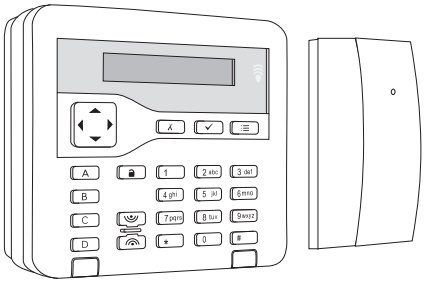
KEY-RKPZ Two-Way Radio Keypad

Installation Instructions

Introduction



The KEY-RKPZ is a radio keypad for use with i-on and Menvier intrusion systems. The keypad provides full access to configure, set or unset the system, and is an essential component of Eaton fully-wireless intrusion systems.

Being a radio device, the KEY-RKPZ offers ease of installation and provides greater flexibility when deciding where to locate both the control unit and keypad.

The keypad uses a separate "base station" (KEY-RKBS), which provides a communications bridge between the keypad and control unit. The base station uses radio communications with the keypad, and a standard RS485 wired connection to the control unit. Each base station can communicate with up to two keypads.

Features:

- Radio keypad, giving full access to configure, set or unset the system.
- Easy installation.
- Internal proximity reader.
- Backlit display and keys.
- Navigation keys for installer and user menus, with built-in alert LEDs.
- A, B, C, D setting and unsetting keys, with built-in status LEDs. An engineer can configure the keys to set individual wards, partitions or part-sets, or to control outputs.

Powering Business Worldwide

- Cover and back tamper detection.
- Terminals for two two-wire FSL zones.
- Local menu to set keypad options.
- Extendible stay-awake period for keypad backlight.

Note: Please refer to the Engineering Guide for details of the maximum number of keypads you can use.

Keypad keys

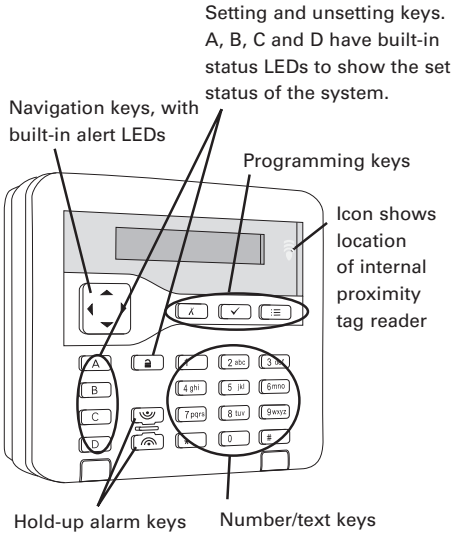


Figure 1. Keypad keys

You can enable or disable the LEDs behind the navigation, A, B, C and D keys from the local menu (page 6).

Please refer to the Quick User Guide or Administrator's Guide for details about how to use the keypad.

Note: The default stay-awake period for the display is 10 seconds; you can extend this to 10 minutes by pressing and holding ✔. After 10 minutes, the period reverts to 10 seconds.

Installing the equipment

This product must be installed by qualified service personnel.

Step 1: Choose the mounting locations

- Locate both devices out of sight of potential intruders and within the area protected by the intrusion system.
- To ensure correct operation of the internal proximity reader, do not locate the keypad:
  - Within 1 metre of another proximity reader (including one located within another keypad).
  - Behind a door, coat rack or other covering.
- Do not locate either device:
  - In a metal enclosure.
  - Near to any source of electromagnetic or radio interference.
  - Within 1 metre of high-voltage cables, metal pipes, computers, photocopiers, or other electronic equipment.
- Check that the keypad and base station will be within radio range (see *Specifications* on page 8). You can check signal strength after installation (see page 7).
- Check that the length of cable from the base station to the control unit will not exceed the maximum (see the Engineering Guide).

Step 2: Install the base station

1. Disconnect all power to the control unit, including the battery.
2. Remove the front cover of the base station by releasing the screw located along its bottom edge.
3. Feed the cable from the control unit through the hole in the backplate (Figure 2), and then screw the backplate to the mounting surface.

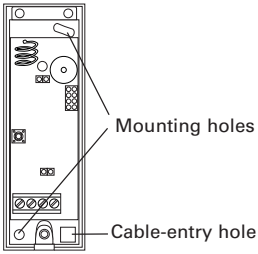


Figure 2. Base station backplate

4. Connect the wiring and links (Figure 3). **Leave the front cover off until Step 8.**

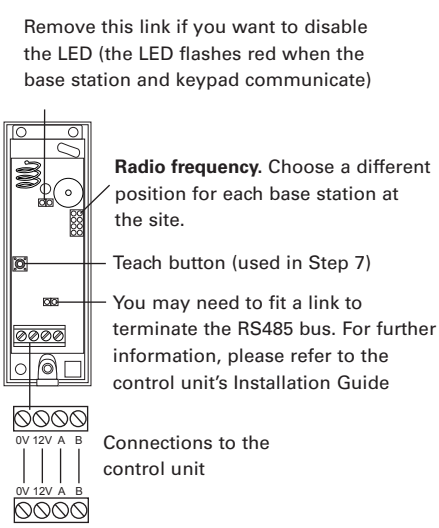


Figure 3. Base station wiring and links

Step 3: Mount the keypad backplate

1. Remove the front cover of the keypad (Figure 4).

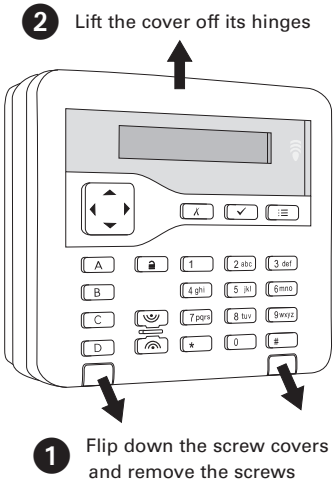


Figure 4. Removing the front cover

2. Secure the tamper block and each corner of the backplate to the mounting surface (Figure 5).

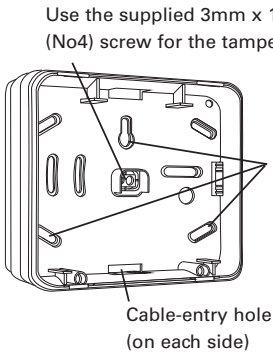


Figure 5. Mounting the backplate of the keypad

Step 4: Connect the zones (optional)

You can use TB1 (Figure 6) to connect zones directly to the keypad. Use only FSL 4k7/2k2 wiring, as shown in Figure 7 (no other wiring or resistor combinations are possible).

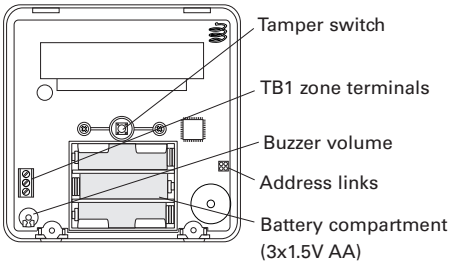


Figure 6. Keypad PCB

Note:

- To use the keypad zones, you must enable them using *Installer menu, Detectors/Devices, Radio Keypads, KEY-RKPZ, Edit Keypad*.
- Masking detection is not supported.
- The zone number the control unit allocates to each zone is dependent on the type of control unit you are using and whether expanders are already configured. For details of zone numbering, please refer to the Engineering Guide.

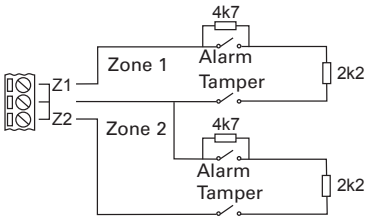


Figure 7. Connecting Fully-Supervised Loop (FSL) zones

Step 5: Set keypad ID

Fit a jumper across one pair of address links (Figure 6). Each keypad that communicates with the same base station must have a different setting.

Note: For legacy i-on16 and i-on40* control units, set the links differently for all keypads throughout the system. For i-on40, a total of four keypads can be connected, but radio keypads can be addressed only as 1 or 2.

**Please do not confuse the legacy i-on40 with the modern i-on40H.*

Step 6: Power-up

1. Remove the insulating tab from the battery compartment in the keypad (Figure 6). **Do not refit the front cover yet.**
2. Power-up the control unit (to power-up the base unit). Other keypads (if fitted) may beep repeatedly.

Step 7: Pair the keypad and base station

Note: If necessary, press a navigation key to "wake up" the keypad display.

1. You should see the following at the radio keypad:

   ```
   Press TEACH on RKBS
   < to Cancel
   ```

2. Wait for the green LED in the base station to flash repeatedly, then press the **Teach** button (Figure 3).
3. You will see:

   ```
   RKBS Learned OK
   Addr Lk=1, Freq Lk=1
   ```

   Note: If you are unable to pair the devices, reset the base station and try again (see page 7).
4. Press a navigation key at the keypad. You should see the red LED at the base station illuminate briefly to show that the two devices are communicating.

Step 8: Refit the covers

Keeping the control unit switched on, refit the keypad and base station covers.

Step 9: Add the keypad to the bus

The procedure to add the keypad to the bus depends on whether it is the first keypad on the system. Refer to Step 9a or 9b as applicable.

Note: Steps 9a and 9b are for all modern control units. Use Step 9c if you have a legacy i-on16/i-on40.

Step 9a: If there is no existing keypad:

1. Press a navigation key. You will see one of the following, depending on the time you have taken to pair the keypad and base station:

```
Press addr button(s)
  on wired keypads
```

```
RKBS Learned OK
Addr Lk=1, Freq Lk=1
```

2. Press A and ✔ simultaneously until you hear a sound.
3. The control unit assigns the keypad a bus address. The bus address is briefly displayed on the top line; for example:

```
b  1,  d 51,  T2
  on wired keypads
```

4. You will see the standard prompts to configure the control unit. If necessary, press a navigation key to see them. Please refer to the control unit's installation or engineering guide for details of the prompts.

Step 9b: If there is another keypad on the bus:

1. Select *Installer menu, Detectors/ Devices, Radio Keypads, KEY-RKPZ, Address Bus Device*. You will see:

```
Press addr button(s)
on KEY-RKPZ
```

2. At the radio keypad, press A and ✔ simultaneously until you hear a sound.
3. The control unit assigns the keypad a bus address. The bus address is displayed on the top line; for example:

```
b  1,  d 51,  T2
  10:52 01/04/2018
```

4. Press ✔.
5. Enter your installer code at the radio keypad. If installation was successful, you will see the screen shown in step 1. Press ✘ to exit the screen.

Step 9c: For legacy i-on16 and i-on40* control units

**Please do not confuse the legacy i-on40 with the modern i-on40H.*

- If there is an existing usable keypad, enter then exit the Installer menu at that keypad and accept changes to the bus.
- If there is no other keypad, switch off then switch on the control unit.

If the control unit has not been previously configured, you will see the standard configuration prompts. Please refer to the control unit's installation or engineering guide for details of the prompts.

For an i-on16/i-on40, the address link (Step 5) determines the address of the keypad.

Step 10: Configure the keypad

Use the following Installer options to configure the keypad. Unless specified otherwise, please refer to the Engineering Guide for further information.

Installer Option	Purpose
Detectors/Devices, Radio Keypads, KEY-RKPZ, Address Bus Device, <keypad name>,	To set the address of the keypad. See Step 9.
Detectors/Devices, Radio Keypads, KEY-RKPZ, Edit Keypad, <keypad name>,	
Name	To change the name the keypad (optional).
Partitions/Wards	To assign the keypad to the required partitions/wards, if applicable.
Key A/B/C/D	To configure the A, B, C and D keys (optional).
Zones	To enable keypad zones (if used).
Detectors/Devices, Detectors, Program Zones	To configure the zones (if used).

Using the local menu

The keypad has a local menu, which you can use to configure a number of settings that are specific to the keypad you are using. To access the local menu:

1. If keypad is already paired, enter the Installer menu.
2. Remove the front cover of the keypad (if it is not already removed). This is to activate the tamper switches.
3. Press B and ✔ for two seconds. You will see:

```
MENUS: Tick= Exit
 UP/DOWN= NEXT
```

4. Press ▲ or ▼ to select the required option (do not press ✔).
5. Press ▶ or ◀ to change the setting (**Y** means enabled and **N** means disabled) or to enter/exit the option, as applicable.
6. Press ✔ to save changes or ✘ to cancel changes.

Local menu options

Enter Learn Mode

Select this option to pair the keypad with the base station (see page 4).

Unpair RKP

Select to unpair the keypad and base station. To confirm unpairing , the keypad emits a triple-beep chime, and if the cover of the base station is off, the base station emits a loud "beep".

ABCD LEDs

You can use this option to enable or disable the LEDs behind the ABCD keys. The LEDs show the set status of the system (for example, setting part-set A illuminates the LED behind key A).

Backlight

Choose **N** to disable the backlight permanently.

Choose **Y** if you want the backlight to remain on for a period after a key is pressed, or the proximity reader is used. The default period is 10 seconds; you can extend it to 10 minutes by pressing and holding ✔ once you have exited the local menu. After 10 minutes, the period reverts to 10 seconds.

Status OK LED

This option relates to the green "OK" LED located behind the navigation keys. By default, the LED illuminates steadily while the keypad is awake and there is no uncleared fault or alarm condition present.

Setting this option to **N** permanently disables the Status OK LED.

Status FLT LED

This option relates to the red fault LED located behind the navigation keys. By default, the LED illuminates steadily while the keypad is awake and there is an uncleared fault or alarm that the control unit has reported, such as a mains fail or a tamper. The red LED remains lit while the keypad is awake until the fault or alarm is cleared.

Setting this option to **N** permanently disables the Status FLT LED.

Display NET/RF info

For expandable control units:

- b 9, d 51, T2 (or similar) — Bus number, device number and device type (always 2).
- Addr Lk — Position of the address link at the keypad.
- Freq Lk — Position of the frequency link at the base station.

For non-expandable control units:

- Panel — Control unit type (always B).
- Freq — Position of the frequency link at the base station.
- KP Links Addr — Position of the address link at the keypad.

Enable Prox.

To extend battery life, set to **N** if proximity tags are not used. The default is **N**.

Checking Signal Strength

After installing the keypad, you can check signal strength using *Installer menu, Test, Signal Strengths, Radio Keypads, KEY-RKPZ*.

A minimum reading of 2 is acceptable. (When reading from the web interface or other software, a minimum reading of 4 is needed if the control unit is in User mode, or 2 if it is in Installer mode.)

Resetting the base station

You may need to factory reset the base station if you are unable to pair it with a keypad or it cannot be recognised by the control unit.

A factory reset is needed if you move the base station from one type of control unit to another.

To factory reset, press the Teach button while applying power to the base station. You will hear a long "beep", followed by a shorter "beep".

Maintenance

Each year, replace the batteries, perform an annual test (using the Test menu at the control unit), and clean the outside of the keypad using a soft dry cloth. Do not use water, solvents or any proprietary cleaning agents.

Typical Battery Life

The typical battery life is calculated against typical expected use, which is considered to be:

- Three set and three unset operations per day.
- An entry time of 20 seconds, and an exit time of 30 seconds.
- One alarm event per month.
- Three hours per year in installer mode.
- Keypad volume set to maximum.
- Proximity reader, backlight and status LEDs enabled.

Note: The battery life will be shorter if usage is greater than the above conditions.

Specifications

KEY-RKPZ

Supply Voltage: 4.5Vdc.

Current Consumption: Quiescent 15µA; maximum 70mA.

Batteries: 3 x 1.5V AA Alkaline, min capacity 2700mAh (e.g. Duracell Plus Power MN1500, Duracell Ultra Power MX1500, Duracell Industrial ID1500 or Energizer E91).

Typical battery life: 15 months. Low-battery detection at 3.0V.

Radio Range: 250m max. in free space.

Dimensions: 128mm (h) x 128mm (w) x 35mm (d).

Weight: 0.24kg (without batteries).

KEY-RKBS

Supply Voltage: 10.0Vdc to 13.8 Vdc.

Current Consumption: Typical 35mA; maximum 50mA (buzzer on).

Keypads: Max. two per base station.

Dimensions: 102mm (h) x 34mm (w) x 28mm (d).

Weight: 0.05kg.

Both devices

Panel Software: 4.05 or later.

Operating Temp. Range: -10°C to +55°C.

Max Relative Humidity: 95%, non-condensing.

Radio Frequencies: 868.090, 868.230, 868.370 and 868.510 MHz.

Radio Power: 10mW max.

Case Material: ABS.

Intrusion Standards: EN50131-3:2009 Grade 2. PD6662:2017.

Environmental Class: Class II.

Certification Body: Telefication.

SIMPLIFIED EU DECLARATION OF CONFORMITY

Hereby, Eaton Electrical Products Ltd declares that the radio equipment type KEY-RKPZ is in compliance with Directive 2014/53/EU.

The full text of the EU declaration of conformity is available at the following internet address: www.touchpoint-online.com

The information, recommendations, descriptions and safety notations in this document are based on Eaton Corporation's ("Eaton") experience and judgment and may not cover all contingencies. If further information is required, an Eaton sales office should be consulted. Sale of the product shown in this literature is subject to the terms and conditions outlined in appropriate Eaton selling policies or other contractual agreement between Eaton and the purchaser.

THERE ARE NO UNDERSTANDINGS, AGREEMENTS, WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY, OTHER THAN THOSE SPECIFICALLY SET OUT IN ANY EXISTING CONTRACT BETWEEN THE PARTIES. ANY SUCH CONTRACT STATES THE ENTIRE OBLIGATION OF EATON. THE CONTENTS OF THIS DOCUMENT SHALL NOT BECOME PART OF OR MODIFY ANY CONTRACT BETWEEN THE PARTIES.

In no event will Eaton be responsible to the purchaser or user in contract, in tort (including negligence), strict liability or other-wise for any special, indirect, incidental or consequential damage or loss whatsoever, including but not limited to damage or loss of use of equipment, plant or power system, cost of capital, loss of power, additional expenses in the use of existing power facilities, or claims against the purchaser or user by its customers resulting from the use of the information, recommendations and descriptions contained herein. The information contained in this manual is subject to change without notice.

Eaton, Security House, Vantage Point Business Village, Mitcheldean, GL17 0SZ.
www.touchpoint-online.com
Product Support (UK) Tel: +44 (0) 1594 541978 available 08:30 to 17:00 Monday to Friday.
email: securitytechsupport@eaton.com

Part number 13025300 Issue 4, 20/03/18