**OPH-1005 Quick Start Guide**

**Introduction**

- Read this quick start guide carefully before installing and/or using this product.
- Keep this quick start guide for future reference and store 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- This quick start guide may be revised or withdrawn at any time without prior notice.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.
- Trademarks used are property of their respective owners.
- Under no circumstances shall Opticon be held responsible for any special, incidental, consequential or indirect damages however caused.

**Caution and Warning**

- [Image: Reference to the specification manual and instruction guide (public domain).]

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**1. Laser Safety**

- Do not stare into the laser beam.

**2. Handling Instructions (OPH-1005)**

- Do not attempt to disassemble, modify or update this device.
- Operating the scanner while operating machinery or a vehicle can be distracting.
- Do not drop this product or put heavy items on this product.
- Do not insert foreign substances into the device.
- Do not use this product in the following areas:
  - In areas exposed to direct sunlight for long periods of time.
  - In dusty environments.
  - Near water or other liquids, or in extremely high humidity.
  - Near heat sources, such as radiators, heat registers, stoves, or other types of devices that produce heat.
  - Near microwave or medical devices.
- When cleaning this product, rub gently with either a soft dry cloth or a damp cloth with mild detergent.

**[Battery Pack]**

- Do not try to disassemble this battery.
- Do not expose the battery pack to liquids or allow the battery contacts to get wet.
- Do not expose the battery pack to heat sources including other devices that produce heat.
- Do not short the power leads on the battery pack. If the (+) and (-) terminals come in contact with metals (such as a necklace or hairpin), a short-circuit will occur.
- Do not feed the battery pack with its (+) and (-) terminals reversed.
- Check the local regulations for proper battery disposal.

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**What’s in the Box**

Confirm that you have the following items before getting started:

<table>
<thead>
<tr>
<th>No.</th>
<th>Item Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Portable Terminal A laser portable terminal with a barcode scanning feature.</td>
</tr>
<tr>
<td>2</td>
<td>Strap</td>
</tr>
<tr>
<td>3</td>
<td>Quick Start Guide Provides product information and instruction guide.</td>
</tr>
</tbody>
</table>

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

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**Overview**

- **Part No.**
- **Specifications**

<table>
<thead>
<tr>
<th>Physical Features</th>
<th>Size</th>
<th>90.1 x 66.9 x 22.8 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Weight</td>
<td>Approximately 140 g (including battery)</td>
</tr>
<tr>
<td></td>
<td>Control Section</td>
<td>CPU: 32-bit MCU</td>
</tr>
<tr>
<td></td>
<td>Memory</td>
<td>RAM: 4 MB</td>
</tr>
<tr>
<td></td>
<td>Display Section</td>
<td>Material: LCD (2634 x 440)</td>
</tr>
<tr>
<td></td>
<td>Number of dots</td>
<td>320 dots x 240 dots</td>
</tr>
<tr>
<td></td>
<td>Dot size</td>
<td>0.24 mm x 0.24 mm</td>
</tr>
<tr>
<td></td>
<td>Dot pitch</td>
<td>0.58 mm</td>
</tr>
<tr>
<td></td>
<td>Backlight</td>
<td>White LEDs</td>
</tr>
<tr>
<td></td>
<td>Contact Control</td>
<td>Enabled</td>
</tr>
</tbody>
</table>

| Communication Method | USB |

- **Power Supply Section**

| Main Battery | Lithium-ion battery (3.7 V 1000 mAh) |
| Backup Battery | Rechargeable nickel metal hydride (NiMH) |
| Opening Time | Approx. 50 hours (2 scannings to 60) |
| Power for Comm. | Infrared (IrDA) |
| Comm. Interface | USB 1.1, RS-232C (with optional RS-232C adapter) |
| Check SEC | Real Time (continuous) |
| Check Number | Supports year, month, day, hour, minute, second, year (when supported) |
| Durability | Operating Temp.:
  - 0°C to 50°C (90% non-condensing) |
  - 0°C to 40°C (90% non-condensing) |
| Scan Rate | 20 scans/sec |
| Light Source | Red laser diode |
| Uniformity | 1 mW or less |

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**Designated Cradles (Optional)**

- **Communication & Charging Cradle (CRD-1001)**
  - **Communication Method**
    - Communicates with the host via RS-232C, or USB interface.
  - **Size**
    - 167.0 x 60.8 x 45.9 (mm) Max
  - **Weight**
    - 115 g Max (including AC adapter and cable)

- **Communication & Charging Cradle (CRD-1002)**
  - **Communication Method**
    - Communicates via telephone line and connects with the Public Switched Telephone Network (PSTN).
  - **Size**
    - 167.0 x 60.8 x 45.9 (mm) Max
  - **Weight**
    - 100 g Max (including AC adapter and cable)

- **Communication & Charging Cradle (CRD-1003)**
  - **Communication Method**
    - Communicates with the host via GSM (Global System for Mobile Communications Network).
  - **Size**
    - 167.0 x 60.8 x 45.9 (mm) Max
  - **Weight**
    - 115 g Max (including AC adapter and cable)

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**Using the Portable Terminal**

**How to Insert or Exchange a Battery**

1. Please open the battery cover before inserting or exchanging a battery.
2. Make sure that the battery contacts are in contact with the spring contacts of the portable terminal.

**How to Scan a Barcode**

Please refer to the following examples of a scanning operation.

- **Correct**
- **Incorrect**

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**Trouble Shooting**

- The portable terminal does not get powered ON.
  - A. The battery level of the portable terminal may be extremely low or empty. Please try again after you charge the portable terminal.
  - B. Check if the battery cover is closed tightly.

- The portable terminal does not read a specific type of barcode.
  - A. That specific type of barcode may not be supported by the portable terminal. Please confirm the specification manual of the portable terminal for details of supported symbologies.
  - B. The specific type of barcode may not be enabled in the application. Change the settings in your application.

- The portable terminal does not read a barcode smoothly.
  - A. The scanning performance of the portable terminal may decline due to inappropriate scan angle. Please adjust the angle of the portable terminal and try again. Make sure that the barcode is within the width of the laser aiming pattern.

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**Contact**

Please contact OPTICON or your local dealer.

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**OPH10059920-02**
## Communication Method

- **CRD-1004**: Communicates with the host via Ethernet or USB interface.
  - **Size**: 115g Max (including AC adapter and cable)
  - **Charging Time**: 3 hours

## Key Layout

<table>
<thead>
<tr>
<th>Key</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCAN</td>
<td>Scans a barcode.</td>
</tr>
<tr>
<td>Q1, Q2, Q3, Q4</td>
<td>Navigation through the menu or toggle between options. These keys can be programmed to execute user applications.</td>
</tr>
<tr>
<td>SHIFT</td>
<td>Enables access to &quot;number input mode&quot;, &quot;alpha input mode&quot;, and various other modes.</td>
</tr>
<tr>
<td>CLR</td>
<td>Cancels an input.</td>
</tr>
<tr>
<td>ENTER</td>
<td>Initiates and confirms input.</td>
</tr>
<tr>
<td>B5</td>
<td>Deletes one letter before the cursor.</td>
</tr>
<tr>
<td>POWER</td>
<td>Turns the power ON and OFF.</td>
</tr>
<tr>
<td>D-</td>
<td>10 numeric keys to input numbers, alphabets or symbols.</td>
</tr>
<tr>
<td>E-</td>
<td>Enters the input.</td>
</tr>
<tr>
<td>F1-F4</td>
<td>4 function keys which can be programmed by a user.</td>
</tr>
</tbody>
</table>

### Designated Cradles (Optional)

- **CRD-1001**: Communicates with the host via RS-232C or USB interface.
  - **Size**: 10.70 x 0.506 x 0.391 mm Max
  - **Weight**: 71.5g Max (including AC adapter and cable)
  - **Charging Time**: 2 hours and 10 minutes

- **CRD-1002**: Communicates via telephone line and connects to the Public Switched Telephone Network (PSTN).
  - **Size**: 10.70 x 0.506 x 0.391 mm Max
  - **Weight**: 71.5g Max (including AC adapter and cable)
  - **Charging Time**: 2 hours and 10 minutes

- **CRD-1003**: Communicates with the host via GSM (Global System for Mobile Communications) Network.
  - **Size**: 10.70 x 0.506 x 0.391 mm Max
  - **Weight**: 71.5g Max (including AC adapter and cable)
  - **Charging Time**: 3 hours

- **CRD-1004**: Communicates with the host via Ethernet or USB.
  - **Size**: 115g Max (including AC adapter and cable)
  - **Charging Time**: 3 hours

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* Please refer to the specification manual or the instruction guide for details of designated cradles. A designated SIM card will be needed to use the CRD-1003 GSM cradle.

### Caution and Warning

- **Laser Safety**: May not be disassembled, modified, or reassembled. Operating the scanner while operating machinery or a vehicle can be dangerous.
- **Do not use while driving**.
- **Protect eyes when scanning a laser**.
- **Do not disassemble the battery pack**.
- **Do not load the battery pack with its (+) and (-) terminals reversed.**

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### Before Getting Started

**What's in the Box**

<p>| Memo |</p>
<table>
<thead>
<tr>
<th>No.</th>
<th>Item</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRD-1004</td>
<td>Charging Cradle</td>
<td>Provides product information and instruction guide.</td>
</tr>
<tr>
<td>CRD-1001</td>
<td>Charging Cradle</td>
<td>Communicates with the host via RS-232C or USB interface.</td>
</tr>
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<td>CRD-1002</td>
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</tr>
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<td>CRD-1003</td>
<td>Charging Cradle</td>
<td>Communicates with the host via GSM (Global System for Mobile Communications) Network.</td>
</tr>
<tr>
<td>CRD-1004</td>
<td>Charging Cradle</td>
<td>Communicates with the host via Ethernet or USB.</td>
</tr>
</tbody>
</table>

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### Introduction

- **Keep this quick start guide for future reference and store in a safe place.**

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### Specifications

- **Physical Features**:
  - **Size**: 10.70 x 0.506 x 0.391 mm Max
  - **Weight**: 71.5g Max (including AC adapter and cable)
  - **Charging Time**: 3 hours

- **Control Section**:
  - **CPU**: 32bit RISC CPU
  - **OS**: jRTOS

- **Power Supply**:
  - **Main Battery**: Lithium-ion battery (3.7V 1100mAh)

- **Operating Time**: Approx. 80 hours (2 scans/10 sec)

- **Real Time**: -10 deg. C to 50 deg. C

- **Operating Humidity**: 10 to 80% RH

- **Storage Humidity**: 5 to 95% RH

- **Immunity**: IP54

- **Endurance**: Up to 100,000 scans

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### Detailed View

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### Overview

- **Designated Cradles**: (Optional) CRD-1001, CRD-1002, CRD-1003, CRD-1004

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### How to Insert or Exchange a Battery

1. Open the battery cover by inserting or exchanging a battery.
2. Make sure that the battery contacts are in contact with the spring contacts of the portable terminal.
3. Close the battery cover.

### How to Scan a Barcode

1. The portable terminal does not get powered ON.
   - **The battery level of the portable terminal may be extremely low or empty. Please try again after you charge**.
   - **Check if the battery cover is closed tight.**
2. The portable terminal does not read a specific type of barcode.
   - **A.** If the specific type of barcode is not supported by the portable terminal, please confirm the specification manual of the portable terminal for details of supported symbologies.
   - **B.** If the specific type of barcode may not be enabled in the application. Change the settings in your application.
3. The portable terminal does not read a barcode smoothly.
   - **A.** The scanning performance of the portable terminal may decline due to inappropriate scan angle. Please adjust the angle of the portable terminal and try again. Make sure that the barcode is within the width of the laser aiming pattern.

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### Contact

- **OPTICON®**: Your local dealer.

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### Trouble Shooting

**A.** The battery level of the portable terminal may be extremely low or empty. Please try again after you charge.

**B.** Check if the battery cover is closed tight.

**C.** The portable terminal does not read a specific type of barcode.

**D.** The portable terminal does not read a barcode smoothly.