

***OPL-DCL Standard Demo Manual
With (Micro) PDF417 and RSS***



User's Manual

Version LFBP0510

***Supported models:
OPL9723, OPL9724, OPL9712, OPL9728, DCL1530, DCL1531***

(For Operating System versions LBxV0225 or higher)

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I. Introduction

This demo application allows users of Opticon scanners to collect data in either real time (Bluetooth models) and in batch mode. It also allows users to configure the scanner to better suite their data collection needs.

This manual covers all models supported by this demo application. Please be advised that your screens may look slightly different depending on your model features. For instance, in Bluetooth enabled models (e.g. OPL9712 & OPL9724), the user is prompted to select the mode of operation - **Real time** or **Batch mode** while in non-Bluetooth models, users can start collecting data immediately in batch mode using the **Scan Labels** menu option.

In real time mode, the scanner needs to be connected to a host before you can collect any data. You can select either Master or Slave modes. In either mode, the scanner needs a Bluetooth address of the host. You can program the Bluetooth address in the scanner by allowing the scanner to automatically search and find the host, or you can create a barcode label for the host address and scan the label to connect to the host. To create a Bluetooth address label, go to <http://opticonfigure.opticon.com/bluetooth.asp>

In batch mode, data is collected in a file on the scanners RAM disk then the file can be transferred to the host using the Send Data menu option. Data can be sent either as raw ASCII data or as file using Opticon's NetO32 protocol which should be on the CD you received with your scanner.

1. Keys

Models supported by this demo application may have a full numeric keypad (e.g. OPL9728 and DCL1531) or just three keys. In all models the 3 keys under the display are used for menu selection and scanning. In full keypad models, the SHIFT key can be used to enter alpha-numeric data.



The Q1 key (Up key) left key.



The Trigger key.






The Q2 key (Down key) right key.



While holding the shift key and pressing a numeric key the alpha representative value is displayed on the screen.

2. The Menu structure

The menu structure consists of several menu items. These items together form the Main and submenus. To navigate through the menus, the  and  keys can be used. Items can be selected from the menu by pressing the ENT or the  button. In full keypad models, direct selection of the menu is also possible by pressing the numeric equivalent of the menu item.

Below is the menu structure representation of the menu. Main menu items are shown in bold face. Use the left & right buttons to navigate to the menu item, then press the middle (trigger) button to select that menu item. Each sub menu has a BACK button to take you back to the upper menu level.

1 Scan labels

2 Scroll data

3 System menu

- 3-1 (back)
- 3-2 Barcodes
 - 3-2-1 (back)
 - 3-2-2..16 enable barcode types
- 3-3 Communicate
 - 3-3-1 (back)
 - 3-3-2 Interface
 - 3-3-2-1 (back)
 - 3-3-2-2..4 select interface type
 - 3-3-3 Baudrate
 - 3-3-2-1(back)
 - 3-3-2-2..8 select baudrate
 - 3-3-4 Protocol
 - 3-3-4-1 (back)
 - 3-3-4-2..3 select protocol
- 3-4 QTY Options
 - 3-4-1 (back)
 - 3-4-2..3 select Qty options
- 3-5 Splash Screen
- 3-6 Bluetooth
 - 3-6-1 (back)
 - 3-6-2..3 select Bluetooth options
- 3-7 Battery volt
- 3-8 Memory
- 3-9 Date / time
- 3-10 Standby time
 - 3-10-1 (back)
 - 3-10-2..9 select standby time
- 3-11 Backlight

4 Delete data

5 Send data

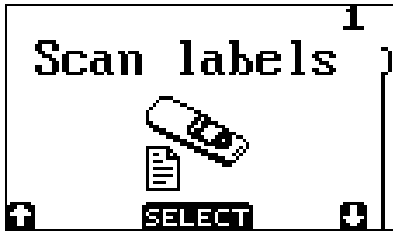
6 Version

2.1 Scan Labels



When No data on RAM disk, the image on the left will be displayed.

By pressing the trigger button the laser line emits and it is possible to scan a barcode.



When data is present on RAM disk, you will see a slightly different icon.

By pressing the trigger button the laser line emits and it is possible to scan more barcodes.



Barcode can now be scanned by pressing the trigger button.

On full keypad models, direct keyboard input is also possible. To enter alpha data press the shift button while keeping it pressed press any of the numeric keys. To enter the input data press the ENT key.



To return to the main menu the  key or the CLR key can be pressed.



Data in display after scanning or entering a barcode.

The total value is the cumulative quantity in the database. If the entered data does not exist in the database the total value is 0.

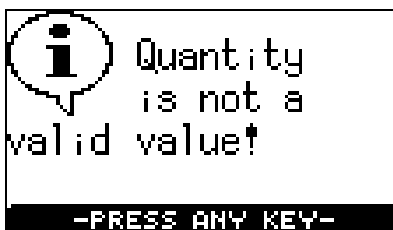
The value within the rectangle is the default input value. Any numeric input smaller than 4 digits could overwrite the default

value. To input a negative value, keep the  pressed and press the . To make a negative value positive, repeat the same process.

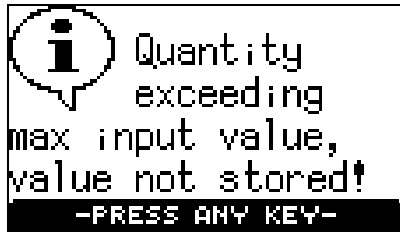
To enter the input press the ENT or trigger key.

If the Total + Add quantity is 0 (zero) the record is deleted from the database.

If the entered quantity is not a valid value this message box will appear. By pressing any key the OPL9728 returns to the quantity input.



If the total quantity in the database with the newly added quantity exceeds 999999 or -999999 then this message appears. The added quantity is



stored in the database.
After pressing a key the scan barcode menu appears.



After entering the quantity, the application returns to the scan barcode. Shown on screen is now the previous scanned barcode with the quantity in the database.


Pressing the Q2 key will open a special menu item that can perform some operations on the previous scanned barcode.

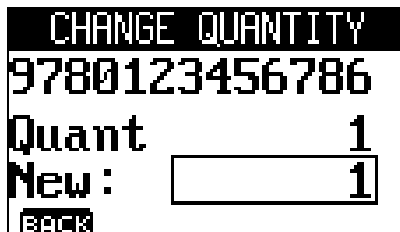


will return to the scan barcode menu.

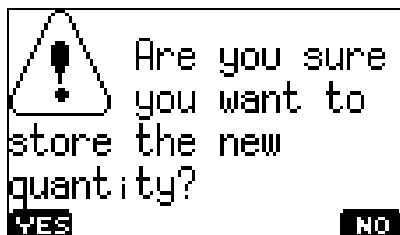


deletes this record completely from the database.

By pressing the  button the quantity that is stored in the database can be changed.



Changing the quantity happens the same way as the add quantity input. The default value is the value that is stored in the database.



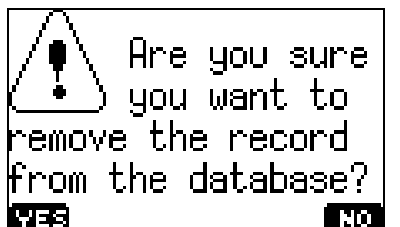
If the default value is changed to a new value this message appears on the display.



enables the new input value and stores it in the database.




cancels the input, the database is unchanged.



Before deleting the record this message appears. If the

question is acknowledged . The record will be removed from the database, this action cannot be undone.

When  is pressed the record will not be deleted.

In 3-button models, the quantity option is disabled by default. However, it can be enabled under System Menu → QTY Options. When enabled, users can use the Up (Left) key to enter quantity one digit at the time. The Down (Right) button can be used to move to the next digit. The trigger button is used to accept the quantity entered.

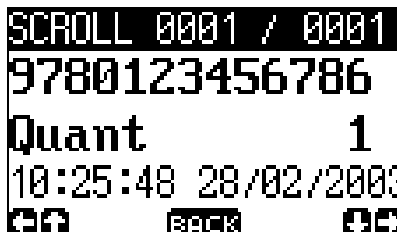
2.2 Scroll data









When there's no data is available on the RAM disk, you will see the image of the empty bin on the left.



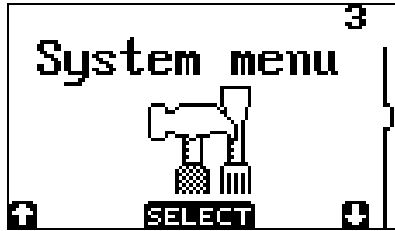
When data is available, you will see the image on the left and it is possible to scroll through the data one record at a time. The screen will show you the current record and the total number of records available.



To navigate through the inputted data use the  and  keys. When pressing the  and  the first record in the database is displayed.  and  will display the last record of the database.

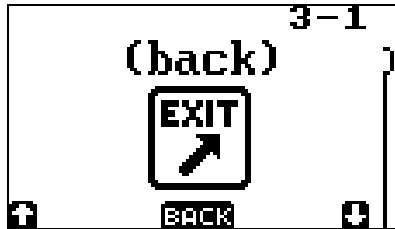
2.3 System menu

The System menu contains a submenu where special terminal options can be viewed or set. You can navigate through this menu the same way as navigating the main menu.



The system menu consists of the following items:

- (back)
- Barcodes
- Communicate
- Qty Options
- Splash Screen
- Bluetooth
- Battery volt
- Memory
- Date / time
- Standby time
- Backlight



The back/Exit menu item is used to return to the main menu.



The barcodes menu enables or disables barcode types that are supported by the Opticon scanners.



Checked = barcode enabled

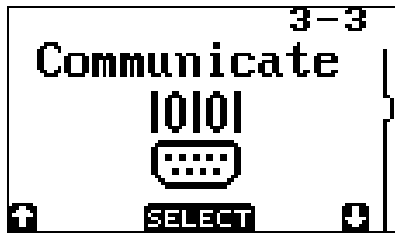


Unchecked = barcode disabled

Supported barcode types are:

- Code 39
- EAN
- UPC
- Interleaved 2 of 5
- Industrial 2 of 5
- Codabar
- Code 93
- Code 128
- MSI Plessey
- Telepen
- UK Plessey
- IATA
- Scode
- Matrix 2of5
- PDF417
- MicroPDF417
- RSS-14
- RSS-Limited
- RSS-Expanded
- EAN•UCC 2D Composite Symbologies
 - CC-A (MicroPDF417 based)
 - CC-B (MicroPDF417 based)
 - CC-C (PDF417 based)
- All Addons

By enabling all addons the add-ons for all supported barcode types are enabled.



In the Communicate menu, the interface type, baudrate and protocol can be set.

The interface Menu allows you to select the interface type (connection to the host). Options are:

- Cradle
- Bluetooth Real Time*
- Bluetooth Batch Mode*

When cradle is selected, data is sent from the scanner via the cradle through an RS232 connection. In real time mode, data is sent real time to the host via a Bluetooth connection. In Bluetooth Batch mode, the database file can be sent through a Bluetooth serial connection using a Bluetooth Serial Port Profile (SPP).

* You must have a Bluetooth enabled host and Bluetooth device drivers must be installed on your host computer before you can connect the Bluetooth scanner to your host.



The baudrate menu allows you to select the baudrate at which the scanner will communicate with the host PC. You must select the same baudrate on the cradle (dip switches at the bottom of cradle) and also on the host PC for proper communication. The default baudrate on the scanner and the cradle is 115200 bps.



Checked = baudrate enabled



Unchecked = baudrate disabled

By selecting a new baudrate the previous baudrate is disabled.



The protocol menu enables the user to select the way they want data to be sent to the PC. There are two options available. The No Protocol option sends data from the database as raw ASCII data. You will need some type of a Terminal application (e.g. HyperTerminal) to receive the data on your PC.

The NetO protocol option sends data as a file to the PC via the NetO protocol. You will need to install and start NetO on your PC to receive the data file. The NetO application is provided free of charge and should be available along with a user manual on the product CD you received with your scanner.

If you need further help with NetO, please contact Opticon Technical Support at:

(800) 636-0090
or email support@opticonusa.com



Checked = protocol enabled

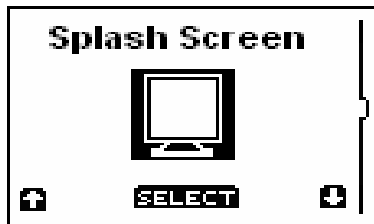


Unchecked = protocol disabled

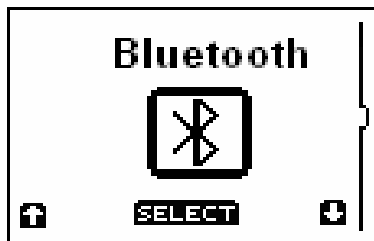
By selecting a new protocol the previous selected protocol is disabled.



The QTY Options menu allows you to enable and disable quantity. For models with full keypad, quantity is enabled by default while on 3-button models, quantity is disabled by default. In full keypad models, you can scan or enter the quantity directly from the keypad. In 3-button models, use the Q1 (Left) key to scroll the quantity between 0-9 one digit at the time. Use the Q2 (Right) button to move to the next digit. The Trigger is used to accept the quantity value.

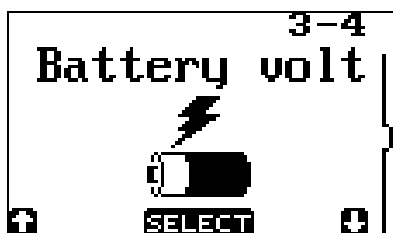


The Splash Screen menu allows you to customize a logo screen with your (or your customer's) information. The splash screen can have a maximum of 3 lines and 14 characters per line. Lines are entered one character at the time from the "Splash Screen. PDF" sheet which can be found in the Documentations folder on the supplied product CD.

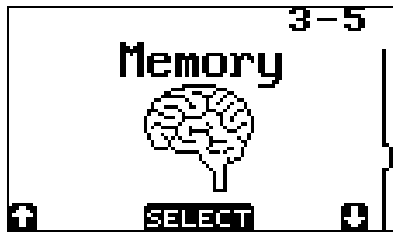


The Bluetooth menu has two options:

- Clear BT Address - allows you to reset the host Bluetooth address. It also resets the Bluetooth security PIN if you have one programmed. This is needed in case you want the scanner to connect to a different host. When the BT address is reset, the scanner will prompt you to enter a new address. You can enter a new address by either having the scanner search and find your PC or by scanning a barcode label with the Bluetooth address of your PC.
- Master / Slave - allows you switch between Master and Slave modes. When the scanner is in Master mode, the scanner controls the BT connection while in Slave mode, the scanner waits for the host to initiate the connection.



The battery voltage menu shows the current voltage reading of the battery.



The memory menu shows the amount of free memory still available on the RAM disk.

When the RAM disk is (almost) full, a warning message appears indicating that you're running out of memory. You should send the data file to your PC then delete the file from the scanner's RAM disk to avoid any data loss. When you approach the RAM disk limits, you may see two different messages depending on the amount of free space still available on RAM disk.



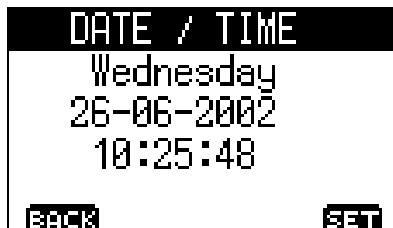
RAM disk is almost full, data is stored.





RAM disk is full, data is not stored.





The date / time menu item shows the current day, date and time. You can also adjust time & date in this screen.




Use button  (BACK) to return to the system menu.

Use button  (SET) to change the time and date.



Use button  and  to navigate.

Use  button to change the value where the cursor is positioned. The cursor is represented by an underline of the current field.

When the cursor is placed under the E of End, the new time and date can be saved. If the newly entered time or date is not a correct value an error message is displayed.



Error in setting: Time or date

The new settings will not be saved when the time or date values are invalid.



Selecting the standby time sets the time the terminal stays on when no key is pressed to save power. Pressing one of the three keys under the LCD screen will turn the terminal back on.



The backlight menu controls the way the terminals use the backlight.

The Backlight menu options are OFF, ON and AUTO. When the auto option is selected then when a key is pressed the backlight of the display will stay on for 10 seconds



Checked = selected backlight item



Unchecked = unselected backlight item

By selecting a new backlight item the previous selected item is unselected.

Note: This feature is available on specific models.

2.4 Delete data



This option allows you to completely delete the database from the scanner RAM disk. If the scanner displays an empty trash can, this indicates there's no data to be deleted. The scanner will display a message if you try to delete an empty file.



When selecting this menu option, the whole database will be deleted. Please exercise caution when using this option to avoid any data loss. There's no way to recover the data file after it has been deleted. This option should only be used after the database file has been sent to the host PC.

The scanner will display a confirmation message before deleting the file.

Select (YES) button  to delete the file or  (NO) to cancel.

2.5 Send data



By selecting the Send data menu the database if present can be transmitted to the PC. The protocol and baudrate as set in the communication menu are used.

The other communication parameters that can not be changed are:

Parity	= None
Data bits	= 8
Stop bits	= 1



When the transmit data message appears on the display put the OPL9728 in the cradle and then press a key. On the PC needs to run an application to receive the database.

After a successful transmission a message appears to delete the database. See delete data for more information.

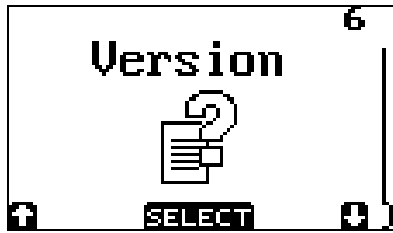


Transmission error during transfer protocol.

An error message appears if the transmission is interrupted. Retry to transmit the database to the PC.

After a successful data transmission, the scanner prompts you whether you want to delete the database file. Press YES (Left) key to delete the file or NO (Right) key to keep the file.

2.6 Version



Selection the version menu item the current software version is shown.



The software version of the scanner application will be displayed in a screen similar to the one on the left. The actual software version may be different from what's shown on the picture.

3. Data format

Each record is stored in a database file called DATA.TXT.

The fields in a record are:

<Barcode 200 characters right padded with spaces>
<Quantity 7 characters left padded with spaces, 6 numeric and 1 sign bit>
<Time stamp 8 characters format HH:MM:SS>
<Date stamp 10 characters format DD/MM/YYYY>

The fields in record are separated by a comma and all records end with a <CR><LF> character.

A Complete record looks like this:

<Barcode>,<Quantity>,<Time>,<Date><CR><LF>

The maximum number of records that can be placed in the RAM disk depends on available data memory on each terminal. Please refer to your terminal's documentation.

4. Battery

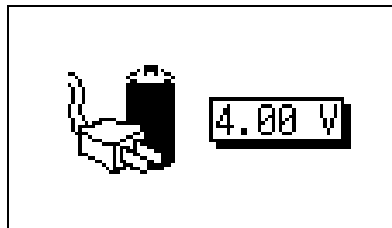
4.1. Battery charging



If a scanner with chargeable battery pack is placed in the cradle, the voltage and the required loading time is automatically determined.



While the scanner is charging the scanner screen shows one of the images on the left depending on the battery level. Also the LED will be RED.



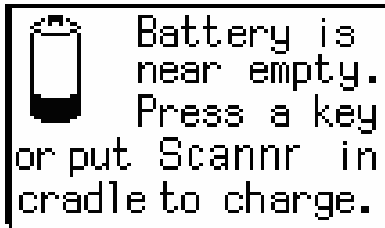
When the battery is fully charged the LED will turn GREEN and the image on the left will be shown. The voltage meter shows the voltage on the contacts of the battery.



Note

- When sending data (transmission) battery will also be charged. The led will emit RED or GREEN, but the charging image is not displayed.
-

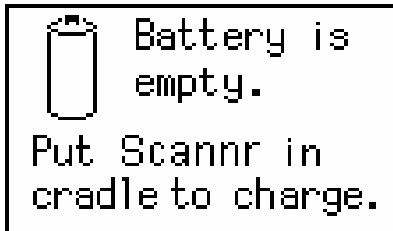
4.2. Battery near empty



During operation the scanner keeps track of its battery voltage. When the scanner detects that the battery is nearly empty, a warning message will be displayed.

When this message is displayed, the scanner should be placed on the cradle to recharge the battery pack or press. You can continue using the scanner but you may lose data.

4.3. Battery empty



When the battery reaches its low level, a message will be displayed and the scanner cannot be used until it's recharged. You should place the scanner on the cradle to recharge before re-using the scanner. While the scanner is charging the charge LED will red and will change to green when the battery is fully charged.