

Table of Contents

Table of Contents	ii
1 Safety Information	1
1 IMPORTANT SAFETY INSTRUCTIONS	3
2 General	4
3 Features	5
4 Specification	6
5 Front Panel Description	8
6 Identifying Supplied Parts	9
7 Installation	10
8 Wiring Color Table	12
9 System Wiring for Typical Application	15
1 Power Connection	15
2 Door Lock Connection	16
Connection of POWER FAIL SAFE: Door Lock	16
Connection of POWER FAIL SECURE: Door Lock	16
3 Alarm Device Connection	16
4 Exit Button Connection	16
5 Door Contact Sensor Connection	17
6 Auxiliary Input Device Connection (Applied to AUX Input #1, #2, #3)	17
7 Auto-Dialer Connection (Separate purchase required)	17
8 Wiegand Input Connection from Another Compatible Wiegand Reader (Separate purchase required)	18
9 RS-232 Communication Port Connection	18

10	Chime Bell Connection (Separate purchase required)	18
10	Initial Setup	19
1	Registration of RF Cards for RF CARD ONLY MODE	19
2	Registration of RF Cards with PINs for RF CARD + PIN MODE	20
3	Registration of PIN ONLY MODE	20
4	Registration of RF/PIN Combination MODE	21
5	Factory Defaulted Setting Values	22
11	Operation	24
1	Normal Operation Mode (Safe Mode)	24
2	Open the Door	24
3	Exit (Open the Door)	25
4	Action and Alarm Caused by Unregistered Card (or PIN)	25
5	Secure Mode	25
6	DURESS Alarm	26
7	Chime Bell Operation	26
12	Setting Changes	27
1	11. Add User Access Cards (RF CARD ONLY MODE)	31
2	12. Add User Access Cards (RF CARD + PIN MODE)	32
3	13. Add User Access PIN (PIN ONLY MODE)	32
4	14.1. Delete User Access Cards (RF CARD ONLY MODE & RF CARD + PIN MODE)	32
5	14.2. Delete User Access PIN (PIN ONLY MODE)	33
6	15. Add User Access Card/PIN (RF/PIN Combination Mode)	33
7	21. Change Door Open Time When User Access Card (or PIN) Is Granted	34
8	22. Change Alarm Time When User Access Card (or PIN) Is Denied	34
9	23. Change Alarm Time When Try-Out Error Detected	35
10	24. Change Alarm Time When Door Contact Error Detected	35
11	25. Change Alarm Time When AUX Input #1 Detected	35
12	26. Change Alarm Time When AUX Input #2 Detected	36
13	27. Change Alarm Time When AUX Input #3 Detected	36
14	28. Register 2 Digit Duress Alarm Password	36
15	29. Change Alarm Time When Duress Alarm Detected	37
16	30. Test Door Open Time Set by Command "21"	37
17	31. Test Alarm Time Set By Command "22"	37
18	32. Test Alarm Time Set By Command "23"	37
19	33. Test Alarm Time Set By Command "24"	37

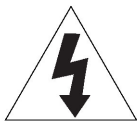
20	34. Test Alarm Time Set By Command "25"	37
21	35. Test Alarm Time Set By Command "26"	38
22	36. Test Alarm Time Set By Command "27"	38
23	37. Change Chime Bell Activating Time	38
24	38. Open Door Unconditional	38
25	39. Close Door Unconditional	39
26	40. Enable QUICK ACCESS MODE	39
27	41. Disable QUICK ACCESS MODE	39
28	42. Enable Toggle Mode for Lock Control	39
29	43. Disable Toggle Mode for Lock Control	40
30	44. Enable Lock followed by Door Contact	40
31	45. Disable Lock followed by Door Contact	40
32	46. Disable Melody Sound	41
33	47. Enable Melody Sound	41
34	48. Change Keypad Lock-out Time When Try-Out Error Detected	41
35	49. Set AUX Input #1 Detection from 'L' to 'H'	41
36	50. Set AUX Input #1 Detection from 'H' to 'L'	42
37	Set AUX#2 Input Detection from 'H' to 'L'	42
38	53. Set AUX#3 Input Detection from 'L' to 'H'	42
39	54. Set AUX#3 Input Detection from 'H' to 'L'	42
40	55. Set Exit Button Input Detection from 'L' to 'H'	43
41	56. Set Exit Button Input Detection from 'H' to 'L'	43
42	57. Set Door Contact Sensor Input Detection from 'L' to 'H'	43
43	58. Set Door Contact Sensor Input Detection from 'H' to 'L'	43
44	59. Activate TTL Output to 'H'	44
45	60. Activate TTL Output to 'L'	44
46	61. Enable Keypad Input To Enter ID Number	44
47	62. Disable Keypad Input To Enter ID Number	44
48	63. Enable Chime Bell Output	45
49	64. Disable Chime Bell Output	45
50	65. Set Delay Time to Activate SECURE MODE	45
51	66. Set Door Open Time-out for Door Contact Sensor	45
52	67. Set Number of Times of Try-Out	46
53	68. Set Input Keypress Time-out Time	46
54	69. Set Tamper Alarm Output Port	46
55	70. Enable Tamper Alarm	47

56	71. Disable Tamper Alarm	47
57	72. Re-Initialize and Erase All Setup Data	47
13	Initialization	48
1	Hardware Initialization (When the master card or ID is lost)	48
2	Wire Initialization	49
2.1	100R: Over V5.0.4 / IP100R: Over V2.0.2	49
2.2	100R: V5.0.0 ~ V5.0.3 / IP100R: V2.0.0 ~ V2.0.1	49
14	FCC REGISTRATION INFORMATION	50
15	Troubleshooting	51
1	[Operation]	51
1.1	Problem	51
	Cause	51
	Solution	51
1.2	Problem	52
	Cause	52
	Solution	52
2	[Registering or Deletion]	53
2.1	Problem	53
	Cause	53
	Solution	53
2.2	Problem	54
	Cause	54
	Solution	54
	Having a master card or PIN	54
	Loosing a master card or PIN	55
3	[System Initialization]	55
3.1	Problem	55
	Cause	55
	Solution	55
	100R V5.0.0 under or IP100R V2.0.0 under	55
	100R V5.0.0 over or IP100R V2.0.0 over	56
4	[Communication]	56
4.1	Problem	56
	Cause	56
	Solution	57

5	[Keypad]	57
5.1	Problem	57
	Cause	57
	Solution	58
6	[External Device]	58
6.1	Problem	58
	Cause	58
	Solution	59
6.2	Problem	60
	Cause	60
	Solution	60
6.3	Problem	61
	Cause	61
	Solution	62
16	Template	64
17	RMA Request	65

Safety Information

1



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 -30°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 lightning 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.

1 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 power supply 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.

A properly configured Star 100R / iPASS IP100R is an intelligent PIN & Proximity and PINPAD Single Door Controller that combines the convenience of wireless entry with the security of an alarm system. Also, the Star 100R / iPASS IP100R system will give you field proven reliability and cost-effective solution anywhere access controls and high security are required. Each standard unit can store up to 512 users or card IDs. The task of assigning cards and managing a user's database is so simple, user friendly, and can be accomplished in many ways; it could be as simple as presenting each card to the unit or as descriptive as a user's database with an easy to use Graphical User Interface.

The Star 100R / iPASS IP100R can interface and operate with these accessories: Request for EXIT button, Door-Contact sensor, PIR sensor, Fire sensor and other sensors via 5 independent input ports. Also, output ports which include 2 Relays and 2 TTL outputs can be used to control the operation of other accessories such as Electric/Magnetic Door Lock, Alarm, Chime Bell, and Auto-Dialer. Moreover, the status or behaviors of these input and output accessories are configurable to provide the system administrator with complete customized control of the system. Besides the above configurable I/O interfaced behaviors, many of the Star 100R / iPASS IP100R internal behaviors are programmable as well. The internal operating parameters include the number of incorrect access attempts before alarm condition is triggered, tampering protection from mounting removal, and timers. Furthermore, every event or transaction can be captured in real time by the Star 100R / iPASS IP100R application software (STAR 100R PRO) using the provided

Features

3

- 125KHz Standalone Proximity /PIN Single Door Access Controller
- 100R: PSK Modulation / IP100R: ASK [EM] Format
- Basic Time & Attendance Function
- 512 Users including One Master Card
- 1 External Reader Port for Exit: 26bit Wiegand
- Standalone / Network Communication via RS232
- All I/Os and Operation Time Programmable by Keypad
- Independent 5 Inputs and 4 Outputs Including 2 Form-C Relay Outputs
- Keypad Lock by Try-out Error Alarm Function
- Duress Mode Function
- Toggle Mode for Door Opening / Closing
- Lock Control by Door Contact Switch
- Safe (Default) / Secure Mode Available
- Dual Tamper Switches
- Chime Bell Output
- Mode Selection: RF Only / PIN (4~6 digit) Only / RF+ P/W (4 digit) / RF or PIN
- Options: 4ch Voice Auto-dialer
- Compatible Software: STAR 100R PRO

Comparison Table

100R	125KHz PSK Modulation
IP100R	125KHz ASK[EM] Format

Specification

4

Model		100R	IP100R
CPU		Dual 8bit Microprocessor	
Memory	Program Memory	20KByte ROM	
	Data Memory	2KByte EEPROM	
User		512 Users	
Read Range		IDC80 / IDC170: Up to 4 inches (10cm)	IPC80 / IPC170: Up to 4 inches (10cm)
Reading Time (Card)		30ms	
Power / Current		DC 12V / Max.200mA	
External Reader Port		1ea (26bit Wiegand)	
Communication		RS232	
Input Port		5 Ports (Exit Button, Door Contact, Aux #1, Aux #2, Aux #3)	
Output Port		2 Ports (Form-C Relay Output (COM, NO, NC) / DC 12~18V, Rating Max.2A)	
		1 Port (Chime Bell Output / DC5V, Rating Max. 500mA)	
		1 Port (TTL Output / DC5V, Rating Max.20mA)	
Keypad		12 Key Numeric Keypad with Back Lighting	
LED Indicator		3 Array LED Indicators (Red, Green and Yellow)	
Beeper		Piezo Buzzer	
Operating Temperature		-35 to +65 C (-31 to +149 F)	
Operating Humidity		10% to 90% Relative Humidity Non-condensing	

Model	100R	IP100R
Color / Material	Dark Pearl Gray / Polycarbonate	
Dimension (W x H x T)	87mm x 100mm x 31mm (3.4" x 3.94" x 1.22")	
Weight	210g (0.46lbs)	
Certification	FCC, CE, KC, RoHS	

Front Panel Description

5



Figure: Front Panel

Identifying Supplied Parts

6

Please unpack and check the contents of the box.



**Main Unit
(1ea)**



**Wall Mount
(1ea)**



**O-Ring
(5ea)**



**User's Manual
(1copy)**



**3.5*40 Screw
(4ea)**



**3.5*12 Screw
(4ea)**



**Anchor Bolt
(4ea)**



**Cable & Diode
Cable(4 ea), Diode(2 ea)**



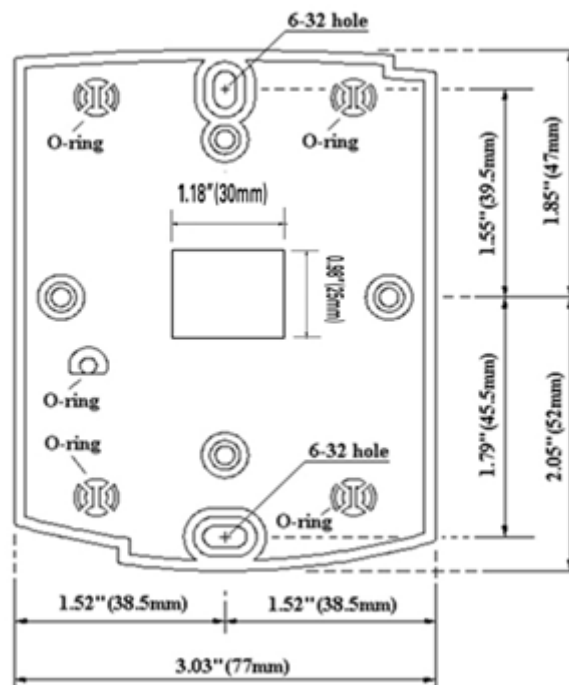
**Master Card
(1ea)**

Installation

7

1. Tear off page template in the back of this manual and use the provided template to drill two 6-32 holes and one 1/2" hole on the proper location of the wall to mount the Wall Mount bracket as shown below.

(If the gang box is already installed on the wall then skip this step.)



2. Using 2 screws, install wall mount to the wall.



Before mounting the STAR 100R unit to the Wall Mount bracket, operational testing of the unit should be completed, as the locking pins will lock the unit to the Wall Mount. Removing the unit from the Wall Mount bracket after they have been installed together may cause damages to the bracket and render its effectiveness.

3. Insert 5 O-rings to the wall mount as indicated, then route the cable of the main unit through the center hole and push the main unit to wall mount to lock the main unit and make sure that the main unit is locked with wall mount.

Wiring Color Table

8

I/O PORT NAME	SIGNAL NAME	COLOR CODED
2PIN	(J1)	
Main Power(+12V)	DC +12V	Red
Power Ground	GND	Black
10PIN	(J2)	
Door Relay(NC)	NC(1)	Blue with White Stripe
Door Relay(COM)	COM(1)	Gray with Red Stripe
Door Relay(NO)	NO(1)	White with Red Stripe
Alarm Relay(NC)	NC(2)	Purple with White Stripe
Alarm Relay(COM)	COM(2)	White
Alarm Relay(NO)	NO(2)	Purple
Exit Button	EXIT	Orange
Door Sensor	CONTACT	Yellow with Red Stripe
Aux Input 1	INPUT1	Green
Aux Input 2	INPUT2	Green with White Stripe
7PIN	(J3)	
Wiegand Data0	DATA0	Pink
Wiegand Data1	DATA1	Cyan
TTL Output	TTL1/D0	Orange with White
Chime Bell Output	CHI/D1	Brown with white Stripe
Aux Input 3	INPUT3	Green with Red Stripe

I/O PORT NAME	SIGNAL NAME	COLOR CODED
RESERVED		Blue with Red Stripe
RESERVED		Yellow with White Stripe
3PIN	(CON2)	
RS232-TX	TXD	Black with White Stripe
RS232-RX	RXD	Red with White Stripe
Ground	GND	Black

Optional: Wiegand Output Function

The default output format of 100R/IP100R is TTL and Chime Bell output. But, you can configure the 100R/IP100R to generate output in Wiegand format and use it like a reader.

(The 100R/IP100R can output data from card reading, but can't output data from keypad input.)

If you want to generate Wiegand instead of TTL output format, follow the table below.



This function is only applicable to :
V6.0.0 of the 100R and higher
V3.0.0 of the IP100R and higher



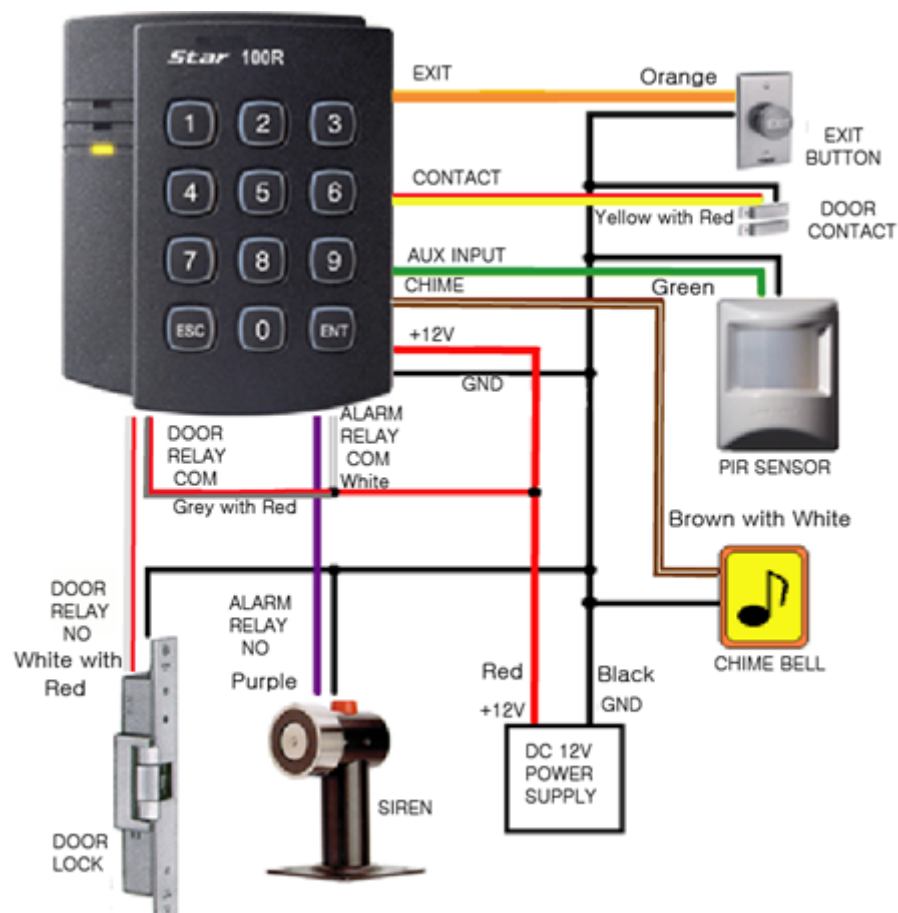
SW1 #1	SW1 #2	SW2 #1	SW2 #2	Orange wire with White stripe	Brown wire with White stripe
ON	OFF	ON	OFF	TTL Output	Chime Bell Output
OFF	ON	OFF	ON	Wiegand Data 0 Output	Wiegand Data 1 Output



When the Wiegand Output function is used, TTL Output wire is changed to Wiegand Data 0 and Chime Bell Output wire to Wiegand Data 1 Output wire. Therefore, you can't use those functions. In addition, because TTL Output wire is changed to Wiegand Data 0 Output, you can't initialize the 100W/IP100W using the wires. (You can use those functions again when setting SW1 and SW2 to the default state.)

System Wiring for Typical Application

9



1 Power Connection

- Connect (+) wire of DC +12V power to Red wire.
- Connect Power GND (-) wire of DC +12V to Black wire.

2 Door Lock Connection

Connection of POWER FAIL SAFE: Door Lock

- Connect Door RELAY (COM), Grey with Red stripe wire to DC +12V (be sure that the existing power supply has enough capacity to support this accessory or upgrade to a sufficient one.)
- Connect (+) wire of Door Lock to Door RELAY (NC), Blue with White stripe wire.
- Connect (-) wire of Door Lock to Power GND (-) wire.

Connection of POWER FAIL SECURE: Door Lock

- Connect Door RELAY (COM), Grey with Red stripe wire to DC +12V (be sure that the existing power supply has enough capacity to support this accessory or upgrade to a sufficient one.)
- Connect (+) wire of Door Lock to Door RELAY (NO), White with Red stripe wire.
- Connect (-) wire of Door Lock to Power GND (-) wire.

3 Alarm Device Connection

- Connect Alarm RELAY (COM), White wire to DC +12V (be sure that the existing power supply has enough capacity to support this accessory or upgrade to a sufficient one.)
- Connect (+) wire of Alarm Device to Alarm RELAY (NO), Purple wire.
- Connect (-) wire of Alarm Device to Power GND (-) wire.

4 Exit Button Connection

- Connect one of the wires of Exit Button to Exit Button Input, Orange wire.

- Connect the other wire of Exit Button to Power GND (-) wire.
(If a normally closed Exit button is used, then see section 12-55 to change the detection scheme from the defaulted setting)

5 Door Contact Sensor Connection

- Connect Door Contact sensor (COM) wire to Door Contact Input, Yellow with Red stripe wire.
- Connect Door Contact sensor (NO) wire to Power GND (-) wire.
(If a normally closed Door Contact sensor is used, then see section 12-57 to change the detection scheme from the defaulted setting.)

6 Auxiliary Input Device Connection (Applied to AUX Input #1, #2, #3)

- Connect one wire of the Auxiliary Input Device to the AUX Input wire
(Input *1 Green, Input *2 Green with White stripe, Input *3 Green with Red stripe wire).
- Connect the other wire of Auxiliary Input Device to Power GND (-) wire.
(If a normally closed input device is used, then see section 12-49, 51 & 53 to change the detection schemes from the defaulted settings.)

7 Auto-Dialer Connection (Separate purchase required)

The Auto-dialer function of this unit has not been evaluated by UL.

- Connect the input wire of Auto-Dialer to TTL output, Orange with White stripe wire.
- Connect (+) wire of Auto-Dialer to DC +12V (be sure that the existing power supply has enough capacity to support this accessory or upgrade to a sufficient one.)
- Connect (-) wire of Auto-Dialer to Power GND (-) wire.
- Connect Telephone Line plug (RJ-14) to Auto-Dialer.

(If an active High Auto-Dialer is used, then see section 12-59 to change the TTL output level from the defaulted setting.)

8 Wiegand Input Connection from Another Compatible Wiegand Reader (Separate purchase required)

- Connect (+) wire of Reader to DC +12V (be sure that the existing power supply has enough capacity to support this accessory or upgrade to a sufficient one.)
- Connect (-) wire of Reader to Power GND (-) wire.
- Connect Wiegand output DATA0 wire of the additional Reader to DATA0, Pink wire.
- Connect Wiegand output DATA1 wire of the additional Reader to DATA1, Cyan wire.

9 RS-232 Communication Port Connection

9-pin connector (COM Port, female) is required to connect serial communication RS-232 between Main Unit and Personal Computer.

- Connect RS-232-TX, Black with White stripe wire of Main Unit to pin number 2 of 9-pin connector.
- Connect RS-232-RX, Red with White stripe wire of Main Unit to pin number 3 of 9-pin connector.
- Connect RS-232-GND, Black wire of Main Unit to pin number 5 of 9-pin connector.
- Plug in 9-pin connector to COM1 or COM2 Port of Personal Computer.
- Install and run STAR 100R Application Software.

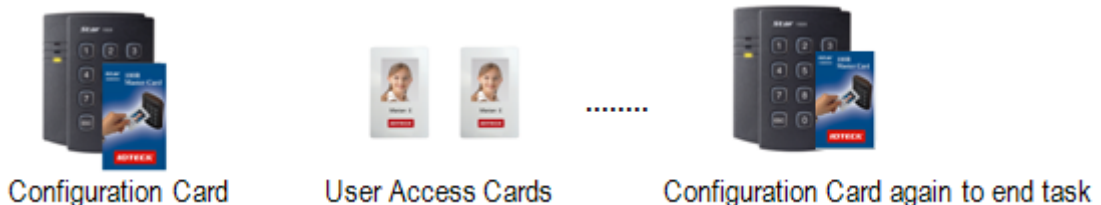
10 Chime Bell Connection (Separate purchase required)

- Connect (+) wire of Chime Bell unit to Bell Output, Brown with White stripe wire of Main Unit.
- Connect (-) wire of Chime Bell unit to Power GND (-) wire.

The Flash memory of each shipped STAR 100R contains a minimum set of defaulted values, but it does not have any other preprogrammed values or user's data in it, therefore, Initial Setup is required upon the first time the unit is powered-up in order to operate the unit properly.

1 Registration of RF Cards for RF CARD ONLY MODE

1. Apply 12V DC to the unit.
All 3 LEDs will be flashing along with a powered-up melody (do mi sol me do do mi sol do~).
2. Press **0 1 ENT** from the keypad. (RF CARD ONLY MODE)
3. Present RF Cards as follow to register Configuration Card and User Access Cards.



The user may choose to register the 8 digit card numbers via the keypad instead of presenting the cards to the unit; this implies that the user must know the 8 digit representation of each card.

4. The first card read becomes the Configuration Card and the following RF Cards are registered as User Access Cards. Once all User Access Cards have been registered, present the Configuration Card again to complete the registration. (Please keep the Configuration Card in a secure location for future changes.)
5. Now, the Main Unit is entered into the normal operation mode with factory default settings.

2 Registration of RF Cards with PINs for RF CARD + PIN MODE

1. Apply 12 V DC to the unit.
All 3 LEDs will be flashing along with a powered-up melody (do mi sol me do..do mi sol do~).
2. Press **0** **2** **ENT** from the keypad. (RF CARD + PIN MODE)
3. Present RF Cards as follow to register Configuration Card and User Access Cards + 4~6 digit Personal Identification Number (PIN) for each User Access Card.



4. The first card read becomes the Configuration Card and the following RF Cards + PINs are registered as User Access Cards with assigned PINs. Once all User Access Cards and PINs have been registered, present the Configuration Card again to complete the registration.
(Please keep the Configuration Card in a secure location for future changes.)
5. Now, the Main Unit is entered into the normal operation mode with factory default settings.

3 Registration of PIN ONLY MODE

1. Apply 12V DC to the unit.
All 3 LEDs will be flashing along with a powered-up melody (do mi sol me do do mi sol do~).
2. Press **0 3 ENT** from the keypad. (PIN ONLY MODE)
3. Enter **4~6 digit PIN ENT** to register Configuration PIN then **4~6 digit PIN ENT** to register for each subsequent User Access PIN at a time and then enter the **4~6 digit PIN ENT** (Configuration PIN) to complete the registration.

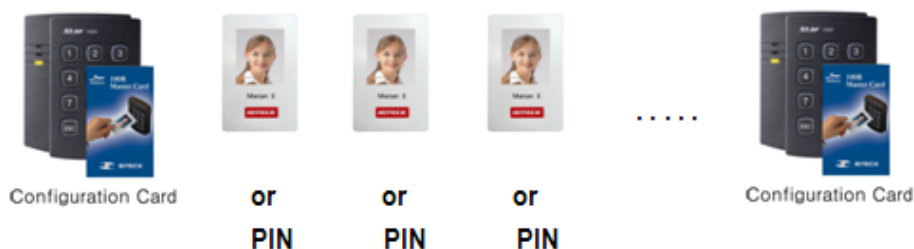


 Configuration PIN User Access PIN Configuration PIN again to complete the registration.

4. The first 4~6 digit PIN becomes the Configuration PIN and the subsequent 4~6 digit PINs are registered as User Access PINs. Once all User Access PINs have been registered, enter the Configuration PIN again to complete the registration. (Please store the Configuration PIN for future changes.)
5. Now, the Main Unit is entered into the normal operation mode with factory defaulted settings.

4 Registration of RF/PIN Combination MODE

1. Apply 12V DC to the unit.
All 3 LEDs will be flashing with a power-up melody.
2. Press **0 5 ENT** from the keypad. (RF/PIN Combination Mode)
3. Present Configuration Card to register Configuration Card to the unit.
4. Present RF Card or enter 4~6 digit PIN number to register user access card or PIN.
5. Present Configuration Card to complete the registration



5 Factory Defaulted Setting Values

After the Initial Setup, the Main Unit uses the factory defaulted setting values below to execute the normal operation mode. You may want to change these factory setting values or modify your User Access list; refer to section 12 for instructions on how to customize the operation of your unit.

(1) When User Access Card (or PIN) is granted



- Door RELAY activates for 3sec.
- Green LED lights on for 3sec.

(2) When User Access Card (or PIN) is not recognized



- Alarm RELAY activates for 2sec.
- Red LED lights on for 2sec.

(3) Duress Password = 00, Duress Alarm to TTL output port for 03 sec.

(4) QUICK ACCESS MODE = Disable

(5) Chime Bell output = Enable, Chime Bell activation time = 05 sec.

(6) Melody sound = Enable

(7) Keypad lock-out time when Try-Out error detected = 01 min.

(8) Detect all inputs from 'H' to 'L'

(9) Activate TTL output to 'L'

(10) Delay time to activate SECURE MODE = 00 min.

(11) Door Open time-out for Door Contact sensor = 00 sec.

(12) Number of times of Try-out = 05 times

(13) Input keypress time-out time = 20 sec.

(14) Tamper Alarm = Disable, Tamper Alarm output port = 02 (Alarm Relay)

(15) Toggle Mode: Disable

(16) Unlock followed by Door Contact: Disable

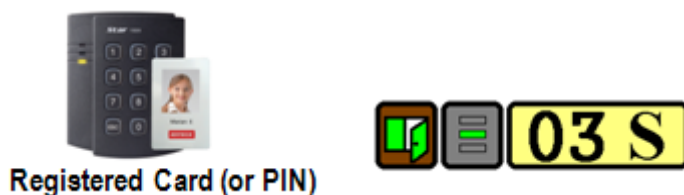
1 Normal Operation Mode (Safe Mode)



When the Main Unit operates in normal mode, the yellow LED is flashing every

second.

2 Open the Door



Registered Card (or PIN)

When a registered Card (or PIN) is read, the Door will open for 3 seconds along with the "do-mi-sol-do" melody.

Registered Card (or PIN)

3 Exit (Open the Door)



To request for exit from the inside, an Exit Button can be used to open the door for the same duration as in 11-2.

4 Action and Alarm Caused by Unregistered Card (or PIN)



When an unregistered Card (or PIN) is read, thus, access is denied and the Alarm can be activated for 2 seconds along with "sol-do-sol-do" melody.

Unregistered Card (or PIN)

(If you do not want to activate the Alarm in case of unregistered access attempt, then you can change this setting as shown in section 12.)

5 Secure Mode

The last person to exit can change the operation of the unit from Normal Mode to Secure Mode by entering the Secure Code of **77ENT** onto the keypad.



Change to Secure Mode.

The Secure Mode will revert back to the normal mode when a registered card (or PIN) is presented / entered.

6 DURESS Alarm

In case of Duress, enter the 2 digit Duress Password and the door will open as usual; however, the Duress Alarm (TTL Output) will activate an external Auto-Dialer to notify the appropriate personnel. See section 9.7 and 12.29 for more instructions on this feature.

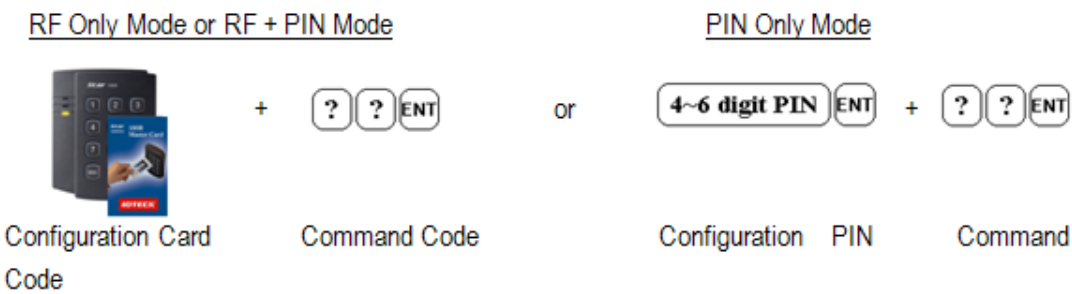
7 Chime Bell Operation

The key can be used to activate an external Chime Bell for 5 seconds, the defaulted value.

Setting Changes

12

Configuration Card/PIN is required to change existing or defaulted setting values or to manage user's access. First, present the Configuration Card (or enter the Configuration PIN) and enter the 2-digit command code.



Summary Table of Commands

Command Action/Change setting values

- 11
- Add User Access Cards (RF CARD ONLY MODE)
- 12
- Add User Access Cards and PIN (RF CARD + PIN MODE)
- 13
- Add User Access PIN numbers (PIN ONLY MODE)
- 14
- Delete User Access Cards (or PIN)

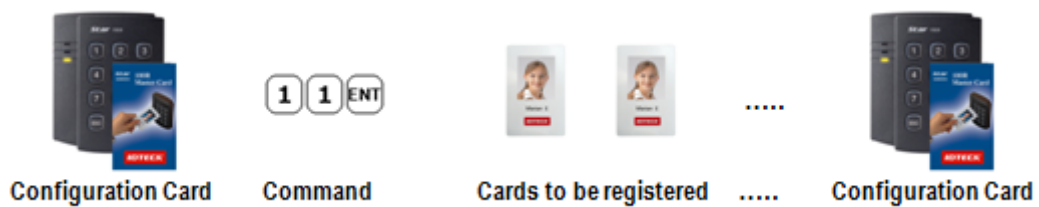
15	Add User Access Card/PIN (RF/PIN Combination Mode)
21	Change Door open time when User Access Card (or PIN) is granted
22	Change Alarm time when User Access Card (or PIN) is denied
23	Change Alarm time when Try-Out error detected
24	Change Alarm time when Door-Contact error detected
25	Change Alarm time when Aux Input #1 detected
26	Change Alarm time when Aux Input #2 detected
27	Change Alarm time when Aux Input #3 detected
29	Register 2 digits Duress Alarm password
30	Change Alarm time when Duress Alarm detected
31	Test Door open time set by command "21"
32	Test Alarm time set by command "22"
33	Test Alarm time set by command "23"
34	Test Alarm time set by command "24"
35	Test Alarm time set by command "25"

36	Test Alarm time set by command "26"
37	Test Alarm time set by command "27"
39	Change Chime Bell activating time
41	Open door unconditionally
42	Close door unconditionally
43	Enable QUICK ACCESS MODE
44	Disable QUICK ACCESS MODE
45	Enable Toggle Mode for Lock control
46	Disable Toggle Mode for Lock control
47	Enable Unlock followed by Door Contact
48	Disable Unlock followed by Door Contact
51	Disable Melody sound (turning off both the melody & keypress audio feedback)
52	Enable Melody sound
60	Change keypad lock-out time when Try-Out error detected
61	Set Aux Input #1 Detection from 'L' to 'H'

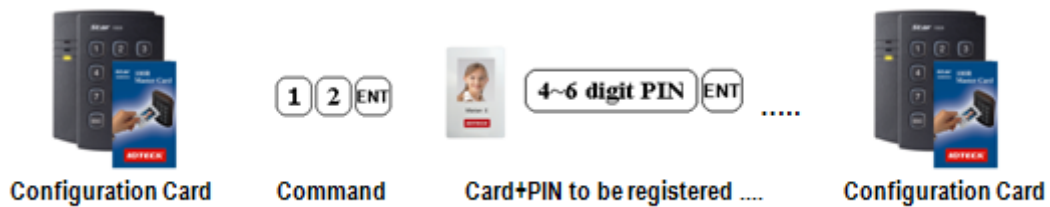
62	Set Aux Input #1 Detection from 'H' to 'L'
63	Set Aux Input #2 Detection from 'L' to 'H'
64	Set Aux Input #2 Detection from 'H' to 'L'
65	Set Aux Input #3 Detection from 'L' to 'H'
66	Set Aux Input #3 Detection from 'H' to 'L'
67	Set Exit Button Input Detection from 'L' to 'H'
68	Set Exit Button Input Detection from 'H' to 'L'
69	Set Door-Contact sensor Input Detection from 'L' to 'H'
70	Set Door-Contact sensor Input Detection from 'H' to 'L'
71	Activate TTL output to 'H'
72	Activate TTL output to 'L'
73	Enable Keypad Input to Enter ID Number
74	Disable Keypad Input to Enter ID Number
77	Enable Chime Bell Output
78	Disable Chime Bell Output

- 80 Set delay time to activate SECURE MODE
- 81 Set Door Open time-out for Door-Contact sensor
- 82 Set number of times of Try-Out
- 83 Set input key press time-out time
- 84 Set Tamper Alarm output port
- 88 Enable Tamper Alarm
- 89 Disable Tamper Alarm
- 99 Re-Initialize and erase all setup data

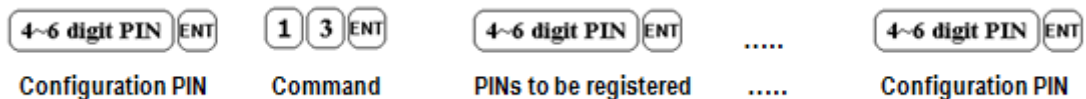
1 11. Add User Access Cards (RF CARD ONLY MODE)



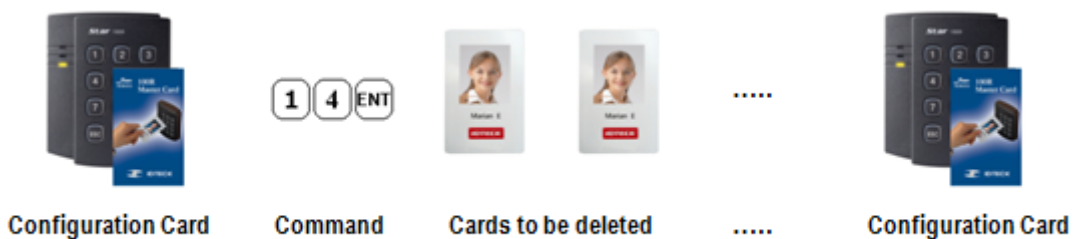
2 12. Add User Access Cards (RF CARD + PIN MODE)



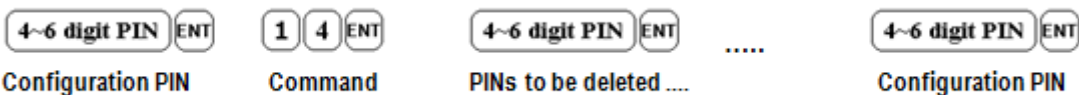
3 13. Add User Access PIN (PIN ONLY MODE)



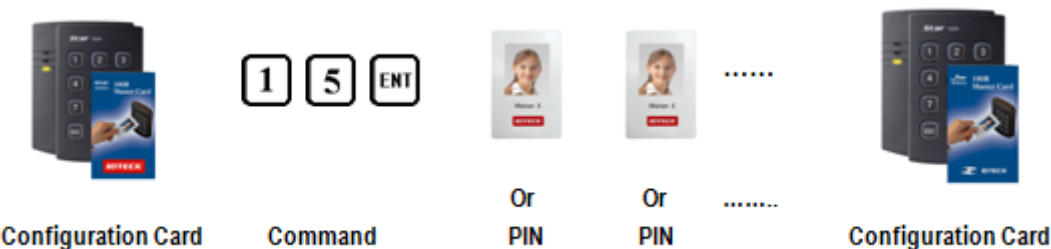
4 14.1. Delete User Access Cards (RF CARD ONLY MODE & RF CARD + PIN MODE)



5 14.2. Delete User Access PIN (PIN ONLY MODE)



6 15. Add User Access Card/PIN (RF/PIN Combination Mode)



Configuration Card Command PIN PIN Configuration Card

Symbol	Setting Values	Examples/Remarks
Output Mode (OM)	(You must add value ① and ②) Setting value for activating time ① Activate Mode Value Activate only in Secure Mode: 00 Activate in Safe & Secure Mode: 50 Setting Value for activating ② Activate Value Activate only Door Relay: 01 Activate only Alarm Relay: 02 Activate only TTL Output: 04 Activate Door Relay & TTL: 05 Activate Alarm Relay & TTL : 06	EX1)Activate Door Relay In Safe & Secure Mode ① Safe & Secure Mode50 ② Door Relay01 OM=51 EX2)Activate Alarm Relay & TTL only in Secure mode ① Secure Mode 00 ② Alarm Relay & TTL06 OM=06
tt	tt is the activating time value (seconds)	tt value 00sec. means

Symbol	Setting Values	Examples/Remarks
	from 01sec. to 99sec.	no operation.
PW	PW is the 2 digits Password for Duress Alarm.	Do not use '77' for PW as it is used for Secure Mode
mm	mm is activating time value (minutes) from 01min. to 99min.	mm value 00min. means no operation.

7 21. Change Door Open Time When User Access Card (or PIN) Is Granted

 (tt=00~99 sec., Defaulted Door Open time = 03 sec.)





Configuration Card / Configuration PIN Command Door open time TTL time

8 22. Change Alarm Time When User Access Card (or PIN) Is Denied

(Refer to Table 1 for OM, tt=00~99 sec., Defaulted Alarm time = 02 sec.)









Configuration Card / Configuration PIN Command Output Mode Door time Alarm Time TTL time

9 23. Change Alarm Time When Try-Out Error Detected

(Refer to Table 1 for OM, tt=00~99 sec., Defaulted Alarm time = 10 sec.)



Configuration Card / Configuration PIN

2

3

ENT

Command

O

M

ENT

Output Mode

t

t

ENT

Doortime

t

t

ENT

Alarm Time

t

t

ENT

TTL time

10 24. Change Alarm Time When Door Contact Error Detected

(Refer to Table 1 for OM, tt=00~99 sec.)
Door Open Time-out setting is required for activating, refer to 12.81.



Configuration Card / Configuration PIN

2

4

ENT

Command

O

M

ENT

Output Mode

t

t

ENT

Door time

t

t

ENT

Alarm Time

t

t

ENT

TTL time

11 25. Change Alarm Time When AUX Input #1 Detected

12

26. Change Alarm Time When AUX Input #2 Detected

13

27. Change Alarm Time When AUX Input #3 Detected

(Refer to Table 1 for OM, tt=00~99 sec.)



Configuration Card
/Configuration PIN

25ENT

26ENT

27ENT

Command

OMENT

Output Mode

ttENT

Door time

ttENT

Alarm Time

ttENT

TTL time

14

28. Register 2 Digit Duress Alarm Password



Configuration Card
/Configuration PIN

(PW=00~99, Defaulted PW= 00, Do not use 77)

29ENT

Command

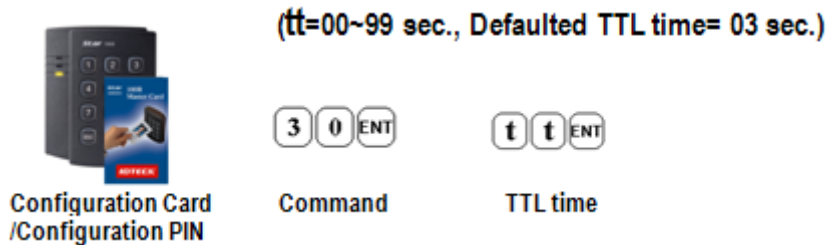
PWENT

Password



'00' is registered as default Password.

15 29. Change Alarm Time When Duress Alarm Detected



16 30. Test Door Open Time Set by Command "21"

17 31. Test Alarm Time Set By Command "22"

18 32. Test Alarm Time Set By Command "23"

19 33. Test Alarm Time Set By Command "24"

20 34. Test Alarm Time Set By Command "25"

21 35. Test Alarm Time Set By Command "26"

22 36. Test Alarm Time Set By Command "27"



Configuration Card
/Configuration PIN

Outputs set by command will be tested.

3 1 ENT ~ **3 7 ENT**

Command

23 37. Change Chime Bell Activating Time



Configuration Card
/Configuration PIN

(tt=00~99 sec., Defaulted Chime Bell time= 05 sec.)

3 9 ENT **t t ENT**

Command Chime Bell time

24 38. Open Door Unconditional

Configuration Card
/Configuration PIN

4 1 ENT

25 39. Close Door Unconditional

Configuration Card
/Configuration PIN



26 40. Enable QUICK ACCESS MODE

When QUICK ACCESS MODE is enabled, Door will open simply by press  key.

Configuration Card
/Configuration PIN



27 41. Disable QUICK ACCESS MODE

Configuration Card
/Configuration PIN



(Defaulted setting=Disable)

28 42. Enable Toggle Mode for Lock Control

If you set Enable Toggle Mode, Door will be toggled open and close function when the registered card or PIN entered. You may use this function for Arm/Disarm for buglar alarm system.



29 43. Disable Toggle Mode for Lock Control



30 44. Enable Lock followed by Door Contact

If you set Enable Lock followed by Door Contact, Door only be locked followed by Door Contact so the door will remain open until the door is completely closed.



31 45. Disable Lock followed by Door Contact



32 46. Disable Melody Sound

Configuration Card /Configuration PIN 5 1 ENT

33 47. Enable Melody Sound

Configuration Card /Configuration PIN 5 2 ENT (Defaulted setting=Enable)

34 48. Change Keypad Lock-out Time When Try-Out Error Detected



(mm=00~99 min., Defaulted Keypad Lock-out time= 01 min.)

6 0 ENT m m ENT
Command Keypad Lock-out time

35 49. Set AUX Input #1 Detection from 'L' to 'H'

AUX#1 input is detected on the raising edge of AUX#1 input

Configuration Card /Configuration PIN 6 1 ENT

36 50. Set AUX Input #1 Detection from 'H' to 'L'

AUX#1 input is detected on the falling edge of AUX#1 input (Defaulted setting)

Configuration Card
/Configuration PIN

6 2 ENT

37 Set AUX#2 Input Detection from 'H' to 'L'

AUX#2 input is detected on the falling edge of AUX#2 input (Defaulted setting)

Configuration Card
/Configuration PIN

6 4 ENT

38 53. Set AUX#3 Input Detection from 'L' to 'H'

AUX#3 input is detected on the raising edge of AUX#3 input

Configuration Card
/Configuration PIN

6 5 ENT

39 54. Set AUX#3 Input Detection from 'H' to 'L'

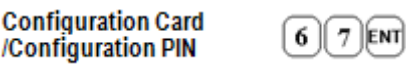
AUX#3 input is detected on the falling edge of AUX#3 input (Defaulted setting)

Configuration Card
/Configuration PIN

6 6 ENT

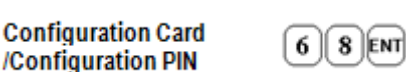
40 55. Set Exit Button Input Detection from ‘L’ to ‘H’

Exit Button input is detected on the raising edge of Exit Button input



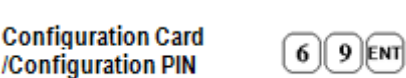
41 56. Set Exit Button Input Detection from ‘H’ to ‘L’

Exit Button input is detected on the falling edge of Exit Button input (Defaulted setting)



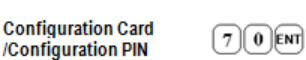
42 57. Set Door Contact Sensor Input Detection from ‘L’ to ‘H’

Door Contact input is detected on the raising edge of Door Contact input



43 58. Set Door Contact Sensor Input Detection from ‘H’ to ‘L’

Door Contact input is detected on the falling edge of Door Contact input (Defaulted setting)



44 59. Activate TTL Output to 'H'

TTL output changes the state from logic '0' to logic '1' when it activates.

Configuration Card
/Configuration PIN



45 60. Activate TTL Output to 'L'

TTL output changes the state from logic '1' to logic '0' when it activates. (Defaulted setting)

Configuration Card
/Configuration PIN



46 61. Enable Keypad Input To Enter ID Number

Keypad input is enabled to enter the ID numbers through keypads.

Configuration Card
/Configuration PIN



47 62. Disable Keypad Input To Enter ID Number

Keypad input is disabled to enter the ID numbers through keypads. (Defaulted setting)

Configuration Card
/Configuration PIN



48 63. Enable Chime Bell Output

Configuration Card /Configuration PIN 7 7 ENT (Defaulted setting=Enable)

49 64. Disable Chime Bell Output

Configuration Card /Configuration PIN 7 8 ENT

50 65. Set Delay Time to Activate SECURE MODE



Configuration Card /Configuration PIN

(mm=00~99 min., Defaulted Delay time= 00 min.)

8 0 ENT m m ENT

Command Delay time

51 66. Set Door Open Time-out for Door Contact Sensor



Configuration Card /Configuration PIN

(tt=00~99 sec., Defaulted value = 00 sec. means no detect Door Contact Sensor, refer to 12.24 for Alarm time settings)

8 1 ENT t t ENT

Command Door Open time-out

52 67. Set Number of Times of Try-Out



Configuration Card
/Configuration PIN

(NN=00~99 times, Defaulted Try-out numbers= 05 times)

82ENT

NNENT

CommandTry-out numbers

53 68. Set Input Keypress Time-out Time



Configuration Card
/Configuration PIN

(tt=10~99 sec., Defaulted Keypress time-out= 20 sec.,
Minimum tt = 10 sec.)

83ENT

tttENT

CommandKeypress time-out time

54 69. Set Tamper Alarm Output Port



Configuration Card
/Configuration PIN

(Refer to Table 1 for OM, Defaulted Output port= 02 Alarm Relay)

84ENT

OMENT

CommandAlarm Output Port

55 70. Enable Tamper Alarm

To comply with UL 294, the Standard for Access Control System Units, the Tamper Alarm must be enabled.

Configuration Card
/Configuration PIN

8 8 ENT

56 71. Disable Tamper Alarm

Configuration Card
/Configuration PIN

8 9 ENT

(Defaulted setting)

57 72. Re-Initialize and Erase All Setup Data

Please use this command when you really want to erase all data and start the unit from the beginning.

Configuration Card
/Configuration PIN

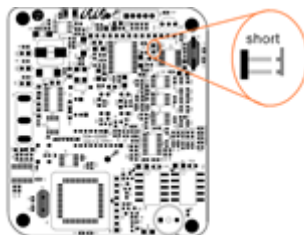
9 9 ENT

When you lost the Configuration Card or forget the Master PIN number, you may need to re-initialize the unit for new setup. There is a hard-wired Initialize function on the unit.



You may lose all setup data after Initialization.

1 Hardware Initialization (When the master card or ID is lost)



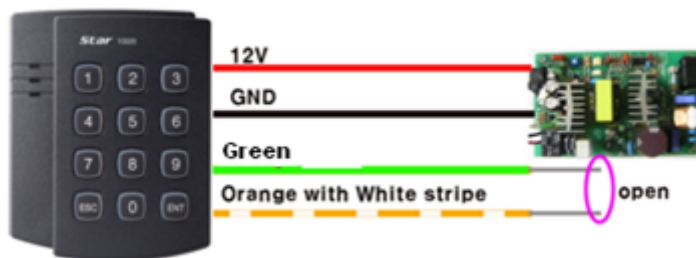
1. Open the top case taking out four bolts on the back.
2. As the left picture, make two jumpers short in state of being on power
3. 3-color LED blinking with beep sound indicates success of initialization

2 Wire Initialization

(When the master card or ID is lost, 100R: Over V5.0.0 / IP100R: Over V2.0.0)



1. Main power off.
2. Connect the Green and orange with white stripe wire together and power on.
3. 3 color LED blinking with beep sound indicates the success of initialization.



2.1 100R: Over V5.0.4 / IP100R: Over V2.0.2

1. Disconnect those two wires and wire them as shown above (normal connection diagram).

2.2 100R: V5.0.0 ~ V5.0.3 / IP100R: V2.0.0 ~ V2.0.1

1. Main power off again.
2. Disconnect orange wire and orange with white stripe wire as shown above (normal connection diagram) and power on.

FCC REGISTRATION INFORMATION

14

FCC Requirements Part 15

***Caution:** Any changes or modifications in construction of this device which are not expressly approved by the responsible for compliance could void the user's authority to operate the equipment.*

***NOTE:** 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 interface, and
2. This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a **Class A Digital Device**, pursuant to **Part 15 of the FCC rules**. These limits are designed to this equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

1. Reorient or relocate the receiving antenna.
2. Increase the separation between the equipment and receiver.
3. Connect the equipment into an outlet on another circuit.
4. Consult the dealer or an experienced radio/TV technician for help.

If a problem occurs during the use of this product, do not attempt to disassemble the product by yourself.

Please check the following suggestions. If your problem still persists, contact our customer service center.

1 [Operation]

1.1 Problem

When power is first supplied, 3 LEDs of 100R blinks only and an RF card doesn't recognize.

Cause

1. System initialization Status (Unregistered Master Card (or PIN))
2. System malfunction/data damaged or lost due to an external noise or a short circuit.
3. Internal circuit element damaged or malfunctioning

Solution

Make sure that installation and operation are normal.

☞ When installing the 100R first or When finishing system initialization.

Because system is the status of initialization, register mode selection, master card (or PIN) and user.

1. 100R Mode Selection: Mode Number + ENT
RF Only 01 + ENT
RF + P/W 02 + ENT
PIN Only 03 + ENT
RF or PIN 05 + ENT
2. Enter the master card (or PIN: 4 to 6digit (mode 03 or 05) + ENT).
3. By modes, enter the master card, PIN and password.
4. Enter the master card (or PIN: 4 to 6digit (mode 03 or 05) + ENT).



See “Initial Setting” to register master or user.

☞ When problem occurs while 100R operates normally.

It is caused by system malfunctions.

1. Turn on the 100R when it's off. (OFF 審 ON).

If this does not solve the problem, initialize the product.



Upon initialization, all data default value will be restored.

If the problem still persists, contact our customer service center.

1.2 Problem

The 100R operates suddenly on general mode during setting or registering a user on mode s election.

Cause

Over standby time on mode selection

Solution

If not entering a key or a card within 20 sec. on mode selection, the product operates on ge neral mode automatically.

2 [Registering or Deletion]

2.1 Problem

User Card or PIN cannot be registered additionally.

Cause

- An error in using a product or in system settings
- Over permissible register person

Solution

Make sure that installation and operation are normal.

☞ When installing the 100R first or When finishing system initialization#1).

Because system is the status of initialization, register mode selection, master card (or PIN) and user.

1. 100R Mode Selection: Mode Number + ENT
RF Only 01 + ENT
RF + P/W 02 + ENT
PIN Only 03 + ENT
RF or PIN 05 + ENT
2. Enter the master card (or PIN: 4 to 6digit (mode 03 or 05) + ENT).
3. By modes, enter the master card, PIN and password.
4. Enter the master card (or PIN: 4 to 6digit (mode 03 or 05) + ENT).



See “Initial Setting” to register master or user.

☞ When registering a user card additionally while using a product.

Register a user card only because master card is registered.

1. Enter the master card (or PIN: 4 to 6digit (mode 03 or 05) + ENT).
2. By modes, enter “Mode Number + ENT” to add user access cards.
RF Only 11 + ENT
RF + P/W 12 + ENT
PIN Only 13 + ENT

RF or PIN 15 + ENT

3. By modes, enter a user card, PIN and password.
4. Enter the master card (or PIN: 4 to 6digit (mode 03 or 05) + ENT).



See “Initial Setting” to register master or user.

If the problem still persists, contact our customer service center.

2.2 Problem

User card or PIN cannot be deleted.

Cause

- An error in using a product or in system settings
- System malfunction/data damaged or lost due to an external noise or a short circuit.

Solution

Make sure that installation and operation are normal.

☞ When the product operates normally

Having a master card or PIN

1. Having a user card that wish to delete
 - I. Enter the master card (or PIN: 4 to 6digit (mode 03 or 05) + ENT).
 - II. Enter “mode 14 + ENT” to delete user access cards.
 - III. Enter a user card to delete. If there have enough user cards that wish to delete, enter them in order continuously.
 - IV. Enter the master card (or PIN: 4 to 6digit (mode 03 or 05) + ENT).
2. Loosing a user card that wish to delete (But knowing PIN of user card)
 - I. Enter the master card (or PIN: 4 to 6digit (mode 03 or 05) + ENT).
 - II. Enter “mode 73 + ENT” to “Enable Keypad Input to Enter ID Number”.
 - III. Enter the master card (or PIN: 4 to 6digit (mode 03 or 05) + ENT).
 - IV. Enter “14 + ENT” to delete user access cards.
 - V. Enter “PIN + ENT”. If there have enough user cards that wish to delete, enter them in order continuously.
 - VI. Enter the master card (or PIN: 4 to 6digit (mode 03 or 05) + ENT).



See “Setting Changes” to delete master or user.

Loosing a master card or PIN

1. When losing a master card, this cannot register/delete a user and use setting changes.
2. Initialize the product.



See “Initial Setting” to register master or user.



Upon initialization, all data default value will be restored.

If the problem still persists, contact our customer service center.

3 [System Initialization]

3.1 Problem

Registering/deleting a card and setting change cannot be used because of losing a master card or PIN.

Cause

A user carelessness

Solution

When losing a master card or PIN, if you change product's settings, you should initialize the product.

☞ In system initialization, master, user and system settings are changed by initials.

☞ System Initialization by product's versions

100R V5.0.0 under or IP100R V2.0.0 under

1. After power is off, separate product from wall.

2. Separate enclosure slicing four screws off the rear of product.
3. Turn on product as step 2 stands.
For initializing, connect jumper switches which are located by LEDs bottom of PCB.
4. Make sure of system initialization.
At this time, 3 LEDs should be blinked simultaneously.
5. After power is off, assemble the rear of product fixing four screws.
Finishing assembly, fix the product all right again on wall.

100R V5.0.0 over or IP100R V2.0.0 over

1. After power is off, separate product from wall.
2. Connect orange wire to orange with white stripe wire.
3. After power is on, make sure of system initialization#1).
At this time, bell grows in sound and LEDs blink.
4. After slicing two short wires off the product, make off the power.
5. Use it installing the product all right again.



See “System Initialization” to register master or user.



Make sure to consult a technician before separating or initializing a product.

If the problem still persists, contact our customer service center.

4 [Communication]

4.1 Problem

Although the 100R connects with PC, communication was not at all.

Cause

- Setup malfunction of communication environment
- Connection malfunction of communication cable
- System malfunction/data damaged or lost due to an external noise or a short circuit.

Solution

Make sure that communication environment is set and cables are connected.

☞ Make sure of set up between controller and PC.

1. Make sure that each COM Port is same. COM Port is connected with PC and its settings should be identically set on application software.
2. Baud rate is fixed by 9600bps. Make sure that communication environment of application

software is set up as shown below.

Item	Setting
Parity bit	None
Data bit	8 bits
Stop bit	1 bit

☞ Make sure of connecting communication cables.

1. Make sure that connecting communication cables between the 100R and the PC.
2. Make sure of cable's maximum distance.
 - RS232: Max.15m

If the problem still persists, contact our customer service center.

5 [Keypad]

5.1 Problem

An RF card works properly but the 100R cannot recognize the RF card number when it is entered in the keypad.

Cause

- An error in system settings
- Connection malfunction of communication cable
- System malfunction/data damaged or lost due to an external noise or a short circuit.

Solution

Check if any buzzer goes off when the keypad is pressed.

☞ If the buzzer goes off:

1. Enter the master card (or PIN: 4 to 6digit (mode 03 or 05) + ENT).
2. Enter “73 + ENT” to “Enable Keypad Input To Enter ID Number”.

☞ If the buzzer does not go off:

1. After going on definite time, buzzer makes a sound again.
 - I. If entering unregistered ID 5 times continuously, entering a keypad is interrupted for 1 min.
 - II. “Set Number of Times of Try-Out” is below.
Enter the master card (or PIN: 4 to 6digit (mode 03 or 05) + ENT).
Enter “82 + ENT” to “Set Number of Times of Try-Out”.
Enter “2 digits of Try-Out Times + ENT”.
e.g. 10 + ENT (10 → Set number of try-out times when unregistered ID)
 - III. “Change Keypad Lock-out Time When Try-Out Error Detected” is below.
Enter the master card (or PIN: 4 to 6digit (mode 03 or 05) + ENT).
Enter “60 + ENT” to “Change”.
Enter “2 digits of Try-Out Times + ENT”.
e.g. 10 + ENT (10 → Interrupt entering a keypad for 10 min.)
2. Although it goes on definite time, buzzer doesn't go off continuously.
Initialize the product.

If the problem still persists, contact our customer service center.

6 [External Device]

6.1 Problem

An exit button doesn't work.

Cause

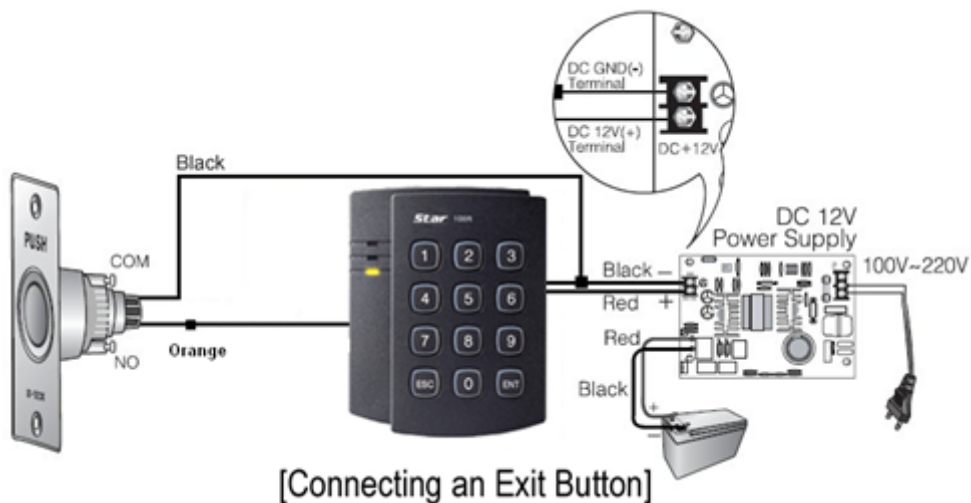
- An error in connection between the exit button and the 100R

- An exit button error
- Internal circuit element damaged or malfunctioning

Solution

Make sure of connection between the exit button and the 100R and of operation of exit button.

☞ Check the connection between the exit button and the 100R.



Make sure to use a NO (Normal Open)-type exit button.

☞ Check the exit button operation.

1. Check the condition of the connection cable (a short circuit or cut) between and the 100R.
2. Connect two wires from the exit button.
 - I. If the FACE007 operates when the exit button is pressed.
Replace the exit button.
 - II. If the FACE007 does not respond.
Initialize the product.



Upon initialization, all data default value will be restored.



See “Installation#5)” to connect the exit button.

If the problem still persists, contact our customer service center.

6.2 Problem

Your RF card is successfully recognized by an exit reader, but the RF card data is not transferred to a computer or other data is transferred.

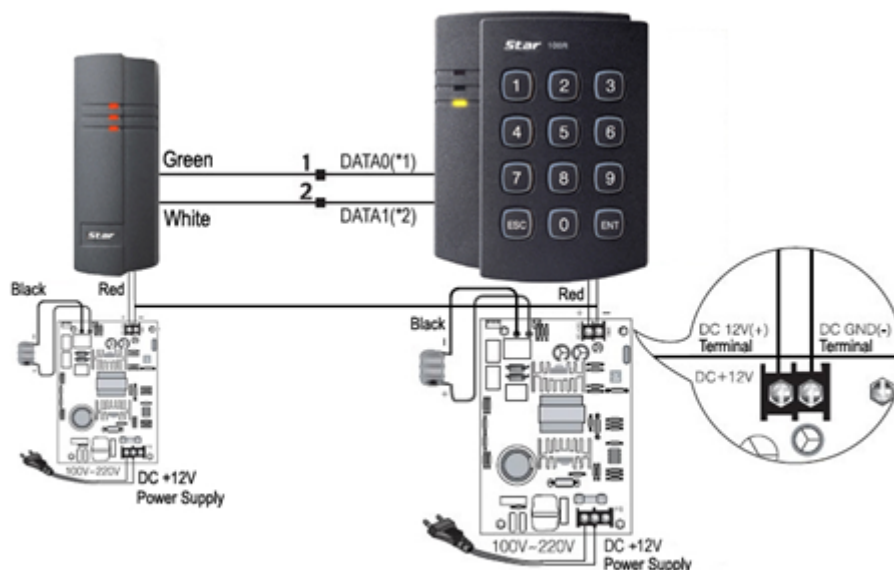
Cause

- A connectivity error between the exit reader and the 100R
- A communication error between the exit reader and the 100R
- An exit reader error
- System malfunction/data damaged or lost due to an external noise or a short circuit

Solution

Make sure of connection between the exit button and the 100R and of operation of exit reader

☞ Check the connection between the exit button and the 100R.



[Connecting a External Reader]

☞ Check the exit reader operation.

1. Check the condition of the connection cable (a short circuit or cut) between the exit reader and the 100R.
2. Check if any noise occurs in the communication cable between the exit reader and the 100R.
 - I. Check the exit reader output by checking the Wiegand communication cable with a measuring instrument.
 - II. Check if any noise comes from the Wiegand communication cable with a measuring instrument.

If a noise exists in the Wiegand communication cable, enhance the GND signal by using the shield wire and a spare wire of the cable as GND.



When using a measurement device such as an oscilloscope or multimeter, make sure to consult with technician.



Check the Wiegand output by consulting the Exit Reader's Manual. If the Wiegand is not normal, replace the exit reader.



Do not try to extend the max transmission range for a Wiegand communication cable or stabilize signals by using a repeater.

If the problem still persists, contact our customer service center.

6.3 Problem

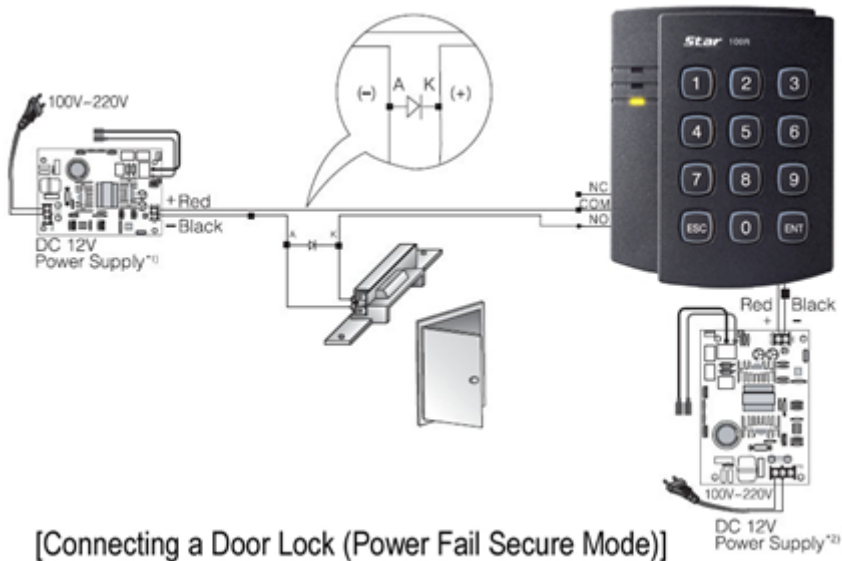
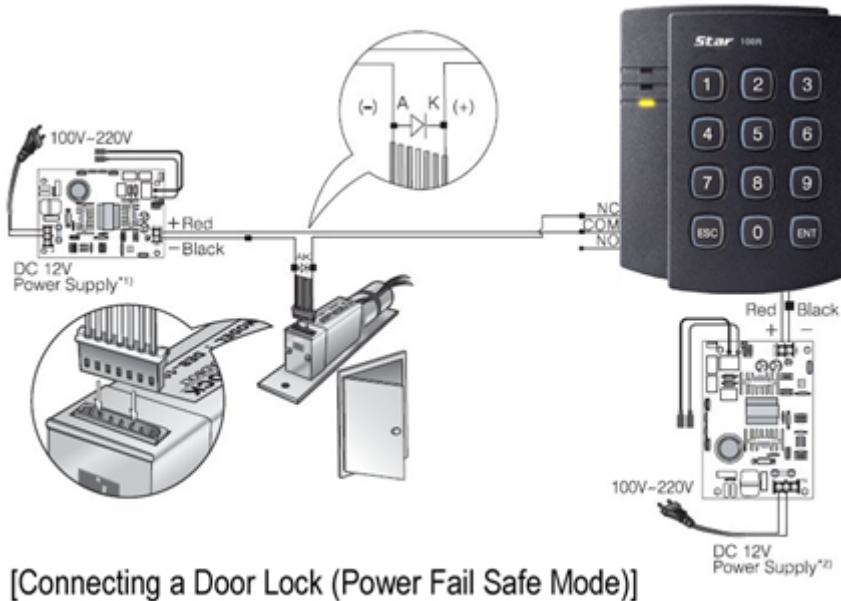
A door lock doesn't work.

Cause

- An error in connection between the door lock and the 100R
- A door lock error
- System malfunction/data damaged or lost due to an external noise or a short circuit

Solution

Check the connection between the door lock and the 100R.



The connection between a door lock and the 100R may vary depending on the door lock type and its operation type (Normal Open, Normal Close).

If this does not solve the problem, proceed with the following steps.

☞ Check the door lock operation and the connection between the door lock and the 100R.

1. Check the condition of the connection cable (a short circuit or cut) between the door lock and the 100R.
2. Check the door lock operation.



When using a measurement device such as an oscilloscope or multi-meter, make sure to consult with technician. Remove the door lock from the 100R and check the relay output from the 100R with a measuring instrument.

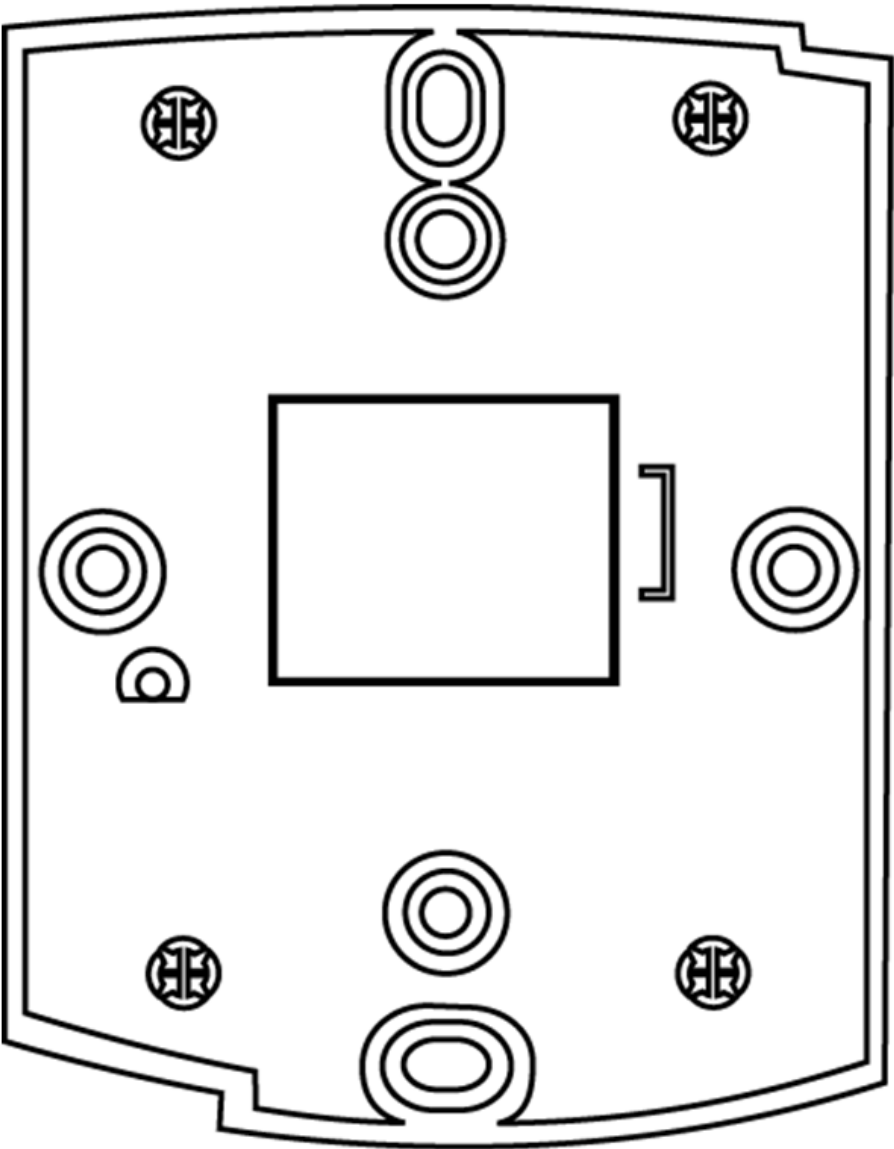


When the relay output from the 100R is normal, replace the door lock



See “Installation” to connect the door lock

If the problem still persists, contact our customer service center.



RMA Request

17

If you have any questions or problems regarding the RMA services, please contact us using the contact information below. Friendly representatives at IDTECK are always standing by to provide the best after sales services.

IDTECK Headquarter

5F, Ace Techno Tower B/D, 684-1, Deungchon-Dong,
Gangseo-Gu, Seoul, 157-030, Korea

Tel: +82 2 2659 0055

Fax: +82 2 2659 0086

E-mail: webmaster@idteck.com

Website: www.idteck.com

E-Training Center: <http://www.idtecktraining.com>

IDTECK Production Facility and RMA Center

2F, 89-4Dodang-Dong, Weonmi-Gu,
Bucheon-Si, Gyeonggi-Do 420-130, Korea

Tel: +82 2 2659 0055

Fax: +82 2 2659 0086

E-mail: webmaster@idteck.com

Website: www.idteck.com

E-Training Center: <http://www.idtecktraining.com>



The specifications contained in this manual are subject to change without notice at any time.