

INTD1004  
iBUTTON ACCESS SYSTEM  
(1 Output relay)

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For getting the most benefits from this device please  
read the user manual carefully.

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iBUTTON ACCESS  
SYSTEM  
(1 Output relay)

INTD1004

[www.pelekis.tech](http://www.pelekis.tech)

Rev. 1.1 June 2020



- **General description:**

The INTD1004 device is a user friendly access system with an iButton type key.

The device can be programmed to give access for up to 512 user keys to one dry contact output relay. Thus it is a “Multiple to one” type system.

In each time, the user can store or delete a user key to/from the system's memory with a simple push button press.

The device has also an intuitive buzzer notification system to indicate its status (e.g. User key *store* or *delete* procedure is successful - Notification type 5).

The output relay “ON-Time” (in seconds) is adjustable by an on-board trimmer.

**Warning! This device must be installed by qualified personnel only.**

- **Applications:**

Used to:

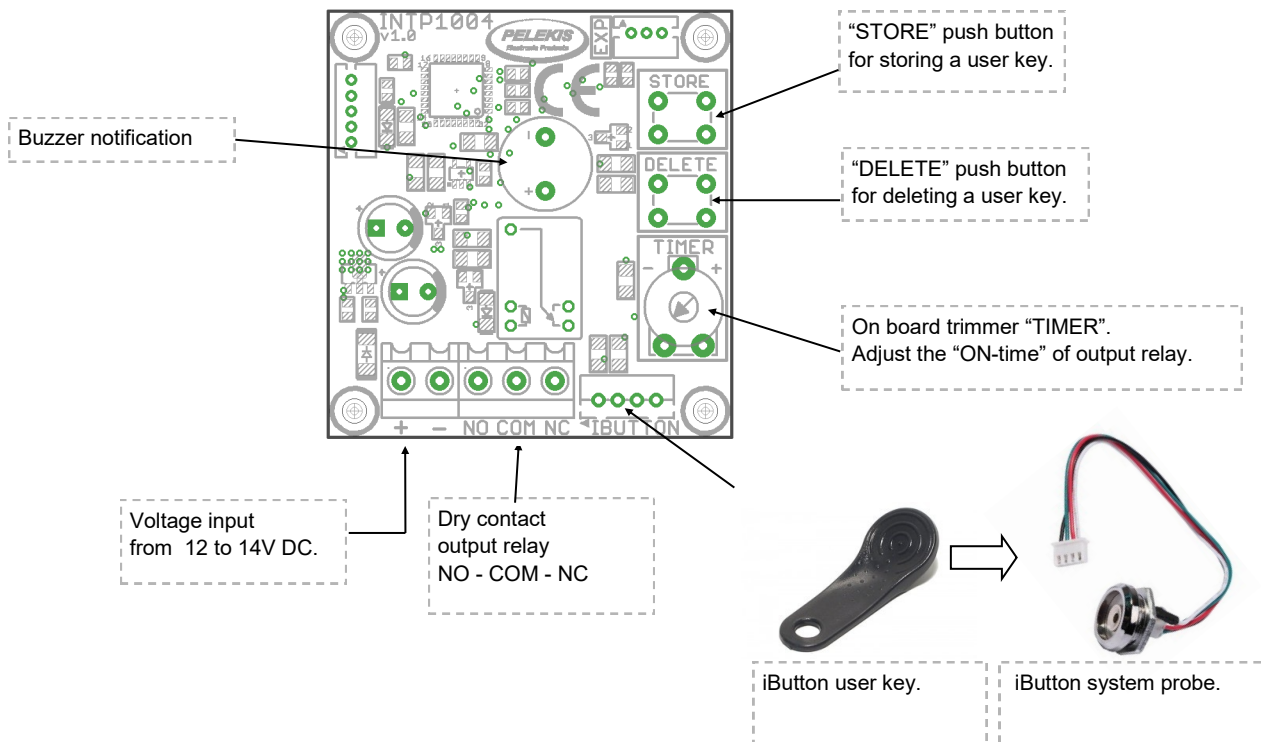
- Elevator.
- Personnel access control.
- VIP access control.
- Residential building access control.
- Electronic lock.
- Usage for Professional/Personal automobile and machinery.

Revision history

V1.0 5/2020      1st device revision.

Connection diagram:

A typical system connection can be seen in the diagram below.





## Features:

<b>Working voltage</b>	From 12 to 24VDC
<b>Consumption</b>	0.5W (average) at 12VDC input.
<b>Key type</b>	iButton standard 64bit ROM key.
<b>User keys support</b>	<b>Up to 512 user keys.</b>
<b>Relay "ON time"</b>	Adjustable from 0.5 sec (min.) - 8 sec (max.)
<b>Outputs</b>	1 Dry contact relay 5V (NO/COM/NC) with 1A per contact typical current handling.
<b>Operating temperature</b>	0-60°C
<b>Operating humidity</b>	10-80%
<b>PCB dimensions</b>	56x53x20 mm (W x D x H)
<b>iButton installation hole diameter</b>	<b>18mm</b>
<b>Weight (Total/w probe)</b>	250 grams.

- **Device operation description:**

### **Boot function (right after power input).**

Right after power up the INTD1004 device, a memory data integrity diagnostic will be performed. If this diagnostic is successful, a buzzer notification type No.1 will be heard.

### **Normal function.**

During normal operation the system will continuously monitor the iButton input socket. If the user key attached to the systems holder authenticates successfully the systems relay will be energized for "ON-time" according to the "TIMER" trimmer. Also a buzzer notification system No.3 will be heard. After "ON-time" passes, the output relay will be de-energized and the system will return to the monitor of iButton input socket.

If the user key authentication fails then the output relay remains un-energized and then is no buzzer notification.

### **Programming function.**

During programming mode (function) the user can store or delete the current user key with a simple push button press. Also there is an option for a mass delete of all stored user keys from system's memory.

For more information about the programming functions please refer to pages 6 and 7.

*(Note: About the buzzer notification types please refer to table 1 for more information).*



- **Programming mode.**  
Store a user key using the “STORE” push button.

Press “STORE” push button for at least 1 second to enter programming mode **for storing the current user key.**

After 1 second of push button press a buzzer notification type No.3 will be heard. After that we can now release the push button and we are ready to attach an iButton user key to the system socket. After the key is attached and authenticated successfully then the user key will be stored to the system’s memory successfully and a buzzer notification type No.5 will be heard. After that the device will then return to its normal operation.

If there is not any more available memory slots for storing a user key (All 512 system’s memory slots are full), then a buzzer notification type No.6 will be heard and the process will be aborted immediately. No user key will be stored and the system will then return to its normal operation.

For storing more user keys please repeat the whole procedure from the beginning of this page.

*☞ Note 1: A buzzer notification type No.8 will be heard, if the user keeps the key attached on the system’s socket for too long (Persistent key). After removing the key the system will then return to its normal operation.*

*☞ Note 2: A buzzer notification type No.4 will be heard, if the user do not attach any user key on the systems socket during programming mode for more than 30 seconds (Programming timeout). The system will then return to its normal operation.*

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- **Programming mode.**  
Delete a user key using the “DELETE” push button.

Press “DELETE” push button for at least 1 second to enter programming mode **for deleting the current user key.**

After 1 second of push button press a buzzer notification type No.3 will be heard.

After that we can now release the push button and we are ready to attach an iButton user key to the system socket. After the key is attached and authenticated successfully then the user key will be deleted from the system’s memory successfully and a buzzer notification type No.5 will be heard. After that the device will then return to its normal operation.

If the user key that we are attempting to delete is not present in system’s memory slots the device will then return to its normal operation .

For deleting more user keys please repeat the whole procedure from the beginning of this page.

For **mass delete of all user keys** stored in system’s memory, first we must remove power supply from system’s input, then **hold both** “STORE” + “DELETE” push buttons and then restore system’s power supply again. With both the push buttons keep pressed we wait until a buzzer notification type No.9 is heard. After that we can now release both the push buttons ,means that the mass delete is done successfully.

*☞ Note 1: A buzzer notification type No.8 will be heard, if the user keeps the key attached on the system’s socket for too long (Persistent key). After removing the key the system will then return to its normal operation.*

*☞ Note 2: A buzzer notification type No.4 will be heard, if the user do not attach any user key on the systems socket during programming mode for more than 30 seconds (Programming timeout).  
The system will then return to its normal operation.*

- Buzzer notification types table :

Buzzer notification type No.	Buzzer duration	Notification description
1	3 short beeps.	System's memory diagnostic passed.
2	1 continuous beep for 0.5 second.	User authentication succeeded. Output relay is energized for "ON-time" settled by user trimmer.
3	2 short beeps.	The device entered in programming mode. (Store or delete user key) .
4	1 short beep and 1 long beep.	No action from user during system programming after a period of time ( <b>timeout</b> ). (No user iButton key in socket for more than 30 seconds).
5	1 continuous beep for 0.25 seconds.	The user key has been stored or deleted successfully from system's memory.
6	2 long beeps at 0.5 seconds each.	The user key already exists in system's memory and will not be stored.
7	3 long beep at 0.5 seconds each.	System's memory is full. The user key will not be stored.
8	2 <b>repeatable</b> short beeps.	User attached the key to the system's socket for too long.
9	1 <b>long</b> beep for 3 seconds.	Mass erase all user keys from system's memory.

Table 1



- **Technical support**

For technical support please contact a local office of Pelekis Electronics.

**Pelekis Electronics Contact Info :**

Tel. :+30 210 23 23 345

Fax :+30 210 23 86 382

email: [info@pelekis.tech](mailto:info@pelekis.tech)

Web page : [www.pelekis.eu](http://www.pelekis.eu)