



L0428R

INSTRUCTIONS MANUAL

SECRET KEY SYSTEM

SECRET KEY SYSTEM



The manufacturer reserves the right to modify or improve the product without prior notice. Any inaccuracies or errors found in this manual will be corrected in the next edition.

Man. Vers 25.03.2014

L0428R - ROLLING CODE PROGRAMMER AND ANALYZER

Features

L0428R programmer is equipped with a 433.92 MHz radio-receiver (**Receiver 1**) in order to get the codified signals from Leb electronics transmitters. The unit can be equipped with an extra radio-receiver (**Receiver 2**) with different frequency (e.g. 868,35 MHz).

Use of the device

The electronic unit is intended for the following uses :

- Verify operating status of **SMARTY, TPW4/TPK4. TSAW4N** transmitters
- Codify **SMARTY, TPW4/TPK4** transmitters.

Limitations to use

- **L0428R** programmer operates correctly only with **SMARTY, TPW4/TPK4. TSAW4N** transmitters
- **Secret Key System** works only with Leb electronics receiver **RSK4/RPSK4**
- It is possible to verify codes of transmitters (installation code and Tx code) only with the original **L0428R** programmer that was used to program transmitter. No other L0428R than the original one can do it.

General specifications

Power supply: 9V alkaline battery

Operating range: 1 m of distance approx. from transmitter

Operating temperature range : from +10 to +50 °C

Dimensions: 94 x 180 x 39 mm

Weight: 220 gr

Installation codes: 4096 max.

Transmitter codes: 4096 max. for installation

Programmer components

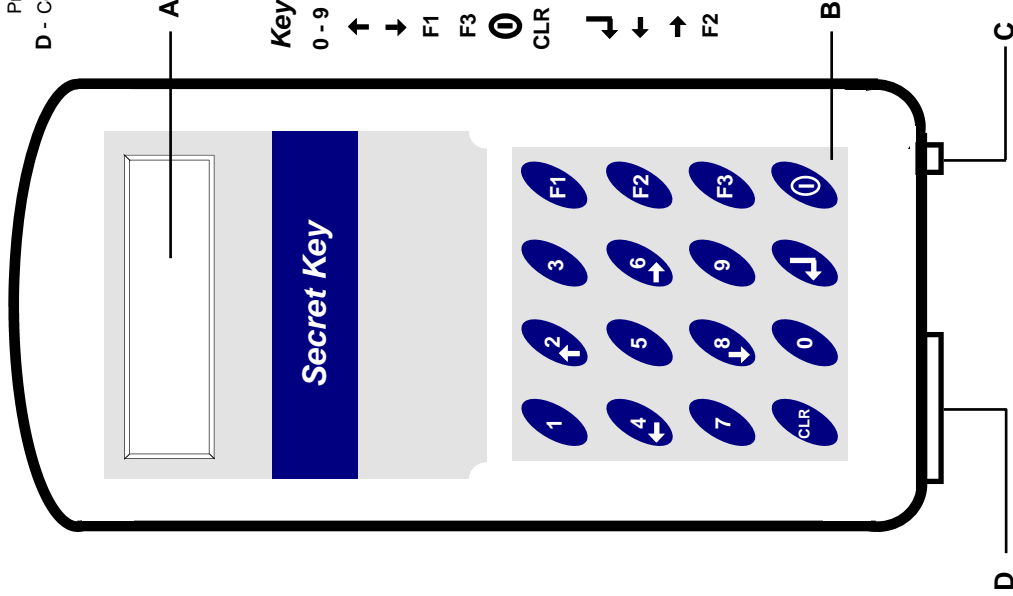
ENGLISH



E

Description

- A - Liquid crystal display
- B - Membrane keyboard
- C - Jack socket for the Programming cable to Tx (E).
- D - Connector for RS232.



Keyboard

- 0 - 9 : Digit keys
- ↑ : Next menu
- ↓ : Previous menu
- F1 : Enter or exit from the main menu
- F3 : ON / OFF display backlight
- 0 : ON / OFF programmer
- CLR : Erase the last number / Return to the previous menu
- ↵ : Enter in the menu or confirm data
- ← : Not used
- : Not used
- F2 : Not used

L0428R - Operation

Preliminary operations

Battery replacing

Turn off the programmer. Unscrew the two screws on the front side of the housing and remove the cover. Replace the battery respecting the polarity of the connector. Place the cover of the housing as in origin.

Programming cable connection

To program Leb electronics transmitters, insert the plug of the programming cable into the socket **C**.

Turning on the programmer

To turn on the programmer, press the following key: **I**

The display will show "**0428R Analyzer SECRET KEY**" and programmer is ready to program Leb electronics remotes in SECRET KEY mode.

To switch to programming in FIXED CODE mode, press **F2**. Display will show "**0428R Analyzer FIXED CODE MODE**".

To turn off the programmer, press again **I**

Radio-receiver selection

The unit operates with 433.92 MHz **Receiver 1**. To select the optional **Receiver 2**, press the key **2** and verify that "**RECEIVER 2**" is displayed. To restore operation with **Receiver 1** press the key **1** and verify that "**RECEIVER 1**" is displayed.

SECRET KEY MODE

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FIXED CODE MODE

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Operations

Attention: In order to avoid undesired signals, the operating range has been reduced to 1 m of distance.

The programmer operations consist of 4 menus.

SECRET KEY MODE

Menu 1	<div style="border: 1px solid black; padding: 5px; text-align: center;"> 1 MANUAL STORING </div>	To codify transmitters in order to store them manually into receiver of a selected installation.
Menu 2	<div style="border: 1px solid black; padding: 5px; text-align: center;"> 2 REMOTE AUTO STORING </div>	To codify a transmitter in order to store it automatically in a selected installation. This feature is very useful when in need to store a new code in the receiver without going onto the installation.
Menu 3	<div style="border: 1px solid black; padding: 5px; text-align: center;"> 3 REMOTE CODE REPLACING </div>	To codify a transmitter in order to replace (and cancel) a selected stored transmitter code. This feature is very useful when in need to remove and replace a code in the receiver without going onto the installation.
Menu 4	<div style="border: 1px solid black; padding: 5px; text-align: center;"> 4 SETTING </div>	To set automatic power off and automatic backlight of display.

To select the desired menu, do the following:

- Turn on the programmer
- Press the F1 key
- Scroll the menus through the keys. **↑** and **↓**

Menu 1 - Description

1 **MANUAL
STORING**

- To codify a transmitter in order to insert it **manually** in the receiver of a selected installation.

SECRET KEY MODE

Press key	Insert unique installation code (from 1 to 4095) assigned to the specific installation.. Example shows installation code 73. Installation code of remote and Rx must be the same	1 - 1 INSTALLATION 73
Press key	The programmer displays the first transmitter code available in the installation 73. In the example transmitter code 63 will be used.	1 - 2 CODE TX 63
Press key	The programmer is ready to codify the transmitter. (plug connector E into programmer and radio transmitter)	READY INST=73 TX=63
Press key	Led of remote will blink. The transmitter has been now programmed. The programmer is ready to codify a new transmitter with code 64.	PROGRAMMED INST=73 TX=64
Press key	The transmitter has been programmed. The programmer is ready to codify a new transmitter with code 65. Keep doing untill you have done all your remotes.	PROGRAMMED INST=73 TX=65
Press CLR key	Return to the main menu. Transmitter have to be stored manually as in instructions manual of RSK4/RPSK4.	1 MANUAL STORING

Menu 2 - Description

**2 REMOTE AUTO
STORING**

SECRET KEY MODE

- To codify a transmitter in order to insert it automatically (just with a simple push on the remote) into an installation
This function will be used when you must insert a new code in the receiver without a manual action on it.

Press the key ↵	Insert unique installation code (from 1 to 4095) assigned to the specific installation. Example shows installation code 73. Installation code of remote and Rx must be the same.	2 - 1 73 INSTALLATION
Press the key ↵	The programmer displays the first transmitter code available in installation 73. In the example transmitter code 63 will be used .	2 - 2 63 CODE TX
Press the key ↵	The programmer is ready to codify the transmitter. (plug connector E into programmer and radiotransmitter)	READY INST=73 TX=63
Press the key ↵	Led of remote will blink. The transmitter has been programmed. The programmer is ready to codify a new transmitter with code 65.	PROGRAMMED INST=73 TX=64
Press the key ↵	The transmitter has been programmed. The programmer is ready to codify a new transmitter with code 65. Keep doing untill you have done all your remotes.	PROGRAMMED INST=73 TX=65
Press the CLR key	Return to the main menu. During the first transmission (*) by the installation, the new remote will be automatically stored.	2 REMOTELY AUTO PROGRAMMING

(*) Only for the first 10 pushes on the new remote

Menu 3 - Description

3 REMOTE CODE REPLACING

SECRET KEY MODE

- To codify a transmitter in order to replace (and cancel) an already stored transmitter code.
REPLACING BY KNOWING THE CODE OF REMOTE TO BE REPLACED

Press key ↵	Insert unique installation code (from 1 to 4095) assigned to the specific installation.. Example shows installation code 73. Installation code of remote and Rx must be the same.	3 - 1 73 INSTALLATION
Press key ↵	The display shows the first transmitter code available in installation n.73 to be assigned to remote. Example shows transmitter code 53.	3 - 2 53 CODE TX
Press key ↵	<u>DIGIT 0 IN ORDER TO PROCEED TO SELECTION OF TRANSMITTER CODE TO BE REPLACED</u>	3 - 3 0 POSITION?
Press key ↵	Digit transmitter code you want to replace Example shows code 52.	3 - 4 52 CODE?
Press key ↵	The programmer is ready to codify the new transmitter. (plug connector E into programmer and radiotransmitter)	READY INST=73 TX=53
Press key ↵	Led of remote will blink. The new transmitter has been programmed. During the first transmission (*) by the installation, the old remote will be automatically cancelled and replaced.	3 REMOTE CODE REPLACING






(*) Only for the first 10 pushes on the new remote

Menu 3 - Description

3 REMOTE CODE REPLACING

SECRET KEY MODE

- To codify a transmitter in order to replace (and cancel) an already stored transmitter code.
REPLACING BY KOWING THE POSITION IN THE RECEIVER OF REMOTE TO BE REPLACED

Press key 	Insert unique installation code (from 1 to 4095) assigned to the specific installation.. Example shows installation code 73. Installation code of remote and Rx must be the same.	3 - 1 73 INSTALLATION
Press key 	The display shows the first transmitter code available in installation n.73 to be assigned to remote. Example shows transmitter code 52.	3 - 2 CODE TX 52
Press key 	Insert the memory position (from 1 to 1000) in RX where the code to be replaced is stored. In this example position 3 has been selected (refer also to page 10)	3 - 3 POSITION? 3
Press key 	The programmer is ready to codify the new transmitter. (plug connector E into programmer and radiotransmitter)	READY INST=73 TX=52
Press key 	Led of remote will blink. The new transmitter has been programmed. During the first transmission (*) by the installation, the old remote will be automatically cancelled and replaced.	3 REMOTE CODE REPLACING

(*) Only for the first 10 pushes on the new remote







This procedure is not advisable, being not very easy to know position of transmitters in RSK4/RPSK4. When possible, follow previous procedure as illustrated at page 10.

Menu 4 - Description

4 SETTING

- **Manual POWER OFF:** To turn on or turn off the programmer, you must press **I**
- **Automatic POWER OFF:** After **3** minutes of non operation, programmer will switch off.
- **Automatic BACKLIGHT:** When you press any key, the display backlight goes on for **15** seconds.
- **Manual BACKLIGHT:** To turn on or turn off the display backlight, you must press the **F3** key.

SECRET KEY MODE

Press key 	Choose the desired operating mode (automatic or manual) through the  and  keys. The example shows automatic setting	<div style="border: 1px solid black; padding: 5px; text-align: center;"> 4 - 1 POWER OFF AUTOMATIC </div>
Press key 	Choose the desired operating mode (automatic or manual) through the  and  keys. The example shows manual setting.	<div style="border: 1px solid black; padding: 5px; text-align: center;"> 4 - 2 BACKLIGHT MANUAL </div>
Press CLR key	Return to the main menu.	<div style="border: 1px solid black; padding: 5px; text-align: center;"> 4 SETTINGS </div>

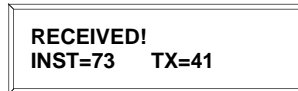
Checking transmitter operating status

SECRET KEY MODE

It is possible to **check transmitter operating** status of each transmitter, in order to know installation code and transmitter code (you might want to take note of them for future reference) as follow:

- Switch on programmer and wait for display to show "Analyzer L0428R SECRET KEY"
- While the display shows "Analyzer L0428R SECRET KEY" press key of **SMARTY TPW4/TPK4** transmitter to check and verify that following message is displayed:

INST=73 shows **Installation code**
TX=41 shows **Transmitter code**



RECEIVED!
INST=73 TX=41

- Press **CLR** key and wait for display to show "Analyzer L0428R SECRET KEY"
- Repeat operations as above for new checkings

Operations (in Fixed Code mode)

After switching on the programmer, press **F2** Key to select FIXED CODE. “Analyzer 0428R FIXED CODE MODE”

Attention: In order to avoid undesired signals, the operating range has been reduced to 1 m of distance.

The programmer operations consist of 3 menus:

FIXED CODE MODE

Menu 1	1 INCREMENTAL TX CODE	To codify all 4 channels of SMARTY, TPW4/TPK4. Any time you codify a transmitter, <u>the code will increases by 1 (max 1023)</u>
Menu 2	2 STATIC TX CODE	To codify all 4 channels of SMARTY, TPW4/TPK4. <u>Code will not increase and will stay the same for all new remotes codified.</u>
Menu 3	3 SETTING	To set automatic switching off and automatic back-light of the display.





To select the desired menu, do the following:

- Press the **F1** key
- Scroll the menus through **↑** and **↓** keys.
- Press **CLR** key to quit menu

Menù 1 - Description

**1 INCREMENTAL
TX CODE**





FIXED CODE MODE

<p>Press key </p>	<p>Enter a remote control code (from 1 to 1023) at your choice. Installation code 854 has been selected in the example.</p>	<p>1 - 1 CODE TX 854</p>
<p>Press key </p>	<p>Select the transmission standard by means of the keys ↑ and ↓. <u>STANDARD SUGGESTED 4.</u></p>	<p>1 - 2 STANDARD 1</p>
<p>Press key </p>	<p>The programmer is ready to codify the transmitter. (plug connector E into programmer and radiotransmitter)</p>	<p>READY 854</p>
<p>Press key </p>	<p>Led of remote will blink four times. The transmitter has been codified. Programmer is ready to codify a new transmitter with code number increased by 1 (max 1023).</p>	<p>PROGRAMMED 855</p>
<p>Press key CLR</p>	<p>Go back to main menu.</p>	<p>1 INCREMENTAL PROGRAMMING</p>

Menù 2 - Description

2 STATIC TX CODE

FIXED CODE MODE

Press key 	Enter a remote control code (from 1 to 1023) at your choice. Installation code 277 has been selected in the example.	<p>1 - 1 CODE TX 277</p>
Press key 	Select the transmission standard by means of the keys ↑ and ↓ . <u>STANDARD SUGGESTED 4.</u>	<p>1 - 2 STANDARD 1</p>
Press key 	The programmer is ready to codify the transmitter. (plug connector E into programmer and radiotransmitter)	<p>READY 277</p>
Press key 	Led of remote will blink four times. The transmitter has been codified. Programmer is ready to codify a new transmitter <u>with same code number.</u>	<p>PROGRAMMED 277</p>
Press key CLR	Go back to main menu.	<p>2 STATIC TX CODE</p>

Menu 3 - Description

3 SETTING

- **Manual POWER OFF:** To turn on or turn off the programmer, you must press **ⓘ**
- **Automatic POWER OFF:** After **3** minutes of non operation, programmer will switch off.
- **Automatic BACKLIGHT:** When you press any key, the display backlight goes on for **15** seconds.
- **Manual BACKLIGHT:** To turn on or turn off the display backlight, you must press the **F3** key.

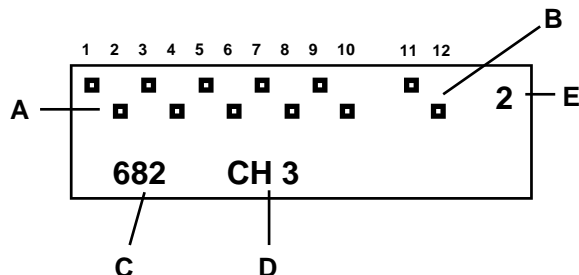
FIXED CODE MODE

Press key	Choose the desired operating mode (automatic or manual) through the and keys. The example shows automatic setting	<p>4 - 1 POWER OFF AUTOMATIC</p>
Press key	Choose the desired operating mode (automatic or manual) through the and keys. The example shows manual setting.	<p>64- 2 BACKLIGHT MANUAL</p>
Press CLR key	Return to the main menu.	<p>4 SETTINGS</p>

L0428R - Checking operating status and cloning with SMARTY, TPW4/TPK4 **FIXED CODE MODE**

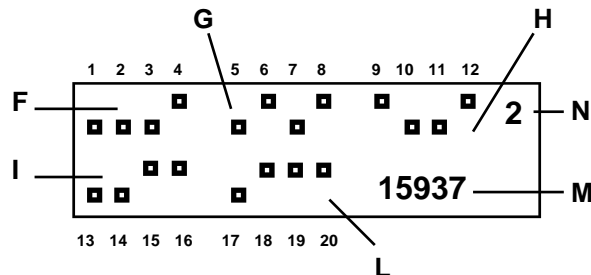
It is possible to **check transmitter operating** status of each transmitter, in order to know transmitter code (you might want to take note of them for future reference) as follow:

- Switch on programmer, press **F2** Key to select FIXED CODE. "Analyzer L0428R FIXED CODE MODE"
- While display shows "Analyzer L0428R FIXED CODE MODE" press key of **SMARTY TPW4/TPK4** or **TSAW4N** transmitter to check and verify that following message is displayed:



Picture 1 (valid for 12-bit codes)

- A - Binary combination with 10 bits of the code
- B - Binary combination with 2 bits of the channel
- C - Decimal combination with 4 digits of the code
- D - Indication of the operating channel
- E - Selection of the channel to be codified on new remote



Picture 2 (valid for 20-bit codes)

- F, G, H, I, L - Binary combination with 20 bits of the code
- M - Decimal combination with 5 digits of the code
- N - Selection of the channel to be codified on new remot.

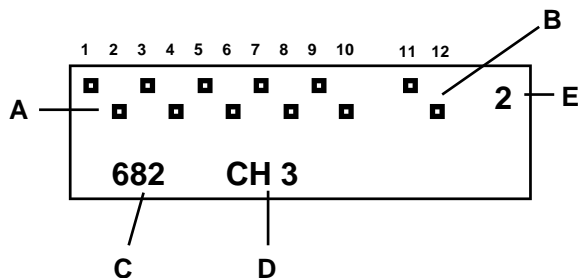
- Press **CLR** key and wait for display to show "Analyzer L0428R FIXED CODE MODE"
- Repeat operations as above for new checkings

L0428R - cloning with SMARTY, TPW4/TPK4

FIXED CODE MODE

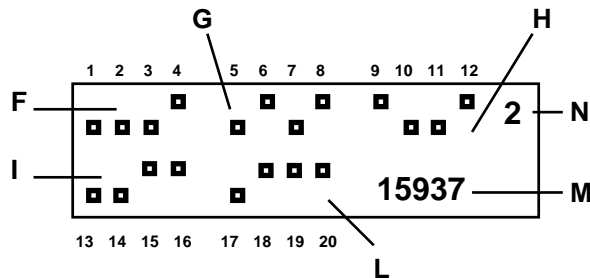
Codifying a transmitter SMARTY, TPW4/TPK4 through cloning of a code

- Switch on programmer, press **F2** Key to select FIXED CODE. "Analyzer L0428R FIXED CODE MODE"
- While display shows "Analyzer L0428R FIXED CODE MODE" press key of transmitter to be copied and verify that following message is displayed:



Picture 1 (valid for 12-bit codes)

- A** - Binary combination with 10 bits of the code
- B** - Binary combination with 2 bits of the channel
- C** - Decimal combination with 4 digits of the code
- D** - Indication of the operating channel
- E** - Selection of the channel to be codified on new remote



Picture 2 (valid for 20-bit codes)

- F, G, H, I, L** - Binary combination with 20 bits of the code
- M** - Decimal combination with 5 digits of the code
- N** - Selection of the channel to be codified on new remot.

With keys **↑** and **↓**, select the channel of transmitter SMARTY, TPW4/TPK4 to be codified with source. The indication of the channel is displayed in positions E (pic. 1) or N (pic. 2).

Insert the 3-pole connector of the programming cable into remote. Press key **↵** and check that led on remote blinks for about 1 sec. (end of the operation).

Do not push any button on remote while codifying!

NOTES

CE

