



MULTIFUNCTIONAL KEYPAD WITH PROXIMITY CARD READER INT-SCR-BL



int-scr_en 06/12

The INT-SCR-BL multifunctional keypad with proximity card reader can operate as:

partition keypad – a device supported by the CA-64 alarm control panel, as well as INTEGRA control panels with any firmware version, and identified as INT-S/SK. It is designed to control arming of one partition. The device makes it possible to execute the functions of access control and electromagnetic door lock operation. It enables changing the user code and calling the control functions for outdoor devices, and identifies users by their access code.

partition keypad with proximity card reader – a device supported by the INTEGRA control panels with firmware version 1.05 or later and identified as INT-SCR. It performs identical functions as the partition keypad, but allows the users to use proximity cards.




entry keypad – a device supported by the INTEGRA control panels with firmware version 1.05 or later and identified as INT-ENT. The main task of the entry keypad is activation of the delay in the partition for the zones with reaction type 3. INTERIOR DELAYED. The time period during which these zones will act as delayed ones is programmable for the keypad. After expiry of the programmed time, the interior delayed zones again act as instant ones, unless the partition is disarmed.

Design of the keypad enables it to be installed outdoors. The device is additionally equipped with a bell button to control the OC type low-current output. Press the button to short the output to the common ground.

This manual applies to the module with electronics version 1.4 and firmware version 2.01 (or later).

1. Description of the Keypad

The partition keypad has 13 keys with permanent or temporary (automatically activated) mode backlit and LED indicators:

-  - **ALARM** (red color),
-  - **ARMED** (green color),
-  - **TROUBLE** (yellow color).

Information conveyed by means of the LED indicators depends on the keypad operating mode. Alternative blinking of all the LEDs (from the left to the right) indicates lack of communication between the keypad and the control panel. This situation may take place when the STARTER program is running in the control panel, or when the cable connecting the keypad and the control panel is damaged.



Fig. 1. INT-SCR-BL multifunctional keypad.










Cable color	Function
 red	power supply input (+12 V)
 blue	ground (COM)
 green	data (DTA)
 black	clock (CLK)
 yellow	relay NO contact (normally isolated from the relay common contact)
 pink	relay NC contact (normally shorted to the relay common contact)
 grey	relay C contact (common contact)
 brown	door status control input (NC type)
 violet	bell input (OC type)

Table 1. Colors and functions of the keypad cables.

2. Installation and Connection of the Keypad

In order to make connections of a greater length than the cable connected to the keypad allows, it is recommended to use a straight-through unshielded cable. If the cable of "twisted-pair" type is used, remember that the CLK (clock) and DTA (data) signals must not be transmitted through one twisted pair of wires.



Any connections should only be made in deenergized state, i.e. with power supply disconnected.

1. Remove the locking screw which prevents the casing from being opened and open the casing.
2. Attach the lower part of the casing to the wall.
3. Close the casing and replace the locking screw.
4. Connect the cables: blue (COM), green (DTA) and black (CLK) to the corresponding terminals of the expander bus on the control panel PCB.
5. Connect the door status control detector to the brown and blue cables. If the door status is not to be controlled, connect the brown cable to the blue one.

Note: In the entry keypad mode, the door status control detector is not supported.

6. An actuating device (e.g. electromagnetic door lock) can be connected to the relay cables. Use the yellow and gray cables, if the device is to be activated by closing the circuit. If the device is to be activated by opening the circuit, use the pink and gray cables.

Note: In the entry keypad mode, the relay is not supported.











7. Connect the module supply to the red (+12 V) and blue (COM) cables. The keypad supply voltage is not to be necessarily provided from the control panel mainboard. A buffer power supply unit or another expander with power supply unit can be used for this purpose.
8. The violet lead (bell) can be connected e.g. to the one of the control panel zones.

3. Operating Mode Selection and Address Setting












By default, address 0 and partition keypad operating mode with proximity card reader (INT-SCR) are set in the keypad.





3.1 Changing the address

1. Turn off the keypad power supply.
2. Disconnect the green and black cables from the terminals of the control panel expander bus.
3. Short together the ends of the green and black cables.

4. Turn on the keypad supply. The keypad will generate 4 short beeps and 1 long beep, and the LEDs designated  [ALARM] and  [ARMED] will start blinking alternately (the ends of green and black cables can then be separated).
5. Press in turn the  and  keys. The keypad will confirm with 2 short beeps that the address setting function has been launched, and the LED designated  [ALARM] will start blinking.
6. Set the address within the range from 0 to 31, using suitable numerical keys and confirming your selection with the  key. The keypad will confirm with 4 short beeps and 1 long beep that the address has been set. The LEDs designated  [ALARM] and  [ARMED] will start blinking alternately (then, to proceed to setting the operating mode, press in turn the  and  keys).
7. Turn off power supply.
8. Connect the green and black cables correctly to the expander bus terminals on the control panel mainboard.

3.2 Changing the operating mode

1. Turn off the keypad power supply.
2. Disconnect the green and black cables from the expander bus terminals.
3. Short together the ends of the green and black cables.
4. Turn on the keypad supply. The keypad will generate 4 short beeps and 1 long beep, and the LEDs designated  [ALARM] and  [ARMED] will start blinking alternately (the ends of green and black cables can then be separated).
5. Press in turn the  and  keys. The keypad will confirm with 2 short beeps that the operating mode selection function has been launched, and the LED designated  [ARMED] will start blinking.
6. Select the operating mode by pressing in turn:
 -  and  – partition keypad with proximity card reader (INT-SCR)
 -  and  – entry keypad (INT-ENT)
 -  and  – partition keypad (INT-S/SK)

The keypad will confirm with 4 short beeps and 1 long beep that the operating mode has been selected. The LEDs designated  [ALARM] and  [ARMED] will start blinking alternately (then, to proceed to setting the address, press in turn the  and .
7. Turn off power supply.
8. Connect the green and black cables correctly to the expander bus terminals on the control panel mainboard.

4. Starting the Keypad

1. **Switch on** the alarm system power supply.
2. **Conduct identification of a new device** in the alarm system. Call the EXPANDER IDENTIFICATION function (→SERVICE MODE →STRUCTURE →HARDWARE) from the LCD keypad.

Note: During the identification process, the control panel saves in the module memory a special (16-bit) number, used for checking the module presence in the system. Replacement of the module with another one (even having the same address) without a new identification, will result in triggering the alarm (module tamper – verification error).

3. After identification, the keypad will be supported by the alarm control panel, however most options and functions will be disabled. For example, the lack of key press confirmation will make an impression that the keypad does not react to entering the code. Using the LCD keypad or the DLOADX/DLOAD64 program, **assign the users**, who will be authorized to use the keypad and **program functions and options of the device**.
4. Terminate the service mode or communication with the computer and **save the data to FLASH memory**.

5. Operation in the Partition Keypad Mode

The LEDs show following information:



ALARM (red color) – steady light indicates an alarm in the keypad controlled partition, while blinking indicates that an alarm was triggered in the partition (alarm memory). The LED goes off when alarm is cleared.



ARMED (green color) – steady light indicates that the partition to which the keypad is assigned has been armed. Blinking indicates countdown of the exit delay.



TROUBLE (yellow color) – blinking indicates that a technical problem has occurred. The signaling applies to troubles from the entire alarm system, not only from the keypad controlled partition. The type of trouble can be checked on the LCD keypad. Arming the keypad controlled partition will disable the trouble signaling. Disarming the partition will restore the trouble signaling.

Note: All LEDs may be OFF in the arming mode, depending on the control panel settings.

Information on the use of the partition keypad can be found in the user manuals of the control panels.

The partition keypad can be programmed by means of the LCD keypad (→SERVICE MODE →STRUCTURE →HARDWARE →EXPANDERS →SETTINGS →*expander selection*) or a computer with the DLOADX/DLOAD64 program. Described below are settings and options available for programming. Abbreviations from the LCD keypad display are shown at some of the functions.

Name – option to give an individual (16-character) name to the module. This option can be accessed in the LCD keypad as follows: →SERVICE MODE →STRUCTURE →HARDWARE →EXPANDERS →NAMES →*expander selection*.

Partition – assignment of the keypad to a partition selected from the list. The keypad controls this partition.


Lock feature – the option available in the LCD keypad – its activation provides access to the **Lock** submenu.


Lock (DLOADX)/Lock feature (DLOAD64) – its activation provides access to the lock feature options.


The options „Lock feature” (LCD / DLOAD64) and „Lock” (DLOADX) refer to support of the actuating device (e.g. electromagnetic door lock) by means of the partition keypad. This function is made available to any user authorized to use the keypad (see: MASTER USERS/USERS function). Control is effected by means of the relay.


Lock features (DLOADX)/Lock (DLOAD64)

ON if partition armed – the relay is active when the partition is armed, and inactive when the partition is disarmed.

Note: When operating in this mode the relay will change its state automatically, if the partition is disarmed from the given keypad. When the partition is disarmed from another keypad, the state of the relay will change on entering the CODE and pressing the  key on the given partition keypad.

Fixed ON time [ON time] – after the user enters the CODE and presses the  key, the relay will be active for the RELAY ON TIME.

Fixed ON time – OFF if door open [ON, open→off] – after the user enters the CODE and presses the  key, the relay will be active until the door is opened (the door status control input is isolated from the common ground), however not longer than for the RELAY ON TIME.

Fixed ON time – OFF if door closed [ON, close→off] – after the user enters the CODE and presses the  key, the relay will be active until the door is closed (the door status control input is shorted again to the common ground), however not longer than for the RELAY ON TIME.

Relay ON time – the time period during which the relay is active. Duration of the „relay ON time” can be from 1 to 255 seconds.

Authorization control [Unauth. event] – opening the door without entering a password from the keypad (e.g. with the key) will generate an „Unauthorized door opening” event, it can also be signaled on the output type 93 UNAUTHORIZED ACCESS.

Alarm on unauth. access [Unauth. alarm] – when the partition to which the module is assigned is armed, unauthorized opening of the door will trigger the alarm and can be additionally signaled on the output type 94 ALARM – UNAUTHORIZED ACCESS.

Max. door open time – the time after expiry of which the module will report the „Long opened door” event to the control panel and activate the audible alarm. The duration can be set from **0** to **255** seconds.

Dependent on door 1/Dependent on door 2 – you can define the door that must be closed so as to enable opening of the door supervised by the module (activation of the relay). It allows to create a "sluice" type passage. You can indicate a door supervised by another alarm system expansion module or zone programmed as the 57. TECHNICAL - DOOR OPEN type.

Code+* do not disarm [Code* n. disarm] – with this option enabled, entering the code, confirmed by pressing the ***** key will neither disarm the partition nor activate the relay (will prevent the door from being opened).

Access when armed [Code* in arm] – with this option enabled, entering the code, confirmed by pressing the ***** key will not disarm the partition, but it will activate the relay (and enable opening of the door). The option is available when the CODE+* DO NOT DISARM [Code* n. disarm] is enabled.

Master users/Users – this function defines master users / users authorized to use the given keypad.

Alarms

FIRE alarm – pressing and holding down for approx. 3 seconds the **#** key triggers the fire alarm.

AUX. alarm – pressing and holding down for approx. 3 seconds the **0** key triggers the medical alarm.

PANIC alarm – pressing and holding down for approx. 3 seconds the ***** key triggers the PANIC alarm.

Silent PANIC alarm – pressing and holding down for approx. 3 seconds the ***** key triggers the silent PANIC alarm i.e. without a loud signaling, but only with sending a message to the monitoring station and activating the 12. SILENT ALARM type of output.

Alarm 3 incorrect codes – an alarm will be triggered if a wrong code is entered three times.

Options

Quick arming – with this option enabled quick arming function will be available:



- fully armed mode – press in turn the **0** and **#** (keys (CA-64 and INTEGRA control panels with any firmware version) or the **1** and **#** keys (INTEGRA control panel with firmware version 1.05);
- fully armed mode plus bypassing zones with BYPASSED IF NO EXIT option enabled - press in turn the **1** and **#** (keys (INTEGRA control panel with firmware version 1.06 or later);
- armed without internal – after pressing in turn the **2** and **#** keys (INTEGRA control panel with firmware version 1.05 or later);
- armed without internal and entry delay – after pressing in turn the **3** and **#** keys (INTEGRA control panel with firmware version 1.05 or later).

Control BI output – the keypad can handle codes of the BISTABLE OUTPUTS type (control of the type 25. BI SWITCH outputs).

Control MONO output – the keypad can handle codes of the MONO OUTPUTS type (activation of the type 24. MONO SWITCH outputs).

Partition blocking – if the partition to which the keypad is assigned is armed, it can be blocked with the code of the TEMPORARY PARTITION BLOCKING or GUARD type (if the user is not

authorized to disarm the partition). The zones of the blocked partition will not trigger the burglary alarm. The blocking duration is defined individually for each user using the TEMPORARY PARTITION BLOCKING code type and for the partition (BLOCKED FOR GUARD ROUND).

Guard round control – entering the guard code ended with  or  key will be recorded as completion of the round.

Changing access code – the user code can be changed using the keypad.

Signaling

Alarm signal – the keypad will signal the partition alarm acoustically throughout the global alarm duration.

Alarm signal (until canceled / latch) – the keypad will signal the partition alarm acoustically until the alarm is cleared.

Signaling entry delay – the keypad is acoustically signaling the entry delay countdown.

Signaling exit delay – the keypad is acoustically signaling the exit delay countdown.

Auto-Arm delay countdown – the keypad is acoustically signaling the auto-arming delay time for the partition.

Access code signaling (hardware) – the keypad itself, independently of the control panel, will audibly acknowledge entering the access code. This signaling is useful if there is a delay between the code entry and the audible information generated after verification of the code by the control panel. Option is available only in the INTEGRA control panel.

CHIME - the module is acoustically signaling violation of the zones having the CHIME IN MODULE option enabled and belonging to the same partition as the module.

Confirming – this option defines the way of communication between the control panel and the partition keypad user:

No – the keypad provides no information on execution of or refusal to execute an operation.

Sound – the keypad provides information on execution of or refusal to execute an operation by means of beeps (see: control panel user manual).

Backlight – the keypad provides information on execution of or refusal to execute an operation by means of blinking of key backlight (see: control panel user manual).

Backlight – defines the mode of keypad illumination.

No – keypad backlit disabled.

Auto – keypad backlit goes on automatically on pressing any key; the function has additional options (submenu AUTO-BACKLIGHT in LCD keypad):

- **no auto-backlight** – illumination only activated by pressing one of the keys,
- **zone violation** – backlit activated by pressing a key or by violation of the indicated zone,
- **entry delay, part.** – backlit activated by pressing a key or by starting the countdown of entry delay time in the indicated partition.

Note: Automatic keypad illumination is ON for approx. 40 seconds from the moment of its activation or from the last press of any key.

Permanent – keypad backlit is permanently “ON”.

No auto-reset after 3 tampers – you can disable the feature limiting to three the number of tamper alarms from the expander (the feature prevents the same events from being logged repeatedly and applies to the successive uncleared alarms).


Open door if fire [Doors on fire] – the fire alarm can have an effect on unblocking the door:

- **no** – fire alarm has no effect on the door blocking,
- **partition fire alarm** – fire alarm in the partition will unblock the door controlled by the module,
- **object fire alarm** – fire alarm in the object will unblock the door controlled by the module,
- **fire alarm** – fire alarm in the system will unblock the door controlled by the module.


6. Operation in the Mode of Partition Keypad with Proximity Card Reader

Information conveyed by the keypad with LED indicators in this mode is identical to that in the partition keypad mode. Additionally, all LEDs of the partition keypad with reader blinking simultaneously indicate waiting for the card read-in (during the procedure of adding a card to the user).

Information on the use of the partition keypad with proximity card reader can be found in the user manual of the control panels.

The partition keypad with proximity card reader can be programmed by means of the LCD keypad (→SERVICE MODE →STRUCTURE →HARDWARE →EXPANDERS →SETTINGS →*expander selection*) or a computer with the DLOADX program. The operating mode of partition keypad with proximity card reader offers all the functions available for the partition keypad mode. Support of the proximity cards should only be additionally taken into account. Presenting the card to the reader is recognized by the expander as entering the code, confirmed with the key. Holding up the card for approx. 3 sec. is recognized as entering the code, confirmed with the  key.

7. Operation in the Entry Keypad Mode

In the entry keypad, only the LED designated  is used for signaling. Blinking of the LED informs that the countdown of delay activation time is running (disarming has no effect on the LED blinking).

Information on the use of the entry keypad can be found in the user manual of the control panels.

The entry keypad can be programmed by means of the LCD keypad (→SERVICE MODE →STRUCTURE →HARDWARE →EXPANDERS →SETTINGS →*expander selection*) or a computer with the DLOADX program. Described below are settings and options available for programming.

Name – option to give an individual (16-character) name to the module. This option can be accessed in the LCD keypad as follows: →SERVICE MODE →STRUCTURE →HARDWARE →EXPANDERS →NAMES →*expander selection*.



Partition – assignment of the keypad to a partition selected from the list. The delay activation will apply to the zones with reaction type 3. INTERIOR DELAYED in this partition.

Master users/Users – this function defines master users/users authorized to use the given keypad.

Alarm 3 incorrect codes – entering a wrong code or reading in an unknown card three times will trigger alarm.

Control BI output – the keypad can handle codes of the BISTABLE OUTPUTS type (control of the type 25. BI SWITCH outputs).

Control MONO output – the keypad can handle codes of the MONO OUTPUTS type (activation of the type 24. MONO SWITCH outputs).

Guard round control – entering the guard code ended with  or  key as well as presenting or holding up the card will be recorded as completion of the round.

Signaling

Delay activation sign. – the keypad is acoustically signaling the countdown of delay unblocking time.

Access code signaling (hardware) – the keypad itself, independently of the control panel, will audibly acknowledge entering the access code. This signaling is useful if there is a delay between the code entry and the audible information generated after verification of the code by the control panel.

Confirming – this option defines the way of communication between the control panel and the keypad user:

No – the module provides no information on execution of or refusal to execute an operation.

Sound – the module provides information on execution of or refusal to execute an operation by means of beeps (see: control panel user manual).

Backlight – the module provides information on execution of or refusal to execute an operation by means of blinking of key backlight (see: control panel user manual).

Backlight – defines the mode of keypad illumination.

No – keypad backlighting disabled.

Auto – keypad backlighting goes on automatically on pressing any key.

Note: Automatic keypad illumination is ON for approx. 40 seconds from the moment of its activation or from the last press of any key.

Permanent – keypad backlighting is permanently “ON”.

Delay activation time – the time period during which the zones with reaction type 3. INTERIOR DELAYED (belonging to the partition to which the keypad is assigned) will act as delayed ones. The countdown will start running after the code is entered or the card is read in. After expiry of the programmed time, the interior delayed zones will again act as instant ones, unless the partition is disarmed.

No auto-reset after 3 tampers – you can disable the feature limiting to three the number of tamper alarms from the expander (the feature prevents the same events from being logged repeatedly and applies to the successive uncleared alarms).

8. Specifications

Supply voltage	12 V DC $\pm 15\%$
Standby current consumption	105 mA
Maximum current consumption	125 mA
BELL output load capacity	30 mA
Reader operating frequency	125 kHz
Relay contacts rating (resistive load).....	2 A / 24 V DC
Environmental class	IV
Operating temperature range	-25...+55 °C
Maximum humidity.....	93 \pm 3%
Dimensions	47 x 158 x 24 mm
Cable length	4 m
Weight	297 g

The declaration of conformity may be consulted at www.satel.eu/ce

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