SSA-S2000

Standalone RFID Access Controller

user manual

imagine the possibilities

Thank you for purchasing this Samsung product.
To receive more complete service,
please visit our website.
www.samsungsecurity.com

SAMSUNG

safety information

CAUTION

RISK OF ELECTRIC SHOCK.
DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK) NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

This symbol indicates that dangerous voltage consisting a risk of electric shock is present within this unit.

This exclamation point symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING

- To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture.

WARNING

1. Be sure to use only the standard adapter that is specified in the specification sheet.
   Using any other adapter could cause fire, electrical shock, or damage to the product.
2. Incorrectly connecting the power supply or replacing battery may cause explosion, fire, electric shock, or damage to the product.
3. Do not connect multiple controllers to a single adapter. Exceeding the capacity may cause abnormal heat generation or fire.
4. Securely plug the power cord into the power receptacle. Insecure connection may cause fire.
5. When installing the controller, fasten it securely and firmly. The fall of controller may cause personal injury.
6. Do not place conductive objects (e.g. screwdrivers, coins, metal parts, etc.) or containers filled with water on top of the controller. Doing so may cause personal injury due to fire, electric shock, or falling objects.
7. Do not install the unit in humid, dusty, or sooty locations. Doing so may cause fire or electric shock.
8. If any unusual smells or smoke come from the unit, stop using the product. In such case, immediately disconnect the power source and contact the service center. Continued use in such a condition may cause fire or electric shock.
9. If this product fails to operate normally, contact the nearest service center. Never disassemble or modify this product in any way. (SAMSUNG is not liable for problems caused by unauthorized modifications or attempted repair.)
10. When cleaning, do not spray water directly onto parts of the product. Doing so may cause fire or electric shock.

CAUTION

1. Do not drop objects on the product or apply strong blows to it. Keep away from a location subject to excessive vibration or magnetic interference.
2. Do not install in a location subject to high temperature (over 50°C), low temperature (below -10°C), or high humidity. Doing so may cause fire or electric shock.
3. If you want to relocate the already installed product, be sure to turn off the power and then move or reinstall it.
4. Remove the power plug from the outlet when there is a lighting storm. Neglecting to do so may cause fire or damage to the product.

5. Keep out of direct sunlight and heat radiation sources. It may cause fire.
6. Install it in a place with good ventilation.
7. Avoid aiming the controller directly towards extremely bright objects such as sun.
8. Apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.
9. The Mains plug is used as a disconnect device and shall stay readily operable at any time.

FCC Statement

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions :

1) This device may not cause harmful interference, and
2) This device must accept any interference received including interference that may cause undesired operation.

Caution

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.
This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus.
13. Unplug this apparatus when a card is used. Use caution when moving the cart/ apparatus combination to avoid injury from tip-over.

14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as powersupply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

contents

product introduction

FEATURES

This controller is best designed for a single entry door control (single door access control).

It can store up to 512 cards including the Master Card that enables you to register, delete or set various user cards to your preference.

This product features 5 external ports that can be connected to the Exit button, Door Contact Sensor, Motion Sensor, and Fire Sensor. It also has 2 relay outputs that can control the door lock and alarm relay. The dual tamper switch triggers an alert if the product is forcibly disassembled.

You can use the keypad to configure all settings as necessary.
This product is designed for a standalone system.

Single Door Access Control

You can use the RF card (SSA-C100,SSA-C110,SSA-C120) to control a single door.

User Registration

You can register a total of 512 cards including the Master Card.

Keypad Registration

SSA-S2000 is equipped with the built-in keypad that you can use to register, delete cards or configure various settings independently.

Buzzer On/Off

With the help of various buzzer tones, you can check the operation status and the current settings and results of the product.

External I/O Pins

SSA-SS2000 has 5 input ports and 4 output ports installed (2 relay and 2 TTL outputs).
The input ports can receive signals from the Exit button and the Door Contact sensor, while the two relays can be connected to the door lock and the alarm device. One of the TTL output ports can function as a chime bell in connection with the door bell.

Duress Alarm

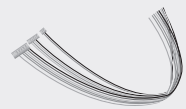
This is used in a situation where you should open the door inevitably by a robber insisting to do so. Entering the two-digit duress alarm password with pressing the EXIT button and recognizing the registered card (or card number) can open the door normally, while you can set to produce the TTL signal notifying the door is forcibly opened.

Limited Access Tries for an Unregistered Card

You can specify the limit of times to try accessing the door, and the suspended operation time of the keypad for an improper access.

WHAT'S INCLUDED

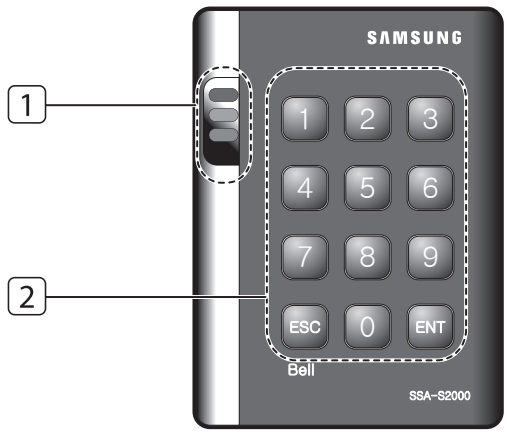
Check if the following items are included in the product package.

		
Main Unit	Template	O-rings (x5)
		
3.5 x 40mm Screws (x4) 3.5 x 12mm Screws (x4) 6 x 30mm Plastic Anchors (x4)	Quick Guide	Diodes (x2) (UF4004, 1N4001~4007)
		
Master Card (x1)	Cables (x4)	CD Manual

product introduction

AT A GLANCE

Front View



1	**System Status LED**	Indicates the operation status of the system.
2	**Keypad**	Use this to configure or release settings as appropriate, or enter a card number.

CABLE COLOR SCHEME

❖ 2-PIN Connector

I/O Pins	Signal	Cable Color
Power (+12V)	DC +12V	Red
Earth-grounding	GND(-)	Black

❖ 10-PIN Connector

I/O Pins	Signal	Cable Color
Door Control Relay (NC)	NC(RL1)	Blue with White stripes
Door Control Relay (COM)	COM(RL1)	Gray with Red stripes
Door Control Relay (NO)	NO(RL1)	White with Red stripes
Alarm Relay (NC)	NC(RL2)	Purple with White stripes
Alarm Relay (COM)	COM(RL2)	White
Alarm Relay (NO)	NO(RL2)	Purple
Exit Button	EXIT	Orange
Door Contact Sensor	CONTACT	Yellow with Red stripes
Aux Input #1	AUX IN 1	Green
Aux Input #2	AUX IN 2	Green with White stripes

❖ 7-PIN Connector

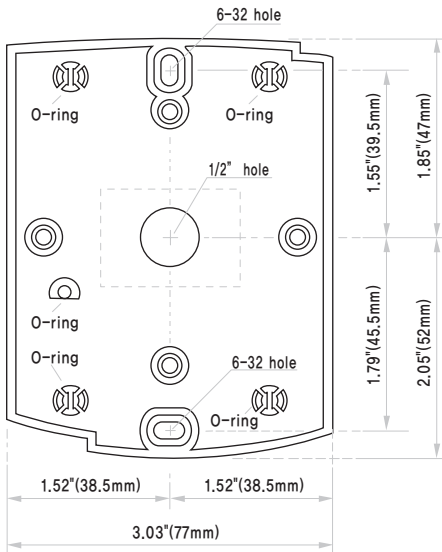
I/O Pins	Signal	Cable Color
Wiegand Data Input 0	DATA_0	Pink
Wiegand Data Input 1	DATA_1	Sky blue
TTL Output	TTL	Orange with White stripes
Chime Bell Output	CHI	Brown with White stripes
Aux Input #3	AUX IN 3	Green with Red stripes
RESERVED 1		Blue with Red stripes
RESERVED 2		Yellow with Red stripes

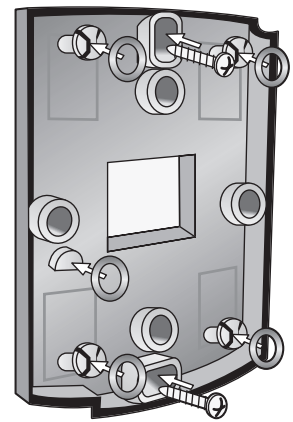
❖ 3-PIN Connector

I/O Pins	Signal	Cable Color
RESERVED 1		Black with White stripes
RESERVED 2		Red with White stripes
RESERVED 3		Black

installation and external connection

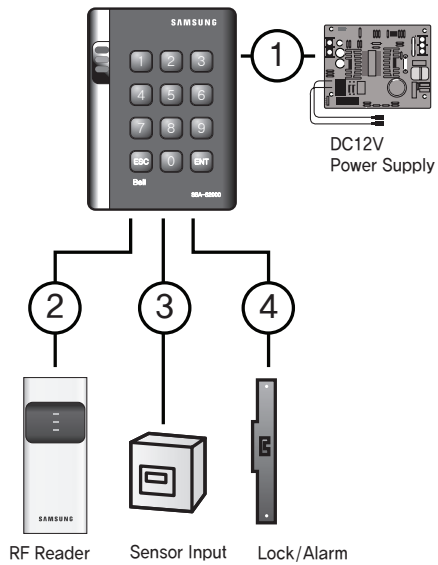
INSTALLING THE REAR TEMPLATE





- Once the main unit is fixed with the rear panel, it will not be loosened. Please check if the device is operating before fixing it. If you try to remove the rear panel once it is fixed, the lock parts of the rear panel will break, resulting in a situation where the whole rear panel must be replaced.

CABLE SELECTION



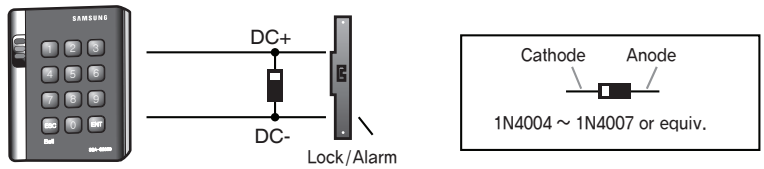
	Item	Cable Type
1	Power (DC12V) DC Power → This Product	Belden #9409, 18 AWG 2 Conductor, Unshielded
2	Reader (power and data) External Reader → This Product	Belden #9512, 22 AWG 4 Conductor, Shielded
		Belden #9514, 22 AWG 8 Conductor, Shielded
3	Door Contact Sensor Exit Button Sensor Input Input → This Product	Belden #9512, 22 AWG 4 Conductor, Shielded
		Belden #9514, 22 AWG 8 Conductor, Shielded
4	Door Lock, Alarm Device Lock (Alarm) → This Product	Belden #9409, 18 AWG 2 Conductor, Unshielded

▪ The cables should be thick enough to allow the maximum current consumed by the reader.

installation and external connection

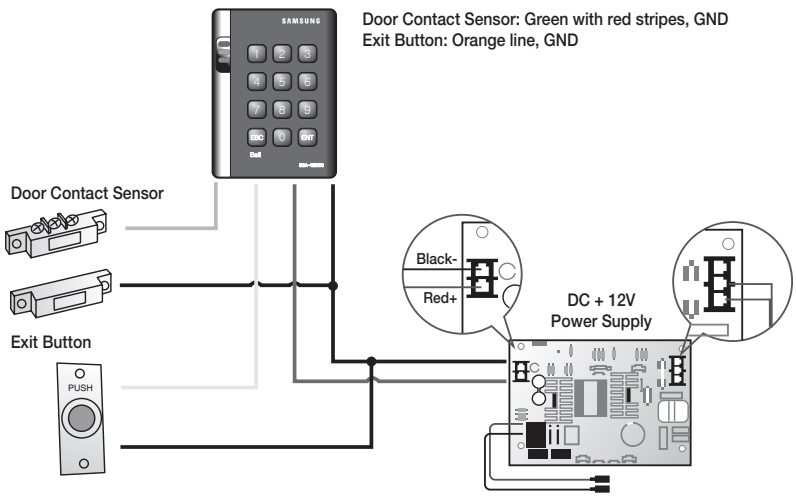
BYPASS DIODE CONNECTION

If you connected an inductor (door locks or alarm device) to the output relay, there should occur a voltage surge while the inductor is turning on and off. If you do not connect a reverse diode to the relay, the surge voltage will cause damage to the electric circuit of the controller. To reduce this surge, it is recommended to connect a reverse diode between the devices.



I/O CONNECTION

Input Connection



1. Connect the DC 12V(+) of the power supply unit to the red line.
2. Connect the GND(-) of the power supply unit to the black line.

- Exit Button Connection

1. Connect one line of the Exit button to the orange line.
2. Connect the other line of the Exit button to GND.

- Door Contact Sensor Connection

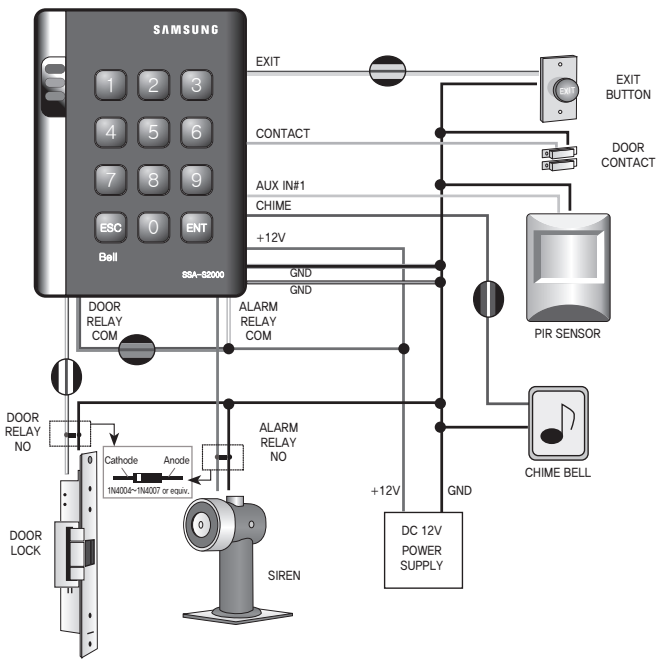
1. Connect one line of the door contact sensor to the yellow with red stripes.
2. Connect the other line of the door contact sensor to GND.

- Auxiliary Input Device Connection (AUX 1 (green), AUX 2 (green with white stripes), AUX 3 (green with red stripes)

1. Connect one line of the external input device to AUX 1, AUX 2, or AUX 3.
2. Connect the other line of the external input device to GND(-).

Output Connection

Connect the 10-pin and 7-pin connectors of the controller as follows:



- Door open (POWER FAIL SAFE) when the power is disconnected from the door lock (Door Relay)

1. Connect the relay COM line (gray with red stripes for locking the door) to DC +12V.
2. Connect the relay NC line (blue with white stripes for locking the door) to the plus(+) line of the door lock.
3. Connect the minus (-) line of the door lock to GND (-).

- Door close (POWER FAIL SECURE) when the power is disconnected from the door lock (Door Relay)

1. Connect the relay COM line (gray with red stripes for locking the door) to DC +12V.
2. Connect the relay NO line (white with red stripes for locking the door) to the plus (+) line of the door lock.
3. Connect the minus (-) line of the door lock to GND (-).

- Alarm Connection (Alarm Relay)

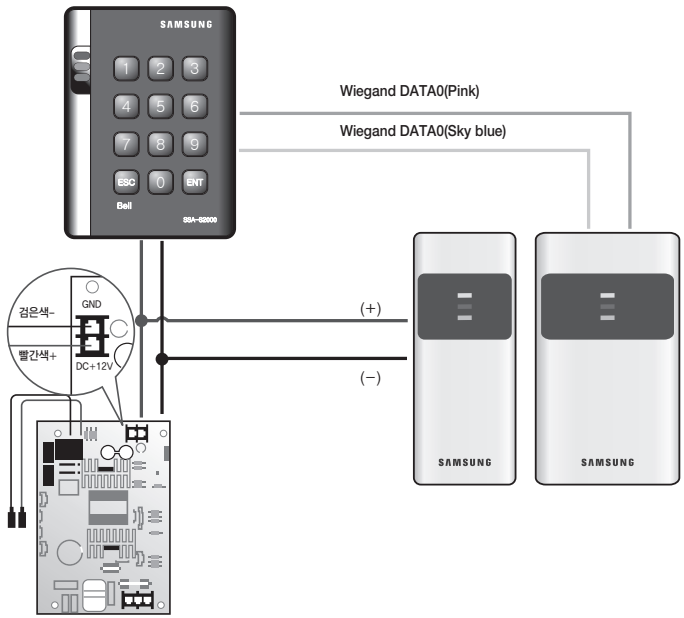
1. Connect the relay COM (white for the alarm device) to DC +12V.
2. Connect the relay NO line (purple for the alarm device) to the plus (+) line of the alarm device.
3. Connect the minus (-) line of the alarm device to GND (-).

- Chime Bell Connection (the chime bell operated by TTL-level signal must be installed in advance.)

1. Connect the chime bell line (brown with white stripes) of the controller to DC +5V.
2. Connect the GND line of the power supply unit to GND (-) of the chime bell.
3. Press ESC to a0ctivate EthNeT chime bell.

installation and external connection

EXTERNAL READER CONNECTION



- Proximity Reader Connection

1. Connect the DC 12V(+) of the power supply unit to the plus (+) line of the reader.
2. Connect the GND(-) line of the power supply unit to the minus (-) line of the reader.
3. Connect the Wiegand data input line 0 of the proximity reader to the purple line.
4. Connect the Wiegand data input line 1 of the proximity reader to the sky blue line.

• For a list of compliant readers (external readers), see the followings:

- Standard 26bit Wiegand format proximity reader

initialization

BASIC OPERATIONS

Initial Status

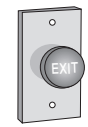
While the product is working normally, the orange LED indicator blinks every one second.

Predefined Operation for a Registered Card

When reading a registered card, it opens the door with the melody.

Exit Button Operation

If you press the Exit button, the door will be opened.



Predefined Operation for an Unregistered Card

When reading an unregistered card, it produces an alarm with the melody for two seconds. You can specify the use of the alarm and change the operation time.

Secure Mode Operation

The person who exits the last can set the secure mode using the keypad.

Set Secure mode: Press the 9 button twice and press ENT .
Release secure mode: Present and authenticate a registered card or the Master Card to the reader. You can use the keypad to specify the delayed start time for the Secure mode. (Refer to the delayed start time in Secure mode on page 28.)

▪ For effective security purposes, you can set to activate the sensors (via auxiliary input ports) only in Secure mode.

Duress Alarm

If you are forced to open the door under a robber's control, enter the Duress password and press ENT with the number of your registered card (or PIN). (See page 24.)

How to use the chime bell

When you have connected and set the chime bell, press ESC to ring the chime bell. (See page 34.)

initialization

WIEGAND OUTPUT SETUP

You can transfer data of the card read by SSA-S2000 in the 26-bit Wiegand output format.
Enabling this function will disable the TTL output and the chime bell sound.

1. To enable the 26-bit Wiegand output, you must manipulate the switch panel (SW1 and SW2) on the rear of the product.

2. See the table below to make adjustment as needed.

❖ **Changing Output**

SW1 #1	SW1 #2	SW2 #1	SW2 #2	Orange line with white stripes	Brown line with white stripes
ON	OFF	ON	OFF	TTL Output	Chime Bell Output
OFF	ON	OFF	ON	Wiegand Data0	Wiegand Data1

▪ In the 26-bit Wiegand output mode, you can not initialize the product by short-circuiting cables.

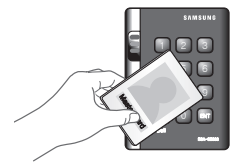
INITIALIZATION

If you have the Master Card registered, you can use it to initialize the device.

1. Present the Master Card to the device.

2. Press the 9 button twice and press ENT .

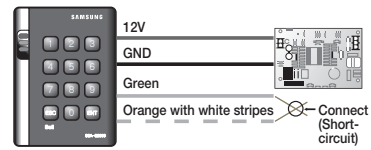
3. The system will restore the factory default settings with all LED indicators blinking.



▪ Initializing the system will lose all data.
▪ If the product works abnormally, use initialization to restore the default settings.

FORCED INITIALIZATION WITH EXTERNAL LINE

1. Turn off the product, shortcircuit between the green line and the orange line with white stripes, and turn it back on.
2. When the initialization is completed, 3 LED indicators are blinking with a beep.
3. Restore the connection of the two lines back to their original state.

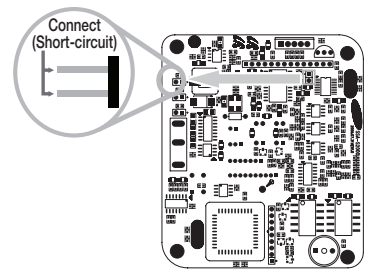


HARDWARE FORCIBLE INITIALIZATION

This is to initialize the product forcibly by disassembling it.

Use this method only if you have lost the Master Card or the password, or if the forcible initialization with the external line failed.

1. Turn off the product and detach it from the installation site, then loosen the screw (x4) on each corner to disassemble it as shown.
2. Apply power to the product and short-circuit the jumper for one second as shown.
3. When the initialization is completed, 3 LED indicators are blinking.
4. Turn off the product and restore it to the original installation state.



reader mode setup

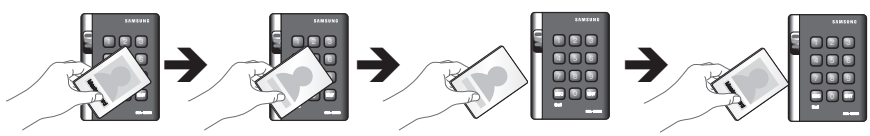
- You can specify the operation mode for the device.
- Once a mode is specified, it will not switch until you perform the initialization.
- You must keep the Master Card in safe for later use as it is required for your change to the device settings.
- If progression is halted for more than one minute during any of the following processes, the operation mode of the reader will return to the previous state.

READER MODE SETUP (RF ONLY)

No Master Card or Master PIN is ever registered.

If you remember the Master Card or the Master PIN was registered, initialize the product and try again.

1. When you turn on the product, all of the 3 LED indicators will flash with a beep.
   - No flashing of the 3 indicators denotes that the reader mode is already specified.
2. Press Button 0 and Button 1 in sequence and press ENT .
   When the mode is specified, only the green LED indicator flashes.
3. Present a card that you want to register as the Master Card to the device.
   When the Master Card is registered, only the red LED indicator flashes.
4. Present cards to register with the device one after another, and the device will register them with a beep. If you don't want to register the cards right now, simply jump to Step 5 above without through Step 4 above.
5. Present the registered Master Card to the product once again.
6. The device enters Standby mode with only the orange LED indicator flashing.

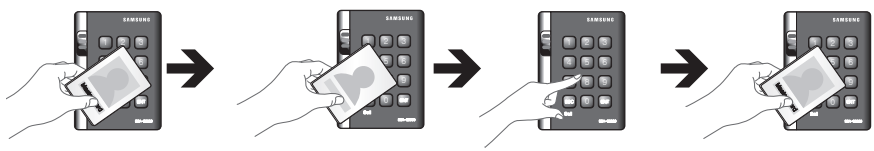


READER MODE SETUP (RF + P/W)

No Master Card or Master PIN is ever registered.

If you remember the Master Card or the Master PIN was registered, initialize the product and try again.

1. When you turn on the product, all of the 3 LED indicators will flash with a beep.
   - No flashing of the 3 indicators denotes that the reader mode is already specified.
2. Press Button 0 and Button 2 in sequence and press ENT .
3. Present a card that you want to register as the Master Card to the device.
   When the Master Card is registered, only the red LED indicator flashes.
4. Present a card to the device, enter the 4-6 digit password and press ENT .
   If you don't want to register the cards right now, simply jump to Step 5 above without through Step 4 above.
5. Present the registered Master Card to the product once again.
6. The device enters Standby mode with only the orange LED indicator flashing.



READER MODE SETUP (PIN ONLY)

No Master Card or Master PIN is ever registered.

If you remember the Master Card or the Master PIN was registered, initialize the product and try again.

1. When you turn on the product, all of the 3 LED indicators will flash with a beep.
   - No flashing of the 3 indicators denotes that the reader mode is already specified.
2. Press Button 0 and Button 3 in sequence and press ENT .
   When the mode is specified, only the green LED indicator flashes.
3. Enter the 4-6 digit Master PIN number and press ENT .
   When the Master PIN is registered, only the red LED indicator flashes.
4. Enter a PIN number to register (4-6 digits) and press
   Repeat the step above if you want to register PIN numbers with the device in sequence.
   If you don't want to register the PIN number right now, simply jump to Step 5 above without through Step 4 above.
5. Enter the 4-6 digit Master PIN number again and press ENT .
6. The device enters Standby mode with only the orange LED indicator flashing.

reader mode setup

READER MODE SETUP (RF/PIN COMBINATION MODE)

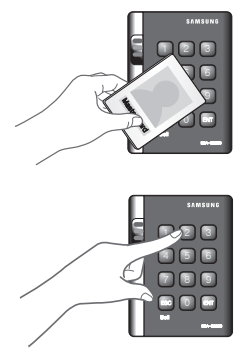
No Master Card or Master PIN is ever registered.

If you remember the Master Card or the Master PIN was registered, initialize the product and try again.

1. When you turn on the product, all of the 3 LED indicators will flash with a beep.
   - No flashing of the 3 indicators denotes that the reader mode is already specified.
2. Press Button 0 and Button 5 in sequence and press ENT .
3. Present a card that you want to register as the Master Card to the device. When the Master Card is registered, only the red LED indicator flashes.
4. Present cards or PIN numbers (4-6 digits) to register with the device one after another, and the device will register them with a beep. If you don't want to register the cards right now, simply jump to Step 5 above without through Step 4 above.
5. Present the registered Master Card to the product once again.
6. The device enters Standby mode with only the orange LED indicator flashing.

ENABLING KEYPAD INPUT FOR THE CARD NUMBER

Ensure that you must have registered the Master Card.



1. Present the Master Card to the device.
2. Press Button 7 and Button 3 in sequence and press ENT .
   - Repeat Step 1 above to release the specified mode, press Button 7 and Button 4 in sequence, and press ENT .

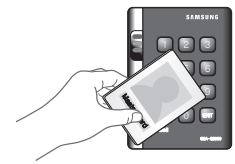
- You can set the device to allow you to control the door by entering the 8 digit card number using the keypad.
  The default is "Keypad Input Disabled".

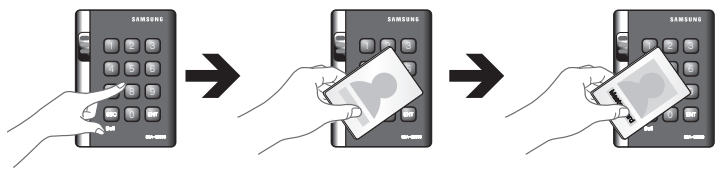
user management

TO REGISTER CARDS IN RF ONLY MODE

Ensure that you must have registered the Master Card and the device is specified in RF ONLY mode.

1. Present the Master Card to the device.
   When the mode is specified, only the green LED indicator flashes.
2. Press Button 1 and Button 1 in sequence and press ENT .
   When the device enters Standby, only the red LED indicator flashes.
3. Present a card to the device, it will be registered with a beep.
   Repeat this step if you want to register multiple cards.
4. Present the Master card to the device again, and the device will switch to normal mode. If no input is made for 20 seconds, the device will switch to normal mode.

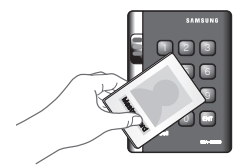


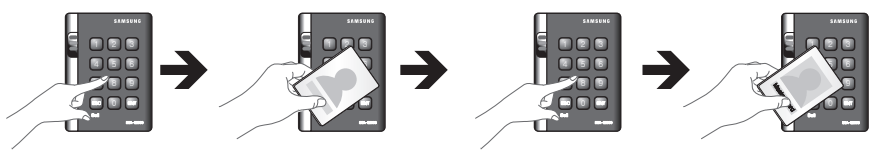


REGISTERING CARDS IN A COMBINATION OF RF AND P/W MODES

Ensure that you must have registered the Master Card and the device is specified in RF + P/W mode.

1. Present the Master Card to the device.
   When the mode is specified, only the green LED indicator flashes.
2. Press Button 1 and Button 2 in sequence and press ENT .
   When the device enters Standby, only the red LED indicator flashes.
3. Present a card to the device, enter the 4-6 digit password and press ENT .
   Repeat this step if you want to register multiple cards.
4. Present the Master card to the device again, and the device will switch to normal mode.
   If no input is made for 20 seconds, the device will switch to normal mode.





user management

TO REGISTER CARDS IN PIN MODE

Ensure that you must have registered the Master Card and the device is specified in PIN mode.

1. Enter the Master PIN number and press ENT .
   When the mode is specified, only the green LED indicator flashes.
2. Press Button 1 and Button 3 in sequence and press ENT .
   When the mode is specified, only the green LED indicator flashes.
3. If you enter a user number (4-6 digits) to register and press ENT , the PIN number will be registered with a beep.
   Repeat this step if you want to register multiple PIN numbers.
4. Present the Master PIN number to the device again, and the device will switch to normal mode.
   If no input is made for 20 seconds, the device will switch to normal mode.

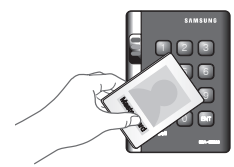
<Master PIN>

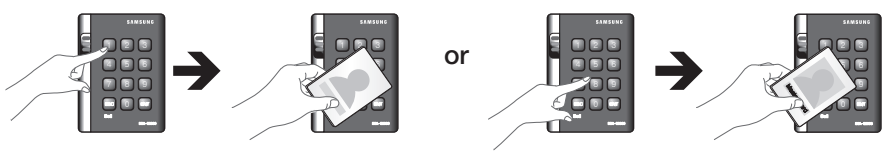
<User Number> <User Number> <Master PIN>

REGISTERING CARDS IN RF CARD / PIN COMBINATION MODE

Ensure that you must have registered the Master Card and the device is specified in RF Card / PIN combination mode.

1. Present the Master Card to the device.
   When the mode is specified, only the green LED indicator flashes.
2. Press Button 1 and Button 5 in sequence and press ENT .
   When the device enters Standby, only the red LED indicator flashes.
3. Present cards or PIN numbers (4-6 digits) to register with the device one after another, and the device will register them with a beep.
   Repeat this step if you want to register multiple cards or PIN numbers.
4. Present the Master PIN number to the device again, and the device will switch to normal mode.
   If no input is made for 20 seconds, the device will switch to normal mode.

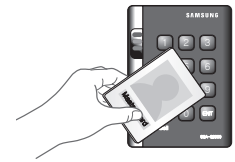




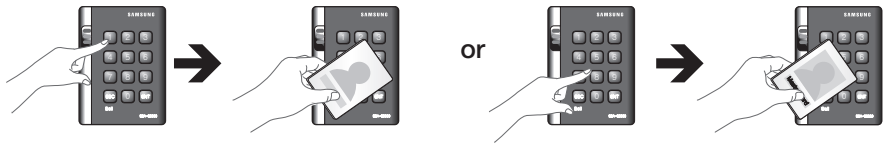
■ The door may be accessed in two ways: using the card or the PIN number.

TO DELETE A REGISTERED CARD OR PIN NUMBER

Ensure that you must have registered the Master Card or the Master PIN number and the device is specified in a certain mode. This is applicable in all modes.



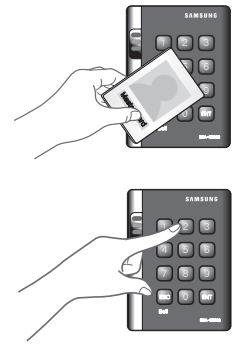
1. Enter the Master Card or Master PIN.
   When the mode is specified, only the green LED indicator flashes.
2. Press Button 1 and Button 4 in sequence and press ENT .
   When the device enters Standby, only the red LED indicator flashes.
3. Present a card or PIN number to delete.
   Repeat this step if you want to register multiple cards or PIN numbers.
4. Present the Master card to the device again, and the device will switch to normal mode.
   If no input is made for 20 seconds, the device will switch to normal mode.



DURESS ALARM

If you are forced to open the door under the control of a criminal such as a robber, enter the predefined password with the number of your registered card (or PIN), which outputs the emergency TTL signal.

1. Present the Master Card to the device.
2. Press Button 2 and Button 9 in sequence and press ENT .
3. Enter the two-digit Duress code and press ENT .
   - The default code is set to “00”. However, the number “77” can not be used because it is set for the Secure mode.

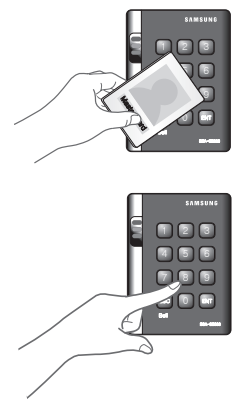


TO SPECIFY THE RETRY COUNT FOR AN UNREGISTERED ID

You can specify the retry count for authentication with an unregistered card or PIN.

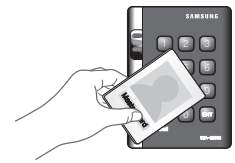
If the retry count exceeds the set limit, the keypad input will be suspended for the next one minute. (You can specify the keypad input suspension time in “To specify the keypad input suspension time if the retry count with an unregistered ID exceeds the limit” on page 25.)

1. Present the Master Card to the device.
2. Press Button 8 , 2 and Button ENT in sequence and press ENT.
3. Enter the two-digit retry count and press ENT .
   - You can specify a number from 00 to 99.
   - The retry count for an unregistered ID is defaulted to “05”.



TO SPECIFY THE KEYPAD INPUT SUSPENSION TIME IF THE RETRY COUNT WITH AN UNREGISTERED ID EXCEEDS THE LIMIT

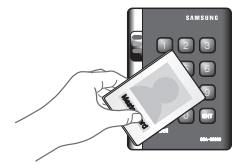
1. Present the Master Card to the device.
2. Press Button 6 and Button 0 in sequence and press ENT .
3. Enter the two-digit keypad input suspension time (unit: minute) and press ENT .
   - The default is set to “01”.
     You can specify a time from 01 to 99 minutes.



- You can specify the time of the keypad input suspension (followed by an alarm) if an unregistered user keeps trying to open the door for certain times (the code number is set to “82”.

TO SPECIFY THE DELAYED START TIME IN SECURE MODE

1. Present the Master Card to the device.
2. Press Button 8 and Button 0 in sequence and press ENT .
3. Enter the two-digit delayed start time (unit: minute) and press ENT .
   - The default is set to “00”.



- See the table below for your reference.

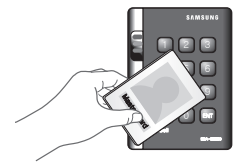
Secure Mode	When the last person set the Secure mode before exiting the office, the external sensors will get activated since then.
Delayed Start	If the external sensors get activated right after you set the Secure mode, your motion will be detected before you can get out of the secure area, which will trigger the alarm. Thus, it is recommended to set the Secure mode to get activated after a certain time.

- Enter the delayed start time by the minute; the sensor operation in Secure mode must have been specified in advance. (Refer to “Alarm Operation Time for Auxiliary Input” on pages 31-32)

TO SPECIFY THE OPERATION TIME OF THE DOOR CONTACT SENSOR

The Door Contact sensor detects the opening of the door.
If the door is forcibly opened by an unregistered user, the Door Contact Sensor will perform the predefined alarm operation after the set time. (For setting the alarm operation time, refer to the alarm output for an input error of the Door Contact Sensor on page 31.)

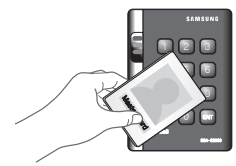
1. Present the Master Card to the device.
2. Press Button 8 and Button 1 in sequence and press ENT .
3. Enter the two-digit operation time (unit: second) and press ENT .
   - The default is set to “00” second, which means the Door Contact Sensor is disabled.
   - You can specify from 01 to 99.



TO SPECIFY THE LIMITED TIME FOR THE KEYPAD INPUT

When it passes a certain time during your setting using the keypad , all your settings will be ignored and return to the initial state.
Specify the delay time between the input of the last key and restoring the previous state.

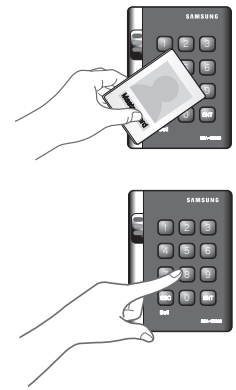
1. Present the Master Card to the device.
2. Press Button 8 and Button 3 in sequence and press ENT .
3. Enter the two-digit operation time (unit: second) and press ENT .
   - The default is set to “20” second.
     You can specify from 10 to 99.



TO SPECIFY THE ALARM OUTPUT PORT FOR THE DISMANTLED DEVICE

Specify the alarm type for the dismantled device. The alarm rings from the dismantlement of the device to the authentication of the Master Card or a registered card.

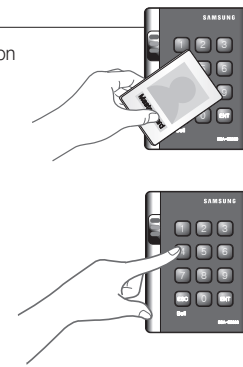
1. Present the Master Card to the device.
2. Press Button 8 and Button 4 in sequence and press ENT .
3. Provide the alarm output port and press ENT .
   - The default is set to “02” (alarm).
     For the alarm output port settings, refer to the output port table on page 29.
   - The alarm for the dismantled device occurs regardless of the operation mode of either Normal or Secure so you simply specify the operation port only. (To specify the operation port, refer to the operation port settings in the output port setting table on page 29.)



TO OPEN OR CLOSE THE ENTRY DOOR

Follow the step below If you want to keep the door open regardless of the authentication process using the Master Card or PIN.

1. Present the Master Card to the device.
2. Press Button 4 and Button 1 in sequence and press ENT .
   - To release opening the door, repeat Step 1 above, select the <4 2> buttons and press ENT .



basic setup

TO SET OR RELEASE THE QUICK MODE

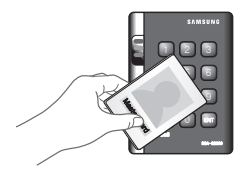
The QUICK mode is applicable to RF ONLY mode (01) and PIN ONLY mode (03) and RF/PIN combination mode (05), which enables you to open the door by simply pressing ENT without the need of the PIN number. (This is useful for the normal business hours when the door entries and exits occur frequently.)

1. Present the Master Card to the device.
2. Press Button 4 and Button 3 in sequence and press ENT .
   - To release the QUICK mode, repeat Step 1 above, select the <4 4> buttons and press ENT .
   - The default is set to “not used”.

TO SET OR RELEASE THE TOGGLE MODE FOR THE DOOR RELAY

In the Toggle mode, the door opens if it is closed or vice versa by presenting a registered card or entering the PIN.

1. Present the Master Card to the device.
2. Press Button 4 and Button 5 in sequence and press ENT .
   - To release the Toggle mode, repeat Step 1 above, select the <4 6> buttons and press ENT .
   - The default is set to “not used”.



I/O time setup

❖ Output Port Setting Table

You must specify the port settings using whatever combination of the followings if you want the device to operate in Secure mode or normal + Secure mode.

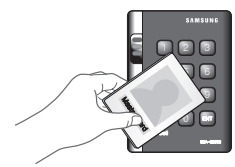
Port	Setting Value	Example
Operation mode setting value		EX 1) If only the door relay operates in normal and Secure modes Normal and Secure modes: 50 Door Relay: +01 Output Port Setting Value: 51 EX 2) If the alarm relay and the TTL output operate in Secure mode Secure Mode: 00 Alarm Relay, TTL: +06 Output Port Setting Value: 06
Operate only in Secure mode	00	
Operate in normal mode and Secure mode	50	
Operation port setting value		
Operate the door relay only	01	
Operate the alarm relay only	02	
Operate the TTL output only	04	
Operate the door relay and TTL output	05	
Operate the alarm relay and TTL output	06	

TO SPECIFY THE OUTPUT TIME IF THE CARD IS AUTHENTICATED

You can specify the output time if the card ID is authenticated.

When the card ID is authenticated, the door relay and the TTL output operate for a set time.

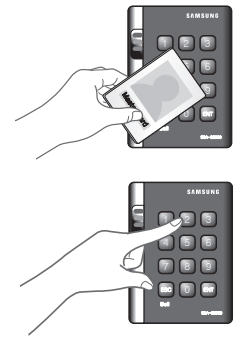
1. Present the Master Card to the device.
2. Press Button 2 and Button 1 in sequence and press ENT .
3. Enter the two-digit door open time and press ENT .
4. Specify the two-digit TTL output time and press ENT .
   - For instance, if you set the door open time to “03” and TTL to “00”, the door relay operates for 3 seconds for an authenticated card ID.
   - By default, the door relay operates for “03” seconds while the TTL output works for “00” second in normal and Secure modes.
   - You can specify from 10 to 99.



I/O time setup

TO SPECIFY THE OUTPUT TIME IF THE CARD IS NOT AUTHENTICATED

You can specify the output time if an unregistered card or PIN number fails in getting authenticated.

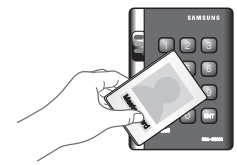


1. Present the Master Card to the device.
2. Press Button 2 twice and press ENT .
3. Refer to the output port table on page 29 and specify a desired output mode.
   - If you want the alarm relay alone to operate in normal and Secure modes for an unauthenticated card, select the < 5 2 > buttons and press ENT .
4. Enter the two-digit door relay output time and press ENT .
5. Enter the two-digit alarm relay output time and press ENT .
6. Enter the two-digit TTL output time and press ENT .
   - You can specify a two-digit time from 00 to 99 seconds.
     By default, only the alarm relay operates for “02” seconds in normal and Secure modes.

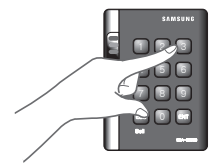
▪ Other output ports that are not specified for the output mode will not be activated. For instance, if you set the output mode to [5][2] and assign the operation time for each output device by following the steps 4, 5, and 6 above, only the alarm relay will operate.

TO SPECIFY THE DURESS TTL OUTPUT

If you enter the Duress code and present a registered card, the TTL output operates. Specify the TTL operation time for this purpose. (For the Duress code, refer to Duress Alarm on page 24.)



1. Present the Master Card to the device.
2. Press Button 3 and Button 0 in sequence and press ENT .
3. Specify the two-digit TTL output time (unit: second) and press ENT .
   - The default is set to “03” second.
     You can specify a time from 00 to 99 seconds.



TO SPECIFY THE ALARM OUTPUT FOR AN INPUT ERROR OF THE DOOR CONTACT SENSOR

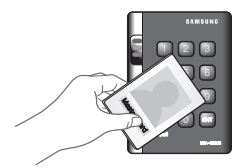
You can specify the output port and operation time if an error occurs from the Door Contact Sensor.

You must have specified the operation time of the Door Contact Sensor. (Refer to "To specify the operation time of the Door Contact Sensor" on page 26.)

1. Present the Master Card to the device.
2. Press Button 2 and Button 4 in sequence and press ENT .
3. Refer to the output port table on page 29 and specify a desired output mode.
   - If you want the alarm relay alone to operate in normal and Secure modes in case of an error from the Door contact Sensor, select the < 5 2 > buttons and press ENT .
4. Enter the two-digit door relay output time and press ENT .
5. Enter the two-digit alarm relay output time and press ENT .
6. Enter the two-digit TTL relay output time and press ENT .
   - You can specify a two-digit time from 00 to 99 seconds.
   - By default, all output times are set to "00".

▪ Other output ports that are not specified for the output mode will not be activated. For instance, if you set the output mode to [5][2] and assign the operation time for each output device by following the steps 4, 5, and 6 above, only the alarm relay will operate.

TO SPECIFY THE ALARM OPERATION TIME FOR AUX 1

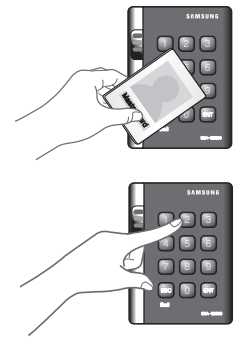


1. Present the Master Card to the device.
2. Press Button 2 and Button 5 in sequence and press ENT .
3. Refer to the output port table on page 29 and specify a desired output mode.
   - If you want the alarm relay alone to operate in normal and Secure modes in case of an input through the auxiliary port, select the < 5 2 > buttons and press ENT .
4. Enter the two-digit door relay output time and press ENT .
5. Enter the two-digit alarm relay output time and press ENT .
6. Enter the two-digit TTL relay output time and press ENT .
   - You can specify a two-digit time from 00 to 99 seconds.
   - By default, all output times are set to "00".

▪ Other output ports that are not specified for the output mode will not be activated. For instance, if you set the output mode to [5][2] and assign the operation time for each output device by following the steps 4, 5, and 6 above, only the alarm relay will operate.

I/O time setup

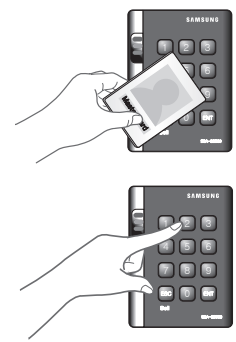
TO SPECIFY THE ALARM OPERATION TIME FOR AUX 2



1. Present the Master Card to the device.
2. Press Button 2 and Button 6 in sequence and press ENT .
3. Refer to the output port table on page 29 and specify a desired output mode.
   - If you want the alarm relay alone to operate in normal and Secure modes in case of an input through the auxiliary port, select the < 5 2 > buttons and press ENT .
4. Enter the two-digit door relay output time and press ENT .
5. Enter the two-digit alarm relay output time and press ENT .
6. Enter the two-digit TTL relay output time and press ENT .
   - You can specify a two-digit time from 00 to 99 seconds.
   - By default, all output times are set to "00".

▪ Other output ports that are not specified for the output mode will not be activated. For instance, if you set the output mode to [5][2] and assign the operation time for each output device by following the steps 4, 5, and 6 above, only the alarm relay will operate.

TO SPECIFY THE ALARM OPERATION TIME FOR AUX 3



1. Present the Master Card to the device.
2. Press Button 2 and Button 7 in sequence and press ENT .
3. Refer to the output port table on page 29 and specify a desired output mode.
   - If you want the alarm relay alone to operate in normal and Secure modes in case of an input through the auxiliary port, select the < 5 2 > buttons and press ENT .
4. Enter the two-digit door relay output time and press ENT .
5. Enter the two-digit alarm relay output time and press ENT .
6. Enter the two-digit TTL relay output time and press ENT .
   - You can specify a two-digit time from 00 to 99 seconds.
   - By default, all output times are set to "00".

▪ Other output ports that are not specified for the output mode will not be activated. For instance, if you set the output mode to [5][2] and assign the operation time for each output device by following the steps 4, 5, and 6 above, only the alarm relay will operate.

TO ACTIVATE OR DEACTIVATE THE DOOR RELAY BY THE DOOR CONTACT SENSOR

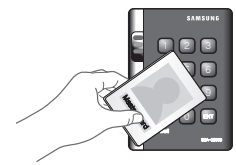
You can set the Door Contact Sensor to control the door lock. This is to allow the Door Contact Sensor to control the door relay where the sensor keeps the door relay active from the normal opening of the door to its closing.

This is useful when the door stays open with just one authentication.

1. Present the Master Card to the device.

2. Press Button 4 and Button 7 in sequence and press ENT .

- To release the control by the Door contact Sensor, repeat Step 1 above, select the <4 8> buttons and press ENT .



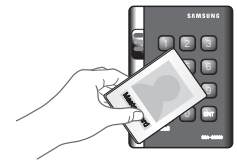
▪ The default is set to “disabled”.

advanced setting

TO SPECIFY THE TTL OUTPUT OPERATION MODE

This is to switch the TTL output from LOW (0V) to HIGH (5V) when it is activated.

1. Present the Master Card to the device.
2. Press Button 7 and Button 1 in sequence and press ENT .
   - To release the setting, repeat Step 1 above, select the <7 2 > buttons and press ENT .



▪ The default is set to “switch from HIGH(5V) to LOW(0V)”.

TO SET THE CHIME BELL FUNCTION

You can specify the use of the chime bell.
Use the chime bell in the TTL level (5V) for this purpose.
The default output time is 5 seconds. For changing the output time, refer to “To specify the chime bell operation time” on page 35.

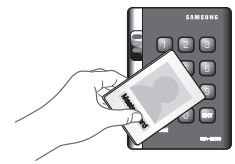
1. Present the Master Card to the device.
2. Press Button 7 twice and press ENT .
   - twice and press <7 8 > buttons and press ENT .

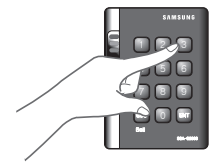
▪ The default is set to “use the chime bell”.

TO SPECIFY THE CHIME BELL OPERATION TIME

You can specify the chime bell operation time.

1. Present the Master Card to the device.
2. Press Button 3 and Button 9 in sequence and press ENT .
3. Specify the two-digit operation time (unit: second) and press ENT .



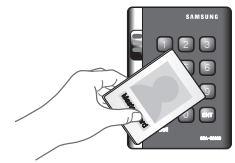


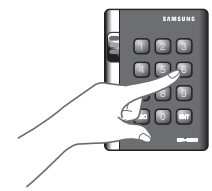
▪ The default is set to “05” second.
You can specify a time from 00 to 99 seconds.

TO SPECIFY THE INPUT MODE FOR AUX 1

You can specify an operation for the auxiliary port 1 when it switches from LOW (0V) to HIGH (5V).

1. Present the Master Card to the device.
2. Press Button 6 and Button 1 in sequence and press ENT .
   - To release the setting, repeat Step 1 above, select the <6 2 > buttons and press ENT .



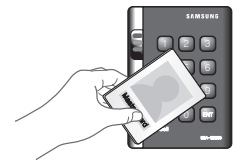


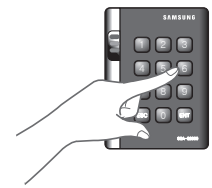
▪ The default is set to “switch from HIGH(5V) to LOW(0V)”.

TO SPECIFY THE INPUT MODE FOR AUX 2

You can specify an operation for the auxiliary port 2 when it switches from LOW (0V) to HIGH (5V).

1. Present the Master Card to the device.
2. Press Button 6 and Button 3 in sequence and press ENT .
   - To release the setting, press the < 6 4 > buttons and press ENT .



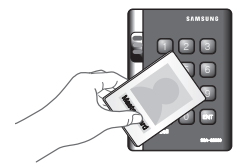


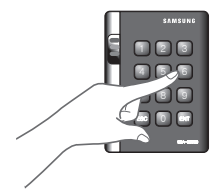
■ The default is set to “switch from HIGH(5V) to LOW(0V)”.

TO SPECIFY THE INPUT MODE FOR AUX 3

You can specify an operation for the auxiliary port 3 when it switches from LOW (0V) to HIGH (5V).

1. Present the Master Card to the device.
2. Press Button 6 and Button 5 in sequence and press ENT .
   - To release the setting, repeat Step 1 above, select the < 6 6 > buttons and press ENT .



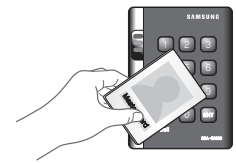


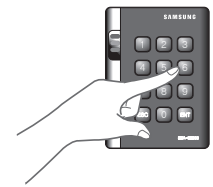
■ The default is set to “switch from HIGH(5V) to LOW(0V)”.

TO SPECIFY THE INPUT MODE FOR THE EXIT BUTTON

You can specify an operation for the Exit button when it switches from LOW (0V) to HIGH (5V).

1. Present the Master Card to the device.
2. Press Button 6 and Button 7 and Button ENT .
   - To release the setting, press the < 6 8 > buttons and press ENT .



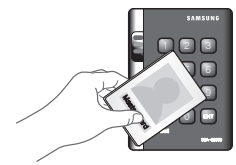


▪ buttons and press The default is set to “switch from HIGH(5V) to LOW(0V)”.

TO SPECIFY THE INPUT MODE FOR THE DOOR CONTACT SENSOR

You can specify an operation for the Door Contact Sensor when it switches from LOW (0V) to HIGH (5V).

1. Present the Master Card to the device.
2. Press Button 6 and Button 9 in sequence and press ENT .
   - To release the setting, repeat Step 1 above, select the < 7 0 > buttons and press ENT .



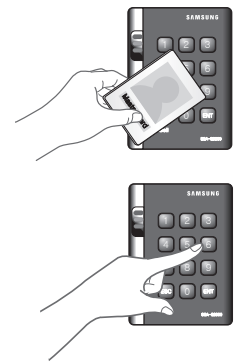
▪ The default is set to “switch from HIGH(5V) to LOW(0V)”.

additional features

MUTE

You can mute the keypad tone or melody in normal operation.

1. Present the Master Card to the device.
2. Press Button 5 and Button 1 in sequence and press ENT .
   - To release the setting, repeat Step 1 above, select the <5 2 > buttons and press ENT .

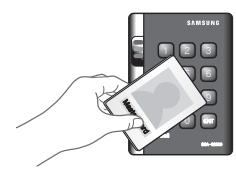


- By default, it is set to “enabled”.

TO SPECIFY THE USE OF THE TAMPER ALARM

You can maintain the alarm setup in normal operation and release it in case of a service repair requiring the dismantlement of the device. You must set the alarm mode when you have installed the device.For the alarm output port settings, refer to “To specify the alarm output port for the dismantled device” on page 27.

1. Present the Master Card to the device.
2. Press Button 8 twice and press ENT .
   - To release the alarm setting for the dismantled device, repeat Step 1 above, select the <8 9 > buttons and press ENT .

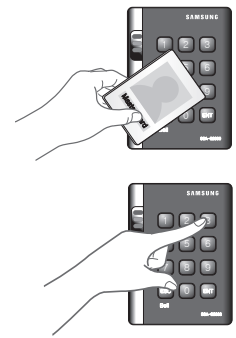


- The default is set to “disabled”.
- You can release the alarm for the dismantled device by presenting the Master Card or a registered card.

TO CHECK THE OUTPUT SPECIFIED FOR A REGISTERED CARD USER

You can check the output setting that you specified in “To specify the output time if the card is authenticated”. (See page 29.)

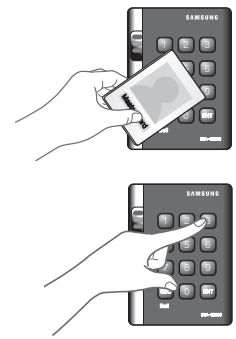
1. Present the Master Card to the device.
2. Press Button 3 and Button 1 in sequence and press ENT .



TO CHECK THE OUTPUT SPECIFIED FOR AN UNREGISTERED CARD USER

You can check the output setting that you specified in “To specify the output time if the card is not authenticated”. (See page 30.)

1. Present the Master Card to the device.
2. Press Button 3 and Button 2 and Button ENT .

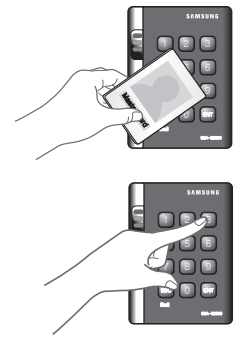


additional features

TO CHECK THE OUTPUT SPECIFIED FOR THE DOOR CONTACT SENSOR ALARM

You can check the output setting that you specified in “To specify the alarm output for an input error of the Door contact Sensor”. (See page 31.)

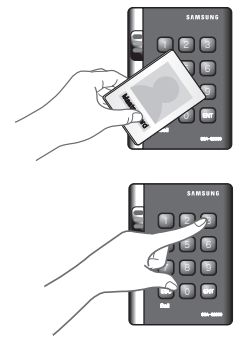
1. Present the Master Card to the device.
2. Press Button 3 and Button 4 in sequence and press ENT .



TO CHECK THE OUTPUT SPECIFIED FOR AUX 1

You can check the output setting that you specified in “To specify the alarm operation time for AUX 1”. (See page 31.)

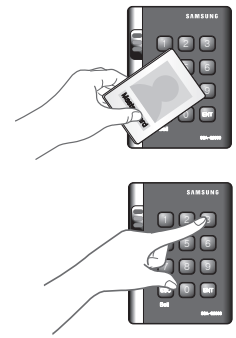
1. Present the Master Card to the device.
2. Press Button 3 and Button 5 in sequence and press ENT .



TO CHECK THE OUTPUT SPECIFIED FOR AUX 2

You can check the output setting that you specified in “To specify the alarm operation time for AUX 2”. (See page 32.)

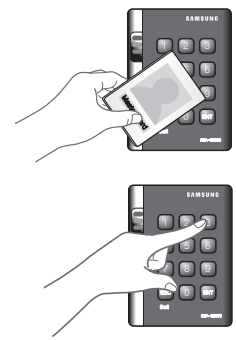
1. Present the Master Card to the device.
2. Press Button 3 and Button 6 in sequence and press ENT .



TO CHECK THE OUTPUT SPECIFIED FOR AUX 3

You can check the output setting that you specified in “To specify the alarm operation time for AUX 3”. (See page 32.)

1. Present the Master Card to the device.
2. Press Button 3 and Button 7 in sequence and press ENT .



other information

INITIAL VALUES

This product operates in the following initial values:
For changing the settings or registering/deleting the user card, refer to the applicable section in this document.

1) **Entry permitted for a registered card**
   - The door control relay operates for 3 seconds.
   - The green LED indicator flashes for 3 seconds.
2) **Entry denied for an unregistered card**
   - The alarm relay operates for 2 seconds.
   - The red LED indicator flashes for 2 seconds.
3) **Duress Mode Password** : 00
   The TTL output port produces a signal for 3 seconds in Duress mode.
4) **QUICK MODE** : Disabled
5) **Chime Bell Output** : Enabled
   Chime Bell Operating Time : 0.5 second
6) **Melody Sound** : Enabled
7) **Keypad Input Limited Use** : 20 seconds
8) **When an input signal is sensed** : 'H' → 'L' (common for all inputs)
9) **When a TTL output signal is sensed** : 'H -> L'
10) **Patrol Mode Delay Time** : 00 minute
11) **Door Sensor Sensing Time** : 00 second
12) **Retry count for an unauthenticated entry** : 05 times
13) **Alarm for Dismantled Device** : Disabled
    Dismantled device Alarm Output Port : 02 (Alarm Relay)
14) **Toggle Mode** : Disabled
15) **Control Lock by the Door Sensor** : Disabled

FUNCTION CODES

NO.	Code Number	Function Item
1	11	Additional user card registration (RF CARD ONLY MODE)
2	12	Additional user card and PIN registration (RF CARD + PIN MODE)
3	13	Additional PIN registration (PIN ONLY MODE)
4	14	Delete a registered card or PIN number
5	15	Additional user card or PIN registration (RF/PIN combination mode)
6	21	To specify the output time if the card is authenticated
7	22	To specify the output time if the card is not authenticated
8	24	Set the Door Contact Sensor alarming time
9	25	Set the AUX 1 alarming time
10	26	Set the AUX 2 alarming time
11	27	Set the AUX 3 alarming time
12	29	Set the Duress Mode password (2 digits)
13	30	Set the TTL output time in Duress Mode
14	31	To check the output of the registered card user (test on code 21)
15	32	To check the output of the unregistered card user
16	34	To check the output specified for the Door Contact Sensor alarm
17	35	To check the output specified for AUX 1
18	36	To check the output specified for AUX 2
19	37	To check the output specified for AUX 3
20	39	Set the chime bell ringing time
21	41	Set the door open
22	42	Release the door opening
23	43	Set the QUICK Mode
24	44	Release the QUICK Mode
25	45	Toggle to control the door relay
26	46	Release the toggling to control the door relay
27	47	Set to control the door relay using the Door Contact Sensor
28	48	Release the control of the door relay using the Door Contact Sensor

other information

NO.	Code Number	Function Item
29	51	Turn off the sound
30	52	Turn on the sound
31	60	To specify the keypad input suspension time if the retry count with an unregistered ID exceeds the limit
32	61	Sense if AUX 1 switches from L to H
33	62	Sense if AUX 1 switches from H to L
34	63	Sense if AUX 2 switches from L to H
35	64	Sense if AUX 2 switches from H to L
36	65	Sense if AUX 3 switches from L to H
37	66	Sense if AUX 3 switches from H to L
38	67	Sense if the Exit button switches from L to H
39	68	Sense if the Exit button switches from H to L
40	69	Sense if the Door Contact Sensor switches from L to H
41	70	Sense if the Door Contact Sensor switches from H to L
42	71	Set the TTL output to H
43	72	Set the TTL output to L
44	73	Keypad input enabled
45	74	Keypad input disabled
46	77	Chime bell enabled
47	78	Chime bell disabled
48	80	Set the starting delay time for Patrol Mode
49	81	Set the operation time for the Door Contact Sensor
50	82	To specify the retry count for an unregistered ID
51	83	Set the limitation time for the keypad input
52	84	Set the alarm output port for the dismantled device
53	88	Dismantled device alarm enabled
54	89	Dismantled device alarm disabled
55	99	System Initialization (all settings deleted)

TROUBLESHOOTING

If the product does not work properly, please check the followings before contacting us. If the trouble persists, please contact the SAMSUNG Customer Service near you.

Problem	Action
When I turn on the product, it does not recognize the card with just the 3 LED indicators blinking.	1) Check if the product is installed properly and works normally. - In the initial setup of the product or after it is initialized Set the operation mode and register the Master card and user cards as usual because the product is in the initial state. ① SSA—2000 modes available : Mode Number + ENT √ RF Only : 01 + ENT √ RF + P/W : 02 + ENT √ PIN Only : 03 + ENT √ RF or PIN : 05 + ENT ② Master Card (or (PIN): 4 ~ 6 digits (Mode 03 or 05) + ENT) ③ Enter the user card or PIN number and provide the password according to the mode ④ Master Card (or (PIN): 4 ~ 6 digits (Mode 03 or 05) + ENT) √ For more information about registering the Master Card and the user card, refer to the initial setup section in the user manual. 2) If this happens while the product is operating normally (with the Master Card and user card registered) Product malfunction ① Power: OFF → ON ② If the problem persists, perform the initialization process for the next step. √ For more information about initializing the product, refer to the initialization section in the user manual. 3) If the problem persists after you have followed the procedures above, contact a designated service center.
The product just switches to normal operation mode while I am registering a user in a set mode or configure the settings.	1) If no key input is entered within 20 seconds in a set mode, the product will switch to normal operation mode automatically. (normal operation)

troubleshooting

Problem	Action
I can not register an additional user card (or PIN).	1) Check if the product is installed properly and works normally. - In the initial setup of the product or after it is initialized Set the operation mode and register the Master card and user cards as usual because the product is in the initial state. ① SSA—2000 modes available : Mode Number + ENT √ RF Only : 01 + ENT √ RF + P/W : 02 + ENT √ PIN Only : 03 + ENT √ RF or PIN : 05 + ENT ② Master Card (or PIN): 4 ~ 6 digits (Mode 03 or 05) + ENT) ③ Enter the user card or PIN number and provide the password according to the mode ④ Master Card (or PIN): 4 ~ 6 digits (Mode 03 or 05) + ENT) √ For more information about registering the Master Card and the user card, refer to the initial setup section in the user manual. 2) If this happens when you try to register an additional card in normal operation mode - Register the user card only as the Master Card is already registered. ① Master Card (or PIN): 4 ~ 6 digits (Mode 03 or 05) + ENT) ② Command for an additional card registration according to the operation mode √ RF Only : 11 + ENT √ RF + P/W : 12 + ENT √ PIN Only : 13 + ENT √ RF or PIN : 15 + ENT ③ Enter the user card or PIN number and provide the password according to the mode ④ Master Card (or PIN): 4 ~ 6 digits (Mode 03 or 05) + ENT) √ For more information about registering the user card, refer to the additional user registration section in the user manual. 3) If the problem persists after you have followed the procedures above, contact a designated service center.

Problem	Action
The user card (or PIN) is not deleted.	Check the operation status of the product 1) Check if the product works properly. - If the product operates normally (and you have the Master Card or the PIN number) ① If you have the card to delete √ Master Card (or PIN): 4 ~ 6 digits (Mode 03 or 05) + ENT) √ Enter the command to delete the user: 14 + ENT √ Enter another card to delete (if you have multiple cards to delete) √ Master Card (or PIN): 4 ~ 6 digits (Mode 03 or 05) + ENT) ② If you have lost the card to delete. But you know the card number √ Master Card (or PIN): 4 ~ 6 digits (Mode 03 or 05) + ENT) √ Enter the command to enable the keypad input: 73 + ENT √ Master Card (or PIN): 4 ~ 6 digits (Mode 03 or 05) + ENT) √ Enter the command to delete the user: 14 + ENT √ Enter another card to delete and press ENT (if you have multiple cards to delete) √ Master Card (or PIN): 4 ~ 6 digits (Mode 03 or 05) + ENT) √ For more information about deleting the user card, refer to the user deletion section in the user manual. - If you have lost the Master Card (or PIN) ① Registering or deleting the user card is not possible without the Master Card ② Initializing the product √ For more information about initializing the product, refer to the initialization section in the user manual. 2) If the problem persists after you have followed the procedures above, contact a designated service center.
I lost the Master Card and could not register or delete the card or change the settings.	1) You must initialize the product if you want to change the device settings without the Master Card (or PIN). (Initializing the product will restore all your settings regarding the Master Card and user cards to the factory default.) ① Initialization using the external cable √ Turn off the product and detach it from the wall. √ Turn off the product and detach it from the wall. √ Turn on the product and check the initial state (LED indicators blink with the increasing bell sound) √ Disconnect the two short-circuited lines and turn off the product ② Hardware Forcible Initialization (use this only if initializing the product with the external cable is not possible) √ Turn off the product and detach it from the wall. √ Loosen the 4 screws on the rear to remove the bezel. √ Turn on the product and connect the initialization jumper switch under the LED. √ Check the initialization state: 3 LED indicators are blinking simultaneously. √ Turn off the product and use the 4 screws to attach it back to the wall. ③ Install and use the product as usual. ④ For more information, refer to the initialization section in the user manual. - You must consult with a qualified technician for the removal and initialization process of the product. 2) If the problem persists after you have followed the procedures above, contact a designated service center.

troubleshooting

Problem	Action
SSA-S2000 can recognize a presented RF card but can not recognize the RF card number using the keypad.	1) Check if the buzzer sounds when you press a key. - If you hear the buzzer sound ① Master Card (or PIN): 4 ~ 6 digits (Mode 03 or 05) + ENT) ② Enter the command to enable the keypad input: 73 + ENT ③ For more information, refer to the section of enabling or disabling the keypad input for a card number in the user manual. - If you hear the buzzer sound after a certain time ① The keypad input will be suspended for one minute (default) if you enter unregistered numbers in 5 consecutive times (default). ② To change the retry count for an unauthenticated access √ Master Card (or PIN): 4 ~ 6 digits (Mode 03 or 05) + ENT) √ Enter the command to set the retry count for an unauthenticated access 82 + ENT √ Enter a new retry count: two digits + ENT (ex. 10 + ENT → the retry count is 10.) √ For more information, refer to the retry count setting section in the user manual. ③ To change the keypad suspension time √ Master Card (or PIN): 4 ~ 6 digits (Mode 03 or 05) + ENT) √ Enter the command to change the keypad suspension time: 60 + ENT √ Enter a new time: two digits + ENT (ex. 10 + ENT → the keypad input will be suspended for 10 minutes.) √ For more information, refer to the applicable section for the keypad suspension in the user manual. - If the buzzer stays inactive ① Initialize the product. Initializing the product will restore all your settings regarding the Master Card and user cards to the factory default. 2) If the problem persists after you have followed the procedures above, contact a designated service center.
The Exit button does not work at all.	1) Check if the Exit button is connected to SSA-S2000 properly. - Ensure that the Exit button is of the NO type. 2) Check if the Exit button works normally. - Check the connection cable between the Exit button and SSA-S2000 for any disconnection or short-circuit. - Try to connect the two lines on the Exit button. ① If SSA-S2000 responds when you press the Exit button √ Replace the Exit button ← it is defective ② If SSA-S2000 does not respond at all √ Initialize the product ← the product malfunctions or is damaged. (Initializing will restore all data settings to the default.) √ For more information, refer to the initialization section in the user manual. 3) If the problem persists after you have followed the procedures above, contact a designated service center.

Problem	Action
The external reader can the RF card but the RF card data will not be transferred to SSA-S2000 or irrelevant data is transferred.	1) Check if the external reader is connected to SSA-S2000 properly. 2) Check if the external reader works normally. - Check the connection cable between the external reader and SSA-S2000 for any disconnection or short-circuit. - Check if there occurs a noise on the connection cable between the external reader and SSA-S2000. ① If you have to use a measuring device such as an oscilloscope or a multimeter, please consult with a qualified technician. ② Measure the Wiegand communication cable and check if the exit reader works properly. : Check the Wiegand output state of the external reader by referring to the user manual, and replace the reader if it shows an abnormal output. ③ If there occurs a noise on the Wiegand communication cable using the measuring device : Reinforce the GND line by using the shield line and space line as additional GND points. : Extend the Wiegand communication range along with the stable signal reception using the repeater ④ For more information, refer to the external reader connection section in the user manual. 3) If the problem persists after you have followed the procedures above, contact a designated service center.
The door lock does not operate at all.	1) Check if the door lock is connected to SSA-S2000 properly. The connection method may differ depending on the type and operation mode (NO, NC) of the door lock. 2) Check the status of the door lock - Check the connection cable between the door lock and SSA-S2000 for any disconnection or short-circuit.. - Check if the door lock works normally. ① If you have to use a measuring device such as an oscilloscope or a multimeter, please consult with a qualified technician. ② Remove the door lock from SSA-S2000, and check the relay output of SSA-S2000: Replace the door lock if the relay output of SSA-S200 shows a normal state. ③ For more information, refer to the door lock connection section in the user manual. 2) If the problem persists after you have followed the procedures above, contact a designated service center.

product specifications

PRODUCT SPECIFICATIONS

Item	SSA-S2000
User	512 Users
Power / Current	DC 12V / Max.110mA
Reader Port	External Reder Port 1ea : 26bit Wiegand for Exit
Reading Time (Card)	30ms
Door Open Time	00~99 Sec. (Default 3Sec.)
Input Port	5ea : Exit Button, Door Sensor, Aux#1, #2, #3
Output Port	2ea : 2 Form-C Relay Output (COM, NO, NC) / DC12~18V, Rating Max.2A
	1ea : Chime Bell Output / DC5V, Rating Max.500mA
	1ea : TTL Output / DC5V, Rating Max.20mA
LED Indicator	3 LED Indicators (Red, Green and Orange)
Beeper	Piezo Buzzer
Keypad	12 Key Numeric Keypad with Back Lighting
Operating Temperature	-30°C to +50°C
Operating Humidity	10% to 90% relative humidity non-condensing
Color / Material	Silver with Black/ Polycarbonate
Dimension (W x H x D(mm))	87.0 x 109.0 x 31.0
Weight	220g

Correct Disposal of This Product (Waste Electrical & Electronic Equipment)

(Applicable in the European Union and other European countries with separate collection systems)

This marking on the product, accessories or literature indicates that the product and its electronic accessories (e.g. charger, headset, USB cable) should not be disposed of with other household waste at the end of their working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate these items from other types of waste and recycle them responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take these items for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product and its electronic accessories should not be mixed with other commercial wastes for disposal.

Correct disposal of batteries in this product

(Applicable in the European Union and other European countries with separate battery return systems.)

This marking on the battery, manual or packaging indicates that the batteries in this product should not be disposed of with other household waste at the end of their working life. Where marked, the chemical symbols Hg, Cd or Pb indicate that the battery contains mercury, cadmium or lead above the reference levels in EC Directive 2006/66. If batteries are not properly disposed of, these substances can cause harm to human health or the environment.

To protect natural resources and to promote material reuse, please separate batteries from other types of waste and recycle them through your local, free battery return system.

AB82-02555A