Guard tracking proximity reader

PATROL II

User Manual

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Introduction

PATROL II is a hand held proximity transponder reader. It operate with 64 bit read only 125 kHz transponders based on HM4001/2 chip. Reader is capable to record up to 1500 reading cycles with so called time-stamp (date and time) and transponder number. Records are kept in non-violate EEPROM memory. PATROL II also register few another facts which helps maintain device fully operational (battery warnings, memory warnings and charging messages). Reader is configured via special software run under MS Windows. The contents of reader memory can be transferred to PC data base or can be directly printed on printer equipped with serial port. PATROL II is equipped with 6 digit LED display which guaranties good visibility in darkness and give information about current device status.

Preparing reader for use

Before first operation user must connect PATROL to PC computer and configure it. During configuration few parameters can be set:

- time and date,
- reader ID,
- labels for transponders (guards and tracking points names).

Notice:
PATROL should be kept in lather holder and protected from water and snow.

READER OPERATION

Reader can by supplied from AC Charger, rechargeable or non-rechargeable batteries. The factory new device is equipped with 2 AA size 1000mAh rechargeable batteries. The fully loaded new batteries are capable to perform more than 1000 reading cycles without charging. Reader start operation after ON/OFF button will be momentary pressed. After power on during next 8 seconds PATROL attempt to read transponder (message [------] is displayed) and later Time/Date message are displayed and after next 12 second device will automatically switch off. If transponder is read the short acoustic sound is generated and [------] message disappear. Every short press of ON/OFF button will start transponder reading process. In order to switch off reader manually press ON/OFF button and keep it pressed until OFF message appear than release button.

Battery charging

Charging is perform with AC Charger connected to mini-jack connector located on the bottom of the reader. After charger connection press ON/OFF button for a moment, soon the LOAd message appear which means that PATROL detected charger and charging process is going. PATROL II control battery charging process and automatically stop process after batteries are fully loaded. End of charging is signalized by BATTERY FULL light emitting diode. The 1000mAh batteries are fully loaded in approx. 2 hours.

Note:
1. Use only 1000mAh batteries.
2. Don't connect charger to a reader equipped with non-rechargeable batteries.
3. Please check out the batteries polarity before they will be loaded into a reader.
4. Reader can be supplied only by AC Charger included with set.
5. If reader has no battery for period longer than 1 minute the internal clock/calendar circuit will be reset.
6. It is recommended to discharge batteries before attempt to new charging.

OPERATION WITH PC

PATROL II require connection to PC computer for configuration or when operator wants the readers memory transfer to PC data base. In order to establish communication between reader and PC the following steps should be done:

- connect PATROL to PC com port (COM1..4) via special cable,
- run Patrol Master software,
- set language version and proper COM port,
- close program,

- power on reader (press ON/OFF button momentary),
- start program once again,
- Patrol Master will automatically find reader, next steps are available.

Printing events memory

Events memory can be printed directly on printer equipped with serial RS232 interface.
Following steps must be done before printing:

- Connect reader to printer port, (use special cable),
- Press momentary ON/OFF button,
- Wait till display will show Time/Date,
- Press ON/OFF again and keep pressed till OFF and later rEPOrt message occur,
- When rEPOrt message exist release ON/OFF button,
- Reader will print events memory,
- After print is finished the CLEAr message occur and reader will switch off.

Note:
Printing events doesn't erase reader events memory. If operator want to free reader memory he must wait until display show CLEAr message and press ON/OFF button for a short time, reader will erase events memory.

Note:
Printer connected to PATROL reader should have following option:
1. Transmission speed 9600 baud
2. Data 8 bit
3. No parity

Events registered in reader memory.

1. Reading of transponder.
2. Start of Battery charging.
3. End of Battery charging.
4. Low battery warning.
5. The 75% of reader memory filled.
6. Memory erased message.

Every events have its time-stamp (date and time).

Display messages

Display	Description
- - - - - -	Message - Reader is reading transponder.
HH – MM	Actual time , HH – hours, MM – minutes.
DD.MM	Actual date, DD - day of a month, MM – month.
ACC OF	Warning - Too low battery, reader will automatic switch off..
ACC LO	Warning - Low battery, operator should charge or replace battery.
END LO	Message - End of charging.
LOAd	Message - Charging in progress.
Conn	Message - Reader during communication with PC.
OFF	Message - Reader switch off.
rAPOrt	Message - Reader is printing.
Er.100	Warning - No communication with printer.
CLEAr	Question - Reader ask if memory should be erase ? If during this message operator press ON/OFF button again memory will be erased.
FULL	Warning - Memory filled in 75%, operator should transmit contents of reader memory to PC, the message will be cleared after ON/OFF button is pressed.
EE Err	Message - Reader internal error, operator should reconfigure reader again.

Technical data:

Supply	: 2 cells 1.5V AA size
Charge current	: 0.5A
Reading range	: up to 10 cm (for ISO transponder)
Transponder type	: 64 bit Read only 125kHz, HM4001/2 chip
Events memory	: 1500
Transponder Labels	: 150 (Tracking points + Guard identifiers)
Operating temperature	: -20...+60 C
Dimensions (mm)	: 77 x 172 x 25
Weight (with battery)	: 250 grams

Set :

- PATROL II reader
- Leather holder
- Cable computer-reader 1.5m
- AC Charger 6V/500mA
- Two AA 1000mAh battery
- Control software PATROL Master

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