

Introduction

Prox 402 is a proximity 125 kHz EM tag reader with controller.

As output it has only a relay with NO and NC contacts. **Prox 402** is programmable by **Master tag** or **PC Master Software**. With Master tag or PC software, you may add new tags to memory, delete tags, set time and working mode for relay (3 modes).

Prox 402 may work as simple, but reliable access control or may switch on/off electric devices. It has memory for a maximum of 400 users tags and 2 Master tags.

Tags may be in form of ISO cards, clamshell cards, keytags, glasstags.

First Power On

Very new Prox 402 has no tags in memory. When powered first time, red LED is blinking and beeper beeping. First tag which is read, is automatically remembered as Master, what is confirmed by 2 beeps. Now Prox 402 waits for 5 seconds for next tag, which also set as Master. There is no need to have 2 Masters programmed, however it may be useful. Same tags may be Masters for other readers, of course.

Programming

Master tag or PC soft may program 12 functions:

- Function 1 - adding new tags to memory
- Function 2 - relay time setting and max. open door time
- Function 3 - relay mode setting (monostable, bistable, special-open/close)
- Function 4 - selective tag deleting
- Function 5 - empty
- Function 6 - deleting all Master tags with immediate possibility for adding new Master tags
- Function 7 - empty
- Function 8 - deleting all user tags at once
- Function 9 - empty
- Function 10 - empty
- Function 11 - empty
- Function 12 - setting free access for all 125 kHz tags

Practical programming

Function 1 - adding new tags to memory

Keep Master tag near reader until 1 beep, now you are at Function 1.

Now we have 5 seconds time to add a tag. Adding new tag is confirmed by 2 beeps.

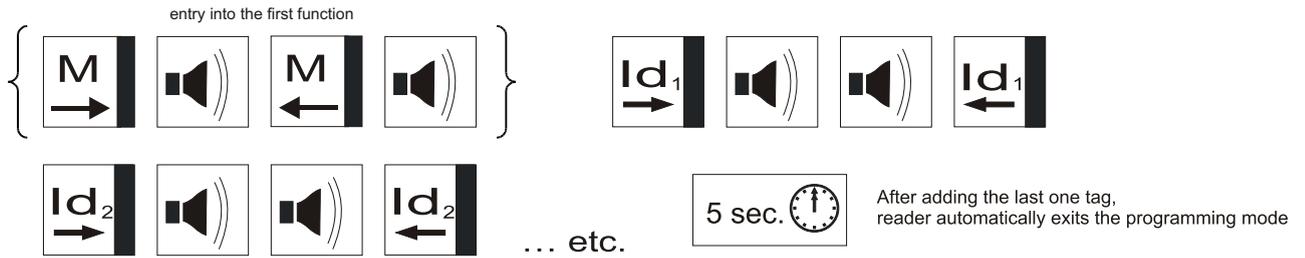
Then we have 5 second to add next tag, and so until maximum 400 tags.

If added tag is already in memory, then only 1 beep will sound.

5 second of no action will set Prox 402 out of programming mode.

It may be useful to keep written (in PC or on paper) sequence of added tags.

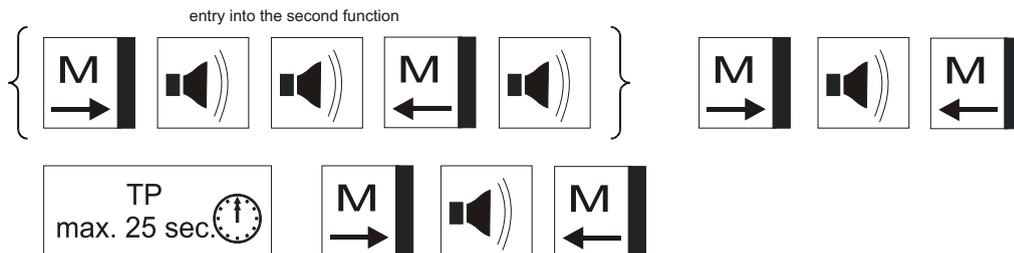
(tags should have visible number printed on them). Such document will allow to delete lost tag from memory by function 4. In other words, if admin knows that lost tag was added on 16th place to memory, he may delete just this tag from memory.



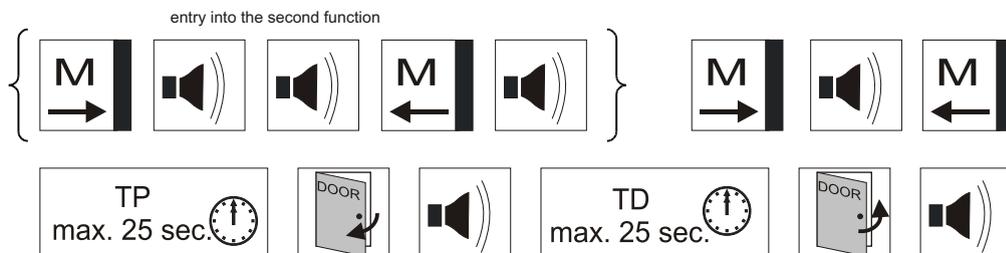
Function 2 - setting TP (relay time) and TD (max. time for opening door)

Both times cannot exceed 25 sec. TD is set only if door sensor is present. When door is open for longer time than TD, the reader will beep in alarm.

- (a) Setting TP when there is **no door sensor**
 (setting for use an additional input as a relay control (see wiring diagram)
 After entering function 2, we read Master for one beep, distance Master, then read again. The time between these 2 reads is TP.



- (b) Setting TP and TD with **door sensor** (see wiring diagram)
 The door should be closed now.
 After entering function 2, we read Master for one beep, distance Master, then read again. The time between these 2 reads is TP. Now we open the door, keep it open for TD and close.

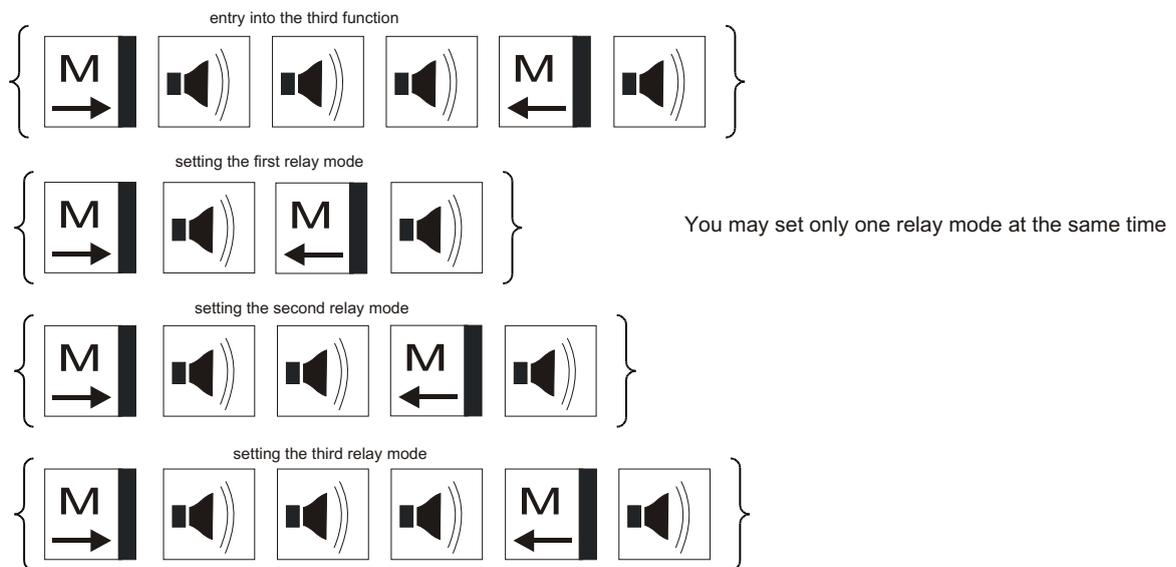


Function 3 - relay mode setting

There are 3 modes:

- (1) monostable (the most popular for access control)
- (2) bistable (mainly to switch electrical equipment)
- (3) open/ close (for access control with periods of no control)

Keep Master tag near reader until 3 beeps, now you are at function 3.
 Now, read Master for one beep to set mode (1) (monostable).
 Similarly for 2 beeps for bistable and 3 beeps for open/ close mode.



Open/ close is a special mode, which possible to implement only if a door sensor is present and a door lock (electric strike) has a feature called “memory”.
 This memory means that, when electric strike receives a signal to open, then it will keep this open-state till door is open.

Open/ close mode may be convenient in public office, where in some hours everybody (even without a tag) should open the door.
 To keep door open for everybody, we should read any valid tag, while the door is closed.
 To end open-state, we should read again a tag, while the door is open.

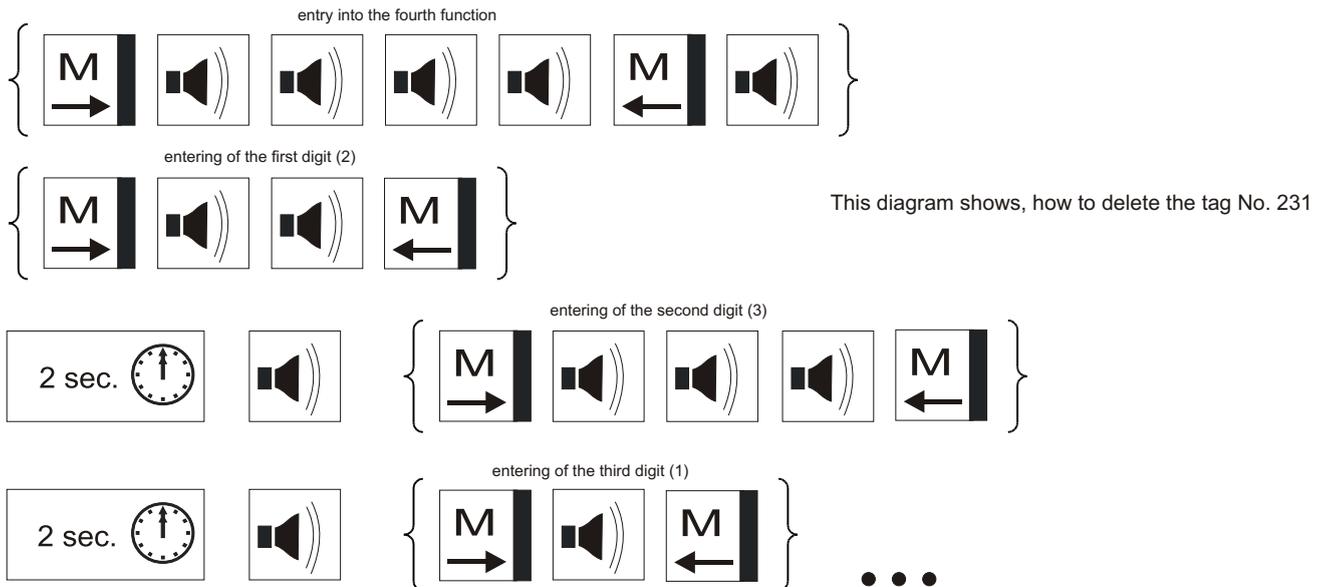
Function 4 - selective deleting of tag

This function is to delete a tag from readers memory with a help of Mastr tag.
 It is useful when admin keeps a written document of memorized tags. Alternatively function 8 deletes all user tags from readers memory.

Here is an example of deleting a tag, which was added as 57 to readers memory. Tag 57 has memory number 057.

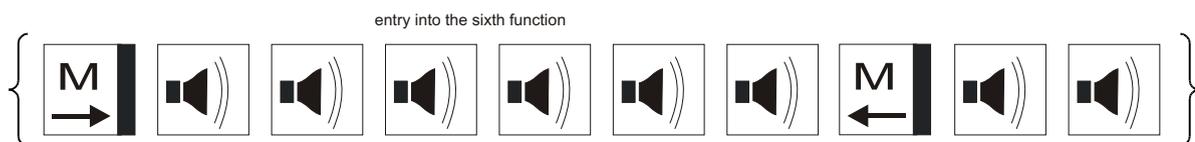
Keep Master tag near reader until 4 beeps, now you are at function 4.

- (1) Wait for a beep without reading a Master, in this way 0 is presented. Then read Master for 5 beeps, wait for a beep, then read Master for 7 beeps. Now if you hear one beep, then 057 was free and if you hear 2 beeps, then repeat procedure from (1) to finally delete a 057 tag.



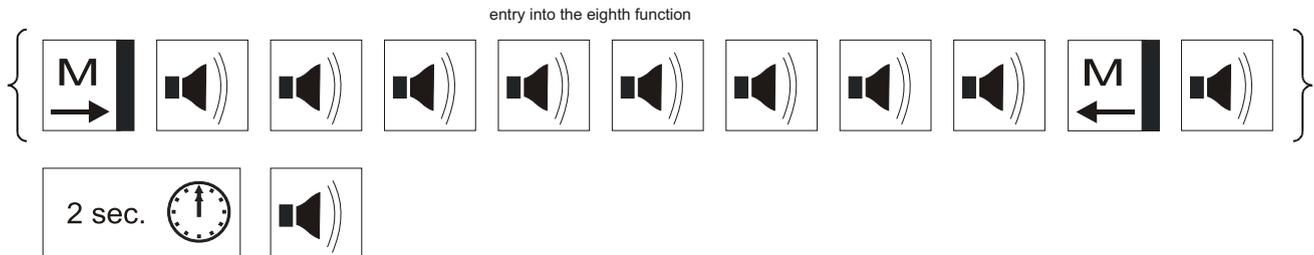
Function 6 - deleting Master cards

Keep Master tag near reader until 6 beeps, now you are at function 6. Red LED is blinking and there are beeps every 1 second. Now any card read (except any tags memorized as a user tags) will become Master Card, what is confirmed by 2 beeps. After confirmation another card may be read (in 5 sec. time) to be a second Master Card. Master Card cannot be a user card. If learning new Master Card is finished by one beep, then take another card for the purpose of Master Card, because one beep means that this card is already a user card in reader's memory.



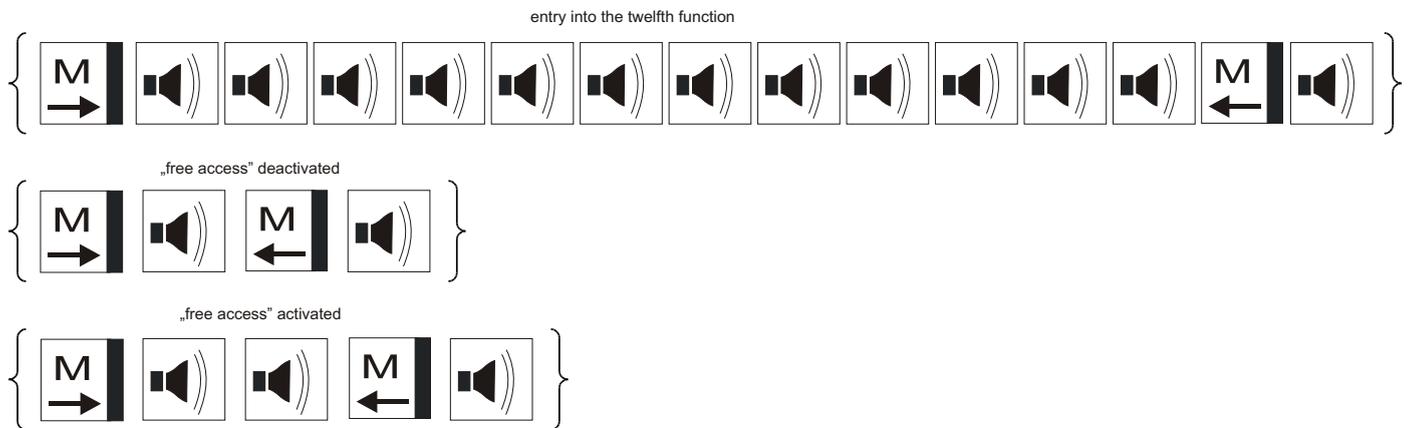
Function 8 - deleting all user tags

Keep Master tag near reader until 8 beeps, now you are at function 8, what after 2 beeps means that memory of user tags is clear.



Function 12 - free access

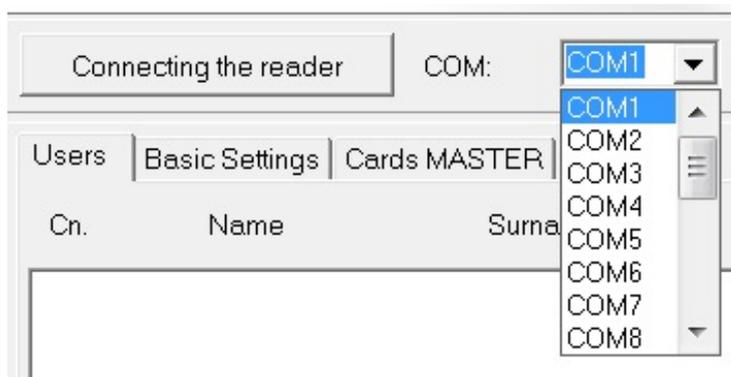
This function allows any 125 kHz EM card to activate a relay, so to open the door. Keep Master tag near reader until 12 beeps, now you are at function 12. Then read again Master for 1 beep to resign from “free access” or 2 beeps to activate “free access”.



Programming by PC software

You may set all functions by Master Software via RS232 interface.

- download the Master 2.5 software from our site.
download link:
<http://www.corral.pl/prox-100-standalone-readers.html>
- extract "master 2.5_english.zip" file (e.g. by WinZip Software)
- connect the reader to the PC with Master Software installed in it.
(directly via RS232 interface or through RS232/ USB converter - see wiring diagram)
- run Master Software by clicking "Master.exe" file
- select COM port



- establish connection by clicking "Connecting the reader" button



- enter password (digit 0 is the connectivity default password)

