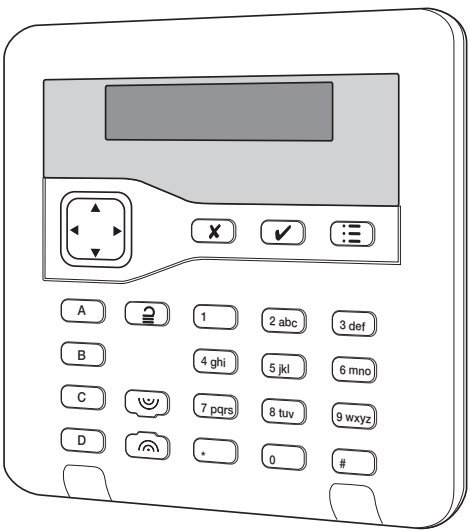
key-kp01
Installation Guide

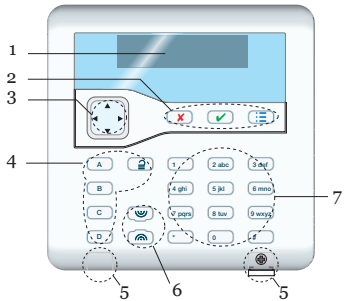


Issue 1

COOPER Security

MENVIER

Scantronic



1. LCD display
2. Programming keys.
3. Navigation keys. This key has built-in alert LEDs. To disable the LEDs see page 11.
4. Setting and unsetting keys. The ABCD keys have built-in status LEDs that can show the setting status of a part setting system. These LEDs can be disabled, see page 11.
5. Lid screws (under plastic caps)
6. Hold Up Alarm (HUA) keys.
7. Number/text keys.

Fig. 1.

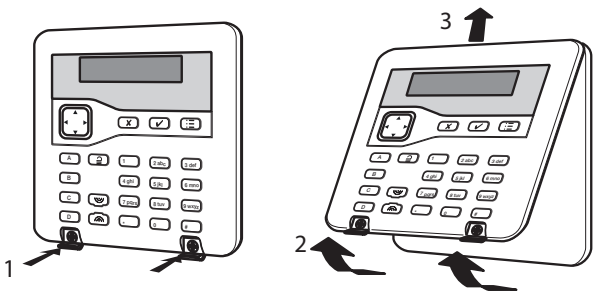
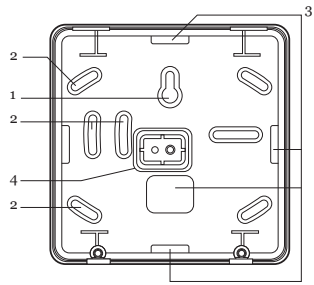
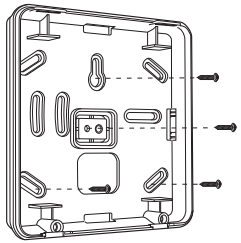


Fig. 2.

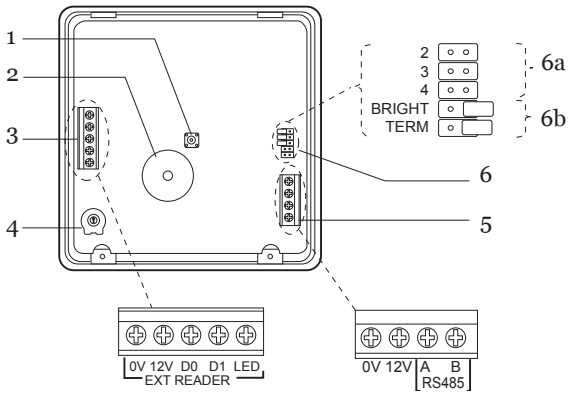




1. Central keyhole.
2. Fixing holes.
3. Cable entry.
4. Tamper block

Fig. 3.

Fig. 4.



1. Tamper switch.
2. Sounder.
3. Connector for KEY-EP
4. Sounder volume control
5. Connector for data bus.
6. Jumpers for:
   6a Addressing
   6b LED functions and RS485 bus termination

Fig. 5.

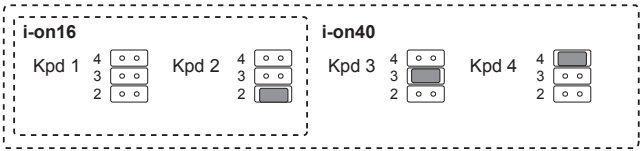


Fig. 6.

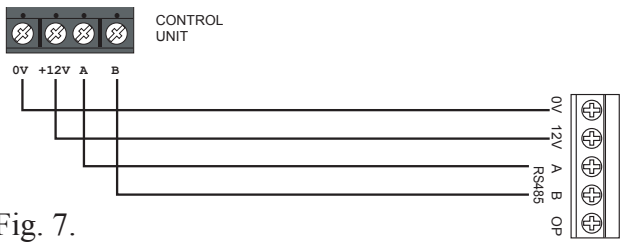
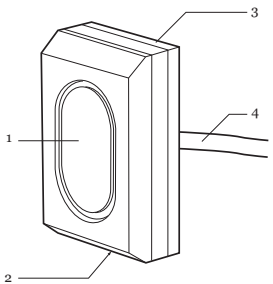
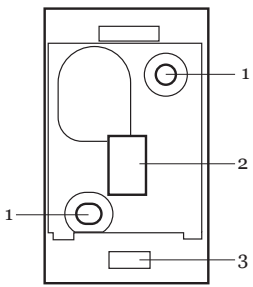


Fig. 7.



1. LED window.
2. Retaining Screw.
3. Removable Fixing Plate.
4. Permanently attached cable.

Fig. 8.



1. Fixing hole.
2. Cable entry.
3. Anchor for retaining screw.

Fig. 9.

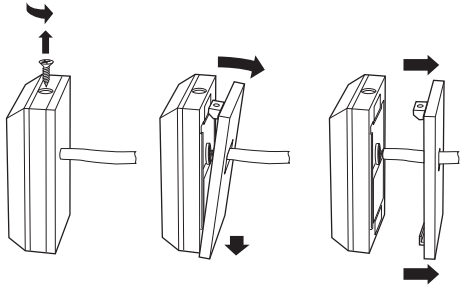


Fig. 10.

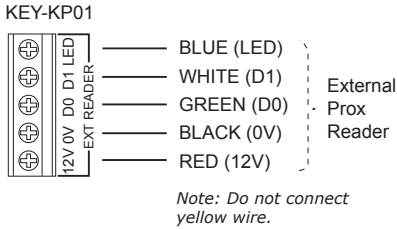

KEY-KP01
12V
0V
D0
D1
LED
EXT READER
BLUE (LED)
WHITE (D1)
GREEN (D0)
BLACK (0V)
RED (12V)
External
Prox
Reader
Note: Do not connect
yellow wire.

Fig. 11.

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Introduction

The KEY-KP01 keypad is designed to work with the i-on range and Menvier 30/40/100/300 series of control units using software version 4.03 and higher. The keypad allows users to set and unset an alarm system and installers to program the system. The keypad has backlighting for the keys and display. The the ABCD and Navigation keys have status LEDs integrated into the keys themselves. In addition the KEY-KP01 contains:

An integrated proximity tag reader

Terminals for an external proximity tag reader KEY-EP (not supplied).

Please note that control units with software versions lower than 4.03 cannot use the external prox reader.

Keypad Controls and Displays

Figure 1 shows the controls and displays available on the keypads:

To open the unit, unclip the caps covering the screws on the front (item 5 in Figure 1). (You may need to gently push the bottom edge of the caps in with the end of a small screwdriver to start them.) Remove the two screws hidden underneath (see Figure 2). Gently swing the lower side of the front out from the back box by about 10mm and then slide the front upwards to disengage the top catches. (Be careful not to pull the lower side of the front more than about 25mm away from the back while the top catches are engaged, or you may break the catches.)

Figure 3 shows the cable entries and fixing holes in the back box.

The front plastic housing contains the printed circuit board (pcb) see Figure 5:

Technical Specifications

Manufacturer	Cooper Security Ltd
Product code	KEY-KP01
Standards	EN50131-3
Security Grade	3
Environmental	Class II.
Operating temperature	-10 to +55°C.
Humidity	0 to 93% RH, non-condensing.
Dimensions:	128 x 128 x 29, mm HxWxD
Keypad weight:	0.19 kg
Case material	ABS
Current Consumption	65mA max backlight ON, prox reader connected 35mA max backlight OFF, internal prox reader only.

KEY-EP External prox reader

Security Grade	3
Environmental	Class IV
Dimensions	58x34x19 mm, HxWxD
Weight (incl 2m cable)	95gm

Compliance

The KEY-KP01 complies with EN50131-3:2009 at security Grade 2 or 3 when correctly installed with any i-on range control unit or Menvier30/40/100/300.

Third party testing carried out by ANPI.

Installation

Siting the Keypad

Do site the keypad:

Within the area protected by the alarm system.
At a convenient height and location for the user.
Out of sight of potential intruders.

Do NOT site the keypad:

Next to electronic equipment, particularly computers, photocopiers or other radio equipment, CAT 5 data lines or industrial mains equipment.
Where the cable run from the end station will be longer than 100m to an i-on16, 250m to an i-on40 or 1,000m to an i-on50EX/160EX/ Menvier30/40/100/300.

Note: Do not site two or more keypads, or a keypad and an external prox reader, closer than one metre together. Otherwise their prox readers will interfere and be unable to read tags. For the same reason do not place the keypad or external prox reader less that one metre from any other type of proximity tag reader, for example those used in access control systems.

Fitting

Use 4mm x 25mm countersunk screws with a thread suitable for the wall material. Fit in at least three fixing holes when mounting the back of the keypad on the wall. (See Figure 4.) A screw is supplied for the tamper block.

Cooper Security recommend that you mount the keypad as follows:

1. Select which cable entry you are going to use and break out the appropriate plastic sections.
2. For Security Grade 3 installations:
   a) Hold the backplate in place against the wall and mark the position of the hole in the tamper block (see Figure 3).
   b) Drill and plug the hole, and screw the backplate to the wall through the tamper block using the supplied screw. Do not tighten the screw completely home.
3. Make sure the backplate is level and mark, drill and plug at least three other fixing holes. Screw the backplate to the wall through the fixing holes using the M4 screws.
4. For Security Grade 3 installations cut the plastic webs connecting the tamper block to the remainder of the baseplate.

Note: If you do not cut the webs then the tamper switch will not operate if the complete keypad is forced off the wall. The keypad will not comply with Grade 3 requirements.

5. Mount the front of the keypad (containing the keypad pcb) onto the backplate and make sure that the tamper switch operates.

Connect Keypad to End Station

CAUTION: Remove all power (both mains and battery) from the control unit before connecting the keypad. Figure 7 shows connection details.

Cable Type
In general, the control unit requires standard 7/0.2 un-screened alarm cable for wiring to keypads.

Screened cable may prove necessary if the installation site has equipment that produces high levels of R.F. (Radio Frequencies), for example welding equipment. If screened cable is required, you should keep to the following guidelines:

1. Avoid earth loops by connecting the screen on the cable to mains earth at the end station but not at the keypad.
2. The continuity of the cable screen is most important and screens MUST be continuous along the full length of the cable.
3. If the cable enters any metal enclosure, ensure the screen is isolated from the case.

Cable Segregation
Segregate the keypad cabling from any other wiring, such as mains supply cables, telephone cables, computer network cables and R.F. cables. Use cable ties to keep cables separated.

Keep the keypad cable clear of any other cables supplying sounders or extension loudspeakers.

Cable Configuration and Length
You may connect the keypads either in daisy chain, or in star at the end station connector. For a parallel connection the cable length should not exceed 100m. For serial connection the cable length from to the most distant keypad should not exceed 100m for an i-on16, 250m for an i-on40, or 1,000m for an i-on50EX/160EX or Menvier30/40/100/300.

Keypad Connection
See Figure 7 for wiring connections at the keypad and control unit.

Bus Termination at the Keypad
See the relevant control unit Installation Guide for advice on terminating the RS485 bus within the keypad

Keypad Addressing
Each keypad connected to an end station must have a unique address. For an i-on16 or i-on40 see Figure 6. For an i-on30EX/50EX/160EX or Menvier30/40/100/300 keypad addressing is carried out from the Installer Menu - see the relevant *Engineering Guide*.

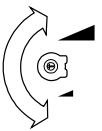
Backlight Brightness
When connecting the keypad to an i-on16 or i-on40 you can control the brightness of the keypad backlights by fitting links over the BRIGHT jumper on the keypad pcb (see 4b on Figure 5).

Jumper OFF The keypad backlights glow at normal intensity.
Jumper ON The keypad backlights glow extra bright.

To program whether the backlights are on or off see page 11.
Note: an i-onEX or Menvier30/40/100/300 control unit can change the backlight brightness from the Installer Menu. Do not fit the BRIGHT jumper.

Tone Volume

Turn the potentiometer (item 4 in Figure 5) to adjust the volume of tones from the keypad:



Louder

This control changes the volume of non-alarm tones (for example Exit/Entry tone). The volume of alarm tones is fixed.

Softer

KEY-EP External Prox Reader

Figure 8 shows the outside details of the external prox reader:

Siting the External Prox Reader

Do site the External Prox Reader:

At a convenient height and location for the user.

Out of sight of potential intruders.

Note: The external prox reader is fitted with a length of 2m of the appropriate cable. The cable can be extended up to 50m by connecting an additional length of 7/0.2 un-screened alarm cable.

Do NOT site the External Prox Reader:

Next to electronic equipment, particularly computers, photocopiers or other radio equipment, CAT 5 data lines or industrial mains equipment.

Note: Do not site the external prox reader closer than one metre to any other kind of prox reader (for example the i-kp01 or another external prox reader). If you do so then the prox readers will interfere and be unable to read tags.

Opening the External Prox Reader

To open the external prox reader (see Figure 10):

1. Undo the single retaining screw.
2. Tilt the edge of the fixing plate and then slide a short distance parallel to the body of the prox reader.
3. Slide the fixing plate away from the reader body, along the cable.

Figure 9 shows the details of the external prox reader backplate:

Fit External Prox Reader

Note: The installation steps listed below assume that you have already decided on the required location for the external prox reader.

Use M4 25mm countersunk screws at both fixing holes when mounting the back of the keypad on the wall.

Connecting Remote Prox Reader to Keypad

The external prox reader is supplied with 2m of its own integral cable.

Keep the external prox reader cable separate from any other wiring such as mains supply cables, telephone cables, computer network cables and R.F. cables. Use cable ties to keep cables separated.

Keep the prox reader cable clear of cables supplying sounders or extension loudspeakers.

External Prox Reader Connection

Figure 11 shows the wiring connections at the keypad. Do not connect the yellow wire.

Maintenance

The only maintenance required is an annual test of the keypad keys and cleaning.

Testing the Keys

To start testing, make sure the system is idle then:

1. Enter the Installer Menu and select Test.

   The display shows the Test menu.

2. Select Keypads.
3. Press each key once. The display shows a character in response. Press both HUA keys together to test. Press ✘ to end the test.

Cleaning

Clean the outside of the case with a soft dry cloth. Do not use water, solvents or any proprietary cleaning agents.

Programming

Backlight, ABCD LEDs and Navigation Key LEDs

When connecting the keypad to an i-on16 or i-on40 you can enable or disable the backlights, set the function of the LEDs on the ABCD keys or disable/enable the LEDs under the navigation key by entering a local keypad programming mode (this replaces the use of jumpers on the keypad PCB). i-onEX and Menvier30/40/100/300 control units can change the keypad backlighting from the installer Menu - do not use the keypad's local programming mode.

It is possible to enter keypad programming mode when the keypad is not connected to a control unit, but simply powered by 12Vdc connected to the keypad bus terminal (see Figure 7). If the keypad IS connected to a control unit then make sure that the control unit is in Installer Menu before entering the keypad's local programming mode.

Entering Local Programming Mode

Action	Keypad Display
1. Apply 12Vdc to the keypad.	
2. Enter Installer Menu on the control unit, if the keypad is connected to a system.	
3. Open the keypad tamper.	
4. Press and hold down B and ✔ together for at least two seconds. The keypad is now in local programming mode, the display shows the current status.	**MENU** **ABCD** ✔

To Switch ABCD LEDs ON or OFF

Action	Keypad Display
1. Enter local programming mode (see page 11).	**MENU** **ABCD** ✔
2. Press ▶ or ◀ to enable or disable the ABCD LEDs. The character at the right of the display shows "✘" when the LEDs are disabled and "✔" when the LEDs are enabled. For example:	**MENU** **ABCD** ✘
3. Leave local programming mode and save your changes (see page 13).	

To Change Backlight Settings

Action	Keypad Display
1. Enter Local Programming mode (see page 11)	**MENU** **ABCD** ✔
2. Press ▼. The display shows the current status of the backlight LEDs, for example:	**MENU** **BACKLIGHT** ✔
3. Press ▶ repeatedly to select one of the following:	
Backlight LEDs ON (✔).	**MENU** **BACKLIGHT** ✔
Backlight timed (✘). The backlight will glow for 10 seconds after the last keypress. The action of the backlight depends on the programming of the control unit (which must have Release 4.03 software installed).	**MENU** **BACKLIGHT** ✘
4. Leave local programming mode and save your changes (see page 13).	

To Disable/Enable the Status OK LED

Action	Keypad Display
1. Enter Local Programming mode (see page 11)	**MENU** **ABCD** ✔
2. Press ▼ repeatedly until the display shows:	**MENU** **STATUS OK LED** ✔
3. Press ▶ repeatedly to select one of the following:	
Status OK LED ON (✔).	**MENU** **STATUS OK LED** ✔
Status OK LED OFF (✘). The green status LED under the navigation key will glow for 20 seconds after the last press (this may be useful when the keypad is placed in bedrooms that should be completely dark at night).	**MENU** **STATUS OK LED** ✘
4. Leave local programming mode and save your changes (see page 13).	

To Disable/Enable the Status Fault LED

Action	Keypad Display
1. Enter Local Programming mode (see page 11)	**MENU** **ABCD** ✔
2. Press ▼ repeatedly until the display shows:	**MENU** **STATUS FLT LED** ✔
3. Press ▶ repeatedly to select one of the following:	
Status Fault LED ON (✔).	**MENU** **STATUS FLT LED** ✔
Status Fault LED OFF (✘). The red Fault LED under the navigation key is disabled, and will not glow for any fault reports.	**MENU** **STATUS FLT LED** ✘
4. Leave local programming mode and save your changes (see below).	

To Leave Local Programming Mode and Save Changes

EITHER:

Press ✔

OR

Close the keypad tamper.

The keypad saves the changes you have made in its local memory.

You can now remove 12VDC power, if required, or leave Installer Menu on the control unit.

To Leave Local Programming Mode and Discard Changes

Press ✘. The keypad ignores any changes you have made.

External Prox Reader LED

The KEY-EP has a built in LED that can glow for 10s to indicate that the system has set. This LED mimics the action of the LED under the "A" on the keypad as follows:

In a part setting system the LED glows for 10s when the system enters Full Set.
In an i-on30EX and i-on40 partitioned system the LED glows for 10s when Partition 1 enters Full Set.

Note: The jumpers in the KEY-KP01 do not control the function of the LED in the KEY-EP.

Notes:

Notes:

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