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Introduction

SC 06 is a sophisticated stand-alone Access control device, yet still it is convenient to use. It has expanded programming features, 512 Users database and even some capabilities of the security control panel. Its main features are:

The system provides access in one of three optional modes: by using proximity card (key-tag), PIN-code or both;

Users can be divided on four groups to better manage the access privileges;

External reader option - to protect the controller itself from vandalism;

Motion detector and siren connection – enables the control panel functions;

Door contact connection – provides warning signal if the door is left open.

Request to exit button – gives the ability to open the door from the inside from a distance.

Helpful hints

- ✓ Prior to start controller installation and programming read carefully this Manual. It will be very helpful if any problem occurs.
- ✓ While programming the controller prepare a list of Users (as shown in the Appendix 1), otherwise it will be impossible to delete keys from controller database (e.g. when they are lost or stolen.) While distributing new keys and replacing old ones in the course of controller operation all changes should be carefully written down.
- ✓ Use only regulated power supply for controller. It is strongly recommended to use power supply with a reserve battery providing for system efficiency (and for capability to unlock the door with code or key) at power supply failure.
- ✓ Keep Installer and Administrator codes in a safe place.
- ✓ Install a varistor on the lock it will provide stable operation and prevent burning of electronic parts.

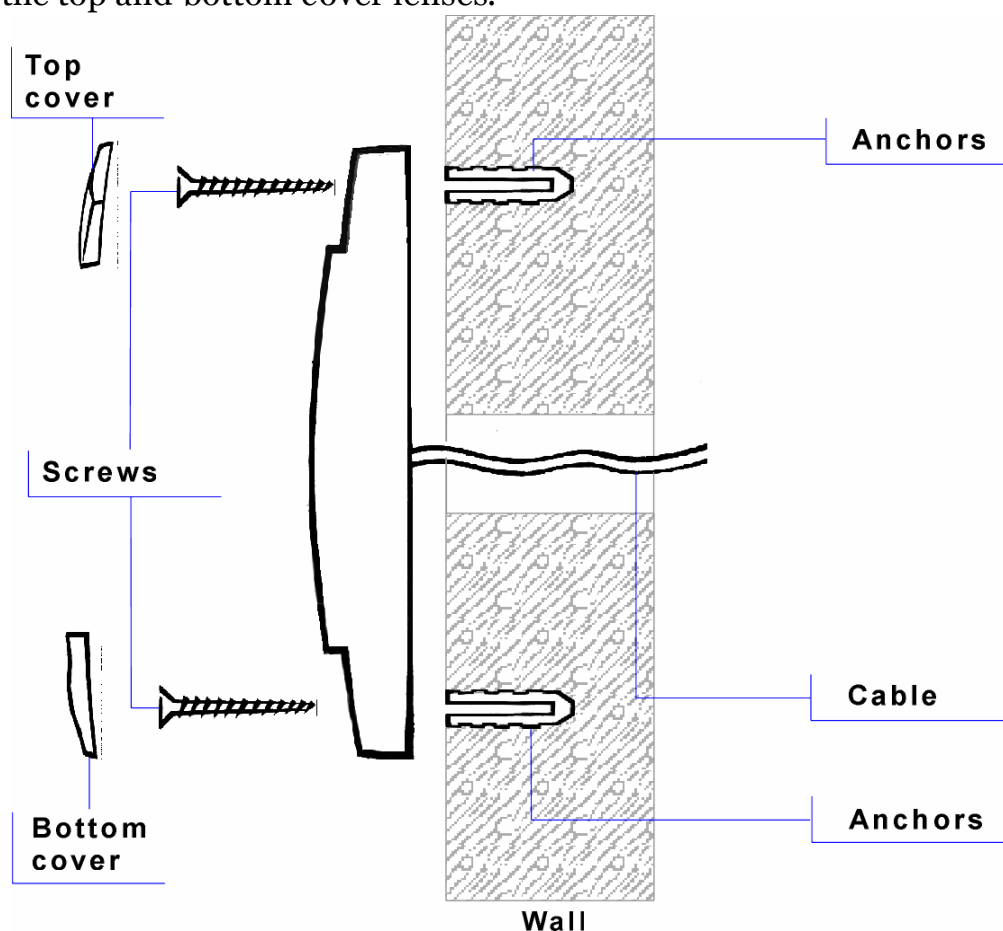
Technical specification.

Source voltage	12V, DC, 1A; regulated power supply is required
Consumption current	100 mA maximum
Lock maximum current	0.7 A for n/c and 1.0 A for n/o locks
Lock Operating Time	From 0 to 255 seconds
Door Operating Time	From 0 to 255 seconds. 0 value corresponds to no door state control
Exit time when security mode is enabled	From 0 to 255 seconds

Maximum users quantity 512 users, divided into 4 categories

Installation and connection of the controller.

1. Drill two holes in the wall for enclosed anchors at a distance of 132 mm between hole centers.
2. Drill a hole in the wall for a cable under the central part of a controller case.
3. Connect controller to other equipment (power supply, door contact, lock, RTE button.) Next Section contains detailed information on controller connections. Pay attention to the wiring used for controller configuration (type and logics of lock performance.)
4. Attach controller case with two screws.
5. Latch the top and bottom cover lenses.



⚠ Caution! All connections must be made when power supply is switched off!

Controller connection

On the backside of the controller there is an eight-wire cable for connection to all devices.

Refer to the table and figures below for proper Controller connection schemes.

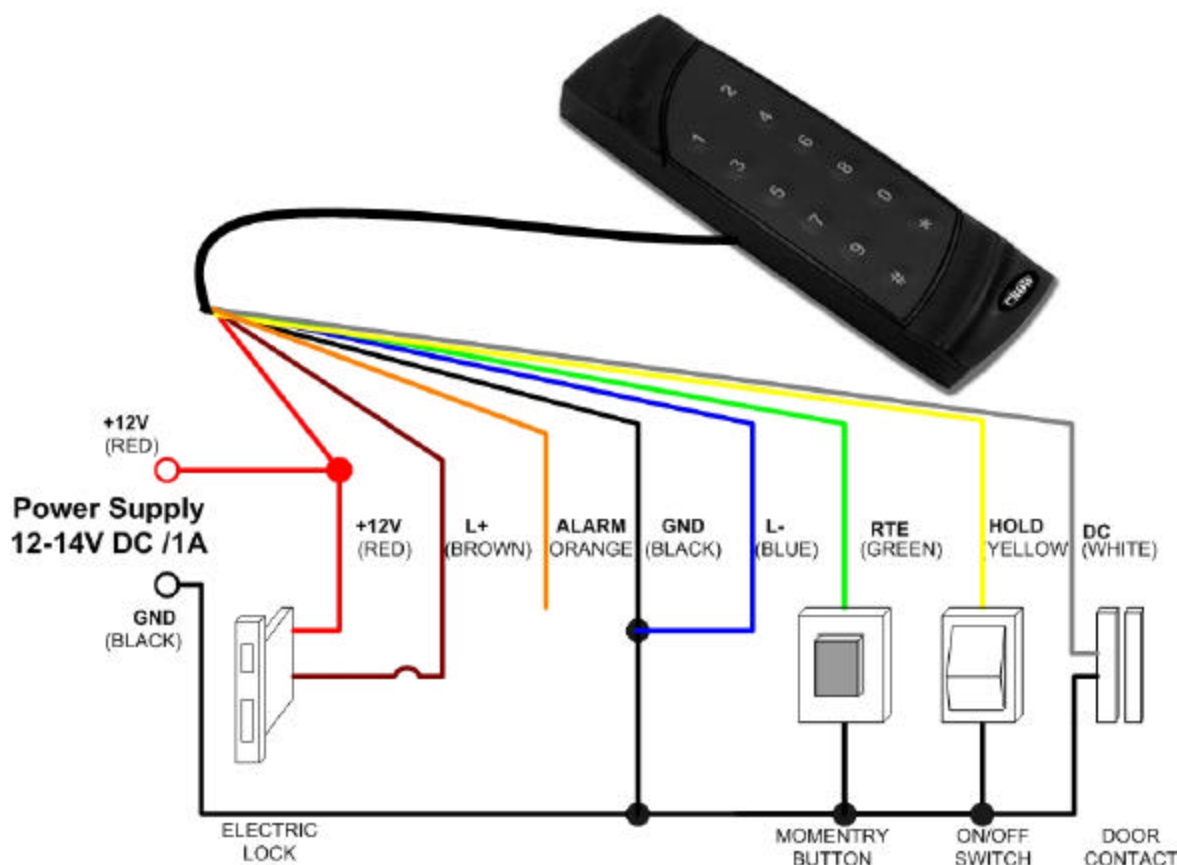
Wire color	Output	Function
Red	+12	Controller power supply: +12...14 V, DC.
Black	GND	Common wire of power supply, door contact and RTE button.
White	DC	Normally closed door contact connection
Green	RTE/ER	Normally opened RTE button or external reader connection.
Brown	L+	Lock control, open collector output.
Blue	L -	Lock control common wire.
Orange	ALARM	Alarm open collector output.
Yellow	HLD/SNS	Hold– toggle input or motion detector input.

▼ RTE/ER and HLD/SNS inputs are multifunctional and their mode is specified by Installer during controller programming. Alarm output

Factory Configuration and Settings

Connection layout may vary. Below is the controller connection layout in factory configuration. Factory configuration does not require any additional programming.

Figure 1 factory configuration scheme



Factory default settings:

Lock mode.....	Time controlled
Lock operating time.....	3 seconds
Lock type.....	Normally opened
Lock control	Direct (without decoder)
Open door time	30 seconds
Exit time	0 seconds
Alarm time	0 seconds (by event)
RTE/External reader input mode.....	By RTE (without external reader)
Hold/Security mode input mode.....	Hold input
Hold mode in case of code (key) scanning	Enabled
Alarm output mode.....	Normally opened (disconnected)
Break-in control at disabled security mode	Enabled
Open door alarm	Disabled

Access code tampering alarm	Disabled
Master keys	Not available
Users.....	Not available
Engineer code.....	Not available
Administrator code.....	Not available
Common user PIN	Not available
Guard PIN	Not available
Privileged user PIN.....	Not available
Master PIN.....	Not available

Motion detector mode

Optional motion detector connection, will turn your SC 06 controller in to a security control panel for one premise. For connection details please refer to Figure 2

Additional reader mode

For higher tamper protection or both entrance and exit by the key, it is possible to install a reader, that should be placed outside. We recommend to use PR 03 or PR 04 readers also produced by Actec. For connection details please refer to Figure 3.

 *Note: RTE/ER and HLD/SNS inputs are multifunctional and need to be programmed in the Installer mode if you will use them not in the default setting.*

Figure 2. Motion detector connection scheme.

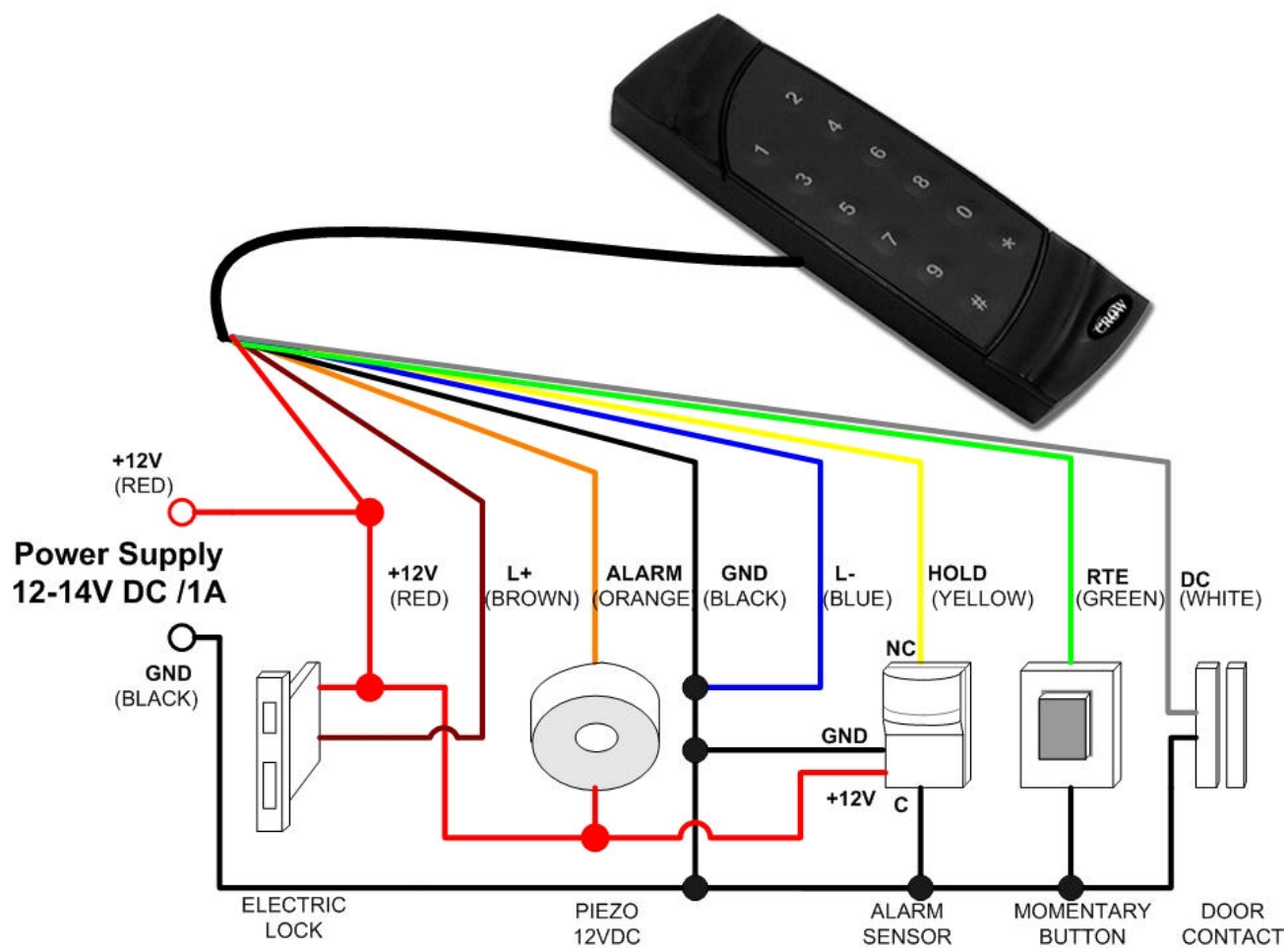
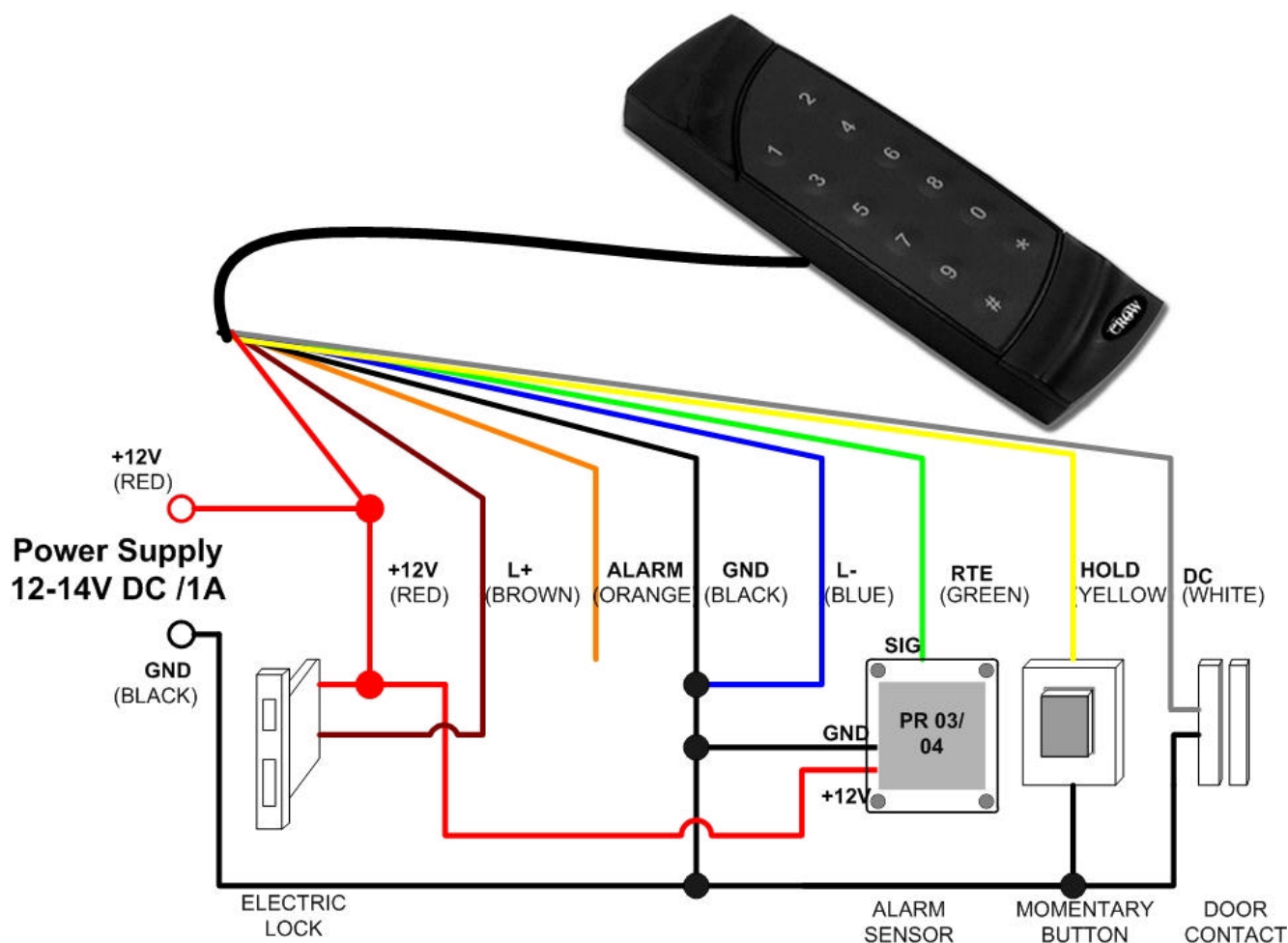


Figure 3. Additional reader connection scheme.



Lock And Alarm Digital Control Device (decoder) connection.

To insure tamper protection, if controller is installed externally, a digital control device for the lock and alarm may be used. In this case the door would not open even if the intruder tampers the lock output wires, because the lock is not connected directly to the controller but via a special decoder located in a safe place.

Alarm Output.

Alarm output can sink up to 200 mA. While connecting it to any alarm device it is recommended to use a relay, otherwise you have to unite the ground GND of the power supplies.

Controller triggers alarm signal every time on following events: motion detector or door contact (while in alarm mode), user enters ambush code. In other cases: like door left open, entrance without card, on attempt to tamper a code - alarm may be activated or not. It depends on the programming (refer to the Installer entries programming table).

Ambush Code

In case when User is forced to open the door, he can use the ambush code, so the door will open, but controller will trigger the Alarm output . Ambush code consists of Users PIN code + 1. Fro example if a code is 1234 an ambush code will be 1235, if a User code 1239 an Ambush code will be 1234.

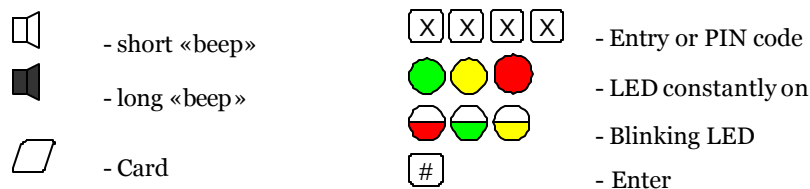
▼ Note: Controller automatically reserves the Ambush codes, so it will not allow enter a new User code that is equal to an ambush code of the existing User.

Controller programming

General Information

Controller configuration and settings, such as lock time, availability of extra alarm sensor, etc., can be changed with the help of **Installer code**.

Administrator code provides for adding, removing and changing of Users, and their access rights, groups and PIN-codes. The following symbols are used during programming procedures:



▼ All the command entries you will find in the tables please refer to the file SC 06 programming tables.

Return to factory default settings.

The initial controller configuration restored in case of returning to factory settings, as well as lock and door operating time, and exit time.

The procedures are as follows:

1. Power off the controller.
2. Press and hold “#” key.
3. Power on the controller. Red LED starts blinking.
4. 15 seconds later the controller produces a long beep followed by a flash of a green LED.
5. Release “#” key. Controller returns to factory settings. Please refer to Initial

procedure in the programming table, Installer entries.

▼ Please note that Installer and Administrator codes and group PIN-codes will be cleared. Factory settings of connected hardware and timing data will be

restores. User's database will be left saved without changes. (To reset the User data base refer to the programming table of Administrator entries.)

Warranty

Manufacturer guarantees trouble proof operation of the device during 12 months from the date of sale. Warranty is not applicable to devices used with violation of operating rules and modes, as well as to devices having mechanical damage. Warranty is not effective without a note about a date of sale or documents verifying the fact of sale. Consult you Vendor on after-sale service.

Appendix 1.		Keep in a safe place!
Lock-opening time,	seconds	Motion detector (yes/no)
Open door time,	seconds	Reader (yes/no)
Door contact (yes/no)		Decoder (yes/no)
Request to exit button (yes/no)		
Installer code:		Administrator code:
User keys	<i>Fill in names</i>	<i>of Users.</i>
1		21
2		22
3		23
4		24
5		25
6		26
7		27
8		28
9		29
10		30
11		31
12		32
13		33
14		34
15		35
16		36
17		37
18		38
19		39
20		40