



iWATCHER[®] made by SPETROTEC
LOCK

User Guide



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General Description

The iWatcher LOCK is a game changer. The lock is not only capable of locking a property, it also informs the owner of the property about break-in attempts.

The smart lock provides physical locking of the property and sends real-time alerts, through SMS, data communications or phone, directly to the owner's mobile phone or computer. Alerts include location and reason for the alert, such as burglary attempt, opening, locking, etc. (see page 16 for



all alert types)

The iWatcher LOCK is the ultimate solution for protecting, tracking, and controlling properties. The lock was developed for logistics and security purposes, in a wide variety of uses: containers, gates, warehouses and shops, motorcycles, remote sites such as cellular sites, heavy equipment, and trailers.

With smart algorithms and innovative technology, the lock can be operated for a long period of time without need to recharge or replace the batteries - up to 3 years or the transmission of 1,200 alerts.

In addition, the iWatcher LOCK has a unique locking mechanism, designed especially for it by one of the leading lock companies in the field.

Benefits

- © Security and monitoring over a long period of time, without charging or replacing batteries.
- © Real-time alerts to a mobile phone.
- © Receipt of accurate location in each alert.
- © Quality locking mechanism.
- © Suitable for harsh environmental conditions.
- © Convenient and user-friendly.

Uses

The iWatcher LOCK is the ultimate solution for monitoring and controlling

- © Containers
- © Gates
- © Warehouses and Shops
- © Motorcycles
- © Remote sites
- © Heavy / Expensive equipment
- © Trailers

What's in the kit?

The kit includes the following items:

- © The iWatcher LOCK
- © 2 Keys + a code card to duplicate additional keys
- © 2 batteries
- © A User guidee



Battery Replacement

1. Insert the key and rotate to unlock the shackle from the lock. Pull out the shackle and then remove the key.



2. Open the lock cover- Press the top and bottom buttons, at the same time and pull the cover sidewise.





3. Remove the lock cover.



4. Replace the batteries on both sides of the unit, according to the drawing.

5. Connect all parts back and close the unit.

Configuring SMS Recipients

You can define up to three SMS recipients to get the lock's notifications.

- © Write an SMS from any mobile phone with the following command:
;<LOCK>NUM=,subscriber1,subscriber2,subscriber3,;
 - Instead of - subscriber3,subscriber2,subscriber1- enter the mobile numbers to which you want the lock to alert.
 - Note not to add spaces between the numbers and make sure to write the full command, including all 4 commas (see examples on the next page).
 - The mobile number should begin with a + followed by the country code.
- © Send the SMS to the iWatcher LOCK's number (appears on the micro SIM card attached to the kit).
- © Once the SMS will be sent, you'll receive a response from the unit to your mobile phone, confirming the command- **;<UNIT_ID>NUM=ACK;**

Note! Commands, such as configuring the SMS recipients, will be registered by the lock only when it is active (i.e. not in sleeping mode). If the lock is available, it should be unlocked in order to activate it; if the lock is in a different location, it will activate within 24 hours with its "Alive" notification. When the lock is active, in case of no response from the unit (up to 3 minutes from sending the message)- the command was not approved: the command that was sent was not correct or full, and you should resend the configuring command following the instructions. If there is no cellular reception, the response will be sent once the lock will reach response.

* See configuration examples on the next page

Command for three SMS recipients:

;<LOCK>NUM=,+972540000000,+972541111111,+972542222222,;

Command for two SMS recipients:

;<LOCK>NUM=,+972540000000,+972541111111,,;

Command for one SMS recipient:

;<LOCK>NUM=,+972540000000,,;

Operational Notes

1. Daily status alerts -the Lock will send an " Alive" notification, after a defined "sleep" state (by default -every 24 hours).
Meaning, that once the lock was "awoken" by an open/close/movement notification, the 24 hours timeline will start from such notification (until then, the lock will return to its "Sleep" mode).
2. If the lock's shackle is not locked (is detached from the lock), no "Burglary Attempt" will be dispatched. So, when the lock is on the move, to avoid false alerts, the shackle should be left open.
3. If the lock cannot receive signals from the GPS satellites (for example when the lock is placed inside a building), it will calculate its location from LBS (Location-Based Service).

4. "GNSS" at the end of the message means, that the location of the iWatcher LOCK is calculated from GPS satellites, which will be the more accurate location.
5. "LBS" at the end of the message means, that the location of the Lock is calculated from LBS (Location-Based Service).
 - The accuracy of the location in LBS can be ± 500 meters.

Troubleshooting

Problem	Probable Cause	Solution
The lock does not transmit and warms up.	The batteries were inserted in the wrong polarity position.	Take the batteries out immediately (warning: electrical damage might have occurred). Insert the batteries as explained on page 6.
The lock location cannot be detected. Alerts appear but with no location and date.	The iWatcher LOCK is not receiving signals from the GPS satellites.	Move the Lock outside its current location, and make sure that clear skies can be viewed.
No communication with the Lock, no SMS alerts are being sent.	The unit is not detecting the local cellular network.	Poor signal strength from the local cellular network- Move the lock outside this area.

Problem	Probable Cause	Solution
The Lock was detected on the management platform but there are no alerts via SMS.	<ol style="list-style-type: none"> 1. The Sim card is not enabled for outgoing SMS. 2. SMS recipients were not configured. 3. SMS settings are not compatible with the default setup. 	<ol style="list-style-type: none"> 1. Contact your mobile provider to enable outgoing SMS. 2. Configure SMS recipients as described on page 8 3. Contact your retailer.
"Battery low level" notification was received from the Lock.	The batteries' power is low and will be draining soon.	Contact your distributor ASAP and order new batteries. Replace the batteries.
The lock status does not change and stays constantly on "Closed" or "Opened".	The electronic circuit panel was not properly placed inside the lock.	Contact your retailer.

Technical Specifications

GSM

- GSM Quad-Band: 850 / 900 / 1800 / 1900 MHz
- GPRS Class 10
- GSM quad band antenna - 50 Ohm
- Integrated micro SIM Card holder
- 3G - optional
- LTE CAT M1 & NB1 - optional

GNSS

- 72-channel U-blox Max-M8
- GPS/QZSS L1 C/A, GLONASS L10 F
- SBAS L1 C/A: WAAS, EGNOS, MSAS
- Tracking: -166 dBm
- GPS-GLONASS internal antenna

Certificates

- CFR 47 FCC Class B
- ETSI EN 301 489-1 V2.1.1 Class B
- ETSI EN 301 489-17 V3.1.1 Class B

Communication Modes

- SMS/GPRS

Notification Modes

- Mobile Application
- SMS
- Ring - optional

Electrical Characteristics

- Deep sleep mode < 40 Micro A

Batteries

- 2 AA 3.6V- 2,200 mAh

Miscellaneous

- Built in 3D G sensor

Operating Temperature

- (-40°C to +85°C)

Dimensions

- Shackle Size: 50 mm / 100 mm
- Without Shackle and Key:
 - Length: 102 mm
 - Width: 78 mm
 - Height: 52 mm

Weight

- 823 gr (without batteries)
- 873 gr (with batteries)

Enclosure

- PA6 + 45% GF
- IP65 version

Alerts

- Burglary attempt / movement
- Lock opened/closed
- Case opened/closed
- Daily status alert ("Alive")
- Low battery



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SPETROTEC

Advanced Telematics & Security Systems

 5 Mevo Kedem St., Industrial Zone Gil Amai, Hod Hasharon 4531825, ISRAEL

 +972-9-7434555  +972-9-7423666

 www.spetrotec.com  info@spetrotec.com