Roger Technology H85/TDS Keypad Selector Instruction Manual

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Roger Technology H85 TDS Keypad Selector

General safety precautions

ROGER TECHNOLOGY cannot be held responsible for any damage or injury due to improper use or any use other than the intended usage indicated in this manual.
Before installing the product, make sure it is in perfect condition.
Disconnect the mains electrical power before performing any work. Also disconnect any buffer batteries used.
Only use original spare parts when repairing or replacing products.
The packaging materials (plastic, polystyrene, etc.) should not be discarded in the environment or left within reach of children, as they are a potential source of danger.
WARNING! Handle electronic parts and terminals with extreme care, as these parts are highly sensitive to static electricity.

Technical Data

	H85/DEC	**H85/DEC2**
INTERFACE INPUT VOLTAGE	24 VAC-DC; 12 VDC	24 VAC-DC;
CURRENT ABSORPTION	1 keypad 20mA 1 keypad + interface on standby 40 mA 1 keypad + interface with active relay 50 mA	
MAXIMUM NUMBER OF KEYPADS THAT CAN BE LINK ED	4	2
MAXIMUM NUMBER OF DIGITS PER USER CODE	6	

MINIMUM NUMBER OF DIGITS PER USER CODE		3		
NUMBER OF OUTPUTS AVAILABLE		4 for control; 1 for alarm	2 for control	
NUMBER OF USER CODES THE INTERFACE CAN STORE		500		
OUTPUT ENABLING TYPE:		deadman's switch (enabled until key is released)		
OUTPUT TYPE		relay, voltage free contact		
MAXIMUM COMMUTABLE POWER (RESISTANCE LOAD)		load in AC-DC: 60 VA/24 W maximum current: 1 A maximum voltage: 30VAC-DC		
RELAY ACTIVATION DELAY		100 ms		
MAXIMUM INTERFACE-TO-KEYPAD CABLE LENGTH		100 m (two-core cable, 0.5 mm2)		
BACKLIT KEYPAD		6 white LEDs, two intensity levels		
OPERATING TEMPERATURE		-10°C	+55°C	
DEGREE OF PROTECTION		**H85/TDS :** IP54		
DEGREE OF PROTECTION		**H85/DEC/BOX** IP54	**H85/DEC2/BOX**	IPX0
PRODUCT DIMENSIONS		**H85/DEC/BOX** 158x119x76	**H85/DEC2/BOX** 126x52x25	
WEIGHT		279 g	62 g	
PRODUCT DIMENSIONS	**H85/TDS/I H85/TDS/E H85/TDS/TRIX**	dimensions in mm. 75x77x60 Weight: 106 g dimensions in mm. 75x77x41 Weight: 101 g dimensions in mm. 75x98x58 Weight: 242 g		

(*) Power the H85/DEC or H85/DEC2 interface with ROGER TECHNOLOGY control units. Alternatively, use safety-compliant power supplies. The use of NON safety-compliant power supplies can cause hazards.

Description

The H85 code-based control system enables automated motorized systems to be controlled by entering a code. The system comprises minimum 1 to maximum 4 H85/TDS numeric code keypads compatible with the H85/DEC interface card, or minimum 1 to maximum 2 H85/TDS keypads compatible with the H85/DEC2 interface card.

Functions

Functionality of the H85/TDS keypad

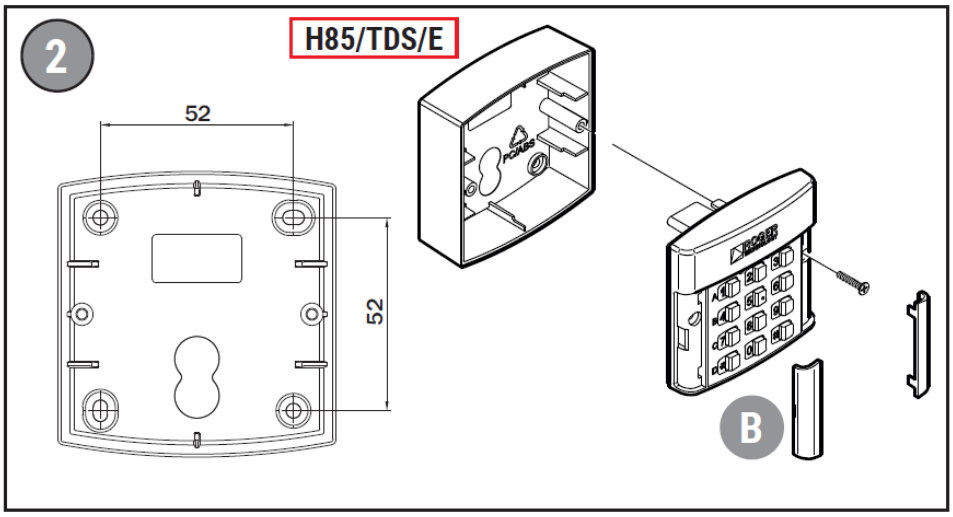
The H85/TDS code keypad consists of 12 keys, 4 of which also have a command activation function, to manage entry using a code.
It has two indicator LEDs, one green LV and one red LR, and a buzzer.
Up to 500 user codes can be stored, each of which must have a minimum of 3 digits and a maximum of 6.
User codes are stored in the interface.
The keypad is backlit with white LEDs, which are brighter when the keys are pressed.

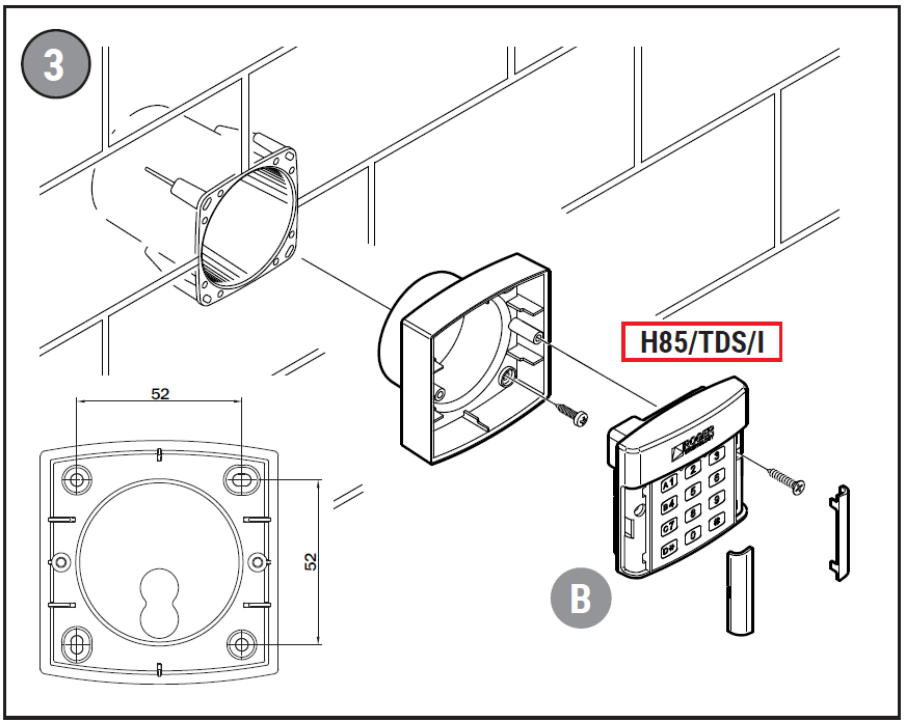
Functionality of the H85/DEC – H85/DEC2 interface

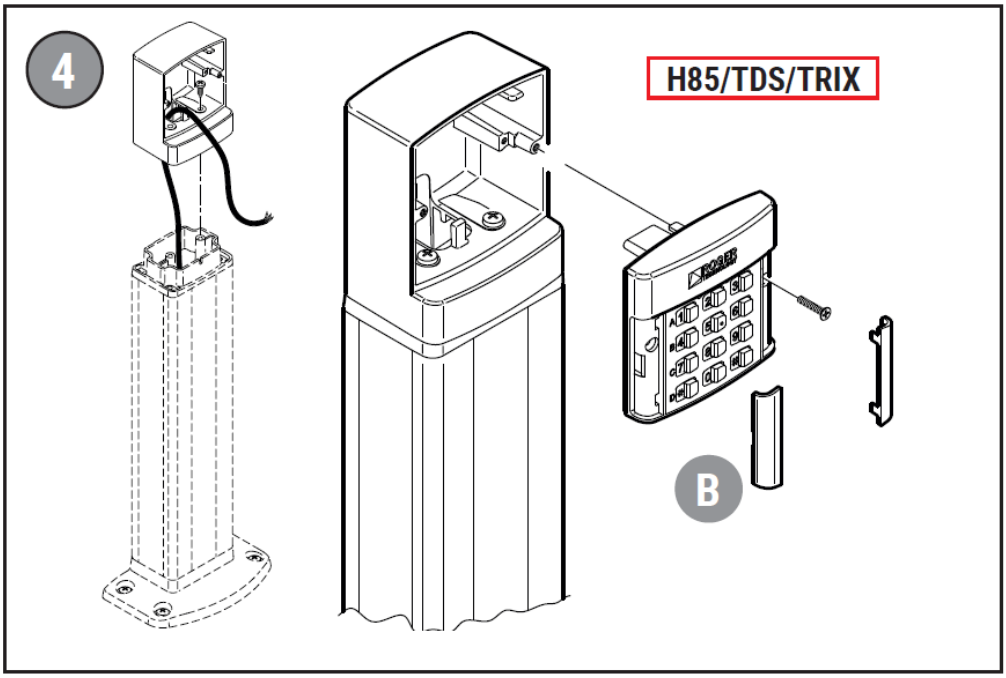
The H85/DEC interface connected to ROGER control units can handle up to a maximum of 4 H85/TDS keypads, while the H85/DEC2 interface can handle a maximum of 2 H85/TDS keypads.
H85/TTD series touch keypads can be linked, provided that the total number of keypads linked is within the limits outlined in the technical specification

Keypad installation

Depending on the type of keypad selected , proceed with the installation as shown below:







- Undo the securing screws and open the H85/TDS keypad.
- Fix the keypad to the desired surface with suitable screws (not supplied).
- Make the electrical connections . To connect to the H85/DEC or H85/DEC2 interface card, use 0.5 mm2 cable up to a maximum length of 100 m.

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r1.2

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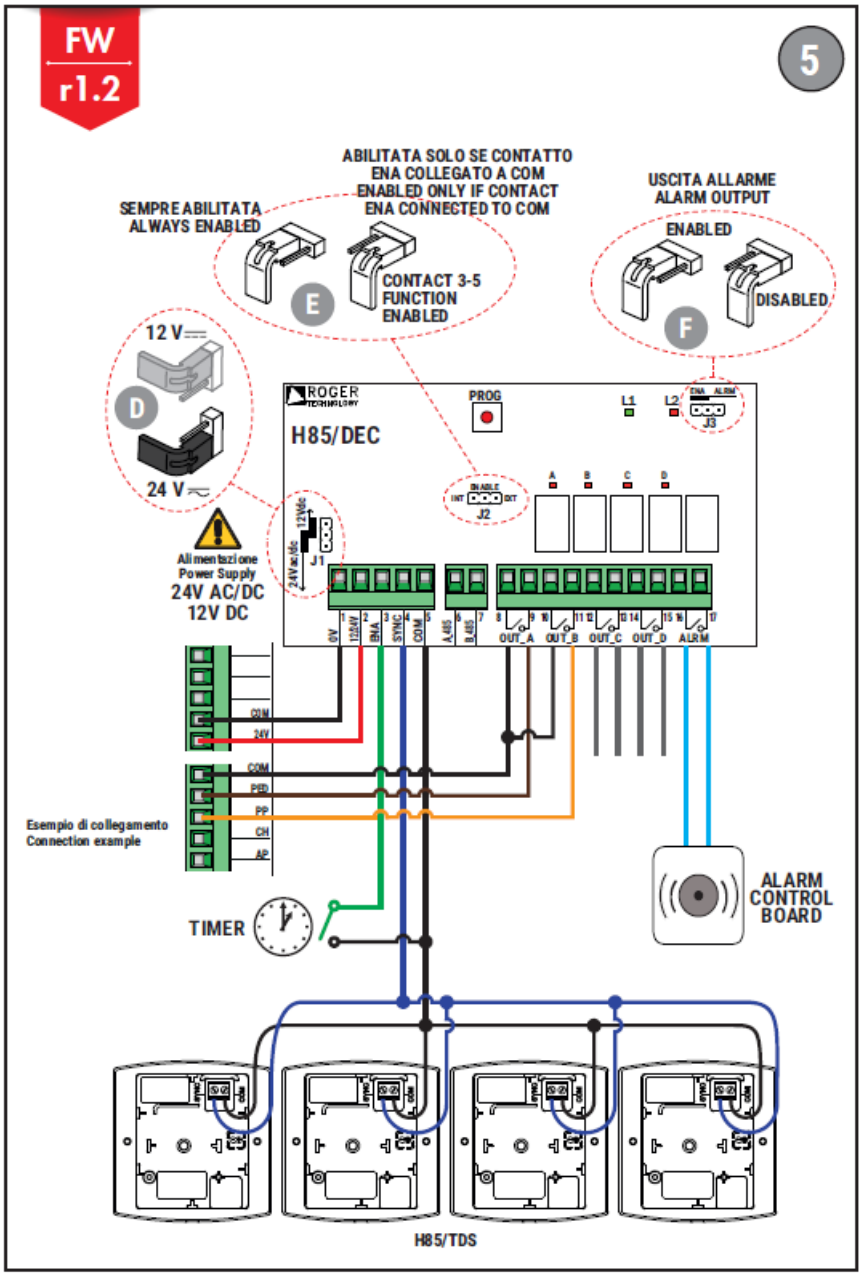
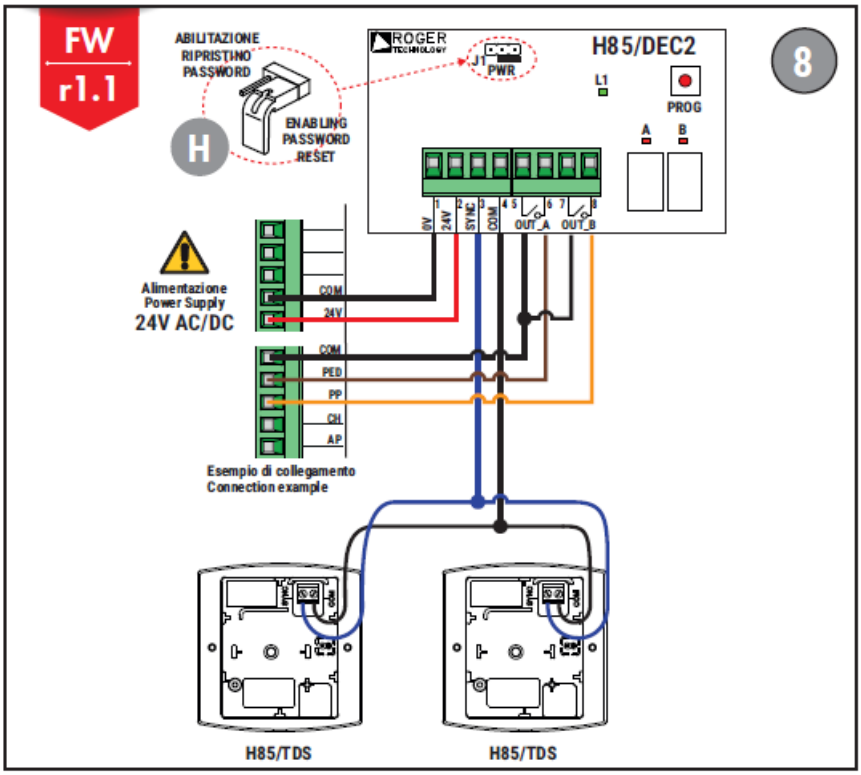

ABILITATA SOLO SE CONTATTO
ENA COLLEGATO A COM
ENABLED ONLY IF CONTACT
ENA CONNECTED TO COM
SEMPRE ABILITATA
ALWAYS ENABLED
CONTACT 3-5
FUNCTION
ENABLED
E
USCITA ALLARME
ALARM OUTPUT
ENABLED
DISABLED
F
12 V
24 V
D
ROGER
H85/DEC
PROG
L1
L2
J3
J2
J1
Alimentazione
Power Supply
24V AC/DC
12V DC
0V
12/24V
ENA
SYNC
COM
A-485
B-485
OUT_A
OUT_B
OUT_C
OUT_D
ALARM
COM
24V
COM
PED
PP
CH
AP
Esempio di collegamento
Connection example
TIMER
ALARM
CONTROL
BOARD
H85/TDS



- Reassemble the H85/TDS keypad and fasten the side covers, ensuring they are positioned correctly.

Programming sequence

1. Store a user code; make a note of its value as it may be used to reset the password in the future (you must know one of the user codes in the memory).
2. With LV and LR LEDs off (keypad in stand-by) check that the user code has been successfully stored by entering the activation sequence and checking relay activation on the interface, knowing that keys 1/A, 3/B, 7/C, */D Correspond to the 4 relays A, B, C, D of H85/DEC (in the case of H85/DEC2, only the first two keys can be used).
3. Store anv other user codes (other than the first)
4. Save a new password (factory default is 0000), note its value.
   NOTE: changing the password is recommended to ensure the security of the installation.

Description of the H85/DEC – H85/DEC2 interface contacts

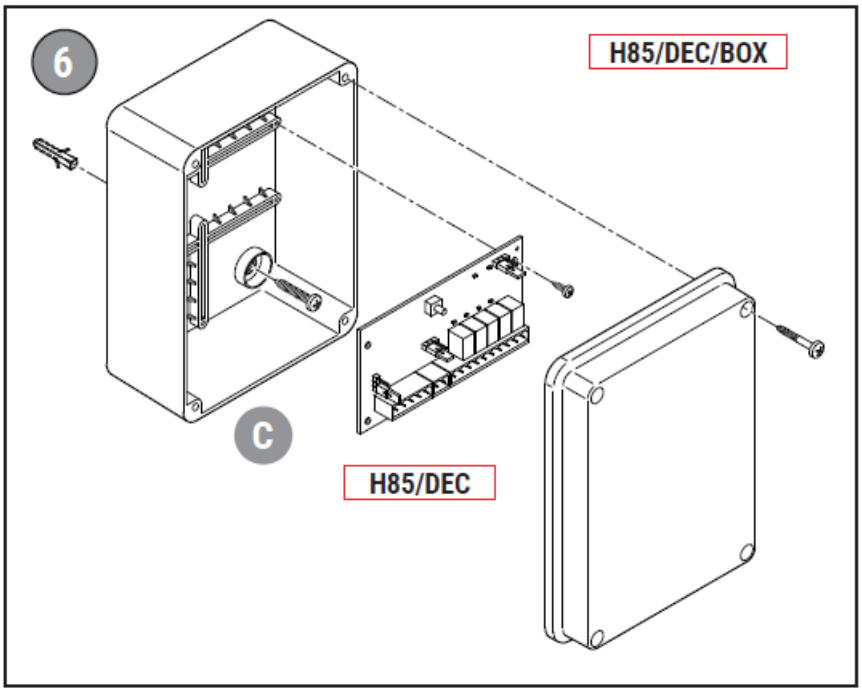
CONTACT	H85/DEC
1(0V) 2(12/24)	24VAC-DC or 12VDC power supply. Select the power supply type with the jumper **J1** (see **5KYVI 5**, inset **D**).
3(ENA) 5(COM) 	A timer or a key contact can be connected between terminals **3-5**. The function is only active if the jumper **J2** inset **E** is in the **EXT** position. If the contact is open and a valid user code is entered on the keypad, the OUT relay c an not be activated.
4(SYNC) 5(COM)	Connecting the keypads to the power supply. **SYNC**: Terminal for connecting multiple keypads with synchronizing function.
8 OUT A 9 	Command output **A** (relay contact N.A.), can be activated with the 1/A button.
10 OUT B 11 	Command output **B** (relay contact N.A.), can be activated with the 4/B button.
12 OUT C 13 	Command output **C** (relay contact N.A.), can be activated with the 7/C button.
14 OUT D 15 	Command output **D** (Relay contact N.A.), can be activated with the */D button.
16 ALRM 17 	ALARM output (contact N.C.) The contact opens when it detects an alarm state. To e xclude this function, see jumper **J3** (**5KYVI 5**, inset **F**).

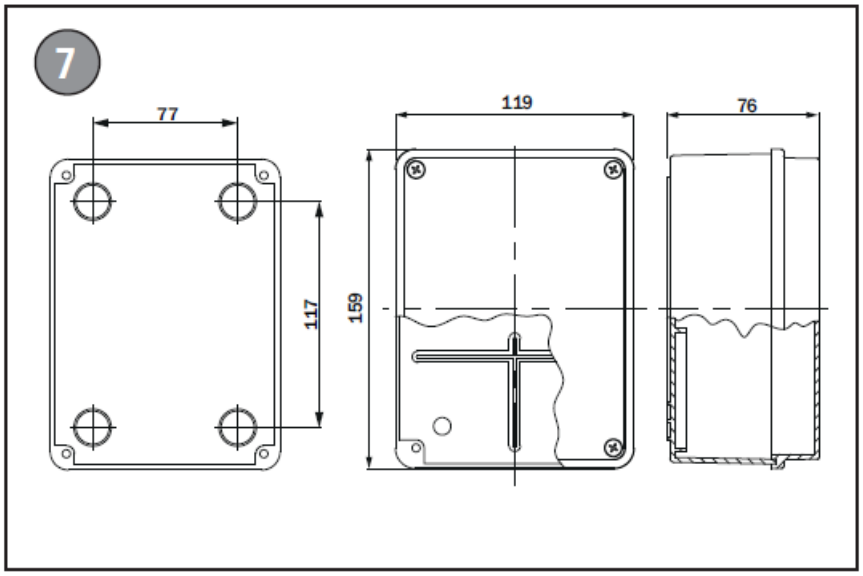
1(0V) 2(12/24)	Power supply 24VAC/DC.
3(SYNC) 4(COM)	Connecting the keypads to the power supply. **SYNC**: Terminal for connecting multiple keypads with synchronizing function.
5 OUT A 6 	Command output **A** (relay contact N.A.), can be activated with the 1/A button.
7 OUT B 8 	Command output **B** (relay contact N.A.), can be activated with the 4/B button.

Installation

H85/DEC interface installation

Proceed with the installation as shown below:

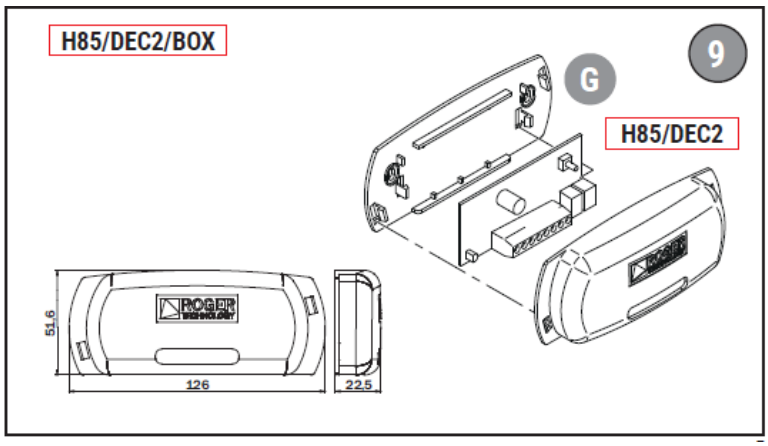




- Open the H85/DEC/BOX housing and wall mount it using suitable screws, not supplied.
- Make the electrical connections.

H85/DEC2 interface installation

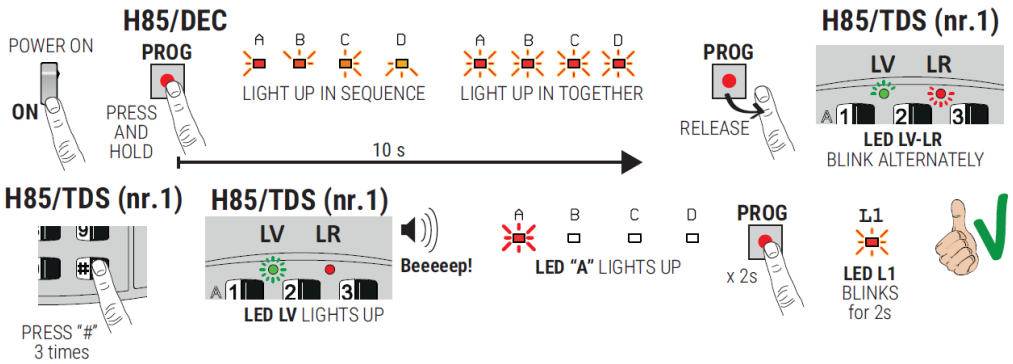
Proceed with the installation as shown below :



- Open the H85/DEC2/BOX housing and wall mount it using suitable screws, not supplied.
- Make the electrical connections.

Keypad acquisition procedure on the H85/DEC interface

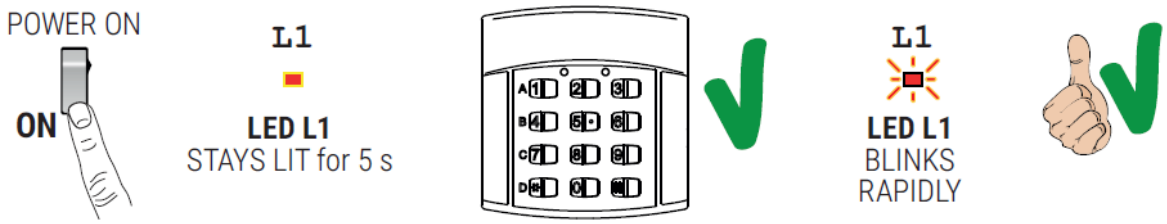
- Power on the H85/DEC interface. The L1, L2, A, B, C, D LEDs light up in sequence, to confirm correct operation.
- Press and hold the PROG key on the H85/DEC interface for at least 10 s.
- The A, B, C, D LEDS first light up in sequence, and then go out
- The LEDs lighting up together indicates the acquisition procedure has been activated.
- Release the PROG key.
- The green LV LED and red LR LED on the H85/TDS keypad blink alternately.
- Press the # key 3 times (# # #) on the keypad that is to be encoded first. If the acquisition has been successful, the green LV LED lights up and the buzzer emits a long beep.
- On the H85/DEC interface, the A LED on the encoded keypad changes from blinking to steady-on mode.
- Proceed with the encoding of any other keypads (# # #). For each encoded keypad, the corresponding (B… C…D) LEDs will light up steadily on the interface.
- For 1, 2 or 3 encoded keypads, press PROG for 2 s to end the acquisition process. The L1 LED on the interface starts blinking. B-C-D are off.
- For 4 encoded keypads, the procedure ends automatically, after pressing the # key on keyboard 4 three times. The L1 LED on the interface starts blinking. B-C-D are off.
  WARNING! If the PROG key is released before 10 s have elapsed, the green L1 LED lights up and the acquisition procedure is interrupted. It is advisable to power off and on again and repeat the acquisition procedure.



Keypad acquisition procedure on the H85/DEC2 interface

Plug and Play Mode.
When using a single H85/TDS keypad, the acquisition procedure is automatic.

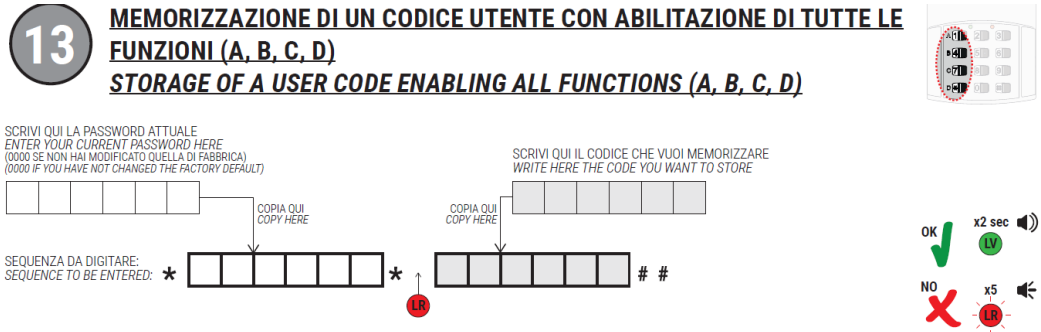
- Power on. The L1, A, B LEDs light up in sequence, to confirm correct operation.
- The green L1 LED stays lit for about 5 s.
- If the keypad is detected, the L1 LED blinks rapidly, and acquisition has been successful.
- If the keypad is not detected, the L1 LED goes out. Check the connection between interface and keypad.

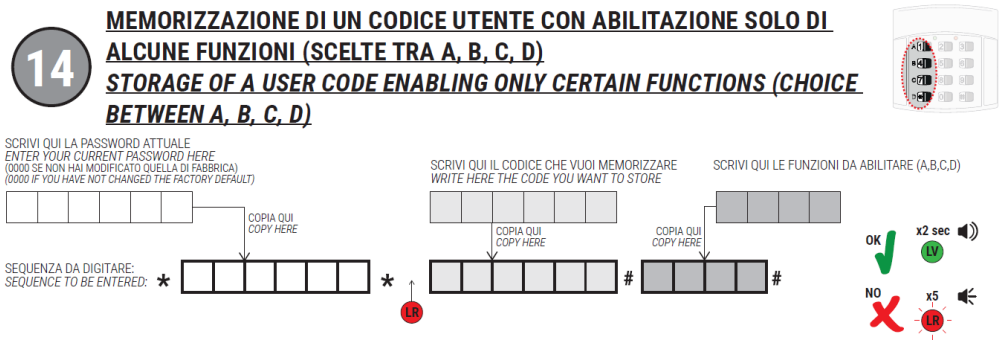


Dual Keypad Mode.
When using two H85/TDS keypads, or if installing a second keypad at a later time, the acquisition procedure is as specified in chapter 11
There are 2 indicator LEDs (A, B) rather than 4.

Storing a user code

ATTENTION!
It is NOT possible to store the user code 0000.
It is NOT possible to store a user code that is the same as the password (example: user code 1234 and password 1234).
Example 1: memorization of user code 34741, password 0000, enabling of all function keys 1/A, 4/B, 7/C, */D digit:
* 0000 * (the red LR LED lights up) 34741 # #
If the procedure is successful the green LV LED lights up for 2 s. The buzzer sounds until the LED goes out.
Example 2: memorization of user code 34741, password 0000, enable only function key 4/B digit:
* 0000 * (the red LR LED lights up) 34741 # B #
If the procedure is successful the green LV LED lights up for 2 s. The buzzer sounds until the LED goes out.
N.B.: if the password entered is correct, the red LR LED will light up. If it doesn't light up, check the password has been entered correctly.





Activating a user code

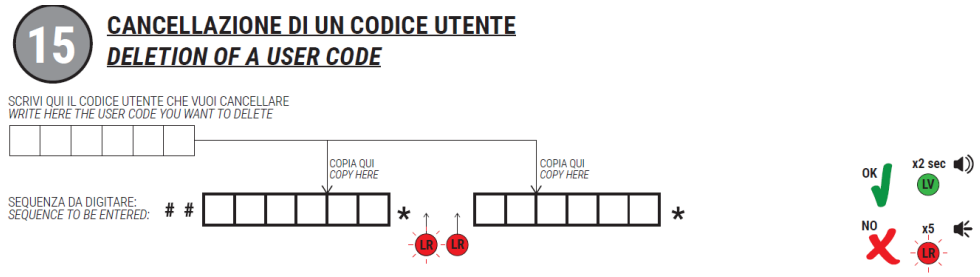
Enter the previously stored user code with multiple channel functions followed (e.g. 34741) by an asterisk (*).
If the code has been stored in the memory, the keypad's green LV LED lights up.
Press and hold the enabled key/channel (e.g. 4/B – CH_B).
Example:
34741 * B
If ONLY ONE of the channels CH is enabled (1/A…4/B …7/C…*/D), the associated OUT relay is activated immediately after entering the user code followed by * (asterisk):

EXAMPLE with user code 89512 and only CH_A enabled.
89512 * (CH_A transmit)
NOTE: activation of the OUT output is maintained as long as the asterisk (*) key is pressed; when the key is released, the H85/TDR keypad goes to stand-by.
WARNING!
A maximum of 5 s may elapse between pressing one key and the next, otherwise an error alert is activated (the red LR LED blinks rapidly 3 times) and the code must be entered again.

- If a non-enabled function key 1/A, 4/B… is pressed, no automated operation is activated.
- If you make a mistake while entering the code, press # to exit the activation mode.

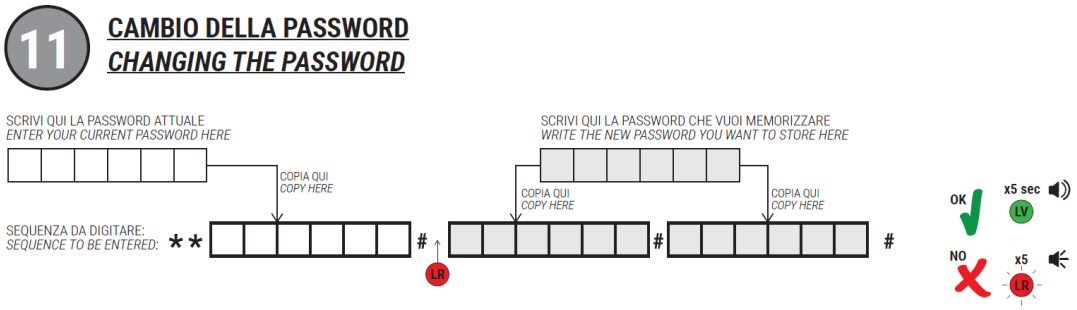
Deleting a user code

Identify the user code (e.g. 34741) to be deleted, and enter in sequence:
34741 *
If the code is present in the memory, the red LR LED blinks and then remains steady-on.
34741 *
If the two codes have been entered correctly (the same), the procedure is successful and the green LV LED lights up for 2 s.
The buzzer remains active for the duration of the LED.
Summarizing the example with user code 34741 to be deleted.
The sequence to be entered is as follows:
34741 * 34741 *



Changing password

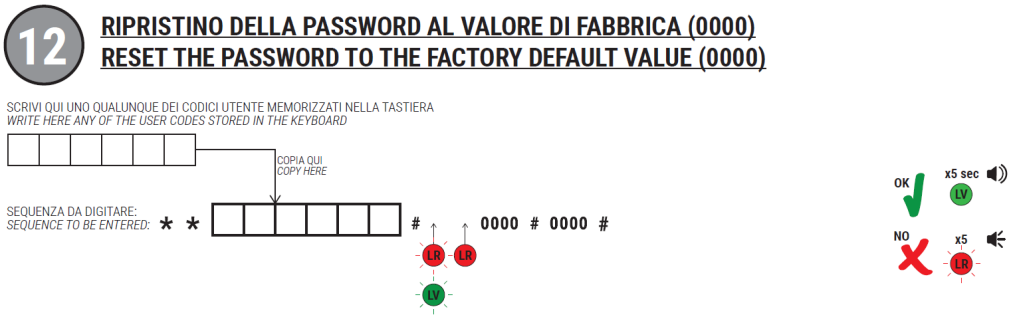
For the security of the installation, it is recommended to change the password from the factory default value 0000.
The factory default password is 0000.
Change password from 0000 to 12345, enter in sequence:
* * 0000 # (the red LR LED lights up) 12345 # 12345 #
If the procedure is successful, the green LV LED lights up and the buzzer sounds for 2 s.
If the procedure is NOT successful, the red LR LED blinks rapidly 5 times and the buzzer sounds intermittently.



Reset password to factory setting

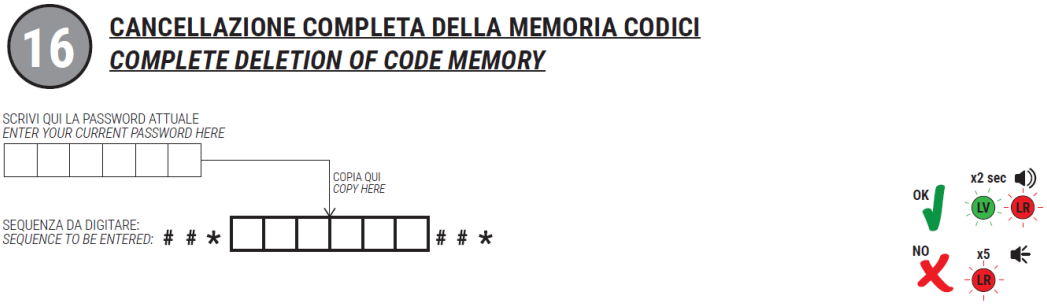
If the password is lost/forgotten, it can be reset to the factory default value (0000) by knowing any of the user codes stored in H85/DEC – H85/DEC2.
N.B.: (H85/DEC2 only) To enable the password reset feature, select jumper, inset H.
To reset the password, if for example the user code 12345 is known, enter in sequence:

Factory password reset:
* * 12345 # (the red LR LED lights up) 0000 # 0000 #
If the procedure is successful, the green LV LED on the keypad lights up for 2 s. The buzzer sounds until the LED goes out.
If the procedure is NOT successful, the red LR LED on the keypad blinks rapidly 5 times and the buzzer sounds intermittently.



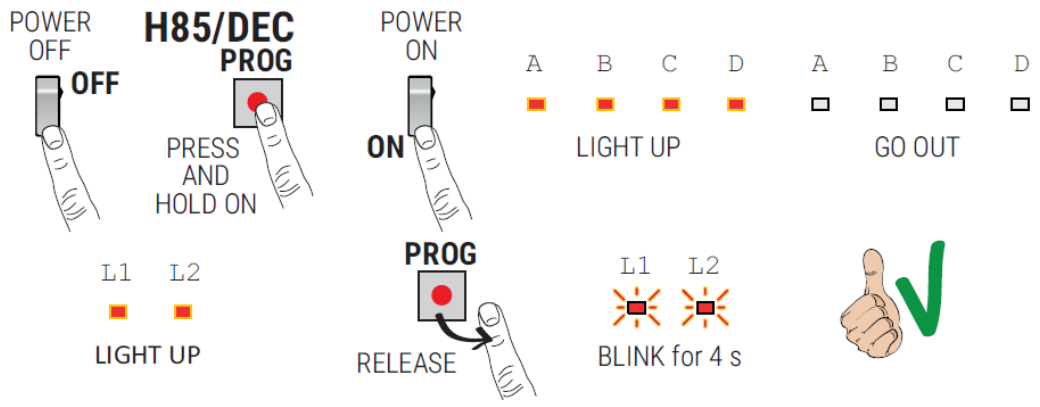
Complete memory erasure

All user codes can be deleted from the memory, using either the H85/TDS keypad or the H85/DEC – H85/DEC2 interface.
Memory deletion using H85/TDS keypad
Enter in sequence on the H85/TDS keypad, using the last password entered (example last password entered 87654).
* 87654 # # *
If the password is correct, the green LV and red LR LEDs on the keypad blink slowly for 2 s, while the buzzer sounds simultaneously.
Memory deletion using H85/DEC interface



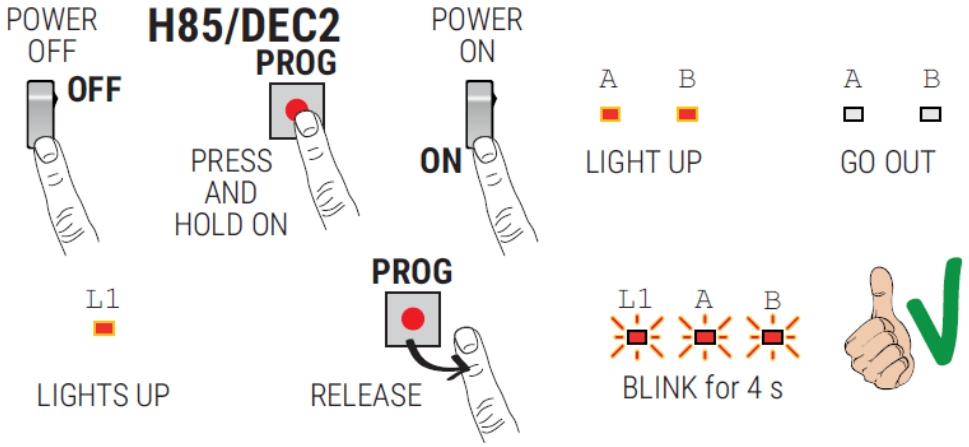
To erase the memory using the H85/DEC interface, proceed as follows:

- Turn off the power;
- Press and hold the PROG key and simultaneously restore power (without releasing the PROG key). First, the L1 and L2 LEDs go out and the A, B, C, D LEDs light up; subsequently, the L1 and L2 LEDs light up and the A, B, C, D LEDs go out.
- Release the PROG key.
- Delete mode is activated and the L1 e L2 LEDs blink for 4 s.



Memory deletion using H85/DEC2 interface
To erase the memory using the H85/DEC2 interface, proceed as follows:

- Turn off the power;
- Press and hold the PROG key and simultaneously restore power (without releasing the PROG key). First, the A, B LEDs light up; they then go out and the L1 LED lights up.
- Release the PROG key.
- Delete mode is activated and the L1, A and B LEDs blink for 4 s.



Advanced function: Code masking

WARNING! This feature is available for 6-digit user codes, to improve security when entering the code. The mask function allows the real code to be “hidden” among digits entered at random.
The code will be read from the 6 digits entered immediately before the (*) star key.
E.g. user code 245672, output enabled OUT_ B.
294862…308236 245672 * 057986…791964 * B
N.B: by simply entering 245672 * * B, code is activated bypassing code masking function.

Indicators

ERROR ALERT H85/TDS KEYPAD	POSSIBLE CAUSE
LR LED blinks rapidly 5 times Intermit tent buzzer	Incorrect password
	User coder not in memory
	User code or password entered with fewer than 3 digits or more than 6
	In code delete mode or change password mode: the codes entered do not match the GSR5VQEXMSR GSHIW
	User code already stored.
	Failure to enter * after the user code.
	Digit entered incorrectly: # instead of *.
	*(**,B5/()’2** only)* Attempt to store a user code on the C or D function key not supported by the interface

Alternately blinking **LV** and **LR** LEDs	User code entered incorrectly 5 times in a row. Keypad locks for 20 s.
	If multiple keypads are connected to the interface card: one of the keyp ads is transmitting a command.

ERROR ALERT H85/DEC-H85/DEC 2	POSSIBLE CAUSE
L1 LED blinking rapidly	No fault.
L1 LED blinking slowly	Keypad communication error. **H85/DEC2 only**: one of the two keypads is not functioning properly or i s disconnected.
L2 LED not lit *(H85/DEC only)*	2S EPEVQ MHIRXM5IH
L2 LED lit for 3 s *(H85/DEC only)*	Repeated, but not serious, error in communicating with keypads. Check that cables are not routed close to sources of interference.
L2 LED remains on *(H85/DEC only)*	System tamper alarm
	Attempt to connect a keypad that is not recognized by the interface.
	Link cable disconnected for more than 40 s (from at least one keypad).
	The **ALRM** contact is open. To reset the alarm, press the **PROG** key for 1 s, the **L2** LED goes out a nd the **ALRM** contact closes. Verify which keypad triggers the alarm as described in the paragraph FUNCTION DIAGNOSTICS.

Function diagnostics (only H85/DEC)

If there is an error alert (red L2 LED lit or intermittent), check the functioning of the keypads, as shown below:

- Briefly press the PROG key on the H85/DEC interface. The green L1 and red L2 LEDs go out.
- With each successive press of the PROG key, the interface verifies the keypads in sequence (from 1 to 4).
- The keypad being checked is identified by the number of consecutive blinks of the green L1 or red L2 LEDs.
- If the green L1 LED blinks, the keyboard is functioning correctly.
- **If the red L2 LED blinks, it means that:**
  - the keypad does not work
  - the keypad is not stored in the interface;
  - the keypad is connected, but the interface does not recognize its identification number (ID).
- Once the keypads have been checked, press the PROG key to return to normal operation; the green L1 LED blinks rapidly.

Initial testing

- On power on, the L1, L2, A, B, C, D LEDs on the H85/DEC interface (L1, A, B on the H85/DEC2 interface) should light up in sequence.
- Check the outputs OUTA, OUTB, OUT C, OUT_D are enabled (if connected, only OUTC and OUT D for H85/

DEC2), by pressing the 1/A, 4/B, 7/C, */D function keys after unlocking operation by entering one of the user codes in memory.
- Check that, with the memorized keypads, the green L1 LED blinks rapidly and the red L2 LED remains off (L2 only for H85/DEC).
- Check the keypad's 6-LED back-lighting. When not in use, the LEDs are dimmed. They should become brighter after pressing any key.

Maintenance

- Perform scheduled maintenance every 6 months.
- Check cleanliness and correct functioning.
- If any dirt, moisture, insects or other foreign matter is present in the unit, disconnect from mains power and clean the board and the housing.
- Repeat the initial installation test procedure after cleaning.
- If any corrosion is found on the printed circuit board, evaluate if it is necessary to replace the board itself.

Disposal

This product may only be uninstalled by qualified technical personnel, following suitable procedures for removing the product correctly and safely. This product consists of numerous different materials. Some of these materials may be recycled, while others must be disposed of correctly at the specific recycling or
waste management facilities indicated by local legislation applicable for this category of product.
Do not dispose of this product as domestic refuse. Observe local legislation for differentiated refuse collection, or hand the product over to the vendor when purchasing an equivalent new product.
Local legislation may stipulate severe fines for the incorrect disposal of this product. Warning! some parts of this product may contain substances that are harmful to the environment or dangerous and that may damage the environment or pose a risk to health if disposed of incorrectly.

Additional information and contact details

ROGER TECHNOLOGY CUSTOMER SERVICE

- **business hours:**
  Monday to Friday
  8-12 am and 1.30-5.30 pm
- **Telephone no:**
  +39 041 5937023
- **E-mail**
  service@rogertechnology.it
- **Skype**
  servicerogertechnology

UE Declaration of Conformity (DoC)

I the undersigned, as acting legal representative of the manufacturer
Roger Technology, Via Botticelli 8
31020 Bonisiolo di Mogliano V.to (TV)

hereby DECLARE that the appliance described hereafter:
Description: Numeric code keypad with interface
Model: H85/TDS – H85/DEC H85/DEC2
Is conformant with the legal requisites of the following directives:

- 2014/35/UE
- 2011/65/CE
- 2014/30/UE

and that all the standards and/or technical requirements indicated as follows have been applied
EN 61000-6-3
EN 61000-6-2
EN 60335-1:2012
Last two figures of year in which marking was applied CE17.
Place: Mogliano V.to
Signature
Date: 10-05-201

Documents / Resources

	Roger Technology H85/TDS Keypad Selector [pdf] Instruction Manual H85 TDS Keypad Selector, H85 TDS, Keypad Selector, Selector

References

- Roger Technology - Automazioni in movimento