



# PHL1700

## handheld laser terminal

The PHL1700 terminal is a programmable handheld terminal with a compact body, well suited for a variety of indoor portable applications. The PHL1700 is equipped with a built-in laserscanner that can scan all popular bar code labels at varying distances.

The PHL1700 terminal can be programmed in C language. The plain keyboard and graphic display enable the user to use the terminal in a clear and easy way.

Operating power is supplied by the main battery. A rechargeable battery pack, that can be charged in the IRU-1600-C cradle, or non-rechargeable penlite batteries can be used.

For communication the PHL1700 is provided with an IrDA interface. Through this interface the terminal is able to communicate with the cradle, or apart from the cradle to all computer devices that use IrDA communication, such as portable computers, notebooks and organizers. The program in the PHL1700 is also compatible with these devices. If the user wants to communicate with a computer system without using IrDA or the cradle, a communication cable between the terminal and the computer system can be obtained.

### Features

### Benefits

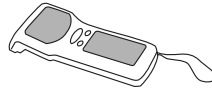
■ Small size and light weight	■ Easy to carry
■ Rechargeable Nickel Metal Hydride battery pack	■ Long life batteries
■ 1 or 2MB Memory available	■ Enables continuous working
■ Backup battery with long backup time	■ Possibility to use the terminal for a long time without charging and without loss of data
■ RS232 data transmission by cradle	■ Easy data storage into the computer system
■ Built-in IrDA interface	■ Ideal to use together with portable computers, like note books.



### IRU1600

cradle for terminal and rechargeable battery pack

# PHL1700 handheld laser terminal



## Electrical specifications

Main battery	<input type="checkbox"/> rechargeable pack: Ni-MH <input type="checkbox"/> dry cell: Alkaline penlite <input type="checkbox"/> optional: other 2 x AA-size penlite
Main battery operating time	<input type="checkbox"/> Ni-MH: When making every 5 seconds 1 scan with 1 sec laserbeam on and 0.2 sec. green LED on and 0.2 sec. buzzer on, operating time is: approx. 34 hours <input type="checkbox"/> Alkaline: When making every 5 seconds 1 scan with 1 sec laserbeam on and 0.2 sec. green LED on and 0.2 sec. buzzer on, operating time is: approx. 67 hours <input type="checkbox"/> Different operation conditions affect the operating time <input type="checkbox"/> Use of other penlite batteries affect the operating time
Backup battery	Lithium (CR2032)
Backup battery operating time	If fully charged: 4 months backup time
Battery management	<input type="checkbox"/> Low voltage indicated on the terminal display. <input type="checkbox"/> When battery is low the terminal switches off automatically.
Charging method	<input type="checkbox"/> Rechargeable Ni-MH pack in terminal via cradle <input type="checkbox"/> Replacement Ni-MH pack in cradle

## Optical specifications

Light source	650 nm visible laser diode
Scan rate	100 scans/sec
Decode rate	100 decodes/sec
Reading width	60 mm at 30 mm 98 mm at 100 mm
Resolution at PCS 0,9	0.15 mm (6mil)
Depth of field	0 - 140 mm (at PCS 0.9, res. 0.25)

## Physical specifications

Dimensions (l x w x d)	172 x 62 x 44 mm
Case material	ABS
Weight	body (excl. battery): 180 g
Direct cable (optional)	RS232 - DB9 female

## Functionality

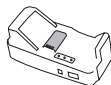
Memory	<input type="checkbox"/> ROM: 32 kB <input type="checkbox"/> FlashROM (for O/S and program): 256 kB <input type="checkbox"/> fast RAM: 2kB <input type="checkbox"/> battery backed up S-RAM (for data): 1 or 2 MB
Microprocessor	16-bit
Real time clock	Quartz RTC, time and date programmable, leap year handling, (accuracy $\pm$ 60 sec./month)
Display	<input type="checkbox"/> 96x48 Pixels graphic LCD with backlight <input type="checkbox"/> Character fonts: 4/8 lines x 16 characters
Keyboard	<input type="checkbox"/> 27 keys total (26 keys user definable) <input type="checkbox"/> 8 Function keys <input type="checkbox"/> Alpha/Numeric mode
Trigger mode	Manual
Programming	Functionality is provided by user application. The application may be downloaded from PC via cable, com port or IrDA.
Interfaces supported	<input type="checkbox"/> RS232 by direct cable <input type="checkbox"/> RS232 by cradle <input type="checkbox"/> IrDA on terminal
Transmission speed	<input type="checkbox"/> RS232 direct cable: 2400 - 115200 baud <input type="checkbox"/> RS232 cradle: 2400 - 38400 baud <input type="checkbox"/> IrDA terminal: 2400 - 115200 baud

## Environmental specifications

Temperature	<input type="checkbox"/> -10 - 40 °C in operation <input type="checkbox"/> -20 - 60 °C in storage
Humidity (non condensing)	<input type="checkbox"/> 20 - 80 % in operation <input type="checkbox"/> 20 - 90 % in storage
Shock: drop:	1.5 m drop onto concrete surface
Shock: vibration:	10 - 50 Hz with 1G for 30 min, cycle for X,Y,Z.
Ambient light rejection	<input type="checkbox"/> fluorescent 3.000 lux max. <input type="checkbox"/> direct sun 50.000 lux max.
Emission	According to EN50081, part 1
Immunity	According to EN50082, part 1
Protection against dust and moisture	According to IEC529, IP 42
Safety, Laser class	According to IEC825, Class I laserproduct

**Supported symbologies** Chinese Post 2of5 - Codabar incl. ABC and CX - Code 39 - Code 93 - Code 128 - EAN-8 incl. +2,+5 - EAN-13 incl. +2,+5  
 IATA - Industrial 2of5 - Interleaved 2of5 - Italian Pharmaceutical - Laetus - Matrix 2of5  
 MSI/Plessey - UK/Plessey - S-Code - Telepen - UPC-A incl. +2,+5 - UPC-E incl. +2,+5

# IRU-1700 cradle



<b>Cradle models</b>	<input type="checkbox"/> IRU-1700 transceiver <input type="checkbox"/> IRU-1700 transceiver/charger
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## Electrical specifications

Battery charging time (transceiver/charger)	<input type="checkbox"/> when battery in terminal: 4 hours extra charge with 70% nominal capacity <input type="checkbox"/> when battery in spare battery slot: 1 hour full charge
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## Functionality

Interfaces supported	<input type="checkbox"/> RS232 <input type="checkbox"/> RS485
Serial communication	<input type="checkbox"/> RS232 Baudrate: 1200 - 38400 <input type="checkbox"/> RS485 Baudrate: 1200 - 38400
Transmission modes	<input type="checkbox"/> Half duplex RS232 <input type="checkbox"/> Half duplex RS485
Parity	Odd, Even, None

## Environmental specifications

Temperature	<input type="checkbox"/> 0 - 40 °C in operation <input type="checkbox"/> -20 - 70 °C in storage
Humidity (non condensing)	<input type="checkbox"/> 30 - 85 % in operation <input type="checkbox"/> 30 - 90 % in storage
Shock: vibration:	10 - 50 Hz with 1G for 30 min, cycle for X,Y,Z.
Emission	According to EN50081, part 1
Immunity	According to EN50082, part 1

## Physical specifications

Dimensions (l x w x d)	228 x 116 x 97 mm (desk top type)
Case material	ABS
Weight	IRU-1600-S (excl. cables): 500 g IRU-1600-C (excl. cables): 525 g
Standard connector	RS232 - D Sub 9P Female RS485 - 6 pins modular plug

Specifications are subject to change without notice. Printed 12-2001