

### Made in JAPAN

We offer high product quality and attentive customer-oriented service through in-house planning, development, design, manufacturing and support services that are all performed in an integrated manner in Japan.

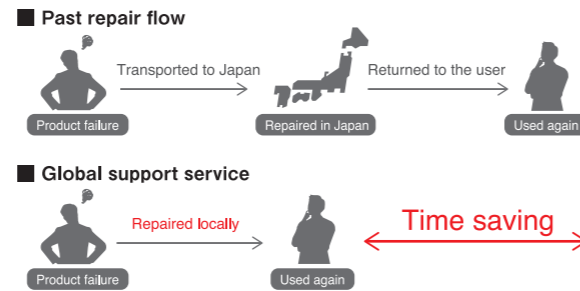


Left: Head office Right: DENSO WAVE's electronics plant

### Global Support Service

We make use of the DENSO Group's global sales network for the global supply of our products.

We have 19 support bases in 11 countries (seven in Japan and 12 outside the country) to provide customers with substantial support on a global scale.



### Extended Three-year Warranty

Register your product on our website and we extend the warranty period from one year to three.



NEW

Handheld Terminal  
with Android™





4G

Phone

Link

Weather

GPS

Map

Information

News

Web

Search

Cloud

Movie

Mail

Message

Team

Communication

## Catching the “New Wave”

In 1987, when the use of barcodes began to be promoted on a larger scale, DENSO developed the BHT-1 —the world’s first handheld terminal— to help customers increase their operational efficiency in a whole new way. These days, information networking is dramatically changing the business environment.

In response, DENSO WAVE has unveiled a new generation of handheld terminals: the BHT-1700/1800 series equipped with high scalability provided by Android™ , 4G LTE, GPS, cloud collaboration and other technologies used in the terminal to visualize the operational status for real-time information sharing.

The BHT-1700/1800 terminals provide customers with a range of apps throughout the process (e.g. introduction on how to use the terminal) and at the same time give them extended support through our SEs to give users a sense of well-being and confidence. DENSO WAVE’s technologies, quality and know-how built over 30 years will help users get their business catching the new wave.

# WAVE of Android™

4G

## Usable anywhere for operational management

Thanks to 4G technology, the head office can check in real time the progress of work carried out at any location, including the huge warehouse where access points could not be installed, via a terminal held by an on-site worker.

Map

## Indication of an optimal route

Drivers can receive not only directions based on the delivery schedule, but also the optimal delivery route by the combined use of traffic information from the headquarters for higher work efficiency.

SNS

## Information sharing among multiple stores

The use of social media and other apps speeds up the sharing of instructions and information compared with the use of email. You can also confirm whether the message has been read to avoid leaving anyone uninformed.

## Creation of new value in addition to Higher Operational Efficiency

The combination of Android™, 4G LTE, and Google Mobile Services integrated with a range of application software creates unlimited new value in addition to increases in existing operations efficiency.

GPS

## Informing customers of exact arrival times

By using GPS, customers can confirm arrival times with a much greater degree of accuracy than before via the website.

Cloud

## Customer service backed by sales data

Not only asking the customers about their preferences face-to-face, but also by checking past purchase data on the cloud, sales staff can make proposals to customers in a more targeted and personalized manner.

# Robust Enough to Keep Operations on Track



## POINT 1

### Withstands Drops from a Height of 2.5 m

The BHT-1700/1800 series handheld terminals are the strongest created by DENSO WAVE. The terminals can withstand drops from heights up to 2.5m. The terminals are built to be robust, smart terminals with lightweight stylish design. The pursuit of a robust yet lightweight design has resulted in terminals that do not need unnecessary components.



### Strong Yet Lightweight Materials

The frame is made from a highly rigid, yet light magnesium alloy while the corners of the main unit, which are most likely to be subject to damage, have a more optimal design. The exterior jacket with few seams is made from durable polycarbonate and protects the terminal from dust and water droplets.

## POINT 2

### Protection Level as High as IP67 Achieved by Advanced Sealing Technology

For higher protection against dust and water droplets, high-performance sealing materials developed by DENSO for manufacturing of automotive components are adopted for the numeric keypad, side key, battery cover and other components to ensure the correct functioning of the terminal even under unfavorable conditions.

## POINT 3

### Tempered Glass Provides Strength and Visibility

For the display, chemically strengthened Dragontrail® PRO glass panel from Asahi Glass is adopted to protect the screen from external pressure and drop-related shocks. The display is also very hard and highly resistant to scratches, ensuring the terminal's usability even in punishing environments.

# Superior Reading Performance Realizes High Efficiency

Shortest scanning distance  
**35mm**

## POINT 1

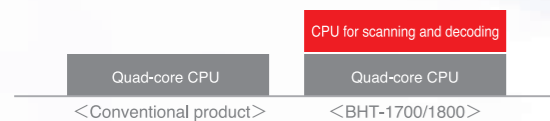
### New, More Powerful Reading Module

We have developed a new module, which can read codes at a distance of 35mm. The module will not read codes by mistake and can read even stained, blurred or distorted codes instantly, eliminating the need for repeated scanning.

## POINT 2

### Exclusive CPU for Stable Scanning Performance

In addition to the quad-core CPU for running application software, an exclusive CPU is mounted to the terminal for reading and decoding. This allows multiple high-load applications to be run on the terminal while the scanner is reading codes smoothly and promptly.



Scanning distance\*  
**10m**

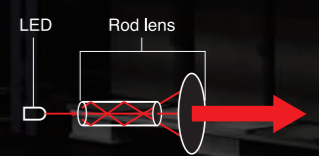
\*The actual distance depends on the environment and use conditions.



### BHT-1700QLWB-P (2D code long model)

For BHT-1700 series, the long-range terminal has a scanning distance of up to 10m. Even workers who are on a forklift can easily scan a code attached to an item on a shelf, substantially improving operational efficiency.

The terminal is the first handheld terminal in the world to be equipped with four lamps (conventional products have only two) for ease of scanning in warehouses and other poorly lit places. The rod lens converges light very efficiently to create strong lighting to see great distance.



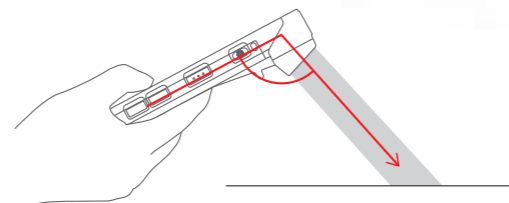
# Easy to Use for On-site Workers



## POINT 1

### Check the Terminal's Screen While Scanning

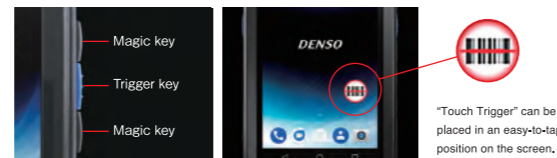
Based on our experience at a wide-range of worksites, DENSO WAVE developed the uniquely angled scan head for the reading module. It allows the user to check the terminal's screen while scanning, thus eliminating the need to shift the terminal from one hand to the other or to twist the wrist to see the screen, allowing for higher work efficiency.



## POINT 2

### Customizable for Better Use

In addition to the trigger key, multiple magic keys are arranged on the side of the terminal for flexible key assignment of frequently-used functions. "Touch Trigger" can also be placed in an easy-to-tap position on the screen. Such customization further helps increase operational efficiency.

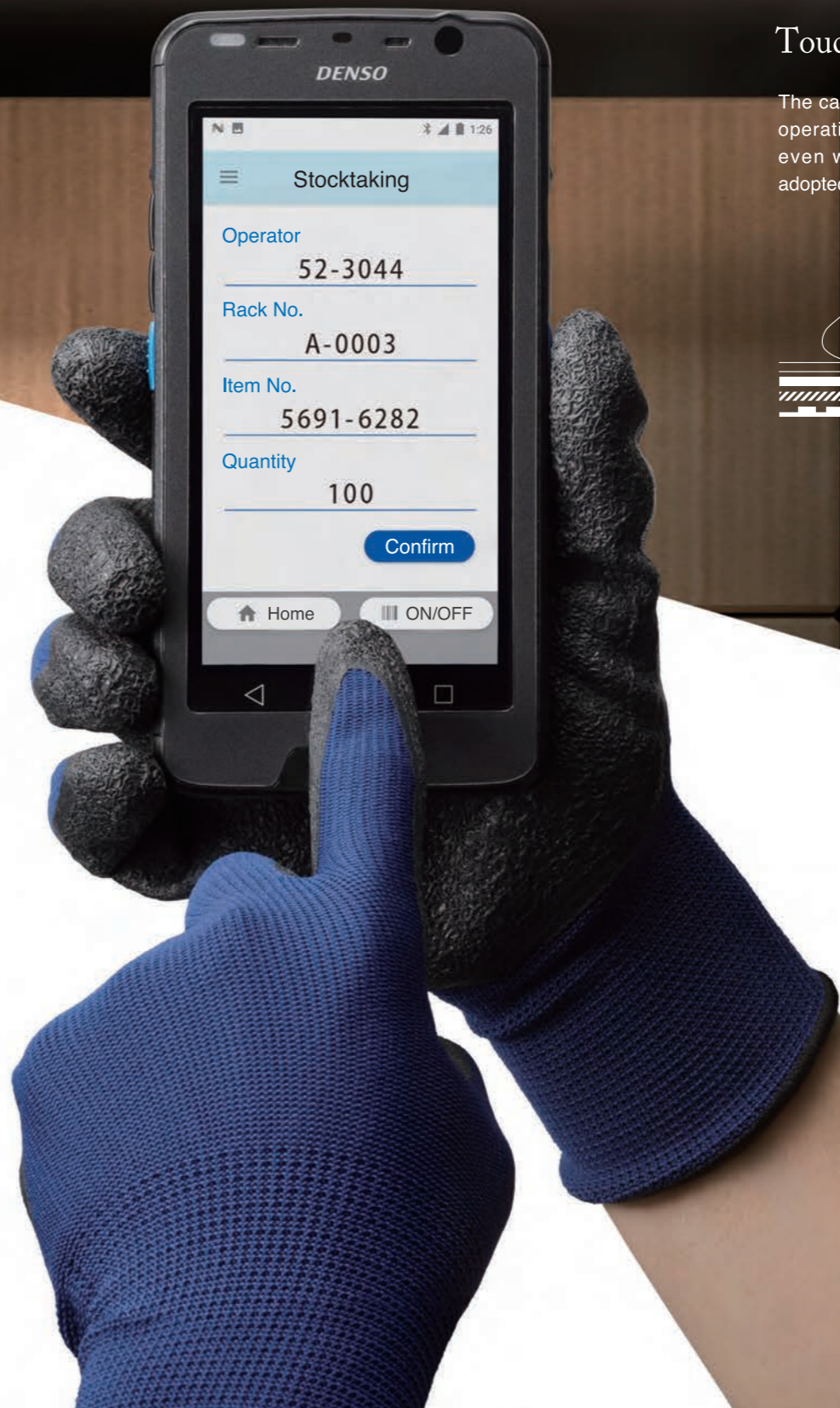
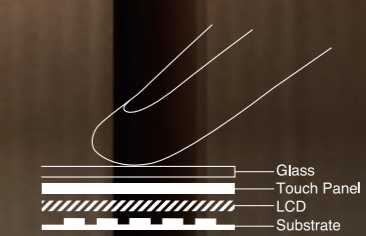


"Touch Trigger" can be placed in an easy-to-tap position on the screen.

## POINT 3

### Touch Panel Operable with Gloves on

The capacitance multi-touch panel is intended for smooth operation. The user can readily operate the touch panel even while wearing gloves, thanks to the technology adopted to give the screen high sensitivity.



## BHT-1700 SERIES

### Model Equipped with a Numeric Keypad to Increase One-handed Operations

For one-handed operations, frequently-used buttons are placed within easy reach of the thumb. The dome-shaped keys allow the user to press the buttons precisely, even while wearing gloves.



# Central Management of BHT Devices Across the World with Software



## BHT Device Management System (DMS) \*

The BHT DMS is composed of a client application designed to run on a terminal and a management application on a personal computer. The DMS is used to manage the terminal, update the application software and OS, transmit master files and others, and collect result files. Central management based on a network will reduce the burden imposed on the system administrator. Moreover, the terminal information can be confirmed in real time for the central management of the terminal.

\*Note: The software is available for a fee.

## Device Management Tools

“Lite” and “Standard” are available.

Outline of the function	Description	Description	
		Lite	Standard
Obtain terminal information	Display information including the device number, IP address, and remaining battery capacity	○	○
Check the status of connection	Display the state of wireless LAN connection by using an icon	○	○
Update the terminal settings	Change the terminal settings such as wireless LAN setting	○	○
Kitting	Simple setting for connection to the management tool (CSV bulk registration enabled)	○	○
Version management for the application software and OS	Dispatch and update of the application software and OS	○	○
Group management	Individual setting done by each store (security setting, dispatch of application software, etc.)	—	○
Communication	Messaging	—	○
Security management	Password lock	—	○
	Terminal data deletion	—	○
	Lock the terminal when it is stolen	—	○
Search for the terminal	Make alarm sound from the terminal when it is lost	—	○
	Alert	Gives alerts about the remaining battery/memory capacity	—
Linkage with operational app	Display the list of information received from operational app	○	○

## Supported BHT Devices

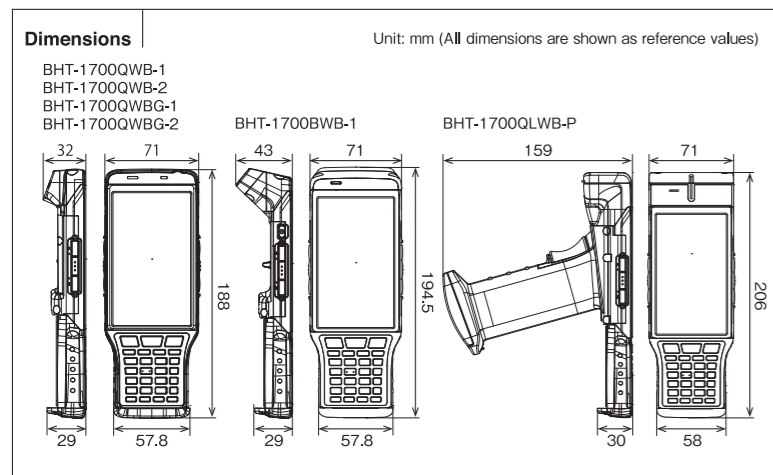
Name of the terminal	Model			OS
BHT-1800 SERIES	BHT-1800QWBG-1 BHT-1800QWBG-2	BHT-1800QWBG-3 BHT-1800QWB-1	BHT-1800QWB-2 BHT-1800QWB-3	Android™ 7.1.2
BHT-1700 SERIES	BHT-1700QWBG-1 BHT-1700QWBG-2	BHT-1700QWB-1 BHT-1700QWB-2	BHT-1700BWB-1 BHT-1700QLWB-P	Android™ 7.1.2
BHT-1600 SERIES	BHT-1600QWBG-A6N-S BHT-1600QWBG-A6N-RS	BHT-1600QWB-A6N-S BHT-1600QWB-A6N-RS		Android™ 6.0
BHT-1400 SERIES	BHT-1461QWB-CE BHT-1461QWB-CE-O	BHT-1461BWB-CE		Windows EmbeddedCompact 7
BHT-1300 SERIES	BHT-1361QWB-CE	BHT-1361BWB-CE		Windows EmbeddedCompact 7
BHT-1200 SERIES	BHT-1261QWB-CE (WEC7) BHT-1261BWB-CE (WEC7)	BHT-1261BWB-CE (H-WEC7)		Windows EmbeddedCompact 7
	BHT-1261QWB-CE BHT-1261BWB-CE	BHT-1261BWB-CE (H) BHT-1281QULWB-CE		Windows Embedded CE 6.0

Supported OSs Windows 7 (64bit, 32bit) , Windows 10 (64bit, 32bit)

Model equipped with a numeric keypad to increase one-handed operability. **BHT-1700 SERIES**

Model	2D code model				2D code long model	Barcode model	
	Wireless LAN		Wireless LAN + Wireless WAN		Wireless LAN	Wireless LAN	
	BHT-1700QWB-1	BHT-1700QWB-2	BHT-1700QWBG-1	BHT-1700QWBG-2	BHT-1700QLWB-P	BHT-1700BWB-1	
OS	Android™7.1.2						
CPU	1.3GHz Quad-core						
Memory	RAM						
	Flash ROM						
Display	Number of dots *1						
	Display system						
	Backlight						
Scanner	Reading system				Autofocus area sensor	Advanced Scan Plus (CCD)	
	Readable codes	2D codes				QR code®, PDF417, Micro-PDF417, MaxiCode, DataMatrix (ECC200), GS1 Composite	—
		Barcodes					
	Minimum resolution	2D codes				0.167 mm	—
		Barcodes				0.125 mm	0.125 mm
	Marker	Area guide marker				Point marker	—
	Scan confirmation						
Keypad	Number of keys				31 keys*10+3 trigger keys	31 keys*10+3 trigger keys	
Touch screen	Dragontrail® PRO						
Network	Compatible standards						
	Frequency band						
	Transmission distance*3						
	Security						
	Wireless WAN compatible standards						
	GPS						
Bluetooth®	Bluetooth®Ver4.1+EDR/LE (Compatible Profile:GAP/SDAP/HSP/SPP/GOEP/OPP/HFP (AG1.5)/PAN/A2DP/AVRCP/GAVDP/HID/PBAP/HOGP/MAP/GATT)						
Card slot	Memory						
	SIM						
Mic+Receiver	Yes						
Power supply	Main battery						
	Operating time *4						
	High-capacity battery						
NFC *9	ISO14443A & B, Fel/Cal, ISO15693						
	ISO14443A & B, Fel/Cal, ISO15693						
Camera	Rear						
	Front						
	Operating temperature *7						
	Operating humidity						
Environmental requirements	Protection rating *8						
	Drop resistance *8						
	Weight (incl. battery)						

\*1 Although the effective number of picture elements accounts for at least 99.9% of the total thanks to high-precision technologies used to manufacture LCDs, please note that there might be some elements, though below 0.01%, that are missing or permanently turned on. \*2 IEEE 802.11 a: 5.2 GHz (W52) and 5.3 GHz (W53) are for indoor use only. \*3 The communication distance shown are reference values, and may vary depending on the actual environmental conditions. \*4 The described operating time is a reference value at room temperature and may vary depending on actual use conditions. \*5 Scanning to scan update to standby = 1:5:1:60. The vibrator and buzzer are disabled. The wireless function is always enabled, and all other functions are disabled. \*6 Scanning to scan update to standby = 1:30:270. Data is transmitted via a wireless WAN while the screen is displayed. \*7 Zero to 40 degrees Celsius when batteries are being recharged. \*8 Results obtained in a test done by DENSO WAVE at room temperature. They are not meant to be guaranteed values. \*9 The NFC function needs to be well tested for readability by using the card that you will actually use. \*10 Including the power key



**Components of a set**

- Main unit • Hand belt \*1 • Hand strap (only for 2D code long model) • Stylus pen • Operation guide

\*1. Unusable for the 2D long model  
\*2. Battery is not supplied with the product

**Options**

- Communication unit: CU-BU1-17(USB), CU-BL1-17(Ethernet)
- 4-slot battery charger: CH-1104
- 4-slot unit charger: CH-B4-17
- Soft case: SCBHT-1700\*2
- Waist case: WHBHT-1100/1200\*2
- WHBHT-1700QL (For the 2D code long model)
- Shoulder belt: SBBHT-700\*2
- USB direct cable: CBBHT-US2000/C17-4A
- BT-110LA (Standard battery only)
- BT-170LA-C (Standard battery + battery cover)
- BT-110L (High-capacity battery only)
- BT-170L-C (High-capacity battery + battery cover)

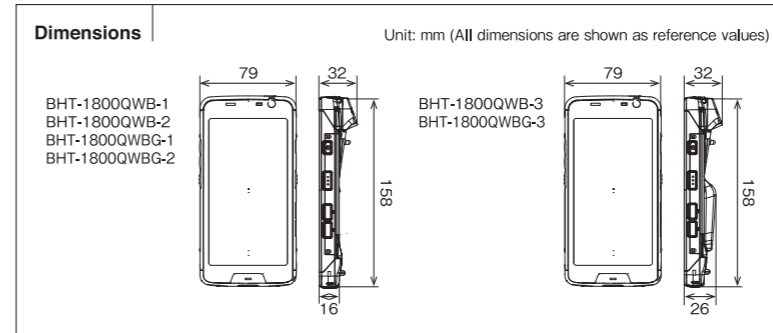
\*2. For the barcode model and the 2D code model



Smartphone-type model equipped with a 5.0-inch large screen along with a front camera. **BHT-1800 SERIES**

Model	2D code model					
	Wireless LAN			Wireless LAN + Wireless WAN		
	BHT-1800QWB-1	BHT-1800QWB-2	BHT-1800QWB-3	BHT-1800QWBG-1	BHT-1800QWBG-2	BHT-1800QWBG-3
OS	Android™7.1.2					
CPU	1.3GHz Quad-core					
Memory	RAM					
	Flash ROM					
Display	Number of dots *1					
	Display system					
	Backlight					
Scanner	Reading system					
	Readable codes	2D codes		QR code®, micro-QR code, SQRC®, iQR code, PDF417, Micro-PDF417, MaxiCode, DataMatrix (ECC200), GS1 Composite		
		Barcodes		EAN-13/8 (JAN-13/8) , UPC-A/E, UPC/EAN (with add-on) , Interleaved 2 of 5 (ITF) , Standard 2 of 5 (STF) , Codabar (NW-7) , CODE39, CODE93, CODE128, GS1-128 (EAN-128) , GS1 DataBar (RSS)		
	Minimum resolution	2D codes		0.167 mm		
		Barcodes		0.125 mm		
	Marker	Area guide marker				
	Scan confirmation					
Keypad	Number of keys					
Touch screen	Dragontrail® PRO					
Network	Compatible standards					
	Frequency band					
	Transmission distance*3					
	Security					
	Wireless WAN compatible standards					
	GPS					
Bluetooth®	Bluetooth®Ver4.1+EDR/LE (Compatible Profile:GAP/SDAP/HSP/SPP/GOEP/OPP/HFP (AG1.5)/PAN/A2DP/AVRCP/GAVDP/HID/PBAP/HOGP/MAP/GATT)					
Mic+Receiver	Yes					
Card slot	Memory					
	SIM					
Power supply	Main battery					
	Wireless charging					
	Operating time*4					
NFC*9	ISO14443A & B, Fel/Cal, ISO15693					
	ISO14443A & B, Fel/Cal, ISO15693					
Camera	Rear					
	Front					
	Operating temperature *7					
	Operating humidity					
Environmental requirements	Protection rating *8					
	Drop resistance *8					
	Weight (incl. battery)					

\*1 Although the effective number of picture elements accounts for at least 99.9% of the total thanks to high-precision technologies used to manufacture LCDs, please note that there might be some elements, though below 0.01%, that are missing or permanently turned on. \*2 IEEE 802.11 a: 5.2 GHz (W52) and 5.3 GHz (W53) are for indoor use only. \*3 The communication distance shown are reference values, and may vary depending on the actual environmental conditions. \*4 The described operating time is a reference value at room temperature and may vary depending on actual use conditions. \*5 Scanning to scan update to standby = 1:5:1:60. The vibrator and buzzer are disabled. The wireless function is always enabled, and all other functions are disabled. \*6 Scanning to scan update to standby = 1:30:270. Data is transmitted via a wireless WAN while the screen is displayed. \*7 Zero to 40 degrees Celsius when batteries are being recharged. \*8 Results obtained in a test done by DENSO WAVE at room temperature. They are not meant to be guaranteed values. \*9 The NFC function needs to be well tested for readability by using the card that you will actually use.



**Components of a set**

- Main unit • Battery (BT-180LA) • Har
- Operation guide

**Options**

- Communication unit: CU-BU1-18(USB), CU-BL1-18(Ethernet)
- 4-slot battery charger: CH-1804
- 4-slot unit charger: CH-B4-18
- Waist case: WHBHT-1600
- Hand belt: HBBHT-1800
- Stylus pen: PNBHT-1700
- USB direct cable: CBBHT-US2000/C18-4A



**Software**

**Development tool**

- BHT-1700/1800 Series Software Development Kit for Android (SDK)
- \*Only customers who have bought a device in the series can download the software at the website free of charge.

**Peripheral software**

- BHT Device Management System (DMS)\*
- BHTLink\*
- \*Software available with the payment of a fee. A license fee is separately charged.

**Pre-installed software**

- Touch Trigger : Scan button that can be repositioned on the screen
- Scan Settings : Code setting/reading software (with keyboard interface)
- OCR reader \*1 : Character reading software
- Code reader "Q" \*2 : SQRC and frame QR reading software
- BHT-Browser for Android : Operational browser for BHT devices
- Application launcher : Software to manage the permission/prohibition of the startup of various applications
- BHT-DMS client \*1 : BHT management and operation support tool
- Wlan Manager : Wireless LAN setting software with which site surveys are possible

\*1. Software available with the payment of a fee. A license fee is separately charged.  
\*2. Only model with camera.