



# U-PROX SL KEYPAD USER MANUAL

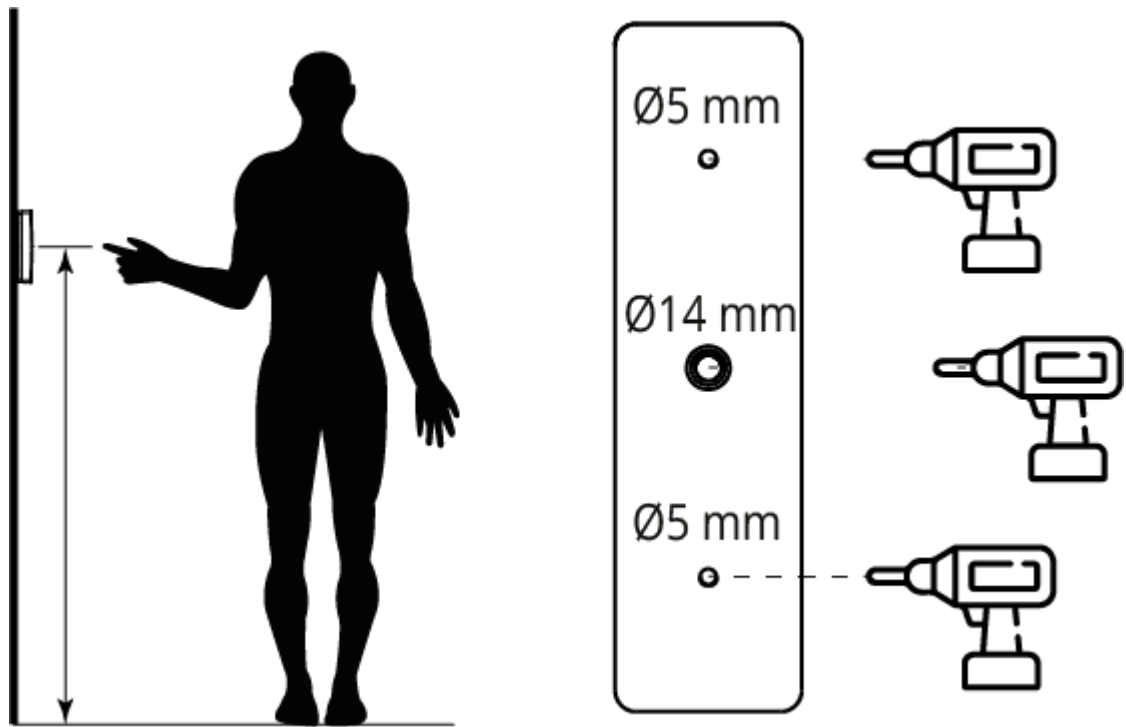
## Description

U-PROX SL maxi – the adjustable universal SmartLine reader with a wireless keypad for mobile credentials and proximity identifiers.

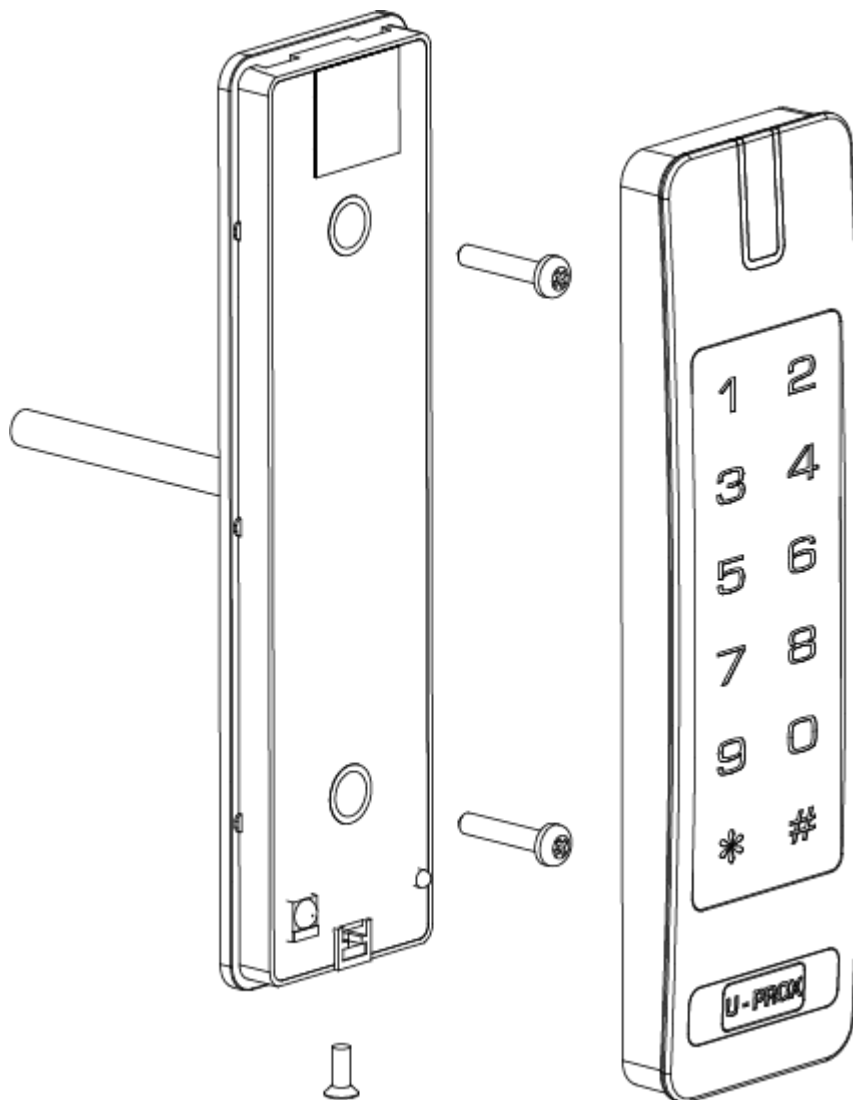
In conjunction with the U-PROX ID application and mobile identifiers U-PROX IDs allow any access control system to use smartphones as access system credentials.

## Installation

1. Make small recess or hole (diameter is 14 mm) to connect cable under the reader's case



2. Loosen the screw at the bottom of the reader



3. Remove the top cover

4. Carry out wiring to the control panel

5. Mount the reader on the wall using supplied plastic dowels and screws
6. Place the top cover and tighten it with a screw

Installation on the metal surfaces may cause decrease of reading range.

Do not place readers closer than 20 cm one from another. It is possible to install two readers at a distance 10-15 cm of each other when their yellow wires (Hold/Sync) interconnected. This synchronizes the work of the readers, they will work alternately.

## Connection

Seamless and easy connection to existing and new access systems, due to the Wiegand 26, 32, 34, 37, 40, 42, 56, 58, 64, 80 bits interfaces, Wiegand with automatic selection, RS232 and TouchMemory supports.

We recommend to use multi-core signal cable with 0.22 mm<sup>2</sup> cross-section of each wire between reader and panel.

## Wiegand

The reader connection wires functions are listed in the table.

We recommended to use following whiring when reader connected to the control panel with twisted pair.

## RS-232

The reader connection wires functions are listed in the table.

## TouchMemory

The reader connection wires functions are listed in the table.

We recommended to use following whiring when reader connected to the control panel with twisted pair.

## Configuration

With the free mobile application U-Prox Config, the reader can be completely adjusted — from the indication to the encryption modes.

The reader is supplied without the engineering password for programming specified. To connect and (re) set the password — connect inputs D0 (green) and D1 (white) with each other and apply power to the reader.

The reader firmware can be updated with an NFC-enabled Android smartphone only.

## Mobile identification

Reader supports digital personal mobile credential. It is processed and stored in the user's smartphone using the U-PROX ID application. It can be transferred over NFC and/or 2.4 GHz radio between the reader and the smartphone.

Reader supports hardware active mobile identifiers U-PROX Tag and U-PROX Auto Tag.

Reader supports 3 operation modes for smartphones with U-Prox ID:

“Door-Proximity” – 10-20 cm, reader activates by built-in proximity sensor. Recommended for double-sided doors and turnstiles

“Door” – up to 60-70 cm

“Barrier/Gate” – adjustable range of interaction from 1 to 15 m.

## U-PROX ID application

Free mobile application U-PROX ID receives, stores and transmits mobile credentials between the reader and the smartphone.

## How to obtain mobile ID

You can purchase mobile IDs from [our dealers](#)

## RFID, 125 kHz

The reader supports 125 kHz cards with amplitude (ASK – EmMarine, etc.) and frequency modulation (FSK – Temik, etc.)

These cards do not have cloning protection, but are very popular due to their low cost

## Mifare® identifiers

The reader supports work with Mifare® cards, reads encrypted identifiers with a user-assigned card number, with a static or diversified encryption key.

Up to five encryption profiles can be used simultaneously.

## Mifare®Classic

The least secure series of cards, has a Crypto 1 (SL1) encryption algorithm vulnerability.

When using it, it is recommended to encrypt all card sectors with a diversified encryption key.

## Mifare®Plus

The reader supports SL1 and SL3 modes for Mifare®Plus. It is recommended to use SL3 mode as it has the highest security and AES encryption algorithm.

## Mifare®Defire

The reader supports Mifare DESFire EV1, EV2 and EV3 cards. AES encryption algorithm is supported.

## Warranty

Warranty for U-PROX devices (except batteries) is valid for two years after the purchase date. If the device operates incorrectly, please contact [support@u-prox.systems](mailto:support@u-prox.systems) at first, maybe it can be solved remotely.