

CPL

Manual

MANUAL REVISION HISTORY

<u>Revision Description</u>	<u>Latest Revision Date</u>	<u>Revision Number</u>	<u>Approval Date</u>
Update Address	04/13/10	2	04/13/10

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1 GENERAL INFORMATION ON IDENTIFICATION SYSTEMS

The BALOGH identification system allows a user to associate information with a physical object (Pallet, Carrier, Vehicle, Part etc..) by means of a radio frequency identification TAG.

This information can be read as a fixed code for read only TAGS, or information can be read and modified with read/write TAGS. This is all done without contact at a distance with a suitable transceiver (antenna).

The dialogue between the RFID TAG and the transceiver is managed by a BALOGH control board/ interface.

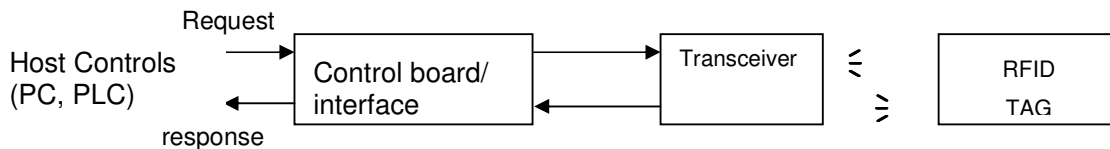
A BALOGH RFID system for read only or read/write will consist of two elements:

- A transceiver,
- A control board/ interface.

For dialogue between the transceiver and TAG two technologies are possible:

- Inductive technology, the TAGS have no on-board power source receiving all the required energy for operation by means of a electromagnetic field emanating from the transceiver;
- Infrared technology, TAGS contain a power source for dialogue and safeguard of the information in memory.

The BALOGH control board/ interface controls the transceiver, and the dialogue with the RFID TAG. The control board/ interface then communicates data to and from the host controls.



Depending on the customers choice of controls and type of application, BALOGH offers a large range of products to match an application:

- Parallel control boards,
- Serial (RS-232, 422,485) with a large selection of protocols, or fieldbus networks,
- Programmable control boards allowing a user to control local devices automatically.

Monobloc is a control board and transceiver within one enclosure.

Handheld units portable read or read/write devices.

2 DESCRIPTION AND FUNCTIONALITY

2.1 DESCRIPTION

The CPL is a handheld used to read and program the OLR TAGS. The unit operates on 4 AA batteries.

The sensing face is located on the top of the unit.

Information is inputted on the keypad and viewed on the LCD display.



Characteristics :

- Operating temperature 0 to 50° C
- Weight : 430 g.

2.2 FUNCTIONALITY

The OLR TAG is a 2 byte (1 word) read only TAG. The max. data value that can be programmed in the TAG is FFFF hex or 65,535 decimal.

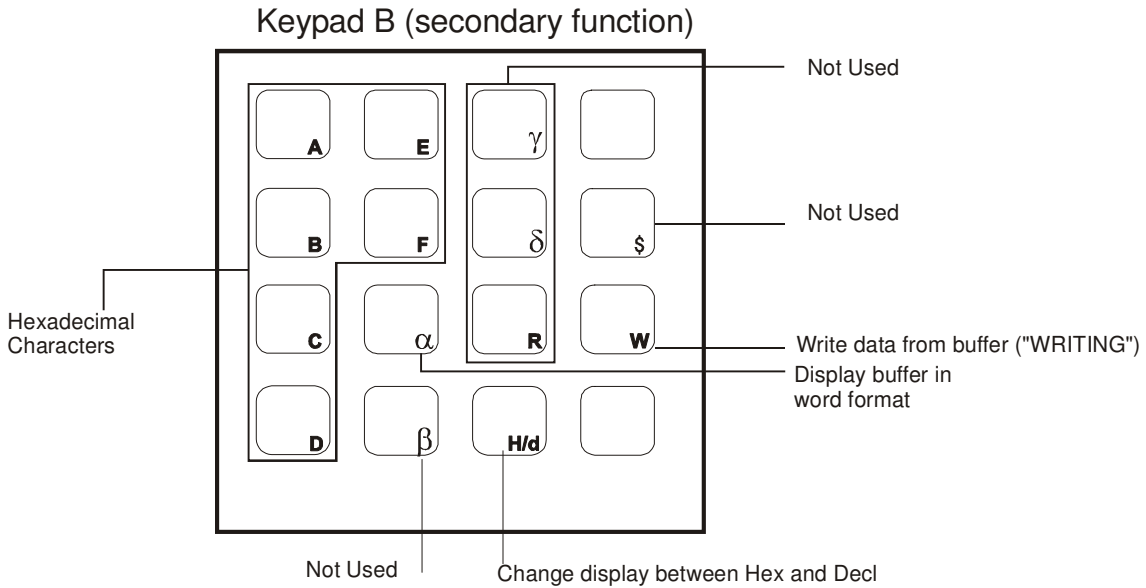
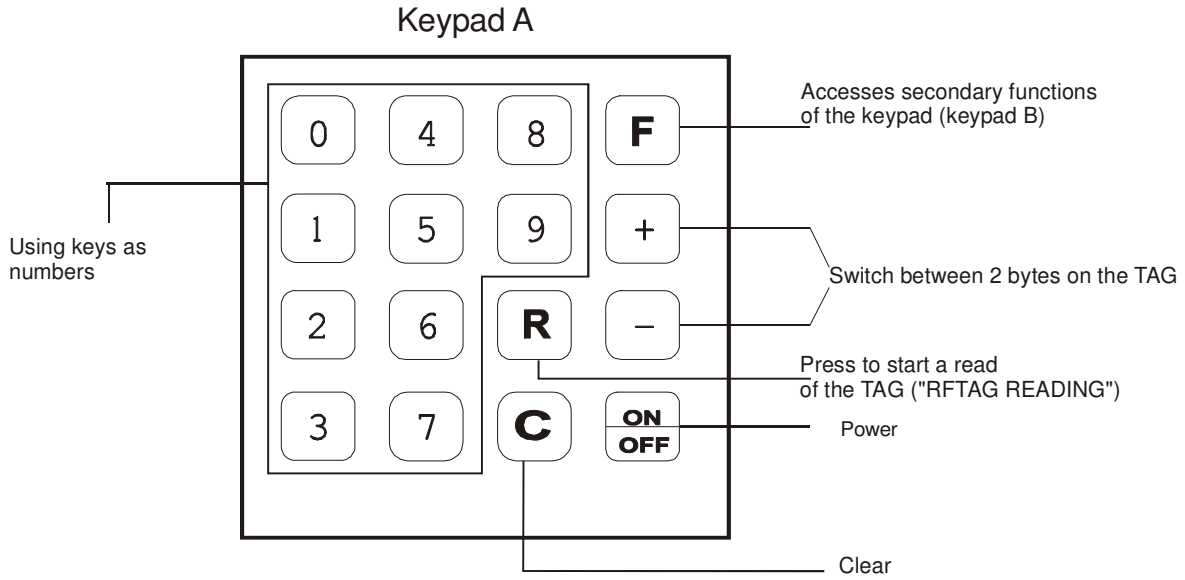
The code when programmed into the TAG is secure and can not be changed unless the TAG is reprogrammed using the CPL. Once programmed the TAG can be read using a ERL series transceiver.

When conducting a read of the TAG the CPL copies the data read into its buffer, or transfers the contents from the buffer to the TAG when programming the TAG.

The contents of the CPL buffer is visualized on the LCD display, and for programming modified using the keypad.

3 KEYPAD

Each key on the keypad has two functions. Switching between each function is done with the F key.



5 OPERATION

5.1 START

Power sequencing of the CPL is done by the On/Off key.

The reading or programming of an OLR TAG is done by placing the TAG in front of the sensing face of the CPL (distance is within a few centimeters) making sure the arrows on the TAG are parallel to arrows on the CPL.

Power shutdown of the unit occurs :

- Automatically after 7 mins. without activity
- Manually using the ON/OFF button on the keypad.

In both cases the internal buffer is erased on power down.

5.2 DISPLAY

Data is displayed in two formats :

1. The buffer is displayed in one the the following formats:

- Byte format (switch between bytes with + / -) in Hexadecimal (this is the default mode when unit is powered up) :

BYTE <current byte address>/<max. byte address> <current data in byte> HEX

- Byte format (switch between bytes with + / -) in Decminal :

BYTE <current byte address>/<max. byte address> <current data in byte> DEC

This is done by pressing the F key then h/d key. Repeating this returns to Hexadecimal.

- Change display to word format in decminal press F then key α

65535 (Max. value for 2 bytes 1 word) <data word> DEC

repeating this returns display back to byte format.

Data can be entered in decminal or hexadecimal in the CPL. To clear data use the C key.

2. Function : Lets you change between the two functions of a key.

5.3 FUNCTIONS

1. Reading : push the **R** key: "RF tag reading" is displayed,
2. Writing :
 - Takes data displayed in the buffer to write to the TAG (two bytes or a word),
 - Push the F key then **w** "writing" is displayed.

When the display returns to the last format before the operation this indicates a successful read or write. In the case of a read the data from the TAG will be displayed.

If the operation message does not change : press C to clear the operation.