

Introduction

- Read this quick start guide carefully before installing and/or using this product.
- Keep this quick start guide for future reference and store it in a safe place.

Notice

- This quick start guide may be revised or withdrawn at any time without prior notice.
- This quick start guide may not, in whole or in part, be copied, photocopied, reproduced, translated or converted to any electronic or machine readable form without prior written consent of Opticon.
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Cautions and Warnings

(Please refer to the specification manual for details.)

1. Laser Safety

- Do not stare into the laser beam.

2. Handling Instructions

[H-13]

- Do not attempt to disassemble, modify or update this device.
- **Do not use this device near combustible materials.**
- Do not store this device in an extremely cold or hot environment.
- Operating the device while operating machinery or a vehicle can be distracting.
- Do not swing the device around by the strap.
- Avoid static electricity.
- Do not drop this product or put heavy items on this product.
- Do not insert a sharp object such as a needle into the buzzer hole.
- Keep the device out of the reach of small children.
- Keep the IrDA communication window clean to avoid communication problems.
- The IrDA communication performance may decline due to excessive ambient light.
- When cleaning this product, rub gently with either a soft dry cloth or a damp cloth with mild detergent.
- Do not use this product in the following areas:
 - In areas exposed to direct sunlight for long periods of time.
 - Near water or other liquids, or in extremely high humidity.
 - In dusty environments.
 - Near heat sources, such as radiators, heat registers, stoves, or other types of devices that produce heat.
 - Near TVs, microwaves, medical devices, or low-power radio stations.
 - In areas where dew condenses.

[Battery Pack]

- Do not attempt to disassemble this battery.
- Use only the battery specified for this product.
- Do not charge the battery in temperatures less than 0 deg. C or greater than 40 deg. C.
- Do not store the battery in temperatures less than 0 deg. C or greater than 40 deg. C.

[Alkaline Battery]

- Do not attempt to disassemble this battery.
- Do not short the power leads on the battery. If the (+) and (-) terminals come in contact with metals (such as necklace or hairpin), a short-circuit will occur.
- Do not load the battery with its (+) and (-) terminals reversed.
- If battery fluid gets in eyes, rinse with water and consult a doctor immediately.
- Check the local regulations for proper battery disposal.
- Do not mix different types of batteries.
- Do not mix old and new batteries.
- Remove the battery if the portable terminal stops operating or if you do not intend to use it for a long period.

Before Getting Started

What's in the Box

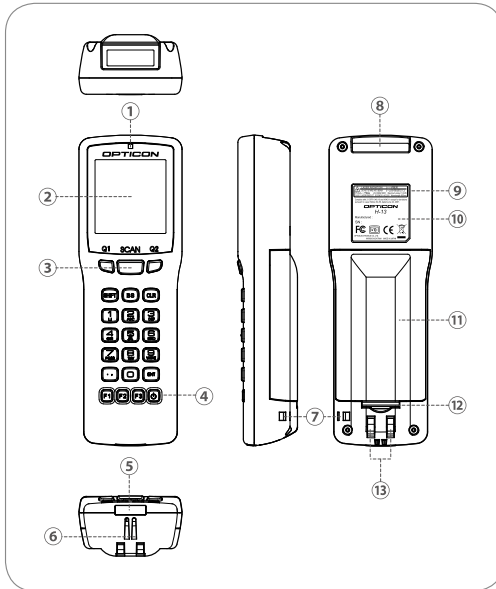
Confirm that you have the following items before getting started:

No.	Item	Product No.	Function
1	Portable Terminal	H-13	A laser portable terminal with a barcode scanning feature.
2	2 AA alkaline batteries	-----	Alkaline batteries
3	Strap	B01009-14	Hand strap for H-13.
4	Quick Start Guide	H-1311-9062-0-02	Provides product information and instruction guide.

* The number of accessories may differ depending on the product specification.
Please contact the nearest dealer if accessories are damaged or missing.

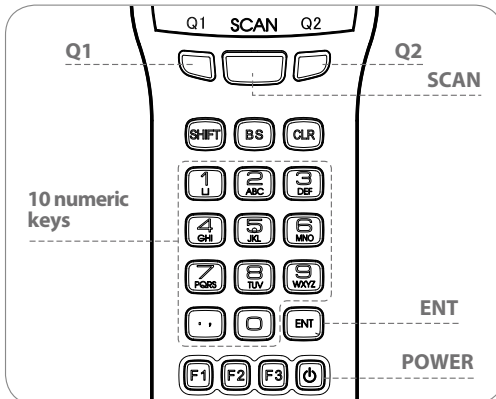
Overview

Detailed View



No.	Part	Function
①	LED	Alerts users to the status of program execution, scanned data and so on.
②	LCD	Indicates the status of program execution, scanned data and so on.
③	SCAN Key	Starts a barcode scanning operation.
④	POWER Key	Turns the power ON and OFF.
⑤	IrDA Communication Window	This portable terminal communicates with the designated cradle through the IrDA communication window.
⑥	Buzzer Hole	Buzzer sounds through the buzzer hole.
⑦	Strap Hook	To attach the strap.
⑧	Optical Window	The scan engine emits a laser beam through the optical window while scanning a barcode.
⑨	Laser Safety	Laser-related caution stated.
⑩	Product Label	
⑪	Battery Cover	Protects the battery pack.
⑫	Battery Cover Lock	Locks the battery cover.
⑬	Charging Terminals	Electrical terminals for power distribution and power management.

Key Layout



Key	Function
SCAN	Scans a barcode.
Q1	Select a menu.
Q2	(These keys can be programmed for user's application.)
SHIFT	Shifts from "number input mode" to "alphabet input mode" and vice versa.
BS	Deletes one letter before the cursor.
CLR	Cancels an input.
POWER	Turns the power ON and OFF.
0-9, .	10 numeric keys to input numbers, alphabets or symbols.
ENT	Determines the input.
F1-F3	3 programmable function keys.

* The layout of keys may differ depending on the product specification.

Overview

H-13 Basic Specifications

Parameter		Specifications	Remarks
Physical Features	Size	(W) 52.8 × (D) 30.5 × (H) 159.0mm	
	Weight	Approx. 180g (including Alkaline batteries)	
	Color	Black	
Control Section	CPU	32bit RISC CPU	
External Memory	FROM	4MB	For OS/AP
	RAM	16MB (User Area: Approx. 14MB)	For OS/AP Work Area/ For User DATA
LCD Section	Material	FSTN semi-transparent LCD	
	Number of Dots	128 dots × 128 dots	
	Dot Size	0.24mm × 0.24mm	
	Dot Pitch	0.02mm × 0.02mm	
	Backlight	White LEDs	
	Contrast Control	Enabled	
Other Display Section	LED	Bi-color LED (Red and Green)	
	Vibration	Vibrating motor	
	Buzzer	Tone and loudness can be configured.	
Operation Section	Keys	22 keys: Numeric keys, Trigger key, BS key, Shift key, CLR key, ENT key, PW key, Up/Down keys, 3 Function keys	
Comm. Section	IrDA	IrDA Ver1.2 Baud rate : (SiR): 9600 to 115.2kbps (FiR): 4M(bps)	* Theoretical figure (Actual baud rate may differ from the stated rate)
Clock Section	Real Time Clock (RTC)	Supports year, month, day, hour, minute, second. (leap year supported)	
Power Supply Section	Main Power Supply	Lithium-ion battery (3.7V, 1100mAh) 2 AA alkaline batteries	* BTRO100 (Sold separately)
	Backup Power Supply	Lithium secondary battery	As RAM/RTC backups
	Operating Time	Lithium-ion battery: Approx. 90 hours (Typ.) AA alkaline battery: Approx. 150 hours (Typ.)	* When scanning twice every 10 seconds at room temperature with a new and fully-charged main battery.
	Data Retention Time	More than 7 days	* Data retention time for RAM and RTC at room temperature when the backup battery is new and fully charged.
Scanning Section	Light Source	Red laser diode	
	Wavelength/Light Output	650 ± 10nm Up to 1mW 25 deg. C	
	Scan Rate	100 ± 20scan/sec	
	Supported Symbolologies	JAN, EAN, UPC-A, UPC-E, NW-7(Codabar), Industrial 2 of 5, Interleaved 2 of 5, Code 11, Code 39, Code 93, Code 128, MSI/Plessey, UK/Plessey, IATA, Telepen, Matrix 2of 5, S-Code, Tri-Optic, Chinese Post, EAN 128, RSS-14, RSS Limited, RSS Expanded, PDF417, MicroPDF417	
Durability	Operating Temperature	-10 deg. C to 50 deg. C	
	Operating Humidity	20% to 85% (non-condensing)	
	Storage Temperature	-20 deg. C to 60 deg. C	
	Storage Humidity	20% to 85% (non-condensing)	
	Charging Temperature	0 deg. C to 40 deg. C	
	Dust-and Drip-proofing	IP54	
	Shock Endurance	Dropped three times from each of 6 angles onto concrete from a height of 150cm with no defects found. (Total: 18 times)	

Designated Cradle (Optional)*

Communication & Charging Cradle

CRD-13

Communication Method (Cradle to Host)	Communicates with the host via RS-232C or USB interface.
Size	(H)64.9 × (W)70.0 × (D)144.4 mm
Weight	Approx. 125g
Charging Time	Approx. 3 hours

* Please refer to the specification manual or the instruction guide for details of designated cradle.

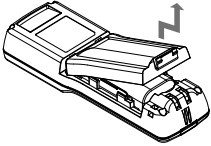
Using the Portable Terminal

■ How to Insert or Exchange a Battery

STEP 1

Please open the battery cover before inserting or exchanging a battery.

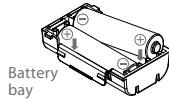
Unlock the cover and slide it forward. Then remove the cover.



STEP 2

□ When using AA alkaline batteries

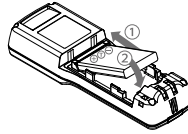
- 1 Remove the battery bay and insert 2 AA batteries into it.
- 2 Set the battery bay in the portable terminal.



STEP 2

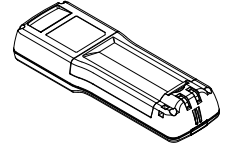
□ When using the battery pack (BTR0100)

- 1 Remove the battery bay.
- 2 Insert the battery as shown in the figure.



STEP 3

Please close the battery cover.



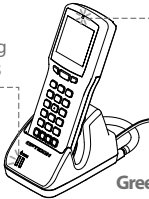
- * Be sure to use only alkaline types when powering the device from batteries. Do not mix old and new batteries.
- * Insert the upper part of the battery (BTR0100) first ①, and then insert the bottom ② as shown in the figure.

■ Charge Function

Charging starts as soon as the H-13 is placed into the cradle (CRD-13) when using the battery pack (BTR0100).

① Cradle LED

Green : Charging the H-13



② H-13 LED

Red : Charging
Green : Charging complete

Charging Indicator Status	Color	Charging Status
Cradle LED	Green	Charging the H-13
H-13 LED	Red	Charging
	Green	Charging complete



- Charging takes about 3 hours to fully charge an empty battery.

System Menu (*Please refer to the system menu instruction guide for details of default settings)

■ System Menu

System menu screen starts when you press "1", "1" and the power key at the same time.

SYSTEM MENU	
> 1 Cancel	
2 Restart	
3 Download software	
4 Settings	
5 Show version	
6 List files	
7 Diagnostics	

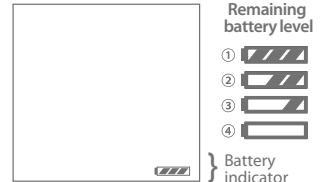
System menu screen

■ Battery indicator

The battery charge level is shown at the lower right of the LCD screen.

Battery indicator settings can be configured. (configured to OFF by default.)

When the main battery charge level becomes exceedingly low ④, the battery icon starts blinking regardless of the battery indicator settings.



Screen Image

Contact

Please contact OPTICON or your local dealer.

The Netherlands	Opticon Sensors Europe B.V. tel: +31 (0)23-5692700 / email: sales@opticon.com	Sweden	Opticon Sensors Nordic AB tel: +46 (0)8-58548560 / email: henrik@opticon-sensors.se
U.S.A.	Opticon Inc. tel: 800-636-0090 / email: opticon@opticonUSA.com	United Kingdom	Opticon Limited tel: +44 (0)1582-635100 / email: sales@opticon.co.uk
France	Opticon S.A.S. tel: +33 (0)1-41461260 / email: opticon@opticon.fr	Taiwan	Opticon Far Eastern Ltd. tel: +886 2-27597444 / email: taiwan@opticon.com
Germany	Opticon Sensoren GmbH tel: +49 (0)6074-91890-0 / email: sales.de@opticon.com	China	Opticon Sensors Europe B.V., Shanghai Representative Office tel: +86 21-64480881 / email: china@opticon.com
Italy	Opticon s.r.l. tel: +39 (0)051-6321800 / email: opticon@opticonitalia.it	Australia	Opticon Sensors Pty. Ltd. tel: +61 (0)2-43402666 / email: sales@opticon.com.au
Spain	Opticon Sensores S.L. tel: +34 (0)902-747469 / email: info@opticon.es	Brazil	Opticon Sensors Europe B.V., Latin American Office tel: +55 11-5081 2088 / email: sales.la@opticon.com