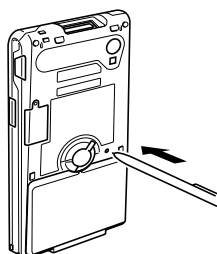


## Resetting the Handheld Terminal

Resetting the Handheld Terminal is the same as restarting a computer. Performing a reset causes all unsaved inputs and edits to be lost, but data that is already stored in the memory as well as all settings should be unaffected.

Use reset to restore normal operation whenever the Handheld Terminal operates abnormally due to misoperation or some other reason.

**Use the stylus to press the reset switch on the back of the Handheld Terminal. This starts the reset operation.**

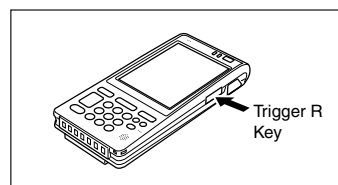
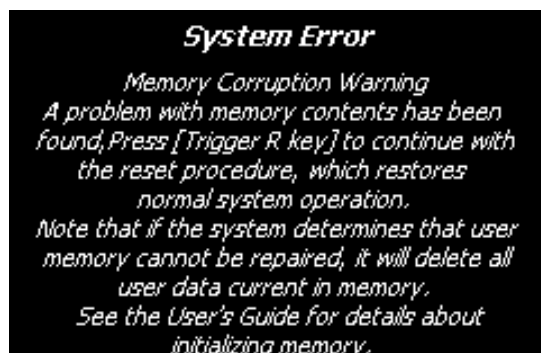


### If reset does not find a memory problem

The Handheld Terminal restarts, and normal operation is restored.

### If reset finds a memory problem

A message like the one shown below appears on the display when the reset operation discovers a memory problem.



When this message appears, press the Trigger key to continue with the reset operation. Note, however, that reset may not be successful depending on the condition of the memory. In this case, perform the full reset operation described on the next page.



## Performing a Full Reset (Initialization)

Performing a full reset initializes memory. This means that all data stored in the memory (RAM) is deleted and all the settings are returned to their initial factory settings.

Perform a full reset whenever any one of the following conditions exists.

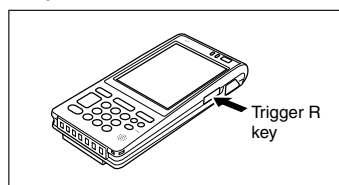
- When you want to delete all memory contents and return the settings to their initial factory settings.
- When you are no longer able to use the Handheld Terminal because you forgot your password.
- When the Handheld Terminal does not operate normally due to a memory problem.
- When the message “A problem with memory contents has been found. ...” appears.

### To perform a full reset Important!

Performing a full reset deletes all data currently stored in the memory (RAM). If possible, backup data of the Handheld Terminal to a computer, Flash Memory, a memory card, or some other medium before performing a full reset.

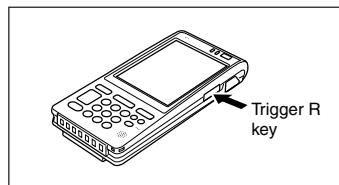
1. Hold down the power key and the CLR key while pushing down the reset button for about 1 second with the stylus until the message shown below appears on the display.
- To cancel the full reset operation, press the Trigger L key.

*Memory All Clear Warning  
Proceeding with this operation initializes memory.  
Press [Trigger R key] to proceed  
or [Trigger L key] to cancel.*



2. Press the Trigger R key. This causes the message shown below to appear.
- To cancel the full reset operation, press the Trigger L key.

*Memory All Clear Warning  
Proceeding with this operation deletes all data  
stored in memory.  
Press [Trigger R key] to proceed  
or [Trigger L key] to cancel.*



3. Press the Trigger R key again.
- Full reset is performed, all data in the memory (RAM) are erased and the start-up screen is displayed.

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## IT-600 Specifications

<b>Model:</b>	IT-600M30, IT-600M30C, IT-600M30R, IT-600M30CR
<b>CPU:</b>	Intel® PXA270 520MHz
<b>Memory:</b>	64MB RAM, 128MB Flash ROM (user defined: 60MB)
<b>OS:</b>	Microsoft® Windows® CE5.0 operating system, English Version
<b>Display:</b>	3.7-inch, 480 × 640-dot semi-transmissive TFT color LCD
<b>Laser scanner:</b>	
Readable symbologies:	EAN, EAN Addon, JAN, JAN Addon, UPC-A/B, UPC-A/B Addon, UPC-E, UPC-E Addon, Code39, NW-7, Interleaved 2 of 5, Industrial 2of 5, Code93, Code128, MSI, IATA, RSS-14, RSS Limited, RSS Expanded
Scanning distance:	Within approximately 40-300 mm (1 <sup>9</sup> / <sub>16</sub> "-11 <sup>13</sup> / <sub>16</sub> " )
<b>IR Port:</b>	
Interface:	IrDA Ver. 1.3 Standard
Synchronization:	Asynchronous, frame synchronization
Transfer Rate:	Up to 4Mbps (max.)
<b>Bluetooth® Communication:</b>	
Protocol:	Bluetooth® Specification Ver.1.2
Range:	Approximately 3 m (9'10 <sup>3</sup> / <sub>8</sub> " ) (depends on radio wave conditions and environment)
Output:	3dBm max. (PowerClass2)
<b>Wireless Communication (IT-600M30R/M30CR):</b>	
Standards:	Complies with IEEE 802.11b Complies with IEEE 802.11g
Diffusion Modulation:	DS: 802.11b DS/OFDM: 802.11g
Frequency:	802.11b: 2.400-2.4835 GHz 802.11g: 2.400-2.4835 GHz
Transmission Rate:	802.11b: Max. 11 Mbps 802.11g: Max. 54 Mbps
Transmission Distance:	50 m indoors, 150 m outdoors (varies according to usage environment and transmission rate)
No. of Channels:	802.11b: 13 (of which 3 channels can be used simultaneously) 802.11g: 13 (of which 3 channels can be used simultaneously)
Output:	10 dBm
Other Functions:	Roaming function between multiple access points
<b>CCD Camera (IT-600M30C/M30CR):</b>	
	Approx. 1,000,000 pixels
<b>Power Requirements:</b>	
Power Supply:	HA-D20BAT Battery Pack HA-D21LBAT Large-capacity Battery Pack
Memory Backup:	Rechargeable Lithium Battery (Built-in)
Power Consumption:	DC 1.8A: IT-600M30R DC 1.9A: IT-600M30, M30CR DC 2.0A: IT-600M30C



#### Battery Life:

##### Battery pack:

IT-600M30/M30C

Approximately 11 hours (HA-D20BAT)\*

Approximately 22 hours (HA-D21LBAT)\*

IT-600M30R/M30CR

Approximately 11 hours (HA-D20BAT)\*

Approximately 22 hours (HA-D21LBAT)\*

Approximately 10 hours (HA-D20BAT)\*\*

Approximately 20 hours (HA-D21LBAT)\*\*

\* In the case of the CPU speed setting in the auto power save mode, backlighting off and standby, operation and scanning at 20:1:1

\*\* In the case of CPU speed setting in the auto power save mode, backlighting off and standby, operation, scanning and wireless at 20:1:1:1

Memory backup: Data Protection (RAM): 10 minutes (when no power is being supplied by the installed battery)

**Operating Temperature:** -10°C to 50°C (14°F to 122°F)

**Operating Humidity:** 10% to 80% RH (non-condensation)

**Drop Durability:** 1.2 m (3'7<sup>7</sup>/<sub>8</sub>")

##### Dust and Water Splash Proof:

IEC529, IP54 Standard

\*When all connectors and covers are closed.

##### Dimensions:

Approximately 82(W) × 166(D) × 23(H) mm (3<sup>1</sup>/<sub>4</sub>"W × 6<sup>9</sup>/<sub>16</sub>"D × 7<sup>7</sup>/<sub>8</sub>"H) (not including projections)

##### Weight:

Approximately 290g (10.2oz) (when standard battery pack is installed)

##### Vibrator Function:

Available according to software setting.

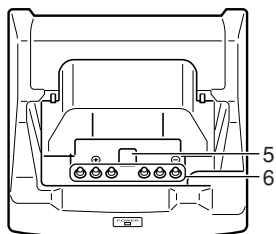


## USB Cradle (HA-D60IO)

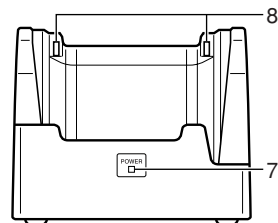
The optionally available USB Cradle (HA-D60IO) makes it possible to transfer system data and file data between the Handheld Terminal and a computer over a USB connection (download or upload). You can also use the USB Cradle to charge the battery pack installed in the Handheld Terminal.

### General Guide

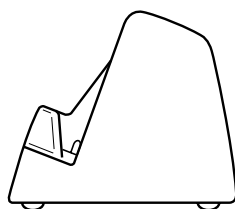
Top



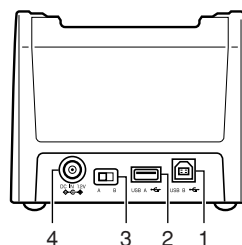
Front



Right



Back



E-40





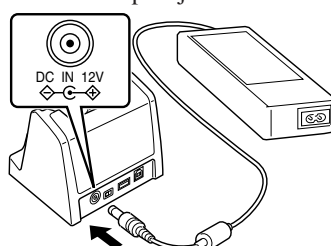
1	USB Client Port	This port is used to transfer system data and file data (download, upload) by connecting the Cradle to a PC using a USB cable (DT-380USB). A dedicated driver must be installed in the PC before connecting the Cradle to the PC.
2	USB Host Port	This port is used to connect a corresponding USB peripheral device.
3	Selector Switch	This switch is used to switch between the USB host port and USB client port.
4	AC Adaptor Jack	Connect the AC adaptor here.
5	Terminal Detect Switch	This switch detects when the IT-600 is seated correctly on the Cradle.
6	Power Contacts	Power is supplied to the IT-600 via these contacts.
7	Power Indicator Lamp	This lamp indicates the power status and the mounting status of the IT-600. Off: IT-600 is not installed Green: Power on, IT-600 mounted correctly
8	Mount Hooks	These hooks are used to stabilize the Handheld Terminal when mounting it on the cradle.



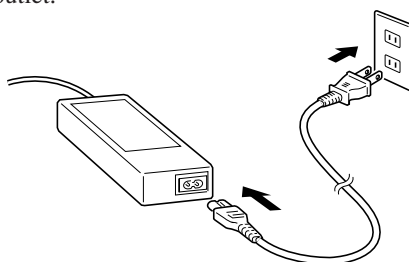
## Connecting the USB Cradle Power Supply

Use the separately sold AC adaptor (AD-S42120AE) for the power supply of the USB cradle. Always make sure to connect the AC adaptor to the USB cradle before performing communication with the Handheld Terminal. Power to the Handheld Terminal is supplied from the USB cradle.

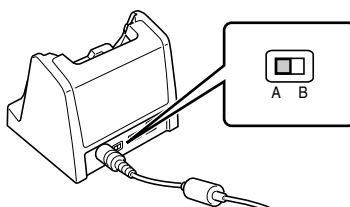
1. Plug the AC adaptor into the AC adaptor jack on the back of the USB cradle.



2. After connecting the AC adaptor to the power cable, plug the plug of the power cable into an electrical outlet.

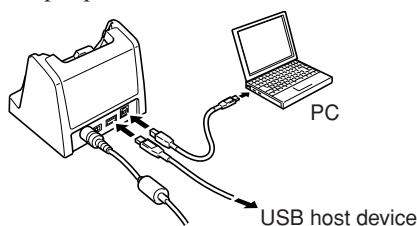


3. Set the selector switch on the back of the USB cradle to either one of the ports to be used. Set the switch to position B when using the USB client port, or set to position A when using the USB host port.

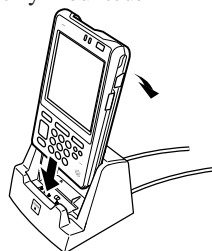




4. Connect the USB cable (DT-380USB) to the USB client port on the back of the USB cradle, and then connect it to the PC. The USB host port is used when connecting the cradle with another USB peripheral device.



5. Align the USB cradle mount holes on the back of the Handheld Terminal with the mount hooks on the cradle after aligning the contacts on the bottom of the Handheld Terminal with the power contacts of the cradle. The power indicator LED on the front of the USB cradle will light green if the Handheld terminal has been properly mounted.



#### Status of Indicator 1:

Orange: Charging

Red: Standby due to battery pack error or outside charging temperature range  
(charging begins when the temperature is within the charging temperature range)

Green: Charging complete

#### Important!

- Always make sure to first remove the Handheld Terminal from the USB cradle when switching the selector switch.
- Never short out the power contacts of the USB cradle. This can damage the USB cradle.
- Do not subject the Handheld Terminal and USB cradle to vibration or impact during communication. This can cause communication to be interrupted.
- When mounting the Handheld Terminal, securely attach to the mount hooks of the USB Cradle and check that the power indicator LED on the front of the USB Cradle lights green. Charging and communication will not proceed properly if the Handheld Terminal is not mounted properly.

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## USB Cradle (HA-D60IO) Specifications

- 1. USB**
  - Protocol: USB Ver1.1 Standard
  - Transfer Rate: 12Mbps (max.)
- 2. Charging**
  - Charging System: Fixed-voltage (with current limiter)
  - Charge Time: Approximately 4 hours (battery pack)  
Approximately 7 hours (large-capacity battery pack)
- 3. Power Supply**
  - Power Requirement: AC adaptor (AD-S42120AE)
  - Power Consumption: 12V DC approximately 1.6A
  - Output to Handheld Terminal: 5V DC 2.5A (max.)
  - USB Host Output: 5V DC 0.5A (max.)
- 4. AC Adaptor**
  - Model: AD-S42120AE
  - Input: 100V to 240V AC 50/60Hz 1.3-0.7A
  - Output: 12V DC 3.5A
- 5. Dimensions and Weight**
  - Dimensions:  
Approximately 110(W) × 106(D) × 93(H) mm  
(4<sup>5</sup>/<sub>16</sub>"W × 4<sup>3</sup>/<sub>16</sub>"D × 3<sup>11</sup>/<sub>16</sub>"H)
  - Weight: Approximately 310g (10.9oz)
- 6. Operating Environment**
  - Temperature: 0°C to 40°C (32°F to 104°F)
  - Humidity: 30% to 80% RH (non-condensation)

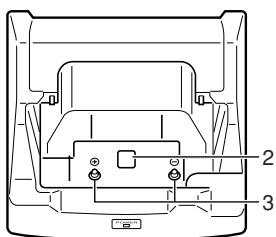


## Using the Cradle-type Charger

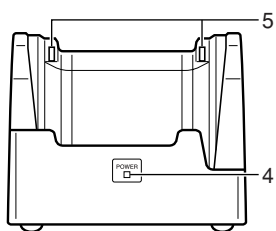
The optionally available Cradle-type Charger (HA-D30CHG) lets you charge the Handheld Terminal's battery simply by placing the Handheld Terminal onto the charger.

### General Guide

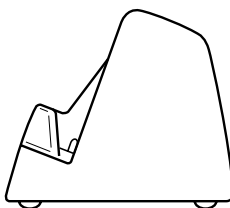
Top



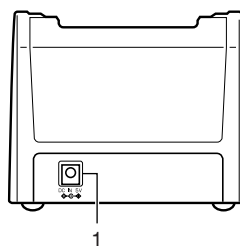
Front



Right



Back



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1	AC Adaptor Jack	Connect the AC adaptor here.
2	Terminal Detect Switch	This switch detects when the IT-600 is mounted correctly on the charger.
3	Power Contacts	Power is supplied to the Handheld Terminal via these contacts.
4	Power Indicator Lamp	This lamp indicates the power status and the mounting status of the Handheld Terminal. Off: IT-600 is not installed Green: Power on, Handheld Terminal mounted correctly
5	Mount Hooks	These hooks are used to stabilize the Handheld Terminal when mounting it on the charger.

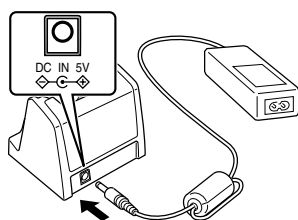
## E-46



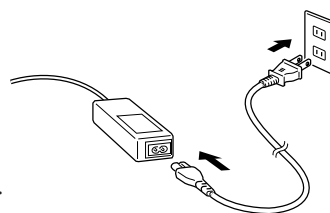
## Connecting the AC Adaptor for Cradle-type Charger

Use the separately sold AC adaptor (AD-S15050AE) for the power supply of the Cradle-type Charger.

1. Plug the AC adaptor into the AC adaptor jack on the back of the charger.

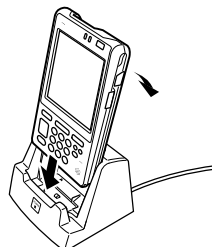


2. Next, plug the AC adaptor into a wall outlet.



3. Align the mount holes on the Handheld Terminal with the mount hooks on the charger after aligning the contacts on the bottom of the IT-600 with the power contacts of the cradle-type charger.

The power indicator lamp on the front of the charger will light green if the Handheld Terminal has been properly mounted.



### Status of Indicator 1:

- Orange: Charging
- Red: Standby due to battery pack error or outside charging temperature range (charging begins when the temperature is within the charging temperature range)
- Green: Charging complete

### Important !

- Take care to avoid allowing the Cradle-type Charger power contacts become shorted which creates a damage in the charger.
- When mounting the Handheld Terminal, securely attach to the mount hooks of the Cradle-type Charger and check that the power indicator LED on the front of the Cradle-type Charger lights green. Charging and communication will not proceed properly if the Handheld Terminal is not mounted properly.

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## Cradle-type Charger (HA-D30CHG) Specifications

### 1. Charging Specifications

Charging System:	Fixed-voltage (with current limiter)
Charge Time	Approximately 4 hours (battery pack) Approximately 7 hours (large-capacity battery pack)

### 2. Power Supply

Power Requirement:	Special AC adaptor (AD-S15050AE)
Consumption Current:	5V DC 2.5A
Output to Handheld Terminal:	5V DC 2.5A (max.)

### 3. AC Adaptor

Model:	AD-S15050AE
Input:	100V to 240V AC 50/60Hz 0.36A-0.2A
Output:	5V DC 3.0A

### 4. Dimensions and Weight

Dimensions:	Approximately 110(W) × 106(D) × 93(H) mm (4 <sup>5</sup> / <sub>16</sub> "W × 4 <sup>3</sup> / <sub>16</sub> "D × 3 <sup>11</sup> / <sub>16</sub> "H)
Weight:	Approximately 290g (10.2oz)

### 5. Operating Environment

Temperature:	0°C to 40°C (32°F to 104°F)
Humidity:	30% to 80% RH (non-condensation)

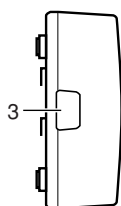


## Using the Dual Battery Charger

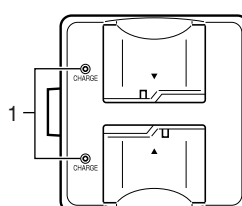
The separately sold dual battery charger (HA-D32DCHG) can be used to simultaneously charge two battery packs.

### General Guide

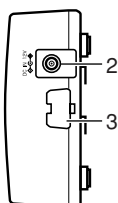
Left



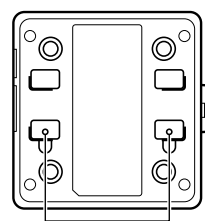
Top



Right

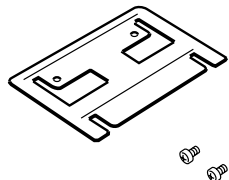


Back



#### Bundled Items

Connection Bracket  
2 screws



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1	Charge Indicator Lamp	This lamp indicates the charge status of the battery pack(s). Off: Not charging Red: Charging Red Flashing: Battery pack problem Green Flashing: Standby Green: Charging complete
2	AC Adaptor Jack	This is used to supply power by connecting the AC adaptor (sold separately).
3	Dual Battery Charger Connection Port	Use this port to connect multiple Dual Battery Chargers to each other.
4	Connection Bracket Attachment Holes	The connection bracket attaches here when you connect multiple Dual Battery Chargers to each other.

### Important!

- Allowing the power contacts become wet can cause an electric shock or fire. In addition, if the contacts become soiled, contact may be impaired resulting in poor charging. For reasons of safety and maintaining charging battery pack(s) in optimum condition, clean the power contacts by wiping with a dry cloth or cotton swab after disconnecting the AC adaptor.
- Although the battery may become warm during charging, this is normal and does not indicate a malfunction.
- Do not place objects such as a cover over the battery charger while charging.
- Do not remove the battery pack or disconnect the AC adaptor during charging.
- Repeated “Mounting and Removing” of battery pack in excess of times may cause the quality deterioration of the battery pack.
- Each Dual Battery Charger comes with one connection bracket. Since only one connection bracket is required when you connect two Dual Battery Chargers, you will always have one left over. Simply keep the other connection bracket on hand as an extra, in case you ever need it.

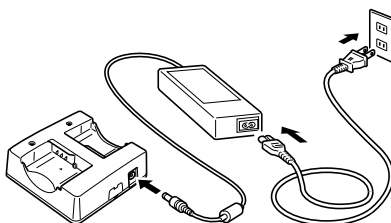
E-50



## Charging a Battery Pack

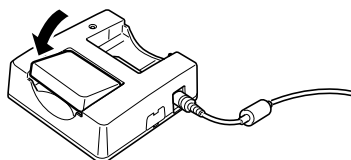
Use the separately sold AC adaptor (AD-S42120AE) for the power supply of the Dual Battery Charger.

1. Plug the cord from the AC adaptor into the AC adaptor jack of the Dual Battery Charger.
2. Plug the AC cord into a wall outlet.



3. Taking care that the battery pack is oriented correctly, insert it into the Dual Battery Charger.

This causes the Charge Indicator Lamp to light in red, indicating that charging has started.



### Charge Indicator Lamp

Off:	Not charging
Red:	Charging
Red Flashing:	Battery pack problem
Green:	Charging complete
Green Flashing:	Standby due to the surrounding temperature being beyond the specified temperature range (Approximately 0°- 40°C) (charging resumes when the temperature reaches the range.)

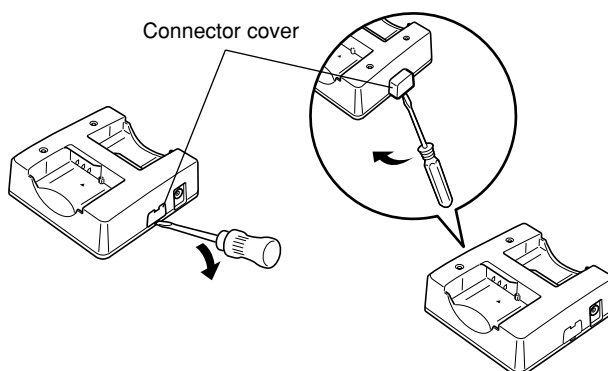
E-51



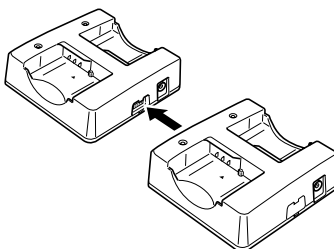
## Connecting Multiple Dual Battery Chargers

You can connect up to three Dual Battery Chargers. Doing so makes it possible to supply power to all the Dual Battery Chargers using one dedicated AC adaptor.

1. As shown in the illustrations below, remove the connector covers of the Dual Battery Chargers you want to connect to each other.

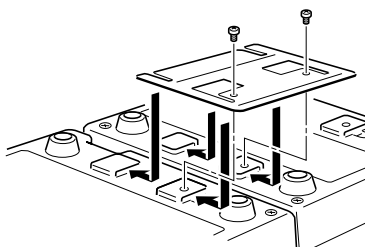


2. Connect the two Dual Battery Chargers as shown below.



3. Turn over the connected Dual Battery Chargers and attach a connection bracket, securing it in place with screws.

You can repeat the above steps to connect up to 3 Dual Battery Chargers.



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## Dual Battery Charger (HA-D32DCHG) Specifications

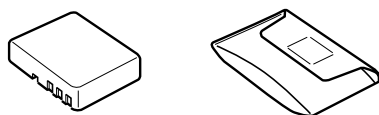
1. **Model:**  
HA-D32DCHG
2. **Charging:**  
Charging System: Constant voltage (with current limiter)  
(when one Handheld Terminal has been mounted)  
Charging Time: Approx. 2 hours (1 standard battery pack, normal temperature)  
Approx. 4 hours (1 large-capacity battery pack, normal temperature)  
When charging two battery packs:  
Approx. 3.5 hours (2 standard battery packs, normal temperature)  
Approx. 7 hours (2 large-capacity battery packs, normal temperature)
3. **Power Supply:**  
Power Requirement: AD-S42120AE  
Consumption Current: Approximately 450mA
4. **Operating Environment:**  
Temperature: Approximately 0°C to 40°C (32°F to 104°F)  
Humidity: 30% to 80% RH (non-condensation)
5. **Dimensions and Weight:**  
Dimensions: Approximately 110(W) × 104(D) × 46(H) mm (4<sup>5</sup>/<sub>16</sub>"W × 4<sup>1</sup>/<sub>8</sub>"D × 1<sup>13</sup>/<sub>16</sub>"H)  
Weight: Approximately 195g (6.9oz)



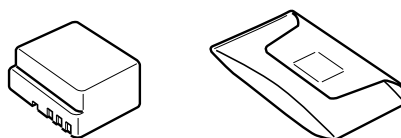


## Using Rechargeable Battery Pack

HA-D20BAT



HA-D21LBAT



Your Handheld Terminal supports use of two battery pack types, one at a time, of different capacity.

You can select the one that best suits your needs in terms of operating time, the type of options you need to use, etc.

When using the large-capacity battery pack, you need to use the special large-capacity battery pack cover that comes with the battery pack (HA-D21LBAT).

### Important!

- Store a battery pack in its special soft case whenever you are not using it.
- If the battery pack has been left over unused for a long period of time, the capacity remained decreases due to spontaneous discharge or chemical decomposition by the battery pack itself. If the battery pack fails to hold its operating duration after it has been fully charged, replace it with a new one. The battery pack may reach the end of its service life.

## Battery Pack Specifications

Model:	HA-D20BAT
Rated Capacity:	1850mAh
Rated Voltage:	3.7V
Dimensions:	Approximately 52.5(W) × 40(D) × 13.5(H) mm (2 <sup>1</sup> / <sub>16</sub> "W × 1 <sup>9</sup> / <sub>16</sub> "D × <sup>9</sup> / <sub>16</sub> "H)
Weight:	Approximately 46g (1.6oz)
Bundled Item:	Soft case

## Large-capacity Battery Pack Specifications

Model:	HA-D21LBAT
Rated Capacity:	3700mAh
Rated Voltage:	3.7V
Dimensions:	Approximately 52.5(W) × 40(D) × 25(H) mm (2 <sup>1</sup> / <sub>16</sub> "W × 1 <sup>9</sup> / <sub>16</sub> "D × 1"H)
Weight:	Approximately 86g (3.0oz)
Bundled Item:	Soft case

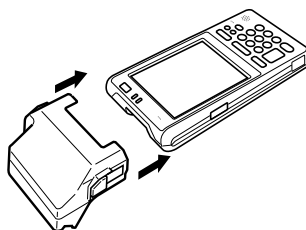
E-54



## Handling the Laser Redirection Attachment (HA-D50BN)

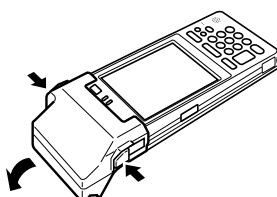
### Attaching

1. Attach the laser redirection attachment onto the Handheld Terminal as shown in the drawing.



### Removing

1. Remove the laser redirection attachment toward the direction indicated by the front arrow while pushing in the buttons on both sides as indicated by two small arrows.



### Important!

- Be careful not to touch the barcode reader port when attaching the laser redirection attachment. Touching the barcode reader port can cause a poor reading performance.
- Always make sure to push on the buttons on both sides when removing the laser redirection attachment. Attempting to forcibly remove the laser redirection attachment without pushing on the buttons can damage the attachment.
- Do not subject the end of the laser redirection attachment to strong impact. This can damage the laser redirection attachment.
- Do not use the laser redirection attachment outdoors during inclement weather. This can cause a poor reading performance.

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