DATAMARS

OMNI MAX Scanner

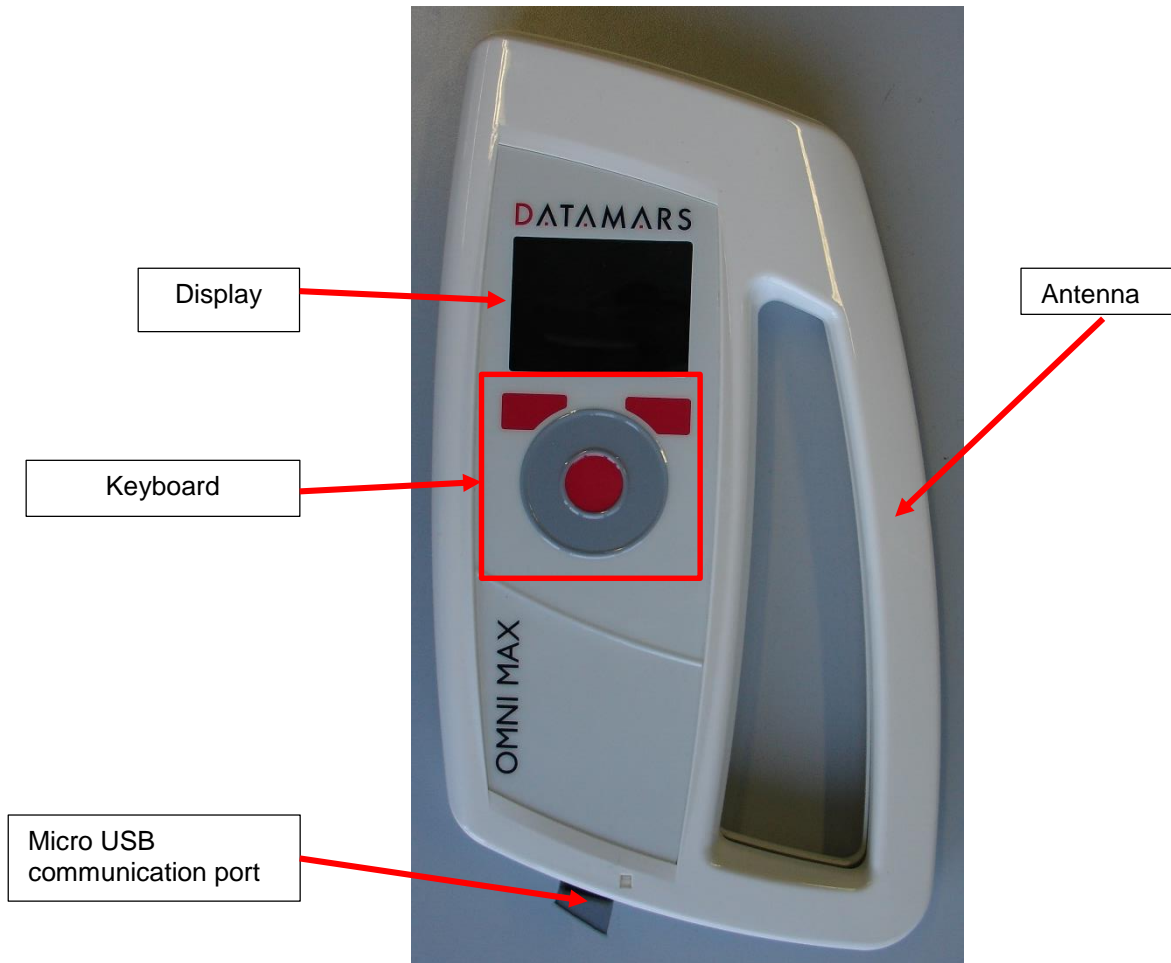## User Manual

Contents:

1   Description

Display

Keyboard

Micro USB
communication port

Antenna

1.1   Switch on the scanner

Press the central red button for about 2 seconds, then slide a thumb on the grey wheel.

1.2   Switch off the scanner

Press the right red button to enter in the control menu, then press the central red button to switch off the reader.

1.3 Keyboard
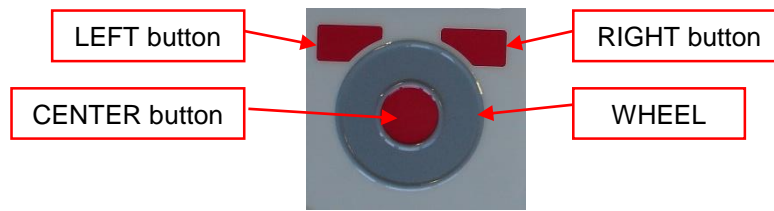
1.3.1 CENTER button

The CENTER button is used to switch on the OMNI MAX reader, to start and stop a reading session or to select and confirm the various available settings, the settings are described in later chapters of this manual.

1.3.2 LEFT button

The LEFT button is used to access to the RFID menu or to scroll between the various settings.

1.3.3 RIGHT button

The RIGHT button is used to access to the CONTROL menu or to return to the previous menu.

1.3.4 WHEEL

The WHEEL is used to switch on the reader or to scroll between the various settings.

2 Screen navigation

2.1 Description

Main Menu
Active screen after power up.

Setting status bar
Current example:

USB in VCP mode

Data recording Stopped

RFID MENU

Read
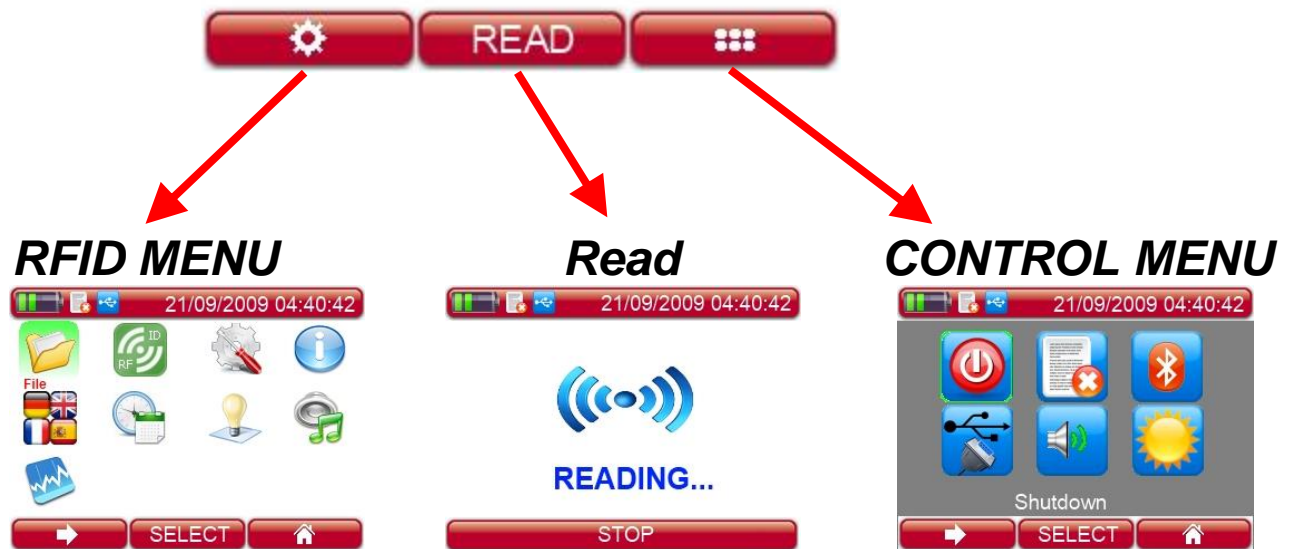
CONTROL MENU

2.2   CONTROL MENU

- Shutdown

- Recording Stopped

- Recording Started

- Bluetooth Disabled

- Bluetooth Serial Communication

- Bluetooth Keyboard Wedge

- USB Virtual COM Port

- USB Keyboard Wedge

- USB Mass Storage

- Volume Off

- Volume Low

- Volume Mid

- Volume High
- Brightness Low
- Brightness Mid
- Brightness High

3 **Menu management**

A number of different settings can be customized to the user's preference.

3.1 **File**

 File Icon

In this folder they can be found the files saved with the recorded TAGs.

3.2 **RFID**

 RFID Icon

In this folder it can be chosen the Reading Timeout and the TAGs that can be read.

3.3 **Setup**

 Setup Icon

In this folder it can be chosen the Auto Shutdown and the Read timeout time.

3.4 **Information**

 Info Icon

In this folder it can be found which version of OMNI MAX it is been using and which firmware version is load.

3.5 **Language**

 Language Icon

In this folder it can be chosen the language. The choice is between English, Italian or Spanish.

3.6 Date and Time

 Date & Time Icon

In this folder it can be chosen the date, the time and their format.

3.7 Display

 Display Icon

In this folder it can be chosen the timeout of the backlight, the brightness and the Start-up image.

3.8 Audio

 Audio Icon

In this folder it can be chosen the Audio Level, the Keyboard sound, the Start-up sound, the Shut-down sound and the Reading sound.

3.9 Test

 Test Icon

In this folder it can be chosen the Read Cycle time, to start a Cyclic Test, to start a Statistic Test, the diagnostic information transmitted by the reader and the signals measured by the reader (e.g. the noise).

4   Connect the OMNI MAX to a PC

The PC can be used for three functionality:
1. To charge the reader's battery
2. To configure the reader with the S-ID
3. To use the reader as a Mass Storage device like a USB storage pen
4. To connect the reader with the USB in Virtual Com Port to send or receive data
5. To connect the reader with the USB in Keyboard Wedge mode
6. To connect the reader with the Bluetooth module in Virtual Com Port to send or receive data
7. To connect the reader with the Bluetooth module in in Keyboard Wedge mode

5   Take care of the reader

Ensure that the reader is not damaged. Do not drop it onto a hard surface or subject it to very wet conditions.

If the outer casing of the reader becomes soiled, it can cleaned with a damp cloth. First, ensure that it is not connect to the charger.

If for any reason the reader is not working, please do not attempt to repair it, return it to your local dealer.

The OMNI MAX reader is equipped with Li-Ion type battery. This battery lasts longer and does not contain Cadmium or lead, which makes it much safer for the environment. If the reader has to be destroyed, please return it to a battery specialist for battery recycling.

The display of the OMNI MAX reader may change color if exposed to temperatures higher than 50°C. It will return to its original color as soon as the temperature gets below 50°C.

At very low temperatures, the display may lose its contrast, but at normal temperatures, it will return to its normal contrast.

6   Specifications

1. Storage temperature: -10 to +55 °C, 85% RH, non-condensing
2. Normal operating temperature: +5 to +40 °C, 85% RH non-condensing
3. Standards: ISO11784/5, ISO11784-AMD1 and ISO24631-2
4. External power supply: USB cable
5. Dimensions: 266x148x27 mm
6. TAG compatibility: FDX-A, FDX-B, HDX, Trovan
7. Transmission frequency: 134.2 kHz
8. Battery life: >500 cycles
9. Weight: 440 g
10. Interfaces to host PC: USB and Bluetooth

7 Do you have a problem identifying an animal?

7.1 The reading distance is too short

The maximum reading distance is obtained with the transponder (TAG) perpendicular to the antenna and aimed at the center of the antenna coil. If the tag is implanted into an animal its orientation may not be optimal and therefore the reading distance may be reduced.

You might be close to a source of electromagnetic disturbances like video or TV. Move a few meters away and try again.

Do not use the reader on a steel table. The metal will reduce the performance of the antenna.

The reading distance is reduced if the transponder is still in the needle.

7.2 The reader does not read the transponder

Change the angle of the reader and try again.

Some types of transponders from other manufacturers are disturbed if placed in the center of the reader-antenna. It is possible that some tags will not function if placed in parallel and at the center of the antenna. Change the direction of the tag or of the antenna.

7.3 The reader does not work

Check the temperature: it has to be between +5ºC and +40º C.

If you're still having problems, please contact your dealer.

The OMNI MAX reader is a product developed and produced by DATAMARS, Switzerland.

If you have any suggestions or require information regarding this or other DATAMARS products, please contact your dealer.

8 Information to user

8.1 FCC Part 15

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for Class B Digital Device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures.

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

8.2   IC RSS 210

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions:
(1) This device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :
(1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

9   Certifications

9.1   European directives

Datamars SA, Via ai Prati, CH-6930 Bedano declares, under its own responsibility, that the product OMNI MAX is in accordance with the following standards:

ETSI EN 300 330-1 / ETSI EN 300 330-2	Electromagnetic compatibility and Radio spectrum matters (ERM) - Short Range Devices.
ETSI EN 301 489-1 / ETSI EN 301 489-3	Electromagnetic compatibility (EMC) standard for radio equipment and services.
IEC/EN 61000-4-2 / IEC/EN 61000-4-3/ IEC/EN 61000-4-4/ IEC/EN 61000-4-6	Electrostatic discharge, electromagnetic field, electrical fast transient/burst, radio-frequency fields' immunity.

OMNI MAX satisfies the essential requirements of directives 99/5/EC.

9.2   American directives

Datamars SA, Via ai Prati, CH-6930 Bedano declares, under its own responsibility, that the product OMNI MAX is in accordance with the following standards:

FCC Part 15B	Part 15 Class B Computing Device Peripheral
FCC Part 15C	Part 15 Low Power Transmitter Below 1705 kHz

10 End of life

10.1 Disassembly Instructions for OMNI MAX reader

Product Name / Model	Description
OMNI MAX / Any models	Universal portable reader

Only <u>authorized recyclers</u> are permitted to use these disassembly instructions. Any attempted disassembly by a user or unauthorized party will void the product warranty and may irreparably damage the product.

10.2 Tools Required

Tool Description	Tool Size (if applicable)
Nipper	Medium
Philips screwdriver (0)	Small
Cutter pliers	Medium
Hot Air Gun	Big

10.3 Product Disassembly Process

- All external plastics have to be removed from the reader (use Philips screwdriver to remove all screws).
- The Keypad has to be removed from the top cover casing (use the Hot Air Gun with the cutter pliers in order to easily remove the keypad).
- The Micro USB cable and the battery have to be removed from the bottom cover casing.
- Dispose plastic parts of the reader in accordance with local recycling laws.
- Dispose electronics parts of the reader in accordance with local recycling laws.
- Remove cables from batteries (use the nipper to do this operation).
- Dispose batteries of the reader in accordance with local recycling laws.
- Dispose cables of the reader in accordance with local recycling laws.