DATAMARS

TracKing-1 User Manual

Portable Reader for Livestock ID

Contents :

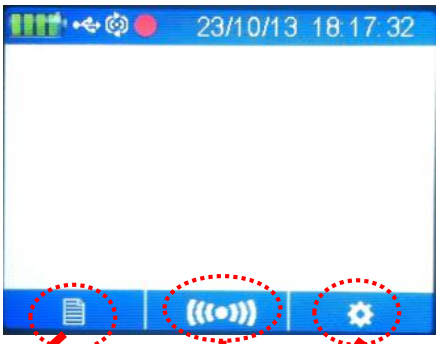
1 Description

2 Screen navigation

2.1 Description

HOME

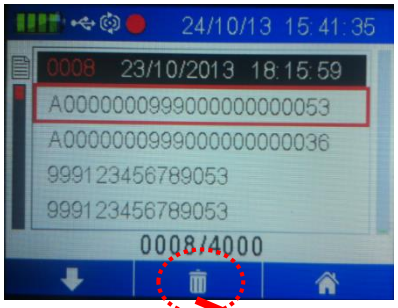
Active screen after power up.



Setting status bar
Current example:
- USB in VCP mode
- Continuous reading mode
- Data recording turned ON

EID Memory File

Shows codes stored in memory



Read

Display when a tag is read

Settings

Gives access to reader settings

Delete

To delete one code, duplicate codes or the whole memory

2.2 Icon description

-  Single reading mode
-  Continuous reading mode
- 

Code recording OFF **<u>Warning: if Rec is OFF, codes are not stored</u>**
- 

Code recording ON
-  USB connection in Virtual Com Port mode
-  USB connection in Keyboard Wedge mode
- 

Format of the electronic code
-  Audio OFF
-  Audio ON
-  Display brightness
-  Time and Date settings
-  Firmware version

3 Main features

3.1 Read and store UID

Code recording OFF **Warning: if Rec is OFF, codes are not stored**

Code recording ON


Single reading mode: Each click of the ON button will start a reading session if present read a tag and reading will turned OFF.


Continuous reading mode: One click of the ON button will start a reading session and it will stay ON until the ON button will clicked again or time-out occurs.

3.2 USB connection

To read the ID codes stored in the reader's memory via USB, THE READER MUST BE TURNED OFF. If the reader is turned ON while connected to a PC, the reader will behave as a PC peripheral and ID Codes will be sent to the PC via the USB cable at each reading. Support two interfaces:


Keyboard wedge: the TracKing-1 is see by the PC as a keyboard. The codes will displayed on the PC screen in any window where a mouse cursor is active. No configuration on the PC is need.

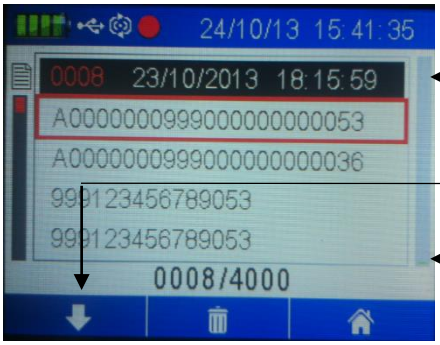

VCP: TracKing-1 is connect to one of the Virtual Com Ports of the PC and sends the codes using RS232 protocol. Codes are received on a hyper-terminal or using Datamars S-ID companion SW.
(Requires a specific PC driver that can be downloaded from www.datamars.com)

3.3 Display view

EID code

File index: shows how many codes are stored in memory

User Counter: It is incremented when a new code is read and it can be reset anytime by clicking on  .



Shows the position of the code in the memory file (0008th in this example) and when the code has been read (on the 23th of October 2013 at 18:15:59)

The arrow allows moving from 1 code to the other. A longer press will invert the arrow's direction

Shows the TracKing-1 memory usage (8 codes stored out of 4'000 available)

Delete a given code

Delete duplicate codes

Delete the entire memory (in this example the memory contains 9 codes)

4 Connect your TracKing-1 to a PC

4.1 Introduction

There are two principally reasons to connect your TracKing-1 reader to a PC. Once is to recharge your TracKing-1 reader and the other is to communicate with him. You have three possibility to communicate with the USB port, two are real time and the last one show the memory of the reader:

- USB Mass Storage (MS)
- USB Virtual Com Port (VCP)
- USB Keyboard Wedge (KW)

4.2 USB Mass Storage

With this function you are able to connect the reader to the PC in order to have it same as a USB storage pen.
Always when you connect the reader to the PC, the battery will be go in charging mode, but in this state, you cannot use the reader for reading sessions.

4.3 USB Virtual Com Port

This function allows communicating with the PC as with a serial cable, but you do not need a RS232 serial cable.
Also with this functionality when connected to the PC will be charging the battery of the reader, with the difference respect the USB Mass Storage you can use the reader also for reading sessions.

4.4 USB Keyboard Wedge

This function allows using the reader as a keyboard, in order to print in your database the UI just read.
Also with this functionality when connected to the PC will be charging the battery of the reader, with the difference respect the USB Mass Storage you can use the reader also for reading sessions.

5 Take care of your reader

Ensure that the reader was not be 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, but return it for repair to your local dealer.

The TracKing-1 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 reader TracKing-1 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: -20 to +65 °C, 85% RH, non-condensing
2. Normal operating temperature: -5 to +55 °C, 85% RH non-condensing
3. Standards: ISO11784/5, ISO11784-AMD1 and ISO24631-2
4. External power supply: USB cable
5. Dimensions: 223 x 108 x 41 mm
6. TAG compatibility: FDX-B, HDX
7. Transmission frequency: 134.2 kHz
8. Battery life: >500 cycles
9. Weight: 326 g
10. Interfaces to host PC: USB

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 scanner 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 scanner does not read the transponder

Change the angle of the scanner 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 scanner does not work

Check the ambient temperature: it has to be between -5ºC and +45º C.

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

The TracKing-1 reader is a product developed and produced by DATAMARS, Switzerland.

Should 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.

Attention: The final product must have the ferrite fixed permanently to the power supply cable.

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 TracKing-1 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.

TracKingr-1 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 TracKingr-1 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 TracKing-1 reader

Product Name / Model	Description
TracKing-1 / Any models	Universal portable reader

Only authorized recyclers 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

1	• 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 Mini USB cable and the battery have to be removed from the bottom cover casing.	
2	• Dispose plastic parts of the reader in accordance with local recycling laws.	
3	• Dispose electronics parts of the reader in accordance with local recycling laws.	

4	• Remove cables from batteries (use the nipper to do this operation). • Dispose batteries of the reader in accordance with local recycling laws.	
5	• Dispose cables of the reader in accordance with local recycling laws.